

Submit 1 Copy To Appropriate District Office  
District I - (575) 393-6161  
1625 N. French Dr., Hobbs, NM 88240  
District II - (575) 748-1283  
811 S. First St., Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV - (505) 476-3460  
1220 S. St. Francis Dr., Santa Fe, NM 87505

NOV 13 2013

OCT 22 2014

RECEIVED

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

Form C-103  
Revised July 18, 2013

|                                                                                                                                                                                                                       |  |                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------|
| SUNDRY NOTICES AND REPORTS ON WELLS<br>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)                |  | WELL API NO.<br>30-025-41671                                                                        |
| 1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>                                                                                        |  | 5. Indicate Type of Lease<br>STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/> |
| 2. Name of Operator<br>Yates Petroleum Corporation                                                                                                                                                                    |  | 6. State Oil & Gas Lease No.<br>VO-9011                                                             |
| 3. Address of Operator<br>105 S. 4 <sup>th</sup> St. Artesia, NM 88210                                                                                                                                                |  | 7. Lease Name or Unit Agreement Name<br>Date BTB State Com                                          |
| 4. Well Location<br>Unit Letter <u>AA</u> : <u>15</u> feet from the <u>North</u> line and <u>680</u> feet from the <u>East</u> line<br>Section <u>14</u> Township <u>21S</u> Range <u>33E</u> NMPM <u>Eddy</u> County |  | 8. Well Number <u>8H</u>                                                                            |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.)<br>3,791' GR                                                                                                                                                       |  | 9. OGRID Number <u>025575</u>                                                                       |
|                                                                                                                                                                                                                       |  | 10. Pool name or Wildcat<br>2nd Bone Springs Sand                                                   |

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☒  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐  
CLOSED-LOOP SYSTEM ☐  
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐  
OTHER: ☐

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

Yates Petroleum Corporation respectfully requests make the following changes to our well plan:

We request to change our TVD @ EOC to approx. 10,951' and @ EOL to approx. 10,986'. Directional plan is also attached. Target formation, casing weight and grade will remain the same. Cement volumes will be adjusted accordingly. We would also like to request to set our 9 5/8" intermediate casing @ approx. 5,600' as per the attached casing design. Our production cement will tie back 500' into previous casing string if intermediate string is cemented in one stage. If intermediate casing is cemented in 2 stages, production cement will tie back 200' above DV/Packer stage tool placement. Cement volumes will be adjusted accordingly.

Thank you.

Spud Date:

Rig Release Date:

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

SIGNATURE Naomi Saiz TITLE Well Planning Tech DATE 10/21/14

Type or print name Naomi Saiz E-mail address: nsaiz@yatespetroleum.com PHONE: 575-748-4211

For State Use Only

APPROVED BY: [Signature] TITLE Petroleum Engineer DATE 10/23/14  
Conditions of Approval (if any):

OCT 23 2014



Yates Petroleum Corporation  
Project: Lea County, NM (NAD-83)  
Site: Date BTR State Com  
Well: #8H  
Wellbore: OH  
Plan: Plan #1 (#8H/OH)

WELL DETAILS: #8H

Ground Elevation: 3791.0  
RKB Elevation: RKB @ 3812.5usft (Nomac 22 - KB=21.5)  
Rig Name: Nomac 22 - KB=21.5  
Surface Hole Location  
Easting 786915.70  
Northing 541458.20  
Latitude 32° 29' 9.638 N  
Longitude 103° 32' 12.826 W

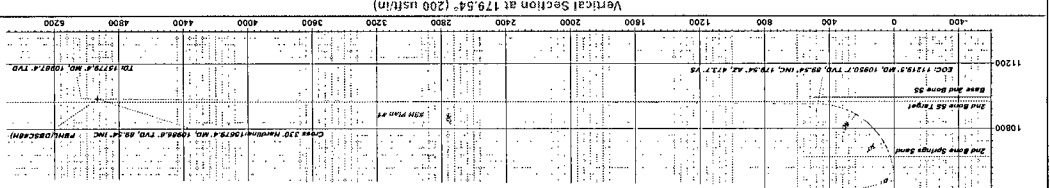
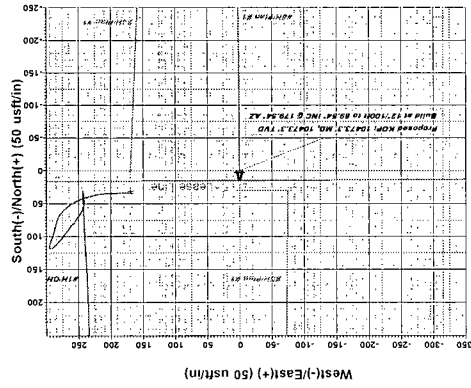


Magnetic Field  
Strength: 48467.65nT  
Dip Angle: 60.36°  
Date: 7/10/2014  
Model: IGRF2010  
Azimuths to Grid North  
True North: -0.43°  
Magnetic North: 6.78°

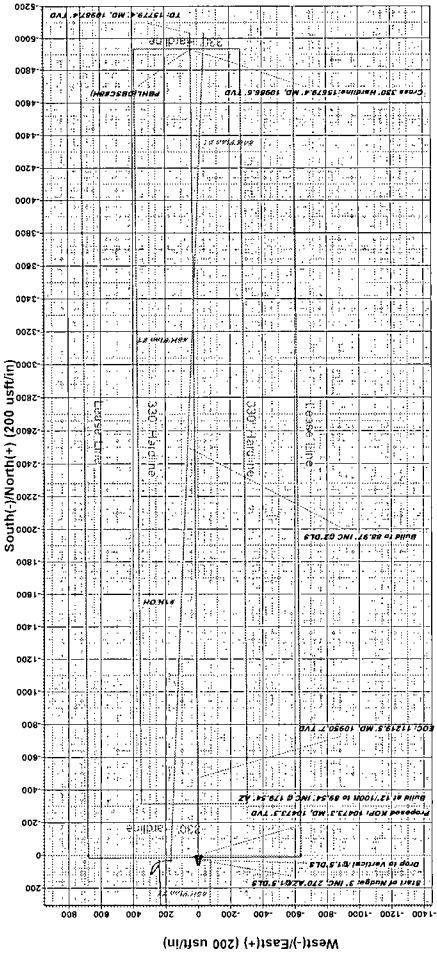
### Section Details

| MD | Inc     | Azi   | TVD     | +N/-S   | +E/-W   | Dieg  | Tface  | VSect  |
|----|---------|-------|---------|---------|---------|-------|--------|--------|
| 1  | 0.0     | 0.0   | 0.0     | 0.0     | 0.0     | 0.0   | 0.0    | 0.0    |
| 2  | 10473.3 | 0.0   | 10473.3 | 0.0     | 0.0     | 0.0   | 0.0    | 0.0    |
| 3  | 11219.5 | 69.54 | 10950.7 | -473.6  | 3.8     | 12.00 | 179.54 | 473.6  |
| 4  | 15679.4 | 89.54 | 179.54  | 10986.6 | -4933.3 | 39.6  | 0.00   | 4933.5 |
| 5  | 15779.4 | 89.54 | 179.54  | 10987.4 | -5033.3 | 40.4  | 0.00   | 5033.5 |

| DESIGN TARGET DETAILS |      |       |          |
|-----------------------|------|-------|----------|
| Name                  | MD   | Inc   | Easting  |
| CRASHING 111          | 30.6 | 169.5 | 64148.80 |
| CRASHING 111          | 30.6 | 169.5 | 64148.80 |
| CRASHING 111          | 30.6 | 169.5 | 64148.80 |
| CRASHING 111          | 30.6 | 169.5 | 64148.80 |
| CRASHING 111          | 30.6 | 169.5 | 64148.80 |
| CRASHING 111          | 30.6 | 169.5 | 64148.80 |
| CRASHING 111          | 30.6 | 169.5 | 64148.80 |
| CRASHING 111          | 30.6 | 169.5 | 64148.80 |
| CRASHING 111          | 30.6 | 169.5 | 64148.80 |
| CRASHING 111          | 30.6 | 169.5 | 64148.80 |



PROJECT DETAILS: Lea County, NM (NAD-83)  
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level  
Local North: Grid



HOBBS OCD

OCT 22 2014

RECEIVED

# Yates Petroleum

Lea County, NM (NAD-83)

Date BTB State Com

#8H

OH

Plan: Plan #1

## Standard Planning Report

02 September, 2014

# Planning Report

|                  |                         |                                     |                                        |
|------------------|-------------------------|-------------------------------------|----------------------------------------|
| <b>Database:</b> | Houston R5000 Database  | <b>Local Co-ordinate Reference:</b> | Well #8H                               |
| <b>Company:</b>  | Yates Petroleum         | <b>TVD Reference:</b>               | RKB @ 3812.5usft (Nomac 22 - KB=21.5') |
| <b>Project:</b>  | Lea County, NM (NAD-83) | <b>MD Reference:</b>                | RKB @ 3812.5usft (Nomac 22 - KB=21.5') |
| <b>Site:</b>     | Date BTB State Com      | <b>North Reference:</b>             | Grid                                   |
| <b>Well:</b>     | #8H                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Wellbore:</b> | OH                      |                                     |                                        |
| <b>Design:</b>   | Plan #1                 |                                     |                                        |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | Lea County, NM (NAD-83)   |                      |                |
| <b>Map System:</b> | US State Plane 1983       | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983 |                      |                |
| <b>Map Zone:</b>   | New Mexico Eastern Zone   |                      |                |

|                              |                    |                          |                   |
|------------------------------|--------------------|--------------------------|-------------------|
| <b>Site:</b>                 | Date BTB State Com |                          |                   |
| <b>Site Position:</b>        |                    | <b>Northing:</b>         | 541,458.90 usft   |
| <b>From:</b>                 | Map                | <b>Easting:</b>          | 787,085.40 usft   |
| <b>Position Uncertainty:</b> | 0.0 usft           | <b>Slot Radius:</b>      | 13-3/16 "         |
|                              |                    | <b>Latitude:</b>         | 32° 29' 9.632 N   |
|                              |                    | <b>Longitude:</b>        | 103° 32' 10.845 W |
|                              |                    | <b>Grid Convergence:</b> | 0.43 °            |

|                             |              |                            |                                  |
|-----------------------------|--------------|----------------------------|----------------------------------|
| <b>Well:</b>                | #8H          |                            |                                  |
| <b>Well Position</b>        | <b>+N/-S</b> | -0.7 usft                  | <b>Northing:</b> 541,458.20 usft |
|                             | <b>+E/-W</b> | -169.7 usft                | <b>Easting:</b> 786,915.70 usft  |
| <b>Position Uncertainty</b> | 0.0 usft     | <b>Wellhead Elevation:</b> | 0.0 usft                         |
|                             |              | <b>Latitude:</b>           | 32° 29' 9.638 N                  |
|                             |              | <b>Longitude:</b>          | 103° 32' 12.826 W                |
|                             |              | <b>Ground Level:</b>       | 3,791.0 usft                     |

|                  |                   |                    |                    |
|------------------|-------------------|--------------------|--------------------|
| <b>Wellbore</b>  | OH                |                    |                    |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination</b> |
|                  | IGRF2010          | 7/10/2014          | (°)                |
|                  |                   |                    | 7.21               |
|                  |                   |                    | Dip Angle          |
|                  |                   |                    | (°)                |
|                  |                   |                    | 60.36              |
|                  |                   |                    | Field Strength     |
|                  |                   |                    | (nT)               |
|                  |                   |                    | 48,468             |

|                          |                         |              |                          |
|--------------------------|-------------------------|--------------|--------------------------|
| <b>Design</b>            | Plan #1                 |              |                          |
| <b>Audit Notes:</b>      |                         |              |                          |
| <b>Version:</b>          | <b>Phase:</b>           | PLAN         | <b>Tie On Depth:</b> 0.0 |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b> | <b>+N/-S</b> | <b>+E/-W</b>             |
|                          | (usft)                  | (usft)       | (usft)                   |
|                          | 0.0                     | 0.0          | 0.0                      |
|                          |                         |              | <b>Direction</b>         |
|                          |                         |              | (°)                      |
|                          |                         |              | 179.54                   |

|                      |                    |                |                 |               |               |               |              |             |            |               |
|----------------------|--------------------|----------------|-----------------|---------------|---------------|---------------|--------------|-------------|------------|---------------|
| <b>Plan Sections</b> |                    |                |                 |               |               |               |              |             |            |               |
| <b>Measured</b>      | <b>Inclination</b> | <b>Azimuth</b> | <b>Vertical</b> | <b>+N/-S</b>  | <b>+E/-W</b>  | <b>Dogleg</b> | <b>Build</b> | <b>Turn</b> | <b>TFO</b> | <b>Target</b> |
| <b>Depth</b>         | (°)                | (°)            | <b>Depth</b>    | <b>(usft)</b> | <b>(usft)</b> | <b>Rate</b>   | <b>Rate</b>  | <b>Rate</b> | (°)        |               |
| (usft)               |                    |                | (usft)          |               |               | (°/100usft)   | (°/100usft)  | (°/100usft) |            |               |
| 0.0                  | 0.00               | 0.00           | 0.0             | 0.0           | 0.0           | 0.00          | 0.00         | 0.00        | 0.00       |               |
| 10,473.3             | 0.00               | 0.00           | 10,473.3        | 0.0           | 0.0           | 0.00          | 0.00         | 0.00        | 0.00       |               |
| 11,219.5             | 89.54              | 179.54         | 10,950.7        | -473.6        | 3.8           | 12.00         | 12.00        | 0.00        | 179.54     |               |
| 15,679.4             | 89.54              | 179.54         | 10,986.6        | -4,933.3      | 39.6          | 0.00          | 0.00         | 0.00        | 0.00       | PBHL(DBSC#8H) |
| 15,779.4             | 89.54              | 179.54         | 10,987.4        | -5,033.3      | 40.4          | 0.00          | 0.00         | 0.00        | 0.00       |               |

# Planning Report

**Database:** Houston R5000 Database  
**Company:** Yates Petroleum  
**Project:** Lea County, NM (NAD-83)  
**Site:** Date BTB State Com  
**Well:** #8H  
**Wellbore:** OH  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well #8H  
**TVD Reference:** RKB @ 3812.5usft (Nomac 22 - KB=21.5')  
**MD Reference:** RKB @ 3812.5usft (Nomac 22 - KB=21.5')  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Planned Survey

| Measured<br>Depth<br>(usft)                                                                    | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|------------------------------------------------------------------------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 0.0                                                                                            | 0.00               | 0.00           | 0.0                         | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,836.0                                                                                        | 0.00               | 0.00           | 1,836.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>Rustler</b>                                                                                 |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 1,971.0                                                                                        | 0.00               | 0.00           | 1,971.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>Top Salt</b>                                                                                |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 3,421.0                                                                                        | 0.00               | 0.00           | 3,421.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>Base Salt - Top Tansill</b>                                                                 |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 3,651.0                                                                                        | 0.00               | 0.00           | 3,651.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>Yates</b>                                                                                   |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 3,936.0                                                                                        | 0.00               | 0.00           | 3,936.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>Capitan</b>                                                                                 |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 6,061.0                                                                                        | 0.00               | 0.00           | 6,061.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>Cherry Canyon</b>                                                                           |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 7,101.0                                                                                        | 0.00               | 0.00           | 7,101.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>Brushy Canyon</b>                                                                           |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 8,771.0                                                                                        | 0.00               | 0.00           | 8,771.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>Bone Springs LM</b>                                                                         |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 8,991.0                                                                                        | 0.00               | 0.00           | 8,991.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>Avalon Sand</b>                                                                             |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 9,311.0                                                                                        | 0.00               | 0.00           | 9,311.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>Middle Avalon</b>                                                                           |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 9,541.0                                                                                        | 0.00               | 0.00           | 9,541.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>Lower Avalon</b>                                                                            |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 9,951.0                                                                                        | 0.00               | 0.00           | 9,951.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>1st Bone Springs Sand</b>                                                                   |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 10,473.3                                                                                       | 0.00               | 0.00           | 10,473.3                    | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>Build at 12°/100ft to 89.54° INC @ 179.54° AZ - Proposed KOP: 10473.3' MD, 10473.3' TVD</b> |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 10,628.7                                                                                       | 18.65              | 179.54         | 10,626.0                    | -25.1           | 0.2             | 25.1                          | 12.00                         | 12.00                        | 0.00                        |
| <b>2nd Bone Springs Sand</b>                                                                   |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 11,219.5                                                                                       | 89.54              | 179.54         | 10,950.7                    | -473.6          | 3.8             | 473.7                         | 12.00                         | 12.00                        | 0.00                        |
| <b>EOC: 11219.5' MD, 10950.7' TVD, 89.54° INC, 179.54° AZ, 473.7' VS</b>                       |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 13,119.0                                                                                       | 89.54              | 179.54         | 10,966.0                    | -2,373.1        | 19.1            | 2,373.1                       | 0.00                          | 0.00                         | 0.00                        |
| <b>2nd Bone SS Target</b>                                                                      |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 15,679.4                                                                                       | 89.54              | 179.54         | 10,986.6                    | -4,933.3        | 39.6            | 4,933.4                       | 0.00                          | 0.00                         | 0.00                        |
| <b>Cross 330' Hardline: 15679.4' MD, 10986.6' TVD, 89.54° INC</b>                              |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 15,779.4                                                                                       | 89.54              | 179.54         | 10,987.4                    | -5,033.3        | 40.4            | 5,033.4                       | 0.00                          | 0.00                         | 0.00                        |
| <b>TD: 15779.4' MD, 10987.4' TVD</b>                                                           |                    |                |                             |                 |                 |                               |                               |                              |                             |

# Planning Report

**Database:** Houston R5000 Database  
**Company:** Yates Petroleum  
**Project:** Lea County, NM (NAD-83)  
**Site:** Date BTB State Com  
**Well:** #8H  
**Wellbore:** OH  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well #8H  
**TVD Reference:** RKB @ 3812.5usft (Nomac 22 - KB=21.5')  
**MD Reference:** RKB @ 3812.5usft (Nomac 22 - KB=21.5')  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Design Targets

| Target Name   | hit/miss target                                                                                      | Dip Angle<br>(°) | Dip Dir.<br>(°) | TVD<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude         | Longitude         |
|---------------|------------------------------------------------------------------------------------------------------|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|------------------|-------------------|
| Cranberry #1H | - plan misses target center by 172.2usft at 1.0usft MD (1.0 TVD, 0.0 N, 0.0 E)<br>- Point            | 0.00             | 0.00            | 1.0           | 30.6            | 169.5           | 541,488.80         | 787,085.20        | 32° 29' 9.928 N  | 103° 32' 10.845 W |
| Cranberry #5H | - plan misses target center by 29.9usft at 4.0usft MD (4.0 TVD, 0.0 N, 0.0 E)<br>- Point             | 0.00             | 0.00            | 4.0           | 29.9            | -0.3            | 541,488.10         | 786,915.40        | 32° 29' 9.934 N  | 103° 32' 12.827 W |
| Date #4H      | - plan misses target center by 169.7usft at 4.0usft MD (4.0 TVD, 0.0 N, 0.0 E)<br>- Point            | 0.00             | 0.00            | 4.0           | 0.7             | 169.7           | 541,458.90         | 787,085.40        | 32° 29' 9.632 N  | 103° 32' 10.845 W |
| PBHL(DBSC#8H) | - plan misses target center by 0.6usft at 15679.4usft MD (10986.6 TVD, -4933.3 N, 39.6 E)<br>- Point | 0.00             | 0.00            | 10,986.0      | -4,933.3        | 39.6            | 536,524.90         | 786,955.50        | 32° 28' 20.821 N | 103° 32' 12.792 W |

## Formations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Name                    | Lithology | Dip<br>(°) | Dip<br>Direction<br>(°) |
|-----------------------------|-----------------------------|-------------------------|-----------|------------|-------------------------|
| 1,836.0                     | 1,836.0                     | Rustler                 |           |            |                         |
| 1,971.0                     | 1,971.0                     | Top Salt                |           |            |                         |
| 3,421.0                     | 3,421.0                     | Base Salt - Top Tansill |           |            |                         |
| 3,651.0                     | 3,651.0                     | Yates                   |           |            |                         |
| 3,936.0                     | 3,936.0                     | Capitan                 |           |            |                         |
| 6,061.0                     | 6,061.0                     | Cherry Canyon           |           |            |                         |
| 7,101.0                     | 7,101.0                     | Brushy Canyon           |           |            |                         |
| 8,771.0                     | 8,771.0                     | Bone Springs LM         |           |            |                         |
| 8,991.0                     | 8,991.0                     | Avalon Sand             |           |            |                         |
| 9,311.0                     | 9,311.0                     | Middle Avalon           |           |            |                         |
| 9,541.0                     | 9,541.0                     | Lower Avalon            |           |            |                         |
| 9,951.0                     | 9,951.0                     | 1st Bone Springs Sand   |           |            |                         |
| 10,628.7                    | 10,626.0                    | 2nd Bone Springs Sand   |           |            |                         |
| 13,119.0                    | 10,966.0                    | 2nd Bone SS Target      |           |            |                         |

## Plan Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates<br>+N/-S<br>(usft) | +E/-W<br>(usft) | Comment                                                           |
|-----------------------------|-----------------------------|--------------------------------------|-----------------|-------------------------------------------------------------------|
| 10,473.3                    | 10,473.3                    | 0.0                                  | 0.0             | Build at 12°/100ft to 89.54° INC @ 179.54° AZ                     |
| 10,473.3                    | 10,473.3                    | 0.0                                  | 0.0             | Proposed KOP: 10473.3' MD, 10473.3' TVD                           |
| 11,219.5                    | 10,950.7                    | -473.6                               | 3.8             | EOC: 11219.5' MD, 10950.7' TVD, 89.54° INC, 179.54° AZ, 473.7' VS |
| 15,679.4                    | 10,986.6                    | -4,933.3                             | 39.6            | Cross 330' Hardline: 15679.4' MD, 10986.6' TVD, 89.54° INC        |
| 15,779.4                    | 10,987.4                    | -5,033.3                             | 40.4            | TD: 15779.4' MD, 10987.4' TVD                                     |

Intermediate

Casing Design Well: Date BTB State Com #8H

String size & function: 9 5/8 in SURFACE INTERMEDIATE X

Total Depth: 5,600 ft

|                     |                |                |          |                       |       |         |            |       |
|---------------------|----------------|----------------|----------|-----------------------|-------|---------|------------|-------|
| 1st segment         |                | 5,600 ft to    | 4,200 ft | Make up Torque ft-lbs |       |         | Total ft = | 1,400 |
| O.D.                | Weight         | Grade          | Threads  | opt.                  | min.  | mx.     |            |       |
| 9.625 inches        | 40 #/ft        | HCK-55         | LT&C     |                       | 6,940 | 5,210   | 8,680      |       |
| Collapse Resistance | Internal Yield | Joint Strength |          | Body Yield            |       | Drift   |            |       |
| 4,230 psi           | 3,950 psi      | 694,000 #      |          | 630,000 #             |       | 8.75 SD |            |       |

|                     |                |                |          |                       |       |         |            |       |
|---------------------|----------------|----------------|----------|-----------------------|-------|---------|------------|-------|
| 2nd segment         |                | 4,200 ft to    | 3,200 ft | Make up Torque ft-lbs |       |         | Total ft = | 1,000 |
| O.D.                | Weight         | Grade          | Threads  | opt.                  | min.  | mx.     |            |       |
| 9.625 inches        | 40 #/ft        | J-55           | ST&C     |                       | 4,520 | 3,390   | 5,650      |       |
| Collapse Resistance | Internal Yield | Joint Strength |          | Body Yield            |       | Drift   |            |       |
| 2,570 psi           | 3,950 psi      | 452,000 #      |          | 630,000 #             |       | 8.75 SD |            |       |

|                     |                |                |         |                       |       |       |            |       |
|---------------------|----------------|----------------|---------|-----------------------|-------|-------|------------|-------|
| 3rd segment         |                | 3,200 ft to    | 80 ft   | Make up Torque ft-lbs |       |       | Total ft = | 3,120 |
| O.D.                | Weight         | Grade          | Threads | opt.                  | min.  | mx.   |            |       |
| 9.625 inches        | 36 #/ft        | J-55           | LT&C    |                       | 4,530 | 3,400 | 5,660      |       |
| Collapse Resistance | Internal Yield | Joint Strength |         | Body Yield            |       | Drift |            |       |
| 2,020 psi           | 3,520 psi      | 394,000 #      |         | 564,000 #             |       | 8.765 |            |       |

|                     |                |                |         |                       |       |         |            |    |
|---------------------|----------------|----------------|---------|-----------------------|-------|---------|------------|----|
| 4th segment         |                | 80 ft to       | 0 ft    | Make up Torque ft-lbs |       |         | Total ft = | 80 |
| O.D.                | Weight         | Grade          | Threads | opt.                  | min.  | mx.     |            |    |
| 9.625 inches        | 40 #/ft        | J-55           | ST&C    |                       | 4,520 | 3,390   | 5,650      |    |
| Collapse Resistance | Internal Yield | Joint Strength |         | Body Yield            |       | Drift   |            |    |
| 2,570 psi           | 3,950 psi      | 452,000 #      |         | 630,000 #             |       | 8.75 SD |            |    |