

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

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

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

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

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

Form C-101  
August 1, 2011  
Permit 272946

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

|                                                                                                  |  |                               |
|--------------------------------------------------------------------------------------------------|--|-------------------------------|
| 1. Operator Name and Address<br>COLGATE OPERATING, LLC<br>306 W Wall Street<br>Midland, TX 79701 |  | 2. OGRID Number<br>371449     |
| 4. Property Code<br>326127                                                                       |  | 3. API Number<br>30-015-46357 |
| 5. Property Name<br>LADY FRANKLIN 25 STATE                                                       |  | 6. Well No.<br>133H           |

**7. Surface Location**

|          |         |          |       |         |           |          |           |          |        |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
| L        | 25      | 19S      | 28E   |         | 1336      | S        | 265       | W        | Eddy   |

**8. Proposed Bottom Hole Location**

|          |         |          |       |         |           |          |           |          |        |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
| I        | 25      | 19S      | 28E   | I       | 1656      | S        | 10        | E        | Eddy   |

**9. Pool Information**

|                        |       |
|------------------------|-------|
| WINCHESTER;BONE SPRING | 65010 |
|------------------------|-------|

**Additional Well Information**

|                           |                             |                                        |                         |                                    |
|---------------------------|-----------------------------|----------------------------------------|-------------------------|------------------------------------|
| 11. Work Type<br>New Well | 12. Well Type<br>OIL        | 13. Cable/Rotary                       | 14. Lease Type<br>State | 15. Ground Level Elevation<br>3335 |
| 16. Multiple<br>N         | 17. Proposed Depth<br>13643 | 18. Formation<br>Bone Spring           | 19. Contractor          | 20. Spud Date<br>12/1/2019         |
| Depth to Ground water     |                             | Distance from nearest fresh water well |                         | Distance to nearest surface water  |

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

**21. Proposed Casing and Cement Program**

| Type | Hole Size | Casing Size | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|------|-----------|-------------|------------------|---------------|-----------------|---------------|
| Surf | 17.5      | 13.375      | 54.5             | 950           | 733             | 0             |
| Int1 | 12.25     | 9.625       | 36               | 3050          | 985             | 0             |
| Prod | 8.5       | 5.5         | 20               | 13643         | 2570            | 2050          |

**Casing/Cement Program: Additional Comments**

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

**22. Proposed Blowout Prevention Program**

| Type       | Working Pressure | Test Pressure | Manufacturer |
|------------|------------------|---------------|--------------|
| Annular    | 3000             | 3000          | Shaffer      |
| Double Ram | 5000             | 5000          | Shaffer      |

|                                                                                                                                                                                                                                                                                                                      |                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.<br>I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.<br><br>Signature: | <b>OIL CONSERVATION DIVISION</b>                         |
| Printed Name: Electronically filed by Mikah Thomas                                                                                                                                                                                                                                                                   | Approved By: Raymond Podany                              |
| Title: Operations Tech                                                                                                                                                                                                                                                                                               | Title: Geologist                                         |
| Email Address: mthomas@colgateenergy.com                                                                                                                                                                                                                                                                             | Approved Date: 10/8/2019      Expiration Date: 10/8/2021 |
| Date: 10/2/2019      Phone: 432-695-4272                                                                                                                                                                                                                                                                             | Conditions of Approval Attached                          |

[illegible]

Intent ☒ YES As Drilled ☐

API #

|                                             |                                                 |                            |
|---------------------------------------------|-------------------------------------------------|----------------------------|
| Operator Name:<br><b>COLGATE ENERGY LLC</b> | Property Name:<br><b>LADY FRANKLIN 25 STATE</b> | Well Number<br><b>133H</b> |
|---------------------------------------------|-------------------------------------------------|----------------------------|

Kick Off Point (KOP)

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

First Take Point (FTP)

|                               |                      |                        |                     |     |                                 |                          |                    |                         |                       |
|-------------------------------|----------------------|------------------------|---------------------|-----|---------------------------------|--------------------------|--------------------|-------------------------|-----------------------|
| UL<br><b>L</b>                | Section<br><b>25</b> | Township<br><b>19S</b> | Range<br><b>28E</b> | Lot | Feet<br><b>1656</b>             | From N/S<br><b>SOUTH</b> | Feet<br><b>100</b> | From E/W<br><b>WEST</b> | County<br><b>EDDY</b> |
| Latitude<br><b>32.6291509</b> |                      |                        |                     |     | Longitude<br><b>104.1385811</b> |                          |                    | NAD<br><b>83</b>        |                       |

Last Take Point (LTP)

|                               |                      |                        |                     |     |                                 |                          |                   |                         |                       |
|-------------------------------|----------------------|------------------------|---------------------|-----|---------------------------------|--------------------------|-------------------|-------------------------|-----------------------|
| UL<br><b>I</b>                | Section<br><b>25</b> | Township<br><b>19S</b> | Range<br><b>28E</b> | Lot | Feet<br><b>1656</b>             | From N/S<br><b>SOUTH</b> | Feet<br><b>10</b> | From E/W<br><b>EAST</b> | County<br><b>EDDY</b> |
| Latitude<br><b>32.6292234</b> |                      |                        |                     |     | Longitude<br><b>104.1219613</b> |                          |                   | NAD<br><b>83</b>        |                       |

Is this well the defining well for the Horizontal Spacing Unit? ☒ NO

Is this well an infill well? ☒ YES

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

API #

|                                                 |                                                 |                            |
|-------------------------------------------------|-------------------------------------------------|----------------------------|
| Operator Name:<br><b>COLGATE OPERATING, LLC</b> | Property Name:<br><b>LADY FRANKLIN 25 STATE</b> | Well Number<br><b>123H</b> |
|-------------------------------------------------|-------------------------------------------------|----------------------------|

KZ 06/29/2018

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

**GAS CAPTURE PLAN**

Date: 10/8/2019

☒ Original

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

☐ Amended - Reason for  
Amendment:

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

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

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

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

| Well Name                    | API          | Well Location<br>(ULSTR) | Footages    | Expected<br>MCF/D | Flared or<br>Vented | Comments |
|------------------------------|--------------|--------------------------|-------------|-------------------|---------------------|----------|
| LADY FRANKLIN 25 STATE #133H | 30-015-46357 | L-25-19S-28E             | 1336S 0265W | 250               | Flared              |          |

**Gathering System and Pipeline Notification**

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to LM Touchdown LLC and will be connected to LM Touchdown LLC Low Pressure gathering system located in Eddy County, New Mexico. It will require 4500' of pipeline to connect the facility to Low Pressure gathering system. COLGATE OPERATING, LLC provides (periodically) to LM Touchdown LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, COLGATE OPERATING, LLC and LM Touchdown LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at LM Touchdown LLC Processing Plant located in Sec. 25, Twn. 19S, Rng. 28E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

**Flowback Strategy**

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

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

**Alternatives to Reduce Flaring**

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

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

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Form APD Comments

Permit 272946

**PERMIT COMMENTS**

|                                                                                                         |  |                                       |
|---------------------------------------------------------------------------------------------------------|--|---------------------------------------|
| Operator Name and Address:<br>COLGATE OPERATING, LLC [371449]<br>306 W Wall Street<br>Midland, TX 79701 |  | API Number:<br>30-015-46357           |
|                                                                                                         |  | Well:<br>LADY FRANKLIN 25 STATE #133H |

|            |         |              |
|------------|---------|--------------|
| Created By | Comment | Comment Date |
|------------|---------|--------------|

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Form APD Conditions  
  
Permit 272946

**PERMIT CONDITIONS OF APPROVAL**

|                                                                                                         |                                                                                     |                                       |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|
| Operator Name and Address:<br>COLGATE OPERATING, LLC [371449]<br>306 W Wall Street<br>Midland, TX 79701 |                                                                                     | API Number:<br>30-015-46357           |
|                                                                                                         |                                                                                     | Well:<br>LADY FRANKLIN 25 STATE #133H |
| OCD Reviewer                                                                                            | Condition                                                                           |                                       |
| rpodany                                                                                                 | Will require a directional survey with the C-104                                    |                                       |
| rpodany                                                                                                 | Cement is required to circulate on both surface and intermediate1 strings of casing |                                       |

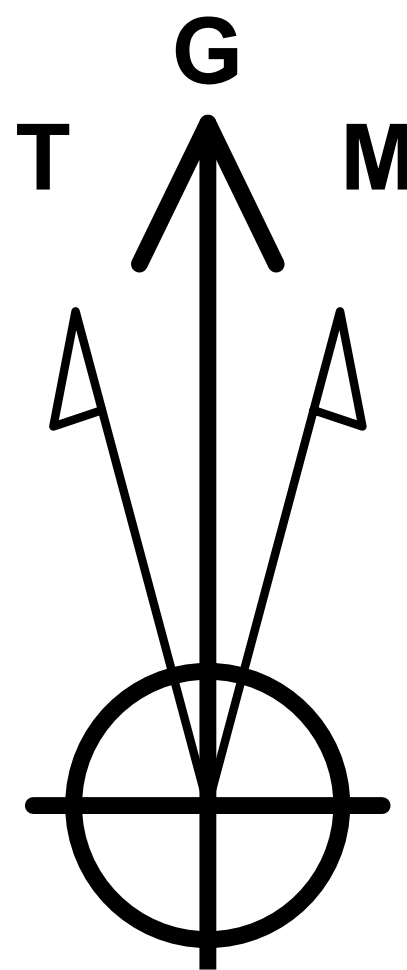




Colgate Energy  
Project: Eddy County, NM (N83-NME)  
Site: Lady Franklin 25  
Well: Lady Franklin 25 State 133H  
Wellbore: Permit  
Plan: Plan #1

WELL DETAILS: Lady Franklin 25 State 133H

|           |           |             |               |      |
|-----------|-----------|-------------|---------------|------|
| Northing  | Easting   | Latitude    | Longitude     | Slot |
| 592352.15 | 601458.79 | 32.62827395 | -104.13804299 | S02  |



Azimuths to Grid North  
True North: -0.10°  
Magnetic North: 6.91°

Magnetic Field  
Strength: 47891.6snT  
Dip Angle: 60.31°  
Date: 8/27/2019  
Model: IGRF2015

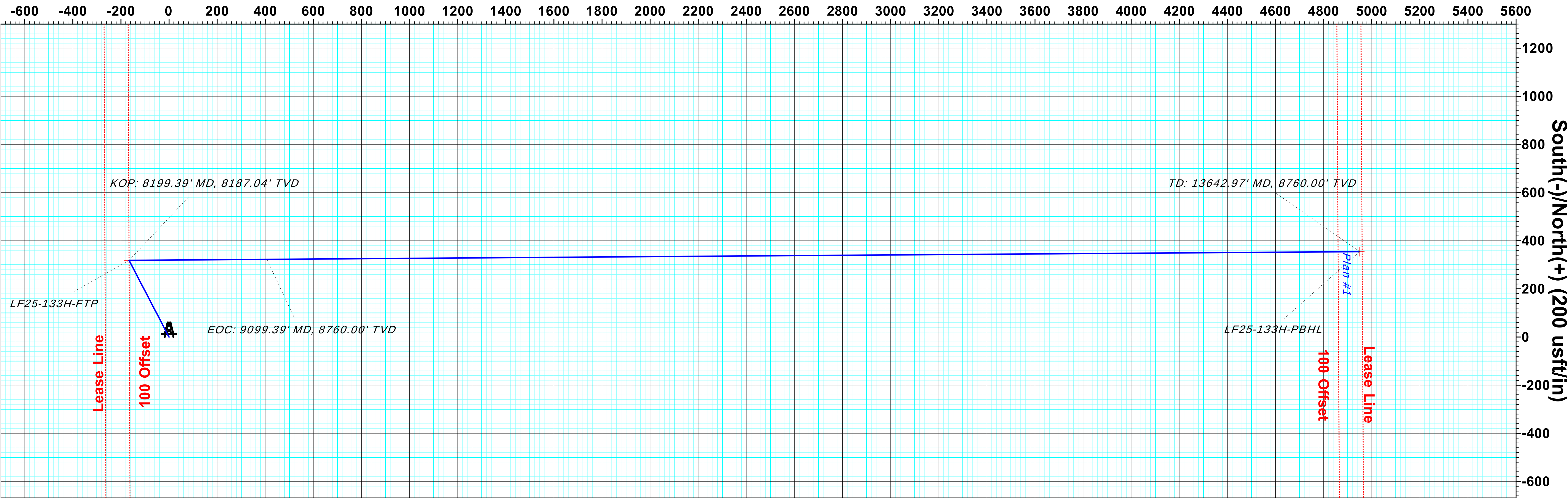
PROJECT DETAILS: Eddy County, NM (N83-NME)  
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level  
Local North: Grid  
KB Elevation: 3335+26 @ 3361.00usft (Permit)  
Elevation: 3335.00

FORMATION TOP DETAILS

|         |         |                    |
|---------|---------|--------------------|
| TVDPath | MDPath  | Formation          |
| 681.00  | 681.00  | Top of Salt        |
| 980.00  | 980.00  | Base of Salt       |
| 2082.00 | 2082.74 | Yates              |
| 2678.00 | 2680.20 | Capitan            |
| 2918.00 | 2920.79 | Cherry Canyon      |
| 3191.00 | 3194.46 | Brushy Canyon      |
| 4201.00 | 4206.93 | Bone Spring LM     |
| 6582.00 | 6593.77 | 1st Bone Spring Sd |
| 7431.00 | 7443.35 | 2nd Bone Spring Sd |
| 8481.00 | 8508.07 | 3rd Bone Spring Sd |

CASING DETAILS

|         |         |      |
|---------|---------|------|
| TVD     | MD      | Name |
| 400.00  | 400.00  | SCP  |
| 8000.00 | 8012.35 | ICP  |

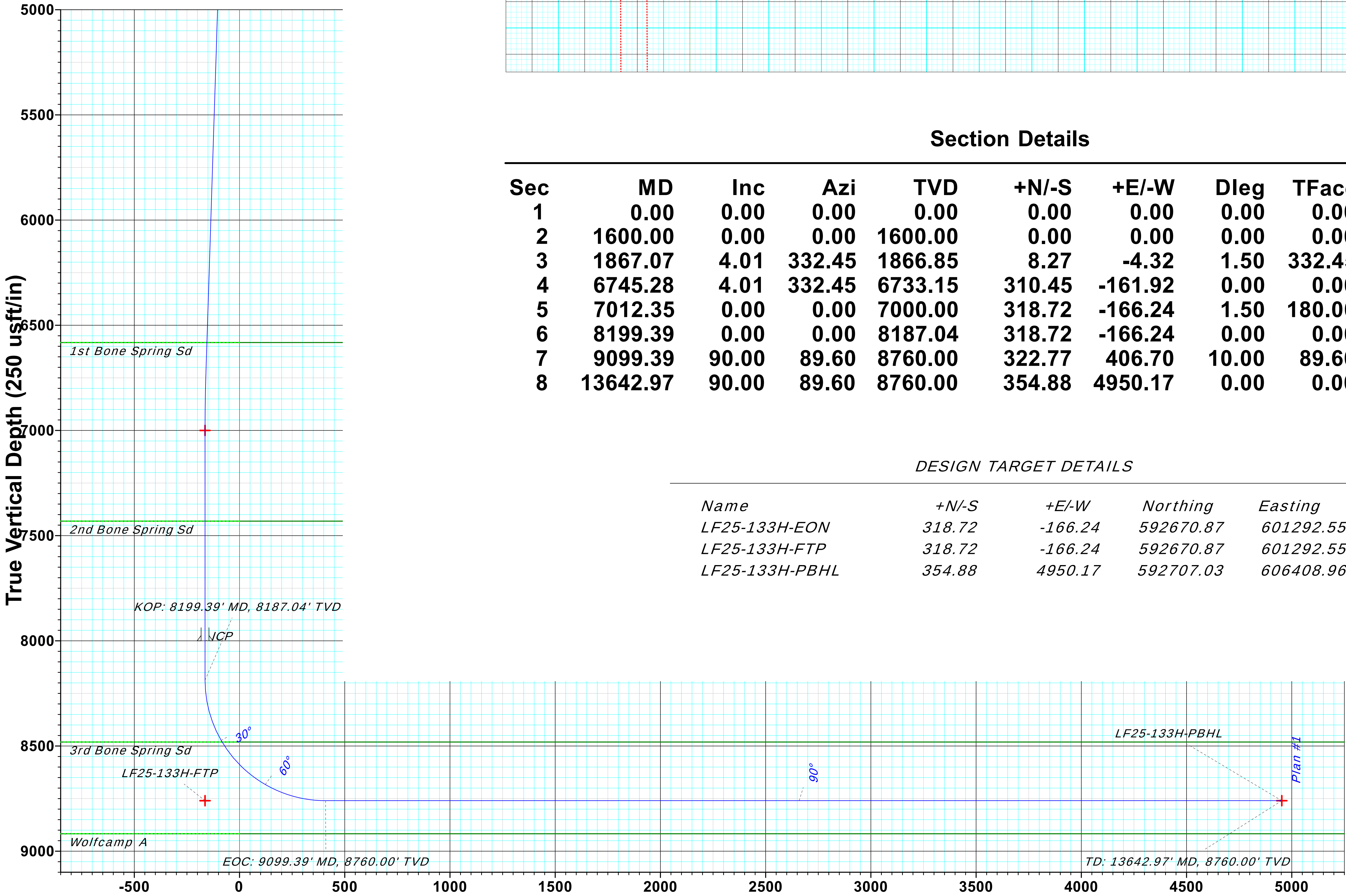


Section Details

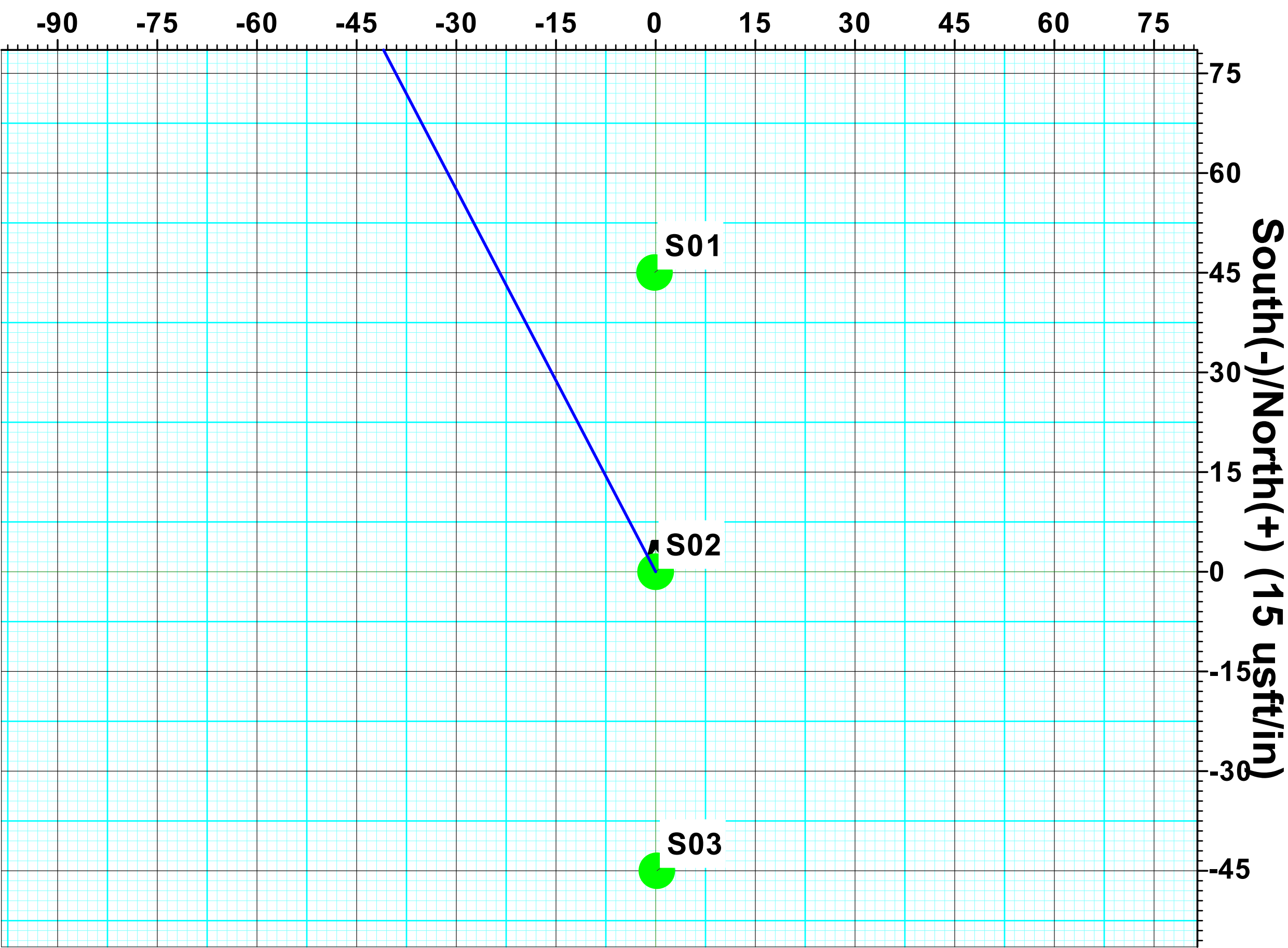
| Sec | MD       | Inc   | Azi    | TVD     | +N/-S  | +E/-W   | Dleg  | TFace  | VSect   |
|-----|----------|-------|--------|---------|--------|---------|-------|--------|---------|
| 1   | 0.00     | 0.00  | 0.00   | 0.00    | 0.00   | 0.00    | 0.00  | 0.00   | 0.00    |
| 2   | 1600.00  | 0.00  | 0.00   | 1600.00 | 0.00   | 0.00    | 0.00  | 0.00   | 0.00    |
| 3   | 1867.07  | 4.01  | 332.45 | 1866.85 | 8.27   | -4.32   | 1.50  | 332.45 | -4.26   |
| 4   | 6745.28  | 4.01  | 332.45 | 6733.15 | 310.45 | -161.92 | 0.00  | 0.00   | -159.70 |
| 5   | 7012.35  | 0.00  | 0.00   | 7000.00 | 318.72 | -166.24 | 1.50  | 180.00 | -163.96 |
| 6   | 8199.39  | 0.00  | 0.00   | 8187.04 | 318.72 | -166.24 | 0.00  | 0.00   | -163.96 |
| 7   | 9099.39  | 90.00 | 89.60  | 8760.00 | 322.77 | 406.70  | 10.00 | 89.60  | 409.00  |
| 8   | 13642.97 | 90.00 | 89.60  | 8760.00 | 354.88 | 4950.17 | 0.00  | 0.00   | 4952.58 |

DESIGN TARGET DETAILS

|                |        |         |           |           |
|----------------|--------|---------|-----------|-----------|
| Name           | +N/-S  | +E/-W   | Northing  | Easting   |
| LF25-133H-EON  | 318.72 | -166.24 | 592670.87 | 601292.55 |
| LF25-133H-FTP  | 318.72 | -166.24 | 592670.87 | 601292.55 |
| LF25-133H-PBHL | 354.88 | 4950.17 | 592707.03 | 606408.96 |



West(-)/East(+) (15 usft/in)



Vertical Section at 89.59° (250 usft/in)



|                  |                             |                                     |                                             |
|------------------|-----------------------------|-------------------------------------|---------------------------------------------|
| <b>Database:</b> | EDM 5000.14 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well Lady Franklin 25 State 133H - Slot S02 |
| <b>Company:</b>  | Colgate Energy              | <b>TVD Reference:</b>               | 3335+26 @ 3361.00usft (Permit)              |
| <b>Project:</b>  | Eddy County, NM (N83-NME)   | <b>MD Reference:</b>                | 3335+26 @ 3361.00usft (Permit)              |
| <b>Site:</b>     | Lady Franklin 25            | <b>North Reference:</b>             | Grid                                        |
| <b>Well:</b>     | Lady Franklin 25 State 133H | <b>Survey Calculation Method:</b>   | Minimum Curvature                           |
| <b>Wellbore:</b> | Permit                      |                                     |                                             |
| <b>Design:</b>   | Plan #1                     |                                     |                                             |

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

|                       |           |                  |                 |                   |               |
|-----------------------|-----------|------------------|-----------------|-------------------|---------------|
| Site                  |           | Lady Franklin 25 |                 |                   |               |
| Site Position:        |           | Northing:        | 596,295.72 usft | Latitude:         | 32.63911509   |
| From:                 | Map       | Easting:         | 601,180.81 usft | Longitude:        | -104.13892250 |
| Position Uncertainty: | 0.00 usft | Slot Radius:     | 13-3/16 "       | Grid Convergence: | 0.10 °        |

|                      |                                        |                |                     |                 |               |               |
|----------------------|----------------------------------------|----------------|---------------------|-----------------|---------------|---------------|
| Well                 | Lady Franklin 25 State 133H - Slot S02 |                |                     |                 |               |               |
| Well Position        | +N/-S                                  | -3,943.57 usft | Northing:           | 592,352.15 usft | Latitude:     | 32.62827395   |
|                      | +E/-W                                  | 277.98 usft    | Easting:            | 601,458.79 usft | Longitude:    | -104.13804299 |
| Position Uncertainty |                                        | 0.00 usft      | Wellhead Elevation: |                 | Ground Level: | 3,335.00 usft |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Permit            |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2015          | 8/27/2019          | 7.01                   | 60.31                | 47,891.58551078            |

|                          |                                |                     |                      |                      |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| <b>Design</b>            | Plan #1                        |                     |                      |                      |
| <b>Audit Notes:</b>      |                                |                     |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                  | PLAN                | <b>Tie On Depth:</b> | 0.00                 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b>  | <b>Direction (°)</b> |
|                          | 0.00                           | 0.00                | 0.00                 | 89.59                |

|                                 |                        |                          |                  |                |
|---------------------------------|------------------------|--------------------------|------------------|----------------|
| <b>Plan Survey Tool Program</b> | <b>Date</b>            | 9/16/2019                |                  |                |
| <b>Depth From (usft)</b>        | <b>Depth To (usft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Remarks</b> |
| 1                               | 0.00                   | 13,642.97                | Plan #1 (Permit) | MWD            |
|                                 |                        |                          |                  | MWD - Standard |

|                              |                        |                    |                              |                     |                     |                                |                               |                              |                |                |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|-------------------------------|------------------------------|----------------|----------------|
| <b>Plan Sections</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>Dogleg Rate (°/100usft)</b> | <b>Build Rate (°/100usft)</b> | <b>Turn Rate (°/100usft)</b> | <b>TFO (°)</b> | <b>Target</b>  |
| 0.00                         | 0.00                   | 0.00               | 0.00                         | 0.00                | 0.00                | 0.00                           | 0.00                          | 0.00                         | 0.00           |                |
| 1,600.00                     | 0.00                   | 0.00               | 1,600.00                     | 0.00                | 0.00                | 0.00                           | 0.00                          | 0.00                         | 0.00           |                |
| 1,867.07                     | 4.01                   | 332.45             | 1,866.85                     | 8.27                | -4.32               | 1.50                           | 1.50                          | 0.00                         | 332.45         |                |
| 6,745.28                     | 4.01                   | 332.45             | 6,733.15                     | 310.45              | -161.92             | 0.00                           | 0.00                          | 0.00                         | 0.00           |                |
| 7,012.35                     | 0.00                   | 0.00               | 7,000.00                     | 318.72              | -166.24             | 1.50                           | -1.50                         | 0.00                         | 180.00         | LF25-133H-EON  |
| 8,199.39                     | 0.00                   | 0.00               | 8,187.04                     | 318.72              | -166.24             | 0.00                           | 0.00                          | 0.00                         | 0.00           |                |
| 9,099.39                     | 90.00                  | 89.60              | 8,760.00                     | 322.77              | 406.70              | 10.00                          | 10.00                         | 9.96                         | 89.60          |                |
| 13,642.97                    | 90.00                  | 89.60              | 8,760.00                     | 354.88              | 4,950.17            | 0.00                           | 0.00                          | 0.00                         | 0.00           | LF25-133H-PBHL |



|                  |                             |                                     |                                             |
|------------------|-----------------------------|-------------------------------------|---------------------------------------------|
| <b>Database:</b> | EDM 5000.14 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well Lady Franklin 25 State 133H - Slot S02 |
| <b>Company:</b>  | Colgate Energy              | <b>TVD Reference:</b>               | 3335+26 @ 3361.00usft (Permit)              |
| <b>Project:</b>  | Eddy County, NM (N83-NME)   | <b>MD Reference:</b>                | 3335+26 @ 3361.00usft (Permit)              |
| <b>Site:</b>     | Lady Franklin 25            | <b>North Reference:</b>             | Grid                                        |
| <b>Well:</b>     | Lady Franklin 25 State 133H | <b>Survey Calculation Method:</b>   | Minimum Curvature                           |
| <b>Wellbore:</b> | Permit                      |                                     |                                             |
| <b>Design:</b>   | Plan #1                     |                                     |                                             |

| Planned Survey        |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 0.00                  | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 100.00                | 0.00            | 0.00        | 100.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 200.00                | 0.00            | 0.00        | 200.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 300.00                | 0.00            | 0.00        | 300.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 400.00                | 0.00            | 0.00        | 400.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| SCP                   |                 |             |                       |              |              |                         |                         |                        |                       |
| 500.00                | 0.00            | 0.00        | 500.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 600.00                | 0.00            | 0.00        | 600.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 681.00                | 0.00            | 0.00        | 681.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| Top of Salt           |                 |             |                       |              |              |                         |                         |                        |                       |
| 700.00                | 0.00            | 0.00        | 700.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 800.00                | 0.00            | 0.00        | 800.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 900.00                | 0.00            | 0.00        | 900.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 980.00                | 0.00            | 0.00        | 980.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| Base of Salt          |                 |             |                       |              |              |                         |                         |                        |                       |
| 1,000.00              | 0.00            | 0.00        | 1,000.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,100.00              | 0.00            | 0.00        | 1,100.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,200.00              | 0.00            | 0.00        | 1,200.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,300.00              | 0.00            | 0.00        | 1,300.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,400.00              | 0.00            | 0.00        | 1,400.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,500.00              | 0.00            | 0.00        | 1,500.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,600.00              | 0.00            | 0.00        | 1,600.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,700.00              | 1.50            | 332.45      | 1,699.99              | 1.16         | -0.61        | -0.60                   | 1.50                    | 1.50                   | 0.00                  |
| 1,800.00              | 3.00            | 332.45      | 1,799.91              | 4.64         | -2.42        | -2.39                   | 1.50                    | 1.50                   | 0.00                  |
| 1,867.07              | 4.01            | 332.45      | 1,866.85              | 8.27         | -4.32        | -4.26                   | 1.50                    | 1.50                   | 0.00                  |
| 1,900.00              | 4.01            | 332.45      | 1,899.70              | 10.31        | -5.38        | -5.31                   | 0.00                    | 0.00                   | 0.00                  |
| 2,000.00              | 4.01            | 332.45      | 1,999.46              | 16.51        | -8.61        | -8.49                   | 0.00                    | 0.00                   | 0.00                  |
| 2,082.74              | 4.01            | 332.45      | 2,082.00              | 21.63        | -11.28       | -11.13                  | 0.00                    | 0.00                   | 0.00                  |
| Yates                 |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,100.00              | 4.01            | 332.45      | 2,099.21              | 22.70        | -11.84       | -11.68                  | 0.00                    | 0.00                   | 0.00                  |
| 2,200.00              | 4.01            | 332.45      | 2,198.97              | 28.90        | -15.07       | -14.87                  | 0.00                    | 0.00                   | 0.00                  |
| 2,300.00              | 4.01            | 332.45      | 2,298.72              | 35.09        | -18.30       | -18.05                  | 0.00                    | 0.00                   | 0.00                  |
| 2,400.00              | 4.01            | 332.45      | 2,398.48              | 41.29        | -21.53       | -21.24                  | 0.00                    | 0.00                   | 0.00                  |
| 2,500.00              | 4.01            | 332.45      | 2,498.24              | 47.48        | -24.77       | -24.42                  | 0.00                    | 0.00                   | 0.00                  |
| 2,600.00              | 4.01            | 332.45      | 2,597.99              | 53.67        | -28.00       | -27.61                  | 0.00                    | 0.00                   | 0.00                  |
| 2,680.20              | 4.01            | 332.45      | 2,678.00              | 58.64        | -30.59       | -30.17                  | 0.00                    | 0.00                   | 0.00                  |
| Capitan               |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,700.00              | 4.01            | 332.45      | 2,697.75              | 59.87        | -31.23       | -30.80                  | 0.00                    | 0.00                   | 0.00                  |
| 2,800.00              | 4.01            | 332.45      | 2,797.50              | 66.06        | -34.46       | -33.98                  | 0.00                    | 0.00                   | 0.00                  |
| 2,900.00              | 4.01            | 332.45      | 2,897.26              | 72.26        | -37.69       | -37.17                  | 0.00                    | 0.00                   | 0.00                  |
| 2,920.79              | 4.01            | 332.45      | 2,918.00              | 73.55        | -38.36       | -37.83                  | 0.00                    | 0.00                   | 0.00                  |
| Cherry Canyon         |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,000.00              | 4.01            | 332.45      | 2,997.01              | 78.45        | -40.92       | -40.36                  | 0.00                    | 0.00                   | 0.00                  |
| 3,100.00              | 4.01            | 332.45      | 3,096.77              | 84.65        | -44.15       | -43.54                  | 0.00                    | 0.00                   | 0.00                  |
| 3,194.46              | 4.01            | 332.45      | 3,191.00              | 90.50        | -47.20       | -46.55                  | 0.00                    | 0.00                   | 0.00                  |
| Brushy Canyon         |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,200.00              | 4.01            | 332.45      | 3,196.53              | 90.84        | -47.38       | -46.73                  | 0.00                    | 0.00                   | 0.00                  |
| 3,300.00              | 4.01            | 332.45      | 3,296.28              | 97.03        | -50.61       | -49.92                  | 0.00                    | 0.00                   | 0.00                  |
| 3,400.00              | 4.01            | 332.45      | 3,396.04              | 103.23       | -53.84       | -53.10                  | 0.00                    | 0.00                   | 0.00                  |
| 3,500.00              | 4.01            | 332.45      | 3,495.79              | 109.42       | -57.07       | -56.29                  | 0.00                    | 0.00                   | 0.00                  |
| 3,600.00              | 4.01            | 332.45      | 3,595.55              | 115.62       | -60.30       | -59.48                  | 0.00                    | 0.00                   | 0.00                  |
| 3,700.00              | 4.01            | 332.45      | 3,695.30              | 121.81       | -63.54       | -62.66                  | 0.00                    | 0.00                   | 0.00                  |
| 3,800.00              | 4.01            | 332.45      | 3,795.06              | 128.01       | -66.77       | -65.85                  | 0.00                    | 0.00                   | 0.00                  |

|                  |                             |                                     |                                             |
|------------------|-----------------------------|-------------------------------------|---------------------------------------------|
| <b>Database:</b> | EDM 5000.14 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well Lady Franklin 25 State 133H - Slot S02 |
| <b>Company:</b>  | Colgate Energy              | <b>TVD Reference:</b>               | 3335+26 @ 3361.00usft (Permit)              |
| <b>Project:</b>  | Eddy County, NM (N83-NME)   | <b>MD Reference:</b>                | 3335+26 @ 3361.00usft (Permit)              |
| <b>Site:</b>     | Lady Franklin 25            | <b>North Reference:</b>             | Grid                                        |
| <b>Well:</b>     | Lady Franklin 25 State 133H | <b>Survey Calculation Method:</b>   | Minimum Curvature                           |
| <b>Wellbore:</b> | Permit                      |                                     |                                             |
| <b>Design:</b>   | Plan #1                     |                                     |                                             |

| Planned Survey            |                 |             |                       |              |              |                         |                         |                        |                       |
|---------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)     | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 3,900.00                  | 4.01            | 332.45      | 3,894.82              | 134.20       | -70.00       | -69.03                  | 0.00                    | 0.00                   | 0.00                  |
| 4,000.00                  | 4.01            | 332.45      | 3,994.57              | 140.39       | -73.23       | -72.22                  | 0.00                    | 0.00                   | 0.00                  |
| 4,100.00                  | 4.01            | 332.45      | 4,094.33              | 146.59       | -76.46       | -75.41                  | 0.00                    | 0.00                   | 0.00                  |
| 4,200.00                  | 4.01            | 332.45      | 4,194.08              | 152.78       | -79.69       | -78.59                  | 0.00                    | 0.00                   | 0.00                  |
| 4,206.93                  | 4.01            | 332.45      | 4,201.00              | 153.21       | -79.91       | -78.82                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Bone Spring LM</b>     |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,300.00                  | 4.01            | 332.45      | 4,293.84              | 158.98       | -82.92       | -81.78                  | 0.00                    | 0.00                   | 0.00                  |
| 4,400.00                  | 4.01            | 332.45      | 4,393.59              | 165.17       | -86.15       | -84.97                  | 0.00                    | 0.00                   | 0.00                  |
| 4,500.00                  | 4.01            | 332.45      | 4,493.35              | 171.37       | -89.38       | -88.15                  | 0.00                    | 0.00                   | 0.00                  |
| 4,600.00                  | 4.01            | 332.45      | 4,593.11              | 177.56       | -92.61       | -91.34                  | 0.00                    | 0.00                   | 0.00                  |
| 4,700.00                  | 4.01            | 332.45      | 4,692.86              | 183.75       | -95.84       | -94.53                  | 0.00                    | 0.00                   | 0.00                  |
| 4,800.00                  | 4.01            | 332.45      | 4,792.62              | 189.95       | -99.07       | -97.71                  | 0.00                    | 0.00                   | 0.00                  |
| 4,900.00                  | 4.01            | 332.45      | 4,892.37              | 196.14       | -102.31      | -100.90                 | 0.00                    | 0.00                   | 0.00                  |
| 5,000.00                  | 4.01            | 332.45      | 4,992.13              | 202.34       | -105.54      | -104.09                 | 0.00                    | 0.00                   | 0.00                  |
| 5,100.00                  | 4.01            | 332.45      | 5,091.88              | 208.53       | -108.77      | -107.27                 | 0.00                    | 0.00                   | 0.00                  |
| 5,200.00                  | 4.01            | 332.45      | 5,191.64              | 214.73       | -112.00      | -110.46                 | 0.00                    | 0.00                   | 0.00                  |
| 5,300.00                  | 4.01            | 332.45      | 5,291.39              | 220.92       | -115.23      | -113.65                 | 0.00                    | 0.00                   | 0.00                  |
| 5,400.00                  | 4.01            | 332.45      | 5,391.15              | 227.11       | -118.46      | -116.83                 | 0.00                    | 0.00                   | 0.00                  |
| 5,500.00                  | 4.01            | 332.45      | 5,490.91              | 233.31       | -121.69      | -120.02                 | 0.00                    | 0.00                   | 0.00                  |
| 5,600.00                  | 4.01            | 332.45      | 5,590.66              | 239.50       | -124.92      | -123.20                 | 0.00                    | 0.00                   | 0.00                  |
| 5,700.00                  | 4.01            | 332.45      | 5,690.42              | 245.70       | -128.15      | -126.39                 | 0.00                    | 0.00                   | 0.00                  |
| 5,800.00                  | 4.01            | 332.45      | 5,790.17              | 251.89       | -131.38      | -129.58                 | 0.00                    | 0.00                   | 0.00                  |
| 5,900.00                  | 4.01            | 332.45      | 5,889.93              | 258.09       | -134.61      | -132.76                 | 0.00                    | 0.00                   | 0.00                  |
| 6,000.00                  | 4.01            | 332.45      | 5,989.68              | 264.28       | -137.84      | -135.95                 | 0.00                    | 0.00                   | 0.00                  |
| 6,100.00                  | 4.01            | 332.45      | 6,089.44              | 270.47       | -141.08      | -139.14                 | 0.00                    | 0.00                   | 0.00                  |
| 6,200.00                  | 4.01            | 332.45      | 6,189.20              | 276.67       | -144.31      | -142.32                 | 0.00                    | 0.00                   | 0.00                  |
| 6,300.00                  | 4.01            | 332.45      | 6,288.95              | 282.86       | -147.54      | -145.51                 | 0.00                    | 0.00                   | 0.00                  |
| 6,400.00                  | 4.01            | 332.45      | 6,388.71              | 289.06       | -150.77      | -148.70                 | 0.00                    | 0.00                   | 0.00                  |
| 6,500.00                  | 4.01            | 332.45      | 6,488.46              | 295.25       | -154.00      | -151.88                 | 0.00                    | 0.00                   | 0.00                  |
| 6,593.77                  | 4.01            | 332.45      | 6,582.00              | 301.06       | -157.03      | -154.87                 | 0.00                    | 0.00                   | 0.00                  |
| <b>1st Bone Spring Sd</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,600.00                  | 4.01            | 332.45      | 6,588.22              | 301.45       | -157.23      | -155.07                 | 0.00                    | 0.00                   | 0.00                  |
| 6,700.00                  | 4.01            | 332.45      | 6,687.97              | 307.64       | -160.46      | -158.26                 | 0.00                    | 0.00                   | 0.00                  |
| 6,745.28                  | 4.01            | 332.45      | 6,733.15              | 310.45       | -161.92      | -159.70                 | 0.00                    | 0.00                   | 0.00                  |
| 6,800.00                  | 3.19            | 332.45      | 6,787.76              | 313.49       | -163.51      | -161.26                 | 1.50                    | -1.50                  | 0.00                  |
| 6,900.00                  | 1.69            | 332.45      | 6,887.66              | 317.26       | -165.48      | -163.20                 | 1.50                    | -1.50                  | 0.00                  |
| 7,000.00                  | 0.19            | 332.45      | 6,987.65              | 318.70       | -166.23      | -163.95                 | 1.50                    | -1.50                  | 0.00                  |
| 7,012.35                  | 0.00            | 0.00        | 7,000.00              | 318.72       | -166.24      | -163.96                 | 1.50                    | -1.50                  | 0.00                  |
| <b>LF25-133H-EON</b>      |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,100.00                  | 0.00            | 0.00        | 7,087.65              | 318.72       | -166.24      | -163.96                 | 0.00                    | 0.00                   | 0.00                  |
| 7,200.00                  | 0.00            | 0.00        | 7,187.65              | 318.72       | -166.24      | -163.96                 | 0.00                    | 0.00                   | 0.00                  |
| 7,300.00                  | 0.00            | 0.00        | 7,287.65              | 318.72       | -166.24      | -163.96                 | 0.00                    | 0.00                   | 0.00                  |
| 7,400.00                  | 0.00            | 0.00        | 7,387.65              | 318.72       | -166.24      | -163.96                 | 0.00                    | 0.00                   | 0.00                  |
| 7,443.35                  | 0.00            | 0.00        | 7,431.00              | 318.72       | -166.24      | -163.96                 | 0.00                    | 0.00                   | 0.00                  |
| <b>2nd Bone Spring Sd</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,500.00                  | 0.00            | 0.00        | 7,487.65              | 318.72       | -166.24      | -163.96                 | 0.00                    | 0.00                   | 0.00                  |
| 7,600.00                  | 0.00            | 0.00        | 7,587.65              | 318.72       | -166.24      | -163.96                 | 0.00                    | 0.00                   | 0.00                  |
| 7,700.00                  | 0.00            | 0.00        | 7,687.65              | 318.72       | -166.24      | -163.96                 | 0.00                    | 0.00                   | 0.00                  |
| 7,800.00                  | 0.00            | 0.00        | 7,787.65              | 318.72       | -166.24      | -163.96                 | 0.00                    | 0.00                   | 0.00                  |
| 7,900.00                  | 0.00            | 0.00        | 7,887.65              | 318.72       | -166.24      | -163.96                 | 0.00                    | 0.00                   | 0.00                  |
| 8,000.00                  | 0.00            | 0.00        | 7,987.65              | 318.72       | -166.24      | -163.96                 | 0.00                    | 0.00                   | 0.00                  |
| 8,012.35                  | 0.00            | 0.00        | 8,000.00              | 318.72       | -166.24      | -163.96                 | 0.00                    | 0.00                   | 0.00                  |
| <b>ICP</b>                |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,100.00                  | 0.00            | 0.00        | 8,087.65              | 318.72       | -166.24      | -163.96                 | 0.00                    | 0.00                   | 0.00                  |

|                  |                             |                                     |                                             |
|------------------|-----------------------------|-------------------------------------|---------------------------------------------|
| <b>Database:</b> | EDM 5000.14 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well Lady Franklin 25 State 133H - Slot S02 |
| <b>Company:</b>  | Colgate Energy              | <b>TVD Reference:</b>               | 3335+26 @ 3361.00usft (Permit)              |
| <b>Project:</b>  | Eddy County, NM (N83-NME)   | <b>MD Reference:</b>                | 3335+26 @ 3361.00usft (Permit)              |
| <b>Site:</b>     | Lady Franklin 25            | <b>North Reference:</b>             | Grid                                        |
| <b>Well:</b>     | Lady Franklin 25 State 133H | <b>Survey Calculation Method:</b>   | Minimum Curvature                           |
| <b>Wellbore:</b> | Permit                      |                                     |                                             |
| <b>Design:</b>   | Plan #1                     |                                     |                                             |

| Planned Survey                        |                 |             |                       |              |              |                         |                         |                        |                       |
|---------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)                 | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 8,199.39                              | 0.00            | 0.00        | 8,187.04              | 318.72       | -166.24      | -163.96                 | 0.00                    | 0.00                   | 0.00                  |
| <b>KOP: 8199.39' MD, 8187.04' TVD</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,250.00                              | 5.06            | 89.60       | 8,237.58              | 318.74       | -164.01      | -161.72                 | 10.00                   | 10.00                  | 0.00                  |
| 8,300.00                              | 10.06           | 89.60       | 8,287.13              | 318.78       | -157.43      | -155.15                 | 10.00                   | 10.00                  | 0.00                  |
| 8,350.00                              | 15.06           | 89.60       | 8,335.92              | 318.86       | -146.56      | -144.27                 | 10.00                   | 10.00                  | 0.00                  |
| 8,400.00                              | 20.06           | 89.60       | 8,383.57              | 318.97       | -131.48      | -129.19                 | 10.00                   | 10.00                  | 0.00                  |
| 8,450.00                              | 25.06           | 89.60       | 8,429.73              | 319.10       | -112.30      | -110.02                 | 10.00                   | 10.00                  | 0.00                  |
| 8,500.00                              | 30.06           | 89.60       | 8,474.04              | 319.26       | -89.18       | -86.89                  | 10.00                   | 10.00                  | 0.00                  |
| 8,508.07                              | 30.87           | 89.60       | 8,481.00              | 319.29       | -85.09       | -82.80                  | 10.00                   | 10.00                  | 0.00                  |
| <b>3rd Bone Spring Sd</b>             |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,550.00                              | 35.06           | 89.60       | 8,516.17              | 319.45       | -62.28       | -59.99                  | 10.00                   | 10.00                  | 0.00                  |
| 8,600.00                              | 40.06           | 89.60       | 8,555.79              | 319.67       | -31.81       | -29.52                  | 10.00                   | 10.00                  | 0.00                  |
| 8,650.00                              | 45.06           | 89.60       | 8,592.61              | 319.91       | 2.00         | 4.29                    | 10.00                   | 10.00                  | 0.00                  |
| <b>LF25-133H-FTP</b>                  |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,700.00                              | 50.06           | 89.60       | 8,626.34              | 320.17       | 38.89        | 41.18                   | 10.00                   | 10.00                  | 0.00                  |
| 8,750.00                              | 55.06           | 89.60       | 8,656.73              | 320.45       | 78.57        | 80.86                   | 10.00                   | 10.00                  | 0.00                  |
| 8,800.00                              | 60.06           | 89.60       | 8,683.54              | 320.75       | 120.76       | 123.05                  | 10.00                   | 10.00                  | 0.00                  |
| 8,850.00                              | 65.06           | 89.60       | 8,706.57              | 321.06       | 165.12       | 167.41                  | 10.00                   | 10.00                  | 0.00                  |
| 8,900.00                              | 70.06           | 89.60       | 8,725.65              | 321.39       | 211.31       | 213.61                  | 10.00                   | 10.00                  | 0.00                  |
| 8,950.00                              | 75.06           | 89.60       | 8,740.63              | 321.73       | 259.00       | 261.30                  | 10.00                   | 10.00                  | 0.00                  |
| 9,000.00                              | 80.06           | 89.60       | 8,751.40              | 322.07       | 307.81       | 310.11                  | 10.00                   | 10.00                  | 0.00                  |
| 9,050.00                              | 85.06           | 89.60       | 8,757.87              | 322.42       | 357.37       | 359.67                  | 10.00                   | 10.00                  | 0.00                  |
| 9,099.39                              | 90.00           | 89.60       | 8,760.00              | 322.77       | 406.70       | 409.00                  | 10.00                   | 10.00                  | 0.00                  |
| <b>EOC: 9099.39' MD, 8760.00' TVD</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 9,200.00                              | 90.00           | 89.60       | 8,760.00              | 323.48       | 507.31       | 509.61                  | 0.00                    | 0.00                   | 0.00                  |
| 9,300.00                              | 90.00           | 89.60       | 8,760.00              | 324.19       | 607.30       | 609.61                  | 0.00                    | 0.00                   | 0.00                  |
| 9,400.00                              | 90.00           | 89.60       | 8,760.00              | 324.89       | 707.30       | 709.61                  | 0.00                    | 0.00                   | 0.00                  |
| 9,500.00                              | 90.00           | 89.60       | 8,760.00              | 325.60       | 807.30       | 809.61                  | 0.00                    | 0.00                   | 0.00                  |
| 9,600.00                              | 90.00           | 89.60       | 8,760.00              | 326.31       | 907.30       | 909.61                  | 0.00                    | 0.00                   | 0.00                  |
| 9,700.00                              | 90.00           | 89.60       | 8,760.00              | 327.01       | 1,007.29     | 1,009.61                | 0.00                    | 0.00                   | 0.00                  |
| 9,800.00                              | 90.00           | 89.60       | 8,760.00              | 327.72       | 1,107.29     | 1,109.61                | 0.00                    | 0.00                   | 0.00                  |
| 9,900.00                              | 90.00           | 89.60       | 8,760.00              | 328.43       | 1,207.29     | 1,209.61                | 0.00                    | 0.00                   | 0.00                  |
| 10,000.00                             | 90.00           | 89.60       | 8,760.00              | 329.13       | 1,307.29     | 1,309.61                | 0.00                    | 0.00                   | 0.00                  |
| 10,100.00                             | 90.00           | 89.60       | 8,760.00              | 329.84       | 1,407.28     | 1,409.61                | 0.00                    | 0.00                   | 0.00                  |
| 10,200.00                             | 90.00           | 89.60       | 8,760.00              | 330.55       | 1,507.28     | 1,509.61                | 0.00                    | 0.00                   | 0.00                  |
| 10,300.00                             | 90.00           | 89.60       | 8,760.00              | 331.25       | 1,607.28     | 1,609.61                | 0.00                    | 0.00                   | 0.00                  |
| 10,400.00                             | 90.00           | 89.60       | 8,760.00              | 331.96       | 1,707.28     | 1,709.61                | 0.00                    | 0.00                   | 0.00                  |
| 10,500.00                             | 90.00           | 89.60       | 8,760.00              | 332.67       | 1,807.27     | 1,809.61                | 0.00                    | 0.00                   | 0.00                  |
| 10,600.00                             | 90.00           | 89.60       | 8,760.00              | 333.37       | 1,907.27     | 1,909.61                | 0.00                    | 0.00                   | 0.00                  |
| 10,700.00                             | 90.00           | 89.60       | 8,760.00              | 334.08       | 2,007.27     | 2,009.61                | 0.00                    | 0.00                   | 0.00                  |
| 10,800.00                             | 90.00           | 89.60       | 8,760.00              | 334.79       | 2,107.27     | 2,109.61                | 0.00                    | 0.00                   | 0.00                  |
| 10,900.00                             | 90.00           | 89.60       | 8,760.00              | 335.49       | 2,207.26     | 2,209.61                | 0.00                    | 0.00                   | 0.00                  |
| 11,000.00                             | 90.00           | 89.60       | 8,760.00              | 336.20       | 2,307.26     | 2,309.61                | 0.00                    | 0.00                   | 0.00                  |
| 11,100.00                             | 90.00           | 89.60       | 8,760.00              | 336.91       | 2,407.26     | 2,409.61                | 0.00                    | 0.00                   | 0.00                  |
| 11,200.00                             | 90.00           | 89.60       | 8,760.00              | 337.61       | 2,507.26     | 2,509.61                | 0.00                    | 0.00                   | 0.00                  |
| 11,300.00                             | 90.00           | 89.60       | 8,760.00              | 338.32       | 2,607.25     | 2,609.61                | 0.00                    | 0.00                   | 0.00                  |
| 11,400.00                             | 90.00           | 89.60       | 8,760.00              | 339.03       | 2,707.25     | 2,709.61                | 0.00                    | 0.00                   | 0.00                  |
| 11,500.00                             | 90.00           | 89.60       | 8,760.00              | 339.74       | 2,807.25     | 2,809.61                | 0.00                    | 0.00                   | 0.00                  |
| 11,600.00                             | 90.00           | 89.60       | 8,760.00              | 340.44       | 2,907.25     | 2,909.61                | 0.00                    | 0.00                   | 0.00                  |
| 11,700.00                             | 90.00           | 89.60       | 8,760.00              | 341.15       | 3,007.24     | 3,009.61                | 0.00                    | 0.00                   | 0.00                  |
| 11,800.00                             | 90.00           | 89.60       | 8,760.00              | 341.86       | 3,107.24     | 3,109.61                | 0.00                    | 0.00                   | 0.00                  |
| 11,900.00                             | 90.00           | 89.60       | 8,760.00              | 342.56       | 3,207.24     | 3,209.61                | 0.00                    | 0.00                   | 0.00                  |
| 12,000.00                             | 90.00           | 89.60       | 8,760.00              | 343.27       | 3,307.24     | 3,309.61                | 0.00                    | 0.00                   | 0.00                  |

|                  |                             |                                     |                                             |
|------------------|-----------------------------|-------------------------------------|---------------------------------------------|
| <b>Database:</b> | EDM 5000.14 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well Lady Franklin 25 State 133H - Slot S02 |
| <b>Company:</b>  | Colgate Energy              | <b>TVD Reference:</b>               | 3335+26 @ 3361.00usft (Permit)              |
| <b>Project:</b>  | Eddy County, NM (N83-NME)   | <b>MD Reference:</b>                | 3335+26 @ 3361.00usft (Permit)              |
| <b>Site:</b>     | Lady Franklin 25            | <b>North Reference:</b>             | Grid                                        |
| <b>Well:</b>     | Lady Franklin 25 State 133H | <b>Survey Calculation Method:</b>   | Minimum Curvature                           |
| <b>Wellbore:</b> | Permit                      |                                     |                                             |
| <b>Design:</b>   | Plan #1                     |                                     |                                             |

| Planned Survey                                  |                 |             |                       |              |              |                         |                         |                        |                       |  |
|-------------------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft)                           | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
| 12,100.00                                       | 90.00           | 89.60       | 8,760.00              | 343.98       | 3,407.23     | 3,409.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,200.00                                       | 90.00           | 89.60       | 8,760.00              | 344.68       | 3,507.23     | 3,509.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,300.00                                       | 90.00           | 89.60       | 8,760.00              | 345.39       | 3,607.23     | 3,609.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,400.00                                       | 90.00           | 89.60       | 8,760.00              | 346.10       | 3,707.23     | 3,709.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,500.00                                       | 90.00           | 89.60       | 8,760.00              | 346.80       | 3,807.22     | 3,809.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,600.00                                       | 90.00           | 89.60       | 8,760.00              | 347.51       | 3,907.22     | 3,909.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,700.00                                       | 90.00           | 89.60       | 8,760.00              | 348.22       | 4,007.22     | 4,009.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,800.00                                       | 90.00           | 89.60       | 8,760.00              | 348.92       | 4,107.22     | 4,109.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,900.00                                       | 90.00           | 89.60       | 8,760.00              | 349.63       | 4,207.21     | 4,209.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 13,000.00                                       | 90.00           | 89.60       | 8,760.00              | 350.34       | 4,307.21     | 4,309.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 13,100.00                                       | 90.00           | 89.60       | 8,760.00              | 351.04       | 4,407.21     | 4,409.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 13,200.00                                       | 90.00           | 89.60       | 8,760.00              | 351.75       | 4,507.21     | 4,509.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 13,300.00                                       | 90.00           | 89.60       | 8,760.00              | 352.46       | 4,607.20     | 4,609.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 13,400.00                                       | 90.00           | 89.60       | 8,760.00              | 353.16       | 4,707.20     | 4,709.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 13,500.00                                       | 90.00           | 89.60       | 8,760.00              | 353.87       | 4,807.20     | 4,809.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 13,600.00                                       | 90.00           | 89.60       | 8,760.00              | 354.58       | 4,907.20     | 4,909.61                | 0.00                    | 0.00                   | 0.00                  |  |
| 13,642.97                                       | 90.00           | 89.60       | 8,760.00              | 354.88       | 4,950.17     | 4,952.58                | 0.00                    | 0.00                   | 0.00                  |  |
| TD: 13642.97' MD, 8760.00' TVD - LF25-133H-PBHL |                 |             |                       |              |              |                         |                         |                        |                       |  |

| Design Targets                                                                              |               |              |            |              |              |                 |                |             |               |
|---------------------------------------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-------------|---------------|
| Target Name                                                                                 | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude    | Longitude     |
| - hit/miss target                                                                           |               |              |            |              |              |                 |                |             |               |
| - Shape                                                                                     |               |              |            |              |              |                 |                |             |               |
| LF25-133H-EON                                                                               | 0.00          | 0.00         | 7,000.00   | 318.72       | -166.24      | 592,670.87      | 601,292.55     | 32.62915086 | -104.13858108 |
| - plan hits target center                                                                   |               |              |            |              |              |                 |                |             |               |
| - Point                                                                                     |               |              |            |              |              |                 |                |             |               |
| LF25-133H-PBHL                                                                              | 0.00          | 0.00         | 8,760.00   | 354.88       | 4,950.17     | 592,707.03      | 606,408.96     | 32.62922338 | -104.12196128 |
| - plan hits target center                                                                   |               |              |            |              |              |                 |                |             |               |
| - Point                                                                                     |               |              |            |              |              |                 |                |             |               |
| LF25-133H-FTP                                                                               | 0.00          | 0.00         | 8,760.00   | 318.72       | -166.24      | 592,670.87      | 601,292.55     | 32.62915086 | -104.13858108 |
| - plan misses target center by 237.33usft at 8650.00usft MD (8592.61 TVD, 319.91 N, 2.00 E) |               |              |            |              |              |                 |                |             |               |
| - Point                                                                                     |               |              |            |              |              |                 |                |             |               |

| Casing Points         |                       |      |                     |                   |  |
|-----------------------|-----------------------|------|---------------------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Casing Diameter (") | Hole Diameter (") |  |
| 400.00                | 400.00                | SCP  | 0                   | 0                 |  |
| 8,012.35              | 8,000.00              | ICP  | 0                   | 0                 |  |



|                  |                             |                                     |                                             |
|------------------|-----------------------------|-------------------------------------|---------------------------------------------|
| <b>Database:</b> | EDM 5000.14 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well Lady Franklin 25 State 133H - Slot S02 |
| <b>Company:</b>  | Colgate Energy              | <b>TVD Reference:</b>               | 3335+26 @ 3361.00usft (Permit)              |
| <b>Project:</b>  | Eddy County, NM (N83-NME)   | <b>MD Reference:</b>                | 3335+26 @ 3361.00usft (Permit)              |
| <b>Site:</b>     | Lady Franklin 25            | <b>North Reference:</b>             | Grid                                        |
| <b>Well:</b>     | Lady Franklin 25 State 133H | <b>Survey Calculation Method:</b>   | Minimum Curvature                           |
| <b>Wellbore:</b> | Permit                      |                                     |                                             |
| <b>Design:</b>   | Plan #1                     |                                     |                                             |

| Formations            |                       |                    |           |         |                   |  |
|-----------------------|-----------------------|--------------------|-----------|---------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name               | Lithology | Dip (°) | Dip Direction (°) |  |
| 681.00                | 681.00                | Top of Salt        |           |         |                   |  |
| 980.00                | 980.00                | Base of Salt       |           |         |                   |  |
| 2,082.74              | 2,082.00              | Yates              |           |         |                   |  |
| 2,680.20              | 2,678.00              | Capitan            |           |         |                   |  |
| 2,920.79              | 2,918.00              | Cherry Canyon      |           |         |                   |  |
| 3,194.46              | 3,191.00              | Brushy Canyon      |           |         |                   |  |
| 4,206.93              | 4,201.00              | Bone Spring LM     |           |         |                   |  |
| 6,593.77              | 6,582.00              | 1st Bone Spring Sd |           |         |                   |  |
| 7,443.35              | 7,431.00              | 2nd Bone Spring Sd |           |         |                   |  |
| 8,508.07              | 8,481.00              | 3rd Bone Spring Sd |           |         |                   |  |

| Plan Annotations      |                       |                   |              |                                |  |
|-----------------------|-----------------------|-------------------|--------------|--------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              |                                |  |
|                       |                       | +N/-S (usft)      | +E/-W (usft) | Comment                        |  |
| 8,199.39              | 8,187.04              | 318.72            | -166.24      | KOP: 8199.39' MD, 8187.04' TVD |  |
| 9,099.39              | 8,760.00              | 322.77            | 406.70       | EOC: 9099.39' MD, 8760.00' TVD |  |
| 13,642.97             | 8,760.00              | 354.88            | 4,950.17     | TD: 13642.97' MD, 8760.00' TVD |  |