

**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 352371

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

|                                                                                                 |                                               |                               |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------|
| 1. Operator Name and Address<br>AMEREDEV OPERATING, LLC<br>2901 Via Fortuna<br>Austin, TX 78746 |                                               | 2. OGRID Number<br>372224     |
|                                                                                                 |                                               | 3. API Number<br>30-025-52108 |
| 4. Property Code<br>331807                                                                      | 5. Property Name<br>AZALEA 26 36 28 STATE COM | 6. Well No.<br>072H           |

**7. Surface Location**

|               |               |                 |              |              |                  |               |                   |               |               |
|---------------|---------------|-----------------|--------------|--------------|------------------|---------------|-------------------|---------------|---------------|
| UL - Lot<br>C | Section<br>28 | Township<br>26S | Range<br>36E | Lot Idn<br>C | Feet From<br>250 | N/S Line<br>N | Feet From<br>2111 | E/W Line<br>W | County<br>Lea |
|---------------|---------------|-----------------|--------------|--------------|------------------|---------------|-------------------|---------------|---------------|

**8. Proposed Bottom Hole Location**

|               |               |                 |              |              |                 |               |                   |               |               |
|---------------|---------------|-----------------|--------------|--------------|-----------------|---------------|-------------------|---------------|---------------|
| UL - Lot<br>F | Section<br>33 | Township<br>26S | Range<br>36E | Lot Idn<br>3 | Feet From<br>50 | N/S Line<br>S | Feet From<br>2310 | E/W Line<br>W | County<br>Lea |
|---------------|---------------|-----------------|--------------|--------------|-----------------|---------------|-------------------|---------------|---------------|

**9. Pool Information**

|                                     |       |
|-------------------------------------|-------|
| WC-025 G-08 S263620C;LWR BONE SPRIN | 98150 |
|-------------------------------------|-------|

**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>2914 |
| 16. Multiple<br>N         | 17. Proposed Depth<br>17476 | 18. Formation<br>1st Bone Spring Sand  | 19. Contractor          | 20. Spud Date<br>12/1/2024         |
| 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             | 1797          | 1411            | 0             |
| Int1 | 12.25     | 10.75       | 45.5             | 5072          | 1296            | 0             |
| Prod | 8.75      | 5.5         | 17               | 17476         | 5723            | 0             |

**Casing/Cement Program: Additional Comments**

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

**22. Proposed Blowout Prevention Program**

| Type       | Working Pressure | Test Pressure | Manufacturer |
|------------|------------------|---------------|--------------|
| Double Ram | 5000             | 5000          | TBD          |

|                                                                                                                                                                                                                                                                                                                      |                                  |                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|
| 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 Christie Hanna                                                                                                                                                                                                                                                                 | Approved By: Paul F Kautz        |                                 |
| Title: Regulatory                                                                                                                                                                                                                                                                                                    | Title: Geologist                 |                                 |
| Email Address: channa@ameredev.com                                                                                                                                                                                                                                                                                   | Approved Date: 10/18/2023        | Expiration Date: 10/18/2025     |
| Date: 10/13/2023                                                                                                                                                                                                                                                                                                     | Phone: 737-300-4723              | Conditions of Approval Attached |

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State of New Mexico  
Energy, Minerals & Natural Resources  
Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

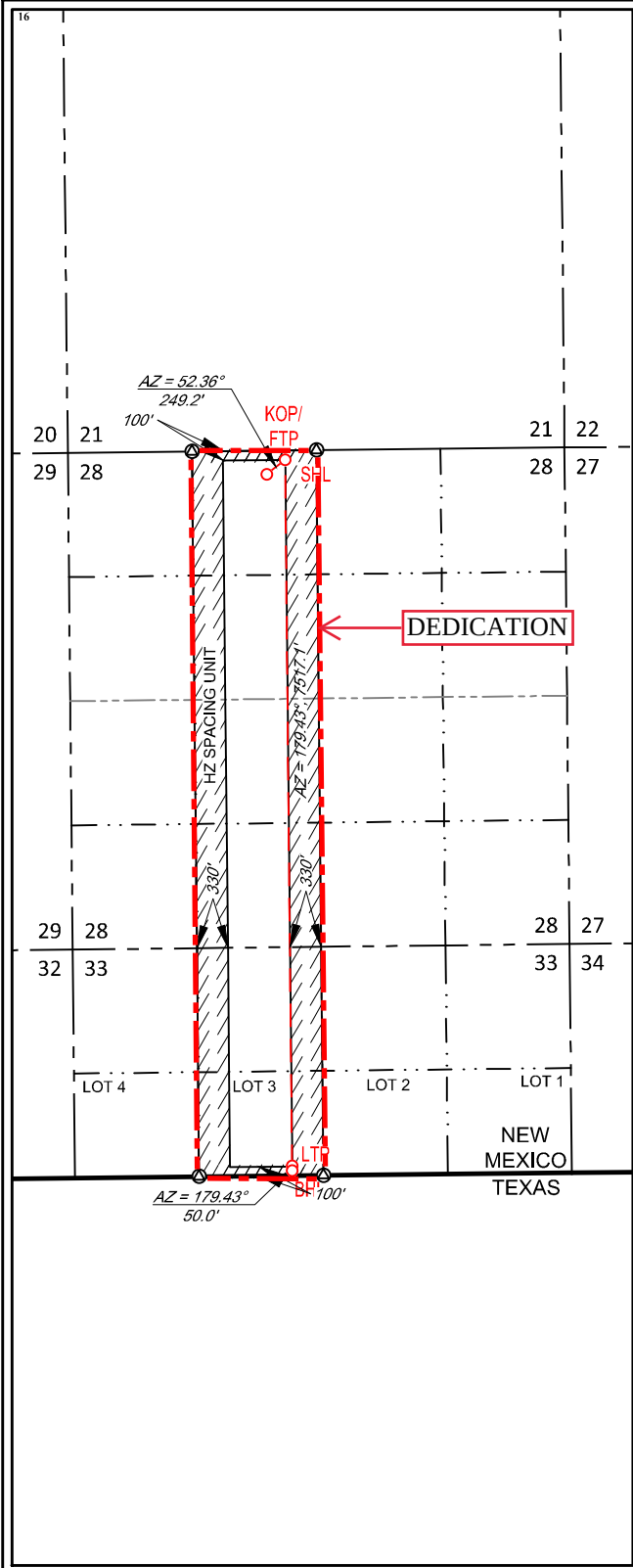
|                                      |  |                                                         |  |                                                                 |                                  |
|--------------------------------------|--|---------------------------------------------------------|--|-----------------------------------------------------------------|----------------------------------|
| <sup>1</sup> API Number<br>30-025-   |  | <sup>2</sup> Pool Code<br>98150                         |  | <sup>3</sup> Pool Name<br>WC-025 G-08 S263620C; LWR BONE SPRING |                                  |
| <sup>4</sup> Property Code<br>331807 |  | <sup>5</sup> Property Name<br>AZALEA 26 36 28 STATE COM |  |                                                                 | <sup>6</sup> Well Number<br>072H |
| <sup>7</sup> OGRID No.<br>372224     |  | <sup>8</sup> Operator Name<br>AMEREDEV OPERATING, LLC.  |  |                                                                 | <sup>9</sup> Elevation<br>2914'  |

|                                |               |                  |               |              |                       |                           |                        |                        |               |
|--------------------------------|---------------|------------------|---------------|--------------|-----------------------|---------------------------|------------------------|------------------------|---------------|
| <sup>10</sup> Surface Location |               |                  |               |              |                       |                           |                        |                        |               |
| UL or lot no.<br>C             | Section<br>28 | Township<br>26-S | Range<br>36-E | Lot Idn<br>- | Feet from the<br>250' | North/South line<br>NORTH | Feet from the<br>2111' | East/West line<br>WEST | County<br>LEA |

|                                                              |               |                  |               |              |                      |                           |                        |                        |               |
|--------------------------------------------------------------|---------------|------------------|---------------|--------------|----------------------|---------------------------|------------------------|------------------------|---------------|
| <sup>11</sup> Bottom Hole Location If Different From Surface |               |                  |               |              |                      |                           |                        |                        |               |
| UL or lot no.<br>3                                           | Section<br>33 | Township<br>26-S | Range<br>36-E | Lot Idn<br>- | Feet from the<br>50' | North/South line<br>SOUTH | Feet from the<br>2310' | East/West line<br>WEST | County<br>LEA |

|                                         |                               |                                       |                         |
|-----------------------------------------|-------------------------------|---------------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>233.72 | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code<br>C | <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.



NEW MEXICO EAST  
NAD 1983

SURFACE LOCATION (SHL)

250' FNL - SEC. 28  
2111' FWL - SEC. 28  
X=870340 Y=372935  
LAT.: N 32.0208363  
LONG.: W 103.2717796

KICK OFF POINT (KOP)/  
FIRST TAKE POINT (FTP)

100' FNL - SEC. 28  
2310' FWL - SEC. 28  
X=870538 Y=373087  
LAT.: N 32.0212493  
LONG.: W 103.2711381

LAST TAKE POINT (LTP)

100' FSL - SEC. 33  
2310' FWL - SEC. 33  
X=870612 Y=365571  
LAT.: N 32.0005874  
LONG.: W 103.2711366

BOTTOM HOLE LOCATION (BHL)

50' FSL - SEC. 33  
2310' FWL - SEC. 33  
X=870613 Y=365521  
LAT.: N 32.0004500  
LONG.: W 103.2711366

<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.

Floyd Hammond 10/3/2023  
Signature Date

Floyd Hammond  
Printed Name

fhammond@ameredev.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 to the best of my belief.

06/08/2023

Date of Survey  
Signature and Seal of Professional Surveyor

ANGEL M. BAEZA  
NEW MEXICO  
25116  
PROFESSIONAL SURVEYOR

Certificate Number

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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**

Form APD Conditions

Permit 352371

**PERMIT CONDITIONS OF APPROVAL**

|                                                                                                        |                                          |
|--------------------------------------------------------------------------------------------------------|------------------------------------------|
| Operator Name and Address:<br>AMEREDEV OPERATING, LLC [372224]<br>2901 Via Fortuna<br>Austin, TX 78746 | API Number:<br>30-025-52108              |
|                                                                                                        | Well:<br>AZALEA 26 36 28 STATE COM #072H |

| OCD<br>Reviewer | Condition                                                                                                                                                                                                                                                            |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| pkautz          | Notify OCD 24 hours prior to casing & cement                                                                                                                                                                                                                         |
| pkautz          | Will require a File As Drilled C-102 and a Directional Survey with the C-104                                                                                                                                                                                         |
| pkautz          | Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string |
| pkautz          | Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system                  |
| pkautz          | Cement is required to circulate on both surface and intermediate1 strings of casing                                                                                                                                                                                  |
| pkautz          | If cement does not circulate on any string , a CBL is required for that string of casing.                                                                                                                                                                            |
| pkautz          | The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud                                                                                                                                                                   |

**Azalea 26 36 28 State Com 072H****First Bone Spring Sand | 1.5 Mile Lateral**

County, St: Lea, NM

SHL: Section 28, T26S, R36E

250' FNL, 2111' FWL

BHL: Section 33, T26S, R36E

50' FSL, 2310' FWL

Wellhead: A - 13-5/8" 5M x 13-5/8" SOW

B - 13-5/8" 5M x 13-5/8" 5M

C - 13-5/8" 5M x 13-5/8" 5M

Tubing Spool: 7-1/16" 10M x 13-3/8" 5M

Xmas Tree: 2-9/16" 10M

Tubing: 3-1/2" L-80 6.5# 8rd EUE

Co. Well ID:

XXXXXX

AFE #:

2023-XXX

API #:

30-025-XXXXXX

Permit:

NMOCD

GL:

2,914'

Field:

Delaware

Rig:

H&amp;P 642

KB:

27.0'

Elevation:

2,941'

E-Mail:

drillingengineering@ameradev.com

Offsets:

| General Notes                                                                                                                                                 | Hole Size                                    | Casing & Cement                                                                                                                                                                                                                                                                                                                                                                                                                   | Geology                                                         | TVD                                      | Mud Weight              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------|-------------------------|
| Notify BLM prior to spud, running casing, cementing, and BOP testing<br>Sundry to be sent before spud<br><br>1500 psi Surface Casing Test Done by Spudder Rig | 17-1/2"                                      | <u>Lead (100% OH excess)</u><br>1071 sx 12.8 ppg Class C<br>Top of Lead @ 0'<br><br><u>Tail (100% OH excess)</u><br>340 sx 14.8 ppg Class C<br>Top of Tail @ 1497'<br><br>13.375   54.5   J-55   BTC<br>0 - 1797                                                                                                                                                                                                                  | Conductor                                                       | 122'                                     | 8.4 - 8.6 ppg FW        |
| Stage 1 Designed to Circulate Cement to Surface<br><br>DV Tool (Int)<br>3591<br><br>Casing Test to 1500 psi                                                   | 12-1/4"                                      | <u>Stg 1 Lead (50% OH excess)</u><br>440 sx 11 ppg Class C - Low Portland<br>Top of Lead @ 0'<br><u>Stg 1 Tail (50% OH excess)</u><br>177 sx 14.8 ppg Class C<br>Top of Tail @ 4322'<br><br><u>Stg 2 Lead (50% OH excess)</u><br>573 sx 12.8 ppg Class C - Low Portland<br>Top of Lead @ 0'<br><u>Stg 2 Tail (25% OH excess)</u><br>106 sx 14.8 ppg Class C<br>Top of Tail @ 2991'<br>10.75   45.5   HC L-80   SC BTC<br>0 - 5072 | Salado<br><br>Tansill<br>Capitan<br><br>Lamar                   | 2,100'<br><br>3,239'<br>3,726'<br>4,925' | 10 ppg Brine            |
| FIT to 10.5 ppg EMW                                                                                                                                           | 8-3/4"<br>Vertical                           |                                                                                                                                                                                                                                                                                                                                                                                                                                   | Bell Canyon<br><br><br>Brushy Canyon                            | 5,095'<br><br><br>7,024'                 | 9.0 - 9.5 ppg Cut Brine |
| 12° DLS curve section<br>Surveys: 45° Curve, 90° Lateral<br><br>LTP VS: 7565'<br>90° INC, 179.36° AZM<br><br>BHL VS: 7615'<br>90° INC, 179.36° AZM            | 8-3/4"<br>Curve<br><br><br>8-1/2"<br>Lateral | <u>Lead (50% OH excess)</u><br>1582 sx 10.6 ppg ProLite<br>Top of Lead @ 0'<br><br><u>Tail (20% OH excess)</u><br>4141 sx 14.5 ppg Class H - Premium PozMix<br>Top of Tail @ 7476'<br><br>5.5   17   USS RYS P-110   Eagle SFH<br>0 - 17476<br><br>5-1/2" marker jts @ ~9010', 12480' MD<br><br>17476' MD<br>9,593' TVD @ BHL<br>7,615' VS                                                                                        | Bone Spring Lime<br><br>First Bone Spring<br><br>No Casing Test | 8,010'<br>9,554'                         | 9.0 - 9.5 ppg Cut Brine |



## **Ameredev Operating**

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

**Camelia\_Azalea**

**AZALEA 26 36 28 STATE COM 072H**

**OWB**

**Plan: PWP**

## **Standard Planning Report - Geographic**

**19 June, 2023**



## Planning Report - Geographic

|                  |                                |                                     |                                    |
|------------------|--------------------------------|-------------------------------------|------------------------------------|
| <b>Database:</b> | AUS-COMPASS - EDM_15 - 32bit   | <b>Local Co-ordinate Reference:</b> | Well AZALEA STATE COM26-36-28 072H |
| <b>Company:</b>  | Ameredev Operating             | <b>TVD Reference:</b>               | KB=25' @ 2939.0usft                |
| <b>Project:</b>  | Lea County, NM (N83-NME)       | <b>MD Reference:</b>                | KB=25' @ 2939.0usft                |
| <b>Site:</b>     | Camelia_Azalea                 | <b>North Reference:</b>             | Grid                               |
| <b>Well:</b>     | AZALEA STATE COM 26-36-28 072H | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Wellbore:</b> | OWB                            |                                     |                                    |
| <b>Design:</b>   | PWP                            |                                     |                                    |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | Lea 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                  | Camelia_Azalea |              |                 |            |              |
| Site Position:        |                | Northing:    | 372,956.73 usft | Latitude:  | 32.0208919   |
| From:                 | Lat/Long       | Easting:     | 870,464.84 usft | Longitude: | -103.2713773 |
| Position Uncertainty: | 0.0 usft       | Slot Radius: | 13-3/16 "       |            |              |

| Well                 |          | AZALEA STATE COM 26-36-28 072H |                     |                 |               |              |
|----------------------|----------|--------------------------------|---------------------|-----------------|---------------|--------------|
| Well Position        | +N/-S    | 0.0 usft                       | Northing:           | 372,935.27 usft | Latitude:     | 32.0208363   |
|                      | +E/-W    | 0.0 usft                       | Easting:            | 870,340.35 usft | Longitude:    | -103.2717796 |
| Position Uncertainty | 3.0 usft |                                | Wellhead Elevation: | usft            | Ground Level: | 2,914.0 usft |
| Grid Convergence:    | 0.56 °   |                                |                     |                 |               |              |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | OWB               |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2020          | 6/19/2023          | 6.15                   | 59.69                | 47,197.17355471            |

|                          |                                |                     |                      |                      |  |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|--|
| <b>Design</b>            | PWP                            |                     |                      |                      |  |
| <b>Audit Notes:</b>      |                                |                     |                      |                      |  |
| <b>Version:</b>          | <b>Phase:</b>                  | PROTOTYPE           | <b>Tie On Depth:</b> | 0.0                  |  |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b>  | <b>Direction (°)</b> |  |
|                          | 0.0                            | 0.0                 | 0.0                  | 177.90               |  |

|                                 |                        |                          |                  |                     |  |
|---------------------------------|------------------------|--------------------------|------------------|---------------------|--|
| <b>Plan Survey Tool Program</b> | <b>Date</b> 6/19/2023  |                          |                  |                     |  |
| <b>Depth From (usft)</b>        | <b>Depth To (usft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Remarks</b>      |  |
| 1                               | 0.0                    | 17,475.5 PWP (OWB)       | MWD              | OWSG 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>  |  |
| 0.0                          | 0.00                   | 0.00               | 0.0                          | 0.0                 | 0.0                 | 0.00                           | 0.00                          | 0.00                         | 0.00           |                |  |
| 1,500.0                      | 0.00                   | 0.00               | 1,500.0                      | 0.0                 | 0.0                 | 0.00                           | 0.00                          | 0.00                         | 0.00           |                |  |
| 1,900.0                      | 8.00                   | 16.16              | 1,898.7                      | 26.8                | 7.8                 | 2.00                           | 2.00                          | 0.00                         | 16.16          |                |  |
| 6,197.4                      | 8.00                   | 16.16              | 6,154.3                      | 601.2               | 174.2               | 0.00                           | 0.00                          | 0.00                         | 0.00           |                |  |
| 6,597.4                      | 0.00                   | 0.00               | 6,553.0                      | 628.0               | 182.0               | 2.00                           | -2.00                         | 0.00                         | 180.00         |                |  |
| 9,159.9                      | 0.00                   | 0.00               | 9,115.5                      | 628.0               | 182.0               | 0.00                           | 0.00                          | 0.00                         | 0.00           |                |  |
| 9,909.9                      | 90.00                  | 179.36             | 9,593.0                      | 150.6               | 187.4               | 12.00                          | 12.00                         | 23.91                        | 179.36         |                |  |
| 17,475.5                     | 90.00                  | 179.36             | 9,593.0                      | -7,414.5            | 272.2               | 0.00                           | 0.00                          | 0.00                         | 0.00           | BHL (ASC 072H) |  |



## Planning Report - Geographic

|                  |                                |                                     |                                    |
|------------------|--------------------------------|-------------------------------------|------------------------------------|
| <b>Database:</b> | AUS-COMPASS - EDM_15 - 32bit   | <b>Local Co-ordinate Reference:</b> | Well AZALEA STATE COM26-36-28 072H |
| <b>Company:</b>  | Ameredev Operating             | <b>TVD Reference:</b>               | KB=25' @ 2939.0usft                |
| <b>Project:</b>  | Lea County, NM (N83-NME)       | <b>MD Reference:</b>                | KB=25' @ 2939.0usft                |
| <b>Site:</b>     | Camelia_Azalea                 | <b>North Reference:</b>             | Grid                               |
| <b>Well:</b>     | AZALEA STATE COM 26-36-28 072H | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Wellbore:</b> | OWB                            |                                     |                                    |
| <b>Design:</b>   | PWP                            |                                     |                                    |

| Planned Survey                        |                 |             |                       |              |              |                     |                    |            |              |
|---------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|------------|--------------|
| Measured Depth (usft)                 | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude   | Longitude    |
| 0.0                                   | 0.00            | 0.00        | 0.0                   | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 100.0                                 | 0.00            | 0.00        | 100.0                 | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 200.0                                 | 0.00            | 0.00        | 200.0                 | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 300.0                                 | 0.00            | 0.00        | 300.0                 | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 400.0                                 | 0.00            | 0.00        | 400.0                 | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 500.0                                 | 0.00            | 0.00        | 500.0                 | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 600.0                                 | 0.00            | 0.00        | 600.0                 | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 700.0                                 | 0.00            | 0.00        | 700.0                 | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 800.0                                 | 0.00            | 0.00        | 800.0                 | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 900.0                                 | 0.00            | 0.00        | 900.0                 | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 1,000.0                               | 0.00            | 0.00        | 1,000.0               | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 1,100.0                               | 0.00            | 0.00        | 1,100.0               | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 1,200.0                               | 0.00            | 0.00        | 1,200.0               | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 1,300.0                               | 0.00            | 0.00        | 1,300.0               | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 1,400.0                               | 0.00            | 0.00        | 1,400.0               | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| 1,500.0                               | 0.00            | 0.00        | 1,500.0               | 0.0          | 0.0          | 372,935.27          | 870,340.35         | 32.0208363 | -103.2717796 |
| <b>Start Build 2.00</b>               |                 |             |                       |              |              |                     |                    |            |              |
| 1,600.0                               | 2.00            | 16.16       | 1,600.0               | 1.7          | 0.5          | 372,936.95          | 870,340.84         | 32.0208409 | -103.2717780 |
| 1,700.0                               | 4.00            | 16.16       | 1,699.8               | 6.7          | 1.9          | 372,941.98          | 870,342.30         | 32.0208547 | -103.2717731 |
| 1,800.0                               | 6.00            | 16.16       | 1,799.5               | 15.1         | 4.4          | 372,950.35          | 870,344.72         | 32.0208776 | -103.2717650 |
| 1,900.0                               | 8.00            | 16.16       | 1,898.7               | 26.8         | 7.8          | 372,962.05          | 870,348.11         | 32.0209097 | -103.2717537 |
| <b>Start 4297.4 hold at 1900.0 MD</b> |                 |             |                       |              |              |                     |                    |            |              |
| 2,000.0                               | 8.00            | 16.16       | 1,997.7               | 40.1         | 11.6         | 372,975.42          | 870,351.99         | 32.0209464 | -103.2717408 |
| 2,100.0                               | 8.00            | 16.16       | 2,096.8               | 53.5         | 15.5         | 372,988.79          | 870,355.86         | 32.0209830 | -103.2717279 |
| 2,200.0                               | 8.00            | 16.16       | 2,195.8               | 66.9         | 19.4         | 373,002.15          | 870,359.74         | 32.0210196 | -103.2717149 |
| 2,300.0                               | 8.00            | 16.16       | 2,294.8               | 80.2         | 23.3         | 373,015.52          | 870,363.61         | 32.0210563 | -103.2717020 |
| 2,400.0                               | 8.00            | 16.16       | 2,393.8               | 93.6         | 27.1         | 373,028.89          | 870,367.48         | 32.0210929 | -103.2716891 |
| 2,500.0                               | 8.00            | 16.16       | 2,492.9               | 107.0        | 31.0         | 373,042.26          | 870,371.36         | 32.0211295 | -103.2716762 |
| 2,600.0                               | 8.00            | 16.16       | 2,591.9               | 120.3        | 34.9         | 373,055.62          | 870,375.23         | 32.0211662 | -103.2716633 |
| 2,700.0                               | 8.00            | 16.16       | 2,690.9               | 133.7        | 38.8         | 373,068.99          | 870,379.11         | 32.0212028 | -103.2716503 |
| 2,800.0                               | 8.00            | 16.16       | 2,789.9               | 147.1        | 42.6         | 373,082.36          | 870,382.98         | 32.0212394 | -103.2716374 |
| 2,900.0                               | 8.00            | 16.16       | 2,889.0               | 160.5        | 46.5         | 373,095.72          | 870,386.85         | 32.0212761 | -103.2716245 |
| 2,950.5                               | 8.00            | 16.16       | 2,939.0               | 167.2        | 48.5         | 373,102.48          | 870,388.81         | 32.0212946 | -103.2716180 |
| <b>Dewey Lake</b>                     |                 |             |                       |              |              |                     |                    |            |              |
| 3,000.0                               | 8.00            | 16.16       | 2,988.0               | 173.8        | 50.4         | 373,109.09          | 870,390.73         | 32.0213127 | -103.2716116 |
| 3,100.0                               | 8.00            | 16.16       | 3,087.0               | 187.2        | 54.2         | 373,122.46          | 870,394.60         | 32.0213493 | -103.2715986 |
| 3,200.0                               | 8.00            | 16.16       | 3,186.1               | 200.6        | 58.1         | 373,135.83          | 870,398.48         | 32.0213860 | -103.2715857 |
| 3,300.0                               | 8.00            | 16.16       | 3,285.1               | 213.9        | 62.0         | 373,149.19          | 870,402.35         | 32.0214226 | -103.2715728 |
| 3,400.0                               | 8.00            | 16.16       | 3,384.1               | 227.3        | 65.9         | 373,162.56          | 870,406.22         | 32.0214593 | -103.2715599 |
| 3,500.0                               | 8.00            | 16.16       | 3,483.1               | 240.7        | 69.7         | 373,175.93          | 870,410.10         | 32.0214959 | -103.2715470 |
| 3,600.0                               | 8.00            | 16.16       | 3,582.2               | 254.0        | 73.6         | 373,189.30          | 870,413.97         | 32.0215325 | -103.2715340 |
| 3,700.0                               | 8.00            | 16.16       | 3,681.2               | 267.4        | 77.5         | 373,202.66          | 870,417.85         | 32.0215692 | -103.2715211 |
| 3,800.0                               | 8.00            | 16.16       | 3,780.2               | 280.8        | 81.4         | 373,216.03          | 870,421.72         | 32.0216058 | -103.2715082 |
| 3,900.0                               | 8.00            | 16.16       | 3,879.2               | 294.1        | 85.2         | 373,229.40          | 870,425.59         | 32.0216424 | -103.2714953 |
| 4,000.0                               | 8.00            | 16.16       | 3,978.3               | 307.5        | 89.1         | 373,242.76          | 870,429.47         | 32.0216791 | -103.2714824 |
| 4,100.0                               | 8.00            | 16.16       | 4,077.3               | 320.9        | 93.0         | 373,256.13          | 870,433.34         | 32.0217157 | -103.2714694 |
| 4,200.0                               | 8.00            | 16.16       | 4,176.3               | 334.2        | 96.9         | 373,269.50          | 870,437.21         | 32.0217523 | -103.2714565 |
| 4,300.0                               | 8.00            | 16.16       | 4,275.3               | 347.6        | 100.7        | 373,282.87          | 870,441.09         | 32.0217890 | -103.2714436 |
| 4,400.0                               | 8.00            | 16.16       | 4,374.4               | 361.0        | 104.6        | 373,296.23          | 870,444.96         | 32.0218256 | -103.2714307 |
| 4,500.0                               | 8.00            | 16.16       | 4,473.4               | 374.3        | 108.5        | 373,309.60          | 870,448.84         | 32.0218622 | -103.2714177 |
| 4,600.0                               | 8.00            | 16.16       | 4,572.4               | 387.7        | 112.4        | 373,322.97          | 870,452.71         | 32.0218989 | -103.2714048 |
| 4,700.0                               | 8.00            | 16.16       | 4,671.5               | 401.1        | 116.2        | 373,336.34          | 870,456.58         | 32.0219355 | -103.2713919 |
| 4,739.9                               | 8.00            | 16.16       | 4,711.0               | 406.4        | 117.8        | 373,341.67          | 870,458.13         | 32.0219501 | -103.2713867 |
| <b>Rustler</b>                        |                 |             |                       |              |              |                     |                    |            |              |



## Planning Report - Geographic

|                  |                                |                                     |                                    |
|------------------|--------------------------------|-------------------------------------|------------------------------------|
| <b>Database:</b> | AUS-COMPASS - EDM_15 - 32bit   | <b>Local Co-ordinate Reference:</b> | Well AZALEA STATE COM26-36-28 072H |
| <b>Company:</b>  | Ameredev Operating             | <b>TVD Reference:</b>               | KB=25' @ 2939.0usft                |
| <b>Project:</b>  | Lea County, NM (N83-NME)       | <b>MD Reference:</b>                | KB=25' @ 2939.0usft                |
| <b>Site:</b>     | Camelia_Azalea                 | <b>North Reference:</b>             | Grid                               |
| <b>Well:</b>     | AZALEA STATE COM 26-36-28 072H | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Wellbore:</b> | OWB                            |                                     |                                    |
| <b>Design:</b>   | PWP                            |                                     |                                    |

| Planned Survey                 |                    |                |                             |                 |                 |                           |                          |            |              |  |
|--------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|---------------------------|--------------------------|------------|--------------|--|
| Measured<br>Depth<br>(usft)    | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Map<br>Northing<br>(usft) | Map<br>Easting<br>(usft) | Latitude   | Longitude    |  |
| 4,800.0                        | 8.00               | 16.16          | 4,770.5                     | 414.4           | 120.1           | 373,349.70                | 870,460.46               | 32.0219721 | -103.2713790 |  |
| 4,900.0                        | 8.00               | 16.16          | 4,869.5                     | 427.8           | 124.0           | 373,363.07                | 870,464.33               | 32.0220088 | -103.2713661 |  |
| 5,000.0                        | 8.00               | 16.16          | 4,968.5                     | 441.2           | 127.9           | 373,376.44                | 870,468.21               | 32.0220454 | -103.2713531 |  |
| 5,100.0                        | 8.00               | 16.16          | 5,067.6                     | 454.5           | 131.7           | 373,389.80                | 870,472.08               | 32.0220821 | -103.2713402 |  |
| 5,166.1                        | 8.00               | 16.16          | 5,133.0                     | 463.4           | 134.3           | 373,398.64                | 870,474.64               | 32.0221063 | -103.2713317 |  |
| Salado                         |                    |                |                             |                 |                 |                           |                          |            |              |  |
| 5,200.0                        | 8.00               | 16.16          | 5,166.6                     | 467.9           | 135.6           | 373,403.17                | 870,475.95               | 32.0221187 | -103.2713273 |  |
| 5,300.0                        | 8.00               | 16.16          | 5,265.6                     | 481.3           | 139.5           | 373,416.54                | 870,479.83               | 32.0221553 | -103.2713144 |  |
| 5,400.0                        | 8.00               | 16.16          | 5,364.6                     | 494.6           | 143.3           | 373,429.91                | 870,483.70               | 32.0221920 | -103.2713014 |  |
| 5,500.0                        | 8.00               | 16.16          | 5,463.7                     | 508.0           | 147.2           | 373,443.27                | 870,487.58               | 32.0222286 | -103.2712885 |  |
| 5,600.0                        | 8.00               | 16.16          | 5,562.7                     | 521.4           | 151.1           | 373,456.64                | 870,491.45               | 32.0222652 | -103.2712756 |  |
| 5,700.0                        | 8.00               | 16.16          | 5,661.7                     | 534.7           | 155.0           | 373,470.01                | 870,495.32               | 32.0223019 | -103.2712627 |  |
| 5,800.0                        | 8.00               | 16.16          | 5,760.7                     | 548.1           | 158.8           | 373,483.38                | 870,499.20               | 32.0223385 | -103.2712498 |  |
| 5,900.0                        | 8.00               | 16.16          | 5,859.8                     | 561.5           | 162.7           | 373,496.74                | 870,503.07               | 32.0223751 | -103.2712368 |  |
| 6,000.0                        | 8.00               | 16.16          | 5,958.8                     | 574.8           | 166.6           | 373,510.11                | 870,506.95               | 32.0224118 | -103.2712239 |  |
| 6,100.0                        | 8.00               | 16.16          | 6,057.8                     | 588.2           | 170.5           | 373,523.48                | 870,510.82               | 32.0224484 | -103.2712110 |  |
| 6,197.4                        | 8.00               | 16.16          | 6,154.3                     | 601.2           | 174.2           | 373,536.50                | 870,514.59               | 32.0224841 | -103.2711984 |  |
| Start Drop -2.00               |                    |                |                             |                 |                 |                           |                          |            |              |  |
| 6,200.0                        | 7.95               | 16.16          | 6,156.9                     | 601.6           | 174.3           | 373,536.84                | 870,514.69               | 32.0224850 | -103.2711981 |  |
| 6,231.4                        | 7.32               | 16.16          | 6,188.0                     | 605.6           | 175.5           | 373,540.85                | 870,515.86               | 32.0224960 | -103.2711942 |  |
| Tansill                        |                    |                |                             |                 |                 |                           |                          |            |              |  |
| 6,300.0                        | 5.95               | 16.16          | 6,256.1                     | 613.2           | 177.7           | 373,548.46                | 870,518.06               | 32.0225169 | -103.2711868 |  |
| 6,400.0                        | 3.95               | 16.16          | 6,355.7                     | 621.5           | 180.1           | 373,556.75                | 870,520.46               | 32.0225396 | -103.2711788 |  |
| 6,500.0                        | 1.95               | 16.16          | 6,455.6                     | 626.4           | 181.5           | 373,561.68                | 870,521.89               | 32.0225531 | -103.2711741 |  |
| 6,597.4                        | 0.00               | 0.00           | 6,553.0                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| Start 2562.5 hold at 6597.4 MD |                    |                |                             |                 |                 |                           |                          |            |              |  |
| 6,600.0                        | 0.00               | 0.00           | 6,555.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 6,674.4                        | 0.00               | 0.00           | 6,630.0                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| Capitan                        |                    |                |                             |                 |                 |                           |                          |            |              |  |
| 6,700.0                        | 0.00               | 0.00           | 6,655.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 6,800.0                        | 0.00               | 0.00           | 6,755.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 6,900.0                        | 0.00               | 0.00           | 6,855.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 7,000.0                        | 0.00               | 0.00           | 6,955.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 7,100.0                        | 0.00               | 0.00           | 7,055.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 7,200.0                        | 0.00               | 0.00           | 7,155.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 7,300.0                        | 0.00               | 0.00           | 7,255.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 7,400.0                        | 0.00               | 0.00           | 7,355.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 7,500.0                        | 0.00               | 0.00           | 7,455.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 7,600.0                        | 0.00               | 0.00           | 7,555.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 7,700.0                        | 0.00               | 0.00           | 7,655.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 7,800.0                        | 0.00               | 0.00           | 7,755.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 7,900.0                        | 0.00               | 0.00           | 7,855.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 7,930.4                        | 0.00               | 0.00           | 7,886.0                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| Lamar                          |                    |                |                             |                 |                 |                           |                          |            |              |  |
| 8,000.0                        | 0.00               | 0.00           | 7,955.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 8,083.4                        | 0.00               | 0.00           | 8,039.0                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| Bell Canyon                    |                    |                |                             |                 |                 |                           |                          |            |              |  |
| 8,100.0                        | 0.00               | 0.00           | 8,055.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 8,200.0                        | 0.00               | 0.00           | 8,155.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 8,300.0                        | 0.00               | 0.00           | 8,255.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 8,400.0                        | 0.00               | 0.00           | 8,355.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 8,500.0                        | 0.00               | 0.00           | 8,455.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 8,600.0                        | 0.00               | 0.00           | 8,555.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |
| 8,700.0                        | 0.00               | 0.00           | 8,655.6                     | 628.0           | 182.0           | 373,563.27                | 870,522.35               | 32.0225575 | -103.2711725 |  |





## Planning Report - Geographic

|                  |                                |                                     |                                    |
|------------------|--------------------------------|-------------------------------------|------------------------------------|
| <b>Database:</b> | AUS-COMPASS - EDM_15 - 32bit   | <b>Local Co-ordinate Reference:</b> | Well AZALEA STATE COM26-36-28 072H |
| <b>Company:</b>  | Ameredev Operating             | <b>TVD Reference:</b>               | KB=25' @ 2939.0usft                |
| <b>Project:</b>  | Lea County, NM (N83-NME)       | <b>MD Reference:</b>                | KB=25' @ 2939.0usft                |
| <b>Site:</b>     | Camelia_Azalea                 | <b>North Reference:</b>             | Grid                               |
| <b>Well:</b>     | AZALEA STATE COM 26-36-28 072H | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Wellbore:</b> | OWB                            |                                     |                                    |
| <b>Design:</b>   | PWP                            |                                     |                                    |

| Planned Survey                    |                 |             |                       |              |              |                     |                    |            |              |  |
|-----------------------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|------------|--------------|--|
| Measured Depth (usft)             | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude   | Longitude    |  |
| 8,800.0                           | 0.00            | 0.00        | 8,755.6               | 628.0        | 182.0        | 373,563.27          | 870,522.35         | 32.0225575 | -103.2711725 |  |
| 8,900.0                           | 0.00            | 0.00        | 8,855.6               | 628.0        | 182.0        | 373,563.27          | 870,522.35         | 32.0225575 | -103.2711725 |  |
| 9,000.0                           | 0.00            | 0.00        | 8,955.6               | 628.0        | 182.0        | 373,563.27          | 870,522.35         | 32.0225575 | -103.2711725 |  |
| 9,100.0                           | 0.00            | 0.00        | 9,055.6               | 628.0        | 182.0        | 373,563.27          | 870,522.35         | 32.0225575 | -103.2711725 |  |
| 9,159.9                           | 0.00            | 0.00        | 9,115.5               | 628.0        | 182.0        | 373,563.27          | 870,522.35         | 32.0225575 | -103.2711725 |  |
| KOP-Start DLS 12.00 TFO 179.36    |                 |             |                       |              |              |                     |                    |            |              |  |
| 9,175.0                           | 1.81            | 179.36      | 9,130.6               | 627.8        | 182.0        | 373,563.04          | 870,522.36         | 32.0225568 | -103.2711725 |  |
| 9,200.0                           | 4.81            | 179.36      | 9,155.5               | 626.3        | 182.0        | 373,561.59          | 870,522.37         | 32.0225529 | -103.2711725 |  |
| 9,225.0                           | 7.81            | 179.36      | 9,180.4               | 623.6        | 182.0        | 373,558.85          | 870,522.40         | 32.0225453 | -103.2711725 |  |
| 9,250.0                           | 10.81           | 179.36      | 9,205.0               | 619.5        | 182.1        | 373,554.80          | 870,522.45         | 32.0225342 | -103.2711725 |  |
| 9,275.0                           | 13.81           | 179.36      | 9,229.5               | 614.2        | 182.2        | 373,549.47          | 870,522.51         | 32.0225195 | -103.2711725 |  |
| 9,300.0                           | 16.81           | 179.36      | 9,253.6               | 607.6        | 182.2        | 373,542.87          | 870,522.58         | 32.0225014 | -103.2711724 |  |
| 9,325.0                           | 19.81           | 179.36      | 9,277.3               | 599.7        | 182.3        | 373,535.02          | 870,522.67         | 32.0224798 | -103.2711724 |  |
| 9,350.0                           | 22.81           | 179.36      | 9,300.6               | 590.7        | 182.4        | 373,525.94          | 870,522.77         | 32.0224548 | -103.2711724 |  |
| 9,375.0                           | 25.81           | 179.36      | 9,323.4               | 580.4        | 182.5        | 373,515.65          | 870,522.89         | 32.0224266 | -103.2711723 |  |
| 9,400.0                           | 28.81           | 179.36      | 9,345.6               | 568.9        | 182.7        | 373,504.18          | 870,523.02         | 32.0223950 | -103.2711723 |  |
| 9,425.0                           | 31.81           | 179.36      | 9,367.2               | 556.3        | 182.8        | 373,491.56          | 870,523.16         | 32.0223604 | -103.2711722 |  |
| 9,450.0                           | 34.81           | 179.36      | 9,388.1               | 542.6        | 183.0        | 373,477.84          | 870,523.31         | 32.0223226 | -103.2711721 |  |
| 9,475.0                           | 37.81           | 179.36      | 9,408.2               | 527.8        | 183.1        | 373,463.04          | 870,523.48         | 32.0222819 | -103.2711721 |  |
| 9,500.0                           | 40.81           | 179.36      | 9,427.5               | 511.9        | 183.3        | 373,447.20          | 870,523.65         | 32.0222384 | -103.2711720 |  |
| 9,525.0                           | 43.81           | 179.36      | 9,446.0               | 495.1        | 183.5        | 373,430.38          | 870,523.84         | 32.0221922 | -103.2711719 |  |
| 9,550.0                           | 46.81           | 179.36      | 9,463.6               | 477.3        | 183.7        | 373,412.61          | 870,524.04         | 32.0221433 | -103.2711719 |  |
| 9,575.0                           | 49.81           | 179.36      | 9,480.2               | 458.7        | 183.9        | 373,393.94          | 870,524.25         | 32.0220920 | -103.2711718 |  |
| 9,600.0                           | 52.81           | 179.36      | 9,495.9               | 439.2        | 184.1        | 373,374.43          | 870,524.47         | 32.0220384 | -103.2711717 |  |
| 9,625.0                           | 55.81           | 179.36      | 9,510.4               | 418.9        | 184.3        | 373,354.13          | 870,524.70         | 32.0219826 | -103.2711716 |  |
| 9,650.0                           | 58.81           | 179.36      | 9,523.9               | 397.8        | 184.6        | 373,333.09          | 870,524.93         | 32.0219248 | -103.2711715 |  |
| 9,675.0                           | 61.81           | 179.36      | 9,536.3               | 376.1        | 184.8        | 373,311.38          | 870,525.18         | 32.0218651 | -103.2711714 |  |
| 9,700.0                           | 64.81           | 179.36      | 9,547.6               | 353.8        | 185.1        | 373,289.05          | 870,525.43         | 32.0218037 | -103.2711713 |  |
| 9,725.0                           | 67.81           | 179.36      | 9,557.6               | 330.9        | 185.3        | 373,266.16          | 870,525.69         | 32.0217408 | -103.2711712 |  |
| 9,750.0                           | 70.81           | 179.36      | 9,566.4               | 307.5        | 185.6        | 373,242.77          | 870,525.95         | 32.0216765 | -103.2711711 |  |
| 9,775.0                           | 73.81           | 179.36      | 9,574.0               | 283.7        | 185.9        | 373,218.96          | 870,526.21         | 32.0216110 | -103.2711710 |  |
| 9,800.0                           | 76.81           | 179.36      | 9,580.4               | 259.5        | 186.1        | 373,194.78          | 870,526.49         | 32.0215446 | -103.2711709 |  |
| 9,825.0                           | 79.81           | 179.36      | 9,585.4               | 235.0        | 186.4        | 373,170.31          | 870,526.76         | 32.0214773 | -103.2711708 |  |
| 9,850.0                           | 82.81           | 179.36      | 9,589.2               | 210.3        | 186.7        | 373,145.60          | 870,527.04         | 32.0214094 | -103.2711707 |  |
| 9,875.0                           | 85.81           | 179.36      | 9,591.7               | 185.5        | 187.0        | 373,120.72          | 870,527.32         | 32.0213410 | -103.2711706 |  |
| 9,900.0                           | 88.81           | 179.36      | 9,592.9               | 160.5        | 187.2        | 373,095.76          | 870,527.60         | 32.0212724 | -103.2711704 |  |
| 9,909.9                           | 90.00           | 179.36      | 9,593.0               | 150.6        | 187.4        | 373,085.84          | 870,527.71         | 32.0212451 | -103.2711704 |  |
| LP-Start 7565.5 hold at 9909.9 MD |                 |             |                       |              |              |                     |                    |            |              |  |
| 10,000.0                          | 90.00           | 179.36      | 9,593.0               | 60.5         | 188.4        | 372,995.76          | 870,528.72         | 32.0209975 | -103.2711700 |  |
| 10,100.0                          | 90.00           | 179.36      | 9,593.0               | -39.5        | 189.5        | 372,895.77          | 870,529.84         | 32.0207226 | -103.2711695 |  |
| 10,200.0                          | 90.00           | 179.36      | 9,593.0               | -139.5       | 190.6        | 372,795.78          | 870,530.96         | 32.0204478 | -103.2711691 |  |
| 10,300.0                          | 90.00           | 179.36      | 9,593.0               | -239.5       | 191.7        | 372,695.78          | 870,532.08         | 32.0201729 | -103.2711687 |  |
| 10,400.0                          | 90.00           | 179.36      | 9,593.0               | -339.5       | 192.8        | 372,595.79          | 870,533.20         | 32.0198980 | -103.2711682 |  |
| 10,500.0                          | 90.00           | 179.36      | 9,593.0               | -439.5       | 194.0        | 372,495.79          | 870,534.32         | 32.0196232 | -103.2711678 |  |
| 10,600.0                          | 90.00           | 179.36      | 9,593.0               | -539.5       | 195.1        | 372,395.80          | 870,535.44         | 32.0193483 | -103.2711673 |  |
| 10,700.0                          | 90.00           | 179.36      | 9,593.0               | -639.5       | 196.2        | 372,295.81          | 870,536.57         | 32.0190734 | -103.2711669 |  |
| 10,800.0                          | 90.00           | 179.36      | 9,593.0               | -739.5       | 197.3        | 372,195.81          | 870,537.69         | 32.0187986 | -103.2711664 |  |
| 10,900.0                          | 90.00           | 179.36      | 9,593.0               | -839.5       | 198.5        | 372,095.82          | 870,538.81         | 32.0185237 | -103.2711660 |  |
| 11,000.0                          | 90.00           | 179.36      | 9,593.0               | -939.4       | 199.6        | 371,995.83          | 870,539.93         | 32.0182488 | -103.2711655 |  |
| 11,100.0                          | 90.00           | 179.36      | 9,593.0               | -1,039.4     | 200.7        | 371,895.83          | 870,541.05         | 32.0179740 | -103.2711651 |  |
| 11,200.0                          | 90.00           | 179.36      | 9,593.0               | -1,139.4     | 201.8        | 371,795.84          | 870,542.17         | 32.0176991 | -103.2711646 |  |
| 11,300.0                          | 90.00           | 179.36      | 9,593.0               | -1,239.4     | 202.9        | 371,695.85          | 870,543.29         | 32.0174242 | -103.2711642 |  |
| 11,400.0                          | 90.00           | 179.36      | 9,593.0               | -1,339.4     | 204.1        | 371,595.85          | 870,544.41         | 32.0171494 | -103.2711637 |  |
| 11,500.0                          | 90.00           | 179.36      | 9,593.0               | -1,439.4     | 205.2        | 371,495.86          | 870,545.54         | 32.0168745 | -103.2711633 |  |



## Planning Report - Geographic

|                  |                                |                                     |                                    |
|------------------|--------------------------------|-------------------------------------|------------------------------------|
| <b>Database:</b> | AUS-COMPASS - EDM_15 - 32bit   | <b>Local Co-ordinate Reference:</b> | Well AZALEA STATE COM26-36-28 072H |
| <b>Company:</b>  | Ameredev Operating             | <b>TVD Reference:</b>               | KB=25' @ 2939.0usft                |
| <b>Project:</b>  | Lea County, NM (N83-NME)       | <b>MD Reference:</b>                | KB=25' @ 2939.0usft                |
| <b>Site:</b>     | Camelia_Azalea                 | <b>North Reference:</b>             | Grid                               |
| <b>Well:</b>     | AZALEA STATE COM 26-36-28 072H | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Wellbore:</b> | OWB                            |                                     |                                    |
| <b>Design:</b>   | PWP                            |                                     |                                    |

| Planned Survey        |                 |             |                       |              |              |                     |                    |            |              |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|------------|--------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude   | Longitude    |
| 11,600.0              | 90.00           | 179.36      | 9,593.0               | -1,539.4     | 206.3        | 371,395.86          | 870,546.66         | 32.0165997 | -103.2711629 |
| 11,700.0              | 90.00           | 179.36      | 9,593.0               | -1,639.4     | 207.4        | 371,295.87          | 870,547.78         | 32.0163248 | -103.2711624 |
| 11,800.0              | 90.00           | 179.36      | 9,593.0               | -1,739.4     | 208.5        | 371,195.88          | 870,548.90         | 32.0160499 | -103.2711620 |
| 11,900.0              | 90.00           | 179.36      | 9,593.0               | -1,839.4     | 209.7        | 371,095.88          | 870,550.02         | 32.0157751 | -103.2711615 |
| 12,000.0              | 90.00           | 179.36      | 9,593.0               | -1,939.4     | 210.8        | 370,995.89          | 870,551.14         | 32.0155002 | -103.2711611 |
| 12,100.0              | 90.00           | 179.36      | 9,593.0               | -2,039.4     | 211.9        | 370,895.90          | 870,552.26         | 32.0152253 | -103.2711606 |
| 12,200.0              | 90.00           | 179.36      | 9,593.0               | -2,139.4     | 213.0        | 370,795.90          | 870,553.38         | 32.0149505 | -103.2711602 |
| 12,300.0              | 90.00           | 179.36      | 9,593.0               | -2,239.4     | 214.2        | 370,695.91          | 870,554.51         | 32.0146756 | -103.2711597 |
| 12,400.0              | 90.00           | 179.36      | 9,593.0               | -2,339.4     | 215.3        | 370,595.91          | 870,555.63         | 32.0144007 | -103.2711593 |
| 12,500.0              | 90.00           | 179.36      | 9,593.0               | -2,439.4     | 216.4        | 370,495.92          | 870,556.75         | 32.0141259 | -103.2711588 |
| 12,600.0              | 90.00           | 179.36      | 9,593.0               | -2,539.3     | 217.5        | 370,395.93          | 870,557.87         | 32.0138510 | -103.2711584 |
| 12,700.0              | 90.00           | 179.36      | 9,593.0               | -2,639.3     | 218.6        | 370,295.93          | 870,558.99         | 32.0135761 | -103.2711579 |
| 12,800.0              | 90.00           | 179.36      | 9,593.0               | -2,739.3     | 219.8        | 370,195.94          | 870,560.11         | 32.0133013 | -103.2711575 |
| 12,900.0              | 90.00           | 179.36      | 9,593.0               | -2,839.3     | 220.9        | 370,095.95          | 870,561.23         | 32.0130264 | -103.2711571 |
| 13,000.0              | 90.00           | 179.36      | 9,593.0               | -2,939.3     | 222.0        | 369,995.95          | 870,562.35         | 32.0127515 | -103.2711566 |
| 13,100.0              | 90.00           | 179.36      | 9,593.0               | -3,039.3     | 223.1        | 369,895.96          | 870,563.48         | 32.0124767 | -103.2711562 |
| 13,200.0              | 90.00           | 179.36      | 9,593.0               | -3,139.3     | 224.2        | 369,795.96          | 870,564.60         | 32.0122018 | -103.2711557 |
| 13,300.0              | 90.00           | 179.36      | 9,593.0               | -3,239.3     | 225.4        | 369,695.97          | 870,565.72         | 32.0119269 | -103.2711553 |
| 13,400.0              | 90.00           | 179.36      | 9,593.0               | -3,339.3     | 226.5        | 369,595.98          | 870,566.84         | 32.0116521 | -103.2711548 |
| 13,500.0              | 90.00           | 179.36      | 9,593.0               | -3,439.3     | 227.6        | 369,495.98          | 870,567.96         | 32.0113772 | -103.2711544 |
| 13,600.0              | 90.00           | 179.36      | 9,593.0               | -3,539.3     | 228.7        | 369,395.99          | 870,569.08         | 32.0111023 | -103.2711539 |
| 13,700.0              | 90.00           | 179.36      | 9,593.0               | -3,639.3     | 229.8        | 369,296.00          | 870,570.20         | 32.0108275 | -103.2711535 |
| 13,800.0              | 90.00           | 179.36      | 9,593.0               | -3,739.3     | 231.0        | 369,196.00          | 870,571.32         | 32.0105526 | -103.2711530 |
| 13,900.0              | 90.00           | 179.36      | 9,593.0               | -3,839.3     | 232.1        | 369,096.01          | 870,572.45         | 32.0102777 | -103.2711526 |
| 14,000.0              | 90.00           | 179.36      | 9,593.0               | -3,939.3     | 233.2        | 368,996.01          | 870,573.57         | 32.0100029 | -103.2711521 |
| 14,100.0              | 90.00           | 179.36      | 9,593.0               | -4,039.3     | 234.3        | 368,896.02          | 870,574.69         | 32.0097280 | -103.2711517 |
| 14,200.0              | 90.00           | 179.36      | 9,593.0               | -4,139.2     | 235.5        | 368,796.03          | 870,575.81         | 32.0094531 | -103.2711512 |
| 14,300.0              | 90.00           | 179.36      | 9,593.0               | -4,239.2     | 236.6        | 368,696.03          | 870,576.93         | 32.0091783 | -103.2711508 |
| 14,400.0              | 90.00           | 179.36      | 9,593.0               | -4,339.2     | 237.7        | 368,596.04          | 870,578.05         | 32.0089034 | -103.2711503 |
| 14,500.0              | 90.00           | 179.36      | 9,593.0               | -4,439.2     | 238.8        | 368,496.05          | 870,579.17         | 32.0086286 | -103.2711499 |
| 14,600.0              | 90.00           | 179.36      | 9,593.0               | -4,539.2     | 239.9        | 368,396.05          | 870,580.29         | 32.0083537 | -103.2711495 |
| 14,700.0              | 90.00           | 179.36      | 9,593.0               | -4,639.2     | 241.1        | 368,296.06          | 870,581.42         | 32.0080788 | -103.2711490 |
| 14,800.0              | 90.00           | 179.36      | 9,593.0               | -4,739.2     | 242.2        | 368,196.07          | 870,582.54         | 32.0078040 | -103.2711486 |
| 14,900.0              | 90.00           | 179.36      | 9,593.0               | -4,839.2     | 243.3        | 368,096.07          | 870,583.66         | 32.0075291 | -103.2711481 |
| 15,000.0              | 90.00           | 179.36      | 9,593.0               | -4,939.2     | 244.4        | 367,996.08          | 870,584.78         | 32.0072542 | -103.2711477 |
| 15,100.0              | 90.00           | 179.36      | 9,593.0               | -5,039.2     | 245.5        | 367,896.08          | 870,585.90         | 32.0069794 | -103.2711472 |
| 15,200.0              | 90.00           | 179.36      | 9,593.0               | -5,139.2     | 246.7        | 367,796.09          | 870,587.02         | 32.0067045 | -103.2711468 |
| 15,300.0              | 90.00           | 179.36      | 9,593.0               | -5,239.2     | 247.8        | 367,696.10          | 870,588.14         | 32.0064296 | -103.2711463 |
| 15,400.0              | 90.00           | 179.36      | 9,593.0               | -5,339.2     | 248.9        | 367,596.10          | 870,589.26         | 32.0061548 | -103.2711459 |
| 15,500.0              | 90.00           | 179.36      | 9,593.0               | -5,439.2     | 250.0        | 367,496.11          | 870,590.39         | 32.0058799 | -103.2711454 |
| 15,600.0              | 90.00           | 179.36      | 9,593.0               | -5,539.2     | 251.2        | 367,396.12          | 870,591.51         | 32.0056050 | -103.2711450 |
| 15,700.0              | 90.00           | 179.36      | 9,593.0               | -5,639.2     | 252.3        | 367,296.12          | 870,592.63         | 32.0053302 | -103.2711445 |
| 15,800.0              | 90.00           | 179.36      | 9,593.0               | -5,739.1     | 253.4        | 367,196.13          | 870,593.75         | 32.0050553 | -103.2711441 |
| 15,900.0              | 90.00           | 179.36      | 9,593.0               | -5,839.1     | 254.5        | 367,096.13          | 870,594.87         | 32.0047804 | -103.2711436 |
| 16,000.0              | 90.00           | 179.36      | 9,593.0               | -5,939.1     | 255.6        | 366,996.14          | 870,595.99         | 32.0045056 | -103.2711432 |
| 16,100.0              | 90.00           | 179.36      | 9,593.0               | -6,039.1     | 256.8        | 366,896.15          | 870,597.11         | 32.0042307 | -103.2711427 |
| 16,200.0              | 90.00           | 179.36      | 9,593.0               | -6,139.1     | 257.9        | 366,796.15          | 870,598.23         | 32.0039558 | -103.2711423 |
| 16,300.0              | 90.00           | 179.36      | 9,593.0               | -6,239.1     | 259.0        | 366,696.16          | 870,599.36         | 32.0036810 | -103.2711419 |
| 16,400.0              | 90.00           | 179.36      | 9,593.0               | -6,339.1     | 260.1        | 366,596.17          | 870,600.48         | 32.0034061 | -103.2711414 |
| 16,500.0              | 90.00           | 179.36      | 9,593.0               | -6,439.1     | 261.2        | 366,496.17          | 870,601.60         | 32.0031312 | -103.2711410 |
| 16,600.0              | 90.00           | 179.36      | 9,593.0               | -6,539.1     | 262.4        | 366,396.18          | 870,602.72         | 32.0028564 | -103.2711405 |
| 16,700.0              | 90.00           | 179.36      | 9,593.0               | -6,639.1     | 263.5        | 366,296.18          | 870,603.84         | 32.0025815 | -103.2711401 |
| 16,800.0              | 90.00           | 179.36      | 9,593.0               | -6,739.1     | 264.6        | 366,196.19          | 870,604.96         | 32.0023066 | -103.2711396 |
| 16,900.0              | 90.00           | 179.36      | 9,593.0               | -6,839.1     | 265.7        | 366,096.20          | 870,606.08         | 32.0020318 | -103.2711392 |
| 17,000.0              | 90.00           | 179.36      | 9,593.0               | -6,939.1     | 266.9        | 365,996.20          | 870,607.20         | 32.0017569 | -103.2711387 |



## Planning Report - Geographic

|                  |                                |                                     |                                    |
|------------------|--------------------------------|-------------------------------------|------------------------------------|
| <b>Database:</b> | AUS-COMPASS - EDM_15 - 32bit   | <b>Local Co-ordinate Reference:</b> | Well AZALEA STATE COM26-36-28 072H |
| <b>Company:</b>  | Ameredev Operating             | <b>TVD Reference:</b>               | KB=25' @ 2939.0usft                |
| <b>Project:</b>  | Lea County, NM (N83-NME)       | <b>MD Reference:</b>                | KB=25' @ 2939.0usft                |
| <b>Site:</b>     | Camelia_Azalea                 | <b>North Reference:</b>             | Grid                               |
| <b>Well:</b>     | AZALEA STATE COM 26-36-28 072H | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Wellbore:</b> | OWB                            |                                     |                                    |
| <b>Design:</b>   | PWP                            |                                     |                                    |

| Planned Survey        |                 |             |                       |              |              |                     |                    |            |              |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|------------|--------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude   | Longitude    |  |
| 17,100.0              | 90.00           | 179.36      | 9,593.0               | -7,039.1     | 268.0        | 365,896.21          | 870,608.33         | 32.0014820 | -103.2711383 |  |
| 17,200.0              | 90.00           | 179.36      | 9,593.0               | -7,139.1     | 269.1        | 365,796.22          | 870,609.45         | 32.0012072 | -103.2711378 |  |
| 17,300.0              | 90.00           | 179.36      | 9,593.0               | -7,239.1     | 270.2        | 365,696.22          | 870,610.57         | 32.0009323 | -103.2711374 |  |
| 17,400.0              | 90.00           | 179.36      | 9,593.0               | -7,339.0     | 271.3        | 365,596.23          | 870,611.69         | 32.0006574 | -103.2711369 |  |
| 17,475.5              | 90.00           | 179.36      | 9,593.0               | -7,414.5     | 272.2        | 365,520.77          | 870,612.54         | 32.0004500 | -103.2711366 |  |
| TD at 17475.5         |                 |             |                       |              |              |                     |                    |            |              |  |

| Design Targets |                                                                                            |               |              |            |              |              |                 |                |            |              |
|----------------|--------------------------------------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|------------|--------------|
| Target Name    | - hit/miss target                                                                          | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude   | Longitude    |
| LTP (ASC 072H) | - plan misses target center by 25.5usft at 17400.0usft MD (9593.0 TVD, -7339.0 N, 271.3 E) | 0.00          | 0.00         | 9,593.0    | -7,364.5     | 271.7        | 365,570.76      | 870,612.04     | 32.0005874 | -103.2711366 |
|                | - Point                                                                                    |               |              |            |              |              |                 |                |            |              |
| BHL (ASC 072H) | - plan hits target center                                                                  | 0.00          | 0.00         | 9,593.0    | -7,414.5     | 272.2        | 365,520.77      | 870,612.54     | 32.0004500 | -103.2711366 |
|                | - Point                                                                                    |               |              |            |              |              |                 |                |            |              |
| FTP (ASC 072H) | - plan misses target center by 10.0usft at 9908.4usft MD (9593.0 TVD, 152.1 N, 187.3 E)    | 0.00          | 0.00         | 9,593.0    | 152.2        | 197.3        | 373,087.48      | 870,537.67     | 32.0212493 | -103.2711382 |
|                | - Point                                                                                    |               |              |            |              |              |                 |                |            |              |

| Formations            |                       |             |           |         |                   |  |
|-----------------------|-----------------------|-------------|-----------|---------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name        | Lithology | Dip (°) | Dip Direction (°) |  |
| 2,950.5               | 2,939.0               | Dewey Lake  |           |         |                   |  |
| 4,739.9               | 4,711.0               | Rustler     |           |         |                   |  |
| 5,166.1               | 5,133.0               | Salado      |           |         |                   |  |
| 6,231.4               | 6,188.0               | Tansill     |           |         |                   |  |
| 6,674.4               | 6,630.0               | Capitan     |           |         |                   |  |
| 7,930.4               | 7,886.0               | Lamar       |           |         |                   |  |
| 8,083.4               | 8,039.0               | Bell Canyon |           |         |                   |  |

| Plan Annotations      |                       |                   |              |                                   |  |
|-----------------------|-----------------------|-------------------|--------------|-----------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                           |  |
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                                   |  |
| 1,500.0               | 1,500.0               | 0.0               | 0.0          | Start Build 2.00                  |  |
| 1,900.0               | 1,898.7               | 26.8              | 7.8          | Start 4297.4 hold at 1900.0 MD    |  |
| 6,197.4               | 6,154.3               | 601.2             | 174.2        | Start Drop -2.00                  |  |
| 6,597.4               | 6,553.0               | 628.0             | 182.0        | Start 2562.5 hold at 6597.4 MD    |  |
| 9,159.9               | 9,115.5               | 628.0             | 182.0        | KOP-Start DLS 12.00 TFO 179.36    |  |
| 9,909.9               | 9,593.0               | 150.6             | 187.4        | LP-Start 7565.5 hold at 9909.9 MD |  |
| 17,475.5              | 9,593.0               | -7,414.5          | 272.2        | TD at 17475.5                     |  |



## H<sub>2</sub>S Drilling Operation Plan

1. **All Company and Contract personnel admitted on location must be trained by a qualified H<sub>2</sub>S safety instructor to the following:**
  - a. Characteristics of H<sub>2</sub>S
  - b. Physical effects and hazards
  - c. Principal and operation of H<sub>2</sub>S detectors, warning system and briefing areas
  - d. Evacuation procedure, routes and first aid
  - e. Proper use of safety equipment and life support systems
  - f. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30 minute pressure demand air packs.
2. **Briefing Area:**
  - a. Two perpendicular areas will be designated by signs and readily accessible.
  - b. Upon location entry there will be a designated area to establish all safety compliance criteria (1.) has been met.
3. **H<sub>2</sub>S Detection and Alarm Systems:**
  - a. H<sub>2</sub>S sensors/detectors shall be located on the drilling rig floor, in the base of the sub structure/cellar area, and on the mud pits in the shale shaker area. Additional H<sub>2</sub>S detectors may be placed as deemed necessary. All detectors will be set to initiate visual alarm at 10 ppm and visual with audible at 14 ppm and all equipment will be calibrated every 30 days or as needed.
  - b. An audio alarm will be installed on the derrick floor and in the top doghouse.
4. **Protective Equipment for Essential Personnel:**
  - a. **Breathing Apparatus:**
    - i. Rescue Packs (SCBA) - 1 Unit shall be placed at each briefing area.
    - ii. Two (SCBA) Units will be stored in safety trailer on location.
    - iii. Work/Escapes packs - 1 Unit will be available on rig floor in doghouse for emergency evacuation for driller.
  - b. **Auxiliary Rescue Equipment:**
    - i. Stretcher
    - ii. 2 - OSHA full body harnesses
    - iii. 100 ft. 5/8" OSHA approved rope
    - iv. 1 - 20# class ABC fire extinguisher
5. **Windsock and/or Wind Streamers:**
  - a. Windsock at mud pit area should be high enough to be visible.
  - b. Windsock on the rig floor should be high enough to be visible.
6. **Communication:**
  - a. While working under mask scripting boards will be used for communication where applicable.
  - b. Hand signals will be used when script boards are not applicable.



## H<sub>2</sub>S Drilling Operation Plan

- c. Two way radios will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at Drilling Foreman's Office.
- 7. **Drill Stem Testing:** - No Planned DST at this time.
- 8. **Mud program:**
  - a. If H<sub>2</sub>S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H<sub>2</sub>S scavengers if necessary.
- 9. **Metallurgy:**
  - a. All drill strings, casing, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H<sub>2</sub>S service.
  - b. Drilling Contractor supervisor will be required to be familiar with the effect H<sub>2</sub>S has on tubular goods and other mechanical equipment provided through contractor.



## H<sub>2</sub>S Contingency Plan

### Emergency Procedures

In the event of a release of H<sub>2</sub>S, the first responder(s) must:

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H<sub>2</sub>S monitors and air packs in order to control the release.
- Use the “buddy system” to ensure no injuries occur during the response.
- Take precautions to avoid personal injury during this operation.
- Contact Operator and/or local officials the aid in operation. See list of phone numbers attached.
- Have received training in the:
  - Detection of H<sub>2</sub>S and
  - Measures for protection against the gas,
  - Equipment used for protection and emergency response.

### Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

### Characteristics of H<sub>2</sub>S and SO<sub>2</sub>

| Common Name      | Chemical Formula | Specific Gravity | Threshold Limit | Hazardous Limit | Lethal Concentration |
|------------------|------------------|------------------|-----------------|-----------------|----------------------|
| Hydrogen Sulfide | H <sub>2</sub> S | 1.189 Air=1      | 10 ppm          | 100 ppm/hr      | 600 ppm              |
| Sulfur Dioxide   | SO <sub>2</sub>  | 2.21 Air=1       | 2 ppm           | N/A             | 1000 ppm             |

### Contacting Authorities

Ameredev Operating LLC personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including direction to site. The following call list of essential and potential responders has been prepared for use during a release. Ameredev Operating LLC’s response must be in coordination with the State of New Mexico’s “Hazardous Materials Emergency Response Plan” (HMER)



## H<sub>2</sub>S Contingency Plan

| <b>Ameredev Operating LLC – Emergency Phone 737-300-4799</b> |                         |              |              |
|--------------------------------------------------------------|-------------------------|--------------|--------------|
| Key Personnel:                                               |                         |              |              |
| Name                                                         | Title                   | Office       | Mobile       |
| Floyd Hammond                                                | Chief Operating officer | 737-300-4724 | 512-783-6810 |
| Shane McNeely                                                | Operations Engineer     | 737-300-4729 | 432-413-8593 |
| Dayeed Khan                                                  | Construction Manager    | 737-300-4733 | 281-928-4692 |

| <b><u>Artesia</u></b>                                                        |              |
|------------------------------------------------------------------------------|--------------|
| Ambulance                                                                    | 911          |
| State Police                                                                 | 575-748-9718 |
| City Police                                                                  | 575-746-5000 |
| Sheriff's Office                                                             | 575-887-7551 |
| Fire Department                                                              | 575-746-5051 |
| Artesia General Hospital                                                     | 575-748-3333 |
| New Mexico Oil Conservation Division                                         | 575-626-0830 |
| <b><u>Carlsbad</u></b>                                                       |              |
| Ambulance                                                                    | 911          |
| State Police                                                                 | 575-885-3138 |
| City Police                                                                  | 575-885-2111 |
| Sheriff's Office                                                             | 575-887-7551 |
| Fire Department                                                              | 575-885-3125 |
| Carlsbad Medical Center                                                      | 575-887-4100 |
| Hobbs Hospital                                                               | 575-492-5000 |
| BLM Hobbs Field Office                                                       | 575-689-5981 |
| BLM Carlsbad Field Office                                                    | 575-361-2822 |
| New Mexico Oil Conservation Division                                         | 575-626-0830 |
| <b><u>Santa Fe</u></b>                                                       |              |
| Department of Homeland Security and Emergency Management (Santa Fe)          | 505-476-9600 |
| New Mexico State Emergency Operations Center                                 | 505-476-9635 |
| <b><u>National</u></b>                                                       |              |
| National Emergency Response Center (Washington, D.C.)                        | 800-424-8802 |
| <b><u>Medical</u></b>                                                        |              |
| Aerocare - R3, Box 49F; Lubbock, TX                                          | 800-627-2376 |
| Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuquerque, NM               | 505-842-4433 |
| Lifeguard Air Emergency Services- 2505 Clark Carr Loop S.E.; Albuquerque, NM | 505-243-2343 |



State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

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

## NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

### Section 1 – Plan Description

Effective May 25, 2021

**I. Operator:** \_\_\_\_\_ Ameredev II, LLC \_\_\_\_\_ **OGRID:** \_\_\_\_\_ 372224 \_\_\_\_\_ **Date:** \_\_\_\_\_ 06/21/2023 \_\_\_\_\_

**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: \_\_\_\_\_

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

| Well Name                      | API    | ULSTR | Footages             | Anticipated Oil BBL/D | Anticipated Gas MCF/D | Anticipated Produced Water BBL/D |
|--------------------------------|--------|-------|----------------------|-----------------------|-----------------------|----------------------------------|
| Azalea 26 36 28 State Com 284H | 30025- |       | 230' FNL & 795' FEL  | 10                    | 51                    | 18                               |
| Azalea 26 36 28 State Com 061H | 30025- |       | 210' FNL & 385' FEL  | 679                   | 3,238                 | 2,992                            |
| Azalea 26 36 28 State Com 062H | 30025- |       | 230' FNL & 1686' FWL | 8                     | 40                    | 20                               |
| Azalea 26 36 28 State Com 071H | 30025- |       | 230' FNL & 1386' FWL | 49                    | 244                   | 86                               |
| Azalea 26 36 28 State Com 072H | 30025- |       | 250' FNL & 2111' FWL | 8                     | 38                    | 13                               |
| Azalea 26 36 28 State Com 074H | 30025- |       | 230' FNL & 735' FEL  | 8                     | 38                    | 13                               |

**IV. Central Delivery Point Name:** \_\_\_\_\_ [See 19.15.27.9(D)(1) NMAC]



**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

| Well Name                      | API    | Spud Date  | TD Reached Date | Completion Commencement Date | Initial Flow Back Date | First Production Date |
|--------------------------------|--------|------------|-----------------|------------------------------|------------------------|-----------------------|
| Azalea 26 36 28 State Com 284H | 30025- | 12/01/2024 | 01/15/2025      | 02/15/2025                   | 03/01/2025             | 03/04/2025            |
| Azalea 26 36 28 State Com 061H | 30025- | 12/01/2024 | 01/15/2025      | 02/15/2025                   | 03/01/2025             | 03/04/2025            |
| Azalea 26 36 28 State Com 062H | 30025- | 12/01/2024 | 01/15/2025      | 02/15/2025                   | 03/01/2025             | 03/04/2025            |
| Azalea 26 36 28 State Com 071H | 30025- | 12/01/2024 | 01/15/2025      | 02/15/2025                   | 03/01/2025             | 03/04/2025            |
| Azalea 26 36 28 State Com 072H | 30025- | 12/01/2024 | 01/15/2025      | 02/15/2025                   | 03/01/2025             | 03/04/2025            |
| Azalea 26 36 28 State Com 074H | 30025- | 12/01/2024 | 01/15/2025      | 02/15/2025                   | 03/01/2025             | 03/04/2025            |

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

## **Section 2 – Enhanced Plan**

### **EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

#### **IX. Anticipated Natural Gas Production:**

| Well | API | Anticipated Average Natural Gas Rate MCF/D | Anticipated Volume of Natural Gas for the First Year MCF |
|------|-----|--------------------------------------------|----------------------------------------------------------|
|      |     |                                            |                                                          |
|      |     |                                            |                                                          |

#### **X. Natural Gas Gathering System (NGGS):**

| Operator | System | ULSTR of Tie-in | Anticipated Gathering Start Date | Available Maximum Daily Capacity of System Segment Tie-in |
|----------|--------|-----------------|----------------------------------|-----------------------------------------------------------|
|          |        |                 |                                  |                                                           |
|          |        |                 |                                  |                                                           |

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

### **Section 3 - Certifications**

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

### **Section 4 - Notices**

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

|                                  |
|----------------------------------|
| Signature: <i>Cesca Yu</i>       |
| Printed Name: Cesca Yu           |
| Title: Engineer                  |
| E-mail Address: cyu@ameredev.com |
| Date: 06/21/2023                 |
| Phone: 512-775-1417              |

**OIL CONSERVATION DIVISION**  
**(Only applicable when submitted as a standalone form)**

|                         |
|-------------------------|
| Approved By:            |
| Title:                  |
| Approval Date:          |
| Conditions of Approval: |

## **Natural Gas Management Plan**

### **VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.**

- Separation equipment is sized to allow for retention time and velocity to adequately separate oil, gas, and water at anticipated peak rates.
- All central tank battery equipment is designed to efficiently capture the remaining gas from the liquid phase.
- Valves and meters are designed to service without flow interruption or venting of gas.

### **VII. Operational Practices: Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F 19.15.27.8 NMAC.**

#### **19.15.27.8 (A)**

Ameredev's field operations are designed with the goal of minimizing flaring and preventing venting of natural gas. If capturing the gas is not possible then the gas is combusted/flared using properly sized flares or combustors in accordance with state air permit rules.

#### **19.15.27.8 (B) Venting and Flaring during drilling operations**

- A properly-sized flare stack will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared. Venting will only occur if there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety, public health, or the environment.

#### **19.15.27.8 (C) Venting and Flaring during completions or recompletions operations.**

- During all phases of flowback, wells will flow through a sand separator, or other appropriate flowback separation equipment, and the well stream will be directed to a central tank battery (CTB) through properly sized flowlines
- The CTB will have properly sized separation equipment for maximum anticipated flowrates
- Multiple stages of separation will be used to separate gas from liquids. All gas will be routed to a sales outlet. Fluids will be routed to tanks equipped with a closed loop system that will recover any residual gas from the tanks and route such gas to a sales outlet.

#### **19.15.27.8 (D) Venting and Flaring during production operations.**

- During production, the well stream will be routed to the CTB where multiple stages of separation will separate gas from liquids. All gas will be routed to a sales outlet. Fluids will be routed to tanks with a closed

loop system that will recover any residual gas from the tanks and route such gas to a sales outlet, minimizing tank emissions.

- Flares are equipped with auto-ignition systems and continuous pilot operations.
- Automatic gauging equipment is installed on all tanks.

#### **19.15.27.8 (E) Performance Standards**

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- Automatic gauging equipment is installed on all tanks to minimize venting
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- Flares are equipped with continuous pilots and auto-ignitors along with remote monitoring of the pilot status
- Weekly AVOs and monthly LDAR inspections will be performed on all wells and facilities that produce more than 60 Mcfd.
- Gas/H<sub>2</sub>S detectors will be installed throughout the facilities and wellheads to detect leaks and enable timely repairs.

#### **19.15.27.8 (F) Measurement or estimation of vented and flared natural gas**

- All high pressure flared gas is measured by equipment conforming to API 14.10.
- No meter bypasses are installed.
- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated through flare flow curves with the assistance of air emissions consultants, as necessary.

#### **VIII. Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.**

- Ameredev will use best management practices to vent as minimally as possible during well intervention operations and downhole well maintenance
- All natural gas is routed into the gas gathering system and directed to one of Ameredev's multiple gas sales outlets.
- All venting events will be recorded and all start-up, shutdown, maintenance logs will be kept for control equipment
- All control equipment will be maintained to provide highest run-time possible
- All procedures are drafted to keep venting and flaring to the absolute minimum