

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

DEC 11 2012

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

Farmington Field Office  
Bureau of Land Management

|                                                                                                                                                                                                                                                                    |                                                                                                                                                                           |                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1a. Type of Work<br>DRILL                                                                                                                                                                                                                                          | 5. Lease Number<br>JICARILLA APACHE TRIBE<br>CONTRACT 104<br>Unit Reporting Number                                                                                        |                 |
| 1b. Type of Well<br>GAS                                                                                                                                                                                                                                            | 6. If Indian, All. or Tribe<br>JICARILLA APACHE TRIBE                                                                                                                     |                 |
| 2. Operator<br><br>ConocoPhillips<br>Company                                                                                                                                                                                                                       | 7. Unit Agreement Name<br><br>RCVD MAR 14 '13<br>OIL CONS. DIV.<br>DIST. 3                                                                                                |                 |
| 3. Address & Phone No. of Operator<br>PO Box 4289, Farmington, NM 87499<br><br>(505) 326-9700                                                                                                                                                                      | 8. Farm or Lease Name<br>JICARILLA E<br>9. Well Number<br>9P                                                                                                              |                 |
| 4. Location of Well<br>Surface: Unit A (NE/NE), 245' FNL & 585' FEL<br>BHL : Unit P (SE/SE), 710' FSL & 710' FEL<br><br>Surface: Latitude: 36.478649° N (NAD83)<br>Longitude: 107.250060° W<br>Bottom : Latitude: 36.481279° N (NAD83)<br>Longitude: 107.250451° W | 10. Field, Pool, Wildcat<br>BASIN DK / BLANCO MV<br><br>11. Sec., Twn, Rge, Mer. (NMPM)<br>Surf: Sec. 21, T26N, R4W<br>BHL : Sec. 16, T26N, R4W<br><br>API # 30-039-31165 |                 |
| 14. Distance in Miles from Nearest Town<br>99.1 from Bloomfield, NM                                                                                                                                                                                                | 12. County<br>Rio Arriba                                                                                                                                                  | 13. State<br>NM |
| 15. Distance from Proposed Location to Nearest Property or Lease Line<br>245'                                                                                                                                                                                      |                                                                                                                                                                           |                 |
| 16. Acres in Lease<br>2560.00                                                                                                                                                                                                                                      | 17. Acres Assigned to Well<br>DK 320.00 ACRES E/2<br>MV 320.00 ACRES E/2                                                                                                  |                 |
| 18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease<br>1211' from JICARILLA E 6                                                                                                                                         |                                                                                                                                                                           |                 |
| 19. Proposed Depth<br>7823'                                                                                                                                                                                                                                        | 20. Rotary or Cable Tools<br>Rotary                                                                                                                                       |                 |
| 21. Elevations (DF, FT, GR, Etc.)<br>6773' GL                                                                                                                                                                                                                      | 22. Approx. Date Work will Start                                                                                                                                          |                 |
| 23. Proposed Casing and Cementing Program<br>See Operations Plan attached                                                                                                                                                                                          |                                                                                                                                                                           |                 |
| 24. Authorized by:<br>Marie E. Garamilla (12/07/12)                                                                                                                                                                                                                | Date 12/7/12                                                                                                                                                              |                 |

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

Acting ADM Minerals

DATE

3/12/13

Archaeological Report attached

A gas recovery unit may or may not be used on this location.

Threatened and Endangered Species Report attached

MAR 20 2013 ca

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or presentations as to any matter within its jurisdiction.

Example Master Plan Type 3

Bond Numbers NMB-000015 and NMB-000089

This action is subject to technical and procedural review pursuant to 43 CFR 3165.9 and appeal pursuant to 43 CFR 3165.4

for Directional Survey and "As Drilled" plat

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED

NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT

Hold C104  
for Directional Survey  
and "As Drilled" plat

# RECEIVED

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

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

DISTRICT III  
1000 Rio Bravo Rd., Artesia, N.M. 87410  
Phone: (505) 334-6176 Fax: (505) 334-6170

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3450 Fax: (505) 476-3452

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  
Farmington Field Office  
Bureau of Land Management

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

|                                                 |                                                      |                                                         |
|-------------------------------------------------|------------------------------------------------------|---------------------------------------------------------|
| <sup>1</sup> API Number<br>30-039- <b>31165</b> | <sup>2</sup> Pool Code<br>71599/72319                | <sup>3</sup> Pool Name<br>BASIN DAKOTA/BLANCO MESAVERDE |
| <sup>4</sup> Property Code<br>31764             | <sup>5</sup> Property Name<br>JICARILLA E            | <sup>6</sup> Well Number<br>9P                          |
| <sup>7</sup> GRID No.<br>217817                 | <sup>8</sup> Operator Name<br>CONOCOPHILLIPS COMPANY | <sup>9</sup> Elevation<br>6773'                         |

### <sup>10</sup> Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County     |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| A             | 21      | 26-N     | 4-W   |         | 245           | NORTH            | 585           | EAST           | RIO ARRIBA |

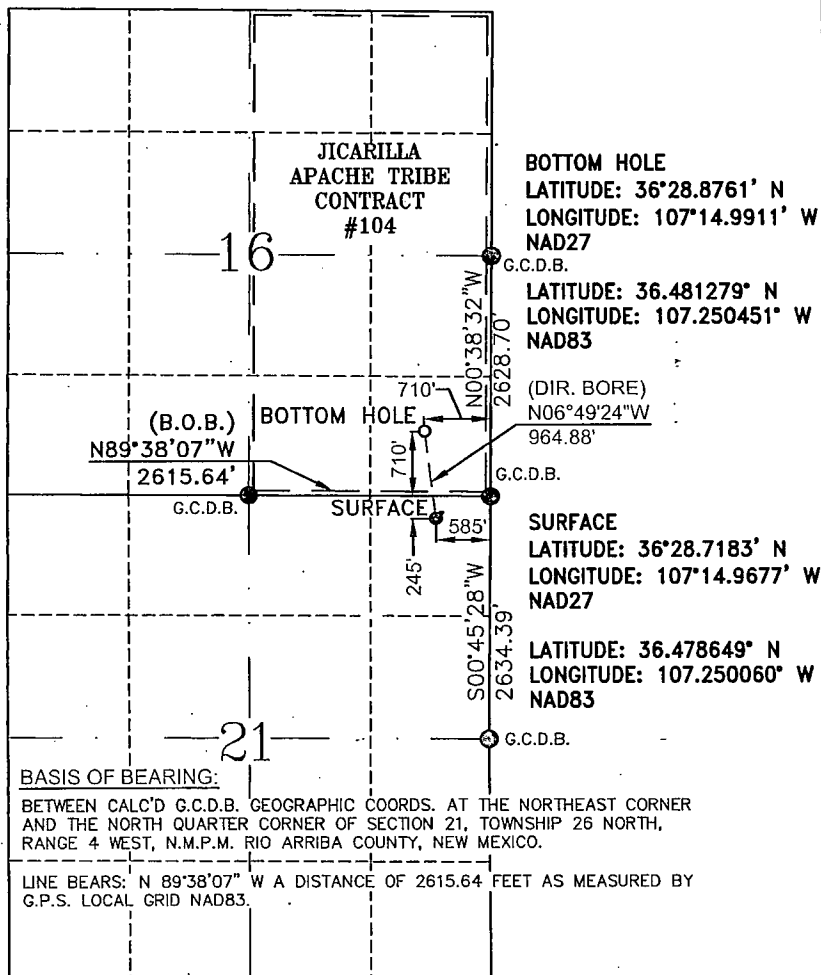
### <sup>11</sup> Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County     |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| P             | 16      | 26-N     | 4-W   |         | 710           | SOUTH            | 710           | EAST           | RIO ARRIBA |

|                                                                             |                               |                                  |                         |
|-----------------------------------------------------------------------------|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>DK 320.00 ACRES E/2<br>MV 320.00 ACRES E/2 | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No. |
|-----------------------------------------------------------------------------|-------------------------------|----------------------------------|-------------------------|

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



### 17 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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Arleen Kellywood* 8/15/12  
Signature Date

Arleen Kellywood  
Printed Name

arleen.r.kellywood@conocophillips.com  
E-mail Address

### 18 SURVEYOR CERTIFICATION

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

AUGUST 10, 2012  
Date of Survey

Signature and Seal of Professional Surveyor



GLEN W. RUSSELL  
Certificate Number

15703

# PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

JICARILLA E 9P

DEVELOPMENT

|                                   |                                 |                             |         |                          |                    |                     |                                                                                                          |
|-----------------------------------|---------------------------------|-----------------------------|---------|--------------------------|--------------------|---------------------|----------------------------------------------------------------------------------------------------------|
| Lease:                            |                                 | AFE #: WAN.CDR.2038         |         |                          |                    | AFE \$:             |                                                                                                          |
| Field Name: SAN JUAN              |                                 | Rig: Aztec Rig 920          |         | State: NM                | County: RIO ARRIBA |                     | API #:                                                                                                   |
| Geologist:                        |                                 | Phone:                      |         | Geophysicist:            |                    | Phone:              |                                                                                                          |
| Geoscientist:                     |                                 | Phone:                      |         | Prod. Engineer:          |                    | Phone:              |                                                                                                          |
| Res. Engineer:                    |                                 | Phone:                      |         | Proj. Field Lead:        |                    | Phone:              |                                                                                                          |
| <b>Primary Objective (Zones):</b> |                                 |                             |         |                          |                    |                     |                                                                                                          |
| Zone                              | Zone Name                       |                             |         |                          |                    |                     |                                                                                                          |
| FRR                               | BASIN DAKOTA (PRORATED GAS)     |                             |         |                          |                    |                     |                                                                                                          |
| RON                               | BLANCO MESAVERDE (PRORATED GAS) |                             |         |                          |                    |                     |                                                                                                          |
|                                   |                                 |                             |         |                          |                    |                     |                                                                                                          |
| <b>Location:</b> Surface          |                                 | Datum Code: NAD 27          |         |                          |                    | <b>Directional:</b> |                                                                                                          |
| Latitude: 36.478638               | Longitude: -107.249461          | X:                          | Y:      | Section: 21              | Range: 004W        |                     |                                                                                                          |
| Footage X: 585 FEL                | Footage Y: 245 FNL              | Elevation: 6773             | (FT)    | Township: 026N           |                    |                     |                                                                                                          |
| Tolerance:                        |                                 |                             |         |                          |                    |                     |                                                                                                          |
| <b>Location:</b> Bottom Hole      |                                 | Datum Code: NAD 27          |         |                          |                    | <b>Directional:</b> |                                                                                                          |
| Latitude: 36.481268               | Longitude: -107.249852          | X:                          | Y:      | Section: 16              | Range: 004W        |                     |                                                                                                          |
| Footage X: 710 FEL                | Footage Y: 710 FSL              | Elevation:                  | (FT)    | Township: 026N           |                    |                     |                                                                                                          |
| Tolerance:                        |                                 |                             |         |                          |                    |                     |                                                                                                          |
| Location Type: Year Round         |                                 | Start Date (Est.): 1/1/2013 |         | Completion Date:         |                    | Date In Operation:  |                                                                                                          |
| Formation Data: Assume KB = 6788  |                                 | Units = FT                  |         |                          |                    |                     |                                                                                                          |
| Formation Call & Casing Points    | Depth (TVD in Ft)               | SS (Ft)                     | MD (Ft) | Depletion (Yes/No)       | BHP (PSIG)         | BHT                 | Remarks                                                                                                  |
| SAN JOSE                          | 15                              | -6773                       |         | <input type="checkbox"/> |                    |                     | Ground water @ 110' tvd in San Juan 27-4 Unit 37. Lost circulation 100 bbls in Jicarilla 103 18.         |
| Surface Casing                    | 500                             | 6288                        |         | <input type="checkbox"/> |                    | 44                  | 12-1/4 hole, 5200' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 213 cuft. Circulate cement to surface. |
| NACIMIENTO                        | 1826                            | 4962                        |         | <input type="checkbox"/> |                    |                     |                                                                                                          |
| OJO ALAMO                         | 2901                            | 3887                        |         | <input type="checkbox"/> |                    |                     |                                                                                                          |
| KIRTLAND                          | 3010                            | 3778                        |         | <input type="checkbox"/> |                    |                     |                                                                                                          |
| FRUITLAND                         | 3110                            | 3678                        |         | <input type="checkbox"/> |                    |                     | Possible Gas                                                                                             |
| PICTURED CLIFFS                   | 3437                            | 3351                        |         | <input type="checkbox"/> | 25                 |                     |                                                                                                          |
| LEWIS                             | 3544                            | 3244                        |         | <input type="checkbox"/> |                    | 109                 |                                                                                                          |
| HUERFANITO BENTONITE              | 3895                            | 2893                        |         | <input type="checkbox"/> |                    |                     |                                                                                                          |
| CHACRA                            | 4373                            | 2415                        |         | <input type="checkbox"/> |                    |                     |                                                                                                          |
| UPPER CLIFF HOUSE                 | 4990                            | 1798                        |         | <input type="checkbox"/> |                    |                     |                                                                                                          |
| MASSIVE CLIFF HOUSE               | 5086                            | 1702                        |         | <input type="checkbox"/> | 666                |                     | Gas - Est top MV perf 5500' - in wet CLFH area                                                           |
| MENEFEE                           | 5213                            | 1575                        |         | <input type="checkbox"/> |                    |                     |                                                                                                          |
| Intermediate Casing               | 5363                            | 1425                        |         | <input type="checkbox"/> |                    | 142                 | 8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 1221 cuft. Circulate cement to surface.           |
| POINT LOOKOUT                     | 5595                            | 1193                        |         | <input type="checkbox"/> |                    |                     | Gas - Est bot MV perf 5685' tvd ( ~90' below T/PNLK ).                                                   |
| MANCOS                            | 6065                            | 723                         |         | <input type="checkbox"/> |                    |                     |                                                                                                          |
| UPPER GALLUP                      | 6708                            | 80                          |         | <input type="checkbox"/> |                    |                     |                                                                                                          |
| GREENHORN                         | 7531                            | -743                        |         | <input type="checkbox"/> |                    |                     |                                                                                                          |
| GRANEROS                          | 7593                            | -805                        |         | <input type="checkbox"/> |                    |                     |                                                                                                          |
| TWO WELLS                         | 7621                            | -833                        |         | <input type="checkbox"/> | 2800               | 189                 | Gas - Est top DK perf 7651' tvd ( ~30' below T/TWLS ).                                                   |

# PROJECT PROPOSAL - New Drill / Sidetrack

## JICARILLA E 9P

## DEVELOPMENT

|              |      |       |                          |                                                                                                                                                   |
|--------------|------|-------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| PAGUATE      | 7720 | -932  | <input type="checkbox"/> | Gas                                                                                                                                               |
| UPPER CUBERO | 7750 | -962  | <input type="checkbox"/> | Gas                                                                                                                                               |
| LOWER CUBERO | 7788 | -1000 | <input type="checkbox"/> | Gas - Est bot DK perf 7803' tvd ( ~15' below T/CBRL ).                                                                                            |
| OAK CANYON   | 7817 | -1029 | <input type="checkbox"/> |                                                                                                                                                   |
| Total Depth  | 7823 | -1035 | <input type="checkbox"/> | 193 6-1/4" hole, 4-1/2" 11.6 ppf, L-80, LTC/BTC casing. Cement w/ 340 cuft. Circulate cement a minimum of 100' inside the previous casing string. |
| ENCINAL      | 7862 | -1074 | <input type="checkbox"/> | Gas - RAM has 21' booked for reserves. Would have to mud up to go after it.                                                                       |
| BURRO CANYON | 7897 | -1109 | <input type="checkbox"/> | BRCN look wet on the log in both Jicarilla H 6Y & 6M ( 26n4w20 ). PBTD above BRCN in ENCN.                                                        |
| MORRISON     | 7951 | -1163 | <input type="checkbox"/> | 195                                                                                                                                               |

### Reference Wells:

| Reference Type | Well Name      | Comments |
|----------------|----------------|----------|
| Production     | JICARILLA E 15 |          |

### Logging Program:

Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple Combo

TD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☐ TDT ☒ Other

GR/CBL.

Mud log ~100' above Gallup down to TD.

Mudlogger will call TD.

Est bot DK perf ~20 above-TD.

### Additional Information:

| Log Type | Stage | From (Ft) | To (Ft) | Tool Type/Name | Remarks |
|----------|-------|-----------|---------|----------------|---------|
|----------|-------|-----------|---------|----------------|---------|

# ConocoPhillips

## Planning Report

|           |                                           |                              |                                        |
|-----------|-------------------------------------------|------------------------------|----------------------------------------|
| Database: | EDM Central Planning                      | Local Co-ordinate Reference: | Well Jicarilla E #9P                   |
| Company:  | ConocoPhillips SJB                        | TVD Reference:               | WELL @ 6788.0usft (Original Well Elev) |
| Project:  | San Juan Basin - New Mexico Central Wells | MD Reference:                | WELL @ 6788.0usft (Original Well Elev) |
| Site:     | Other Named Wells                         | North Reference:             | True                                   |
| Well:     | Jicarilla E #9P                           | Survey Calculation Method:   | Minimum Curvature                      |
| Wellbore: | Wellbore #1                               |                              |                                        |
| Design:   | APD Plan #1                               |                              |                                        |

|             |                                                                        |               |                             |
|-------------|------------------------------------------------------------------------|---------------|-----------------------------|
| Project     | San Juan Basin - New Mexico Central Wells, New Mexico, Directional "S" |               |                             |
| Map System: | US State Plane 1927 (Exact solution)                                   | System Datum: | Mean Sea Level              |
| Geo Datum:  | NAD 1927 (NADCON CONUS)                                                |               |                             |
| Map Zone:   | New Mexico Central 3002                                                |               | Using geodetic scale factor |

|                       |                   |              |                   |                   |                   |
|-----------------------|-------------------|--------------|-------------------|-------------------|-------------------|
| Site                  | Other Named Wells |              |                   |                   |                   |
| Site Position:        |                   | Northing:    | 2,023,165.86 usft | Latitude:         | 36° 33' 10.767 N  |
| From:                 | Lat/Long          | Easting:     | 112,158.73 usft   | Longitude:        | 107° 34' 13.630 W |
| Position Uncertainty: | 3.5 usft          | Slot Radius: | 6-1/8"            | Grid Convergence: | -0.79 °           |

|                      |                 |          |                     |                   |               |                   |
|----------------------|-----------------|----------|---------------------|-------------------|---------------|-------------------|
| Well                 | Jicarilla E #9P |          |                     |                   |               |                   |
| Well Position        | +N-S            | 0.0 usft | Northing:           | 1,994,961.56 usft | Latitude:     | 36° 28' 43.098 N  |
|                      | +E-W            | 0.0 usft | Easting:            | 206,162.00 usft   | Longitude:    | 107° 14' 58.062 W |
| Position Uncertainty |                 | 0.0 usft | Wellhead Elevation: | usft              | Ground Level: | 6,773.0 usft      |

|           |             |             |                 |               |                     |
|-----------|-------------|-------------|-----------------|---------------|---------------------|
| Wellbore  | Wellbore #1 |             |                 |               |                     |
| Magnetics | Model Name  | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|           | BGGM2012    | 11/6/2012   | 9.48            | 63.28         | 50,464              |

|                   |                  |           |               |           |  |
|-------------------|------------------|-----------|---------------|-----------|--|
| Design            | APD Plan #1      |           |               |           |  |
| Audit Notes:      |                  |           |               |           |  |
| Version:          | Phase:           | PROTOTYPE | Tie On Depth: | 0.0       |  |
| Vertical Section: | Depth From (TVD) | +N-S      | +E-W          | Direction |  |
|                   | (usft)           | (usft)    | (usft)        | (°)       |  |
|                   | 0.0              | 0.0       | 0.0           | 353.17    |  |

| Plan Sections         |                 |             |                       |             |             |                         |                        |                       |         |                     |
|-----------------------|-----------------|-------------|-----------------------|-------------|-------------|-------------------------|------------------------|-----------------------|---------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N-S (usft) | +E-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target              |
| 0.0                   | 0.00            | 0.00        | 0.0                   | 0.0         | 0.0         | 0.00                    | 0.00                   | 0.00                  | 0.00    |                     |
| 600.0                 | 0.00            | 0.00        | 600.0                 | 0.0         | 0.0         | 0.00                    | 0.00                   | 0.00                  | 0.00    |                     |
| 1,365.8               | 15.32           | 353.17      | 1,356.7               | 101.0       | -12.1       | 2.00                    | 2.00                   | 0.00                  | 353.17  |                     |
| 4,374.5               | 15.32           | 353.17      | 4,258.5               | 890.1       | -106.6      | 0.00                    | 0.00                   | 0.00                  | 0.00    |                     |
| 4,885.0               | 0.00            | 0.00        | 4,763.0               | 957.5       | -114.7      | 3.00                    | -3.00                  | 0.00                  | 130.00  |                     |
| 5,485.0               | 0.00            | 0.00        | 5,363.0               | 957.5       | -114.7      | 0.00                    | 0.00                   | 0.00                  | 0.00    | Jicarilla E #9P ICP |
| 7,945.0               | 0.00            | 0.00        | 7,823.0               | 957.5       | -114.7      | 0.00                    | 0.00                   | 0.00                  | 0.00    | Jicarilla E #9P PCP |

# ConocoPhillips

## Planning Report

|           |                                           |                              |                                        |
|-----------|-------------------------------------------|------------------------------|----------------------------------------|
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| Company:  | ConocoPhillips SJB                        | TVD Reference:               | WELL @ 6788.0usft (Original Well Elev) |
| Project:  | San Juan Basin - New Mexico Central Wells | MD Reference:                | WELL @ 6788.0usft (Original Well Elev) |
| Site:     | Other Named Wells                         | North Reference:             | True                                   |
| Well:     | Jicarilla E #9P                           | Survey Calculation Method:   | Minimum Curvature                      |
| Wellbore: | Wellbore #1                               |                              |                                        |
| Design:   | APD Plan #1                               |                              |                                        |

### Planned Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N-S (usft) | +E-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|-------------|-------------|-------------------------|-------------------------|------------------------|-----------------------|
| 0.0                   | 0.00            | 0.00        | 0.0                   | 0.0         | 0.0         | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 15.0                  | 0.00            | 0.00        | 15.0                  | 0.0         | 0.0         | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| SAN JOSE              |                 |             |                       |             |             |                         |                         |                        |                       |
| 100.0                 | 0.00            | 0.00        | 100.0                 | 0.0         | 0.0         | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 200.0                 | 0.00            | 0.00        | 200.0                 | 0.0         | 0.0         | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 300.0                 | 0.00            | 0.00        | 300.0                 | 0.0         | 0.0         | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 400.0                 | 0.00            | 0.00        | 400.0                 | 0.0         | 0.0         | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 500.0                 | 0.00            | 0.00        | 500.0                 | 0.0         | 0.0         | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| SURFACE               |                 |             |                       |             |             |                         |                         |                        |                       |
| 600.0                 | 0.00            | 0.00        | 600.0                 | 0.0         | 0.0         | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 700.0                 | 2.00            | 353.17      | 700.0                 | 1.7         | -0.2        | 1.7                     | 2.00                    | 2.00                   | 0.00                  |
| 800.0                 | 4.00            | 353.17      | 799.8                 | 6.9         | -0.8        | 7.0                     | 2.00                    | 2.00                   | 0.00                  |
| 900.0                 | 6.00            | 353.17      | 899.5                 | 15.6        | -1.9        | 15.7                    | 2.00                    | 2.00                   | 0.00                  |
| 1,000.0               | 8.00            | 353.17      | 998.7                 | 27.7        | -3.3        | 27.9                    | 2.00                    | 2.00                   | 0.00                  |
| 1,100.0               | 10.00           | 353.17      | 1,097.5               | 43.2        | -5.2        | 43.5                    | 2.00                    | 2.00                   | 0.00                  |
| 1,200.0               | 12.00           | 353.17      | 1,195.6               | 62.2        | -7.4        | 62.6                    | 2.00                    | 2.00                   | 0.00                  |
| 1,300.0               | 14.00           | 353.17      | 1,293.1               | 84.5        | -10.1       | 85.1                    | 2.00                    | 2.00                   | 0.00                  |
| 1,365.8               | 15.32           | 353.17      | 1,356.7               | 101.0       | -12.1       | 101.8                   | 2.00                    | 2.00                   | 0.00                  |
| 1,400.0               | 15.32           | 353.17      | 1,389.7               | 110.0       | -13.2       | 110.8                   | 0.00                    | 0.00                   | 0.00                  |
| 1,500.0               | 15.32           | 353.17      | 1,486.1               | 136.2       | -16.3       | 137.2                   | 0.00                    | 0.00                   | 0.00                  |
| 1,600.0               | 15.32           | 353.17      | 1,582.6               | 162.4       | -19.5       | 163.6                   | 0.00                    | 0.00                   | 0.00                  |
| 1,700.0               | 15.32           | 353.17      | 1,679.0               | 188.7       | -22.6       | 190.0                   | 0.00                    | 0.00                   | 0.00                  |
| 1,800.0               | 15.32           | 353.17      | 1,775.5               | 214.9       | -25.7       | 216.4                   | 0.00                    | 0.00                   | 0.00                  |
| 1,852.4               | 15.32           | 353.17      | 1,826.0               | 228.6       | -27.4       | 230.3                   | 0.00                    | 0.00                   | 0.00                  |
| NACIMIENTO            |                 |             |                       |             |             |                         |                         |                        |                       |
| 1,900.0               | 15.32           | 353.17      | 1,871.9               | 241.1       | -28.9       | 242.9                   | 0.00                    | 0.00                   | 0.00                  |
| 2,000.0               | 15.32           | 353.17      | 1,968.4               | 267.4       | -32.0       | 269.3                   | 0.00                    | 0.00                   | 0.00                  |
| 2,100.0               | 15.32           | 353.17      | 2,064.8               | 293.6       | -35.2       | 295.7                   | 0.00                    | 0.00                   | 0.00                  |
| 2,200.0               | 15.32           | 353.17      | 2,161.3               | 319.8       | -38.3       | 322.1                   | 0.00                    | 0.00                   | 0.00                  |
| 2,300.0               | 15.32           | 353.17      | 2,257.7               | 346.0       | -41.4       | 348.5                   | 0.00                    | 0.00                   | 0.00                  |
| 2,400.0               | 15.32           | 353.17      | 2,354.2               | 372.3       | -44.6       | 374.9                   | 0.00                    | 0.00                   | 0.00                  |
| 2,500.0               | 15.32           | 353.17      | 2,450.6               | 398.5       | -47.7       | 401.3                   | 0.00                    | 0.00                   | 0.00                  |
| 2,600.0               | 15.32           | 353.17      | 2,547.1               | 424.7       | -50.9       | 427.8                   | 0.00                    | 0.00                   | 0.00                  |
| 2,700.0               | 15.32           | 353.17      | 2,643.5               | 451.0       | -54.0       | 454.2                   | 0.00                    | 0.00                   | 0.00                  |
| 2,800.0               | 15.32           | 353.17      | 2,740.0               | 477.2       | -57.1       | 480.6                   | 0.00                    | 0.00                   | 0.00                  |
| 2,900.0               | 15.32           | 353.17      | 2,836.4               | 503.4       | -60.3       | 507.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,967.0               | 15.32           | 353.17      | 2,901.0               | 521.0       | -62.4       | 524.7                   | 0.00                    | 0.00                   | 0.00                  |
| OJO ALAMO             |                 |             |                       |             |             |                         |                         |                        |                       |
| 3,000.0               | 15.32           | 353.17      | 2,932.9               | 529.6       | -63.4       | 533.4                   | 0.00                    | 0.00                   | 0.00                  |
| 3,080.0               | 15.32           | 353.17      | 3,010.0               | 550.6       | -65.9       | 554.5                   | 0.00                    | 0.00                   | 0.00                  |
| KIRTLAND              |                 |             |                       |             |             |                         |                         |                        |                       |
| 3,100.0               | 15.32           | 353.17      | 3,029.3               | 555.9       | -66.6       | 559.8                   | 0.00                    | 0.00                   | 0.00                  |
| 3,183.7               | 15.32           | 353.17      | 3,110.0               | 577.8       | -69.2       | 581.9                   | 0.00                    | 0.00                   | 0.00                  |
| FRUITLAND             |                 |             |                       |             |             |                         |                         |                        |                       |
| 3,200.0               | 15.32           | 353.17      | 3,125.8               | 582.1       | -69.7       | 586.2                   | 0.00                    | 0.00                   | 0.00                  |
| 3,300.0               | 15.32           | 353.17      | 3,222.2               | 608.3       | -72.9       | 612.7                   | 0.00                    | 0.00                   | 0.00                  |
| 3,400.0               | 15.32           | 353.17      | 3,318.7               | 634.5       | -76.0       | 639.1                   | 0.00                    | 0.00                   | 0.00                  |
| 3,500.0               | 15.32           | 353.17      | 3,415.1               | 660.8       | -79.1       | 665.5                   | 0.00                    | 0.00                   | 0.00                  |
| 3,522.7               | 15.32           | 353.17      | 3,437.0               | 666.7       | -79.8       | 671.5                   | 0.00                    | 0.00                   | 0.00                  |
| PICTURED CLIFFS       |                 |             |                       |             |             |                         |                         |                        |                       |
| 3,600.0               | 15.32           | 353.17      | 3,511.6               | 687.0       | -82.3       | 691.9                   | 0.00                    | 0.00                   | 0.00                  |
| 3,633.6               | 15.32           | 353.17      | 3,544.0               | 695.8       | -83.3       | 700.8                   | 0.00                    | 0.00                   | 0.00                  |
| LEWIS                 |                 |             |                       |             |             |                         |                         |                        |                       |

# ConocoPhillips

## Planning Report

|           |                                           |                              |                                        |
|-----------|-------------------------------------------|------------------------------|----------------------------------------|
| Database: | EDM Central Planning                      | Local Co-ordinate Reference: | Well Jicarilla E #9P                   |
| Company:  | ConocoPhillips SJB                        | TVD Reference:               | WELL @ 6788.0usft (Original Well Elev) |
| Project:  | San Juan Basin - New Mexico Central Wells | MD Reference:                | WELL @ 6788.0usft (Original Well Elev) |
| Site:     | Other Named Wells                         | North Reference:             | True                                   |
| Well:     | Jicarilla E #9P                           | Survey Calculation Method:   | Minimum Curvature                      |
| Wellbore: | Wellbore #1                               |                              |                                        |
| Design:   | APD Plan #1                               |                              |                                        |

### 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) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 3,700.0                     | 15.32              | 353.17         | 3,608.0                     | 713.2           | -85.4           | 718.3                         | 0.00                          | 0.00                         | 0.00                        |
| 3,800.0                     | 15.32              | 353.17         | 3,704.5                     | 739.5           | -88.6           | 744.7                         | 0.00                          | 0.00                         | 0.00                        |
| 3,900.0                     | 15.32              | 353.17         | 3,800.9                     | 765.7           | -91.7           | 771.2                         | 0.00                          | 0.00                         | 0.00                        |
| 3,997.6                     | 15.32              | 353.17         | 3,895.0                     | 791.3           | -94.8           | 796.9                         | 0.00                          | 0.00                         | 0.00                        |
| <b>HUERFANITO BENTONITE</b> |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 4,000.0                     | 15.32              | 353.17         | 3,897.4                     | 791.9           | -94.8           | 797.6                         | 0.00                          | 0.00                         | 0.00                        |
| 4,100.0                     | 15.32              | 353.17         | 3,993.8                     | 818.1           | -98.0           | 824.0                         | 0.00                          | 0.00                         | 0.00                        |
| 4,200.0                     | 15.32              | 353.17         | 4,090.2                     | 844.4           | -101.1          | 850.4                         | 0.00                          | 0.00                         | 0.00                        |
| 4,300.0                     | 15.32              | 353.17         | 4,186.7                     | 870.6           | -104.3          | 876.8                         | 0.00                          | 0.00                         | 0.00                        |
| 4,374.5                     | 15.32              | 353.17         | 4,258.5                     | 890.1           | -106.6          | 896.5                         | 0.00                          | 0.00                         | 0.00                        |
| 4,400.0                     | 14.55              | 353.17         | 4,283.2                     | 896.7           | -107.4          | 903.1                         | 3.00                          | -3.00                        | 0.00                        |
| 4,492.2                     | 11.78              | 353.17         | 4,373.0                     | 917.5           | -109.9          | 924.1                         | 3.00                          | -3.00                        | 0.00                        |
| <b>CHACRA</b>               |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 4,500.0                     | 11.55              | 353.17         | 4,380.6                     | 919.1           | -110.1          | 925.6                         | 3.00                          | -3.00                        | 0.00                        |
| 4,600.0                     | 8.55               | 353.17         | 4,479.0                     | 936.4           | -112.1          | 943.1                         | 3.00                          | -3.00                        | 0.00                        |
| 4,700.0                     | 5.55               | 353.17         | 4,578.3                     | 948.6           | -113.6          | 955.4                         | 3.00                          | -3.00                        | 0.00                        |
| 4,800.0                     | 2.55               | 353.17         | 4,678.0                     | 955.6           | -114.4          | 962.4                         | 3.00                          | -3.00                        | 0.00                        |
| 4,885.0                     | 0.00               | 0.00           | 4,763.0                     | 957.5           | -114.7          | 964.3                         | 3.00                          | -3.00                        | 0.00                        |
| 4,900.0                     | 0.00               | 0.00           | 4,778.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 5,000.0                     | 0.00               | 0.00           | 4,878.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 5,100.0                     | 0.00               | 0.00           | 4,978.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 5,112.0                     | 0.00               | 0.00           | 4,990.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| <b>UPPER CLIFF HOUSE</b>    |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 5,200.0                     | 0.00               | 0.00           | 5,078.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 5,208.0                     | 0.00               | 0.00           | 5,086.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| <b>CLIFF HOUSE</b>          |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 5,300.0                     | 0.00               | 0.00           | 5,178.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 5,335.0                     | 0.00               | 0.00           | 5,213.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| <b>MENEFEE</b>              |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 5,400.0                     | 0.00               | 0.00           | 5,278.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 5,482.0                     | 0.00               | 0.00           | 5,360.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| <b>INTERMEDIATE</b>         |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 5,485.0                     | 0.00               | 0.00           | 5,363.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 5,500.0                     | 0.00               | 0.00           | 5,378.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 5,600.0                     | 0.00               | 0.00           | 5,478.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 5,700.0                     | 0.00               | 0.00           | 5,578.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 5,717.0                     | 0.00               | 0.00           | 5,595.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| <b>POINT LOOKOUT</b>        |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 5,800.0                     | 0.00               | 0.00           | 5,678.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 5,900.0                     | 0.00               | 0.00           | 5,778.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 6,000.0                     | 0.00               | 0.00           | 5,878.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 6,100.0                     | 0.00               | 0.00           | 5,978.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 6,187.0                     | 0.00               | 0.00           | 6,065.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| <b>MANCOS</b>               |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 6,200.0                     | 0.00               | 0.00           | 6,078.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 6,300.0                     | 0.00               | 0.00           | 6,178.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 6,400.0                     | 0.00               | 0.00           | 6,278.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 6,500.0                     | 0.00               | 0.00           | 6,378.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 6,600.0                     | 0.00               | 0.00           | 6,478.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 6,700.0                     | 0.00               | 0.00           | 6,578.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 6,800.0                     | 0.00               | 0.00           | 6,678.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 6,830.0                     | 0.00               | 0.00           | 6,708.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |

# ConocoPhillips

## Planning Report

|           |                                           |                              |                                        |
|-----------|-------------------------------------------|------------------------------|----------------------------------------|
| Database: | EDM Central Planning                      | Local Co-ordinate Reference: | Well Jicarilla E #9P                   |
| Company:  | ConocoPhillips SJBU                       | TVD Reference:               | WELL @ 6788.0usft (Original Well Elev) |
| Project:  | San Juan Basin - New Mexico Central Wells | MD Reference:                | WELL @ 6788.0usft (Original Well Elev) |
| Site:     | Other Named Wells                         | North Reference:             | True                                   |
| Well:     | Jicarilla E #9P                           | Survey Calculation Method:   | Minimum Curvature                      |
| Wellbore: | Wellbore #1                               |                              |                                        |
| Design:   | APD Plan #1                               |                              |                                        |

### 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) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| <b>UPPER GALLUP</b>         |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 6,900.0                     | 0.00               | 0.00           | 6,778.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 7,000.0                     | 0.00               | 0.00           | 6,878.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 7,100.0                     | 0.00               | 0.00           | 6,978.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 7,200.0                     | 0.00               | 0.00           | 7,078.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 7,300.0                     | 0.00               | 0.00           | 7,178.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 7,400.0                     | 0.00               | 0.00           | 7,278.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 7,500.0                     | 0.00               | 0.00           | 7,378.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 7,600.0                     | 0.00               | 0.00           | 7,478.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 7,653.0                     | 0.00               | 0.00           | 7,531.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| <b>GREENHORN</b>            |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 7,700.0                     | 0.00               | 0.00           | 7,578.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 7,715.0                     | 0.00               | 0.00           | 7,593.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| <b>GRANEROS</b>             |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 7,743.0                     | 0.00               | 0.00           | 7,621.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| <b>TWO WELLS</b>            |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 7,800.0                     | 0.00               | 0.00           | 7,678.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 7,842.0                     | 0.00               | 0.00           | 7,720.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| <b>PAGUATE</b>              |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 7,872.0                     | 0.00               | 0.00           | 7,750.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| <b>UPPER CUBERO</b>         |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 7,900.0                     | 0.00               | 0.00           | 7,778.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| 7,910.0                     | 0.00               | 0.00           | 7,788.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| <b>LOWER CUBERO</b>         |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 7,939.0                     | 0.00               | 0.00           | 7,817.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| <b>OAK CANYON</b>           |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 7,945.0                     | 0.00               | 0.00           | 7,823.0                     | 957.5           | -114.7          | 964.3                         | 0.00                          | 0.00                         | 0.00                        |
| <b>PRODUCTION</b>           |                    |                |                             |                 |                 |                               |                               |                              |                             |

### Targets

| Target Name<br>- hit/miss target<br>- Shape                 | 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         |
|-------------------------------------------------------------|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|------------------|-------------------|
| Jicarilla E #9P PCP<br>- plan hits target center<br>- Point | 0.00             | 0.00            | 7,823.0       | 957.5           | -114.7          | 1,995,920.17       | 206,057.28        | 36° 28' 52.566 N | 107° 14' 59.466 W |
| Jicarilla E #9P ICP<br>- plan hits target center<br>- Point | 0.00             | 0.00            | 5,363.0       | 957.5           | -114.7          | 1,995,920.17       | 206,057.28        | 36° 28' 52.566 N | 107° 14' 59.466 W |

# ConocoPhillips

## Planning Report

|                  |                                           |                                     |                                        |
|------------------|-------------------------------------------|-------------------------------------|----------------------------------------|
| <b>Database:</b> | EDM Central Planning                      | <b>Local Co-ordinate Reference:</b> | Well Jicarilla E #9P                   |
| <b>Company:</b>  | ConocoPhillips SJB                        | <b>TVD Reference:</b>               | WELL @ 6788.0usft (Original Well Elev) |
| <b>Project:</b>  | San Juan Basin - New Mexico Central Wells | <b>MD Reference:</b>                | WELL @ 6788.0usft (Original Well Elev) |
| <b>Site:</b>     | Other Named Wells                         | <b>North Reference:</b>             | True                                   |
| <b>Well:</b>     | Jicarilla E #9P                           | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Wellbore:</b> | Wellbore #1                               |                                     |                                        |
| <b>Design:</b>   | APD Plan #1                               |                                     |                                        |

### Formations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Name                 | Lithology | Dip<br>(°) | Dip<br>Direction<br>(°) |
|-----------------------------|-----------------------------|----------------------|-----------|------------|-------------------------|
| 3,522.7                     | 3,437.0                     | PICTURED CLIFFS      |           | 0.00       |                         |
| 5,208.0                     | 5,086.0                     | CLIFF HOUSE          |           | 0.00       |                         |
| 6,187.0                     | 6,065.0                     | MANCOS               |           | 0.00       |                         |
| 3,080.0                     | 3,010.0                     | KIRTLAND             |           | 0.00       |                         |
| 5,112.0                     | 4,990.0                     | UPPER CLIFF HOUSE    |           | 0.00       |                         |
| 3,183.7                     | 3,110.0                     | FRUITLAND            |           | 0.00       |                         |
| 2,967.0                     | 2,901.0                     | OJO ALAMO            |           | 0.00       |                         |
| 15.0                        | 15.0                        | SAN JOSE             |           | 0.00       |                         |
| 7,842.0                     | 7,720.0                     | PAGUATE              |           | 0.00       |                         |
| 7,910.0                     | 7,788.0                     | LOWER CUBERO         |           | 0.00       |                         |
| 3,633.6                     | 3,544.0                     | LEWIS                |           | 0.00       |                         |
| 7,715.0                     | 7,593.0                     | GRANEROS             |           | 0.00       |                         |
| 7,939.0                     | 7,817.0                     | OAK CANYON           |           | 0.00       |                         |
| 3,997.6                     | 3,895.0                     | HUERFANITO BENTONITE |           | 0.00       |                         |
| 4,492.2                     | 4,373.0                     | CHACRA               |           | 0.00       |                         |
| 7,653.0                     | 7,531.0                     | GREENHORN            |           | 0.00       |                         |
| 7,872.0                     | 7,750.0                     | UPPER CUBERO         |           | 0.00       |                         |
| 6,830.0                     | 6,708.0                     | UPPER GALLUP         |           | 0.00       |                         |
| 7,743.0                     | 7,621.0                     | TWO WELLS            |           | 0.00       |                         |
| 5,335.0                     | 5,213.0                     | MENEFEE              |           | 0.00       |                         |
| 5,717.0                     | 5,595.0                     | POINT LOOKOUT        |           | 0.00       |                         |
| 1,852.4                     | 1,826.0                     | NACIMIENTO           |           | 0.00       |                         |

# REFERENCE INFORMATION

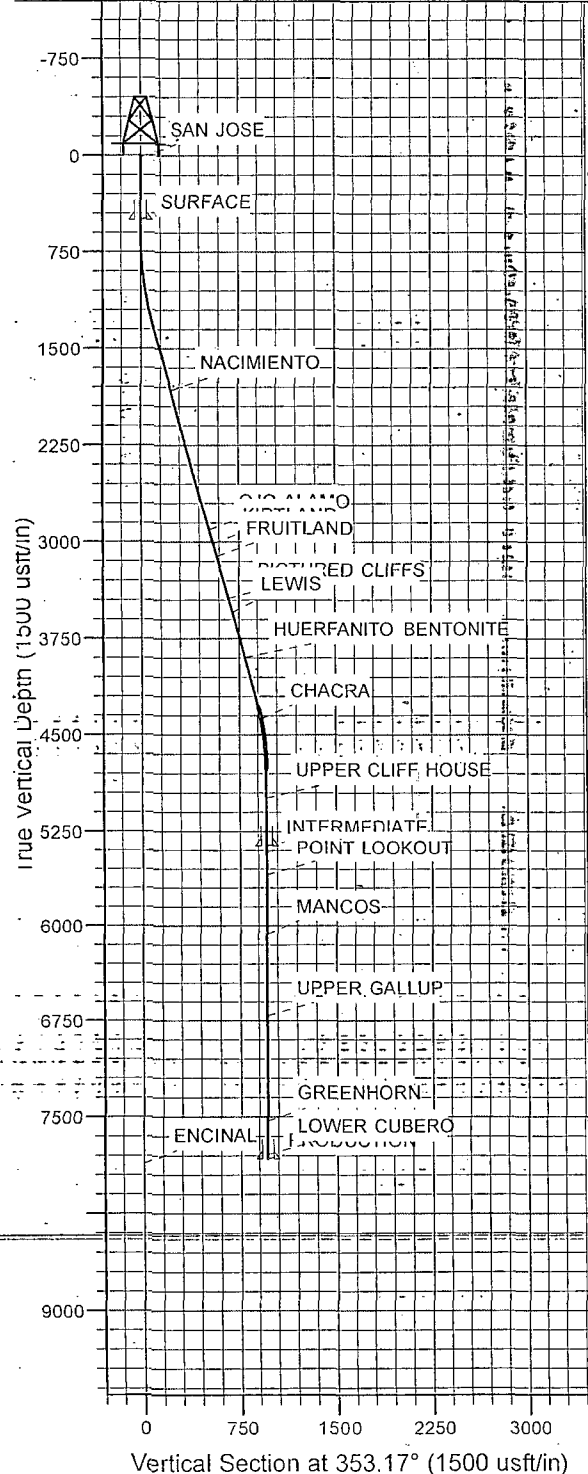
ELL @ 6788.0usft (Original Well Elev)  
 Ground Elevation 6773.0  
 Reference Lat: 36° 28' 43.098 N  
 Reference Long: 107° 14' 58.062 W

Project: San Juan Basin - New Mexico Central  
 Site: Other Named Wells  
 Well: Jicarilla E #9P  
 Wellbore: Wellbore #1  
 Design: APD Plan #1

ConocoPhillips

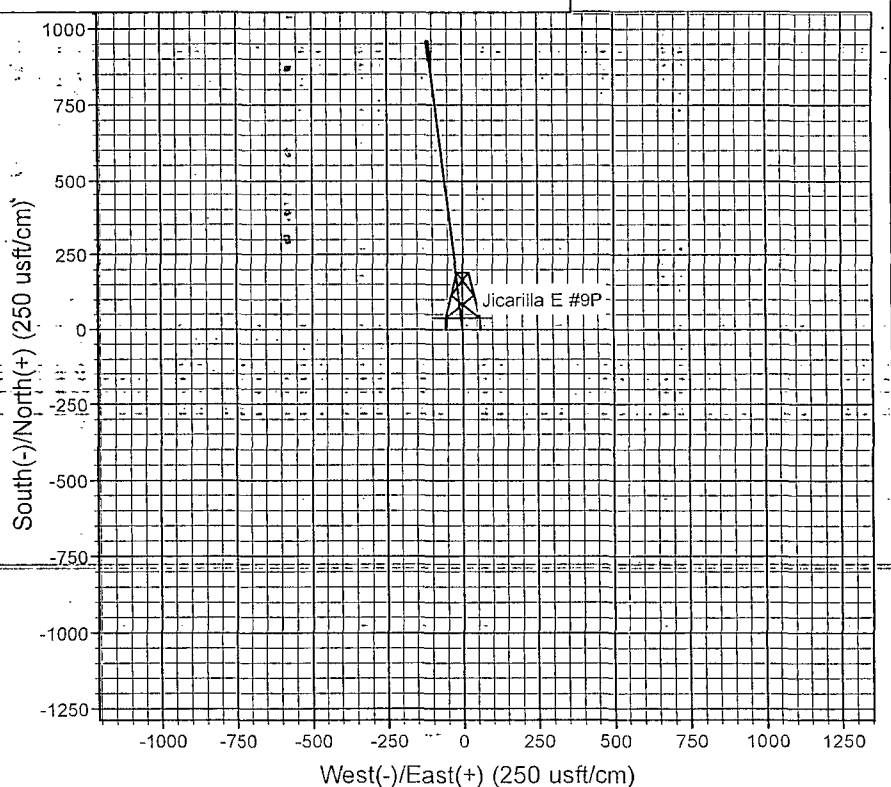
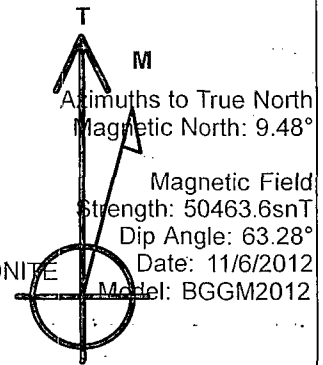
## SECTION DETAILS

| Sec | MD     | Inc   | Azi    | TVD    | +N/-S | +E/-W  | Dleg | TFace  | VSect | Target              |
|-----|--------|-------|--------|--------|-------|--------|------|--------|-------|---------------------|
| 1   | 0.0    | 0.00  | 0.00   | 0.0    | 0.0   | 0.0    | 0.00 | 0.00   | 0.0   |                     |
| 2   | 600.0  | 0.00  | 0.00   | 600.0  | 0.0   | 0.0    | 0.00 | 0.00   | 0.0   |                     |
| 3   | 1365.8 | 15.32 | 353.17 | 1356.7 | 101.0 | -12.1  | 2.00 | 353.17 | 101.8 |                     |
| 4   | 4374.5 | 15.32 | 353.17 | 4258.5 | 890.1 | -106.6 | 0.00 | 0.00   | 896.5 |                     |
| 5   | 4885.0 | 0.00  | 0.00   | 4763.0 | 957.5 | -114.7 | 3.00 | 180.00 | 964.3 |                     |
| 6   | 5485.0 | 0.00  | 0.00   | 5363.0 | 957.5 | -114.7 | 0.00 | 0.00   | 964.3 | Jicarilla E #9P ICP |
| 7   | 7945.0 | 0.00  | 0.00   | 7823.0 | 957.5 | -114.7 | 0.00 | 0.00   | 964.3 | Jicarilla E #9P PCP |



## FORMATION TOP DETAILS

| TVDPath | MDPath | Formation            |
|---------|--------|----------------------|
| 15.0    | 15.0   | SAN JOSE             |
| 1826.0  | 1852.4 | NACIMIENTO           |
| 2901.0  | 2967.0 | OJO ALAMO            |
| 3010.0  | 3080.0 | KIRTLAND             |
| 3110.0  | 3183.7 | FRUITLAND            |
| 3437.0  | 3522.7 | PICTURED CLIFFS      |
| 3544.0  | 3633.6 | LEWIS                |
| 3895.0  | 3997.6 | HUERFANITO BENTONITE |
| 4373.0  | 4492.2 | CHACRA               |
| 4990.0  | 5112.0 | UPPER CLIFF HOUSE    |
| 5086.0  | 5208.0 | CLIFF HOUSE          |
| 5213.0  | 5335.0 | MENEFEE              |
| 5595.0  | 5717.0 | POINT LOOKOUT        |
| 6065.0  | 6187.0 | MANCOS               |
| 6708.0  | 6830.0 | UPPER GALLUP         |
| 7531.0  | 7653.0 | GREENHORN            |
| 7593.0  | 7715.0 | GRANEROS             |
| 7621.0  | 7743.0 | TWO WELLS            |
| 7720.0  | 7842.0 | PAGUATE              |
| 7750.0  | 7872.0 | UPPER CUBERO         |
| 7788.0  | 7910.0 | LOWER CUBERO         |
| 7817.0  | 7939.0 | OAK CANYON           |



Directions from the Intersection of  
Hwy 550 & Hwy 64 in Bloomfield, NM

To:

**CONOCOPHILLIPS COMPANY**

**JICARILLA E #9P**

**245' FNL & 585' FEL,**

**Section 21, T26N, R4W, N.M.P.M., Rio Arriba,  
New Mexico**

**Latitude: 36 ° 28' 43.136" N**

**Longitude: 107 ° 15' 00.215" W**

**NAD 1983**

Go south on Hwy 550 for 66.2 miles,  
Turn left (north) @ Int. Hwy 550 and Hwy 537,  
Go north on Hwy 537 28.1 miles,  
Turn left (west) on J-6 road 2.6 miles,  
Stay left (southwest) 0.6 miles,  
Turn left (south) 0.9 miles,  
Turn right (west) 0.7 miles,  
beginning of new access on right(north)side of the field road,  
which continues for 77.35' to newly staked location.