

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

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

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

District IV  
1220 S. St. Francis Drive, Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 1, 2011

Submit one copy to  
Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive  
Santa Fe, NM 87505

☒ AMENDED REPORT

"As Drilled"

RCVD JUN 29 '12  
OIL CONS. DIV.

WELL LOCATION AND ACREAGE DEDICATION PLAT

|                             |  |                                         |  |                                               |                     |
|-----------------------------|--|-----------------------------------------|--|-----------------------------------------------|---------------------|
| *API Number<br>30-039-24496 |  | *Pool Code<br>71629                     |  | *Pool Name<br>DIST. 3<br>BASIN FRUITLAND COAL |                     |
| *Property Code<br>17033     |  | *Property Name<br>ROSA UNIT             |  |                                               | *Well Number<br>229 |
| *GRID No.<br>120782         |  | *Operator Name<br>WPX ENERGY PRODUCTION |  |                                               | *Elevation<br>6438' |

<sup>10</sup> Surface Location

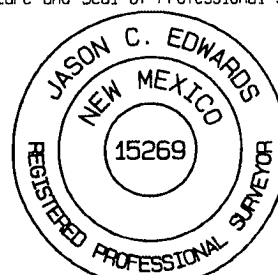
|                   |               |                 |             |         |                       |                           |                       |                        |                         |
|-------------------|---------------|-----------------|-------------|---------|-----------------------|---------------------------|-----------------------|------------------------|-------------------------|
| UL or lot no<br>L | Section<br>29 | Township<br>31N | Range<br>5W | Lot Idn | Feet from the<br>1855 | North/South line<br>SOUTH | Feet from the<br>1046 | East/West line<br>WEST | County<br>RIO<br>ARRIBA |
|-------------------|---------------|-----------------|-------------|---------|-----------------------|---------------------------|-----------------------|------------------------|-------------------------|

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

|                   |               |                 |             |         |                      |                           |                      |                        |                         |
|-------------------|---------------|-----------------|-------------|---------|----------------------|---------------------------|----------------------|------------------------|-------------------------|
| UL or lot no<br>M | Section<br>20 | Township<br>31N | Range<br>5W | Lot Idn | Feet from the<br>163 | North/South line<br>SOUTH | Feet from the<br>674 | East/West line<br>WEST | County<br>RIO<br>ARRIBA |
|-------------------|---------------|-----------------|-------------|---------|----------------------|---------------------------|----------------------|------------------------|-------------------------|

|                                              |  |                                      |  |                               |                                  |                                                     |
|----------------------------------------------|--|--------------------------------------|--|-------------------------------|----------------------------------|-----------------------------------------------------|
| <sup>12</sup> Dedicated Acres<br>640.0 Acres |  | W/2 - Section 20<br>W/2 - Section 29 |  | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No.<br>R-13491 - 31571.92 Acres |
|----------------------------------------------|--|--------------------------------------|--|-------------------------------|----------------------------------|-----------------------------------------------------|

|                                                             |                                                                                                                                                            |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <sup>16</sup><br>674'<br>163'<br>LEASE<br>E-346<br>5280.00' | NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION<br>UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A<br>NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                    |                                 |                |                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------|---------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5280.00'           | 991'<br>1046'<br>2304'<br>1855' | LEASE<br>E-346 | END OF LATERAL<br>LAT: 36.87825 °N<br>LONG: 107.39178 °W<br>DATUM : NAD1927<br><br>LAT: 36.87826 °N<br>LONG: 107.39238 °W<br>DATUM : NAD1983   | 17 OPERATOR CERTIFICATION<br>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.<br><br>Signature <i>Larry Higgins</i> Date 6-28-12<br>Printed Name Larry Higgins<br>E-mail Address larry.higgins@wpxenergy.com |
|                    |                                 |                | POINT OF ENTRY<br>LAT: 36.86965 °N<br>LONG: 107.39065 °W<br>DATUM : NAD1927<br><br>LAT: 36.86966 °N<br>LONG: 107.39125 °W<br>DATUM : NAD1983   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                    |                                 |                | SURFACE LOCATION<br>LAT: 36.86843 °N<br>LONG: 107.39051 °W<br>DATUM : NAD1927<br><br>LAT: 36.86844 °N<br>LONG: 107.39111 °W<br>DATUM : NAD1983 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| LEASE<br>SF-078764 |                                 |                |                                                                                                                                                | 18 SURVEYOR CERTIFICATION<br>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.<br>Date Revised: JUNE 25, 2012<br>Date of Survey: MAY 22, 2012<br>Signature and Seal of Professional Surveyor<br><br><br><br>JASON C. EDWARDS<br>Certificate Number 15269                                                                                                                                                           |

5282.64'

Hold C104

for Directional Survey  
and "As Drilled" plat

GE: 6438' / KB: 14'

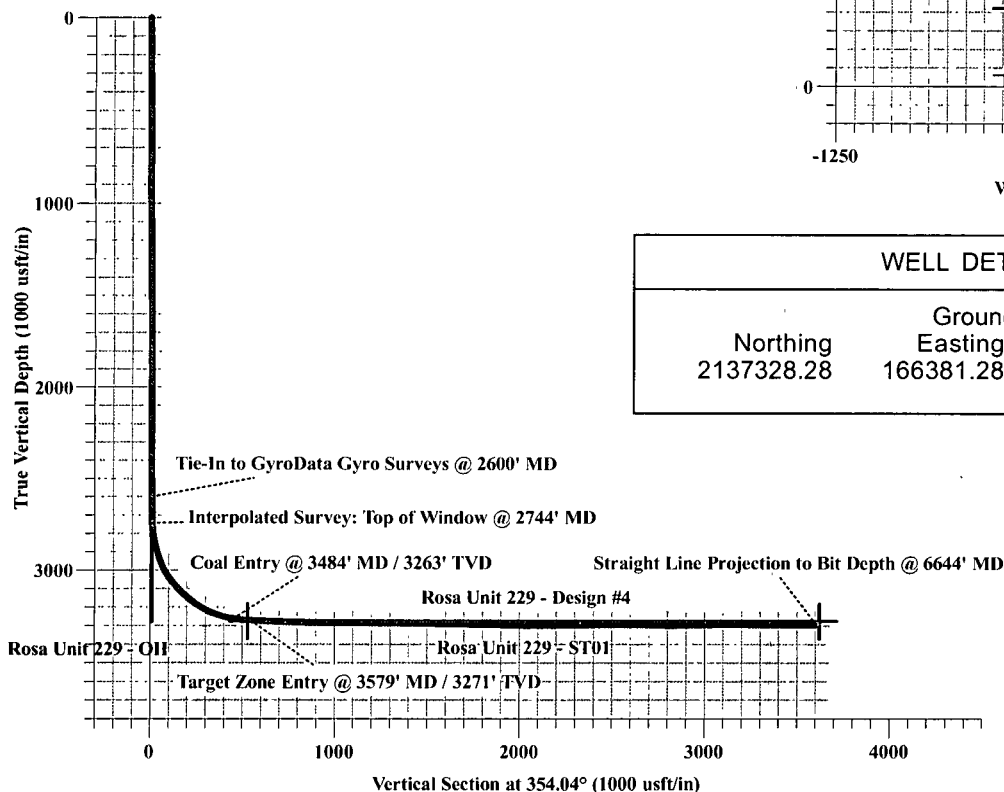
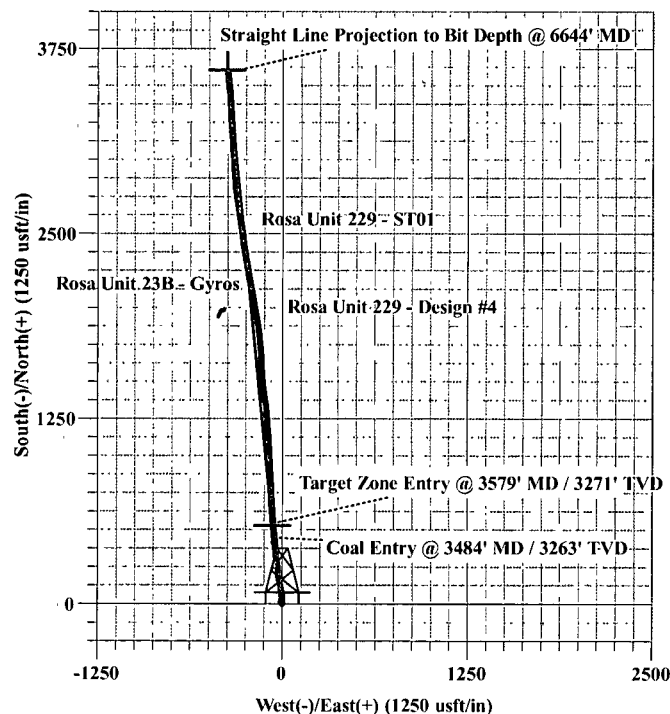
## WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

| Name     | TVD    | +N/-S  | +E/-W  | Northing   | Easting   | Shape |
|----------|--------|--------|--------|------------|-----------|-------|
| BHL 229  | 3276.0 | 3603.8 | -376.5 | 2140936.31 | 166047.89 | Point |
| Land 229 | 3276.0 | 526.8  | -66.3  | 2137855.83 | 166321.28 | Point |

## FORMATION TOP DETAILS

| TVDPATH | MDPATH | FORMATION  |
|---------|--------|------------|
| 2680.0  | 2680.0 | Kirtland   |
| 3044.0  | 3061.4 | Fruitland  |
| 3276.0  | 6665.9 | Target Top |

EOW  
No Hardlines  
Crossed



## WELL DETAILS: Rosa Unit 229

| Ground Level: 6438.0 |           |                 |                   |
|----------------------|-----------|-----------------|-------------------|
| Northing             | Easting   | Latitude        | Longitude         |
| 2137328.28           | 166381.28 | 36° 52' 6.355 N | 107° 23' 25.822 W |

## SECTION DETAILS

| MD     | Inc   | Azi    | TVD    | +N/-S  | +E/-W  | Dleg  | TFace  | Vsect  | Target  |
|--------|-------|--------|--------|--------|--------|-------|--------|--------|---------|
| 2600.0 | 0.44  | 261.31 | 2600.0 | 9.8    | -5.9   | 0.00  | 0.00   | 10.3   |         |
| 2744.0 | 0.73  | 252.76 | 2744.0 | 9.4    | -7.3   | 0.21  | -21.06 | 10.1   |         |
| 2754.0 | 0.75  | 252.42 | 2754.0 | 9.4    | -7.4   | 0.20  | -12.55 | 10.1   |         |
| 3573.2 | 90.00 | 354.24 | 3276.0 | 526.7  | -66.3  | 11.00 | 101.82 | 530.8  |         |
| 6665.9 | 90.00 | 354.24 | 3276.0 | 3603.8 | -376.5 | 0.00  | 0.00   | 3623.4 | BHL 229 |

Plan: Design #4 (Rosa Unit 229/ST01)

Created By: Breck Enoch

Date: 22-Jun-2012

**WPXENERGY**

**WPXEnergy**

Rio Arriba Co., NM

Sec 29 T31N R05W

Rosa Unit 229

ST01

Design: ST01

**Standard Survey Report**

22 June, 2012

**PATHFINDER**  
A Schlumberger Company

|           |                    |                              |                                        |
|-----------|--------------------|------------------------------|----------------------------------------|
| Company:  | WPXEnergy          | Local Co-ordinate Reference: | Well Rosa Unit 229                     |
| Project:  | Rio Arriba Co., NM | TVD Reference:               | WELL @ 6452.0usft (Original Well Elev) |
| Site:     | Sec 29 T31N R05W   | MD Reference:                | WELL @ 6452.0usft (Original Well Elev) |
| Well:     | Rosa Unit 229      | North Reference:             | True                                   |
| Wellbore: | ST01               | Survey Calculation Method:   | Minimum Curvature                      |
| Design:   | ST01               | Database:                    | EDM 5000 1 Single User Db              |

|             |                                      |               |                |
|-------------|--------------------------------------|---------------|----------------|
| Project     | Rio Arriba Co., NM                   |               |                |
| 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              |               |                |

|                       |                  |              |                   |                   |                   |
|-----------------------|------------------|--------------|-------------------|-------------------|-------------------|
| Site                  | Sec 29 T31N R05W |              |                   |                   |                   |
| Site Position:        |                  | Northing:    | 2,137,328.28 usft | Latitude:         | 36° 52' 6 355 N   |
| From:                 | Lat/Long         | Easting:     | 166,381.28 usft   | Longitude:        | 107° 23' 25 822 W |
| Position Uncertainty: | 0 0 usft         | Slot Radius: | 13-3/16 "         | Grid Convergence: | -0 68 °           |

|                      |               |          |                     |                   |               |                   |
|----------------------|---------------|----------|---------------------|-------------------|---------------|-------------------|
| Well                 | Rosa Unit 229 |          |                     |                   |               |                   |
| Well Position        | +N/-S         | 0.0 usft | Northing:           | 2,137,328 28 usft | Latitude:     | 36° 52' 6 355 N   |
|                      | +E/-W         | 0 0 usft | Easting:            | 166,381 28 usft   | Longitude:    | 107° 23' 25.822 W |
| Position Uncertainty |               | 0.0 usft | Wellhead Elevation: | usft              | Ground Level: | 6,438 0 usft      |

| Wellbore  | ST01       |             |                    |                  |                        |
|-----------|------------|-------------|--------------------|------------------|------------------------|
| Magnetics | Model Name | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|           | IGRF2010   | 05/24/12    | 9.64               | 63 62            | 50,764                 |

|                   |                            |                 |                 |                  |         |
|-------------------|----------------------------|-----------------|-----------------|------------------|---------|
| Design            | ST01                       |                 |                 |                  |         |
| Audit Notes:      |                            |                 |                 |                  |         |
| Version:          | 1.0                        | Phase:          | ACTUAL          | Tie On Depth:    | 2,600.0 |
| Vertical Section: | Depth From (TVD)<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Direction<br>(°) |         |
|                   | 3,276.0                    | 0 0             | 0 0             | 354 04           |         |

| Survey Program | Date 06/22/12 |                   |            |                                  |  |
|----------------|---------------|-------------------|------------|----------------------------------|--|
| From<br>(usft) | To<br>(usft)  | Survey (Wellbore) | Tool Name  | Description                      |  |
| 200 0          | 2,600 0       | Survey #1 (OH)    | NS-GYRO-MS | North sensing gyrocompassing m/s |  |
| 2,750 0        | 6,644 0       | Survey #3 (ST01)  | MWD        | MWD - Standard                   |  |

| 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                        |  |
| 200 0                       | 0.26               | 347.87         | 200.0                       | 0.4             | -0.1            | 0 5                           | 0 13                          | 0 13                         | 0.00                        |  |
| 400.0                       | 0.25               | 351.22         | 400 0                       | 1.3             | -0.3            | 1.3                           | 0 01                          | -0.01                        | 1.68                        |  |
| 600 0                       | 0.24               | 358 42         | 600.0                       | 2.2             | -0.3            | 2.2                           | 0.02                          | -0 01                        | 3 60                        |  |
| 800 0                       | 0.12               | 297.77         | 800 0                       | 2.7             | -0.5            | 2.7                           | 0 10                          | -0 06                        | -30.33                      |  |
| 1,000 0                     | 0.40               | 339 41         | 1,000.0                     | 3 4             | -1 0            | 3 5                           | 0 16                          | 0 14                         | 20 82                       |  |
| 1,200.0                     | 0 09               | 82 37          | 1,200.0                     | 4 1             | -1 1            | 4 2                           | 0 21                          | -0 16                        | 51 48                       |  |
| 1,400 0                     | 0 37               | 345.89         | 1,400 0                     | 4 8             | -1 1            | 4 8                           | 0 20                          | 0 14                         | -48 24                      |  |
| 1,600 0                     | 0.25               | 338 44         | 1,600 0                     | 5 8             | -1 4            | 5.9                           | 0.06                          | -0 06                        | -3 73                       |  |
| 1,800 0                     | 0 27               | 300 34         | 1,800 0                     | 6 4             | -1 9            | 6.6                           | 0 09                          | 0.01                         | -19 05                      |  |

|                  |                    |                                     |                                        |
|------------------|--------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | WPXEnergy          | <b>Local Co-ordinate Reference:</b> | Well Rosa Unit 229                     |
| <b>Project:</b>  | Rio Arriba Co., NM | <b>TVD Reference:</b>               | WELL @ 6452 0usft (Original Well Elev) |
| <b>Site:</b>     | Sec 29 T31N R05W   | <b>MD Reference:</b>                | WELL @ 6452 0usft (Original Well Elev) |
| <b>Well:</b>     | Rosa Unit 229      | <b>North Reference:</b>             | True                                   |
| <b>Wellbore:</b> | ST01               | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | ST01               | <b>Database:</b>                    | EDM 5000 1 Single User Db              |

| Survey                                            |                 |             |                       |              |              |                         |                         |                        |                       |
|---------------------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)                             | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 2,000.0                                           | 0 38            | 310 73      | 2,000 0               | 7 1          | -2 8         | 7.4                     | 0 06                    | 0 06                   | 5 20                  |
| 2,200 0                                           | 0 48            | 327 95      | 2,200 0               | 8 2          | -3 8         | 8 6                     | 0 08                    | 0 05                   | 8 61                  |
| 2,400 0                                           | 0 37            | 316 11      | 2,400 0               | 9 4          | -4 7         | 9 9                     | 0 07                    | -0 06                  | -5.92                 |
| 2,600 0                                           | 0 44            | 261.31      | 2,600 0               | 9 8          | -5 9         | 10 3                    | 0 19                    | 0.04                   | -27 40                |
| <b>Tie-In to GyroData Gyro Surveys @ 2600' MD</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,750 0                                           | 1.29            | 329 81      | 2,750 0               | 11 1         | -7 3         | 11 8                    | 0 80                    | 0 57                   | 45 67                 |
| 2,816 0                                           | 10 82           | 4.75        | 2,815.5               | 18 0         | -7 2         | 18 6                    | 14 83                   | 14 44                  | 52 94                 |
| 2,848 0                                           | 13 19           | 9 66        | 2,848 8               | 24 6         | -6 3         | 25.1                    | 8 06                    | 7 41                   | 15 34                 |
| 2,880 0                                           | 13 63           | 11 87       | 2,877 9               | 31 9         | -4 9         | 32 2                    | 2 11                    | 1.38                   | 6 91                  |
| 2,912.0                                           | 16 97           | 8 23        | 2,908 8               | 40 2         | -3.5         | 40 3                    | 10 86                   | 10 44                  | -11.38                |
| 2,943.0                                           | 20 84           | 359 92      | 2,938 1               | 50 2         | -2 8         | 50 2                    | 15 18                   | 12 48                  | -26.81                |
| 2,975 0                                           | 24 18           | 351 90      | 2,967 7               | 62 4         | -3.8         | 62 4                    | 14 16                   | 10 44                  | -25 06                |
| 3,007 0                                           | 27 87           | 349.07      | 2,996.4               | 76 2         | -6 1         | 76 4                    | 12 16                   | 11 53                  | -8.84                 |
| 3,039 0                                           | 32.45           | 348.18      | 3,024 1               | 92 0         | -9 3         | 92.4                    | 14 38                   | 14 31                  | -2 78                 |
| 3,071 0                                           | 36 84           | 348.23      | 3,050.4               | 109 8        | -13 0        | 110.5                   | 13 72                   | 13.72                  | 0 16                  |
| 3,103.0                                           | 40 10           | 349 32      | 3,075 5               | 129.3        | -16.9        | 130 3                   | 10 41                   | 10 19                  | 3 41                  |
| 3,134 0                                           | 43 18           | 350 83      | 3,098.6               | 149 6        | -20 4        | 150.9                   | 10 45                   | 9 94                   | 4 87                  |
| 3,166 0                                           | 44.93           | 351 63      | 3,121 6               | 171 6        | -23.8        | 173 1                   | 5 74                    | 5 47                   | 2.50                  |
| 3,198 0                                           | 48 80           | 352 46      | 3,143.5               | 194 7        | -27 0        | 196.4                   | 12 24                   | 12 09                  | 2 59                  |
| 3,230 0                                           | 52 50           | 351.85      | 3,163 8               | 219 2        | -30.4        | 221 2                   | 11 66                   | 11.56                  | -1 91                 |
| 3,262 0                                           | 55 49           | 352 43      | 3,182.6               | 244 8        | -34 0        | 247 0                   | 9 46                    | 9 34                   | 1 81                  |
| 3,293 0                                           | 59.09           | 354 38      | 3,199 4               | 270 7        | -36.9        | 273 1                   | 12 76                   | 11 61                  | 6 29                  |
| 3,325.0                                           | 62 17           | 354 84      | 3,215 1               | 298 5        | -39 6        | 301 0                   | 9 71                    | 9 63                   | 1 44                  |
| 3,358 0                                           | 67 44           | 354 47      | 3,229 1               | 328 2        | -42 3        | 330 8                   | 16 00                   | 15 97                  | -1.12                 |
| 3,390 0                                           | 71 75           | 353 70      | 3,240 3               | 358 0        | -45.4        | 360 8                   | 13 66                   | 13 47                  | -2 41                 |
| 3,422 0                                           | 74 04           | 353 68      | 3,249.7               | 388.4        | -48 8        | 391 4                   | 7 16                    | 7 16                   | -0 06                 |
| 3,454 0                                           | 77 03           | 354 11      | 3,257 7               | 419 2        | -52.1        | 422 4                   | 9 43                    | 9 34                   | 1 34                  |
| 3,484 0                                           | 81.40           | 354 39      | 3,263 3               | 448.6        | -55 0        | 451 8                   | 14 59                   | 14.56                  | 0 94                  |
| <b>Coal Entry @ 3484' MD / 3263' TVD</b>          |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,486 0                                           | 81 69           | 354.41      | 3,263 6               | 450 5        | -55.2        | 453 8                   | 14 59                   | 14 56                  | 0 92                  |
| 3,517 0                                           | 83.89           | 354 27      | 3,267 5               | 481 1        | -58.3        | 484 6                   | 7 11                    | 7.10                   | -0 45                 |
| 3,549 0                                           | 86 70           | 354 56      | 3,270 1               | 512.9        | -61 4        | 516 5                   | 8.83                    | 8 78                   | 0 91                  |
| 3,579 0                                           | 87.69           | 354 79      | 3,271 5               | 542 7        | -64 1        | 546 4                   | 3.40                    | 3 31                   | 0 75                  |
| <b>Target Zone Entry @ 3579' MD / 3271' TVD</b>   |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,581 0                                           | 87.76           | 354 80      | 3,271.6               | 544 7        | -64.3        | 548 4                   | 3.40                    | 3 31                   | 0 75                  |
| 3,637 0                                           | 87 76           | 356 30      | 3,273.8               | 600 5        | -68.7        | 604 4                   | 2 68                    | 0.00                   | 2.68                  |
| 3,701 0                                           | 87 76           | 356 87      | 3,276 3               | 664 3        | -72.5        | 668 3                   | 0 89                    | 0.00                   | 0 89                  |
| 3,765.0                                           | 86 44           | 357 29      | 3,279.6               | 728 1        | -75 7        | 732 1                   | 2 16                    | -2 06                  | 0 66                  |
| 3,829 0                                           | 88 99           | 355 71      | 3,282 1               | 792.0        | -79 6        | 796 0                   | 4.69                    | 3 98                   | -2 47                 |
| 3,892.0                                           | 87 93           | 356 22      | 3,283 8               | 854 8        | -84 1        | 858 9                   | 1 87                    | -1 68                  | 0.81                  |
| 3,956 0                                           | 89 08           | 357 15      | 3,285 5               | 918.7        | -87 8        | 922 8                   | 2 31                    | 1 80                   | 1 45                  |
| 4,020 0                                           | 91 45           | 357 54      | 3,285 2               | 982 6        | -90 7        | 986 7                   | 3 75                    | 3 70                   | 0 61                  |
| 4,083.0                                           | 90 48           | 356 92      | 3,284 1               | 1,045.5      | -93 8        | 1,049 6                 | 1.83                    | -1 54                  | -0 98                 |

|                  |                    |                                     |                                        |
|------------------|--------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | WPXEnergy          | <b>Local Co-ordinate Reference:</b> | Well Rosa Unit 229                     |
| <b>Project:</b>  | Rio Arriba Co., NM | <b>TVD Reference:</b>               | WELL @ 6452 0usft (Original Well Elev) |
| <b>Site:</b>     | Sec 29 T31N R05W   | <b>MD Reference:</b>                | WELL @ 6452 0usft (Original Well Elev) |
| <b>Well:</b>     | Rosa Unit 229      | <b>North Reference:</b>             | True                                   |
| <b>Wellbore:</b> | ST01               | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | ST01               | <b>Database:</b>                    | EDM 5000 1 Single User Db              |

**Survey**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 4,146 0               | 88 72           | 356.03      | 3,284 5               | 1,108 4      | -97 7        | 1,112 5                 | 3 13                    | -2 79                  | -1 41                 |
| 4,208 0               | 88 81           | 356 25      | 3,285 9               | 1,170 2      | -101 8       | 1,174 5                 | 0 38                    | 0 15                   | 0 35                  |
| 4,271 0               | 89 52           | 356 66      | 3,286 8               | 1,233.1      | -105 7       | 1,237.4                 | 1 30                    | 1 13                   | 0 65                  |
| 4,334 0               | 90 40           | 353 97      | 3,286 8               | 1,295 9      | -110 9       | 1,300 4                 | 4 49                    | 1 40                   | -4 27                 |
| 4,399 0               | 90 04           | 352 17      | 3,286 6               | 1,360 4      | -118.7       | 1,365 4                 | 2 82                    | -0 55                  | -2 77                 |
| 4,462 0               | 89 08           | 351 73      | 3,287 1               | 1,422 8      | -127 5       | 1,428 3                 | 1 68                    | -1 52                  | -0.70                 |
| 4,526 0               | 89 87           | 354.70      | 3,287 7               | 1,486 3      | -135.1       | 1,492 3                 | 4 80                    | 1 23                   | 4 64                  |
| 4,589 0               | 89.16           | 355 68      | 3,288 2               | 1,549 1      | -140.4       | 1,555 3                 | 1 92                    | -1.13                  | 1 56                  |
| 4,652 0               | 88 64           | 356 94      | 3,289.4               | 1,612 0      | -144.4       | 1,618 2                 | 2 16                    | -0 83                  | 2.00                  |
| 4,716 0               | 88 11           | 357.16      | 3,291 2               | 1,675 8      | -147 7       | 1,682 1                 | 0 90                    | -0 83                  | 0 34                  |
| 4,779 0               | 88 55           | 354 45      | 3,293.1               | 1,738 6      | -152 3       | 1,745.1                 | 4 36                    | 0.70                   | -4 30                 |
| 4,843.0               | 87 93           | 354 51      | 3,295 0               | 1,802 3      | -158 5       | 1,809 0                 | 0 97                    | -0 97                  | 0.09                  |
| 4,906 0               | 89 60           | 351.86      | 3,296 4               | 1,864.8      | -166 0       | 1,872 0                 | 4.97                    | 2.65                   | -4 21                 |
| 4,971 0               | 89.60           | 349 70      | 3,296 8               | 1,929 0      | -176 4       | 1,936.9                 | 3 32                    | 0 00                   | -3.32                 |
| 5,034.0               | 88 55           | 349.65      | 3,297.9               | 1,991 0      | -187 7       | 1,999 7                 | 1 67                    | -1 67                  | -0 08                 |
| 5,097 0               | 91.28           | 349 55      | 3,298 0               | 2,052.9      | -199 0       | 2,062 5                 | 4 34                    | 4 33                   | -0 16                 |
| 5,160 0               | 89.87           | 348 53      | 3,297 3               | 2,114.8      | -211 0       | 2,125.3                 | 2 76                    | -2 24                  | -1 62                 |
| 5,225 0               | 89 52           | 348.97      | 3,297 7               | 2,178.5      | -223 7       | 2,190 0                 | 0.86                    | -0 54                  | 0.68                  |
| 5,288 0               | 90.48           | 350 74      | 3,297.7               | 2,240 5      | -234 8       | 2,252 8                 | 3 20                    | 1 52                   | 2.81                  |
| 5,351 0               | 89 87           | 350 68      | 3,297.5               | 2,302 7      | -245 0       | 2,315.7                 | 0 97                    | -0.97                  | -0 10                 |
| 5,416 0               | 91 10           | 351.70      | 3,296 9               | 2,366 9      | -254 9       | 2,380 6                 | 2 46                    | 1 89                   | 1 57                  |
| 5,479.0               | 90.84           | 351 56      | 3,295 9               | 2,429 3      | -264.1       | 2,443 5                 | 0 47                    | -0 41                  | -0 22                 |
| 5,543.0               | 89 60           | 351 49      | 3,295 6               | 2,492 6      | -273 5       | 2,507 5                 | 1 94                    | -1 94                  | -0.11                 |
| 5,605 0               | 89 43           | 351 52      | 3,296 1               | 2,553 9      | -282 7       | 2,569 4                 | 0.28                    | -0 27                  | 0 05                  |
| 5,669 0               | 91.45           | 352 64      | 3,295 6               | 2,617 3      | -291 5       | 2,633 4                 | 3 61                    | 3 16                   | 1 75                  |
| 5,732 0               | 88.81           | 351 00      | 3,295 5               | 2,679.6      | -300 4       | 2,696 3                 | 4 93                    | -4 19                  | -2 60                 |
| 5,795 0               | 87 85           | 351.80      | 3,297 3               | 2,741 9      | -309.9       | 2,759 2                 | 1 98                    | -1 52                  | 1 27                  |
| 5,858 0               | 90.48           | 354 34      | 3,298 3               | 2,804 4      | -317 5       | 2,822.2                 | 5 80                    | 4 17                   | 4 03                  |
| 5,922 0               | 91 19           | 355 61      | 3,297 3               | 2,868 1      | -323.1       | 2,886 2                 | 2 27                    | 1 11                   | 1 98                  |
| 5,985 0               | 91 98           | 357 03      | 3,295.6               | 2,931 0      | -327.1       | 2,949 1                 | 2.58                    | 1 25                   | 2 25                  |
| 6,048 0               | 91.10           | 356 25      | 3,293.9               | 2,993 9      | -330.8       | 3,012 0                 | 1.87                    | -1 40                  | -1 24                 |
| 6,112.0               | 90 22           | 355 51      | 3,293 1               | 3,057 7      | -335 4       | 3,076 0                 | 1 80                    | -1 38                  | -1 16                 |
| 6,175 0               | 90 40           | 356.20      | 3,292 8               | 3,120.5      | -340 0       | 3,138 9                 | 1 13                    | 0.29                   | 1 10                  |
| 6,239 0               | 89 25           | 357.08      | 3,293 0               | 3,184.4      | -343.7       | 3,202 9                 | 2 26                    | -1 80                  | 1 38                  |
| 6,302 0               | 89.87           | 357.79      | 3,293 5               | 3,247 3      | -346.5       | 3,265 8                 | 1.50                    | 0.98                   | 1 13                  |
| 6,365 0               | 88.11           | 357.26      | 3,294 6               | 3,310 3      | -349 2       | 3,328.6                 | 2.92                    | -2.79                  | -0 84                 |
| 6,428.0               | 88 90           | 356 79      | 3,296 2               | 3,373.2      | -352.5       | 3,391 5                 | 1 46                    | 1 25                   | -0.75                 |
| 6,492 0               | 90 75           | 354.49      | 3,296.4               | 3,437 0      | -357 4       | 3,455.5                 | 4 61                    | 2 89                   | -3 59                 |
| 6,556 0               | 90 40           | 354.54      | 3,295.8               | 3,500 7      | -363 5       | 3,519 5                 | 0 55                    | -0 55                  | 0 08                  |
| 6,587 0               | 89 52           | 354 56      | 3,295.8               | 3,531.5      | -366 4       | 3,550 5                 | 2 84                    | -2 84                  | 0 06                  |
| 6,644.0               | 89 52           | 354 56      | 3,296 3               | 3,588.3      | -371 8       | 3,607 5                 | 0 00                    | 0.00                   | 0 00                  |

Straight Line Projection to Bit Depth @ 6644' MD

|                  |                    |                                     |                                        |
|------------------|--------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | WPXEnergy          | <b>Local Co-ordinate Reference:</b> | Well Rosa Unit 229                     |
| <b>Project:</b>  | Rio Arriba Co , NM | <b>TVD Reference:</b>               | WELL @ 6452 0usft (Original Well Elev) |
| <b>Site:</b>     | Sec 29 T31N R05W   | <b>MD Reference:</b>                | WELL @ 6452 0usft (Original Well Elev) |
| <b>Well:</b>     | Rosa Unit 229      | <b>North Reference:</b>             | True                                   |
| <b>Wellbore:</b> | ST01               | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | ST01               | <b>Database:</b>                    | EDM 5000 1 Single User Db              |

| Design Annotations    |                       |                   |              |                                                  |
|-----------------------|-----------------------|-------------------|--------------|--------------------------------------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                                          |
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                                                  |
| 2,600.0               | 2,600 0               | 9 8               | -5.9         | Tie-In to GyroData Gyro Surveys @ 2600' MD       |
| 3,484.0               | 3,263 3               | 448 6             | -55 0        | Coal Entry @ 3484' MD / 3263' TVD                |
| 3,579 0               | 3,271 5               | 542.7             | -64 1        | Target Zone Entry @ 3579' MD / 3271' TVD         |
| 6,644 0               | 3,296 3               | 3,588 3           | -371.8       | Straight Line Projection to Bit Depth @ 6644' MD |

|                   |                    |             |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|