



**PHOENIX  
TECHNOLOGY SERVICES**

**NEW MEXICO CONSERVATION  
ARTESIA DISTRICT**

**JAN 29 2015**

**RECEIVED**

January 8, 2015

Oil Conservation Division  
State of New Mexico  
811 S. First St.  
Artesia, New Mexico 88210

Dear District 2 - Artesia

Attention: Regulatory Department

Re: Apache Corporation  
Palmillo 14 State Com #4H  
Eddy County, NM  
API #30-015-42543  
Job No. 1411413

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced Well by Phoenix Technology Services, Inc. (P-5 No. 664171). Other information required by your office is as follows:

| Name & Title of<br>Surveyor | Drain<br>Hole<br>Number | Surveyed<br>Depths |        | Dates Performed |          | Type<br>of<br>Survey |
|-----------------------------|-------------------------|--------------------|--------|-----------------|----------|----------------------|
|                             |                         | From               | To     | Start           | End      |                      |
| Dean Young                  | 4H                      | 6,876              | 11,689 | 12/30/14        | 01/07/15 | MWD                  |

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,

**Claudia Carreon**

Claudia Carreon

Operations Administrator

Certified mail receipt number: 7014 2120 0004 3423 7088

Phoenix Technology Services  
SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER

1411413

ENERGY COMPANY Apache

WELL NAME

Palmillo 14 State Com #4H

COUNTY & STATE

Eddy County, NM

API WELL NUMBER

30-015-42543

PROPOSED DIRECTION

89.55

| TIE-IN DATA |             |        |         |         |           |        |
|-------------|-------------|--------|---------|---------|-----------|--------|
| MEASURED    | VERTICAL    |        |         | N-S     | E-W       | DATA   |
| DEPTH       | DEPTH       | INCLIN | AZIMUTH | COORD   | COORD     | SOURCE |
| 6,811. ft   | 6,810.10 ft | 1.79   | 255.84  | 7.34 ft | -52.71 ft | Gyro   |

| FIRST     | FIRST       |        |         |
|-----------|-------------|--------|---------|
| SURVEY    | SURVEY      |        |         |
| DATE      | DEPTH       | INCLIN | AZIMUTH |
| 30-Dec-14 | 6,876.00 ft | 1.80   | 253.10  |

SURVEY INSTRUMENT

TYPE

Phoenix MWD

| LAST     | LAST         |        |         |
|----------|--------------|--------|---------|
| SURVEY   | SURVEY       |        |         |
| DATE     | DEPTH        | INCLIN | AZIMUTH |
| 7-Jan-15 | 11,689.00 ft | 90.10  | 90.00   |

TO THE BEST OF MY KNOWLEDGE I  
CERTIFY THIS SURVEY DATA TO BE  
TRUE AND CORRECT.

| PROJECTED | PROJECTED    |        |         |
|-----------|--------------|--------|---------|
| TD SURVEY | TD SURVEY    |        |         |
| DATE      | DEPTH        | INCLIN | AZIMUTH |
| 7-Jan-15  | 11,759.00 ft | 90.10  | 90.00   |

Dean Young

PRINT YOUR NAME ABOVE

Dean Young

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

| TOTAL CORRECTION USED | 7.49 |
|-----------------------|------|
| DECLINATION OR GRID   | GRID |

1/7/2015

TODAY'S DATE

MWD SUPERVISOR 1

Dean Young

DIRECTIONAL DRILLER 1

Gabriel Welborn

MWD SUPERVISOR 2

William Gutierrez

DIRECTIONAL DRILLER 2

Josh Ashley

12329 Cutten Rd., Houston, Texas 777066

(713)337-0600 (Voice), (713)337-0599 (Fax)



**NM OIL CONSERVATION**

ARTESIA DISTRICT

**JAN 29 2015**

**RECEIVED**

## **Apache Corporation**

**Eddy County, NM (NAD27 NME)**

**Palmillo 14 State Com**

**#4H**

**WB1/Job #1411413**

**Survey: Phoenix MWD Survey**

## **Standard Survey Report**

**07 January, 2015**



|                  |                             |                                     |                               |
|------------------|-----------------------------|-------------------------------------|-------------------------------|
| <b>Company:</b>  | Apache Corporation          | <b>Local Co-ordinate Reference:</b> | Well #4H                      |
| <b>Project:</b>  | Eddy County, NM (NAD27 NME) | <b>TVD Reference:</b>               | KB @ 3476.00usft (Pioneer 28) |
| <b>Site:</b>     | Palmillo 14 State Com       | <b>MD Reference:</b>                | KB @ 3476.00usft (Pioneer 28) |
| <b>Well:</b>     | #4H                         | <b>North Reference:</b>             | Grid                          |
| <b>Wellbore:</b> | WB1/Job #1411413            | <b>Survey Calculation Method:</b>   | Minimum Curvature             |
| <b>Design:</b>   | Surveys (Pioneer 28)        | <b>Database:</b>                    | Compass 5000 GCR              |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project:</b>    | Eddy County, NM (NAD27 NME)          |                      |                |
| <b>Map System:</b> | US State Plane 1927 (Exact solution) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)              |                      |                |
| <b>Map Zone:</b>   | New Mexico East 3001                 |                      |                |

|                              |                       |                          |                    |
|------------------------------|-----------------------|--------------------------|--------------------|
| <b>Site:</b>                 | Palmillo 14 State Com |                          |                    |
| <b>Site Position:</b>        |                       | <b>Northing:</b>         | 602,138.10 usft    |
| <b>From:</b>                 | Map                   | <b>Easting:</b>          | 555,133.20 usft    |
| <b>Position Uncertainty:</b> | 0.00 usft             | <b>Slot Radius:</b>      | 13-3/16 "          |
|                              |                       | <b>Latitude:</b>         | 32° 39' 18.90442 N |
|                              |                       | <b>Longitude:</b>        | 104° 9' 15.10476 W |
|                              |                       | <b>Grid Convergence:</b> | 0.10 °             |

|                             |              |                            |                                  |
|-----------------------------|--------------|----------------------------|----------------------------------|
| <b>Well:</b>                | #4H          |                            |                                  |
| <b>Well Position</b>        | <b>+N/-S</b> | 0.00 usft                  | <b>Northing:</b> 606,096.10 usft |
|                             | <b>+E/-W</b> | 0.00 usft                  | <b>Easting:</b> 555,141.80 usft  |
| <b>Position Uncertainty</b> | 0.00 usft    | <b>Wellhead Elevation:</b> | usft                             |
|                             |              | <b>Latitude:</b>           | 32° 39' 58.07122 N               |
|                             |              | <b>Longitude:</b>          | 104° 9' 14.92602 W               |
|                             |              | <b>Ground Level:</b>       | 3,451.00 usft                    |

|                  |                   |                    |                    |                  |                       |
|------------------|-------------------|--------------------|--------------------|------------------|-----------------------|
| <b>Wellbore:</b> | WB1/Job #1411413  |                    |                    |                  |                       |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination</b> | <b>Dip Angle</b> | <b>Field Strength</b> |
|                  |                   |                    | (°)                | (°)              | (nT)                  |
|                  | BGGM2013          | 12/23/2014         | 7.59               | 60.39            | 48,426                |

|                          |                         |               |              |                           |
|--------------------------|-------------------------|---------------|--------------|---------------------------|
| <b>Design:</b>           | Surveys (Pioneer 28)    |               |              |                           |
| <b>Audit Notes:</b>      |                         |               |              |                           |
| <b>Version:</b>          | 1.0                     | <b>Phase:</b> | ACTUAL       | <b>Tie On Depth:</b> 0.00 |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b> | <b>+N/-S</b>  | <b>+E/-W</b> | <b>Direction</b>          |
|                          | (usft)                  | (usft)        | (usft)       | (°)                       |
|                          | 0.00                    | 0.00          | 0.00         | 89.55                     |

|                       |             |                                        |                  |                                       |
|-----------------------|-------------|----------------------------------------|------------------|---------------------------------------|
| <b>Survey Program</b> | <b>Date</b> | 1/7/2015                               |                  |                                       |
| <b>From</b>           | <b>To</b>   | <b>Survey (Wellbore)</b>               | <b>Tool Name</b> | <b>Description</b>                    |
| (usft)                | (usft)      |                                        |                  |                                       |
| 100.00                | 6,811.00    | Phoenix Gyro Survey (WB1/Job #1411413) | NS-GYRO-MS       | North sensing gyrocompassing m/s      |
| 6,876.00              | 11,759.00   | Phoenix MWD Survey (WB1/Job #141141)   | PHX+MWD+BGGM     | PHX+MWD+BGGM v3: standard declination |

|                                      |                    |                |                 |              |              |                 |               |              |             |  |
|--------------------------------------|--------------------|----------------|-----------------|--------------|--------------|-----------------|---------------|--------------|-------------|--|
| <b>Survey</b>                        |                    |                |                 |              |              |                 |               |              |             |  |
| <b>Measured</b>                      | <b>Inclination</b> | <b>Azimuth</b> | <b>Vertical</b> | <b>+N/-S</b> | <b>+E/-W</b> | <b>Vertical</b> | <b>Dogleg</b> | <b>Build</b> | <b>Turn</b> |  |
| <b>Depth</b>                         | (°)                | (°)            | <b>Depth</b>    | (usft)       | (usft)       | <b>Section</b>  | <b>Rate</b>   | <b>Rate</b>  | <b>Rate</b> |  |
| (usft)                               |                    |                | (usft)          |              |              | (usft)          | (°/100usft)   | (°/100usft)  | (°/100usft) |  |
| 6,811.00                             | 1.79               | 255.84         | 6,810.10        | 7.34         | -52.71       | -52.65          | 0.00          | 0.00         | 0.00        |  |
| <b>Tie-on to Phoenix Gyro Survey</b> |                    |                |                 |              |              |                 |               |              |             |  |
| 6,876.00                             | 1.80               | 253.10         | 6,875.07        | 6.80         | -54.67       | -54.61          | 0.13          | 0.02         | -4.22       |  |
| <b>First Phoenix MWD Survey</b>      |                    |                |                 |              |              |                 |               |              |             |  |
| 6,908.00                             | 1.40               | 250.20         | 6,907.06        | 6.52         | -55.52       | -55.46          | 1.27          | -1.25        | -9.06       |  |
| 6,939.00                             | 2.00               | 116.60         | 6,938.05        | 6.15         | -55.39       | -55.34          | 10.11         | 1.94         | -430.97     |  |
| 6,971.00                             | 6.90               | 108.50         | 6,969.95        | 5.29         | -53.06       | -53.02          | 15.40         | 15.31        | -25.31      |  |
| 7,002.00                             | 12.00              | 106.20         | 7,000.52        | 3.80         | -48.20       | -48.17          | 16.49         | 16.45        | -7.42       |  |
| 7,033.00                             | 18.10              | 104.30         | 7,030.44        | 1.70         | -40.43       | -40.42          | 19.74         | 19.68        | -6.13       |  |

|                  |                             |                                     |                               |
|------------------|-----------------------------|-------------------------------------|-------------------------------|
| <b>Company:</b>  | Apache Corporation          | <b>Local Co-ordinate Reference:</b> | Well #4H                      |
| <b>Project:</b>  | Eddy County, NM (NAD27 NME) | <b>TVD Reference:</b>               | KB @ 3476.00usft (Pioneer 28) |
| <b>Site:</b>     | Palmillo 14 State Com       | <b>MD Reference:</b>                | KB @ 3476.00usft (Pioneer 28) |
| <b>Well:</b>     | #4H                         | <b>North Reference:</b>             | Grid                          |
| <b>Wellbore:</b> | WB1/Job #1411413            | <b>Survey Calculation Method:</b>   | Minimum Curvature             |
| <b>Design:</b>   | Surveys (Pioneer 28)        | <b>Database:</b>                    | Compass 5000 GCR              |

| 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) |
| 7,065.00              | 23.60           | 107.30      | 7,060.33              | -1.43        | -29.49       | -29.50                  | 17.50                   | 17.19                  | 9.38                  |
| 7,096.00              | 27.50           | 107.50      | 7,088.29              | -5.43        | -16.74       | -16.78                  | 12.58                   | 12.58                  | 0.65                  |
| 7,127.00              | 30.00           | 107.70      | 7,115.47              | -9.94        | -2.52        | -2.60                   | 8.07                    | 8.06                   | 0.65                  |
| 7,159.00              | 32.60           | 105.70      | 7,142.81              | -14.70       | 13.40        | 13.28                   | 8.75                    | 8.13                   | -6.25                 |
| 7,190.00              | 36.10           | 104.30      | 7,168.40              | -19.22       | 30.29        | 30.14                   | 11.57                   | 11.29                  | -4.52                 |
| 7,221.00              | 39.40           | 102.20      | 7,192.91              | -23.56       | 48.76        | 48.58                   | 11.42                   | 10.65                  | -6.77                 |
| 7,253.00              | 42.50           | 100.70      | 7,217.08              | -27.71       | 69.32        | 69.10                   | 10.16                   | 9.69                   | -4.69                 |
| 7,284.00              | 45.50           | 98.30       | 7,239.38              | -31.25       | 90.55        | 90.31                   | 11.07                   | 9.68                   | -7.74                 |
| 7,315.00              | 48.30           | 94.80       | 7,260.56              | -33.82       | 113.03       | 112.77                  | 12.23                   | 9.03                   | -11.29                |
| 7,347.00              | 52.40           | 92.90       | 7,280.98              | -35.46       | 137.61       | 137.33                  | 13.60                   | 12.81                  | -5.94                 |
| 7,378.00              | 56.80           | 92.10       | 7,298.93              | -36.56       | 162.85       | 162.56                  | 14.35                   | 14.19                  | -2.58                 |
| 7,409.00              | 60.60           | 91.20       | 7,315.03              | -37.32       | 189.32       | 189.02                  | 12.51                   | 12.26                  | -2.90                 |
| 7,441.00              | 63.40           | 90.60       | 7,330.05              | -37.76       | 217.57       | 217.27                  | 8.91                    | 8.75                   | -1.88                 |
| 7,473.00              | 66.50           | 89.70       | 7,343.60              | -37.83       | 246.55       | 246.25                  | 10.02                   | 9.69                   | -2.81                 |
| 7,504.00              | 69.40           | 89.20       | 7,355.24              | -37.55       | 275.28       | 274.98                  | 9.47                    | 9.35                   | -1.61                 |
| 7,535.00              | 72.40           | 88.90       | 7,365.38              | -37.07       | 304.57       | 304.27                  | 9.72                    | 9.68                   | -0.97                 |
| 7,567.00              | 75.00           | 88.80       | 7,374.36              | -36.45       | 335.27       | 334.98                  | 8.13                    | 8.13                   | -0.31                 |
| 7,598.00              | 78.60           | 88.00       | 7,381.44              | -35.61       | 365.44       | 365.15                  | 11.88                   | 11.61                  | -2.58                 |
| 7,662.00              | 84.50           | 87.50       | 7,390.84              | -33.12       | 428.67       | 428.39                  | 9.25                    | 9.22                   | -0.78                 |
| 7,756.00              | 85.70           | 87.80       | 7,398.87              | -29.28       | 522.24       | 522.00                  | 1.32                    | 1.28                   | 0.32                  |
| 7,851.00              | 87.00           | 88.10       | 7,404.92              | -25.89       | 616.99       | 616.77                  | 1.40                    | 1.37                   | 0.32                  |
| 7,945.00              | 87.60           | 88.30       | 7,409.34              | -22.94       | 710.84       | 710.63                  | 0.67                    | 0.64                   | 0.21                  |
| 8,039.00              | 88.40           | 88.30       | 7,412.62              | -20.15       | 804.74       | 804.55                  | 0.85                    | 0.85                   | 0.00                  |
| 8,133.00              | 87.50           | 88.30       | 7,415.99              | -17.37       | 898.63       | 898.47                  | 0.96                    | -0.96                  | 0.00                  |
| 8,227.00              | 87.70           | 88.60       | 7,419.92              | -14.83       | 992.52       | 992.37                  | 0.38                    | 0.21                   | 0.32                  |
| 8,321.00              | 88.50           | 88.30       | 7,423.04              | -12.28       | 1,086.43     | 1,086.30                | 0.91                    | 0.85                   | -0.32                 |
| 8,415.00              | 87.90           | 89.30       | 7,425.99              | -10.32       | 1,180.36     | 1,180.24                | 1.24                    | -0.64                  | 1.06                  |
| 8,509.00              | 88.40           | 89.00       | 7,429.03              | -8.92        | 1,274.30     | 1,274.19                | 0.62                    | 0.53                   | -0.32                 |
| 8,603.00              | 87.20           | 89.00       | 7,432.64              | -7.28        | 1,368.22     | 1,368.12                | 1.28                    | -1.28                  | 0.00                  |
| 8,697.00              | 86.00           | 88.50       | 7,438.21              | -5.24        | 1,462.03     | 1,461.94                | 1.38                    | -1.28                  | -0.53                 |
| 8,792.00              | 86.10           | 89.10       | 7,444.75              | -3.25        | 1,556.78     | 1,556.71                | 0.64                    | 0.11                   | 0.63                  |
| 8,886.00              | 86.50           | 88.60       | 7,450.82              | -1.37        | 1,650.56     | 1,650.50                | 0.68                    | 0.43                   | -0.53                 |
| 8,980.00              | 87.20           | 88.10       | 7,455.99              | 1.33         | 1,744.38     | 1,744.34                | 0.91                    | 0.74                   | -0.53                 |
| 9,074.00              | 86.30           | 87.90       | 7,461.31              | 4.61         | 1,838.17     | 1,838.15                | 0.98                    | -0.96                  | -0.21                 |
| 9,168.00              | 86.00           | 88.00       | 7,467.63              | 7.96         | 1,931.90     | 1,931.90                | 0.34                    | -0.32                  | 0.11                  |
| 9,262.00              | 85.50           | 89.10       | 7,474.59              | 10.34        | 2,025.61     | 2,025.63                | 1.28                    | -0.53                  | 1.17                  |
| 9,356.00              | 86.50           | 88.60       | 7,481.15              | 12.22        | 2,119.36     | 2,119.39                | 1.19                    | 1.06                   | -0.53                 |
| 9,450.00              | 86.30           | 88.80       | 7,487.05              | 14.35        | 2,213.15     | 2,213.20                | 0.30                    | -0.21                  | 0.21                  |
| 9,544.00              | 86.80           | 88.70       | 7,492.71              | 16.39        | 2,306.96     | 2,307.02                | 0.54                    | 0.53                   | -0.11                 |
| 9,638.00              | 87.40           | 89.30       | 7,497.46              | 18.03        | 2,400.82     | 2,400.89                | 0.90                    | 0.64                   | 0.64                  |
| 9,732.00              | 88.10           | 89.70       | 7,501.15              | 18.85        | 2,494.75     | 2,494.82                | 0.86                    | 0.74                   | 0.43                  |
| 9,827.00              | 89.10           | 89.80       | 7,503.48              | 19.27        | 2,589.71     | 2,589.79                | 1.06                    | 1.05                   | 0.11                  |
| 9,921.00              | 90.00           | 89.10       | 7,504.21              | 20.17        | 2,683.71     | 2,683.78                | 1.21                    | 0.96                   | -0.74                 |

|           |                             |                              |                               |
|-----------|-----------------------------|------------------------------|-------------------------------|
| Company:  | Apache Corporation          | Local Co-ordinate Reference: | Well #4H                      |
| Project:  | Eddy County, NM (NAD27 NME) | TVD Reference:               | KB @ 3476.00usft (Pioneer 28) |
| Site:     | Palmillo 14 State Com       | MD Reference:                | KB @ 3476.00usft (Pioneer 28) |
| Well:     | #4H                         | North Reference:             | Grid                          |
| Wellbore: | WB1/Job #1411413            | Survey Calculation Method:   | Minimum Curvature             |
| Design:   | Surveys (Pioneer 28)        | Database:                    | Compass 5000 GCR              |

| 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) |
| 10,015.00               | 89.70           | 89.70       | 7,504.46              | 21.15        | 2,777.70     | 2,777.78                | 0.71                    | -0.32                  | 0.64                  |
| 10,109.00               | 90.20           | 89.20       | 7,504.54              | 22.05        | 2,871.70     | 2,871.78                | 0.75                    | 0.53                   | -0.53                 |
| 10,203.00               | 89.50           | 90.00       | 7,504.79              | 22.71        | 2,965.69     | 2,965.78                | 1.13                    | -0.74                  | 0.85                  |
| 10,297.00               | 89.70           | 90.00       | 7,505.44              | 22.71        | 3,059.69     | 3,059.77                | 0.21                    | 0.21                   | 0.00                  |
| 10,391.00               | 90.50           | 89.50       | 7,505.28              | 23.12        | 3,153.69     | 3,153.77                | 1.00                    | 0.85                   | -0.53                 |
| 10,485.00               | 90.40           | 88.40       | 7,504.54              | 24.84        | 3,247.67     | 3,247.76                | 1.18                    | -0.11                  | -1.17                 |
| 10,579.00               | 91.10           | 87.80       | 7,503.31              | 27.96        | 3,341.61     | 3,341.72                | 0.98                    | 0.74                   | -0.64                 |
| 10,673.00               | 90.70           | 87.80       | 7,501.84              | 31.57        | 3,435.52     | 3,435.67                | 0.43                    | -0.43                  | 0.00                  |
| 10,767.00               | 89.90           | 89.00       | 7,501.34              | 34.19        | 3,529.48     | 3,529.64                | 1.53                    | -0.85                  | 1.28                  |
| 10,861.00               | 90.70           | 88.50       | 7,500.85              | 36.24        | 3,623.46     | 3,623.63                | 1.00                    | 0.85                   | -0.53                 |
| 10,955.00               | 90.20           | 88.70       | 7,500.11              | 38.54        | 3,717.43     | 3,717.62                | 0.57                    | -0.53                  | 0.21                  |
| 11,049.00               | 90.10           | 88.70       | 7,499.87              | 40.67        | 3,811.40     | 3,811.61                | 0.11                    | -0.11                  | 0.00                  |
| 11,144.00               | 90.20           | 88.50       | 7,499.62              | 42.99        | 3,906.38     | 3,906.59                | 0.24                    | 0.11                   | -0.21                 |
| 11,238.00               | 90.10           | 89.00       | 7,499.37              | 45.04        | 4,000.35     | 4,000.58                | 0.54                    | -0.11                  | 0.53                  |
| 11,332.00               | 89.40           | 89.10       | 7,499.78              | 46.60        | 4,094.34     | 4,094.58                | 0.75                    | -0.74                  | 0.11                  |
| 11,426.00               | 89.50           | 90.10       | 7,500.68              | 47.26        | 4,188.33     | 4,188.57                | 1.07                    | 0.11                   | 1.06                  |
| 11,520.00               | 89.80           | 90.20       | 7,501.26              | 47.01        | 4,282.33     | 4,282.56                | 0.34                    | 0.32                   | 0.11                  |
| 11,615.00               | 89.70           | 90.20       | 7,501.67              | 46.68        | 4,377.33     | 4,377.56                | 0.11                    | -0.11                  | 0.00                  |
| 11,689.00               | 90.10           | 90.00       | 7,501.80              | 46.55        | 4,451.33     | 4,451.55                | 0.60                    | 0.54                   | -0.27                 |
| Last Phoenix MWD Survey |                 |             |                       |              |              |                         |                         |                        |                       |
| 11,759.00               | 90.10           | 90.00       | 7,501.68              | 46.55        | 4,521.33     | 4,521.55                | 0.00                    | 0.00                   | 0.00                  |
| Projection to TD        |                 |             |                       |              |              |                         |                         |                        |                       |

| Survey Annotations    |                       |                   |              |                               |
|-----------------------|-----------------------|-------------------|--------------|-------------------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                       |
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                               |
| 6,811.00              | 6,810.10              | 7.34              | -52.71       | Tie-on to Phoenix Gyro Survey |
| 6,876.00              | 6,875.07              | 6.80              | -54.67       | First Phoenix MWD Survey      |
| 11,689.00             | 7,501.80              | 46.55             | 4,451.33     | Last Phoenix MWD Survey       |
| 11,759.00             | 7,501.68              | 46.55             | 4,521.33     | Projection to TD              |

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

# NM OIL CONSERVATION

ARTESIA DISTRICT

JAN 29 2015

RECEIVED

DISTRICT I  
1635 N. French Dr., Hobbs, NM 88340  
Phone: (505) 393-6161 Fax: (505) 393-0720  
DISTRICT II  
811 S. First St., Artesia, NM 88210  
Phone: (505) 748-1283 Fax: (505) 748-9720  
DISTRICT III  
1000 Rio Brazos Road, Amor, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

DAMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

|                              |                                            |                                              |
|------------------------------|--------------------------------------------|----------------------------------------------|
| API Number<br><b>30-015-</b> | Pool Code<br><b>96413</b>                  | Pool Name<br><b>Palmillo; Bonespring; SW</b> |
| Property Code                | Property Name<br><b>PALMILLO 14 STATE</b>  | Well Number<br><b>4H</b>                     |
| OGRID No.<br><b>873</b>      | Operator Name<br><b>APACHE CORPORATION</b> | Elevation<br><b>3451'</b>                    |

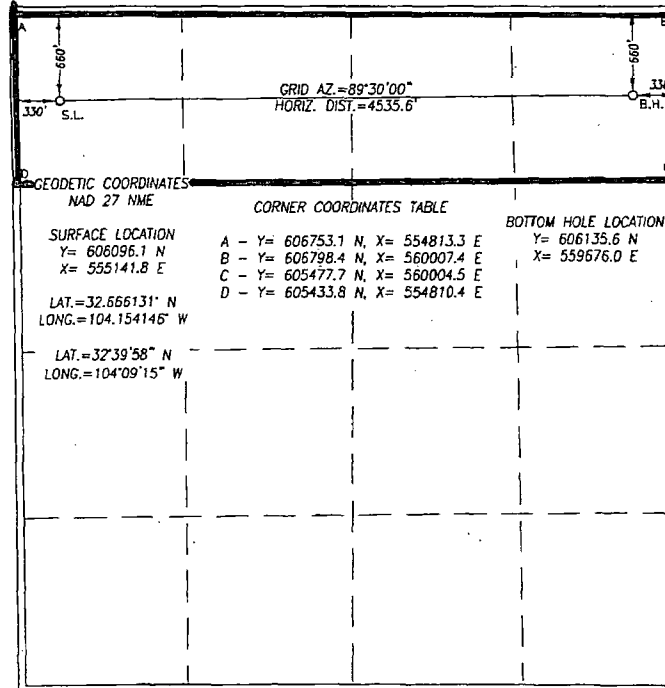
### Surface Location

| UL or lot No. | Section   | Township    | Range       | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County      |
|---------------|-----------|-------------|-------------|---------|---------------|------------------|---------------|----------------|-------------|
| <b>D</b>      | <b>14</b> | <b>19-S</b> | <b>28-E</b> |         | <b>660</b>    | <b>NORTH</b>     | <b>330</b>    | <b>WEST</b>    | <b>EDDY</b> |

### 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      |
|-------------------------------|-----------------|--------------------|-------------|---------|---------------|------------------|---------------|----------------|-------------|
| <b>A</b>                      | <b>14</b>       | <b>19-S</b>        | <b>28-E</b> |         | <b>660</b>    | <b>NORTH</b>     | <b>330</b>    | <b>EAST</b>    | <b>EDDY</b> |
| Dedicated Acres<br><b>160</b> | Joint or Infill | Consolidation Code | 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



### OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unless 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature *Michelle Cooper* Date *7-30-14*

Printed Name *Michelle Cooper*

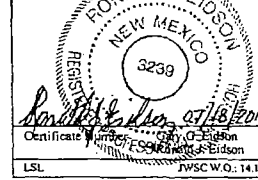
E-mail Address *michelle.cooper@apachecorp.com*

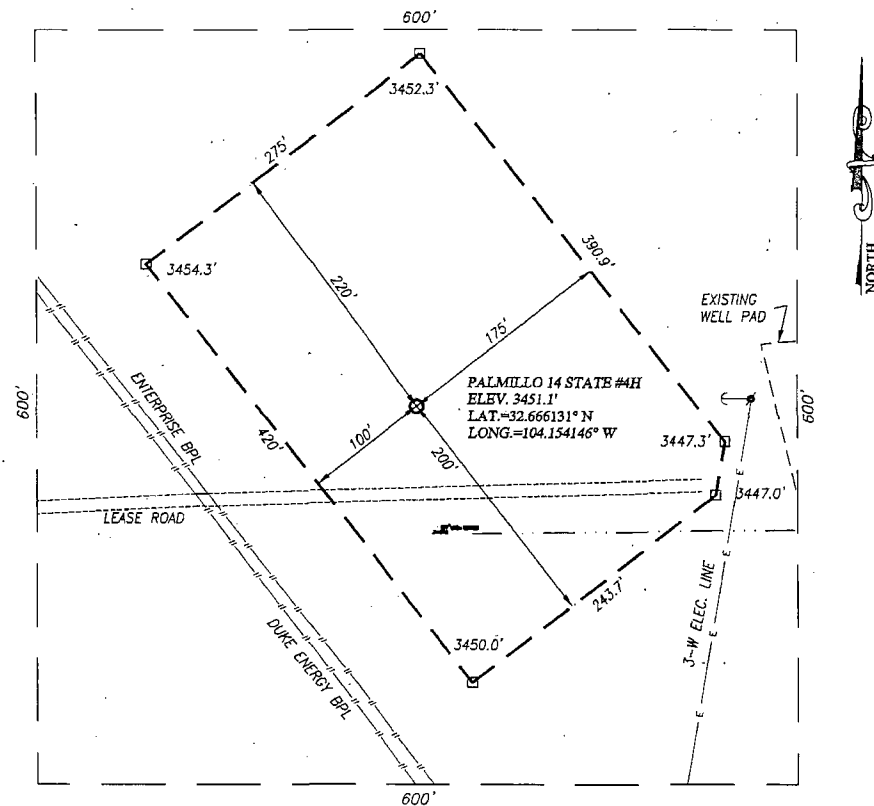
### SURVEYOR CERTIFICATION

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.

Date of Survey *JULY 14, 2014*

Signature & Seal of the Surveyor

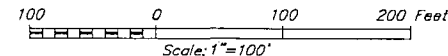




NOTE:  
1) SEE "LOCATION VERIFICATION MAP"  
FOR PROPOSED ROAD LOCATION.

#### DIRECTIONS TO PALMILLO 14 STATE #4H:

FROM THE INTERSECTION OF US. HWY 82 AND CR. 206 (ILLINOIS CAMP) GO SOUTH ON CR. 206 APPROX. 6.4 MI. TO CR. 235 (CURRY COMB). TURN LEFT AND GO SOUTHEAST ON CR. 235 APPROX 3.1 MILES TO CR. 246 TURN RIGHT AND GO SOUTH APPROX 1.3 MILES TO OLD WASHED OUT LEASE RD. TURN LEFT AND GO EAST APPROX 593' TO THE LOCATION.



## APACHE CORPORATION

PALMILLO 14 STATE #4H WELL  
LOCATED 660 FEET FROM THE NORTH LINE  
AND 330 FEET FROM THE WEST LINE OF SECTION 14,  
TOWNSHIP 19 SOUTH, RANGE 28 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO



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**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO HOBBS, N.M. 88240  
(575) 393-3117 www.jwsurvey.com  
TBPLS# 10021000

|                      |                   |               |
|----------------------|-------------------|---------------|
| Survey Date: 7/14/14 | CAD Date: 7/16/14 | Drawn By: LSL |
| W.O. No.: 14110721   | Rev.:             | Rel. W.O.:    |

Sheet 1 of 1