

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

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

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

|                                                                                                                              |  |                                                    |  |                                                           |                                  |  |  |
|------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------|--|-----------------------------------------------------------|----------------------------------|--|--|
| <sup>1</sup> Operator name and Address<br>Colgate Operating, LLC<br>300 N Marienfeld Street, Suite 1000<br>Midland, Tx 79701 |  |                                                    |  | <sup>2</sup> OGRID Number<br>371449                       |                                  |  |  |
|                                                                                                                              |  |                                                    |  | <sup>3</sup> Reason for Filing Code/ Effective Date<br>NW |                                  |  |  |
| <sup>4</sup> API Number<br>30 – 015 – 47820                                                                                  |  | <sup>5</sup> Pool Name<br>PARKWAY; BONE SPRING     |  |                                                           | <sup>6</sup> Pool Code<br>49622  |  |  |
| <sup>7</sup> Property Code<br>329892                                                                                         |  | <sup>8</sup> Property Name<br>BLACK DIAMOND 34 FED |  |                                                           | <sup>9</sup> Well Number<br>134H |  |  |

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

|                    |               |                 |              |         |                       |                           |                      |                        |                |
|--------------------|---------------|-----------------|--------------|---------|-----------------------|---------------------------|----------------------|------------------------|----------------|
| UL or lot no.<br>P | Section<br>34 | Township<br>19S | Range<br>29E | Lot Idn | Feet from the<br>1089 | North/South Line<br>South | Feet from the<br>359 | East/West line<br>East | County<br>Eddy |
|--------------------|---------------|-----------------|--------------|---------|-----------------------|---------------------------|----------------------|------------------------|----------------|

<sup>11</sup> Bottom Hole Location

|                             |                                        |                 |                                                    |         |                                   |                           |                                    |                        |                                     |
|-----------------------------|----------------------------------------|-----------------|----------------------------------------------------|---------|-----------------------------------|---------------------------|------------------------------------|------------------------|-------------------------------------|
| UL or lot no.<br>O          | Section<br>33                          | Township<br>19S | Range<br>29E                                       | Lot Idn | Feet from the<br>411              | North/South line<br>South | Feet from the<br>2602              | East/West line<br>East | County<br>Eddy                      |
| <sup>12</sup> Lse Code<br>F | <sup>13</sup> Producing Method<br>Code |                 | <sup>14</sup> Gas Connection<br>Date<br>01/01/2021 |         | <sup>15</sup> C-129 Permit Number |                           | <sup>16</sup> C-129 Effective Date |                        | <sup>17</sup> C-129 Expiration Date |

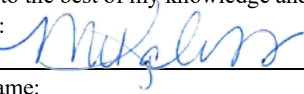
III. Oil and Gas Transporters

|                                    |                                               |                     |
|------------------------------------|-----------------------------------------------|---------------------|
| <sup>18</sup> Transporter<br>OGRID | <sup>19</sup> Transporter Name<br>and Address | <sup>20</sup> O/G/W |
| 329097                             | LM TOUCHDOWN, LLC                             | O                   |
|                                    |                                               |                     |
| 329097                             | LM TOUCHDOWN, LLC                             | G                   |
|                                    |                                               |                     |
|                                    |                                               |                     |
|                                    |                                               |                     |
|                                    |                                               |                     |
|                                    |                                               |                     |

IV. Well Completion Data

|                                       |                                        |                                            |                                              |                                              |                            |
|---------------------------------------|----------------------------------------|--------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------|
| <sup>21</sup> Spud Date<br>11/23/2021 | <sup>22</sup> Ready Date<br>03/04/2022 | <sup>23</sup> TD<br>16,665 MD<br>9,104 TVD | <sup>24</sup> PBDT<br>16,644 MD<br>9,006 TVD | <sup>25</sup> Perforations<br>9,508 – 16,438 | <sup>26</sup> DHC, MC      |
| <sup>27</sup> Hole Size               |                                        | <sup>28</sup> Casing & Tubing Size         |                                              | <sup>29</sup> Depth Set                      | <sup>30</sup> Sacks Cement |
| 22.375                                |                                        | 18.625                                     |                                              | 340                                          | 355                        |
| 17.5                                  |                                        | 13.375                                     |                                              | 1,485                                        | 545 Lead<br>250 Tail       |
| 12.25                                 |                                        | 9.625                                      |                                              | 3,361                                        | 1,265 Lead<br>230 Tail     |
| 8.75                                  |                                        | 5.5                                        |                                              | 16,644                                       | 980 Lead<br>1,325 Tail     |

V. Well Test Data

|                                                                                                                                                                                                                                                                                                            |                                              |                                     |                                       |                                     |                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------|---------------------------------------|-------------------------------------|------------------------------------|
| <sup>31</sup> Date New Oil<br>3/16/2022                                                                                                                                                                                                                                                                    | <sup>32</sup> Gas Delivery Date<br>3/15/2022 | <sup>33</sup> Test Date<br>4/4/2022 | <sup>34</sup> Test Length<br>24       | <sup>35</sup> Tbg. Pressure<br>2150 | <sup>36</sup> Csg. Pressure<br>324 |
| <sup>37</sup> Choke Size<br>88/88                                                                                                                                                                                                                                                                          | <sup>38</sup> Oil<br>1207                    | <sup>39</sup> Water<br>2945         | <sup>40</sup> Gas<br>1669             |                                     | <sup>41</sup> Test Method          |
| <sup>42</sup> I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.<br>Signature:  |                                              |                                     | OIL CONSERVATION DIVISION             |                                     |                                    |
| Printed name:<br>Mikah Thomas                                                                                                                                                                                                                                                                              |                                              |                                     | Approved by: <b>PATRICIA MARTINEZ</b> |                                     |                                    |
| Title:<br>Operations Tech                                                                                                                                                                                                                                                                                  |                                              |                                     | Title:<br><b>PETROLEUM SPECIALIST</b> |                                     |                                    |
| E-mail Address:<br><a href="mailto:mthomas@colgateenergy.com">mthomas@colgateenergy.com</a>                                                                                                                                                                                                                |                                              |                                     | Approval Date:<br><b>8/12/2022</b>    |                                     |                                    |
| Date:<br>01/17/2022                                                                                                                                                                                                                                                                                        |                                              | Phone:<br>432-695-4272              |                                       |                                     |                                    |

**DISTRICT I**  
1825 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

**DISTRICT II**  
811 S. First St., Artesia, N.M. 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

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

**DISTRICT IV**  
1220 S. St. Francis Dr., Santa Fe, N.M. 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, N.M. 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate  
District Office

AS-DRILLED

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

|                                         |                                                      |                                                |
|-----------------------------------------|------------------------------------------------------|------------------------------------------------|
| <sup>1</sup> API Number<br>30-015-47820 | <sup>2</sup> Pool Code<br>49622                      | <sup>3</sup> Pool Name<br>PARKWAY; BONE SPRING |
| <sup>4</sup> Property Code<br>329892    | <sup>5</sup> Property Name<br>Black Diamond 34 Fed   | <sup>6</sup> Well Number<br>134H               |
| <sup>7</sup> GRID No.<br>371449         | <sup>8</sup> Operator Name<br>Colgate Operating, LLC | <sup>9</sup> Elevation<br>3330                 |

<sup>10</sup> Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| P             | 34      | 19 S     | 29 E  |         | 1089          | South            | 359           | East           | Eddy   |

<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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| O             | 33      | 19 S     | 29 E  |         | 411           | South            | 2602          | East           | Eddy   |

|                                      |                               |                                  |                         |
|--------------------------------------|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>240 | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <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

|                                                                                                                                                                                                                   |                                                                                                                                           |                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Legend:</b><br>● = Surface Location<br>○ = Bottom Hole Location<br>◇ = Kick Off Point (KOP)<br>△ = First Take Point (FTP)<br>□ = Last Take Point (LTP)<br>⊕ = Found 1916 USGLO Brass Cap<br>⊙ = Found Monument | <b>SURFACE LOCATION</b><br>NAD 83 NMSPC ZONE 3001<br>Y = 586817.06 N<br>X = 626938.87 E<br>LAT. = 32.6129037° N<br>LONG. = 104.0553245° W | <b>KICK OFF POINT</b><br>NAD 83 NMSPC ZONE 3001<br>Y = 586219.33 N<br>X = 627176.61 E<br>LAT. = 32.6112590° N<br>LONG. = 104.0545575° W  |
|                                                                                                                                                                                                                   | <b>FIRST TAKE POINT</b><br>NAD 83 NMSPC ZONE 3001<br>Y = 586201.94 N<br>X = 626568.67 E<br>LAT. = 32.6112155° N<br>LONG. = 104.0565320° W | <b>LAST TAKE POINT</b><br>NAD 83 NMSPC ZONE 3001<br>Y = 586155.22 N<br>X = 619644.78 E<br>LAT. = 32.6111346° N<br>LONG. = 104.0790185° W |

|                                               |                                               |
|-----------------------------------------------|-----------------------------------------------|
| <b>CORNER COORDINATES TABLE</b><br>NAD 83 NME | <b>CORNER COORDINATES TABLE</b><br>NAD 83 NME |
| A - Y = 588388.25 N, X = 616742.30 E          | A - LAT.=32.6172913° N, LONG.=104.0884280° W  |
| B - Y = 588372.64 N, X = 622012.21 E          | B - LAT.=32.6172139° N, LONG.=104.0713123° W  |
| C - Y = 588365.48 N, X = 627298.21 E          | C - LAT.=32.6171572° N, LONG.=104.0541443° W  |
| D - Y = 585749.79 N, X = 616744.48 E          | D - LAT.=32.6100390° N, LONG.=104.0884407° W  |
| E - Y = 585742.85 N, X = 619383.23 E          | E - LAT.=32.6100029° N, LONG.=104.0798712° W  |
| F - Y = 585732.66 N, X = 622020.74 E          | F - LAT.=32.6099573° N, LONG.=104.0713057° W  |
| G - Y = 585726.58 N, X = 624659.03 E          | G - LAT.=32.6099224° N, LONG.=104.0627377° W  |
| H - Y = 585727.74 N, X = 627298.28 E          | H - LAT.=32.6099068° N, LONG.=104.0541665° W  |

<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location 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.

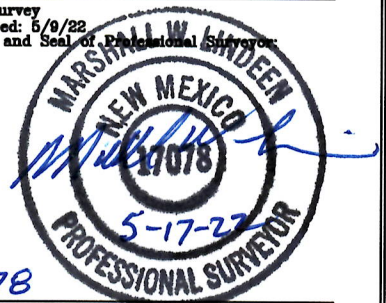
Mikah Thomas 05.22.2022  
Signature Date  
Mikah Thomas  
Printed Name  
mthomas@colgateenergy.com  
E-mail Address

<sup>18</sup> SURVEYOR CERTIFICATION

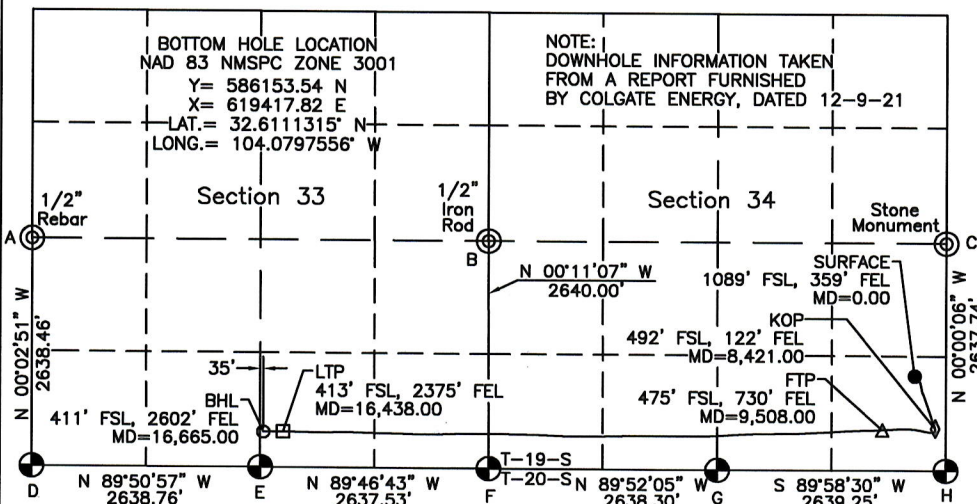
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

1/10/22

Date of Survey  
Plat Revised: 5/9/22  
Signature and Seal of Professional Surveyor



Certificate Number





## **Colgate Energy**

**Eddy County, NM (N83-NME)**

**Black Diamond 34 Fed Com**

**Black Diamond 34 Fed 134H**

**30-015-47820**

**134H**

**Design: DRL**

## **Standard Survey Report**

**09 December, 2021**



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <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>                  | Black Diamond 34 Fed Com |                     |                 |
| <b>Site Position:</b>        |                          | <b>Northing:</b>    | 589,010.96 usft |
| <b>From:</b>                 | Map                      | <b>Easting:</b>     | 627,173.41 usft |
| <b>Position Uncertainty:</b> | 0.00 usft                | <b>Slot Radius:</b> | 13-3/16 "       |
|                              |                          | <b>Latitude:</b>    | 32.61893234     |
|                              |                          | <b>Longitude:</b>   | -104.05454408   |

|                      |                           |           |                     |                 |               |               |
|----------------------|---------------------------|-----------|---------------------|-----------------|---------------|---------------|
| Well                 | Black Diamond 34 Fed 134H |           |                     |                 |               |               |
| Well Position        | +N/-S                     | 0.00 usft | Northing:           | 586,817.06 usft | Latitude:     | 32.61290365   |
|                      | +E/-W                     | 0.00 usft | Easting:            | 626,938.87 usft | Longitude:    | -104.05532448 |
| Position Uncertainty |                           | 0.00 usft | Wellhead Elevation: | usft            | Ground Level: | 3,330.00 usft |
| Grid Convergence:    |                           | 0.15 °    |                     |                 |               |               |

|           |            |             |                    |                  |                        |
|-----------|------------|-------------|--------------------|------------------|------------------------|
| Wellbore  | 134H       |             |                    |                  |                        |
| Magnetics | Model Name | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|           | IFR        | 11/23/2021  | 6.94               | 60.32            | 47,794.10000000        |

|                   |                            |                 |                 |                  |      |
|-------------------|----------------------------|-----------------|-----------------|------------------|------|
| Design            | DRL                        |                 |                 |                  |      |
| Audit Notes:      |                            |                 |                 |                  |      |
| Version:          | 1.0                        | Phase:          | ACTUAL          | Tie On Depth:    | 0.00 |
| Vertical Section: | Depth From (TVD)<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Direction<br>(°) |      |
|                   | 0.00                       | 0.00            | 0.00            | 270.11           |      |

|                       |                  |                             |                                                               |                    |
|-----------------------|------------------|-----------------------------|---------------------------------------------------------------|--------------------|
| <b>Survey Program</b> | <b>Date</b>      | 12/9/2021                   |                                                               |                    |
| <b>From (usft)</b>    | <b>To (usft)</b> | <b>Survey (Wellbore)</b>    | <b>Tool Name</b>                                              | <b>Description</b> |
| 14.58                 | 16,607.00        | Survey #1_Gordon MWD (134H) | MWD+IFR1+SAG+FDIR (SQ OWSG MWD + IFR1 + Sag + FDIR Correction |                    |
| 16,665.00             | 16,665.00        | Survey #2_PTB (134H)        | BLIND                                                         | BLIND              |

|                              |                        |                    |                              |                     |                     |                                |                                |                               |                              |  |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|--------------------------------|-------------------------------|------------------------------|--|
| <b>Survey</b>                |                        |                    |                              |                     |                     |                                |                                |                               |                              |  |
| <b>Measured Depth (usft)</b> | <b>Inclination (°)</b> | <b>Azimuth (°)</b> | <b>Vertical Depth (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Vertical Section (usft)</b> | <b>Dogleg Rate (°/100usft)</b> | <b>Build Rate (°/100usft)</b> | <b>Turn Rate (°/100usft)</b> |  |
| 0.00                         | 0.00                   | 0.00               | 0.00                         | 0.00                | 0.00                | 0.00                           | 0.00                           | 0.00                          | 0.00                         |  |
| 14.58                        | 0.06                   | 260.91             | 14.58                        | 0.00                | -0.01               | 0.01                           | 0.41                           | 0.41                          | 0.00                         |  |
| 29.17                        | 0.11                   | 260.88             | 29.17                        | 0.00                | -0.03               | 0.03                           | 0.34                           | 0.34                          | -0.21                        |  |
| 43.75                        | 0.17                   | 260.86             | 43.75                        | -0.01               | -0.06               | 0.06                           | 0.41                           | 0.41                          | -0.14                        |  |
| 58.33                        | 0.23                   | 260.84             | 58.33                        | -0.02               | -0.11               | 0.11                           | 0.41                           | 0.41                          | -0.14                        |  |
| 72.92                        | 0.29                   | 260.81             | 72.92                        | -0.03               | -0.18               | 0.18                           | 0.41                           | 0.41                          | -0.21                        |  |
| 87.50                        | 0.34                   | 260.79             | 87.50                        | -0.04               | -0.26               | 0.26                           | 0.34                           | 0.34                          | -0.14                        |  |
| 102.08                       | 0.40                   | 260.76             | 102.08                       | -0.06               | -0.35               | 0.35                           | 0.41                           | 0.41                          | -0.21                        |  |
| 116.67                       | 0.46                   | 260.74             | 116.67                       | -0.07               | -0.46               | 0.46                           | 0.41                           | 0.41                          | -0.14                        |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |
| 131.25                | 0.52            | 260.71      | 131.25                | -0.09        | -0.58        | 0.58                    | 0.41                    | 0.41                   | -0.21                 |
| 137.00                | 0.54            | 260.70      | 137.00                | -0.10        | -0.64        | 0.64                    | 0.34                    | 0.34                   | -0.14                 |
| <b>Rustler</b>        |                 |             |                       |              |              |                         |                         |                        |                       |
| 145.83                | 0.57            | 260.69      | 145.83                | -0.12        | -0.72        | 0.72                    | 0.34                    | 0.34                   | -0.13                 |
| 160.42                | 0.63            | 260.67      | 160.42                | -0.14        | -0.87        | 0.87                    | 0.41                    | 0.41                   | -0.14                 |
| 175.00                | 0.69            | 260.64      | 175.00                | -0.17        | -1.04        | 1.04                    | 0.41                    | 0.41                   | -0.21                 |
| 188.14                | 0.67            | 265.84      | 188.13                | -0.19        | -1.19        | 1.19                    | 0.49                    | -0.15                  | 39.57                 |
| 201.29                | 0.67            | 271.23      | 201.28                | -0.19        | -1.34        | 1.34                    | 0.48                    | 0.00                   | 40.99                 |
| 214.43                | 0.66            | 276.72      | 214.42                | -0.18        | -1.50        | 1.50                    | 0.49                    | -0.08                  | 41.78                 |
| 227.57                | 0.66            | 282.21      | 227.56                | -0.16        | -1.65        | 1.65                    | 0.48                    | 0.00                   | 41.78                 |
| 240.71                | 0.67            | 287.61      | 240.70                | -0.12        | -1.79        | 1.79                    | 0.48                    | 0.08                   | 41.10                 |
| 253.86                | 0.69            | 292.83      | 253.85                | -0.06        | -1.94        | 1.94                    | 0.49                    | 0.15                   | 39.70                 |
| 267.00                | 0.71            | 297.79      | 266.99                | 0.01         | -2.08        | 2.08                    | 0.49                    | 0.15                   | 37.75                 |
| 280.56                | 0.66            | 293.36      | 280.55                | 0.08         | -2.23        | 2.23                    | 0.54                    | -0.37                  | -32.67                |
| 294.11                | 0.61            | 288.24      | 294.10                | 0.13         | -2.37        | 2.37                    | 0.56                    | -0.37                  | -37.79                |
| 307.67                | 0.57            | 282.34      | 307.66                | 0.17         | -2.50        | 2.50                    | 0.54                    | -0.29                  | -43.51                |
| 321.22                | 0.54            | 275.62      | 321.21                | 0.19         | -2.63        | 2.63                    | 0.53                    | -0.22                  | -49.59                |
| 334.78                | 0.51            | 268.13      | 334.77                | 0.19         | -2.76        | 2.76                    | 0.55                    | -0.22                  | -55.24                |
| 348.33                | 0.50            | 260.04      | 348.32                | 0.18         | -2.88        | 2.88                    | 0.53                    | -0.07                  | -59.70                |
| 361.89                | 0.49            | 251.61      | 361.87                | 0.15         | -2.99        | 2.99                    | 0.54                    | -0.07                  | -62.17                |
| 372.02                | 0.50            | 245.29      | 372.00                | 0.12         | -3.07        | 3.07                    | 0.54                    | 0.06                   | -62.41                |
| <b>Top of Salt</b>    |                 |             |                       |              |              |                         |                         |                        |                       |
| 375.44                | 0.50            | 243.20      | 375.42                | 0.11         | -3.10        | 3.10                    | 0.54                    | 0.10                   | -61.05                |
| 389.00                | 0.52            | 235.15      | 388.98                | 0.04         | -3.20        | 3.20                    | 0.55                    | 0.15                   | -59.37                |
| 403.83                | 0.49            | 236.84      | 403.81                | -0.03        | -3.31        | 3.31                    | 0.23                    | -0.20                  | 11.40                 |
| 418.67                | 0.46            | 238.75      | 418.65                | -0.09        | -3.41        | 3.41                    | 0.23                    | -0.20                  | 12.87                 |
| 433.50                | 0.43            | 240.91      | 433.48                | -0.15        | -3.51        | 3.51                    | 0.23                    | -0.20                  | 14.57                 |
| 448.33                | 0.40            | 243.37      | 448.31                | -0.20        | -3.61        | 3.61                    | 0.24                    | -0.20                  | 16.59                 |
| 463.17                | 0.37            | 246.19      | 463.15                | -0.25        | -3.70        | 3.70                    | 0.24                    | -0.20                  | 19.00                 |
| 478.00                | 0.35            | 249.43      | 477.98                | -0.28        | -3.78        | 3.78                    | 0.19                    | -0.13                  | 21.85                 |
| 492.83                | 0.32            | 253.17      | 492.81                | -0.31        | -3.87        | 3.87                    | 0.25                    | -0.20                  | 25.22                 |
| 507.67                | 0.30            | 257.49      | 507.65                | -0.33        | -3.94        | 3.94                    | 0.21                    | -0.13                  | 29.11                 |
| 522.50                | 0.28            | 262.48      | 522.48                | -0.34        | -4.02        | 4.02                    | 0.22                    | -0.13                  | 33.65                 |
| 537.33                | 0.26            | 268.22      | 537.31                | -0.35        | -4.09        | 4.09                    | 0.23                    | -0.13                  | 38.71                 |
| 552.17                | 0.25            | 274.72      | 552.15                | -0.35        | -4.15        | 4.15                    | 0.21                    | -0.07                  | 43.80                 |
| 567.00                | 0.23            | 281.97      | 566.98                | -0.34        | -4.21        | 4.21                    | 0.24                    | -0.13                  | 48.89                 |
| 580.89                | 0.20            | 307.59      | 580.87                | -0.32        | -4.26        | 4.26                    | 0.72                    | -0.22                  | 184.45                |
| 594.78                | 0.22            | 335.53      | 594.76                | -0.28        | -4.29        | 4.29                    | 0.74                    | 0.14                   | 201.15                |
| 608.67                | 0.27            | 355.83      | 608.65                | -0.22        | -4.30        | 4.30                    | 0.72                    | 0.36                   | 146.15                |
| 622.56                | 0.35            | 8.26        | 622.54                | -0.15        | -4.30        | 4.30                    | 0.75                    | 0.58                   | 89.49                 |
| 636.44                | 0.43            | 15.97       | 636.42                | -0.05        | -4.28        | 4.28                    | 0.69                    | 0.58                   | 55.55                 |
| 650.33                | 0.53            | 21.05       | 650.31                | 0.06         | -4.24        | 4.24                    | 0.78                    | 0.72                   | 36.57                 |
| 664.22                | 0.62            | 24.60       | 664.20                | 0.18         | -4.19        | 4.19                    | 0.70                    | 0.65                   | 25.56                 |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |  |
| 678.11                | 0.72            | 27.20       | 678.09                | 0.33         | -4.12        | 4.12                    | 0.75                    | 0.72                   | 18.72                 |  |
| 692.00                | 0.81            | 29.18       | 691.98                | 0.49         | -4.03        | 4.03                    | 0.68                    | 0.65                   | 14.25                 |  |
| 706.54                | 0.86            | 30.22       | 706.51                | 0.68         | -3.92        | 3.93                    | 0.36                    | 0.34                   | 7.15                  |  |
| 721.08                | 0.90            | 31.17       | 721.05                | 0.87         | -3.81        | 3.81                    | 0.29                    | 0.28                   | 6.53                  |  |
| 735.62                | 0.94            | 32.03       | 735.59                | 1.07         | -3.69        | 3.69                    | 0.29                    | 0.28                   | 5.91                  |  |
| 750.15                | 0.98            | 32.82       | 750.12                | 1.27         | -3.56        | 3.56                    | 0.29                    | 0.28                   | 5.44                  |  |
| 764.69                | 1.03            | 33.54       | 764.66                | 1.49         | -3.42        | 3.42                    | 0.35                    | 0.34                   | 4.95                  |  |
| 779.23                | 1.07            | 34.20       | 779.19                | 1.71         | -3.27        | 3.27                    | 0.29                    | 0.28                   | 4.54                  |  |
| 793.77                | 1.11            | 34.81       | 793.73                | 1.94         | -3.11        | 3.12                    | 0.29                    | 0.28                   | 4.20                  |  |
| 808.31                | 1.15            | 35.38       | 808.27                | 2.17         | -2.95        | 2.95                    | 0.29                    | 0.28                   | 3.92                  |  |
| 822.85                | 1.20            | 35.90       | 822.81                | 2.41         | -2.77        | 2.78                    | 0.35                    | 0.34                   | 3.58                  |  |
| 837.38                | 1.24            | 36.39       | 837.33                | 2.66         | -2.59        | 2.60                    | 0.28                    | 0.28                   | 3.37                  |  |
| 851.92                | 1.28            | 36.85       | 851.87                | 2.92         | -2.40        | 2.41                    | 0.28                    | 0.28                   | 3.16                  |  |
| 866.46                | 1.32            | 37.28       | 866.40                | 3.18         | -2.20        | 2.21                    | 0.28                    | 0.28                   | 2.96                  |  |
| 881.00                | 1.37            | 37.68       | 880.94                | 3.45         | -1.99        | 2.00                    | 0.35                    | 0.34                   | 2.75                  |  |
| 895.46                | 1.40            | 40.47       | 895.40                | 3.72         | -1.77        | 1.78                    | 0.51                    | 0.21                   | 19.29                 |  |
| 909.92                | 1.43            | 43.44       | 909.85                | 3.99         | -1.54        | 1.54                    | 0.55                    | 0.21                   | 20.54                 |  |
| 924.38                | 1.48            | 46.43       | 924.31                | 4.25         | -1.28        | 1.28                    | 0.63                    | 0.35                   | 20.68                 |  |
| 938.85                | 1.53            | 49.34       | 938.77                | 4.50         | -0.99        | 1.00                    | 0.63                    | 0.35                   | 20.11                 |  |
| 953.31                | 1.59            | 52.11       | 953.23                | 4.75         | -0.69        | 0.70                    | 0.67                    | 0.41                   | 19.16                 |  |
| 967.77                | 1.65            | 54.71       | 967.68                | 5.00         | -0.36        | 0.37                    | 0.66                    | 0.41                   | 17.98                 |  |
| 982.23                | 1.71            | 57.14       | 982.14                | 5.23         | -0.01        | 0.02                    | 0.64                    | 0.41                   | 16.80                 |  |
| 996.69                | 1.77            | 59.40       | 996.59                | 5.46         | 0.36         | -0.35                   | 0.63                    | 0.41                   | 15.63                 |  |
| 1,011.15              | 1.83            | 61.50       | 1,011.04              | 5.69         | 0.76         | -0.75                   | 0.62                    | 0.41                   | 14.52                 |  |
| 1,025.62              | 1.88            | 63.45       | 1,025.50              | 5.91         | 1.17         | -1.16                   | 0.56                    | 0.35                   | 13.48                 |  |
| 1,040.08              | 1.92            | 65.26       | 1,039.96              | 6.11         | 1.61         | -1.59                   | 0.50                    | 0.28                   | 12.52                 |  |
| 1,054.54              | 1.95            | 66.96       | 1,054.41              | 6.31         | 2.05         | -2.04                   | 0.45                    | 0.21                   | 11.76                 |  |
| 1,069.00              | 1.96            | 68.58       | 1,068.86              | 6.50         | 2.51         | -2.50                   | 0.39                    | 0.07                   | 11.20                 |  |
| 1,083.38              | 1.91            | 69.47       | 1,083.23              | 6.67         | 2.96         | -2.95                   | 0.41                    | -0.35                  | 6.19                  |  |
| 1,097.77              | 1.84            | 69.97       | 1,097.61              | 6.83         | 3.40         | -3.39                   | 0.50                    | -0.49                  | 3.47                  |  |
| 1,112.15              | 1.75            | 70.20       | 1,111.99              | 6.99         | 3.83         | -3.81                   | 0.63                    | -0.63                  | 1.60                  |  |
| 1,126.54              | 1.66            | 70.22       | 1,126.37              | 7.13         | 4.23         | -4.22                   | 0.63                    | -0.63                  | 0.14                  |  |
| 1,127.17              | 1.66            | 70.22       | 1,127.00              | 7.14         | 4.25         | -4.23                   | 0.00                    | 0.00                   | 0.00                  |  |
| <b>Base of Salt</b>   |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 1,140.92              | 1.56            | 70.05       | 1,140.74              | 7.27         | 4.61         | -4.60                   | 0.73                    | -0.73                  | -1.24                 |  |
| 1,155.31              | 1.45            | 69.72       | 1,155.13              | 7.40         | 4.97         | -4.95                   | 0.77                    | -0.76                  | -2.29                 |  |
| 1,169.69              | 1.34            | 69.22       | 1,169.51              | 7.52         | 5.29         | -5.28                   | 0.77                    | -0.76                  | -3.48                 |  |
| 1,184.08              | 1.23            | 68.55       | 1,183.89              | 7.64         | 5.59         | -5.58                   | 0.77                    | -0.76                  | -4.66                 |  |
| 1,198.46              | 1.12            | 67.69       | 1,198.27              | 7.75         | 5.87         | -5.85                   | 0.77                    | -0.76                  | -5.98                 |  |
| 1,212.85              | 1.01            | 66.64       | 1,212.66              | 7.85         | 6.11         | -6.10                   | 0.78                    | -0.76                  | -7.30                 |  |
| 1,227.23              | 0.91            | 65.39       | 1,227.03              | 7.95         | 6.33         | -6.32                   | 0.71                    | -0.70                  | -8.69                 |  |
| 1,241.62              | 0.82            | 64.00       | 1,241.42              | 8.04         | 6.53         | -6.52                   | 0.64                    | -0.63                  | -9.66                 |  |
| 1,256.00              | 0.74            | 62.65       | 1,255.80              | 8.13         | 6.71         | -6.69                   | 0.57                    | -0.56                  | -9.39                 |  |
| 1,270.00              | 0.73            | 66.86       | 1,269.80              | 8.21         | 6.87         | -6.85                   | 0.39                    | -0.07                  | 30.07                 |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |
| 1,284.00              | 0.73            | 71.12       | 1,283.80              | 8.27         | 7.03         | -7.02                   | 0.39                    | 0.00                   | 30.43                 |
| 1,298.00              | 0.73            | 75.39       | 1,297.80              | 8.32         | 7.21         | -7.19                   | 0.39                    | 0.00                   | 30.50                 |
| 1,312.00              | 0.73            | 79.62       | 1,311.80              | 8.36         | 7.38         | -7.36                   | 0.38                    | 0.00                   | 30.21                 |
| 1,326.00              | 0.74            | 83.76       | 1,325.80              | 8.39         | 7.56         | -7.54                   | 0.39                    | 0.07                   | 29.57                 |
| 1,340.00              | 0.76            | 87.79       | 1,339.79              | 8.40         | 7.74         | -7.72                   | 0.40                    | 0.14                   | 28.79                 |
| 1,354.00              | 0.77            | 91.66       | 1,353.79              | 8.40         | 7.93         | -7.91                   | 0.38                    | 0.07                   | 27.64                 |
| 1,368.00              | 0.79            | 95.35       | 1,367.79              | 8.39         | 8.12         | -8.10                   | 0.39                    | 0.14                   | 26.36                 |
| 1,376.21              | 0.81            | 97.43       | 1,376.00              | 8.38         | 8.23         | -8.21                   | 0.41                    | 0.21                   | 25.39                 |
| Yates                 |                 |             |                       |              |              |                         |                         |                        |                       |
| 1,382.00              | 0.82            | 98.85       | 1,381.79              | 8.36         | 8.31         | -8.30                   | 0.41                    | 0.22                   | 24.45                 |
| 1,396.00              | 0.84            | 102.15      | 1,395.79              | 8.33         | 8.51         | -8.50                   | 0.37                    | 0.14                   | 23.57                 |
| 1,410.00              | 0.87            | 105.24      | 1,409.79              | 8.28         | 8.71         | -8.70                   | 0.39                    | 0.21                   | 22.07                 |
| 1,424.44              | 0.91            | 104.93      | 1,424.23              | 8.22         | 8.93         | -8.91                   | 0.28                    | 0.28                   | -2.15                 |
| 1,438.89              | 0.94            | 104.64      | 1,438.67              | 8.16         | 9.16         | -9.14                   | 0.21                    | 0.21                   | -2.01                 |
| 1,453.33              | 0.98            | 104.38      | 1,453.11              | 8.10         | 9.39         | -9.37                   | 0.28                    | 0.28                   | -1.80                 |
| 1,467.78              | 1.01            | 104.14      | 1,467.56              | 8.04         | 9.63         | -9.62                   | 0.21                    | 0.21                   | -1.66                 |
| 1,482.22              | 1.05            | 103.92      | 1,482.00              | 7.97         | 9.89         | -9.87                   | 0.28                    | 0.28                   | -1.52                 |
| 1,496.67              | 1.08            | 103.72      | 1,496.44              | 7.91         | 10.15        | -10.13                  | 0.21                    | 0.21                   | -1.38                 |
| 1,511.11              | 1.12            | 103.53      | 1,510.88              | 7.85         | 10.42        | -10.40                  | 0.28                    | 0.28                   | -1.32                 |
| 1,525.56              | 1.15            | 103.36      | 1,525.33              | 7.78         | 10.69        | -10.68                  | 0.21                    | 0.21                   | -1.18                 |
| 1,540.00              | 1.19            | 103.20      | 1,539.77              | 7.71         | 10.98        | -10.97                  | 0.28                    | 0.28                   | -1.11                 |
| 1,554.46              | 1.19            | 104.49      | 1,554.22              | 7.64         | 11.27        | -11.26                  | 0.19                    | 0.00                   | 8.92                  |
| 1,568.92              | 1.21            | 105.87      | 1,568.68              | 7.56         | 11.56        | -11.55                  | 0.24                    | 0.14                   | 9.54                  |
| 1,583.38              | 1.23            | 107.27      | 1,583.14              | 7.47         | 11.86        | -11.85                  | 0.25                    | 0.14                   | 9.68                  |
| 1,597.85              | 1.24            | 108.64      | 1,597.60              | 7.38         | 12.16        | -12.14                  | 0.22                    | 0.07                   | 9.47                  |
| 1,612.31              | 1.27            | 109.97      | 1,612.06              | 7.27         | 12.46        | -12.44                  | 0.29                    | 0.21                   | 9.20                  |
| 1,626.77              | 1.29            | 111.23      | 1,626.52              | 7.16         | 12.76        | -12.74                  | 0.24                    | 0.14                   | 8.71                  |
| 1,641.23              | 1.31            | 112.41      | 1,640.97              | 7.04         | 13.06        | -13.05                  | 0.23                    | 0.14                   | 8.16                  |
| 1,655.69              | 1.34            | 113.49      | 1,655.43              | 6.91         | 13.37        | -13.36                  | 0.27                    | 0.21                   | 7.47                  |
| 1,670.15              | 1.36            | 114.48      | 1,669.88              | 6.77         | 13.68        | -13.67                  | 0.21                    | 0.14                   | 6.85                  |
| 1,684.62              | 1.39            | 115.34      | 1,684.35              | 6.62         | 14.00        | -13.98                  | 0.25                    | 0.21                   | 5.94                  |
| 1,699.08              | 1.43            | 116.57      | 1,698.81              | 6.46         | 14.32        | -14.30                  | 0.35                    | 0.28                   | 8.51                  |
| 1,713.54              | 1.45            | 117.23      | 1,713.26              | 6.30         | 14.64        | -14.63                  | 0.18                    | 0.14                   | 4.56                  |
| 1,728.00              | 1.48            | 117.87      | 1,727.72              | 6.13         | 14.97        | -14.96                  | 0.24                    | 0.21                   | 4.43                  |
| 1,742.46              | 1.50            | 118.45      | 1,742.17              | 5.95         | 15.30        | -15.29                  | 0.17                    | 0.14                   | 4.01                  |
| 1,756.92              | 1.53            | 118.99      | 1,756.63              | 5.77         | 15.63        | -15.62                  | 0.23                    | 0.21                   | 3.73                  |
| 1,771.38              | 1.56            | 119.49      | 1,771.08              | 5.58         | 15.97        | -15.96                  | 0.23                    | 0.21                   | 3.46                  |
| 1,785.85              | 1.60            | 119.94      | 1,785.55              | 5.38         | 16.32        | -16.31                  | 0.29                    | 0.28                   | 3.11                  |
| 1,800.31              | 1.63            | 120.36      | 1,800.00              | 5.18         | 16.67        | -16.66                  | 0.22                    | 0.21                   | 2.90                  |
| 1,814.77              | 1.66            | 120.74      | 1,814.45              | 4.96         | 17.03        | -17.02                  | 0.22                    | 0.21                   | 2.63                  |
| 1,829.23              | 1.69            | 121.08      | 1,828.91              | 4.75         | 17.39        | -17.38                  | 0.22                    | 0.21                   | 2.35                  |
| 1,843.69              | 1.72            | 121.39      | 1,843.36              | 4.52         | 17.76        | -17.75                  | 0.22                    | 0.21                   | 2.14                  |
| 1,858.15              | 1.76            | 121.67      | 1,857.81              | 4.29         | 18.14        | -18.13                  | 0.28                    | 0.28                   | 1.94                  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |  |
| 1,872.62              | 1.79            | 121.91      | 1,872.28              | 4.06         | 18.52        | -18.51                  | 0.21                    | 0.21                   | 1.66                  |  |
| 1,887.08              | 1.82            | 122.12      | 1,886.73              | 3.82         | 18.90        | -18.90                  | 0.21                    | 0.21                   | 1.45                  |  |
| 1,901.54              | 1.84            | 122.30      | 1,901.18              | 3.57         | 19.29        | -19.29                  | 0.14                    | 0.14                   | 1.24                  |  |
| 1,916.00              | 1.87            | 122.45      | 1,915.64              | 3.32         | 19.69        | -19.68                  | 0.21                    | 0.21                   | 1.04                  |  |
| 1,930.54              | 1.88            | 122.54      | 1,930.17              | 3.06         | 20.09        | -20.08                  | 0.07                    | 0.07                   | 0.62                  |  |
| 1,945.08              | 1.90            | 122.60      | 1,944.70              | 2.81         | 20.49        | -20.49                  | 0.14                    | 0.14                   | 0.41                  |  |
| 1,959.62              | 1.91            | 122.63      | 1,959.23              | 2.55         | 20.90        | -20.90                  | 0.07                    | 0.07                   | 0.21                  |  |
| 1,974.15              | 1.92            | 122.65      | 1,973.75              | 2.28         | 21.31        | -21.31                  | 0.07                    | 0.07                   | 0.14                  |  |
| 1,988.69              | 1.93            | 122.64      | 1,988.29              | 2.02         | 21.72        | -21.72                  | 0.07                    | 0.07                   | -0.07                 |  |
| 2,003.23              | 1.94            | 122.60      | 2,002.82              | 1.76         | 22.14        | -22.13                  | 0.07                    | 0.07                   | -0.28                 |  |
| 2,017.77              | 1.95            | 122.53      | 2,017.35              | 1.49         | 22.55        | -22.55                  | 0.07                    | 0.07                   | -0.48                 |  |
| 2,032.31              | 1.96            | 122.41      | 2,031.88              | 1.22         | 22.97        | -22.97                  | 0.07                    | 0.07                   | -0.83                 |  |
| 2,046.85              | 1.97            | 122.25      | 2,046.41              | 0.96         | 23.39        | -23.39                  | 0.08                    | 0.07                   | -1.10                 |  |
| 2,061.38              | 1.98            | 122.01      | 2,060.93              | 0.69         | 23.81        | -23.81                  | 0.09                    | 0.07                   | -1.65                 |  |
| 2,075.92              | 1.99            | 121.67      | 2,075.46              | 0.43         | 24.24        | -24.24                  | 0.11                    | 0.07                   | -2.34                 |  |
| 2,090.46              | 2.01            | 121.18      | 2,090.00              | 0.16         | 24.68        | -24.68                  | 0.18                    | 0.14                   | -3.37                 |  |
| 2,105.00              | 2.03            | 120.49      | 2,104.53              | -0.10        | 25.12        | -25.12                  | 0.22                    | 0.14                   | -4.75                 |  |
| 2,119.46              | 2.05            | 119.41      | 2,118.98              | -0.36        | 25.56        | -25.56                  | 0.30                    | 0.14                   | -7.47                 |  |
| 2,133.92              | 2.08            | 118.16      | 2,133.43              | -0.61        | 26.02        | -26.02                  | 0.37                    | 0.21                   | -8.64                 |  |
| 2,148.38              | 2.11            | 116.82      | 2,147.88              | -0.85        | 26.49        | -26.49                  | 0.40                    | 0.21                   | -9.27                 |  |
| 2,162.85              | 2.15            | 115.48      | 2,162.34              | -1.09        | 26.97        | -26.97                  | 0.44                    | 0.28                   | -9.26                 |  |
| 2,177.31              | 2.19            | 114.18      | 2,176.79              | -1.32        | 27.47        | -27.47                  | 0.44                    | 0.28                   | -8.99                 |  |
| 2,191.77              | 2.23            | 112.99      | 2,191.24              | -1.54        | 27.98        | -27.98                  | 0.42                    | 0.28                   | -8.23                 |  |
| 2,206.23              | 1.97            | 98.78       | 2,205.69              | -1.69        | 28.48        | -28.49                  | 4.01                    | -1.80                  | -98.27                |  |
| 2,220.69              | 1.70            | 72.37       | 2,220.14              | -1.66        | 28.93        | -28.94                  | 6.08                    | -1.87                  | -182.64               |  |
| 2,235.15              | 1.74            | 67.81       | 2,234.59              | -1.52        | 29.34        | -29.34                  | 0.99                    | 0.28                   | -31.54                |  |
| 2,249.62              | 1.80            | 66.88       | 2,249.06              | -1.34        | 29.75        | -29.76                  | 0.46                    | 0.41                   | -6.43                 |  |
| 2,264.08              | 1.87            | 65.95       | 2,263.51              | -1.16        | 30.18        | -30.18                  | 0.53                    | 0.48                   | -6.43                 |  |
| 2,278.54              | 1.93            | 64.95       | 2,277.96              | -0.96        | 30.61        | -30.61                  | 0.47                    | 0.41                   | -6.92                 |  |
| 2,293.00              | 1.97            | 63.80       | 2,292.41              | -0.75        | 31.06        | -31.06                  | 0.39                    | 0.28                   | -7.95                 |  |
| 2,307.38              | 1.97            | 62.20       | 2,306.78              | -0.52        | 31.50        | -31.50                  | 0.38                    | 0.00                   | -11.13                |  |
| 2,321.77              | 1.96            | 60.58       | 2,321.17              | -0.29        | 31.93        | -31.93                  | 0.39                    | -0.07                  | -11.26                |  |
| 2,336.15              | 1.93            | 58.97       | 2,335.54              | -0.04        | 32.35        | -32.35                  | 0.43                    | -0.21                  | -11.20                |  |
| 2,350.54              | 1.90            | 57.45       | 2,349.92              | 0.21         | 32.76        | -32.76                  | 0.41                    | -0.21                  | -10.56                |  |
| 2,364.92              | 1.87            | 56.09       | 2,364.29              | 0.47         | 33.16        | -33.16                  | 0.37                    | -0.21                  | -9.46                 |  |
| 2,379.31              | 1.85            | 55.04       | 2,378.67              | 0.74         | 33.54        | -33.54                  | 0.27                    | -0.14                  | -7.30                 |  |
| 2,393.69              | 1.20            | 94.14       | 2,393.05              | 0.86         | 33.88        | -33.88                  | 8.28                    | -4.52                  | 271.91                |  |
| 2,408.08              | 0.90            | 147.10      | 2,407.44              | 0.75         | 34.09        | -34.09                  | 6.77                    | -2.08                  | 368.03                |  |
| 2,422.46              | 1.09            | 204.44      | 2,421.82              | 0.53         | 34.10        | -34.10                  | 6.74                    | 1.32                   | 398.75                |  |
| 2,436.85              | 2.11            | 218.85      | 2,436.20              | 0.20         | 33.88        | -33.88                  | 7.57                    | 7.09                   | 100.14                |  |
| 2,451.23              | 2.42            | 221.04      | 2,450.57              | -0.23        | 33.51        | -33.51                  | 2.24                    | 2.16                   | 15.23                 |  |
| 2,465.62              | 2.45            | 222.62      | 2,464.95              | -0.69        | 33.10        | -33.10                  | 0.51                    | 0.21                   | 10.98                 |  |
| 2,480.00              | 2.49            | 224.06      | 2,479.31              | -1.14        | 32.68        | -32.68                  | 0.51                    | 0.28                   | 10.01                 |  |
| 2,494.46              | 2.50            | 225.14      | 2,493.76              | -1.59        | 32.24        | -32.24                  | 0.33                    | 0.07                   | 7.47                  |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |  |
| 2,508.92              | 2.53            | 225.91      | 2,508.21              | -2.03        | 31.78        | -31.79                  | 0.31                    | 0.21                   | 5.33                  |  |
| 2,523.38              | 2.55            | 226.47      | 2,522.65              | -2.48        | 31.32        | -31.32                  | 0.22                    | 0.14                   | 3.87                  |  |
| 2,537.85              | 2.57            | 226.90      | 2,537.11              | -2.92        | 30.85        | -30.86                  | 0.19                    | 0.14                   | 2.97                  |  |
| 2,552.31              | 2.60            | 227.24      | 2,551.55              | -3.36        | 30.37        | -30.38                  | 0.23                    | 0.21                   | 2.35                  |  |
| 2,566.77              | 2.63            | 227.53      | 2,566.00              | -3.81        | 29.89        | -29.89                  | 0.23                    | 0.21                   | 2.01                  |  |
| 2,581.23              | 2.66            | 227.78      | 2,580.44              | -4.26        | 29.39        | -29.40                  | 0.22                    | 0.21                   | 1.73                  |  |
| 2,595.69              | 2.69            | 228.00      | 2,594.89              | -4.71        | 28.89        | -28.90                  | 0.22                    | 0.21                   | 1.52                  |  |
| 2,610.15              | 2.71            | 228.19      | 2,609.33              | -5.17        | 28.39        | -28.40                  | 0.15                    | 0.14                   | 1.31                  |  |
| 2,624.62              | 2.74            | 228.38      | 2,623.78              | -5.62        | 27.87        | -27.88                  | 0.22                    | 0.21                   | 1.31                  |  |
| 2,639.08              | 2.77            | 228.55      | 2,638.23              | -6.09        | 27.35        | -27.36                  | 0.22                    | 0.21                   | 1.18                  |  |
| 2,653.54              | 2.80            | 228.70      | 2,652.67              | -6.55        | 26.82        | -26.84                  | 0.21                    | 0.21                   | 1.04                  |  |
| 2,668.00              | 2.83            | 228.84      | 2,667.11              | -7.02        | 26.29        | -26.30                  | 0.21                    | 0.21                   | 0.97                  |  |
| 2,682.46              | 2.86            | 229.02      | 2,681.55              | -7.49        | 25.75        | -25.76                  | 0.22                    | 0.21                   | 1.24                  |  |
| 2,696.92              | 2.89            | 229.19      | 2,696.00              | -7.96        | 25.20        | -25.22                  | 0.22                    | 0.21                   | 1.18                  |  |
| 2,711.38              | 2.92            | 229.35      | 2,710.44              | -8.44        | 24.65        | -24.66                  | 0.21                    | 0.21                   | 1.11                  |  |
| 2,725.85              | 2.95            | 229.50      | 2,724.89              | -8.92        | 24.08        | -24.10                  | 0.21                    | 0.21                   | 1.04                  |  |
| 2,740.31              | 2.97            | 229.65      | 2,739.33              | -9.41        | 23.51        | -23.53                  | 0.15                    | 0.14                   | 1.04                  |  |
| 2,744.99              | 2.98            | 229.70      | 2,744.00              | -9.57        | 23.33        | -23.35                  | 0.21                    | 0.21                   | 0.97                  |  |
| <b>Capitan</b>        |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 2,754.77              | 3.00            | 229.79      | 2,753.77              | -9.90        | 22.94        | -22.96                  | 0.21                    | 0.21                   | 0.97                  |  |
| 2,769.23              | 3.03            | 229.93      | 2,768.21              | -10.39       | 22.36        | -22.38                  | 0.21                    | 0.21                   | 0.97                  |  |
| 2,783.69              | 3.05            | 230.05      | 2,782.65              | -10.88       | 21.77        | -21.79                  | 0.15                    | 0.14                   | 0.83                  |  |
| 2,798.15              | 3.07            | 230.16      | 2,797.09              | -11.37       | 21.18        | -21.20                  | 0.14                    | 0.14                   | 0.76                  |  |
| 2,812.62              | 3.09            | 230.25      | 2,811.54              | -11.87       | 20.58        | -20.60                  | 0.14                    | 0.14                   | 0.62                  |  |
| 2,827.08              | 3.10            | 230.32      | 2,825.98              | -12.37       | 19.98        | -20.01                  | 0.07                    | 0.07                   | 0.48                  |  |
| 2,841.54              | 3.11            | 230.35      | 2,840.42              | -12.87       | 19.38        | -19.40                  | 0.07                    | 0.07                   | 0.21                  |  |
| 2,856.00              | 3.11            | 230.33      | 2,854.85              | -13.37       | 18.77        | -18.80                  | 0.01                    | 0.00                   | -0.14                 |  |
| 2,870.46              | 3.10            | 230.21      | 2,869.29              | -13.87       | 18.17        | -18.20                  | 0.08                    | -0.07                  | -0.83                 |  |
| 2,884.92              | 3.07            | 230.03      | 2,883.73              | -14.37       | 17.58        | -17.60                  | 0.22                    | -0.21                  | -1.24                 |  |
| 2,899.38              | 3.05            | 229.83      | 2,898.17              | -14.87       | 16.98        | -17.01                  | 0.16                    | -0.14                  | -1.38                 |  |
| 2,913.85              | 3.02            | 229.61      | 2,912.62              | -15.36       | 16.40        | -16.43                  | 0.22                    | -0.21                  | -1.52                 |  |
| 2,928.31              | 2.99            | 229.39      | 2,927.06              | -15.86       | 15.82        | -15.85                  | 0.22                    | -0.21                  | -1.52                 |  |
| 2,942.77              | 2.89            | 229.14      | 2,941.50              | -16.34       | 15.26        | -15.29                  | 0.70                    | -0.69                  | -1.73                 |  |
| 2,957.23              | 1.77            | 227.44      | 2,955.95              | -16.73       | 14.82        | -14.85                  | 7.76                    | -7.75                  | -11.76                |  |
| 2,971.69              | 0.60            | 209.14      | 2,970.41              | -16.95       | 14.62        | -14.65                  | 8.40                    | -8.09                  | -126.56               |  |
| 2,986.15              | 0.27            | 105.21      | 2,984.87              | -17.02       | 14.62        | -14.65                  | 4.94                    | -2.28                  | -718.74               |  |
| 3,000.62              | 0.40            | 108.28      | 2,999.34              | -17.05       | 14.70        | -14.73                  | 0.91                    | 0.90                   | 21.22                 |  |
| 3,015.08              | 0.52            | 109.89      | 3,013.80              | -17.08       | 14.81        | -14.84                  | 0.83                    | 0.83                   | 11.13                 |  |
| 3,029.54              | 0.65            | 110.88      | 3,028.25              | -17.14       | 14.94        | -14.98                  | 0.90                    | 0.90                   | 6.85                  |  |
| 3,044.00              | 0.77            | 111.55      | 3,042.71              | -17.20       | 15.11        | -15.14                  | 0.83                    | 0.83                   | 4.63                  |  |
| 3,058.46              | 0.77            | 112.70      | 3,057.17              | -17.27       | 15.29        | -15.32                  | 0.11                    | 0.00                   | 7.95                  |  |
| 3,072.92              | 0.77            | 113.87      | 3,071.63              | -17.35       | 15.47        | -15.50                  | 0.11                    | 0.00                   | 8.09                  |  |
| 3,087.38              | 0.76            | 115.05      | 3,086.09              | -17.43       | 15.65        | -15.68                  | 0.13                    | -0.07                  | 8.16                  |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |  |
| 3,101.85              | 0.76            | 116.24      | 3,100.56              | -17.51       | 15.82        | -15.85                  | 0.11                    | 0.00                   | 8.22                  |  |
| 3,116.31              | 0.76            | 117.44      | 3,115.02              | -17.60       | 15.99        | -16.02                  | 0.11                    | 0.00                   | 8.30                  |  |
| 3,130.77              | 0.76            | 118.65      | 3,129.48              | -17.69       | 16.16        | -16.19                  | 0.11                    | 0.00                   | 8.37                  |  |
| 3,145.23              | 0.76            | 119.87      | 3,143.93              | -17.78       | 16.33        | -16.36                  | 0.11                    | 0.00                   | 8.44                  |  |
| 3,159.69              | 0.76            | 121.10      | 3,158.39              | -17.88       | 16.49        | -16.53                  | 0.11                    | 0.00                   | 8.51                  |  |
| 3,174.15              | 0.76            | 122.33      | 3,172.85              | -17.98       | 16.66        | -16.69                  | 0.11                    | 0.00                   | 8.51                  |  |
| 3,188.62              | 0.76            | 123.57      | 3,187.32              | -18.09       | 16.82        | -16.85                  | 0.11                    | 0.00                   | 8.57                  |  |
| 3,203.08              | 0.76            | 124.82      | 3,201.78              | -18.19       | 16.97        | -17.01                  | 0.11                    | 0.00                   | 8.64                  |  |
| 3,217.54              | 0.76            | 126.06      | 3,216.24              | -18.31       | 17.13        | -17.17                  | 0.11                    | 0.00                   | 8.58                  |  |
| 3,232.00              | 0.76            | 127.31      | 3,230.70              | -18.42       | 17.28        | -17.32                  | 0.11                    | 0.00                   | 8.64                  |  |
| 3,246.43              | 0.75            | 127.43      | 3,245.13              | -18.54       | 17.44        | -17.47                  | 0.07                    | -0.07                  | 0.83                  |  |
| 3,260.86              | 0.75            | 127.55      | 3,259.55              | -18.65       | 17.59        | -17.62                  | 0.01                    | 0.00                   | 0.83                  |  |
| 3,275.29              | 0.75            | 127.68      | 3,273.98              | -18.77       | 17.74        | -17.77                  | 0.01                    | 0.00                   | 0.90                  |  |
| 3,289.71              | 0.74            | 127.81      | 3,288.40              | -18.88       | 17.88        | -17.92                  | 0.07                    | -0.07                  | 0.90                  |  |
| 3,304.14              | 0.74            | 127.96      | 3,302.83              | -18.99       | 18.03        | -18.07                  | 0.01                    | 0.00                   | 1.04                  |  |
| 3,318.57              | 0.73            | 128.11      | 3,317.26              | -19.11       | 18.18        | -18.21                  | 0.07                    | -0.07                  | 1.04                  |  |
| 3,333.00              | 0.73            | 128.26      | 3,331.69              | -19.22       | 18.32        | -18.36                  | 0.01                    | 0.00                   | 1.04                  |  |
| 3,347.31              | 0.73            | 128.79      | 3,346.00              | -19.34       | 18.46        | -18.50                  | 0.05                    | 0.00                   | 3.70                  |  |
| 3,361.62              | 0.73            | 129.32      | 3,360.31              | -19.45       | 18.61        | -18.64                  | 0.05                    | 0.00                   | 3.70                  |  |
| 3,375.92              | 0.74            | 129.84      | 3,374.60              | -19.57       | 18.75        | -18.78                  | 0.08                    | 0.07                   | 3.64                  |  |
| 3,390.23              | 0.74            | 130.37      | 3,388.91              | -19.69       | 18.89        | -18.93                  | 0.05                    | 0.00                   | 3.70                  |  |
| 3,404.54              | 0.74            | 130.90      | 3,403.22              | -19.81       | 19.03        | -19.07                  | 0.05                    | 0.00                   | 3.70                  |  |
| 3,418.85              | 0.75            | 131.43      | 3,417.53              | -19.93       | 19.17        | -19.21                  | 0.08                    | 0.07                   | 3.70                  |  |
| 3,433.15              | 0.75            | 131.96      | 3,431.83              | -20.05       | 19.31        | -19.35                  | 0.05                    | 0.00                   | 3.71                  |  |
| 3,447.46              | 0.75            | 132.48      | 3,446.14              | -20.18       | 19.45        | -19.49                  | 0.05                    | 0.00                   | 3.63                  |  |
| 3,461.77              | 0.76            | 133.01      | 3,460.45              | -20.31       | 19.59        | -19.62                  | 0.09                    | 0.07                   | 3.70                  |  |
| 3,476.08              | 0.76            | 133.54      | 3,474.76              | -20.44       | 19.72        | -19.76                  | 0.05                    | 0.00                   | 3.70                  |  |
| 3,480.32              | 0.76            | 133.54      | 3,479.00              | -20.48       | 19.76        | -19.80                  | 0.00                    | 0.00                   | 0.00                  |  |
| DLWR Mnt. Group       |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 3,490.38              | 0.77            | 134.07      | 3,489.06              | -20.57       | 19.86        | -19.90                  | 0.12                    | 0.10                   | 5.27                  |  |
| 3,504.69              | 0.77            | 134.59      | 3,503.36              | -20.70       | 20.00        | -20.04                  | 0.05                    | 0.00                   | 3.63                  |  |
| 3,519.00              | 0.77            | 135.12      | 3,517.67              | -20.84       | 20.14        | -20.18                  | 0.05                    | 0.00                   | 3.70                  |  |
| 3,533.46              | 0.78            | 134.23      | 3,532.13              | -20.98       | 20.27        | -20.31                  | 0.11                    | 0.07                   | -6.15                 |  |
| 3,547.92              | 0.78            | 133.36      | 3,546.59              | -21.11       | 20.42        | -20.46                  | 0.08                    | 0.00                   | -6.02                 |  |
| 3,562.38              | 0.79            | 132.50      | 3,561.05              | -21.25       | 20.56        | -20.60                  | 0.11                    | 0.07                   | -5.95                 |  |
| 3,576.85              | 0.79            | 131.65      | 3,575.52              | -21.38       | 20.71        | -20.75                  | 0.08                    | 0.00                   | -5.87                 |  |
| 3,591.31              | 0.79            | 130.81      | 3,589.98              | -21.51       | 20.86        | -20.90                  | 0.08                    | 0.00                   | -5.81                 |  |
| 3,605.77              | 0.80            | 129.99      | 3,604.43              | -21.64       | 21.01        | -21.05                  | 0.10                    | 0.07                   | -5.67                 |  |
| 3,620.23              | 0.80            | 129.19      | 3,618.89              | -21.77       | 21.17        | -21.21                  | 0.08                    | 0.00                   | -5.53                 |  |
| 3,634.69              | 0.81            | 128.39      | 3,633.35              | -21.90       | 21.33        | -21.37                  | 0.10                    | 0.07                   | -5.53                 |  |
| 3,649.15              | 0.81            | 127.61      | 3,647.81              | -22.03       | 21.49        | -21.53                  | 0.08                    | 0.00                   | -5.39                 |  |
| 3,663.62              | 0.82            | 126.85      | 3,662.28              | -22.15       | 21.65        | -21.69                  | 0.10                    | 0.07                   | -5.25                 |  |
| 3,678.08              | 0.82            | 126.10      | 3,676.74              | -22.27       | 21.82        | -21.86                  | 0.07                    | 0.00                   | -5.19                 |  |
| 3,692.54              | 0.83            | 125.36      | 3,691.20              | -22.39       | 21.99        | -22.03                  | 0.10                    | 0.07                   | -5.12                 |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |
| 3,707.00              | 0.83            | 124.64      | 3,705.65              | -22.51       | 22.16        | -22.20                  | 0.07                    | 0.00                   | -4.98                 |
| 3,721.38              | 0.86            | 125.89      | 3,720.03              | -22.64       | 22.33        | -22.37                  | 0.24                    | 0.21                   | 8.69                  |
| 3,735.77              | 0.90            | 127.06      | 3,734.42              | -22.77       | 22.51        | -22.55                  | 0.30                    | 0.28                   | 8.13                  |
| 3,750.15              | 0.93            | 128.15      | 3,748.80              | -22.91       | 22.69        | -22.73                  | 0.24                    | 0.21                   | 7.58                  |
| 3,764.54              | 0.96            | 129.16      | 3,763.19              | -23.06       | 22.88        | -22.92                  | 0.24                    | 0.21                   | 7.02                  |
| 3,778.92              | 1.00            | 130.12      | 3,777.56              | -23.21       | 23.07        | -23.11                  | 0.30                    | 0.28                   | 6.68                  |
| 3,793.31              | 1.03            | 131.01      | 3,791.95              | -23.38       | 23.26        | -23.30                  | 0.24                    | 0.21                   | 6.18                  |
| 3,807.69              | 1.07            | 131.85      | 3,806.33              | -23.55       | 23.46        | -23.50                  | 0.30                    | 0.28                   | 5.84                  |
| 3,822.08              | 1.10            | 132.64      | 3,820.72              | -23.74       | 23.66        | -23.70                  | 0.23                    | 0.21                   | 5.49                  |
| 3,836.46              | 1.14            | 133.38      | 3,835.09              | -23.93       | 23.86        | -23.91                  | 0.30                    | 0.28                   | 5.15                  |
| 3,850.85              | 1.17            | 134.09      | 3,849.48              | -24.13       | 24.07        | -24.12                  | 0.23                    | 0.21                   | 4.93                  |
| 3,865.23              | 1.21            | 134.75      | 3,863.86              | -24.34       | 24.29        | -24.33                  | 0.29                    | 0.28                   | 4.59                  |
| 3,879.62              | 1.24            | 135.39      | 3,878.25              | -24.56       | 24.50        | -24.55                  | 0.23                    | 0.21                   | 4.45                  |
| 3,894.00              | 1.28            | 135.99      | 3,892.62              | -24.78       | 24.72        | -24.77                  | 0.29                    | 0.28                   | 4.17                  |
| 3,908.38              | 1.25            | 134.48      | 3,907.00              | -25.01       | 24.95        | -25.00                  | 0.31                    | -0.21                  | -10.50                |
| 3,922.77              | 1.22            | 132.74      | 3,921.39              | -25.22       | 25.17        | -25.22                  | 0.33                    | -0.21                  | -12.09                |
| 3,937.15              | 1.20            | 130.80      | 3,935.76              | -25.42       | 25.40        | -25.45                  | 0.32                    | -0.14                  | -13.49                |
| 3,951.54              | 1.17            | 128.70      | 3,950.15              | -25.61       | 25.63        | -25.68                  | 0.37                    | -0.21                  | -14.59                |
| 3,965.92              | 1.14            | 126.44      | 3,964.53              | -25.79       | 25.86        | -25.91                  | 0.38                    | -0.21                  | -15.72                |
| 3,980.31              | 1.12            | 124.05      | 3,978.91              | -25.96       | 26.09        | -26.14                  | 0.36                    | -0.14                  | -16.61                |
| 3,994.69              | 1.09            | 121.55      | 3,993.29              | -26.11       | 26.32        | -26.37                  | 0.39                    | -0.21                  | -17.39                |
| 4,009.08              | 1.07            | 118.98      | 4,007.68              | -26.24       | 26.56        | -26.61                  | 0.36                    | -0.14                  | -17.86                |
| 4,023.46              | 1.05            | 116.35      | 4,022.06              | -26.37       | 26.79        | -26.84                  | 0.37                    | -0.14                  | -18.29                |
| 4,037.85              | 1.04            | 113.74      | 4,036.44              | -26.48       | 27.03        | -27.08                  | 0.34                    | -0.07                  | -18.14                |
| 4,052.23              | 1.03            | 111.19      | 4,050.82              | -26.58       | 27.27        | -27.32                  | 0.33                    | -0.07                  | -17.73                |
| 4,066.62              | 1.02            | 108.81      | 4,065.21              | -26.66       | 27.51        | -27.56                  | 0.30                    | -0.07                  | -16.54                |
| 4,081.00              | 1.02            | 106.73      | 4,079.59              | -26.74       | 27.76        | -27.81                  | 0.26                    | 0.00                   | -14.46                |
| 4,095.46              | 1.09            | 109.80      | 4,094.04              | -26.83       | 28.01        | -28.06                  | 0.62                    | 0.48                   | 21.23                 |
| 4,109.92              | 1.16            | 112.52      | 4,108.50              | -26.93       | 28.27        | -28.32                  | 0.61                    | 0.48                   | 18.81                 |
| 4,124.38              | 1.23            | 114.93      | 4,122.96              | -27.05       | 28.55        | -28.60                  | 0.60                    | 0.48                   | 16.67                 |
| 4,138.85              | 1.31            | 117.07      | 4,137.42              | -27.19       | 28.84        | -28.89                  | 0.64                    | 0.55                   | 14.79                 |
| 4,153.31              | 1.38            | 118.98      | 4,151.88              | -27.35       | 29.14        | -29.19                  | 0.57                    | 0.48                   | 13.21                 |
| 4,167.77              | 2.18            | 130.61      | 4,166.33              | -27.61       | 29.50        | -29.55                  | 6.04                    | 5.53                   | 80.43                 |
| 4,182.23              | 3.33            | 137.42      | 4,180.78              | -28.10       | 29.99        | -30.04                  | 8.26                    | 7.95                   | 47.10                 |
| 4,196.69              | 3.82            | 139.13      | 4,195.21              | -28.78       | 30.59        | -30.64                  | 3.47                    | 3.39                   | 11.83                 |
| 4,211.15              | 3.86            | 139.44      | 4,209.64              | -29.51       | 31.22        | -31.28                  | 0.31                    | 0.28                   | 2.14                  |
| 4,225.62              | 3.91            | 139.79      | 4,224.07              | -30.26       | 31.86        | -31.91                  | 0.38                    | 0.35                   | 2.42                  |
| 4,240.08              | 3.96            | 140.08      | 4,238.50              | -31.02       | 32.50        | -32.55                  | 0.37                    | 0.35                   | 2.01                  |
| 4,254.54              | 4.02            | 140.26      | 4,252.92              | -31.79       | 33.14        | -33.20                  | 0.42                    | 0.41                   | 1.24                  |
| 4,269.00              | 4.08            | 140.21      | 4,267.35              | -32.57       | 33.79        | -33.86                  | 0.42                    | 0.41                   | -0.35                 |
| 4,283.54              | 4.13            | 139.85      | 4,281.85              | -33.37       | 34.46        | -34.53                  | 0.39                    | 0.34                   | -2.48                 |
| 4,298.08              | 4.19            | 139.30      | 4,296.35              | -34.17       | 35.15        | -35.21                  | 0.50                    | 0.41                   | -3.78                 |
| 4,312.62              | 4.25            | 138.64      | 4,310.85              | -34.98       | 35.85        | -35.91                  | 0.53                    | 0.41                   | -4.54                 |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| Survey                |                 |             |                       |              |              |                         |                         |                        |                       |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
| 4,327.15              | 4.30            | 137.96      | 4,325.34              | -35.79       | 36.57        | -36.64                  | 0.49                    | 0.34                   | -4.68                 |  |
| 4,341.69              | 4.35            | 137.30      | 4,339.84              | -36.60       | 37.31        | -37.38                  | 0.49                    | 0.34                   | -4.54                 |  |
| 4,356.23              | 5.18            | 141.21      | 4,354.33              | -37.52       | 38.09        | -38.16                  | 6.13                    | 5.71                   | 26.89                 |  |
| 4,370.77              | 6.20            | 146.69      | 4,368.80              | -38.68       | 38.93        | -39.01                  | 7.94                    | 7.02                   | 37.69                 |  |
| 4,385.31              | 6.23            | 146.33      | 4,383.25              | -40.00       | 39.80        | -39.88                  | 0.34                    | 0.21                   | -2.48                 |  |
| 4,399.85              | 6.25            | 145.97      | 4,397.71              | -41.31       | 40.68        | -40.76                  | 0.30                    | 0.14                   | -2.48                 |  |
| 4,414.38              | 6.28            | 145.61      | 4,412.15              | -42.62       | 41.58        | -41.66                  | 0.34                    | 0.21                   | -2.48                 |  |
| 4,428.92              | 6.30            | 145.22      | 4,426.60              | -43.93       | 42.48        | -42.56                  | 0.32                    | 0.14                   | -2.68                 |  |
| 4,443.46              | 6.32            | 144.80      | 4,441.05              | -45.24       | 43.40        | -43.48                  | 0.35                    | 0.14                   | -2.89                 |  |
| 4,458.00              | 6.33            | 144.32      | 4,455.51              | -46.55       | 44.32        | -44.41                  | 0.37                    | 0.07                   | -3.30                 |  |
| 4,472.38              | 6.32            | 143.74      | 4,469.80              | -47.83       | 45.26        | -45.35                  | 0.45                    | -0.07                  | -4.03                 |  |
| 4,486.77              | 6.31            | 143.10      | 4,484.10              | -49.10       | 46.20        | -46.29                  | 0.49                    | -0.07                  | -4.45                 |  |
| 4,501.15              | 6.29            | 142.43      | 4,498.39              | -50.36       | 47.15        | -47.25                  | 0.53                    | -0.14                  | -4.66                 |  |
| 4,515.54              | 6.27            | 141.75      | 4,512.70              | -51.60       | 48.12        | -48.22                  | 0.54                    | -0.14                  | -4.73                 |  |
| 4,529.92              | 6.24            | 141.06      | 4,526.99              | -52.82       | 49.10        | -49.20                  | 0.56                    | -0.21                  | -4.80                 |  |
| 4,544.31              | 6.21            | 140.37      | 4,541.30              | -54.03       | 50.09        | -50.19                  | 0.56                    | -0.21                  | -4.79                 |  |
| 4,558.69              | 6.18            | 139.70      | 4,555.59              | -55.22       | 51.08        | -51.19                  | 0.54                    | -0.21                  | -4.66                 |  |
| 4,573.08              | 6.15            | 139.06      | 4,569.90              | -56.39       | 52.09        | -52.20                  | 0.52                    | -0.21                  | -4.45                 |  |
| 4,587.46              | 6.12            | 138.45      | 4,584.20              | -57.55       | 53.10        | -53.21                  | 0.50                    | -0.21                  | -4.24                 |  |
| 4,601.85              | 6.08            | 137.90      | 4,598.51              | -58.69       | 54.12        | -54.23                  | 0.49                    | -0.28                  | -3.82                 |  |
| 4,616.23              | 6.04            | 137.43      | 4,612.81              | -59.81       | 55.14        | -55.26                  | 0.44                    | -0.28                  | -3.27                 |  |
| 4,630.62              | 6.00            | 137.09      | 4,627.12              | -60.92       | 56.17        | -56.28                  | 0.37                    | -0.28                  | -2.36                 |  |
| 4,645.00              | 5.95            | 136.92      | 4,641.42              | -62.01       | 57.19        | -57.31                  | 0.37                    | -0.35                  | -1.18                 |  |
| 4,659.46              | 5.89            | 137.12      | 4,655.80              | -63.10       | 58.21        | -58.33                  | 0.44                    | -0.41                  | 1.38                  |  |
| 4,673.92              | 5.82            | 137.52      | 4,670.19              | -64.19       | 59.21        | -59.33                  | 0.56                    | -0.48                  | 2.77                  |  |
| 4,688.38              | 5.76            | 138.06      | 4,684.57              | -65.27       | 60.19        | -60.31                  | 0.56                    | -0.41                  | 3.73                  |  |
| 4,702.85              | 5.69            | 138.69      | 4,698.97              | -66.35       | 61.14        | -61.27                  | 0.65                    | -0.48                  | 4.35                  |  |
| 4,717.31              | 5.63            | 139.37      | 4,713.36              | -67.42       | 62.08        | -62.21                  | 0.62                    | -0.41                  | 4.70                  |  |
| 4,731.77              | 5.62            | 141.31      | 4,727.75              | -68.52       | 62.98        | -63.12                  | 1.32                    | -0.07                  | 13.42                 |  |
| 4,746.23              | 6.10            | 150.67      | 4,742.13              | -69.74       | 63.80        | -63.94                  | 7.38                    | 3.32                   | 64.73                 |  |
| 4,760.69              | 6.77            | 159.40      | 4,756.50              | -71.21       | 64.48        | -64.62                  | 8.19                    | 4.63                   | 60.37                 |  |
| 4,775.15              | 6.79            | 160.72      | 4,770.86              | -72.81       | 65.06        | -65.20                  | 1.09                    | 0.14                   | 9.13                  |  |
| 4,789.62              | 6.72            | 161.58      | 4,785.23              | -74.42       | 65.61        | -65.75                  | 0.85                    | -0.48                  | 5.94                  |  |
| 4,804.08              | 6.65            | 162.48      | 4,799.59              | -76.02       | 66.13        | -66.28                  | 0.87                    | -0.48                  | 6.22                  |  |
| 4,818.54              | 6.58            | 163.35      | 4,813.96              | -77.61       | 66.62        | -66.77                  | 0.85                    | -0.48                  | 6.02                  |  |
| 4,833.00              | 6.53            | 164.12      | 4,828.32              | -79.20       | 67.08        | -67.23                  | 0.70                    | -0.35                  | 5.33                  |  |
| 4,847.46              | 6.47            | 164.58      | 4,842.69              | -80.78       | 67.52        | -67.68                  | 0.55                    | -0.41                  | 3.18                  |  |
| 4,861.92              | 6.43            | 164.91      | 4,857.06              | -82.34       | 67.95        | -68.11                  | 0.38                    | -0.28                  | 2.28                  |  |
| 4,876.38              | 6.39            | 165.14      | 4,871.43              | -83.90       | 68.37        | -68.53                  | 0.33                    | -0.28                  | 1.59                  |  |
| 4,890.85              | 6.35            | 165.31      | 4,885.81              | -85.45       | 68.78        | -68.94                  | 0.31                    | -0.28                  | 1.17                  |  |
| 4,905.31              | 6.32            | 165.43      | 4,900.18              | -87.00       | 69.18        | -69.35                  | 0.23                    | -0.21                  | 0.83                  |  |
| 4,919.77              | 6.28            | 165.52      | 4,914.55              | -88.53       | 69.58        | -69.75                  | 0.28                    | -0.28                  | 0.62                  |  |
| 4,934.23              | 6.25            | 165.58      | 4,928.93              | -90.06       | 69.97        | -70.15                  | 0.21                    | -0.21                  | 0.41                  |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| Survey                |                 |             |                       |              |              |                         |                         |                        |                       |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
| 4,948.69              | 6.21            | 165.62      | 4,943.30              | -91.58       | 70.36        | -70.54                  | 0.28                    | -0.28                  | 0.28                  |  |
| 4,963.15              | 6.18            | 165.65      | 4,957.68              | -93.09       | 70.75        | -70.93                  | 0.21                    | -0.21                  | 0.21                  |  |
| 4,977.62              | 6.14            | 165.67      | 4,972.06              | -94.60       | 71.13        | -71.32                  | 0.28                    | -0.28                  | 0.14                  |  |
| 4,992.08              | 6.10            | 165.68      | 4,986.44              | -96.09       | 71.52        | -71.70                  | 0.28                    | -0.28                  | 0.07                  |  |
| 5,006.54              | 6.21            | 165.84      | 5,000.82              | -97.59       | 71.90        | -72.08                  | 0.77                    | 0.76                   | 1.11                  |  |
| 5,021.00              | 7.36            | 166.95      | 5,015.18              | -99.26       | 72.30        | -72.49                  | 8.00                    | 7.95                   | 7.68                  |  |
| 5,035.54              | 8.40            | 168.98      | 5,029.58              | -101.21      | 72.71        | -72.91                  | 7.40                    | 7.15                   | 13.96                 |  |
| 5,050.08              | 8.34            | 169.00      | 5,043.96              | -103.28      | 73.12        | -73.31                  | 0.41                    | -0.41                  | 0.14                  |  |
| 5,064.62              | 8.28            | 169.01      | 5,058.35              | -105.35      | 73.52        | -73.72                  | 0.41                    | -0.41                  | 0.07                  |  |
| 5,079.15              | 8.21            | 169.02      | 5,072.73              | -107.39      | 73.91        | -74.12                  | 0.48                    | -0.48                  | 0.07                  |  |
| 5,093.69              | 8.14            | 169.02      | 5,087.12              | -109.42      | 74.31        | -74.52                  | 0.48                    | -0.48                  | 0.00                  |  |
| 5,108.23              | 8.08            | 169.02      | 5,101.52              | -111.43      | 74.70        | -74.91                  | 0.41                    | -0.41                  | 0.00                  |  |
| 5,122.77              | 8.00            | 169.01      | 5,115.91              | -113.43      | 75.09        | -75.30                  | 0.55                    | -0.55                  | -0.07                 |  |
| 5,137.31              | 7.93            | 168.99      | 5,130.31              | -115.41      | 75.47        | -75.69                  | 0.48                    | -0.48                  | -0.14                 |  |
| 5,151.85              | 7.86            | 168.97      | 5,144.72              | -117.37      | 75.85        | -76.08                  | 0.48                    | -0.48                  | -0.14                 |  |
| 5,166.38              | 7.78            | 168.95      | 5,159.11              | -119.31      | 76.23        | -76.46                  | 0.55                    | -0.55                  | -0.14                 |  |
| 5,180.92              | 7.70            | 168.94      | 5,173.52              | -121.23      | 76.61        | -76.84                  | 0.55                    | -0.55                  | -0.07                 |  |
| 5,195.46              | 7.62            | 168.92      | 5,187.93              | -123.13      | 76.98        | -77.21                  | 0.55                    | -0.55                  | -0.14                 |  |
| 5,210.00              | 7.54            | 168.92      | 5,202.34              | -125.02      | 77.35        | -77.59                  | 0.55                    | -0.55                  | 0.00                  |  |
| 5,224.38              | 7.45            | 168.96      | 5,216.60              | -126.86      | 77.71        | -77.95                  | 0.63                    | -0.63                  | 0.28                  |  |
| 5,238.77              | 7.36            | 169.01      | 5,230.87              | -128.68      | 78.06        | -78.31                  | 0.63                    | -0.63                  | 0.35                  |  |
| 5,253.15              | 7.27            | 169.08      | 5,245.13              | -130.47      | 78.41        | -78.66                  | 0.63                    | -0.63                  | 0.49                  |  |
| 5,267.54              | 7.17            | 169.15      | 5,259.41              | -132.25      | 78.75        | -79.00                  | 0.70                    | -0.69                  | 0.49                  |  |
| 5,281.92              | 7.08            | 169.24      | 5,273.68              | -134.00      | 79.08        | -79.34                  | 0.63                    | -0.63                  | 0.63                  |  |
| 5,296.31              | 6.99            | 169.34      | 5,287.96              | -135.73      | 79.41        | -79.67                  | 0.63                    | -0.63                  | 0.69                  |  |
| 5,310.69              | 7.89            | 168.05      | 5,302.22              | -137.56      | 79.78        | -80.04                  | 6.37                    | 6.26                   | -8.97                 |  |
| 5,325.08              | 8.50            | 168.56      | 5,316.46              | -139.57      | 80.19        | -80.46                  | 4.27                    | 4.24                   | 3.54                  |  |
| 5,339.46              | 8.41            | 168.75      | 5,330.68              | -141.64      | 80.61        | -80.88                  | 0.66                    | -0.63                  | 1.32                  |  |
| 5,353.85              | 8.31            | 168.95      | 5,344.92              | -143.69      | 81.01        | -81.29                  | 0.72                    | -0.69                  | 1.39                  |  |
| 5,364.03              | 8.25            | 169.08      | 5,355.00              | -145.13      | 81.29        | -81.57                  | 0.65                    | -0.63                  | 1.32                  |  |
| Lower Brushy Canyon   |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 5,368.23              | 8.22            | 169.14      | 5,359.15              | -145.72      | 81.41        | -81.69                  | 0.65                    | -0.63                  | 1.33                  |  |
| 5,382.62              | 8.12            | 169.32      | 5,373.40              | -147.73      | 81.79        | -82.07                  | 0.72                    | -0.69                  | 1.25                  |  |
| 5,397.00              | 8.02            | 169.45      | 5,387.63              | -149.72      | 82.16        | -82.45                  | 0.71                    | -0.70                  | 0.90                  |  |
| 5,411.54              | 7.93            | 169.48      | 5,402.03              | -151.70      | 82.53        | -82.82                  | 0.62                    | -0.62                  | 0.21                  |  |
| 5,426.08              | 7.84            | 169.45      | 5,416.44              | -153.66      | 82.89        | -83.19                  | 0.62                    | -0.62                  | -0.21                 |  |
| 5,440.62              | 7.74            | 169.36      | 5,430.84              | -155.60      | 83.26        | -83.56                  | 0.69                    | -0.69                  | -0.62                 |  |
| 5,455.15              | 7.65            | 169.24      | 5,445.24              | -157.51      | 83.62        | -83.92                  | 0.63                    | -0.62                  | -0.83                 |  |
| 5,469.69              | 7.56            | 169.09      | 5,459.65              | -159.40      | 83.98        | -84.29                  | 0.63                    | -0.62                  | -1.03                 |  |
| 5,484.23              | 7.46            | 168.90      | 5,474.07              | -161.27      | 84.34        | -84.65                  | 0.71                    | -0.69                  | -1.31                 |  |
| 5,498.77              | 7.37            | 168.69      | 5,488.49              | -163.11      | 84.71        | -85.02                  | 0.65                    | -0.62                  | -1.44                 |  |
| 5,513.31              | 7.27            | 168.46      | 5,502.91              | -164.92      | 85.07        | -85.39                  | 0.72                    | -0.69                  | -1.58                 |  |
| 5,527.85              | 7.17            | 168.20      | 5,517.33              | -166.71      | 85.44        | -85.76                  | 0.72                    | -0.69                  | -1.79                 |  |
| 5,542.38              | 7.07            | 167.92      | 5,531.75              | -168.47      | 85.82        | -86.14                  | 0.73                    | -0.69                  | -1.93                 |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |
| 5,556.92              | 6.97            | 167.61      | 5,546.18              | -170.21      | 86.19        | -86.52                  | 0.74                    | -0.69                  | -2.13                 |
| 5,571.46              | 7.07            | 166.40      | 5,560.61              | -171.94      | 86.59        | -86.92                  | 1.23                    | 0.69                   | -8.32                 |
| 5,586.00              | 8.00            | 162.64      | 5,575.03              | -173.78      | 87.10        | -87.44                  | 7.24                    | 6.40                   | -25.86                |
| 5,600.46              | 9.01            | 160.91      | 5,589.33              | -175.81      | 87.78        | -88.11                  | 7.20                    | 6.98                   | -11.96                |
| 5,614.92              | 8.96            | 160.58      | 5,603.61              | -177.94      | 88.52        | -88.86                  | 0.50                    | -0.35                  | -2.28                 |
| 5,629.38              | 8.83            | 160.17      | 5,617.90              | -180.05      | 89.27        | -89.62                  | 1.00                    | -0.90                  | -2.84                 |
| 5,643.85              | 8.70            | 159.70      | 5,632.20              | -182.12      | 90.03        | -90.38                  | 1.03                    | -0.90                  | -3.25                 |
| 5,658.31              | 8.56            | 159.20      | 5,646.49              | -184.15      | 90.79        | -91.14                  | 1.10                    | -0.97                  | -3.46                 |
| 5,672.77              | 8.42            | 158.67      | 5,660.80              | -186.14      | 91.56        | -91.91                  | 1.11                    | -0.97                  | -3.67                 |
| 5,687.23              | 8.28            | 158.11      | 5,675.10              | -188.09      | 92.33        | -92.69                  | 1.12                    | -0.97                  | -3.87                 |
| 5,693.19              | 8.22            | 157.88      | 5,681.00              | -188.89      | 92.65        | -93.01                  | 1.12                    | -0.97                  | -3.90                 |
| Bone Spring Lime      |                 |             |                       |              |              |                         |                         |                        |                       |
| 5,701.69              | 8.14            | 157.54      | 5,689.41              | -190.00      | 93.11        | -93.47                  | 1.12                    | -0.97                  | -3.97                 |
| 5,716.15              | 8.00            | 156.97      | 5,703.73              | -191.88      | 93.89        | -94.26                  | 1.12                    | -0.97                  | -3.94                 |
| 5,730.62              | 7.86            | 156.40      | 5,718.06              | -193.71      | 94.68        | -95.06                  | 1.11                    | -0.97                  | -3.94                 |
| 5,745.08              | 7.73            | 155.87      | 5,732.39              | -195.50      | 95.48        | -95.85                  | 1.03                    | -0.90                  | -3.67                 |
| 5,759.54              | 7.60            | 155.39      | 5,746.72              | -197.26      | 96.27        | -96.65                  | 1.00                    | -0.90                  | -3.32                 |
| 5,774.00              | 7.47            | 155.02      | 5,761.05              | -198.98      | 97.07        | -97.45                  | 0.96                    | -0.90                  | -2.56                 |
| 5,788.54              | 7.35            | 154.94      | 5,775.47              | -200.68      | 97.86        | -98.25                  | 0.83                    | -0.83                  | -0.55                 |
| 5,803.08              | 7.23            | 154.99      | 5,789.90              | -202.35      | 98.64        | -99.03                  | 0.83                    | -0.83                  | 0.34                  |
| 5,817.62              | 7.12            | 155.12      | 5,804.32              | -204.00      | 99.41        | -99.80                  | 0.76                    | -0.76                  | 0.89                  |
| 5,832.15              | 7.01            | 155.31      | 5,818.74              | -205.62      | 100.16       | -100.55                 | 0.77                    | -0.76                  | 1.31                  |
| 5,846.69              | 6.90            | 155.54      | 5,833.17              | -207.22      | 100.89       | -101.29                 | 0.78                    | -0.76                  | 1.58                  |
| 5,861.23              | 7.25            | 155.40      | 5,847.60              | -208.85      | 101.63       | -102.03                 | 2.41                    | 2.41                   | -0.96                 |
| 5,875.77              | 8.17            | 156.08      | 5,862.01              | -210.63      | 102.43       | -102.84                 | 6.36                    | 6.33                   | 4.68                  |
| 5,890.31              | 9.24            | 156.68      | 5,876.38              | -212.65      | 103.31       | -103.72                 | 7.39                    | 7.36                   | 4.13                  |
| 5,904.85              | 10.26           | 156.49      | 5,890.71              | -214.91      | 104.29       | -104.71                 | 7.02                    | 7.02                   | -1.31                 |
| 5,919.38              | 10.15           | 156.93      | 5,905.01              | -217.27      | 105.31       | -105.73                 | 0.93                    | -0.76                  | 3.03                  |
| 5,933.92              | 10.04           | 157.44      | 5,919.33              | -219.62      | 106.30       | -106.72                 | 0.97                    | -0.76                  | 3.51                  |
| 5,948.46              | 9.93            | 157.98      | 5,933.65              | -221.95      | 107.26       | -107.68                 | 0.99                    | -0.76                  | 3.71                  |
| 5,963.00              | 9.81            | 158.49      | 5,947.97              | -224.27      | 108.18       | -108.61                 | 1.02                    | -0.83                  | 3.51                  |
| 5,977.38              | 9.69            | 158.85      | 5,962.15              | -226.54      | 109.07       | -109.50                 | 0.94                    | -0.83                  | 2.50                  |
| 5,991.77              | 9.56            | 159.16      | 5,976.33              | -228.78      | 109.93       | -110.37                 | 0.97                    | -0.90                  | 2.15                  |
| 6,006.15              | 9.43            | 159.43      | 5,990.52              | -231.00      | 110.77       | -111.21                 | 0.96                    | -0.90                  | 1.88                  |
| 6,020.54              | 9.30            | 159.67      | 6,004.71              | -233.20      | 111.58       | -112.03                 | 0.94                    | -0.90                  | 1.67                  |
| 6,034.92              | 9.17            | 159.90      | 6,018.91              | -235.36      | 112.38       | -112.83                 | 0.94                    | -0.90                  | 1.60                  |
| 6,049.31              | 9.03            | 160.11      | 6,033.12              | -237.50      | 113.16       | -113.62                 | 1.00                    | -0.97                  | 1.46                  |
| 6,063.69              | 8.89            | 160.30      | 6,047.32              | -239.61      | 113.92       | -114.38                 | 1.00                    | -0.97                  | 1.32                  |
| 6,078.08              | 8.75            | 160.49      | 6,061.54              | -241.69      | 114.66       | -115.12                 | 0.99                    | -0.97                  | 1.32                  |
| 6,092.46              | 8.60            | 160.66      | 6,075.76              | -243.73      | 115.38       | -115.85                 | 1.06                    | -1.04                  | 1.18                  |
| 6,106.85              | 8.45            | 160.82      | 6,089.99              | -245.74      | 116.08       | -116.56                 | 1.06                    | -1.04                  | 1.11                  |
| 6,121.23              | 8.29            | 160.97      | 6,104.21              | -247.72      | 116.77       | -117.24                 | 1.12                    | -1.11                  | 1.04                  |
| 6,135.62              | 8.13            | 161.11      | 6,118.46              | -249.67      | 117.44       | -117.92                 | 1.12                    | -1.11                  | 0.97                  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |
| 6,150.00              | 8.98            | 159.69      | 6,132.68              | -251.68      | 118.16       | -118.64                 | 6.09                    | 5.91                   | -9.87                 |
| 6,164.38              | 9.98            | 160.61      | 6,146.86              | -253.91      | 118.96       | -119.45                 | 7.03                    | 6.95                   | 6.40                  |
| 6,178.77              | 10.89           | 161.63      | 6,161.01              | -256.37      | 119.80       | -120.29                 | 6.45                    | 6.32                   | 7.09                  |
| 6,193.15              | 10.66           | 161.57      | 6,175.14              | -258.93      | 120.65       | -121.15                 | 1.60                    | -1.60                  | -0.42                 |
| 6,207.54              | 10.42           | 161.46      | 6,189.29              | -261.42      | 121.48       | -121.99                 | 1.67                    | -1.67                  | -0.76                 |
| 6,221.92              | 10.16           | 161.33      | 6,203.44              | -263.86      | 122.30       | -122.81                 | 1.82                    | -1.81                  | -0.90                 |
| 6,236.31              | 9.89            | 161.17      | 6,217.61              | -266.23      | 123.11       | -123.62                 | 1.89                    | -1.88                  | -1.11                 |
| 6,250.69              | 9.62            | 160.98      | 6,231.78              | -268.53      | 123.90       | -124.41                 | 1.89                    | -1.88                  | -1.32                 |
| 6,265.08              | 9.35            | 160.79      | 6,245.97              | -270.77      | 124.68       | -125.20                 | 1.89                    | -1.88                  | -1.32                 |
| 6,279.46              | 9.08            | 160.59      | 6,260.17              | -272.95      | 125.44       | -125.96                 | 1.89                    | -1.88                  | -1.39                 |
| 6,293.85              | 8.80            | 160.39      | 6,274.38              | -275.06      | 126.18       | -126.71                 | 1.96                    | -1.95                  | -1.39                 |
| 6,308.23              | 8.53            | 160.21      | 6,288.60              | -277.09      | 126.91       | -127.45                 | 1.89                    | -1.88                  | -1.25                 |
| 6,322.62              | 8.27            | 160.08      | 6,302.83              | -279.07      | 127.63       | -128.16                 | 1.81                    | -1.81                  | -0.90                 |
| 6,337.00              | 8.02            | 160.03      | 6,317.07              | -280.99      | 128.32       | -128.86                 | 1.74                    | -1.74                  | -0.35                 |
| 6,351.46              | 7.79            | 160.22      | 6,331.39              | -282.86      | 129.00       | -129.54                 | 1.60                    | -1.59                  | 1.31                  |
| 6,365.92              | 7.58            | 160.53      | 6,345.72              | -284.68      | 129.65       | -130.19                 | 1.48                    | -1.45                  | 2.14                  |
| 6,380.38              | 7.38            | 160.90      | 6,360.06              | -286.46      | 130.27       | -130.82                 | 1.42                    | -1.38                  | 2.56                  |
| 6,394.85              | 7.18            | 161.33      | 6,374.41              | -288.19      | 130.86       | -131.42                 | 1.43                    | -1.38                  | 2.97                  |
| 6,409.31              | 6.98            | 161.80      | 6,388.76              | -289.88      | 131.43       | -131.98                 | 1.44                    | -1.38                  | 3.25                  |
| 6,423.77              | 7.50            | 161.05      | 6,403.10              | -291.61      | 132.01       | -132.57                 | 3.65                    | 3.60                   | -5.19                 |
| 6,438.23              | 8.53            | 160.10      | 6,417.42              | -293.51      | 132.68       | -133.24                 | 7.18                    | 7.12                   | -6.57                 |
| 6,452.69              | 9.59            | 159.89      | 6,431.70              | -295.65      | 133.46       | -134.03                 | 7.33                    | 7.33                   | -1.45                 |
| 6,467.15              | 10.48           | 159.84      | 6,445.94              | -298.01      | 134.33       | -134.90                 | 6.16                    | 6.15                   | -0.35                 |
| 6,481.62              | 10.28           | 160.37      | 6,460.17              | -300.47      | 135.21       | -135.79                 | 1.53                    | -1.38                  | 3.66                  |
| 6,496.08              | 10.07           | 160.96      | 6,474.41              | -302.88      | 136.06       | -136.64                 | 1.62                    | -1.45                  | 4.08                  |
| 6,510.54              | 9.85            | 161.56      | 6,488.65              | -305.24      | 136.86       | -137.45                 | 1.68                    | -1.52                  | 4.15                  |
| 6,525.00              | 9.60            | 162.12      | 6,502.90              | -307.57      | 137.62       | -138.21                 | 1.85                    | -1.73                  | 3.87                  |
| 6,539.46              | 9.31            | 162.42      | 6,517.16              | -309.83      | 138.35       | -138.94                 | 2.03                    | -2.01                  | 2.07                  |
| 6,553.92              | 9.00            | 162.63      | 6,531.44              | -312.02      | 139.04       | -139.64                 | 2.16                    | -2.14                  | 1.45                  |
| 6,568.38              | 8.68            | 162.78      | 6,545.73              | -314.14      | 139.70       | -140.30                 | 2.22                    | -2.21                  | 1.04                  |
| 6,582.85              | 8.36            | 162.90      | 6,560.04              | -316.19      | 140.33       | -140.94                 | 2.21                    | -2.21                  | 0.83                  |
| 6,597.31              | 8.05            | 163.01      | 6,574.35              | -318.17      | 140.94       | -141.55                 | 2.15                    | -2.14                  | 0.76                  |
| 6,611.77              | 8.39            | 161.26      | 6,588.66              | -320.13      | 141.57       | -142.19                 | 2.92                    | 2.35                   | -12.10                |
| 6,626.23              | 9.36            | 158.91      | 6,602.95              | -322.23      | 142.33       | -142.95                 | 7.16                    | 6.71                   | -16.25                |
| 6,640.69              | 9.90            | 158.13      | 6,617.20              | -324.48      | 143.22       | -143.84                 | 3.84                    | 3.73                   | -5.39                 |
| 6,655.15              | 9.71            | 158.26      | 6,631.45              | -326.77      | 144.14       | -144.76                 | 1.32                    | -1.31                  | 0.90                  |
| 6,669.62              | 9.44            | 158.45      | 6,645.72              | -329.00      | 145.02       | -145.65                 | 1.88                    | -1.87                  | 1.31                  |
| 6,684.08              | 9.19            | 158.69      | 6,659.99              | -331.18      | 145.88       | -146.51                 | 1.75                    | -1.73                  | 1.66                  |
| 6,698.54              | 8.96            | 159.00      | 6,674.27              | -333.31      | 146.70       | -147.34                 | 1.63                    | -1.59                  | 2.14                  |
| 6,713.00              | 8.79            | 159.43      | 6,688.56              | -335.39      | 147.49       | -148.14                 | 1.26                    | -1.18                  | 2.97                  |
| 6,727.31              | 8.70            | 160.03      | 6,702.70              | -337.44      | 148.25       | -148.89                 | 0.90                    | -0.63                  | 4.19                  |
| 6,741.62              | 8.66            | 160.72      | 6,716.85              | -339.47      | 148.97       | -149.62                 | 0.78                    | -0.28                  | 4.82                  |
| 6,755.92              | 8.66            | 161.44      | 6,730.98              | -341.51      | 149.67       | -150.33                 | 0.76                    | 0.00                   | 5.03                  |
| 6,770.23              | 8.68            | 162.18      | 6,745.13              | -343.56      | 150.34       | -151.00                 | 0.79                    | 0.14                   | 5.17                  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |  |
| 6,784.54              | 8.70            | 162.89      | 6,759.28              | -345.62      | 150.99       | -151.66                 | 0.76                    | 0.14                   | 4.96                  |  |
| 6,798.85              | 8.71            | 163.56      | 6,773.42              | -347.69      | 151.62       | -152.28                 | 0.71                    | 0.07                   | 4.68                  |  |
| 6,813.15              | 8.90            | 163.51      | 6,787.55              | -349.79      | 152.24       | -152.91                 | 1.33                    | 1.33                   | -0.35                 |  |
| 6,827.46              | 9.91            | 161.29      | 6,801.67              | -352.02      | 152.95       | -153.62                 | 7.50                    | 7.06                   | -15.51                |  |
| 6,841.77              | 11.09           | 161.58      | 6,815.74              | -354.49      | 153.78       | -154.46                 | 8.25                    | 8.25                   | 2.03                  |  |
| 6,856.08              | 12.26           | 160.72      | 6,829.75              | -357.23      | 154.71       | -155.40                 | 8.27                    | 8.18                   | -6.01                 |  |
| 6,870.38              | 12.67           | 161.07      | 6,843.72              | -360.15      | 155.72       | -156.41                 | 2.92                    | 2.87                   | 2.45                  |  |
| 6,884.69              | 12.62           | 161.51      | 6,857.68              | -363.11      | 156.73       | -157.43                 | 0.76                    | -0.35                  | 3.07                  |  |
| 6,899.00              | 12.53           | 161.89      | 6,871.65              | -366.07      | 157.71       | -158.41                 | 0.85                    | -0.63                  | 2.66                  |  |
| 6,913.54              | 12.38           | 162.06      | 6,885.84              | -369.05      | 158.68       | -159.39                 | 1.06                    | -1.03                  | 1.17                  |  |
| 6,928.08              | 12.18           | 162.11      | 6,900.05              | -372.00      | 159.63       | -160.34                 | 1.38                    | -1.38                  | 0.34                  |  |
| 6,942.62              | 11.96           | 162.08      | 6,914.27              | -374.89      | 160.56       | -161.28                 | 1.51                    | -1.51                  | -0.21                 |  |
| 6,957.15              | 11.71           | 161.98      | 6,928.49              | -377.72      | 161.48       | -162.21                 | 1.73                    | -1.72                  | -0.69                 |  |
| 6,971.69              | 11.46           | 161.83      | 6,942.74              | -380.50      | 162.39       | -163.12                 | 1.73                    | -1.72                  | -1.03                 |  |
| 6,986.23              | 11.20           | 161.65      | 6,956.99              | -383.21      | 163.28       | -164.02                 | 1.80                    | -1.79                  | -1.24                 |  |
| 7,000.77              | 10.94           | 161.43      | 6,971.26              | -385.86      | 164.17       | -164.91                 | 1.81                    | -1.79                  | -1.51                 |  |
| 7,015.31              | 10.68           | 161.19      | 6,985.54              | -388.44      | 165.04       | -165.79                 | 1.81                    | -1.79                  | -1.65                 |  |
| 7,029.85              | 10.42           | 160.92      | 6,999.84              | -390.96      | 165.91       | -166.66                 | 1.82                    | -1.79                  | -1.86                 |  |
| 7,044.38              | 10.17           | 160.64      | 7,014.13              | -393.41      | 166.76       | -167.52                 | 1.75                    | -1.72                  | -1.93                 |  |
| 7,058.92              | 9.93            | 160.37      | 7,028.45              | -395.81      | 167.61       | -168.37                 | 1.68                    | -1.65                  | -1.86                 |  |
| 7,073.46              | 9.72            | 160.11      | 7,042.78              | -398.14      | 168.45       | -169.21                 | 1.48                    | -1.44                  | -1.79                 |  |
| 7,087.89              | 9.53            | 159.91      | 7,057.00              | -400.41      | 169.27       | -170.04                 | 1.33                    | -1.31                  | -1.38                 |  |
| 1st Bone Spring SD    |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 7,088.00              | 9.53            | 159.91      | 7,057.11              | -400.43      | 169.28       | -170.05                 | 1.33                    | -1.31                  | -1.40                 |  |
| 7,102.38              | 9.40            | 159.88      | 7,071.30              | -402.65      | 170.09       | -170.86                 | 0.90                    | -0.90                  | -0.21                 |  |
| 7,116.77              | 9.31            | 159.90      | 7,085.50              | -404.84      | 170.89       | -171.67                 | 0.63                    | -0.63                  | 0.14                  |  |
| 7,131.15              | 9.23            | 159.94      | 7,099.69              | -407.02      | 171.69       | -172.47                 | 0.56                    | -0.56                  | 0.28                  |  |
| 7,145.54              | 9.17            | 159.99      | 7,113.89              | -409.18      | 172.48       | -173.26                 | 0.42                    | -0.42                  | 0.35                  |  |
| 7,159.92              | 9.12            | 160.05      | 7,128.09              | -411.33      | 173.26       | -174.05                 | 0.35                    | -0.35                  | 0.42                  |  |
| 7,174.31              | 9.07            | 160.11      | 7,142.30              | -413.47      | 174.03       | -174.83                 | 0.35                    | -0.35                  | 0.42                  |  |
| 7,188.69              | 9.03            | 160.16      | 7,156.50              | -415.59      | 174.80       | -175.60                 | 0.28                    | -0.28                  | 0.35                  |  |
| 7,203.08              | 8.98            | 160.21      | 7,170.71              | -417.71      | 175.57       | -176.37                 | 0.35                    | -0.35                  | 0.35                  |  |
| 7,217.46              | 8.94            | 160.26      | 7,184.92              | -419.82      | 176.32       | -177.13                 | 0.28                    | -0.28                  | 0.35                  |  |
| 7,231.85              | 8.89            | 160.30      | 7,199.13              | -421.92      | 177.08       | -177.89                 | 0.35                    | -0.35                  | 0.28                  |  |
| 7,246.23              | 8.84            | 160.36      | 7,213.34              | -424.01      | 177.82       | -178.64                 | 0.35                    | -0.35                  | 0.42                  |  |
| 7,260.62              | 8.77            | 160.42      | 7,227.56              | -426.08      | 178.56       | -179.38                 | 0.49                    | -0.49                  | 0.42                  |  |
| 7,275.00              | 8.91            | 160.45      | 7,241.77              | -428.16      | 179.30       | -180.12                 | 0.97                    | 0.97                   | 0.21                  |  |
| 7,289.54              | 9.66            | 160.72      | 7,256.12              | -430.38      | 180.08       | -180.91                 | 5.17                    | 5.16                   | 1.86                  |  |
| 7,293.48              | 9.90            | 161.04      | 7,260.00              | -431.01      | 180.30       | -181.13                 | 6.33                    | 6.18                   | 8.06                  |  |
| 2nd Bone Spring LM    |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 7,304.08              | 10.56           | 161.82      | 7,270.43              | -432.79      | 180.90       | -181.73                 | 6.33                    | 6.19                   | 7.38                  |  |
| 7,318.62              | 11.49           | 160.74      | 7,284.71              | -435.43      | 181.79       | -182.63                 | 6.55                    | 6.40                   | -7.43                 |  |
| 7,333.15              | 11.54           | 160.90      | 7,298.94              | -438.17      | 182.75       | -183.59                 | 0.41                    | 0.34                   | 1.10                  |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |  |
| 7,347.69              | 11.34           | 161.22      | 7,313.19              | -440.89      | 183.68       | -184.53                 | 1.44                    | -1.38                  | 2.20                  |  |
| 7,362.23              | 11.14           | 161.59      | 7,327.46              | -443.58      | 184.59       | -185.44                 | 1.46                    | -1.38                  | 2.54                  |  |
| 7,376.77              | 10.93           | 161.98      | 7,341.73              | -446.22      | 185.46       | -186.31                 | 1.53                    | -1.44                  | 2.68                  |  |
| 7,391.31              | 10.71           | 162.38      | 7,356.01              | -448.82      | 186.29       | -187.15                 | 1.60                    | -1.51                  | 2.75                  |  |
| 7,405.85              | 10.50           | 162.79      | 7,370.30              | -451.37      | 187.09       | -187.96                 | 1.53                    | -1.44                  | 2.82                  |  |
| 7,420.38              | 10.29           | 163.20      | 7,384.59              | -453.88      | 187.86       | -188.73                 | 1.53                    | -1.45                  | 2.82                  |  |
| 7,434.92              | 10.10           | 163.58      | 7,398.90              | -456.35      | 188.59       | -189.47                 | 1.39                    | -1.31                  | 2.61                  |  |
| 7,449.46              | 9.92            | 163.90      | 7,413.22              | -458.77      | 189.30       | -190.18                 | 1.30                    | -1.24                  | 2.20                  |  |
| 7,464.00              | 9.77            | 164.14      | 7,427.55              | -461.16      | 189.99       | -190.87                 | 1.07                    | -1.03                  | 1.65                  |  |
| 7,478.00              | 9.68            | 164.18      | 7,441.35              | -463.44      | 190.63       | -191.52                 | 0.64                    | -0.64                  | 0.29                  |  |
| 7,492.00              | 9.62            | 164.13      | 7,455.15              | -465.70      | 191.27       | -192.17                 | 0.43                    | -0.43                  | -0.36                 |  |
| 7,506.00              | 9.57            | 164.01      | 7,468.95              | -467.94      | 191.91       | -192.81                 | 0.38                    | -0.36                  | -0.86                 |  |
| 7,520.00              | 9.53            | 163.85      | 7,482.76              | -470.17      | 192.56       | -193.46                 | 0.34                    | -0.29                  | -1.14                 |  |
| 7,534.00              | 9.49            | 163.66      | 7,496.56              | -472.39      | 193.20       | -194.11                 | 0.36                    | -0.29                  | -1.36                 |  |
| 7,548.00              | 9.45            | 163.44      | 7,510.37              | -474.60      | 193.86       | -194.77                 | 0.39                    | -0.29                  | -1.57                 |  |
| 7,562.00              | 9.39            | 163.22      | 7,524.19              | -476.80      | 194.51       | -195.43                 | 0.50                    | -0.43                  | -1.57                 |  |
| 7,576.00              | 9.31            | 163.01      | 7,538.00              | -478.97      | 195.17       | -196.09                 | 0.62                    | -0.57                  | -1.50                 |  |
| 7,590.00              | 9.19            | 162.81      | 7,551.82              | -481.13      | 195.84       | -196.76                 | 0.89                    | -0.86                  | -1.43                 |  |
| 7,604.46              | 9.01            | 162.72      | 7,566.10              | -483.31      | 196.51       | -197.44                 | 1.25                    | -1.24                  | -0.62                 |  |
| 7,618.92              | 8.80            | 162.67      | 7,580.38              | -485.45      | 197.18       | -198.11                 | 1.45                    | -1.45                  | -0.35                 |  |
| 7,633.38              | 8.55            | 162.65      | 7,594.68              | -487.53      | 197.83       | -198.76                 | 1.73                    | -1.73                  | -0.14                 |  |
| 7,647.85              | 8.29            | 162.64      | 7,608.99              | -489.55      | 198.46       | -199.40                 | 1.80                    | -1.80                  | -0.07                 |  |
| 7,662.31              | 8.03            | 162.65      | 7,623.30              | -491.51      | 199.07       | -200.02                 | 1.80                    | -1.80                  | 0.07                  |  |
| 7,676.77              | 7.75            | 162.65      | 7,637.63              | -493.40      | 199.66       | -200.61                 | 1.94                    | -1.94                  | 0.00                  |  |
| 7,691.23              | 7.48            | 162.67      | 7,651.96              | -495.23      | 200.24       | -201.19                 | 1.87                    | -1.87                  | 0.14                  |  |
| 7,705.69              | 7.20            | 162.68      | 7,666.30              | -497.00      | 200.79       | -201.74                 | 1.94                    | -1.94                  | 0.07                  |  |
| 7,720.15              | 6.94            | 162.70      | 7,680.65              | -498.70      | 201.32       | -202.27                 | 1.80                    | -1.80                  | 0.14                  |  |
| 7,734.62              | 6.68            | 162.72      | 7,695.02              | -500.33      | 201.83       | -202.79                 | 1.80                    | -1.80                  | 0.14                  |  |
| 7,749.08              | 7.15            | 160.29      | 7,709.37              | -501.98      | 202.38       | -203.34                 | 3.83                    | 3.25                   | -16.80                |  |
| 7,763.54              | 8.50            | 157.24      | 7,723.70              | -503.82      | 203.10       | -204.06                 | 9.76                    | 9.34                   | -21.09                |  |
| 7,778.00              | 9.80            | 156.53      | 7,737.97              | -505.93      | 204.00       | -204.97                 | 9.02                    | 8.99                   | -4.91                 |  |
| 7,792.54              | 9.59            | 156.54      | 7,752.31              | -508.18      | 204.97       | -205.95                 | 1.44                    | -1.44                  | 0.07                  |  |
| 7,807.08              | 9.38            | 156.54      | 7,766.65              | -510.38      | 205.93       | -206.91                 | 1.44                    | -1.44                  | 0.00                  |  |
| 7,821.62              | 9.17            | 156.52      | 7,781.00              | -512.53      | 206.86       | -207.85                 | 1.44                    | -1.44                  | -0.14                 |  |
| 7,836.15              | 8.95            | 156.50      | 7,795.35              | -514.62      | 207.77       | -208.76                 | 1.51                    | -1.51                  | -0.14                 |  |
| 7,850.69              | 8.74            | 156.46      | 7,809.71              | -516.67      | 208.67       | -209.66                 | 1.44                    | -1.44                  | -0.28                 |  |
| 7,865.23              | 8.54            | 156.42      | 7,824.09              | -518.68      | 209.54       | -210.53                 | 1.38                    | -1.38                  | -0.28                 |  |
| 7,879.77              | 8.33            | 156.37      | 7,838.47              | -520.63      | 210.39       | -211.39                 | 1.45                    | -1.44                  | -0.34                 |  |
| 7,894.31              | 8.14            | 156.33      | 7,852.86              | -522.54      | 211.23       | -212.23                 | 1.31                    | -1.31                  | -0.28                 |  |
| 7,908.85              | 7.95            | 156.30      | 7,867.26              | -524.40      | 212.05       | -213.05                 | 1.31                    | -1.31                  | -0.21                 |  |
| 7,923.38              | 7.77            | 156.28      | 7,881.65              | -526.22      | 212.84       | -213.85                 | 1.24                    | -1.24                  | -0.14                 |  |
| 7,930.80              | 7.69            | 156.29      | 7,889.00              | -527.13      | 213.25       | -214.26                 | 1.10                    | -1.10                  | 0.14                  |  |
| 2nd Bone Spring SD    |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 7,937.92              | 7.61            | 156.30      | 7,896.06              | -528.00      | 213.63       | -214.64                 | 1.10                    | -1.10                  | 0.14                  |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |  |
| 7,952.46                                           | 7.46            | 156.38      | 7,910.47              | -529.75      | 214.39       | -215.41                 | 1.03                    | -1.03                  | 0.55                  |  |
| 7,967.00                                           | 7.36            | 156.55      | 7,924.89              | -531.47      | 215.14       | -216.16                 | 0.70                    | -0.69                  | 1.17                  |  |
| 7,981.46                                           | 7.30            | 156.87      | 7,939.24              | -533.16      | 215.87       | -216.89                 | 0.50                    | -0.41                  | 2.21                  |  |
| 7,995.92                                           | 7.28            | 157.27      | 7,953.58              | -534.85      | 216.59       | -217.61                 | 0.38                    | -0.14                  | 2.77                  |  |
| 8,010.38                                           | 7.27            | 157.75      | 7,967.92              | -536.54      | 217.29       | -218.32                 | 0.43                    | -0.07                  | 3.32                  |  |
| 8,024.85                                           | 7.27            | 158.26      | 7,982.28              | -538.24      | 217.97       | -219.00                 | 0.45                    | 0.00                   | 3.52                  |  |
| 8,039.31                                           | 7.92            | 157.95      | 7,996.61              | -540.02      | 218.68       | -219.72                 | 4.50                    | 4.50                   | -2.14                 |  |
| 8,053.77                                           | 9.32            | 157.43      | 8,010.90              | -542.02      | 219.51       | -220.55                 | 9.70                    | 9.68                   | -3.60                 |  |
| 8,068.23                                           | 10.27           | 157.94      | 8,025.15              | -544.30      | 220.44       | -221.49                 | 6.60                    | 6.57                   | 3.53                  |  |
| 8,082.69                                           | 10.29           | 158.54      | 8,039.38              | -546.69      | 221.40       | -222.45                 | 0.75                    | 0.14                   | 4.15                  |  |
| 8,097.15                                           | 10.30           | 159.17      | 8,053.61              | -549.10      | 222.33       | -223.38                 | 0.78                    | 0.07                   | 4.36                  |  |
| 8,111.62                                           | 10.32           | 159.82      | 8,067.85              | -551.53      | 223.24       | -224.30                 | 0.82                    | 0.14                   | 4.49                  |  |
| 8,126.08                                           | 10.33           | 160.44      | 8,082.07              | -553.97      | 224.12       | -225.18                 | 0.77                    | 0.07                   | 4.29                  |  |
| 8,140.54                                           | 10.33           | 161.02      | 8,096.30              | -556.41      | 224.97       | -226.04                 | 0.72                    | 0.00                   | 4.01                  |  |
| 8,155.00                                           | 10.28           | 161.51      | 8,110.52              | -558.86      | 225.80       | -226.88                 | 0.70                    | -0.35                  | 3.39                  |  |
| 8,169.54                                           | 10.18           | 161.81      | 8,124.83              | -561.31      | 226.62       | -227.69                 | 0.78                    | -0.69                  | 2.06                  |  |
| 8,184.08                                           | 10.04           | 162.01      | 8,139.15              | -563.74      | 227.41       | -228.49                 | 0.99                    | -0.96                  | 1.38                  |  |
| 8,198.62                                           | 9.88            | 162.14      | 8,153.47              | -566.13      | 228.18       | -229.27                 | 1.11                    | -1.10                  | 0.89                  |  |
| 8,213.15                                           | 9.70            | 162.23      | 8,167.79              | -568.49      | 228.94       | -230.03                 | 1.24                    | -1.24                  | 0.62                  |  |
| 8,227.69                                           | 9.51            | 162.29      | 8,182.12              | -570.80      | 229.68       | -230.77                 | 1.31                    | -1.31                  | 0.41                  |  |
| 8,242.23                                           | 9.31            | 162.34      | 8,196.47              | -573.06      | 230.40       | -231.50                 | 1.38                    | -1.38                  | 0.34                  |  |
| 8,256.77                                           | 9.10            | 162.39      | 8,210.82              | -575.28      | 231.11       | -232.21                 | 1.45                    | -1.44                  | 0.34                  |  |
| 8,271.31                                           | 8.90            | 162.44      | 8,225.18              | -577.45      | 231.79       | -232.90                 | 1.38                    | -1.38                  | 0.34                  |  |
| 8,276.19                                           | 8.83            | 162.46      | 8,230.00              | -578.16      | 232.02       | -233.13                 | 1.38                    | -1.38                  | 0.47                  |  |
| <b>3rd Bone Bone Spring LM</b>                     |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 8,285.85                                           | 8.70            | 162.51      | 8,239.55              | -579.57      | 232.46       | -233.58                 | 1.38                    | -1.38                  | 0.49                  |  |
| 8,300.38                                           | 8.50            | 162.59      | 8,253.92              | -581.64      | 233.11       | -234.23                 | 1.38                    | -1.38                  | 0.55                  |  |
| 8,314.92                                           | 8.31            | 162.72      | 8,268.30              | -583.67      | 233.75       | -234.87                 | 1.31                    | -1.31                  | 0.89                  |  |
| 8,329.46                                           | 8.14            | 162.91      | 8,282.69              | -585.66      | 234.36       | -235.49                 | 1.18                    | -1.17                  | 1.31                  |  |
| 8,344.00                                           | 8.00            | 163.18      | 8,297.09              | -587.61      | 234.96       | -236.09                 | 1.00                    | -0.96                  | 1.86                  |  |
| 8,357.43                                           | 7.93            | 163.57      | 8,310.39              | -589.39      | 235.49       | -236.62                 | 0.66                    | -0.52                  | 2.90                  |  |
| 8,370.86                                           | 7.88            | 164.04      | 8,323.69              | -591.16      | 236.01       | -237.14                 | 0.61                    | -0.37                  | 3.50                  |  |
| 8,384.29                                           | 7.83            | 164.59      | 8,336.99              | -592.93      | 236.50       | -237.64                 | 0.67                    | -0.37                  | 4.10                  |  |
| 8,397.71                                           | 7.78            | 165.23      | 8,350.29              | -594.69      | 236.98       | -238.12                 | 0.75                    | -0.37                  | 4.77                  |  |
| 8,411.14                                           | 7.71            | 166.00      | 8,363.60              | -596.44      | 237.43       | -238.57                 | 0.93                    | -0.52                  | 5.73                  |  |
| 8,421.00                                           | 7.75            | 167.01      | 8,373.37              | -597.73      | 237.74       | -238.88                 | 1.44                    | 0.44                   | 10.22                 |  |
| <b>KOP: 8421.00' MD, -238.88' VS, 8373.37' TVD</b> |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 8,424.57                                           | 7.77            | 167.37      | 8,376.90              | -598.20      | 237.84       | -238.99                 | 1.44                    | 0.46                   | 10.14                 |  |
| 8,438.00                                           | 8.88            | 171.18      | 8,390.19              | -600.11      | 238.20       | -239.35                 | 9.23                    | 8.27                   | 28.37                 |  |
| 8,451.43                                           | 9.77            | 176.61      | 8,403.44              | -602.28      | 238.43       | -239.58                 | 9.31                    | 6.63                   | 40.43                 |  |
| 8,464.86                                           | 10.31           | 180.89      | 8,416.67              | -604.62      | 238.47       | -239.64                 | 6.86                    | 4.02                   | 31.87                 |  |
| 8,478.29                                           | 9.86            | 182.73      | 8,429.89              | -606.97      | 238.40       | -239.57                 | 4.12                    | -3.35                  | 13.70                 |  |
| 8,491.71                                           | 9.41            | 184.79      | 8,443.12              | -609.21      | 238.26       | -239.42                 | 4.22                    | -3.35                  | 15.35                 |  |
| 8,505.14                                           | 9.81            | 189.22      | 8,456.36              | -611.43      | 237.98       | -239.15                 | 6.26                    | 2.98                   | 32.99                 |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| Survey                 |                 |             |                       |              |              |                         |                         |                        |                       |
|------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)  | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 8,518.57               | 10.22           | 195.53      | 8,469.59              | -613.71      | 237.48       | -238.66                 | 8.72                    | 3.05                   | 46.98                 |
| 8,532.00               | 10.79           | 202.00      | 8,482.80              | -616.02      | 236.69       | -237.87                 | 9.75                    | 4.24                   | 48.18                 |
| 8,545.43               | 10.85           | 204.84      | 8,495.99              | -618.33      | 235.69       | -236.87                 | 3.99                    | 0.45                   | 21.15                 |
| 8,558.86               | 10.48           | 206.14      | 8,509.18              | -620.58      | 234.62       | -235.81                 | 3.29                    | -2.76                  | 9.68                  |
| 8,572.29               | 10.13           | 207.48      | 8,522.40              | -622.72      | 233.53       | -234.73                 | 3.16                    | -2.61                  | 9.98                  |
| 8,585.71               | 9.80            | 208.79      | 8,535.62              | -624.77      | 232.44       | -233.64                 | 2.98                    | -2.46                  | 9.76                  |
| 8,599.14               | 10.23           | 214.07      | 8,548.84              | -626.76      | 231.22       | -232.42                 | 7.55                    | 3.20                   | 39.31                 |
| 8,612.57               | 10.71           | 220.07      | 8,562.05              | -628.70      | 229.75       | -230.96                 | 8.87                    | 3.57                   | 44.68                 |
| 8,626.00               | 11.09           | 225.97      | 8,575.24              | -630.56      | 228.02       | -229.23                 | 8.77                    | 2.83                   | 43.93                 |
| 8,639.43               | 11.63           | 231.80      | 8,588.40              | -632.29      | 226.02       | -227.24                 | 9.44                    | 4.02                   | 43.41                 |
| 8,652.86               | 12.55           | 236.74      | 8,601.54              | -633.93      | 223.74       | -224.96                 | 10.30                   | 6.85                   | 36.78                 |
| 8,666.29               | 13.58           | 241.18      | 8,614.62              | -635.49      | 221.14       | -222.36                 | 10.70                   | 7.67                   | 33.06                 |
| 8,679.71               | 14.37           | 245.56      | 8,627.64              | -636.94      | 218.24       | -219.46                 | 9.83                    | 5.89                   | 32.64                 |
| 8,693.14               | 15.05           | 250.53      | 8,640.63              | -638.21      | 215.08       | -216.31                 | 10.67                   | 5.06                   | 37.01                 |
| 8,706.57               | 15.29           | 256.08      | 8,653.59              | -639.21      | 211.72       | -212.94                 | 10.96                   | 1.79                   | 41.33                 |
| 8,720.00               | 16.00           | 260.78      | 8,666.53              | -639.94      | 208.17       | -209.40                 | 10.81                   | 5.29                   | 35.00                 |
| 8,733.57               | 16.83           | 265.06      | 8,679.54              | -640.41      | 204.37       | -205.60                 | 10.81                   | 6.12                   | 31.54                 |
| 8,747.14               | 17.80           | 268.67      | 8,692.50              | -640.62      | 200.34       | -201.57                 | 10.66                   | 7.15                   | 26.60                 |
| 8,760.71               | 18.77           | 271.75      | 8,705.38              | -640.60      | 196.08       | -197.31                 | 10.09                   | 7.15                   | 22.70                 |
| 8,774.29               | 19.51           | 274.54      | 8,718.21              | -640.36      | 191.64       | -192.87                 | 8.66                    | 5.45                   | 20.54                 |
| 8,787.86               | 20.27           | 276.43      | 8,730.97              | -639.92      | 187.04       | -188.27                 | 7.34                    | 5.60                   | 13.93                 |
| 8,801.43               | 21.45           | 277.13      | 8,743.65              | -639.34      | 182.24       | -183.47                 | 8.89                    | 8.70                   | 5.16                  |
| 8,815.00               | 22.75           | 277.85      | 8,756.23              | -638.68      | 177.18       | -178.41                 | 9.79                    | 9.58                   | 5.31                  |
| 8,828.43               | 24.01           | 277.68      | 8,768.55              | -637.96      | 171.90       | -173.13                 | 9.40                    | 9.38                   | -1.27                 |
| 8,841.86               | 25.29           | 277.78      | 8,780.76              | -637.20      | 166.35       | -167.58                 | 9.54                    | 9.53                   | 0.74                  |
| 8,855.29               | 26.55           | 278.33      | 8,792.84              | -636.38      | 160.54       | -161.76                 | 9.55                    | 9.38                   | 4.10                  |
| 8,868.71               | 27.81           | 278.37      | 8,804.78              | -635.49      | 154.47       | -155.69                 | 9.39                    | 9.39                   | 0.30                  |
| 8,882.14               | 29.09           | 278.25      | 8,816.58              | -634.57      | 148.14       | -149.36                 | 9.54                    | 9.53                   | -0.89                 |
| 8,883.76               | 29.23           | 278.31      | 8,818.00              | -634.45      | 147.36       | -148.58                 | 8.85                    | 8.63                   | 3.99                  |
| 3rd Bone Spring SD     |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,895.57               | 30.25           | 278.77      | 8,828.25              | -633.58      | 141.57       | -142.79                 | 8.85                    | 8.64                   | 3.86                  |
| 8,909.00               | 31.25           | 279.93      | 8,839.80              | -632.47      | 134.79       | -136.01                 | 8.66                    | 7.45                   | 8.64                  |
| 8,922.29               | 32.52           | 279.60      | 8,851.08              | -631.28      | 127.88       | -129.09                 | 9.65                    | 9.56                   | -2.48                 |
| 8,935.57               | 33.69           | 280.18      | 8,862.20              | -630.03      | 120.73       | -121.94                 | 9.13                    | 8.81                   | 4.37                  |
| 8,948.86               | 35.04           | 281.13      | 8,873.17              | -628.64      | 113.36       | -114.57                 | 10.93                   | 10.16                  | 7.15                  |
| 8,962.14               | 36.42           | 281.70      | 8,883.95              | -627.11      | 105.76       | -106.96                 | 10.69                   | 10.39                  | 4.29                  |
| 8,975.43               | 37.81           | 282.24      | 8,894.55              | -625.44      | 97.91        | -99.11                  | 10.74                   | 10.46                  | 4.06                  |
| 8,988.71               | 39.27           | 282.73      | 8,904.94              | -623.65      | 89.84        | -91.03                  | 11.23                   | 10.99                  | 3.69                  |
| 9,002.00               | 40.74           | 282.65      | 8,915.12              | -621.78      | 81.50        | -82.69                  | 11.07                   | 11.06                  | -0.60                 |
| 9,015.43               | 42.06           | 281.63      | 8,925.19              | -619.91      | 72.82        | -74.01                  | 11.04                   | 9.83                   | -7.59                 |
| 9,028.86               | 43.47           | 280.53      | 8,935.05              | -618.16      | 63.87        | -65.06                  | 11.88                   | 10.50                  | -8.19                 |
| 9,042.29               | 45.05           | 280.86      | 8,944.67              | -616.42      | 54.66        | -55.84                  | 11.89                   | 11.76                  | 2.46                  |
| 00-FTP-410FSL(BD-134H) |                 |             |                       |              |              |                         |                         |                        |                       |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |  |
| 9,055.71                                          | 46.68           | 280.71      | 8,954.01              | -614.62      | 45.20        | -46.38                  | 12.17                   | 12.15                  | -1.12                 |  |
| 9,069.14                                          | 48.03           | 279.75      | 8,963.11              | -612.86      | 35.48        | -36.65                  | 11.34                   | 10.05                  | -7.15                 |  |
| 9,082.57                                          | 49.44           | 278.65      | 8,971.97              | -611.25      | 25.51        | -26.69                  | 12.17                   | 10.50                  | -8.19                 |  |
| 9,096.00                                          | 50.90           | 277.53      | 8,980.57              | -609.80      | 15.30        | -16.47                  | 12.62                   | 10.87                  | -8.34                 |  |
| 9,109.43                                          | 52.38           | 276.35      | 8,988.91              | -608.53      | 4.85         | -6.02                   | 13.00                   | 11.02                  | -8.79                 |  |
| 9,122.86                                          | 53.83           | 275.07      | 8,996.97              | -607.46      | -5.84        | 4.67                    | 13.22                   | 10.80                  | -9.53                 |  |
| 9,136.29                                          | 55.27           | 273.86      | 9,004.76              | -606.61      | -16.74       | 15.58                   | 12.99                   | 10.72                  | -9.01                 |  |
| 9,149.71                                          | 57.09           | 273.95      | 9,012.23              | -605.85      | -27.87       | 26.70                   | 13.57                   | 13.56                  | 0.67                  |  |
| 9,163.14                                          | 58.90           | 273.63      | 9,019.35              | -605.10      | -39.23       | 38.07                   | 13.63                   | 13.48                  | -2.38                 |  |
| 9,176.57                                          | 60.51           | 272.64      | 9,026.12              | -604.47      | -50.81       | 49.65                   | 13.57                   | 11.99                  | -7.37                 |  |
| <b>02-OVS(BD-134H)</b>                            |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 9,190.00                                          | 62.23           | 272.05      | 9,032.56              | -603.98      | -62.59       | 61.43                   | 13.37                   | 12.81                  | -4.39                 |  |
| 9,203.43                                          | 64.04           | 271.69      | 9,038.62              | -603.59      | -74.56       | 73.40                   | 13.69                   | 13.48                  | -2.68                 |  |
| 9,216.86                                          | 65.86           | 271.69      | 9,044.31              | -603.23      | -86.72       | 85.56                   | 13.55                   | 13.55                  | 0.00                  |  |
| 9,230.29                                          | 67.68           | 271.78      | 9,049.61              | -602.86      | -99.06       | 97.90                   | 13.57                   | 13.55                  | 0.67                  |  |
| 9,243.71                                          | 69.44           | 271.45      | 9,054.51              | -602.51      | -111.54      | 110.38                  | 13.31                   | 13.11                  | -2.46                 |  |
| 9,257.14                                          | 70.97           | 270.62      | 9,059.06              | -602.28      | -124.18      | 123.02                  | 12.79                   | 11.39                  | -6.18                 |  |
| 9,270.57                                          | 72.27           | 269.44      | 9,063.30              | -602.27      | -136.92      | 135.76                  | 12.78                   | 9.68                   | -8.79                 |  |
| 9,284.00                                          | 73.99           | 269.06      | 9,067.19              | -602.44      | -149.77      | 148.61                  | 13.09                   | 12.81                  | -2.83                 |  |
| 9,297.43                                          | 75.73           | 268.90      | 9,070.70              | -602.67      | -162.73      | 161.57                  | 13.01                   | 12.96                  | -1.19                 |  |
| 9,310.86                                          | 77.23           | 268.12      | 9,073.84              | -603.01      | -175.78      | 174.63                  | 12.52                   | 11.17                  | -5.81                 |  |
| 9,324.29                                          | 78.63           | 267.11      | 9,076.65              | -603.56      | -188.91      | 187.75                  | 12.76                   | 10.42                  | -7.52                 |  |
| 9,337.71                                          | 80.01           | 266.11      | 9,079.13              | -604.34      | -202.07      | 200.91                  | 12.62                   | 10.28                  | -7.45                 |  |
| 9,351.14                                          | 80.42           | 265.98      | 9,081.42              | -605.25      | -215.27      | 214.11                  | 3.20                    | 3.05                   | -0.97                 |  |
| 9,364.57                                          | 80.60           | 266.08      | 9,083.63              | -606.17      | -228.49      | 227.32                  | 1.53                    | 1.34                   | 0.74                  |  |
| 9,378.00                                          | 80.78           | 266.16      | 9,085.80              | -607.07      | -241.71      | 240.54                  | 1.46                    | 1.34                   | 0.60                  |  |
| 9,391.43                                          | 80.93           | 266.21      | 9,087.94              | -607.95      | -254.94      | 253.77                  | 1.18                    | 1.12                   | 0.37                  |  |
| 9,404.86                                          | 81.06           | 266.24      | 9,090.04              | -608.82      | -268.18      | 267.01                  | 0.99                    | 0.97                   | 0.22                  |  |
| 9,418.29                                          | 81.18           | 266.26      | 9,092.11              | -609.69      | -281.42      | 280.24                  | 0.91                    | 0.89                   | 0.15                  |  |
| 9,431.71                                          | 81.29           | 266.27      | 9,094.16              | -610.55      | -294.65      | 293.48                  | 0.82                    | 0.82                   | 0.07                  |  |
| 9,445.14                                          | 81.39           | 266.29      | 9,096.18              | -611.42      | -307.90      | 306.73                  | 0.76                    | 0.74                   | 0.15                  |  |
| 9,453.74                                          | 81.56           | 266.52      | 9,097.46              | -611.95      | -316.39      | 315.21                  | 3.33                    | 2.01                   | 2.68                  |  |
| <b>01-LP(BD-134H)</b>                             |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 9,458.57                                          | 81.66           | 266.65      | 9,098.16              | -612.23      | -321.16      | 319.98                  | 3.33                    | 2.01                   | 2.68                  |  |
| 9,472.00                                          | 82.47           | 266.91      | 9,100.01              | -612.98      | -334.44      | 333.26                  | 6.33                    | 6.03                   | 1.94                  |  |
| 9,485.43                                          | 83.86           | 266.69      | 9,101.61              | -613.73      | -347.75      | 346.57                  | 10.48                   | 10.35                  | -1.64                 |  |
| 9,498.86                                          | 85.27           | 266.42      | 9,102.88              | -614.53      | -361.10      | 359.92                  | 10.69                   | 10.50                  | -2.01                 |  |
| 9,512.29                                          | 86.68           | 266.23      | 9,103.83              | -615.39      | -374.47      | 373.28                  | 10.59                   | 10.50                  | -1.41                 |  |
| 9,525.71                                          | 87.92           | 266.94      | 9,104.46              | -616.19      | -387.85      | 386.66                  | 10.64                   | 9.24                   | 5.29                  |  |
| 9,539.14                                          | 89.32           | 266.93      | 9,104.78              | -616.90      | -401.25      | 400.07                  | 10.42                   | 10.42                  | -0.07                 |  |
| 9,549.00                                          | 90.15           | 267.00      | 9,104.83              | -617.43      | -411.10      | 409.91                  | 8.45                    | 8.41                   | 0.74                  |  |
| <b>EOC: 9549.00' MD, 409.91' VS, 9104.83' TVD</b> |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 9,552.57                                          | 90.45           | 267.03      | 9,104.81              | -617.61      | -414.66      | 413.48                  | 8.45                    | 8.41                   | 0.74                  |  |
| 9,566.00                                          | 90.51           | 267.48      | 9,104.70              | -618.25      | -428.08      | 426.89                  | 3.38                    | 0.45                   | 3.35                  |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |  |
| 9,579.57              | 90.55           | 267.80      | 9,104.57              | -618.81      | -441.64      | 440.45                  | 2.38                    | 0.29                   | 2.36                  |  |
| 9,593.14              | 90.58           | 268.02      | 9,104.44              | -619.31      | -455.20      | 454.01                  | 1.64                    | 0.22                   | 1.62                  |  |
| 9,606.71              | 90.61           | 268.19      | 9,104.30              | -619.76      | -468.76      | 467.57                  | 1.27                    | 0.22                   | 1.25                  |  |
| 9,620.29              | 90.64           | 268.31      | 9,104.15              | -620.17      | -482.33      | 481.14                  | 0.91                    | 0.22                   | 0.88                  |  |
| 9,633.86              | 90.69           | 268.40      | 9,103.99              | -620.56      | -495.89      | 494.70                  | 0.76                    | 0.37                   | 0.66                  |  |
| 9,647.43              | 90.76           | 268.47      | 9,103.82              | -620.93      | -509.46      | 508.27                  | 0.73                    | 0.52                   | 0.52                  |  |
| 9,661.00              | 90.85           | 268.52      | 9,103.63              | -621.29      | -523.02      | 521.83                  | 0.76                    | 0.66                   | 0.37                  |  |
| 9,674.43              | 91.36           | 268.62      | 9,103.37              | -621.62      | -536.45      | 535.25                  | 3.87                    | 3.80                   | 0.74                  |  |
| 9,687.86              | 92.77           | 268.87      | 9,102.89              | -621.92      | -549.86      | 548.67                  | 10.66                   | 10.50                  | 1.86                  |  |
| 9,701.29              | 94.04           | 268.98      | 9,102.09              | -622.17      | -563.27      | 562.07                  | 9.49                    | 9.46                   | 0.82                  |  |
| 9,714.71              | 94.29           | 268.96      | 9,101.11              | -622.41      | -576.65      | 575.45                  | 1.87                    | 1.86                   | -0.15                 |  |
| 9,728.14              | 94.55           | 268.93      | 9,100.08              | -622.66      | -590.04      | 588.84                  | 1.95                    | 1.94                   | -0.22                 |  |
| 9,741.57              | 94.82           | 268.88      | 9,098.98              | -622.91      | -603.42      | 602.22                  | 2.04                    | 2.01                   | -0.37                 |  |
| 9,755.00              | 95.05           | 268.81      | 9,097.83              | -623.18      | -616.80      | 615.60                  | 1.79                    | 1.71                   | -0.52                 |  |
| 9,768.43              | 95.22           | 268.70      | 9,096.62              | -623.47      | -630.17      | 628.97                  | 1.51                    | 1.27                   | -0.82                 |  |
| 9,781.86              | 94.08           | 268.60      | 9,095.54              | -623.79      | -643.55      | 642.35                  | 8.52                    | -8.49                  | -0.74                 |  |
| 9,795.29              | 92.96           | 267.86      | 9,094.71              | -624.20      | -656.95      | 655.75                  | 9.99                    | -8.34                  | -5.51                 |  |
| 9,808.71              | 93.05           | 267.70      | 9,094.01              | -624.72      | -670.34      | 669.14                  | 1.37                    | 0.67                   | -1.19                 |  |
| 9,822.14              | 93.12           | 267.54      | 9,093.28              | -625.28      | -683.74      | 682.54                  | 1.30                    | 0.52                   | -1.19                 |  |
| 9,835.57              | 93.19           | 267.39      | 9,092.55              | -625.87      | -697.14      | 695.93                  | 1.23                    | 0.52                   | -1.12                 |  |
| 9,849.00              | 93.27           | 267.29      | 9,091.79              | -626.49      | -710.53      | 709.33                  | 0.95                    | 0.60                   | -0.74                 |  |
| 9,862.57              | 93.36           | 267.25      | 9,091.00              | -627.14      | -724.06      | 722.86                  | 0.73                    | 0.66                   | -0.29                 |  |
| 9,876.14              | 93.46           | 267.27      | 9,090.20              | -627.79      | -737.59      | 736.39                  | 0.75                    | 0.74                   | 0.15                  |  |
| 9,889.71              | 93.56           | 267.30      | 9,089.37              | -628.43      | -751.12      | 749.92                  | 0.77                    | 0.74                   | 0.22                  |  |
| 9,903.29              | 93.66           | 267.33      | 9,088.51              | -629.06      | -764.66      | 763.45                  | 0.77                    | 0.74                   | 0.22                  |  |
| 9,916.86              | 93.75           | 267.35      | 9,087.63              | -629.69      | -778.19      | 776.98                  | 0.68                    | 0.66                   | 0.15                  |  |
| 9,930.43              | 93.83           | 267.34      | 9,086.74              | -630.32      | -791.71      | 790.50                  | 0.59                    | 0.59                   | -0.07                 |  |
| 9,944.00              | 93.89           | 267.27      | 9,085.82              | -630.95      | -805.24      | 804.03                  | 0.68                    | 0.44                   | -0.52                 |  |
| 9,957.57              | 93.92           | 267.11      | 9,084.90              | -631.62      | -818.76      | 817.55                  | 1.20                    | 0.22                   | -1.18                 |  |
| 9,971.14              | 93.94           | 266.89      | 9,083.97              | -632.33      | -832.28      | 831.06                  | 1.62                    | 0.15                   | -1.62                 |  |
| 9,984.71              | 93.93           | 266.64      | 9,083.04              | -633.09      | -845.80      | 844.58                  | 1.84                    | -0.07                  | -1.84                 |  |
| 9,998.29              | 93.91           | 266.39      | 9,082.11              | -633.91      | -859.32      | 858.10                  | 1.84                    | -0.15                  | -1.84                 |  |
| 10,011.86             | 93.75           | 266.17      | 9,081.20              | -634.79      | -872.83      | 871.61                  | 2.00                    | -1.18                  | -1.62                 |  |
| 10,025.43             | 92.25           | 266.24      | 9,080.49              | -635.69      | -886.35      | 885.13                  | 11.07                   | -11.05                 | 0.52                  |  |
| 10,039.00             | 90.66           | 266.48      | 9,080.15              | -636.55      | -899.89      | 898.67                  | 11.85                   | -11.72                 | 1.77                  |  |
| 10,052.57             | 90.15           | 266.41      | 9,080.05              | -637.39      | -913.43      | 912.21                  | 3.79                    | -3.76                  | -0.52                 |  |
| 10,066.14             | 89.86           | 266.25      | 9,080.05              | -638.26      | -926.98      | 925.75                  | 2.44                    | -2.14                  | -1.18                 |  |
| 10,079.71             | 89.56           | 266.11      | 9,080.12              | -639.16      | -940.52      | 939.29                  | 2.44                    | -2.21                  | -1.03                 |  |
| 10,093.29             | 89.26           | 265.97      | 9,080.26              | -640.10      | -954.06      | 952.83                  | 2.44                    | -2.21                  | -1.03                 |  |
| 10,106.86             | 89.00           | 265.86      | 9,080.47              | -641.07      | -967.60      | 966.36                  | 2.08                    | -1.92                  | -0.81                 |  |
| 10,120.43             | 87.97           | 266.94      | 9,080.83              | -641.92      | -981.13      | 979.90                  | 11.00                   | -7.59                  | 7.96                  |  |
| 10,134.00             | 87.68           | 267.05      | 9,081.34              | -642.63      | -994.68      | 993.44                  | 2.29                    | -2.14                  | 0.81                  |  |
| 10,147.43             | 87.64           | 267.05      | 9,081.89              | -643.32      | -1,008.08    | 1,006.84                | 0.30                    | -0.30                  | 0.00                  |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |
| 10,160.86             | 87.65           | 267.07      | 9,082.44              | -644.01      | -1,021.48    | 1,020.24                | 0.17                    | 0.07                   | 0.15                  |
| 10,174.29             | 87.71           | 267.11      | 9,082.98              | -644.69      | -1,034.88    | 1,033.64                | 0.54                    | 0.45                   | 0.30                  |
| 10,187.71             | 87.79           | 267.16      | 9,083.51              | -645.36      | -1,048.27    | 1,047.03                | 0.70                    | 0.60                   | 0.37                  |
| 10,201.14             | 87.89           | 267.20      | 9,084.02              | -646.02      | -1,061.68    | 1,060.43                | 0.80                    | 0.74                   | 0.30                  |
| 10,214.57             | 87.99           | 267.25      | 9,084.50              | -646.67      | -1,075.08    | 1,073.84                | 0.83                    | 0.74                   | 0.37                  |
| 10,228.00             | 88.10           | 267.28      | 9,084.96              | -647.31      | -1,088.49    | 1,087.24                | 0.85                    | 0.82                   | 0.22                  |
| 10,241.57             | 88.21           | 267.28      | 9,085.39              | -647.96      | -1,102.04    | 1,100.79                | 0.81                    | 0.81                   | 0.00                  |
| 10,255.14             | 88.31           | 267.26      | 9,085.81              | -648.60      | -1,115.59    | 1,114.34                | 0.75                    | 0.74                   | -0.15                 |
| 10,268.71             | 88.42           | 267.23      | 9,086.19              | -649.25      | -1,129.13    | 1,127.89                | 0.84                    | 0.81                   | -0.22                 |
| 10,282.29             | 88.52           | 267.19      | 9,086.56              | -649.92      | -1,142.69    | 1,141.44                | 0.79                    | 0.74                   | -0.29                 |
| 10,295.86             | 88.62           | 267.15      | 9,086.90              | -650.58      | -1,156.24    | 1,154.99                | 0.79                    | 0.74                   | -0.29                 |
| 10,309.43             | 88.72           | 267.09      | 9,087.21              | -651.27      | -1,169.79    | 1,168.54                | 0.86                    | 0.74                   | -0.44                 |
| 10,323.00             | 88.82           | 267.03      | 9,087.50              | -651.96      | -1,183.34    | 1,182.09                | 0.86                    | 0.74                   | -0.44                 |
| 10,336.43             | 88.90           | 266.96      | 9,087.77              | -652.67      | -1,196.75    | 1,195.49                | 0.79                    | 0.60                   | -0.52                 |
| 10,349.86             | 88.99           | 266.87      | 9,088.02              | -653.39      | -1,210.16    | 1,208.90                | 0.95                    | 0.67                   | -0.67                 |
| 10,363.29             | 89.09           | 266.79      | 9,088.24              | -654.13      | -1,223.57    | 1,222.31                | 0.95                    | 0.74                   | -0.60                 |
| 10,376.71             | 89.19           | 266.72      | 9,088.44              | -654.89      | -1,236.96    | 1,235.70                | 0.91                    | 0.75                   | -0.52                 |
| 10,390.14             | 89.31           | 266.66      | 9,088.62              | -655.67      | -1,250.37    | 1,249.11                | 1.00                    | 0.89                   | -0.45                 |
| 10,403.57             | 89.46           | 266.61      | 9,088.76              | -656.45      | -1,263.77    | 1,262.51                | 1.18                    | 1.12                   | -0.37                 |
| 10,417.00             | 89.65           | 266.60      | 9,088.87              | -657.25      | -1,277.18    | 1,275.92                | 1.42                    | 1.41                   | -0.07                 |
| 10,430.57             | 89.91           | 266.64      | 9,088.92              | -658.05      | -1,290.73    | 1,289.46                | 1.94                    | 1.92                   | 0.29                  |
| 10,444.14             | 90.21           | 266.71      | 9,088.90              | -658.84      | -1,304.27    | 1,303.01                | 2.27                    | 2.21                   | 0.52                  |
| 10,457.71             | 90.52           | 266.79      | 9,088.82              | -659.61      | -1,317.82    | 1,316.55                | 2.36                    | 2.28                   | 0.59                  |
| 10,471.29             | 90.85           | 266.88      | 9,088.66              | -660.36      | -1,331.38    | 1,330.11                | 2.52                    | 2.43                   | 0.66                  |
| 10,484.86             | 91.16           | 266.95      | 9,088.42              | -661.09      | -1,344.93    | 1,343.66                | 2.34                    | 2.28                   | 0.52                  |
| 10,498.43             | 90.77           | 268.30      | 9,088.19              | -661.65      | -1,358.48    | 1,357.21                | 10.35                   | -2.87                  | 9.95                  |
| 10,512.00             | 90.46           | 269.01      | 9,088.04              | -661.97      | -1,372.05    | 1,370.78                | 5.71                    | -2.28                  | 5.23                  |
| 10,525.43             | 90.76           | 269.02      | 9,087.90              | -662.20      | -1,385.48    | 1,384.20                | 2.24                    | 2.23                   | 0.07                  |
| 10,538.86             | 91.06           | 269.01      | 9,087.69              | -662.43      | -1,398.90    | 1,397.63                | 2.24                    | 2.23                   | -0.07                 |
| 10,552.29             | 91.36           | 269.00      | 9,087.40              | -662.66      | -1,412.33    | 1,411.05                | 2.24                    | 2.23                   | -0.07                 |
| 10,565.71             | 91.64           | 268.98      | 9,087.05              | -662.90      | -1,425.74    | 1,424.47                | 2.09                    | 2.09                   | -0.15                 |
| 10,579.14             | 91.91           | 268.95      | 9,086.64              | -663.14      | -1,439.16    | 1,437.89                | 2.02                    | 2.01                   | -0.22                 |
| 10,592.57             | 90.67           | 269.62      | 9,086.33              | -663.31      | -1,452.59    | 1,451.31                | 10.49                   | -9.23                  | 4.99                  |
| 10,606.00             | 90.89           | 269.59      | 9,086.15              | -663.40      | -1,466.02    | 1,464.74                | 1.65                    | 1.64                   | -0.22                 |
| 10,619.43             | 91.07           | 269.56      | 9,085.92              | -663.50      | -1,479.44    | 1,478.17                | 1.36                    | 1.34                   | -0.22                 |
| 10,632.86             | 91.22           | 269.52      | 9,085.65              | -663.61      | -1,492.87    | 1,491.59                | 1.16                    | 1.12                   | -0.30                 |
| 10,646.29             | 91.35           | 269.48      | 9,085.35              | -663.73      | -1,506.30    | 1,505.02                | 1.01                    | 0.97                   | -0.30                 |
| 10,659.71             | 90.16           | 269.77      | 9,085.18              | -663.81      | -1,519.72    | 1,518.44                | 9.13                    | -8.87                  | 2.16                  |
| 10,673.14             | 89.67           | 269.87      | 9,085.20              | -663.86      | -1,533.15    | 1,531.87                | 3.72                    | -3.65                  | 0.74                  |
| 10,686.57             | 89.75           | 269.83      | 9,085.26              | -663.89      | -1,546.58    | 1,545.30                | 0.67                    | 0.60                   | -0.30                 |
| 10,700.00             | 89.81           | 269.78      | 9,085.31              | -663.94      | -1,560.01    | 1,558.73                | 0.58                    | 0.45                   | -0.37                 |
| 10,713.43             | 89.85           | 269.72      | 9,085.35              | -663.99      | -1,573.43    | 1,572.16                | 0.54                    | 0.30                   | -0.45                 |
| 10,726.86             | 89.87           | 269.67      | 9,085.39              | -664.07      | -1,586.86    | 1,585.59                | 0.40                    | 0.15                   | -0.37                 |
| 10,740.29             | 89.88           | 269.61      | 9,085.42              | -664.15      | -1,600.29    | 1,599.02                | 0.45                    | 0.07                   | -0.45                 |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |  |
| 10,753.71             | 89.90           | 269.57      | 9,085.44              | -664.25      | -1,613.71    | 1,612.44                | 0.33                    | 0.15                   | -0.30                 |  |
| 10,767.14             | 89.94           | 269.53      | 9,085.46              | -664.35      | -1,627.14    | 1,625.87                | 0.42                    | 0.30                   | -0.30                 |  |
| 10,780.57             | 90.01           | 269.50      | 9,085.47              | -664.47      | -1,640.57    | 1,639.29                | 0.57                    | 0.52                   | -0.22                 |  |
| 10,794.00             | 90.13           | 269.50      | 9,085.45              | -664.58      | -1,654.00    | 1,652.72                | 0.89                    | 0.89                   | 0.00                  |  |
| 10,807.43             | 90.34           | 269.54      | 9,085.40              | -664.70      | -1,667.43    | 1,666.15                | 1.59                    | 1.56                   | 0.30                  |  |
| 10,820.86             | 90.59           | 269.60      | 9,085.29              | -664.80      | -1,680.86    | 1,679.58                | 1.91                    | 1.86                   | 0.45                  |  |
| 10,834.29             | 90.87           | 269.67      | 9,085.12              | -664.88      | -1,694.29    | 1,693.01                | 2.15                    | 2.08                   | 0.52                  |  |
| 10,847.71             | 91.16           | 269.73      | 9,084.88              | -664.95      | -1,707.71    | 1,706.43                | 2.21                    | 2.16                   | 0.45                  |  |
| 10,861.14             | 91.45           | 269.77      | 9,084.57              | -665.01      | -1,721.13    | 1,719.85                | 2.18                    | 2.16                   | 0.30                  |  |
| 10,874.57             | 91.71           | 269.79      | 9,084.20              | -665.06      | -1,734.56    | 1,733.28                | 1.94                    | 1.94                   | 0.15                  |  |
| 10,888.00             | 91.93           | 269.75      | 9,083.78              | -665.12      | -1,747.98    | 1,746.70                | 1.66                    | 1.64                   | -0.30                 |  |
| 10,901.43             | 92.08           | 269.63      | 9,083.31              | -665.19      | -1,761.40    | 1,760.12                | 1.43                    | 1.12                   | -0.89                 |  |
| 10,914.86             | 92.18           | 269.46      | 9,082.81              | -665.30      | -1,774.82    | 1,773.54                | 1.47                    | 0.74                   | -1.27                 |  |
| 10,928.29             | 92.25           | 269.27      | 9,082.29              | -665.44      | -1,788.24    | 1,786.96                | 1.51                    | 0.52                   | -1.41                 |  |
| 10,941.71             | 92.30           | 269.07      | 9,081.75              | -665.64      | -1,801.65    | 1,800.37                | 1.54                    | 0.37                   | -1.49                 |  |
| 10,955.14             | 92.11           | 268.86      | 9,081.24              | -665.88      | -1,815.07    | 1,813.79                | 2.11                    | -1.41                  | -1.56                 |  |
| 10,968.57             | 90.55           | 268.56      | 9,080.93              | -666.18      | -1,828.49    | 1,827.21                | 11.83                   | -11.62                 | -2.23                 |  |
| 10,982.00             | 89.70           | 267.97      | 9,080.90              | -666.59      | -1,841.91    | 1,840.63                | 7.70                    | -6.33                  | -4.39                 |  |
| 10,995.43             | 89.70           | 267.85      | 9,080.97              | -667.08      | -1,855.34    | 1,854.05                | 0.89                    | 0.00                   | -0.89                 |  |
| 11,008.86             | 89.69           | 267.74      | 9,081.04              | -667.60      | -1,868.76    | 1,867.47                | 0.82                    | -0.07                  | -0.82                 |  |
| 11,022.29             | 89.68           | 267.63      | 9,081.11              | -668.14      | -1,882.17    | 1,880.89                | 0.82                    | -0.07                  | -0.82                 |  |
| 11,035.71             | 89.66           | 267.53      | 9,081.19              | -668.71      | -1,895.58    | 1,894.29                | 0.76                    | -0.15                  | -0.75                 |  |
| 11,049.14             | 89.65           | 267.44      | 9,081.27              | -669.29      | -1,909.00    | 1,907.71                | 0.67                    | -0.07                  | -0.67                 |  |
| 11,062.57             | 89.66           | 267.37      | 9,081.35              | -669.90      | -1,922.41    | 1,921.13                | 0.53                    | 0.07                   | -0.52                 |  |
| 11,076.00             | 89.69           | 267.30      | 9,081.43              | -670.53      | -1,935.83    | 1,934.54                | 0.57                    | 0.22                   | -0.52                 |  |
| 11,089.57             | 89.76           | 267.26      | 9,081.49              | -671.17      | -1,949.38    | 1,948.09                | 0.59                    | 0.52                   | -0.29                 |  |
| 11,103.14             | 89.86           | 267.24      | 9,081.54              | -671.82      | -1,962.94    | 1,961.65                | 0.75                    | 0.74                   | -0.15                 |  |
| 11,116.71             | 89.98           | 267.22      | 9,081.56              | -672.48      | -1,976.49    | 1,975.20                | 0.90                    | 0.88                   | -0.15                 |  |
| 11,130.29             | 90.10           | 267.20      | 9,081.55              | -673.14      | -1,990.06    | 1,988.76                | 0.90                    | 0.88                   | -0.15                 |  |
| 11,143.86             | 90.23           | 267.17      | 9,081.51              | -673.81      | -2,003.61    | 2,002.31                | 0.98                    | 0.96                   | -0.22                 |  |
| 11,157.43             | 90.35           | 267.13      | 9,081.44              | -674.48      | -2,017.16    | 2,015.87                | 0.93                    | 0.88                   | -0.29                 |  |
| 11,171.00             | 90.46           | 267.07      | 9,081.34              | -675.17      | -2,030.72    | 2,029.42                | 0.92                    | 0.81                   | -0.44                 |  |
| 11,184.43             | 90.56           | 266.98      | 9,081.22              | -675.86      | -2,044.13    | 2,042.83                | 1.00                    | 0.74                   | -0.67                 |  |
| 11,197.86             | 90.65           | 266.86      | 9,081.08              | -676.59      | -2,057.54    | 2,056.23                | 1.12                    | 0.67                   | -0.89                 |  |
| 11,211.29             | 90.72           | 266.73      | 9,080.92              | -677.34      | -2,070.95    | 2,069.64                | 1.10                    | 0.52                   | -0.97                 |  |
| 11,224.71             | 90.79           | 266.60      | 9,080.74              | -678.12      | -2,084.34    | 2,083.04                | 1.10                    | 0.52                   | -0.97                 |  |
| 11,238.14             | 90.84           | 266.48      | 9,080.55              | -678.93      | -2,097.75    | 2,096.44                | 0.97                    | 0.37                   | -0.89                 |  |
| 11,251.57             | 90.87           | 266.36      | 9,080.35              | -679.77      | -2,111.15    | 2,109.84                | 0.92                    | 0.22                   | -0.89                 |  |
| 11,265.00             | 90.87           | 266.26      | 9,080.15              | -680.63      | -2,124.55    | 2,123.24                | 0.74                    | 0.00                   | -0.74                 |  |
| 11,278.43             | 90.84           | 266.20      | 9,079.95              | -681.51      | -2,137.95    | 2,136.64                | 0.50                    | -0.22                  | -0.45                 |  |
| 11,291.86             | 90.78           | 266.15      | 9,079.76              | -682.41      | -2,151.35    | 2,150.03                | 0.58                    | -0.45                  | -0.37                 |  |
| 11,305.29             | 90.71           | 266.12      | 9,079.58              | -683.31      | -2,164.74    | 2,163.43                | 0.57                    | -0.52                  | -0.22                 |  |
| 11,318.71             | 90.65           | 266.09      | 9,079.43              | -684.23      | -2,178.13    | 2,176.82                | 0.50                    | -0.45                  | -0.22                 |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |
| 11,332.14             | 90.61           | 266.07      | 9,079.28              | -685.14      | -2,191.53    | 2,190.21                | 0.33                    | -0.30                  | -0.15                 |
| 11,345.57             | 90.60           | 266.26      | 9,079.14              | -686.04      | -2,204.93    | 2,203.61                | 1.42                    | -0.07                  | 1.41                  |
| 11,359.00             | 90.51           | 266.93      | 9,079.01              | -686.84      | -2,218.34    | 2,217.01                | 5.03                    | -0.67                  | 4.99                  |
| 11,372.57             | 90.29           | 267.33      | 9,078.91              | -687.52      | -2,231.89    | 2,230.56                | 3.36                    | -1.62                  | 2.95                  |
| 11,386.14             | 90.43           | 267.29      | 9,078.83              | -688.16      | -2,245.44    | 2,244.12                | 1.07                    | 1.03                   | -0.29                 |
| 11,399.71             | 90.59           | 267.26      | 9,078.70              | -688.80      | -2,259.00    | 2,257.67                | 1.20                    | 1.18                   | -0.22                 |
| 11,413.29             | 90.76           | 267.23      | 9,078.54              | -689.45      | -2,272.56    | 2,271.23                | 1.27                    | 1.25                   | -0.22                 |
| 11,426.86             | 90.92           | 267.22      | 9,078.35              | -690.11      | -2,286.11    | 2,284.78                | 1.18                    | 1.18                   | -0.07                 |
| 11,440.43             | 91.06           | 267.22      | 9,078.11              | -690.77      | -2,299.67    | 2,298.33                | 1.03                    | 1.03                   | 0.00                  |
| 11,454.00             | 91.16           | 267.25      | 9,077.85              | -691.42      | -2,313.22    | 2,311.88                | 0.77                    | 0.74                   | 0.22                  |
| 11,467.29             | 91.19           | 267.34      | 9,077.58              | -692.05      | -2,326.49    | 2,325.16                | 0.71                    | 0.23                   | 0.68                  |
| 11,480.57             | 91.18           | 267.44      | 9,077.30              | -692.65      | -2,339.75    | 2,338.42                | 0.76                    | -0.08                  | 0.75                  |
| 11,493.86             | 91.14           | 267.56      | 9,077.03              | -693.23      | -2,353.03    | 2,351.69                | 0.95                    | -0.30                  | 0.90                  |
| 11,507.14             | 91.10           | 267.68      | 9,076.77              | -693.79      | -2,366.29    | 2,364.96                | 0.95                    | -0.30                  | 0.90                  |
| 11,520.43             | 91.06           | 267.78      | 9,076.52              | -694.31      | -2,379.57    | 2,378.23                | 0.81                    | -0.30                  | 0.75                  |
| 11,533.71             | 90.95           | 268.08      | 9,076.29              | -694.79      | -2,392.84    | 2,391.50                | 2.41                    | -0.83                  | 2.26                  |
| 11,547.00             | 90.85           | 268.68      | 9,076.08              | -695.17      | -2,406.12    | 2,404.78                | 4.58                    | -0.75                  | 4.51                  |
| 11,560.43             | 90.87           | 269.43      | 9,075.88              | -695.39      | -2,419.55    | 2,418.21                | 5.59                    | 0.15                   | 5.58                  |
| 11,573.86             | 90.83           | 270.03      | 9,075.68              | -695.45      | -2,432.98    | 2,431.64                | 4.48                    | -0.30                  | 4.47                  |
| 11,587.29             | 90.80           | 269.99      | 9,075.49              | -695.45      | -2,446.41    | 2,445.07                | 0.37                    | -0.22                  | -0.30                 |
| 11,600.71             | 90.77           | 269.93      | 9,075.30              | -695.46      | -2,459.82    | 2,458.49                | 0.50                    | -0.22                  | -0.45                 |
| 11,614.14             | 90.75           | 269.87      | 9,075.13              | -695.48      | -2,473.25    | 2,471.91                | 0.47                    | -0.15                  | -0.45                 |
| 11,627.57             | 90.77           | 269.81      | 9,074.95              | -695.52      | -2,486.68    | 2,485.34                | 0.47                    | 0.15                   | -0.45                 |
| 11,641.00             | 90.84           | 269.78      | 9,074.76              | -695.57      | -2,500.11    | 2,498.77                | 0.57                    | 0.52                   | -0.22                 |
| 11,654.43             | 91.00           | 269.77      | 9,074.54              | -695.62      | -2,513.54    | 2,512.20                | 1.19                    | 1.19                   | -0.07                 |
| 11,667.86             | 91.23           | 269.79      | 9,074.28              | -695.67      | -2,526.97    | 2,525.63                | 1.72                    | 1.71                   | 0.15                  |
| 11,681.29             | 91.49           | 269.81      | 9,073.96              | -695.72      | -2,540.39    | 2,539.05                | 1.94                    | 1.94                   | 0.15                  |
| 11,694.71             | 91.77           | 269.84      | 9,073.58              | -695.76      | -2,553.81    | 2,552.47                | 2.10                    | 2.09                   | 0.22                  |
| 11,708.14             | 92.07           | 269.88      | 9,073.13              | -695.79      | -2,567.23    | 2,565.89                | 2.25                    | 2.23                   | 0.30                  |
| 11,721.57             | 92.36           | 269.91      | 9,072.61              | -695.82      | -2,580.65    | 2,579.31                | 2.17                    | 2.16                   | 0.22                  |
| 11,735.00             | 92.64           | 269.92      | 9,072.03              | -695.84      | -2,594.07    | 2,592.73                | 2.09                    | 2.08                   | 0.07                  |
| 11,748.57             | 92.90           | 269.93      | 9,071.37              | -695.85      | -2,607.62    | 2,606.28                | 1.92                    | 1.92                   | 0.07                  |
| 11,762.14             | 93.14           | 269.92      | 9,070.66              | -695.87      | -2,621.17    | 2,619.83                | 1.77                    | 1.77                   | -0.07                 |
| 11,775.71             | 93.36           | 269.90      | 9,069.89              | -695.89      | -2,634.72    | 2,633.38                | 1.63                    | 1.62                   | -0.15                 |
| 11,789.29             | 93.56           | 269.88      | 9,069.07              | -695.92      | -2,648.28    | 2,646.93                | 1.48                    | 1.47                   | -0.15                 |
| 11,802.86             | 93.75           | 269.85      | 9,068.20              | -695.95      | -2,661.82    | 2,660.48                | 1.42                    | 1.40                   | -0.22                 |
| 11,816.43             | 93.90           | 269.80      | 9,067.30              | -695.99      | -2,675.36    | 2,674.02                | 1.16                    | 1.11                   | -0.37                 |
| 11,830.00             | 94.03           | 269.75      | 9,066.36              | -696.05      | -2,688.89    | 2,687.55                | 1.03                    | 0.96                   | -0.37                 |
| 11,843.43             | 94.09           | 269.68      | 9,065.41              | -696.11      | -2,702.29    | 2,700.95                | 0.69                    | 0.45                   | -0.52                 |
| 11,856.86             | 94.13           | 269.60      | 9,064.45              | -696.20      | -2,715.69    | 2,714.34                | 0.66                    | 0.30                   | -0.60                 |
| 11,870.29             | 94.15           | 269.52      | 9,063.48              | -696.30      | -2,729.08    | 2,727.74                | 0.61                    | 0.15                   | -0.60                 |
| 11,883.71             | 94.17           | 269.44      | 9,062.50              | -696.42      | -2,742.46    | 2,741.12                | 0.61                    | 0.15                   | -0.60                 |
| 11,897.14             | 94.20           | 269.37      | 9,061.52              | -696.56      | -2,755.86    | 2,754.52                | 0.57                    | 0.22                   | -0.52                 |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |
| 11,910.57             | 93.87           | 269.68      | 9,060.58              | -696.67      | -2,769.25    | 2,767.91                | 3.37                    | -2.46                  | 2.31                  |
| 11,924.00             | 93.31           | 269.99      | 9,059.74              | -696.71      | -2,782.66    | 2,781.32                | 4.76                    | -4.17                  | 2.31                  |
| 11,937.43             | 93.06           | 270.11      | 9,058.99              | -696.70      | -2,796.07    | 2,794.72                | 2.06                    | -1.86                  | 0.89                  |
| 11,950.86             | 93.24           | 270.09      | 9,058.25              | -696.68      | -2,809.48    | 2,808.13                | 1.35                    | 1.34                   | -0.15                 |
| 11,964.29             | 93.44           | 270.07      | 9,057.47              | -696.66      | -2,822.88    | 2,821.54                | 1.50                    | 1.49                   | -0.15                 |
| 11,977.71             | 93.65           | 270.05      | 9,056.64              | -696.64      | -2,836.28    | 2,834.94                | 1.57                    | 1.56                   | -0.15                 |
| 11,991.14             | 93.85           | 270.03      | 9,055.76              | -696.63      | -2,849.68    | 2,848.34                | 1.50                    | 1.49                   | -0.15                 |
| 12,004.57             | 94.02           | 270.01      | 9,054.84              | -696.63      | -2,863.08    | 2,861.74                | 1.27                    | 1.27                   | -0.15                 |
| 12,018.00             | 94.16           | 269.98      | 9,053.88              | -696.63      | -2,876.47    | 2,875.13                | 1.07                    | 1.04                   | -0.22                 |
| 12,031.57             | 94.23           | 269.94      | 9,052.89              | -696.64      | -2,890.01    | 2,888.66                | 0.59                    | 0.52                   | -0.29                 |
| 12,045.14             | 94.26           | 269.89      | 9,051.89              | -696.66      | -2,903.54    | 2,902.20                | 0.43                    | 0.22                   | -0.37                 |
| 12,058.71             | 94.27           | 269.84      | 9,050.88              | -696.69      | -2,917.07    | 2,915.73                | 0.37                    | 0.07                   | -0.37                 |
| 12,072.29             | 94.25           | 269.79      | 9,049.87              | -696.73      | -2,930.61    | 2,929.27                | 0.40                    | -0.15                  | -0.37                 |
| 12,085.86             | 94.23           | 269.74      | 9,048.86              | -696.79      | -2,944.15    | 2,942.80                | 0.40                    | -0.15                  | -0.37                 |
| 12,099.43             | 93.94           | 270.26      | 9,047.90              | -696.79      | -2,957.68    | 2,956.34                | 4.38                    | -2.14                  | 3.83                  |
| 12,113.00             | 93.33           | 270.52      | 9,047.04              | -696.70      | -2,971.23    | 2,969.88                | 4.88                    | -4.50                  | 1.92                  |
| 12,126.29             | 93.10           | 270.55      | 9,046.29              | -696.57      | -2,984.49    | 2,983.15                | 1.75                    | -1.73                  | 0.23                  |
| 12,139.57             | 92.98           | 270.48      | 9,045.59              | -696.45      | -2,997.75    | 2,996.41                | 1.05                    | -0.90                  | -0.53                 |
| 12,143.74             | 92.95           | 270.47      | 9,045.37              | -696.42      | -3,001.92    | 3,000.58                | 0.77                    | -0.75                  | -0.15                 |
| 03-3000VS(BD-134H)    |                 |             |                       |              |              |                         |                         |                        |                       |
| 12,152.86             | 92.88           | 270.46      | 9,044.91              | -696.35      | -3,011.03    | 3,009.68                | 0.77                    | -0.75                  | -0.15                 |
| 12,166.14             | 92.79           | 270.44      | 9,044.25              | -696.24      | -3,024.29    | 3,022.95                | 0.69                    | -0.68                  | -0.15                 |
| 12,179.43             | 92.71           | 270.42      | 9,043.61              | -696.14      | -3,037.56    | 3,036.22                | 0.62                    | -0.60                  | -0.15                 |
| 12,192.71             | 92.67           | 270.39      | 9,042.99              | -696.05      | -3,050.83    | 3,049.49                | 0.38                    | -0.30                  | -0.23                 |
| 12,206.00             | 92.67           | 270.37      | 9,042.37              | -695.96      | -3,064.10    | 3,062.76                | 0.15                    | 0.00                   | -0.15                 |
| 12,219.57             | 92.77           | 270.34      | 9,041.73              | -695.88      | -3,077.66    | 3,076.32                | 0.77                    | 0.74                   | -0.22                 |
| 12,233.14             | 92.92           | 270.30      | 9,041.05              | -695.80      | -3,091.21    | 3,089.87                | 1.14                    | 1.11                   | -0.29                 |
| 12,246.71             | 93.09           | 270.26      | 9,040.34              | -695.73      | -3,104.76    | 3,103.42                | 1.29                    | 1.25                   | -0.29                 |
| 12,260.29             | 93.28           | 270.22      | 9,039.59              | -695.68      | -3,118.32    | 3,116.98                | 1.43                    | 1.40                   | -0.29                 |
| 12,273.86             | 93.45           | 270.16      | 9,038.79              | -695.63      | -3,131.87    | 3,130.53                | 1.33                    | 1.25                   | -0.44                 |
| 12,287.43             | 93.60           | 270.09      | 9,037.96              | -695.60      | -3,145.41    | 3,144.07                | 1.22                    | 1.11                   | -0.52                 |
| 12,301.00             | 93.69           | 270.01      | 9,037.09              | -695.59      | -3,158.96    | 3,157.61                | 0.89                    | 0.66                   | -0.59                 |
| 12,314.29             | 93.69           | 269.90      | 9,036.24              | -695.60      | -3,172.22    | 3,170.88                | 0.83                    | 0.00                   | -0.83                 |
| 12,327.57             | 93.64           | 269.77      | 9,035.39              | -695.64      | -3,185.47    | 3,184.13                | 1.05                    | -0.38                  | -0.98                 |
| 12,340.86             | 93.56           | 269.64      | 9,034.56              | -695.71      | -3,198.73    | 3,197.39                | 1.15                    | -0.60                  | -0.98                 |
| 12,354.14             | 93.47           | 269.49      | 9,033.74              | -695.81      | -3,211.99    | 3,210.65                | 1.32                    | -0.68                  | -1.13                 |
| 12,367.43             | 93.38           | 269.35      | 9,032.95              | -695.94      | -3,225.25    | 3,223.91                | 1.25                    | -0.68                  | -1.05                 |
| 12,380.71             | 92.98           | 269.59      | 9,032.21              | -696.07      | -3,238.51    | 3,237.17                | 3.51                    | -3.01                  | 1.81                  |
| 12,394.00             | 92.39           | 269.86      | 9,031.59              | -696.13      | -3,251.79    | 3,250.45                | 4.88                    | -4.44                  | 2.03                  |
| 12,407.57             | 91.77           | 269.93      | 9,031.10              | -696.15      | -3,265.35    | 3,264.01                | 4.60                    | -4.57                  | 0.52                  |
| 12,421.14             | 91.27           | 269.78      | 9,030.74              | -696.19      | -3,278.92    | 3,277.57                | 3.85                    | -3.68                  | -1.11                 |
| 12,434.71             | 91.26           | 269.52      | 9,030.44              | -696.27      | -3,292.48    | 3,291.14                | 1.92                    | -0.07                  | -1.92                 |
| 12,448.29             | 91.25           | 269.24      | 9,030.14              | -696.42      | -3,306.06    | 3,304.71                | 2.06                    | -0.07                  | -2.06                 |
| 12,461.86             | 91.24           | 268.99      | 9,029.84              | -696.63      | -3,319.62    | 3,318.28                | 1.84                    | -0.07                  | -1.84                 |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |
| 12,475.43             | 90.71           | 268.98      | 9,029.61              | -696.87      | -3,333.19    | 3,331.84                | 3.91                    | -3.91                  | -0.07                 |
| 12,489.00             | 90.23           | 269.21      | 9,029.50              | -697.08      | -3,346.76    | 3,345.41                | 3.92                    | -3.54                  | 1.69                  |
| 12,502.29             | 90.23           | 269.11      | 9,029.45              | -697.28      | -3,360.04    | 3,358.70                | 0.75                    | 0.00                   | -0.75                 |
| 12,515.57             | 90.24           | 269.04      | 9,029.39              | -697.49      | -3,373.32    | 3,371.98                | 0.53                    | 0.08                   | -0.53                 |
| 12,528.86             | 90.24           | 268.98      | 9,029.34              | -697.72      | -3,386.61    | 3,385.26                | 0.45                    | 0.00                   | -0.45                 |
| 12,542.14             | 90.25           | 268.93      | 9,029.28              | -697.96      | -3,399.89    | 3,398.54                | 0.38                    | 0.08                   | -0.38                 |
| 12,555.43             | 90.26           | 268.88      | 9,029.22              | -698.22      | -3,413.18    | 3,411.83                | 0.38                    | 0.08                   | -0.38                 |
| 12,568.71             | 90.26           | 268.84      | 9,029.16              | -698.48      | -3,426.45    | 3,425.11                | 0.30                    | 0.00                   | -0.30                 |
| 12,582.00             | 90.25           | 268.78      | 9,029.10              | -698.76      | -3,439.74    | 3,438.39                | 0.46                    | -0.08                  | -0.45                 |
| 12,595.43             | 90.24           | 268.71      | 9,029.05              | -699.05      | -3,453.17    | 3,451.82                | 0.53                    | -0.07                  | -0.52                 |
| 12,608.86             | 90.22           | 268.63      | 9,028.99              | -699.36      | -3,466.59    | 3,465.24                | 0.61                    | -0.15                  | -0.60                 |
| 12,622.29             | 90.20           | 268.54      | 9,028.94              | -699.70      | -3,480.02    | 3,478.67                | 0.69                    | -0.15                  | -0.67                 |
| 12,635.71             | 90.19           | 268.46      | 9,028.90              | -700.05      | -3,493.43    | 3,492.08                | 0.60                    | -0.07                  | -0.60                 |
| 12,649.14             | 90.08           | 268.57      | 9,028.87              | -700.39      | -3,506.86    | 3,505.51                | 1.16                    | -0.82                  | 0.82                  |
| 12,662.57             | 89.77           | 269.02      | 9,028.88              | -700.68      | -3,520.29    | 3,518.93                | 4.07                    | -2.31                  | 3.35                  |
| 12,676.00             | 89.56           | 269.52      | 9,028.96              | -700.85      | -3,533.72    | 3,532.36                | 4.04                    | -1.56                  | 3.72                  |
| 12,689.29             | 89.64           | 269.55      | 9,029.05              | -700.96      | -3,547.00    | 3,545.65                | 0.64                    | 0.60                   | 0.23                  |
| 12,702.57             | 89.72           | 269.52      | 9,029.13              | -701.06      | -3,560.28    | 3,558.93                | 0.64                    | 0.60                   | -0.23                 |
| 12,715.86             | 89.81           | 269.49      | 9,029.18              | -701.18      | -3,573.57    | 3,572.22                | 0.71                    | 0.68                   | -0.23                 |
| 12,729.14             | 89.91           | 269.46      | 9,029.22              | -701.30      | -3,586.85    | 3,585.50                | 0.79                    | 0.75                   | -0.23                 |
| 12,742.43             | 90.01           | 269.44      | 9,029.22              | -701.43      | -3,600.14    | 3,598.79                | 0.77                    | 0.75                   | -0.15                 |
| 12,755.71             | 90.11           | 269.42      | 9,029.21              | -701.56      | -3,613.42    | 3,612.07                | 0.77                    | 0.75                   | -0.15                 |
| 12,769.00             | 90.20           | 269.40      | 9,029.17              | -701.70      | -3,626.71    | 3,625.36                | 0.69                    | 0.68                   | -0.15                 |
| 12,782.29             | 90.28           | 269.38      | 9,029.12              | -701.84      | -3,640.00    | 3,638.65                | 0.62                    | 0.60                   | -0.15                 |
| 12,795.57             | 90.36           | 269.36      | 9,029.04              | -701.98      | -3,653.28    | 3,651.92                | 0.62                    | 0.60                   | -0.15                 |
| 12,808.86             | 90.42           | 269.34      | 9,028.95              | -702.14      | -3,666.57    | 3,665.21                | 0.48                    | 0.45                   | -0.15                 |
| 12,822.14             | 90.48           | 269.32      | 9,028.85              | -702.29      | -3,679.85    | 3,678.49                | 0.48                    | 0.45                   | -0.15                 |
| 12,835.43             | 90.53           | 269.30      | 9,028.73              | -702.45      | -3,693.13    | 3,691.78                | 0.41                    | 0.38                   | -0.15                 |
| 12,848.71             | 90.56           | 269.26      | 9,028.61              | -702.62      | -3,706.41    | 3,705.06                | 0.38                    | 0.23                   | -0.30                 |
| 12,862.00             | 90.57           | 269.26      | 9,028.48              | -702.79      | -3,719.70    | 3,718.35                | 0.08                    | 0.08                   | 0.00                  |
| 12,875.29             | 90.43           | 269.78      | 9,028.36              | -702.90      | -3,732.99    | 3,731.63                | 4.05                    | -1.05                  | 3.91                  |
| 12,888.57             | 90.18           | 270.29      | 9,028.29              | -702.89      | -3,746.27    | 3,744.91                | 4.28                    | -1.88                  | 3.84                  |
| 12,901.86             | 89.84           | 270.77      | 9,028.29              | -702.77      | -3,759.56    | 3,758.20                | 4.43                    | -2.56                  | 3.61                  |
| 12,915.14             | 89.60           | 271.05      | 9,028.35              | -702.56      | -3,772.84    | 3,771.48                | 2.78                    | -1.81                  | 2.11                  |
| 12,928.43             | 89.40           | 270.86      | 9,028.47              | -702.34      | -3,786.13    | 3,784.77                | 2.08                    | -1.50                  | -1.43                 |
| 12,941.71             | 89.21           | 270.67      | 9,028.63              | -702.16      | -3,799.40    | 3,798.05                | 2.02                    | -1.43                  | -1.43                 |
| 12,955.00             | 89.05           | 270.49      | 9,028.83              | -702.03      | -3,812.69    | 3,811.34                | 1.81                    | -1.20                  | -1.35                 |
| 12,968.43             | 89.01           | 270.36      | 9,029.06              | -701.93      | -3,826.12    | 3,824.76                | 1.01                    | -0.30                  | -0.97                 |
| 12,981.86             | 89.03           | 270.26      | 9,029.29              | -701.85      | -3,839.55    | 3,838.19                | 0.76                    | 0.15                   | -0.74                 |
| 12,995.29             | 89.11           | 270.18      | 9,029.51              | -701.80      | -3,852.97    | 3,851.62                | 0.84                    | 0.60                   | -0.60                 |
| 13,008.71             | 89.21           | 270.12      | 9,029.70              | -701.77      | -3,866.39    | 3,865.04                | 0.87                    | 0.75                   | -0.45                 |
| 13,022.14             | 89.34           | 270.06      | 9,029.87              | -701.75      | -3,879.82    | 3,878.47                | 1.07                    | 0.97                   | -0.45                 |
| 13,035.57             | 89.48           | 270.01      | 9,030.01              | -701.74      | -3,893.25    | 3,891.90                | 1.11                    | 1.04                   | -0.37                 |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |
| 13,049.00             | 89.64           | 269.97      | 9,030.11              | -701.74      | -3,906.68    | 3,905.33                | 1.23                    | 1.19                   | -0.30                 |
| 13,062.43             | 89.81           | 269.93      | 9,030.18              | -701.75      | -3,920.11    | 3,918.76                | 1.30                    | 1.27                   | -0.30                 |
| 13,075.86             | 89.99           | 269.90      | 9,030.20              | -701.77      | -3,933.54    | 3,932.19                | 1.36                    | 1.34                   | -0.22                 |
| 13,089.29             | 90.16           | 269.86      | 9,030.18              | -701.80      | -3,946.97    | 3,945.62                | 1.30                    | 1.27                   | -0.30                 |
| 13,102.71             | 90.32           | 269.84      | 9,030.13              | -701.83      | -3,960.39    | 3,959.04                | 1.20                    | 1.19                   | -0.15                 |
| 13,116.14             | 90.45           | 269.82      | 9,030.04              | -701.87      | -3,973.82    | 3,972.47                | 0.98                    | 0.97                   | -0.15                 |
| 13,129.57             | 90.53           | 269.80      | 9,029.92              | -701.92      | -3,987.25    | 3,985.89                | 0.61                    | 0.60                   | -0.15                 |
| 13,143.00             | 90.55           | 269.80      | 9,029.80              | -701.97      | -4,000.68    | 3,999.32                | 0.15                    | 0.15                   | 0.00                  |
| 13,156.29             | 90.48           | 270.08      | 9,029.68              | -701.98      | -4,013.97    | 4,012.61                | 2.17                    | -0.53                  | 2.11                  |
| 13,169.57             | 90.46           | 270.72      | 9,029.57              | -701.89      | -4,027.25    | 4,025.89                | 4.82                    | -0.15                  | 4.82                  |
| 13,182.86             | 90.30           | 271.21      | 9,029.48              | -701.66      | -4,040.54    | 4,039.18                | 3.88                    | -1.20                  | 3.69                  |
| 13,196.14             | 90.00           | 271.26      | 9,029.44              | -701.38      | -4,053.81    | 4,052.46                | 2.29                    | -2.26                  | 0.38                  |
| 13,209.43             | 89.66           | 271.31      | 9,029.48              | -701.08      | -4,067.10    | 4,065.75                | 2.59                    | -2.56                  | 0.38                  |
| 13,222.71             | 89.36           | 271.39      | 9,029.60              | -700.77      | -4,080.37    | 4,079.02                | 2.34                    | -2.26                  | 0.60                  |
| 13,236.00             | 89.40           | 272.01      | 9,029.74              | -700.37      | -4,093.66    | 4,092.31                | 4.67                    | 0.30                   | 4.67                  |
| 13,249.57             | 89.58           | 272.65      | 9,029.86              | -699.82      | -4,107.22    | 4,105.86                | 4.90                    | 1.33                   | 4.72                  |
| 13,263.14             | 89.77           | 273.13      | 9,029.94              | -699.14      | -4,120.77    | 4,119.42                | 3.80                    | 1.40                   | 3.54                  |
| 13,276.71             | 89.67           | 273.04      | 9,030.01              | -698.41      | -4,134.32    | 4,132.97                | 0.99                    | -0.74                  | -0.66                 |
| 13,290.29             | 89.59           | 272.94      | 9,030.09              | -697.70      | -4,147.88    | 4,146.53                | 0.94                    | -0.59                  | -0.74                 |
| 13,303.86             | 89.53           | 272.82      | 9,030.20              | -697.02      | -4,161.43    | 4,160.09                | 0.99                    | -0.44                  | -0.88                 |
| 13,317.43             | 89.50           | 272.70      | 9,030.31              | -696.36      | -4,174.99    | 4,173.64                | 0.91                    | -0.22                  | -0.88                 |
| 13,331.00             | 89.51           | 272.59      | 9,030.43              | -695.74      | -4,188.54    | 4,187.20                | 0.81                    | 0.07                   | -0.81                 |
| 13,344.43             | 89.56           | 272.49      | 9,030.54              | -695.14      | -4,201.96    | 4,200.61                | 0.83                    | 0.37                   | -0.74                 |
| 13,357.86             | 89.65           | 272.40      | 9,030.63              | -694.57      | -4,215.37    | 4,214.03                | 0.95                    | 0.67                   | -0.67                 |
| 13,371.29             | 89.77           | 272.31      | 9,030.70              | -694.02      | -4,228.79    | 4,227.45                | 1.12                    | 0.89                   | -0.67                 |
| 13,384.71             | 89.91           | 272.23      | 9,030.74              | -693.48      | -4,242.20    | 4,240.86                | 1.20                    | 1.04                   | -0.60                 |
| 13,398.14             | 90.05           | 272.15      | 9,030.74              | -692.97      | -4,255.62    | 4,254.28                | 1.20                    | 1.04                   | -0.60                 |
| 13,411.57             | 90.22           | 272.09      | 9,030.71              | -692.47      | -4,269.04    | 4,267.71                | 1.34                    | 1.27                   | -0.45                 |
| 13,425.00             | 90.39           | 272.03      | 9,030.64              | -691.99      | -4,282.46    | 4,281.13                | 1.34                    | 1.27                   | -0.45                 |
| 13,438.57             | 90.58           | 271.98      | 9,030.52              | -691.52      | -4,296.03    | 4,294.69                | 1.45                    | 1.40                   | -0.37                 |
| 13,452.14             | 90.77           | 271.95      | 9,030.36              | -691.05      | -4,309.59    | 4,308.25                | 1.42                    | 1.40                   | -0.22                 |
| 13,465.71             | 90.96           | 271.91      | 9,030.16              | -690.59      | -4,323.15    | 4,321.81                | 1.43                    | 1.40                   | -0.29                 |
| 13,479.29             | 91.15           | 271.88      | 9,029.91              | -690.15      | -4,336.72    | 4,335.39                | 1.42                    | 1.40                   | -0.22                 |
| 13,492.86             | 91.32           | 271.84      | 9,029.62              | -689.70      | -4,350.28    | 4,348.95                | 1.29                    | 1.25                   | -0.29                 |
| 13,506.43             | 91.46           | 271.78      | 9,029.29              | -689.28      | -4,363.84    | 4,362.51                | 1.12                    | 1.03                   | -0.44                 |
| 13,520.00             | 91.56           | 271.71      | 9,028.93              | -688.86      | -4,377.40    | 4,376.07                | 0.90                    | 0.74                   | -0.52                 |
| 13,533.43             | 91.58           | 271.61      | 9,028.56              | -688.47      | -4,390.82    | 4,389.49                | 0.76                    | 0.15                   | -0.74                 |
| 13,546.86             | 91.57           | 271.49      | 9,028.19              | -688.11      | -4,404.24    | 4,402.91                | 0.90                    | -0.07                  | -0.89                 |
| 13,560.29             | 91.54           | 271.36      | 9,027.83              | -687.78      | -4,417.66    | 4,416.33                | 0.99                    | -0.22                  | -0.97                 |
| 13,573.71             | 91.50           | 271.23      | 9,027.47              | -687.47      | -4,431.07    | 4,429.74                | 1.01                    | -0.30                  | -0.97                 |
| 13,587.14             | 91.48           | 271.10      | 9,027.12              | -687.20      | -4,444.49    | 4,443.16                | 0.98                    | -0.15                  | -0.97                 |
| 13,600.57             | 91.10           | 271.28      | 9,026.82              | -686.92      | -4,457.91    | 4,456.59                | 3.13                    | -2.83                  | 1.34                  |
| 13,614.00             | 90.62           | 271.66      | 9,026.62              | -686.58      | -4,471.34    | 4,470.01                | 4.56                    | -3.57                  | 2.83                  |
| 13,627.29             | 90.42           | 271.77      | 9,026.50              | -686.18      | -4,484.62    | 4,483.30                | 1.72                    | -1.50                  | 0.83                  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |  |
| 13,640.57             | 90.51           | 271.66      | 9,026.39              | -685.78      | -4,497.90    | 4,496.57                | 1.07                    | 0.68                   | -0.83                 |  |
| 13,653.86             | 90.62           | 271.56      | 9,026.26              | -685.41      | -4,511.18    | 4,509.86                | 1.12                    | 0.83                   | -0.75                 |  |
| 13,667.14             | 90.73           | 271.45      | 9,026.10              | -685.06      | -4,524.45    | 4,523.13                | 1.17                    | 0.83                   | -0.83                 |  |
| 13,680.43             | 90.83           | 271.34      | 9,025.92              | -684.74      | -4,537.74    | 4,536.42                | 1.12                    | 0.75                   | -0.83                 |  |
| 13,693.71             | 90.93           | 271.23      | 9,025.72              | -684.44      | -4,551.01    | 4,549.69                | 1.12                    | 0.75                   | -0.83                 |  |
| 13,707.00             | 91.00           | 271.11      | 9,025.49              | -684.17      | -4,564.30    | 4,562.98                | 1.05                    | 0.53                   | -0.90                 |  |
| 13,720.43             | 91.03           | 270.98      | 9,025.26              | -683.92      | -4,577.73    | 4,576.40                | 0.99                    | 0.22                   | -0.97                 |  |
| 13,733.86             | 91.05           | 270.85      | 9,025.01              | -683.71      | -4,591.15    | 4,589.83                | 0.98                    | 0.15                   | -0.97                 |  |
| 13,747.29             | 91.05           | 270.72      | 9,024.77              | -683.52      | -4,604.58    | 4,603.26                | 0.97                    | 0.00                   | -0.97                 |  |
| 13,760.71             | 91.05           | 270.59      | 9,024.52              | -683.37      | -4,617.99    | 4,616.67                | 0.97                    | 0.00                   | -0.97                 |  |
| 13,774.14             | 91.06           | 270.47      | 9,024.27              | -683.25      | -4,631.42    | 4,630.10                | 0.90                    | 0.07                   | -0.89                 |  |
| 13,787.57             | 90.74           | 270.64      | 9,024.06              | -683.12      | -4,644.85    | 4,643.53                | 2.70                    | -2.38                  | 1.27                  |  |
| 13,801.00             | 90.47           | 270.70      | 9,023.92              | -682.96      | -4,658.28    | 4,656.96                | 2.06                    | -2.01                  | 0.45                  |  |
| 13,814.43             | 90.55           | 270.61      | 9,023.80              | -682.81      | -4,671.71    | 4,670.39                | 0.90                    | 0.60                   | -0.67                 |  |
| 13,827.86             | 90.65           | 270.52      | 9,023.66              | -682.67      | -4,685.13    | 4,683.82                | 1.00                    | 0.74                   | -0.67                 |  |
| 13,841.29             | 90.75           | 270.44      | 9,023.50              | -682.56      | -4,698.56    | 4,697.24                | 0.95                    | 0.74                   | -0.60                 |  |
| 13,854.71             | 90.85           | 270.36      | 9,023.31              | -682.47      | -4,711.98    | 4,710.66                | 0.95                    | 0.75                   | -0.60                 |  |
| 13,868.14             | 90.93           | 270.28      | 9,023.10              | -682.39      | -4,725.41    | 4,724.09                | 0.84                    | 0.60                   | -0.60                 |  |
| 13,881.57             | 90.99           | 270.20      | 9,022.87              | -682.34      | -4,738.84    | 4,737.52                | 0.74                    | 0.45                   | -0.60                 |  |
| 13,895.00             | 91.01           | 270.13      | 9,022.64              | -682.30      | -4,752.27    | 4,750.95                | 0.54                    | 0.15                   | -0.52                 |  |
| 13,908.43             | 90.96           | 270.05      | 9,022.41              | -682.28      | -4,765.69    | 4,764.38                | 0.70                    | -0.37                  | -0.60                 |  |
| 13,921.86             | 90.87           | 269.98      | 9,022.20              | -682.27      | -4,779.12    | 4,777.80                | 0.85                    | -0.67                  | -0.52                 |  |
| 13,935.29             | 90.77           | 269.90      | 9,022.00              | -682.29      | -4,792.55    | 4,791.23                | 0.95                    | -0.74                  | -0.60                 |  |
| 13,948.71             | 90.66           | 269.82      | 9,021.84              | -682.32      | -4,805.97    | 4,804.65                | 1.01                    | -0.82                  | -0.60                 |  |
| 13,962.14             | 90.57           | 269.75      | 9,021.69              | -682.37      | -4,819.40    | 4,818.08                | 0.85                    | -0.67                  | -0.52                 |  |
| 13,975.57             | 90.65           | 270.14      | 9,021.55              | -682.38      | -4,832.83    | 4,831.51                | 2.96                    | 0.60                   | 2.90                  |  |
| 13,989.00             | 90.53           | 270.66      | 9,021.41              | -682.29      | -4,846.26    | 4,844.94                | 3.97                    | -0.89                  | 3.87                  |  |
| 14,002.43             | 90.45           | 270.95      | 9,021.30              | -682.10      | -4,859.68    | 4,858.37                | 2.24                    | -0.60                  | 2.16                  |  |
| 14,015.86             | 90.48           | 270.87      | 9,021.19              | -681.89      | -4,873.11    | 4,871.79                | 0.64                    | 0.22                   | -0.60                 |  |
| 14,029.29             | 90.53           | 270.79      | 9,021.07              | -681.69      | -4,886.54    | 4,885.22                | 0.70                    | 0.37                   | -0.60                 |  |
| 14,042.71             | 90.59           | 270.71      | 9,020.94              | -681.52      | -4,899.96    | 4,898.64                | 0.75                    | 0.45                   | -0.60                 |  |
| 14,056.14             | 90.67           | 270.62      | 9,020.79              | -681.36      | -4,913.39    | 4,912.07                | 0.90                    | 0.60                   | -0.67                 |  |
| 14,069.57             | 90.75           | 270.54      | 9,020.62              | -681.23      | -4,926.82    | 4,925.50                | 0.84                    | 0.60                   | -0.60                 |  |
| 14,083.00             | 90.86           | 270.45      | 9,020.43              | -681.11      | -4,940.24    | 4,938.93                | 1.06                    | 0.82                   | -0.67                 |  |
| 14,096.43             | 90.98           | 270.36      | 9,020.22              | -681.01      | -4,953.67    | 4,952.36                | 1.12                    | 0.89                   | -0.67                 |  |
| 14,109.86             | 91.12           | 270.27      | 9,019.97              | -680.94      | -4,967.10    | 4,965.78                | 1.24                    | 1.04                   | -0.67                 |  |
| 14,123.29             | 91.26           | 270.17      | 9,019.69              | -680.89      | -4,980.53    | 4,979.21                | 1.28                    | 1.04                   | -0.74                 |  |
| 14,136.71             | 91.40           | 270.08      | 9,019.38              | -680.86      | -4,993.94    | 4,992.63                | 1.24                    | 1.04                   | -0.67                 |  |
| 14,144.76             | 91.48           | 270.02      | 9,019.18              | -680.85      | -5,001.99    | 5,000.67                | 1.22                    | 0.97                   | -0.74                 |  |
| 04-5000VS(BD-134H)    |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 14,150.14             | 91.53           | 269.98      | 9,019.04              | -680.85      | -5,007.37    | 5,006.05                | 1.22                    | 0.97                   | -0.74                 |  |
| 14,163.57             | 91.64           | 269.88      | 9,018.67              | -680.87      | -5,020.79    | 5,019.48                | 1.11                    | 0.82                   | -0.74                 |  |
| 14,177.00             | 91.73           | 269.79      | 9,018.27              | -680.91      | -5,034.22    | 5,032.90                | 0.95                    | 0.67                   | -0.67                 |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |
| 14,190.43             | 91.76           | 269.69      | 9,017.86              | -680.97      | -5,047.64    | 5,046.32                | 0.78                    | 0.22                   | -0.74                 |
| 14,203.86             | 91.77           | 269.59      | 9,017.45              | -681.05      | -5,061.06    | 5,059.75                | 0.75                    | 0.07                   | -0.74                 |
| 14,217.29             | 91.76           | 269.50      | 9,017.04              | -681.16      | -5,074.49    | 5,073.17                | 0.67                    | -0.07                  | -0.67                 |
| 14,230.71             | 91.75           | 269.40      | 9,016.62              | -681.29      | -5,087.90    | 5,086.58                | 0.75                    | -0.07                  | -0.75                 |
| 14,244.14             | 91.73           | 269.29      | 9,016.22              | -681.44      | -5,101.32    | 5,100.01                | 0.83                    | -0.15                  | -0.82                 |
| 14,257.57             | 91.68           | 269.30      | 9,015.82              | -681.61      | -5,114.75    | 5,113.43                | 0.38                    | -0.37                  | 0.07                  |
| 14,271.00             | 91.45           | 269.76      | 9,015.45              | -681.72      | -5,128.17    | 5,126.85                | 3.83                    | -1.71                  | 3.43                  |
| 14,284.57             | 91.06           | 270.10      | 9,015.15              | -681.73      | -5,141.74    | 5,140.42                | 3.81                    | -2.87                  | 2.51                  |
| 14,298.14             | 90.61           | 270.45      | 9,014.96              | -681.67      | -5,155.31    | 5,153.99                | 4.20                    | -3.32                  | 2.58                  |
| 14,311.71             | 90.38           | 270.47      | 9,014.84              | -681.56      | -5,168.88    | 5,167.56                | 1.70                    | -1.69                  | 0.15                  |
| 14,325.29             | 90.43           | 270.25      | 9,014.74              | -681.47      | -5,182.45    | 5,181.14                | 1.66                    | 0.37                   | -1.62                 |
| 14,338.86             | 90.50           | 270.02      | 9,014.63              | -681.44      | -5,196.02    | 5,194.71                | 1.77                    | 0.52                   | -1.69                 |
| 14,352.43             | 90.58           | 269.80      | 9,014.50              | -681.46      | -5,209.59    | 5,208.28                | 1.73                    | 0.59                   | -1.62                 |
| 14,366.00             | 90.68           | 269.60      | 9,014.36              | -681.54      | -5,223.16    | 5,221.84                | 1.65                    | 0.74                   | -1.47                 |
| 14,379.29             | 90.81           | 269.45      | 9,014.18              | -681.65      | -5,236.45    | 5,235.13                | 1.49                    | 0.98                   | -1.13                 |
| 14,392.57             | 90.96           | 269.34      | 9,013.98              | -681.79      | -5,249.73    | 5,248.41                | 1.40                    | 1.13                   | -0.83                 |
| 14,405.86             | 91.13           | 269.24      | 9,013.73              | -681.95      | -5,263.02    | 5,261.70                | 1.48                    | 1.28                   | -0.75                 |
| 14,419.14             | 91.31           | 269.15      | 9,013.45              | -682.14      | -5,276.29    | 5,274.97                | 1.52                    | 1.36                   | -0.68                 |
| 14,432.43             | 91.49           | 269.07      | 9,013.13              | -682.34      | -5,289.58    | 5,288.26                | 1.48                    | 1.35                   | -0.60                 |
| 14,445.71             | 91.67           | 269.00      | 9,012.76              | -682.57      | -5,302.85    | 5,301.53                | 1.45                    | 1.36                   | -0.53                 |
| 14,459.00             | 91.85           | 268.93      | 9,012.35              | -682.81      | -5,316.13    | 5,314.81                | 1.45                    | 1.35                   | -0.53                 |
| 14,472.29             | 92.02           | 268.85      | 9,011.90              | -683.06      | -5,329.41    | 5,328.09                | 1.41                    | 1.28                   | -0.60                 |
| 14,485.57             | 92.19           | 268.77      | 9,011.42              | -683.34      | -5,342.68    | 5,341.36                | 1.41                    | 1.28                   | -0.60                 |
| 14,498.86             | 92.35           | 268.69      | 9,010.89              | -683.63      | -5,355.95    | 5,354.63                | 1.35                    | 1.20                   | -0.60                 |
| 14,512.14             | 92.51           | 268.61      | 9,010.33              | -683.95      | -5,369.22    | 5,367.90                | 1.35                    | 1.20                   | -0.60                 |
| 14,525.43             | 92.65           | 268.54      | 9,009.73              | -684.28      | -5,382.49    | 5,381.17                | 1.18                    | 1.05                   | -0.53                 |
| 14,538.71             | 92.77           | 268.46      | 9,009.10              | -684.62      | -5,395.75    | 5,394.43                | 1.09                    | 0.90                   | -0.60                 |
| 14,552.00             | 92.87           | 268.39      | 9,008.45              | -684.99      | -5,409.02    | 5,407.70                | 0.92                    | 0.75                   | -0.53                 |
| 14,565.57             | 92.93           | 268.33      | 9,007.76              | -685.38      | -5,422.57    | 5,421.24                | 0.62                    | 0.44                   | -0.44                 |
| 14,579.14             | 92.97           | 268.27      | 9,007.06              | -685.78      | -5,436.11    | 5,434.79                | 0.53                    | 0.29                   | -0.44                 |
| 14,592.71             | 93.00           | 268.21      | 9,006.36              | -686.19      | -5,449.66    | 5,448.33                | 0.49                    | 0.22                   | -0.44                 |
| 14,606.29             | 93.01           | 268.15      | 9,005.64              | -686.63      | -5,463.21    | 5,461.89                | 0.45                    | 0.07                   | -0.44                 |
| 14,619.86             | 93.00           | 268.09      | 9,004.93              | -687.07      | -5,476.76    | 5,475.43                | 0.45                    | -0.07                  | -0.44                 |
| 14,633.43             | 92.99           | 268.01      | 9,004.22              | -687.53      | -5,490.30    | 5,488.97                | 0.59                    | -0.07                  | -0.59                 |
| 14,647.00             | 92.79           | 268.27      | 9,003.54              | -687.97      | -5,503.85    | 5,502.52                | 2.42                    | -1.47                  | 1.92                  |
| 14,660.57             | 92.34           | 268.55      | 9,002.93              | -688.35      | -5,517.40    | 5,516.07                | 3.90                    | -3.32                  | 2.06                  |
| 14,674.14             | 91.82           | 268.79      | 9,002.44              | -688.66      | -5,530.96    | 5,529.62                | 4.22                    | -3.83                  | 1.77                  |
| 14,687.71             | 91.32           | 269.08      | 9,002.07              | -688.91      | -5,544.52    | 5,543.18                | 4.26                    | -3.68                  | 2.14                  |
| 14,701.29             | 90.83           | 269.41      | 9,001.81              | -689.09      | -5,558.09    | 5,556.76                | 4.35                    | -3.61                  | 2.43                  |
| 14,714.86             | 90.58           | 269.27      | 9,001.65              | -689.25      | -5,571.66    | 5,570.33                | 2.11                    | -1.84                  | -1.03                 |
| 14,728.43             | 90.39           | 269.00      | 9,001.53              | -689.45      | -5,585.23    | 5,583.90                | 2.43                    | -1.40                  | -1.99                 |
| 14,742.00             | 90.14           | 268.96      | 9,001.47              | -689.70      | -5,598.80    | 5,597.46                | 1.87                    | -1.84                  | -0.29                 |
| 14,755.43             | 89.87           | 269.26      | 9,001.47              | -689.90      | -5,612.23    | 5,610.89                | 3.01                    | -2.01                  | 2.23                  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |
| 14,768.86             | 89.65           | 269.74      | 9,001.52              | -690.02      | -5,625.66    | 5,624.32                | 3.93                    | -1.64                  | 3.57                  |
| 14,782.29             | 89.40           | 270.25      | 9,001.63              | -690.02      | -5,639.08    | 5,637.75                | 4.23                    | -1.86                  | 3.80                  |
| 14,795.71             | 89.18           | 270.66      | 9,001.80              | -689.92      | -5,652.50    | 5,651.17                | 3.47                    | -1.64                  | 3.06                  |
| 14,809.14             | 89.01           | 270.59      | 9,002.01              | -689.77      | -5,665.93    | 5,664.60                | 1.37                    | -1.27                  | -0.52                 |
| 14,822.57             | 88.82           | 270.53      | 9,002.27              | -689.64      | -5,679.36    | 5,678.02                | 1.48                    | -1.41                  | -0.45                 |
| 14,836.00             | 88.75           | 270.62      | 9,002.55              | -689.50      | -5,692.78    | 5,691.45                | 0.85                    | -0.52                  | 0.67                  |
| 14,849.29             | 88.78           | 270.99      | 9,002.84              | -689.32      | -5,706.07    | 5,704.74                | 2.79                    | 0.23                   | 2.78                  |
| 14,862.57             | 88.76           | 271.50      | 9,003.12              | -689.03      | -5,719.34    | 5,718.01                | 3.84                    | -0.15                  | 3.84                  |
| 14,875.86             | 88.78           | 272.03      | 9,003.41              | -688.62      | -5,732.62    | 5,731.29                | 3.99                    | 0.15                   | 3.99                  |
| 14,889.14             | 88.50           | 272.36      | 9,003.72              | -688.11      | -5,745.89    | 5,744.56                | 3.26                    | -2.11                  | 2.48                  |
| 14,902.43             | 88.24           | 272.27      | 9,004.10              | -687.57      | -5,759.16    | 5,757.83                | 2.07                    | -1.96                  | -0.68                 |
| 14,915.71             | 88.01           | 272.15      | 9,004.54              | -687.06      | -5,772.43    | 5,771.10                | 1.95                    | -1.73                  | -0.90                 |
| 14,929.00             | 87.85           | 272.06      | 9,005.02              | -686.57      | -5,785.70    | 5,784.37                | 1.38                    | -1.20                  | -0.68                 |
| 14,942.43             | 87.87           | 271.99      | 9,005.52              | -686.10      | -5,799.11    | 5,797.78                | 0.54                    | 0.15                   | -0.52                 |
| 14,955.86             | 87.99           | 271.94      | 9,006.00              | -685.64      | -5,812.53    | 5,811.20                | 0.97                    | 0.89                   | -0.37                 |
| 14,969.29             | 88.18           | 271.91      | 9,006.45              | -685.19      | -5,825.94    | 5,824.61                | 1.43                    | 1.41                   | -0.22                 |
| 14,982.71             | 88.39           | 271.88      | 9,006.85              | -684.75      | -5,839.35    | 5,838.02                | 1.58                    | 1.56                   | -0.22                 |
| 14,996.14             | 88.68           | 271.94      | 9,007.20              | -684.30      | -5,852.76    | 5,851.44                | 2.21                    | 2.16                   | 0.45                  |
| 15,009.57             | 89.01           | 272.06      | 9,007.47              | -683.83      | -5,866.18    | 5,864.86                | 2.61                    | 2.46                   | 0.89                  |
| 15,023.00             | 89.22           | 272.02      | 9,007.68              | -683.35      | -5,879.60    | 5,878.28                | 1.59                    | 1.56                   | -0.30                 |
| 15,036.57             | 89.40           | 271.97      | 9,007.84              | -682.88      | -5,893.16    | 5,891.84                | 1.38                    | 1.33                   | -0.37                 |
| 15,050.14             | 89.56           | 271.90      | 9,007.96              | -682.42      | -5,906.73    | 5,905.41                | 1.29                    | 1.18                   | -0.52                 |
| 15,063.71             | 89.71           | 271.83      | 9,008.05              | -681.98      | -5,920.29    | 5,918.97                | 1.22                    | 1.11                   | -0.52                 |
| 15,077.29             | 89.86           | 271.76      | 9,008.10              | -681.55      | -5,933.86    | 5,932.54                | 1.22                    | 1.10                   | -0.52                 |
| 15,090.86             | 90.00           | 271.68      | 9,008.12              | -681.15      | -5,947.43    | 5,946.11                | 1.19                    | 1.03                   | -0.59                 |
| 15,104.43             | 90.14           | 271.59      | 9,008.10              | -680.76      | -5,960.99    | 5,959.67                | 1.23                    | 1.03                   | -0.66                 |
| 15,118.00             | 90.29           | 271.49      | 9,008.05              | -680.39      | -5,974.56    | 5,973.24                | 1.33                    | 1.11                   | -0.74                 |
| 15,131.43             | 90.45           | 271.37      | 9,007.96              | -680.06      | -5,987.98    | 5,986.66                | 1.49                    | 1.19                   | -0.89                 |
| 15,144.86             | 90.62           | 271.25      | 9,007.84              | -679.75      | -6,001.41    | 6,000.09                | 1.55                    | 1.27                   | -0.89                 |
| 15,158.29             | 90.78           | 271.13      | 9,007.67              | -679.47      | -6,014.83    | 6,013.52                | 1.49                    | 1.19                   | -0.89                 |
| 15,171.71             | 90.93           | 271.00      | 9,007.47              | -679.22      | -6,028.25    | 6,026.93                | 1.48                    | 1.12                   | -0.97                 |
| 15,185.14             | 91.05           | 270.89      | 9,007.24              | -679.00      | -6,041.68    | 6,040.36                | 1.21                    | 0.89                   | -0.82                 |
| 15,198.57             | 91.15           | 270.78      | 9,006.98              | -678.81      | -6,055.10    | 6,053.79                | 1.11                    | 0.74                   | -0.82                 |
| 15,212.00             | 91.21           | 270.69      | 9,006.71              | -678.64      | -6,068.53    | 6,067.21                | 0.81                    | 0.45                   | -0.67                 |
| 15,225.57             | 91.19           | 270.63      | 9,006.42              | -678.48      | -6,082.09    | 6,080.78                | 0.47                    | -0.15                  | -0.44                 |
| 15,239.14             | 91.13           | 270.59      | 9,006.15              | -678.33      | -6,095.66    | 6,094.35                | 0.53                    | -0.44                  | -0.29                 |
| 15,252.71             | 91.05           | 270.56      | 9,005.89              | -678.20      | -6,109.23    | 6,107.91                | 0.63                    | -0.59                  | -0.22                 |
| 15,266.29             | 90.95           | 270.53      | 9,005.65              | -678.07      | -6,122.80    | 6,121.49                | 0.77                    | -0.74                  | -0.22                 |
| 15,279.86             | 90.85           | 270.49      | 9,005.44              | -677.95      | -6,136.37    | 6,135.06                | 0.79                    | -0.74                  | -0.29                 |
| 15,293.43             | 91.06           | 270.97      | 9,005.21              | -677.78      | -6,149.94    | 6,148.63                | 3.86                    | 1.55                   | 3.54                  |
| 15,307.00             | 90.83           | 271.51      | 9,004.99              | -677.48      | -6,163.50    | 6,162.19                | 4.32                    | -1.69                  | 3.98                  |
| 15,320.57             | 90.59           | 272.10      | 9,004.82              | -677.05      | -6,177.07    | 6,175.75                | 4.69                    | -1.77                  | 4.35                  |
| 15,334.14             | 90.46           | 272.32      | 9,004.70              | -676.53      | -6,190.63    | 6,189.32                | 1.88                    | -0.96                  | 1.62                  |
| 15,347.71             | 90.40           | 272.22      | 9,004.59              | -675.99      | -6,204.18    | 6,202.88                | 0.86                    | -0.44                  | -0.74                 |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| Survey                |                 |             |                       |              |              |                         |                         |                        |                       |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
| 15,361.29             | 90.28           | 272.14      | 9,004.51              | -675.48      | -6,217.75    | 6,216.45                | 1.06                    | -0.88                  | -0.59                 |  |
| 15,374.86             | 90.17           | 272.04      | 9,004.46              | -674.98      | -6,231.32    | 6,230.01                | 1.10                    | -0.81                  | -0.74                 |  |
| 15,388.43             | 90.06           | 271.94      | 9,004.43              | -674.51      | -6,244.88    | 6,243.57                | 1.10                    | -0.81                  | -0.74                 |  |
| 15,402.00             | 89.97           | 271.82      | 9,004.43              | -674.07      | -6,258.44    | 6,257.13                | 1.11                    | -0.66                  | -0.88                 |  |
| 15,415.43             | 89.91           | 271.69      | 9,004.44              | -673.65      | -6,271.86    | 6,270.56                | 1.07                    | -0.45                  | -0.97                 |  |
| 15,428.86             | 89.88           | 271.55      | 9,004.47              | -673.27      | -6,285.29    | 6,283.98                | 1.07                    | -0.22                  | -1.04                 |  |
| 15,442.29             | 89.87           | 271.40      | 9,004.50              | -672.93      | -6,298.71    | 6,297.41                | 1.12                    | -0.07                  | -1.12                 |  |
| 15,455.71             | 89.86           | 271.25      | 9,004.53              | -672.62      | -6,312.13    | 6,310.83                | 1.12                    | -0.07                  | -1.12                 |  |
| 15,469.14             | 89.85           | 271.10      | 9,004.56              | -672.34      | -6,325.56    | 6,324.25                | 1.12                    | -0.07                  | -1.12                 |  |
| 15,482.57             | 89.40           | 271.19      | 9,004.65              | -672.08      | -6,338.98    | 6,337.68                | 3.42                    | -3.35                  | 0.67                  |  |
| 15,496.00             | 89.01           | 271.65      | 9,004.84              | -671.74      | -6,352.41    | 6,351.11                | 4.49                    | -2.90                  | 3.43                  |  |
| 15,509.29             | 88.87           | 272.24      | 9,005.08              | -671.29      | -6,365.69    | 6,364.39                | 4.56                    | -1.05                  | 4.44                  |  |
| 15,522.57             | 88.86           | 272.24      | 9,005.35              | -670.77      | -6,378.96    | 6,377.66                | 0.08                    | -0.08                  | 0.00                  |  |
| 15,535.86             | 88.85           | 272.07      | 9,005.61              | -670.27      | -6,392.23    | 6,390.94                | 1.28                    | -0.08                  | -1.28                 |  |
| 15,549.14             | 88.84           | 271.90      | 9,005.88              | -669.81      | -6,405.50    | 6,404.21                | 1.28                    | -0.08                  | -1.28                 |  |
| 15,562.43             | 88.85           | 271.73      | 9,006.15              | -669.39      | -6,418.78    | 6,417.49                | 1.28                    | 0.08                   | -1.28                 |  |
| 15,575.71             | 88.89           | 271.57      | 9,006.41              | -669.01      | -6,432.06    | 6,430.76                | 1.24                    | 0.30                   | -1.20                 |  |
| 15,589.00             | 88.97           | 271.43      | 9,006.66              | -668.66      | -6,445.34    | 6,444.04                | 1.21                    | 0.60                   | -1.05                 |  |
| 15,602.43             | 89.12           | 271.32      | 9,006.88              | -668.34      | -6,458.76    | 6,457.47                | 1.38                    | 1.12                   | -0.82                 |  |
| 15,615.86             | 89.31           | 271.23      | 9,007.06              | -668.04      | -6,472.19    | 6,470.89                | 1.57                    | 1.41                   | -0.67                 |  |
| 15,629.29             | 89.52           | 271.14      | 9,007.20              | -667.76      | -6,485.61    | 6,484.32                | 1.70                    | 1.56                   | -0.67                 |  |
| 15,642.71             | 89.74           | 271.07      | 9,007.29              | -667.50      | -6,499.03    | 6,497.74                | 1.72                    | 1.64                   | -0.52                 |  |
| 15,656.14             | 89.96           | 270.99      | 9,007.32              | -667.26      | -6,512.46    | 6,511.17                | 1.74                    | 1.64                   | -0.60                 |  |
| 15,669.57             | 90.17           | 270.90      | 9,007.31              | -667.04      | -6,525.89    | 6,524.60                | 1.70                    | 1.56                   | -0.67                 |  |
| 15,683.00             | 90.34           | 270.79      | 9,007.25              | -666.84      | -6,539.32    | 6,538.02                | 1.51                    | 1.27                   | -0.82                 |  |
| 15,696.57             | 90.47           | 270.65      | 9,007.15              | -666.67      | -6,552.88    | 6,551.59                | 1.41                    | 0.96                   | -1.03                 |  |
| 15,710.14             | 90.57           | 270.49      | 9,007.03              | -666.54      | -6,566.45    | 6,565.16                | 1.39                    | 0.74                   | -1.18                 |  |
| 15,723.71             | 90.63           | 270.32      | 9,006.89              | -666.44      | -6,580.02    | 6,578.73                | 1.33                    | 0.44                   | -1.25                 |  |
| 15,737.29             | 90.68           | 270.15      | 9,006.73              | -666.39      | -6,593.60    | 6,592.31                | 1.30                    | 0.37                   | -1.25                 |  |
| 15,750.86             | 90.70           | 269.96      | 9,006.57              | -666.37      | -6,607.17    | 6,605.88                | 1.41                    | 0.15                   | -1.40                 |  |
| 15,764.43             | 90.69           | 269.77      | 9,006.40              | -666.41      | -6,620.74    | 6,619.45                | 1.40                    | -0.07                  | -1.40                 |  |
| 15,778.00             | 90.64           | 269.58      | 9,006.25              | -666.48      | -6,634.31    | 6,633.02                | 1.45                    | -0.37                  | -1.40                 |  |
| 15,791.43             | 90.55           | 269.39      | 9,006.11              | -666.60      | -6,647.74    | 6,646.45                | 1.57                    | -0.67                  | -1.41                 |  |
| 15,804.86             | 90.43           | 269.21      | 9,005.99              | -666.77      | -6,661.17    | 6,659.87                | 1.61                    | -0.89                  | -1.34                 |  |
| 15,818.29             | 90.28           | 269.02      | 9,005.91              | -666.97      | -6,674.59    | 6,673.30                | 1.80                    | -1.12                  | -1.41                 |  |
| 15,831.71             | 90.13           | 268.85      | 9,005.86              | -667.22      | -6,688.01    | 6,686.72                | 1.69                    | -1.12                  | -1.27                 |  |
| 15,845.14             | 89.96           | 268.69      | 9,005.85              | -667.51      | -6,701.44    | 6,700.14                | 1.74                    | -1.27                  | -1.19                 |  |
| 15,858.57             | 89.80           | 268.55      | 9,005.88              | -667.84      | -6,714.86    | 6,713.57                | 1.58                    | -1.19                  | -1.04                 |  |
| 15,872.00             | 89.64           | 268.44      | 9,005.94              | -668.19      | -6,728.29    | 6,726.99                | 1.45                    | -1.19                  | -0.82                 |  |
| 15,885.43             | 89.49           | 268.38      | 9,006.05              | -668.56      | -6,741.71    | 6,740.42                | 1.20                    | -1.12                  | -0.45                 |  |
| 15,898.86             | 89.35           | 268.35      | 9,006.18              | -668.94      | -6,755.14    | 6,753.84                | 1.07                    | -1.04                  | -0.22                 |  |
| 15,912.29             | 89.21           | 268.33      | 9,006.35              | -669.33      | -6,768.56    | 6,767.26                | 1.05                    | -1.04                  | -0.15                 |  |
| 15,925.71             | 89.08           | 268.33      | 9,006.55              | -669.72      | -6,781.97    | 6,780.68                | 0.97                    | -0.97                  | 0.00                  |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| Survey                |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 15,939.14             | 88.95           | 268.33      | 9,006.78              | -670.12      | -6,795.40    | 6,794.10                | 0.97                    | -0.97                  | 0.00                  |
| 15,952.57             | 89.25           | 268.73      | 9,006.99              | -670.46      | -6,808.82    | 6,807.52                | 3.72                    | 2.23                   | 2.98                  |
| 15,966.00             | 89.52           | 269.36      | 9,007.14              | -670.68      | -6,822.25    | 6,820.95                | 5.10                    | 2.01                   | 4.69                  |
| 15,979.43             | 89.90           | 269.94      | 9,007.21              | -670.77      | -6,835.68    | 6,834.38                | 5.16                    | 2.83                   | 4.32                  |
| 15,992.86             | 89.91           | 270.11      | 9,007.23              | -670.76      | -6,849.11    | 6,847.81                | 1.27                    | 0.07                   | 1.27                  |
| 16,006.29             | 89.69           | 270.16      | 9,007.27              | -670.73      | -6,862.54    | 6,861.24                | 1.68                    | -1.64                  | 0.37                  |
| 16,019.71             | 89.46           | 270.22      | 9,007.37              | -670.68      | -6,875.96    | 6,874.66                | 1.77                    | -1.71                  | 0.45                  |
| 16,033.14             | 89.26           | 270.26      | 9,007.52              | -670.63      | -6,889.39    | 6,888.09                | 1.52                    | -1.49                  | 0.30                  |
| 16,046.57             | 89.35           | 270.83      | 9,007.69              | -670.50      | -6,902.81    | 6,901.51                | 4.30                    | 0.67                   | 4.24                  |
| 16,060.00             | 89.75           | 271.42      | 9,007.79              | -670.24      | -6,916.24    | 6,914.94                | 5.31                    | 2.98                   | 4.39                  |
| 16,073.57             | 90.30           | 271.93      | 9,007.79              | -669.84      | -6,929.80    | 6,928.51                | 5.53                    | 4.05                   | 3.76                  |
| 16,087.14             | 90.33           | 271.95      | 9,007.71              | -669.38      | -6,943.37    | 6,942.07                | 0.27                    | 0.22                   | 0.15                  |
| 16,100.71             | 90.29           | 271.90      | 9,007.64              | -668.92      | -6,956.93    | 6,955.63                | 0.47                    | -0.29                  | -0.37                 |
| 16,114.29             | 90.26           | 271.84      | 9,007.57              | -668.48      | -6,970.50    | 6,969.21                | 0.49                    | -0.22                  | -0.44                 |
| 16,127.86             | 90.27           | 271.77      | 9,007.51              | -668.05      | -6,984.06    | 6,982.77                | 0.52                    | 0.07                   | -0.52                 |
| 16,141.43             | 90.31           | 271.70      | 9,007.44              | -667.64      | -6,997.63    | 6,996.33                | 0.59                    | 0.29                   | -0.52                 |
| 16,155.00             | 90.40           | 271.63      | 9,007.36              | -667.25      | -7,011.19    | 7,009.90                | 0.84                    | 0.66                   | -0.52                 |
| 16,168.57             | 90.58           | 271.55      | 9,007.24              | -666.87      | -7,024.76    | 7,023.46                | 1.45                    | 1.33                   | -0.59                 |
| 16,182.14             | 90.80           | 271.47      | 9,007.08              | -666.51      | -7,038.32    | 7,037.03                | 1.73                    | 1.62                   | -0.59                 |
| 16,195.71             | 91.05           | 271.38      | 9,006.86              | -666.18      | -7,051.88    | 7,050.59                | 1.96                    | 1.84                   | -0.66                 |
| 16,209.29             | 91.30           | 271.29      | 9,006.58              | -665.86      | -7,065.46    | 7,064.17                | 1.96                    | 1.84                   | -0.66                 |
| 16,222.86             | 91.54           | 271.18      | 9,006.24              | -665.57      | -7,079.02    | 7,077.73                | 1.95                    | 1.77                   | -0.81                 |
| 16,236.43             | 91.73           | 271.06      | 9,005.86              | -665.30      | -7,092.58    | 7,091.29                | 1.66                    | 1.40                   | -0.88                 |
| 16,250.00             | 91.86           | 270.92      | 9,005.43              | -665.07      | -7,106.14    | 7,104.85                | 1.41                    | 0.96                   | -1.03                 |
| 16,263.29             | 91.87           | 270.74      | 9,005.00              | -664.88      | -7,119.43    | 7,118.14                | 1.36                    | 0.08                   | -1.35                 |
| 16,276.57             | 91.53           | 270.74      | 9,004.61              | -664.71      | -7,132.70    | 7,131.41                | 2.56                    | -2.56                  | 0.00                  |
| 16,289.86             | 90.93           | 271.09      | 9,004.32              | -664.49      | -7,145.98    | 7,144.69                | 5.23                    | -4.51                  | 2.63                  |
| 16,303.14             | 90.37           | 271.59      | 9,004.17              | -664.18      | -7,159.26    | 7,157.97                | 5.65                    | -4.22                  | 3.77                  |
| 16,316.43             | 90.02           | 271.68      | 9,004.12              | -663.80      | -7,172.54    | 7,171.26                | 2.72                    | -2.63                  | 0.68                  |
| 16,329.71             | 89.85           | 271.47      | 9,004.14              | -663.44      | -7,185.82    | 7,184.53                | 2.03                    | -1.28                  | -1.58                 |
| 16,343.00             | 89.67           | 271.26      | 9,004.20              | -663.12      | -7,199.10    | 7,197.82                | 2.08                    | -1.35                  | -1.58                 |
| 16,356.43             | 89.51           | 271.09      | 9,004.29              | -662.85      | -7,212.53    | 7,211.25                | 1.74                    | -1.19                  | -1.27                 |
| 16,369.86             | 89.36           | 270.95      | 9,004.42              | -662.61      | -7,225.96    | 7,224.67                | 1.53                    | -1.12                  | -1.04                 |
| 16,383.29             | 89.22           | 270.81      | 9,004.59              | -662.40      | -7,239.39    | 7,238.10                | 1.47                    | -1.04                  | -1.04                 |
| 16,396.71             | 89.11           | 270.69      | 9,004.79              | -662.23      | -7,252.80    | 7,251.52                | 1.21                    | -0.82                  | -0.89                 |
| 16,410.14             | 89.01           | 270.58      | 9,005.01              | -662.08      | -7,266.23    | 7,264.95                | 1.11                    | -0.74                  | -0.82                 |
| 16,423.57             | 88.95           | 270.47      | 9,005.25              | -661.95      | -7,279.66    | 7,278.37                | 0.93                    | -0.45                  | -0.82                 |
| 16,437.00             | 88.93           | 270.37      | 9,005.49              | -661.85      | -7,293.09    | 7,291.80                | 0.76                    | -0.15                  | -0.74                 |
| 16,450.43             | 88.98           | 270.27      | 9,005.74              | -661.78      | -7,306.51    | 7,305.23                | 0.83                    | 0.37                   | -0.74                 |
| 16,463.86             | 89.08           | 270.17      | 9,005.97              | -661.73      | -7,319.94    | 7,318.66                | 1.05                    | 0.74                   | -0.74                 |
| 16,477.29             | 89.20           | 270.08      | 9,006.17              | -661.70      | -7,333.37    | 7,332.09                | 1.12                    | 0.89                   | -0.67                 |
| 16,490.71             | 89.35           | 269.98      | 9,006.34              | -661.69      | -7,346.79    | 7,345.50                | 1.34                    | 1.12                   | -0.75                 |
| 16,504.14             | 89.51           | 269.89      | 9,006.47              | -661.71      | -7,360.22    | 7,358.93                | 1.37                    | 1.19                   | -0.67                 |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

| 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) |  |
| 16,517.57                                                                     | 89.68           | 269.80      | 9,006.57              | -661.74      | -7,373.65    | 7,372.36                | 1.43                    | 1.27                   | -0.67                 |  |
| 16,531.00                                                                     | 89.86           | 269.70      | 9,006.62              | -661.80      | -7,387.08    | 7,385.79                | 1.53                    | 1.34                   | -0.74                 |  |
| 16,543.67                                                                     | 90.04           | 269.61      | 9,006.63              | -661.88      | -7,399.75    | 7,398.46                | 1.59                    | 1.42                   | -0.71                 |  |
| 16,556.33                                                                     | 90.22           | 269.52      | 9,006.60              | -661.97      | -7,412.41    | 7,411.12                | 1.59                    | 1.42                   | -0.71                 |  |
| 16,569.00                                                                     | 90.39           | 269.43      | 9,006.53              | -662.09      | -7,425.08    | 7,423.79                | 1.52                    | 1.34                   | -0.71                 |  |
| 16,581.67                                                                     | 90.56           | 269.34      | 9,006.43              | -662.23      | -7,437.74    | 7,436.46                | 1.52                    | 1.34                   | -0.71                 |  |
| 16,594.33                                                                     | 90.72           | 269.26      | 9,006.29              | -662.38      | -7,450.40    | 7,449.12                | 1.41                    | 1.26                   | -0.63                 |  |
| 16,600.01                                                                     | 90.78           | 269.22      | 9,006.21              | -662.46      | -7,456.08    | 7,454.80                | 1.27                    | 1.10                   | -0.63                 |  |
| <b>100 FEL: 16600.01' MD, 7454.80' VS, 9006.21' TVD</b>                       |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 16,600.56                                                                     | 90.79           | 269.22      | 9,006.21              | -662.46      | -7,456.63    | 7,455.34                | 1.27                    | 1.10                   | -0.63                 |  |
| <b>06-LTP-410FSL(BD-134H)</b>                                                 |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 16,607.00                                                                     | 90.86           | 269.18      | 9,006.11              | -662.55      | -7,463.07    | 7,461.78                | 1.27                    | 1.10                   | -0.63                 |  |
| <b>Final MWD Survey: 16607.00' MD, 90.86°INC, 269.18°AZ</b>                   |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 16,645.90                                                                     | 91.00           | 269.01      | 9,005.48              | -663.17      | -7,501.96    | 7,500.67                | 0.58                    | 0.36                   | -0.45                 |  |
| <b>05-7500VS(BD-134H)</b>                                                     |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 16,665.00                                                                     | 91.07           | 268.92      | 9,005.14              | -663.52      | -7,521.05    | 7,519.77                | 0.58                    | 0.36                   | -0.45                 |  |
| <b>PTB: 16665.00' MD, 7519.77' VS, 9005.14' TVD - 07-PBHL-410FSL(BD-134H)</b> |                 |             |                       |              |              |                         |                         |                        |                       |  |

| Formations            |                       |                     |           |         |                   |  |
|-----------------------|-----------------------|---------------------|-----------|---------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name                | Lithology | Dip (°) | Dip Direction (°) |  |
| 137.00                | 137.00                | Rustler             |           |         |                   |  |
| 372.02                | 372.00                | Top of Salt         |           |         |                   |  |
| 1,127.17              | 1,127.00              | Base of Salt        |           |         |                   |  |
| 1,376.21              | 1,376.00              | Yates               |           |         |                   |  |
| 2,744.99              | 2,744.00              | Capitan             |           |         |                   |  |
| 3,480.32              | 3,479.00              | DLWR Mnt. Group     |           |         |                   |  |
| 5,364.03              | 5,355.00              | Lower Brushy Canyon |           |         |                   |  |
| 5,693.19              | 5,681.00              | Bone Spring Lime    |           |         |                   |  |
| 7,087.89              | 7,057.00              | 1st Bone Spring SD  |           |         |                   |  |
| 7,293.48              | 7,260.00              | 2nd Bone Spring LM  |           |         |                   |  |
| 7,930.80              | 7,889.00              | 2nd Bone Spring SD  |           |         |                   |  |
| 8,276.19              | 8,230.00              | 3rd Bone Spring LM  |           |         |                   |  |
| 8,883.76              | 8,818.00              | 3rd Bone Spring SD  |           |         |                   |  |



## Survey Report

|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Colgate Energy            | <b>Local Co-ordinate Reference:</b> | Well Black Diamond 34 Fed 134H |
| <b>Project:</b>  | Eddy County, NM (N83-NME) | <b>TVD Reference:</b>               | 3330+22 @ 3352.00usft          |
| <b>Site:</b>     | Black Diamond 34 Fed Com  | <b>MD Reference:</b>                | 3330+22 @ 3352.00usft          |
| <b>Well:</b>     | Black Diamond 34 Fed 134H | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | 134H                      | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DRL                       | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

## Design Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                                              |
|-----------------------------|-----------------------------|-------------------|-----------------|------------------------------------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                                      |
| 8,421.00                    | 8,373.37                    | -597.73           | 237.74          | KOP: 8421.00' MD, -238.88' VS, 8373.37' TVD          |
| 9,549.00                    | 9,104.83                    | -617.43           | -411.10         | EOC: 9549.00' MD, 409.91' VS, 9104.83' TVD           |
| 16,600.01                   | 9,006.21                    | -662.46           | -7,456.08       | 100 FEL: 16600.01' MD, 7454.80' VS, 9006.21' TVD     |
| 16,607.00                   | 9,006.11                    | -662.55           | -7,463.07       | Final MWD Survey: 16607.00' MD, 90.86°INC, 269.18°AZ |
| 16,665.00                   | 9,005.14                    | -663.52           | -7,521.05       | PTB: 16665.00' MD, 7519.77' VS, 9005.14' TVD         |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

Office  
 District I – (575) 393-6161  
 1625 N. French Dr., Hobbs, NM 88240  
 District II – (575) 748-1283  
 811 S. First St., Artesia, NM 88210  
 District III – (505) 334-6178  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV – (505) 476-3460  
 1220 S. St. Francis Dr., Santa Fe, NM  
 87505

State of New Mexico  
 Energy, Minerals and Natural Resources

Form C-103  
 Revised July 18, 2013

OIL CONSERVATION DIVISION  
 1220 South St. Francis Dr.  
 Santa Fe, NM 87505

|                                                                                          |
|------------------------------------------------------------------------------------------|
| WELL API NO.<br><b>30-015-47820</b>                                                      |
| 5. Indicate Type of Lease<br>STATE <input type="checkbox"/> FEE <input type="checkbox"/> |
| 6. State Oil & Gas Lease No.                                                             |
| 7. Lease Name or Unit Agreement Name<br>Black Diamond 34 Fed                             |
| 8. Well Number<br>134H                                                                   |
| 9. OGRID Number<br>371449                                                                |
| 10. Pool name or Wildcat<br>Parkway; Bone Spring                                         |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.)<br>3330 GL                            |

|                                                                                                                                                                                                        |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| SUNDRY NOTICES AND REPORTS ON WELLS<br>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) |  |
| 1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>                                                                         |  |
| 2. Name of Operator<br>Colgate Operating, LLC                                                                                                                                                          |  |
| 3. Address of Operator<br>300 North Marienfeld, Suite 1,000 – Midland, Tx 79701                                                                                                                        |  |
| 4. Well Location<br>Unit Letter: P      1089 feet from the South line and 359 feet from the East line<br>Section: 34      Township: 19S      Range: 29E      NMPM      County: Eddy                    |  |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.)<br>3330 GL                                                                                                                                          |  |

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

|                                                |                                           |                                                                |                                          |
|------------------------------------------------|-------------------------------------------|----------------------------------------------------------------|------------------------------------------|
| NOTICE OF INTENTION TO:                        |                                           | SUBSEQUENT REPORT OF:                                          |                                          |
| PERFORM REMEDIAL WORK <input type="checkbox"/> | PLUG AND ABANDON <input type="checkbox"/> | REMEDIAL WORK <input type="checkbox"/>                         | ALTERING CASING <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/>   | CHANGE PLANS <input type="checkbox"/>     | COMMENCE DRILLING OPNS. <input type="checkbox"/>               | P AND A <input type="checkbox"/>         |
| PULL OR ALTER CASING <input type="checkbox"/>  | MULTIPLE COMPL <input type="checkbox"/>   | CASING/CEMENT JOB <input type="checkbox"/>                     |                                          |
| DOWNHOLE COMMINGLE <input type="checkbox"/>    |                                           |                                                                |                                          |
| CLOSED-LOOP SYSTEM <input type="checkbox"/>    |                                           |                                                                |                                          |
| OTHER: <input type="checkbox"/>                |                                           | OTHER: New Well Completion <input checked="" type="checkbox"/> |                                          |

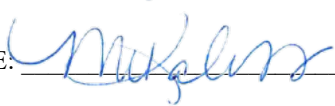
13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

1/20/2022- Pressured up casing to 7,300 psi with a 15 minute test and 8,300 psi with a 15 minute test  
 2/13/2022- Perf and frac stages 1-40.  
     Perfs 9,508 – 16,438  
     Frac with 313,468 bbl liquid and 15,590,654 lbs of proppant  
 3/04/2022- Drilled out plugs  
 Turn over to production. Tubing 2.875 @ 9,025  
 TD 16,665 - PBTD 16,644

Spud Date: 11/23/2021

Rig Release Date: 12/10/2021

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE: 

TITLE: Sr. Regulatory Analyst

DATE: 05/15/2022

Type or print name Mikah Thomas

E-mail address: [mthomas@colgateenergy.com](mailto:mthomas@colgateenergy.com)

PHONE: 432-695-4272

For State Use Only

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

Conditions of Approval (if any):

|                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   |                                                              |           |               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------|----------------------|------------------------------------------------------|-------------------|--------------------------------------------------------------|-----------|---------------|
| Submit To Appropriate District Office<br>Two Copies<br><u>District I</u><br>1625 N. French Dr., Hobbs, NM 88240<br><u>District II</u><br>811 S. First St., Artesia, NM 88210<br><u>District III</u><br>1000 Rio Brazos Rd., Aztec, NM 87410<br><u>District IV</u><br>1220 S. St. Francis Dr., Santa Fe, NM 87505                                                                      |                                     | <b>State of New Mexico</b><br><b>Energy, Minerals and Natural Resources</b><br><br><b>Oil Conservation Division</b><br><b>1220 South St. Francis Dr.</b><br><b>Santa Fe, NM 87505</b> |                                        |                   |                      | <b>Form C-105</b><br>Revised April 3, 2017           |                   |                                                              |           |               |
| <b>WELL COMPLETION OR RECOMPLETION REPORT AND LOG</b>                                                                                                                                                                                                                                                                                                                                 |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   |                                                              |           |               |
| 4. Reason for filing:<br><input checked="" type="checkbox"/> <b>COMPLETION REPORT</b> (Fill in boxes #1 through #31 for State and Fee wells only)<br><br><input type="checkbox"/> <b>C-144 CLOSURE ATTACHMENT</b> (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC) |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   | 5. Lease Name or Unit Agreement Name<br>Black Diamond 34 Fed |           |               |
| 7. Type of Completion:<br><input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> WORKOVER <input type="checkbox"/> DEEPENING <input type="checkbox"/> PLUGBACK <input type="checkbox"/> DIFFERENT RESERVOIR <input type="checkbox"/> OTHER                                                                                                                             |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   | 6. Well Number: 134H                                         |           |               |
| 8. Name of Operator<br>Colgate Operating, LLC                                                                                                                                                                                                                                                                                                                                         |                                     |                                                                                                                                                                                       |                                        |                   |                      | 9. OGRID<br>371449                                   |                   |                                                              |           |               |
| 10. Address of Operator<br>300 North Marcienfeld, Suite 1,000<br>Midland, Texas 79705                                                                                                                                                                                                                                                                                                 |                                     |                                                                                                                                                                                       |                                        |                   |                      | 11. Pool name or Wildcat<br>Parkway; Bone Spring     |                   |                                                              |           |               |
| 12. Location                                                                                                                                                                                                                                                                                                                                                                          | Unit Ltr                            | Section                                                                                                                                                                               | Township                               | Range             | Lot                  | Feet from the                                        | N/S Line          | Feet from the                                                | E/W Line  | County        |
| Surface:                                                                                                                                                                                                                                                                                                                                                                              | P                                   | 34                                                                                                                                                                                    | 19S                                    | 29E               |                      | 1089                                                 | South             | 359                                                          | East      | Eddy          |
| BH:                                                                                                                                                                                                                                                                                                                                                                                   | O                                   | 33                                                                                                                                                                                    | 19S                                    | 29E               |                      | 411                                                  | South             | 2602                                                         | East      | Eddy          |
| 13. Date Spudded<br>11/23/2021                                                                                                                                                                                                                                                                                                                                                        | 14. Date T.D. Reached<br>12/08/2021 |                                                                                                                                                                                       | 15. Date Rig Released<br>12/10/2021    |                   |                      | 16. Date Completed (Ready to Produce)<br>3/3/2022    |                   | 17. Elevations (DF and RKB, RT, GR, etc.) 3330               |           |               |
| 18. Total Measured Depth of Well<br>16,665                                                                                                                                                                                                                                                                                                                                            |                                     |                                                                                                                                                                                       | 19. Plug Back Measured Depth<br>16,644 |                   |                      | 20. Was Directional Survey Made?<br>Yes              |                   | 21. Type Electric and Other Logs Run<br>Gamma Ray            |           |               |
| 22. Producing Interval(s), of this completion - Top, Bottom, Name<br>9,508-16,438 Parkway; Bone Spring                                                                                                                                                                                                                                                                                |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   |                                                              |           |               |
| <b>23. CASING RECORD (Report all strings set in well)</b>                                                                                                                                                                                                                                                                                                                             |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   |                                                              |           |               |
| CASING SIZE                                                                                                                                                                                                                                                                                                                                                                           |                                     | WEIGHT LB./FT.                                                                                                                                                                        |                                        | DEPTH SET         |                      | HOLE SIZE                                            |                   | CEMENTING RECORD                                             |           | AMOUNT PULLED |
| 18.625                                                                                                                                                                                                                                                                                                                                                                                |                                     | 87.5                                                                                                                                                                                  |                                        | 340               |                      | 22.375                                               |                   | Prem Plus 355 sx 1.34                                        |           |               |
| 13.375                                                                                                                                                                                                                                                                                                                                                                                |                                     | 54.5                                                                                                                                                                                  |                                        | 1,485             |                      | 17.5                                                 |                   | Prem Plus 545 sx 2.08, 250 sx 1.34                           |           |               |
| 9.625                                                                                                                                                                                                                                                                                                                                                                                 |                                     | 36                                                                                                                                                                                    |                                        | 3,361             |                      | 12.25                                                |                   | Prem Plus 1265 sx 2.07, 230 sx 1.34                          |           |               |
| 5.5                                                                                                                                                                                                                                                                                                                                                                                   |                                     | 17                                                                                                                                                                                    |                                        | 16,644            |                      | 8.75                                                 |                   | Prem 980 sx 2.41, 1325 sx 1.73                               |           |               |
|                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   |                                                              |           |               |
| <b>24. LINER RECORD</b>                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   |                                                              |           |               |
| SIZE                                                                                                                                                                                                                                                                                                                                                                                  | TOP                                 | BOTTOM                                                                                                                                                                                | SACKS CEMENT                           |                   | SCREEN               |                                                      | 25. TUBING RECORD |                                                              |           |               |
|                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      | SIZE              |                                                              | DEPTH SET | PACKER SET    |
|                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      | 2 7/8             |                                                              | 9025      |               |
|                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   |                                                              |           |               |
| 26. Perforation record (interval, size, and number)<br>9,508-16,438 0.37 1,311 holes                                                                                                                                                                                                                                                                                                  |                                     |                                                                                                                                                                                       |                                        |                   |                      | 27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.      |                   |                                                              |           |               |
|                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                       |                                        |                   |                      | DEPTH INTERVAL                                       |                   | AMOUNT AND KIND MATERIAL USED                                |           |               |
|                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                       |                                        |                   |                      | 9,508-16,438                                         |                   | Total Proppant 15,590,654 – Total Fluid 304,335              |           |               |
|                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   |                                                              |           |               |
|                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   |                                                              |           |               |
| <b>28. PRODUCTION</b>                                                                                                                                                                                                                                                                                                                                                                 |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   |                                                              |           |               |
| Date First Production<br>03/15/2022                                                                                                                                                                                                                                                                                                                                                   |                                     | Production Method ( <i>Flowing, gas lift, pumping - Size and type pump</i> )<br>Gas Lift                                                                                              |                                        |                   |                      | Well Status ( <i>Prod. or Shut-in</i> )<br>Producing |                   |                                                              |           |               |
| Date of Test<br>04/4/2022                                                                                                                                                                                                                                                                                                                                                             | Hours Tested<br>24                  | Choke Size<br>88/88                                                                                                                                                                   | Prod'n For Test Period                 | Oil – Bbl<br>1207 | Gas – MCF<br>1669    | Water – Bbl.<br>2945                                 | Gas - Oil Ratio   |                                                              |           |               |
| Flow Tubing Press. 2150                                                                                                                                                                                                                                                                                                                                                               | Casing Pressure<br>324              | Calculated 24-Hour Rate                                                                                                                                                               | Oil - Bbl.<br>1207                     | Gas - MCF<br>1669 | Water - Bbl.<br>2945 | Oil Gravity - API - ( <i>Corr.</i> )<br>42.8         |                   |                                                              |           |               |
| 29. Disposition of Gas ( <i>Sold, used for fuel, vented, etc.</i> )<br>Sold                                                                                                                                                                                                                                                                                                           |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   | 30. Test Witnessed By<br>Colgate Operating, LLC              |           |               |
| 31. List Attachments<br>C-102, C-103, C-104, Directionnel Survey                                                                                                                                                                                                                                                                                                                      |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   |                                                              |           |               |
| 32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.                                                                                                                                                                                                                                                                                    |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   | 33. Rig Release Date:                                        |           |               |
| 34. If an on-site burial was used at the well, report the exact location of the on-site burial:                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                       |                                        |                   |                      |                                                      |                   |                                                              |           |               |
| Latitude                                                                                                                                                                                                                                                                                                                                                                              |                                     |                                                                                                                                                                                       |                                        | Longitude         |                      |                                                      |                   | NAD83                                                        |           |               |

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature

Printed

Name: Mikah Thomas

Title: Sr. Regulatory Analyst

Date: 05/15/2022

E-mail Address: mthomas@colgateenergy.com

## INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

### INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

| Southeastern New Mexico                 |                  | Northwestern New Mexico |                  |
|-----------------------------------------|------------------|-------------------------|------------------|
| T. Rustler- 137                         | T. Canyon        | T. Ojo Alamo            | T. Penn A"       |
| T. Salt- 372                            | T. Strawn        | T. Kirtland             | T. Penn. "B"     |
| B. Salt- 1127                           | T. Atoka         | T. Fruitland            | T. Penn. "C"     |
| T. Yates- 1376                          | T. Miss          | T. Pictured Cliffs      | T. Penn. "D"     |
| T. DLWR Mnt. Group- 3480                | T. Devonian      | T. Cliff House          | T. Leadville     |
| T. L Brushy Canyon- 5364                | T. Silurian      | T. Menefee              | T. Madison       |
| T. BS Lime- 5693                        | T. Montoya       | T. Point Lookout        | T. Elbert        |
| T. 1 <sup>st</sup> Bone Spring SD- 7088 | T. Simpson       | T. Mancos               | T. McCracken     |
| T. 2 <sup>nd</sup> Bone Spring LM- 7293 | T. McKee         | T. Gallup               | T. Ignacio Otzte |
| T. 2 <sup>nd</sup> Bone Spring SD- 7931 | T. Ellenburger   | Base Greenhorn          | T. Granite       |
| T. 3 <sup>rd</sup> Bone Spring LM- 8276 | T. Gr. Wash      | T. Dakota               |                  |
| T. 3 <sup>rd</sup> Bone Spring SD- 8884 | T. Delaware Sand | T. Morrison             |                  |
| T. Drinkard                             | T. Bone Springs  | T. Todilto              |                  |
| T. Abo                                  | T. Capitan- 2745 | T. Entrada              |                  |
| T. Wolfcamp                             | T.               | T. Wingate              |                  |
| T. Penn                                 | T.               | T. Chinle               |                  |
| T. Cisco (Bough C)                      | T.               | T. Permian              |                  |

### OIL OR GAS SANDS OR ZONES

No. 1, from.....to.....

No. 3, from.....to.....

No. 2, from.....to.....

No. 4, from.....to.....

### IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....

No. 2, from.....to.....feet.....

No. 3, from.....to.....feet.....

### LITHOLOGY RECORD (Attach additional sheet if necessary)

| From | To | Thickness<br>In Feet | Lithology | From | To | Thickness<br>In Feet | Lithology |
|------|----|----------------------|-----------|------|----|----------------------|-----------|
|------|----|----------------------|-----------|------|----|----------------------|-----------|

|  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

ACKNOWLEDGMENTS  
  
Action 116298

**ACKNOWLEDGMENTS**

|                                                                                         |                                                    |
|-----------------------------------------------------------------------------------------|----------------------------------------------------|
| Operator:<br>COLGATE OPERATING, LLC<br>300 North Marienfeld Street<br>Midland, TX 79701 | OGRID:<br>371449                                   |
|                                                                                         | Action Number:<br>116298                           |
|                                                                                         | Action Type:<br>[C-104] Completion Packet (C-104C) |

**ACKNOWLEDGMENTS**

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

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

CONDITIONS  
  
Action 116298

CONDITIONS

|                                                                                         |                                                    |
|-----------------------------------------------------------------------------------------|----------------------------------------------------|
| Operator:<br>COLGATE OPERATING, LLC<br>300 North Marienfeld Street<br>Midland, TX 79701 | OGRID:<br>371449                                   |
|                                                                                         | Action Number:<br>116298                           |
|                                                                                         | Action Type:<br>[C-104] Completion Packet (C-104C) |

CONDITIONS

| Created By | Condition                                                                                              | Condition Date |
|------------|--------------------------------------------------------------------------------------------------------|----------------|
| plmartinez | File 3160-4 Completion Report and 3160-5 Completion Sundry within 10 days to NMOCD after BLM approval. | 8/12/2022      |