

# DEVON ENERGY

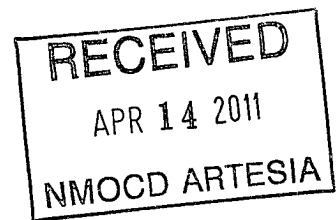
Willow Lake  
Eddy County, NM  
Cooter 16 State #8H  
VH - Job #32K1010744

30-015-37878

Survey: Actual

## SDI Standard Survey Report

30 October, 2010



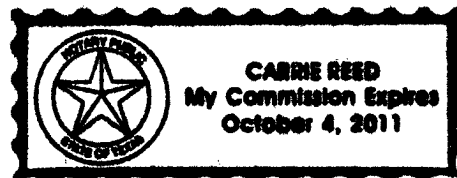
This survey is correct to the best of my knowledge and is supported by actual field data.

Richardson

Notorized this date 2nd of November, 2010.

Carrie Reed

Notary Signature  
County of Midland  
State of Texas



# Scientific Drilling International, Inc.

## SDI Standard Survey Report

|                  |                      |                                     |                                     |
|------------------|----------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>  | DEVON ENERGY         | <b>Local Co-ordinate Reference:</b> | Well Cooter 16 State #8H            |
| <b>Project:</b>  | Willow Lake          | <b>TVD Reference:</b>               | WELL @ 0.0usft (Original Well Elev) |
| <b>Site:</b>     | Eddy County, NM      | <b>MD Reference:</b>                | WELL @ 0.0usft (Original Well Elev) |
| <b>Well:</b>     | Cooter 16 State #8H  | <b>North Reference:</b>             | Grid                                |
| <b>Wellbore:</b> | VH - Job #32K1010744 | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Design:</b>   | VH - Job #32K1010744 | <b>Database:</b>                    | EDM-Regulatory                      |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | Willow Lake                          |                      |                |
| <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>                  | Eddy County, NM |                          |                   |
| <b>Site Position:</b>        |                 | <b>Northing:</b>         | 408,641.15 usft   |
| <b>From:</b>                 | Lat/Long        | <b>Easting:</b>          | 606,908.63 usft   |
| <b>Position Uncertainty:</b> | 0.0 usft        | <b>Slot Radius:</b>      | 0"                |
|                              |                 | <b>Latitude:</b>         | 32° 7' 22.800 N   |
|                              |                 | <b>Longitude:</b>        | 103° 59' 16.800 W |
|                              |                 | <b>Grid Convergence:</b> | 0.18 °            |

|                             |                                  |                            |                                  |
|-----------------------------|----------------------------------|----------------------------|----------------------------------|
| <b>Well</b>                 | Cooter 16 State #8H, Directional |                            |                                  |
| <b>Well Position</b>        | +N/-S                            | 0.0 usft                   | <b>Northing:</b> 409,069.62 usft |
|                             | +E/-W                            | 0.0 usft                   | <b>Easting:</b> 625,482.24 usft  |
| <b>Position Uncertainty</b> | 0.0 usft                         | <b>Wellhead Elevation:</b> | usft                             |
|                             |                                  | <b>Latitude:</b>           | 32° 7' 26.400 N                  |
|                             |                                  | <b>Longitude:</b>          | 103° 55' 40.800 W                |
|                             |                                  | <b>Ground Level:</b>       | 0.0 usft                         |

|                  |                      |                    |                        |                      |                            |
|------------------|----------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | VH - Job #32K1010744 |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b>    | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | BGGM2010             | 10/2/2010          | 7.88                   | 60.05                | 48,646                     |

|                          |                                |                     |                     |                          |
|--------------------------|--------------------------------|---------------------|---------------------|--------------------------|
| <b>Design</b>            | VH - Job #32K1010744           |                     |                     |                          |
| <b>Audit Notes:</b>      |                                |                     |                     |                          |
| <b>Version:</b>          | 1.0                            | <b>Phase:</b>       | ACTUAL              | <b>Tie On Depth:</b> 0.0 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Direction (°)</b>     |
|                          | 0.0                            | 0.0                 | 0.0                 | 0.10                     |

|                       |                  |                               |                  |                    |
|-----------------------|------------------|-------------------------------|------------------|--------------------|
| <b>Survey Program</b> | <b>Date</b>      | 10/30/2010                    |                  |                    |
| <b>From (usft)</b>    | <b>To (usft)</b> | <b>Survey (Wellbore)</b>      | <b>Tool Name</b> | <b>Description</b> |
| 100.0                 | 6,503.0          | Actual (VH - Job #32K1010744) | Keeper           | Keeper Gyro        |

|                              |                        |                    |                            |                           |                         |                            |                                |  |
|------------------------------|------------------------|--------------------|----------------------------|---------------------------|-------------------------|----------------------------|--------------------------------|--|
| <b>Survey</b>                |                        |                    |                            |                           |                         |                            |                                |  |
| <b>Measured Depth (usft)</b> | <b>Inclination (°)</b> | <b>Azimuth (°)</b> | <b>True Vertical Depth</b> | <b>North/South (usft)</b> | <b>East/West (usft)</b> | <b>Closure Azimuth (°)</b> | <b>Closure Distance (usft)</b> |  |
| 0.0                          | 0.00                   | 0.00               | 0.0                        | 0.0                       | 0.0                     | 0.00                       | 0.0                            |  |
| 100.0                        | 1.23                   | 116.18             | 100.0                      | -0.5                      | 1.0                     | 116.18                     | 1.1                            |  |
| 200.0                        | 2.14                   | 127.18             | 199.9                      | -2.1                      | 3.4                     | 121.30                     | 4.0                            |  |
| 300.0                        | 1.43                   | 144.99             | 299.9                      | -4.2                      | 5.6                     | 126.95                     | 7.0                            |  |
| 400.0                        | 1.02                   | 166.04             | 399.9                      | -6.1                      | 6.5                     | 133.02                     | 9.0                            |  |
| 500.0                        | 0.88                   | 189.64             | 499.9                      | -7.7                      | 6.6                     | 139.37                     | 10.2                           |  |
| 600.0                        | 0.99                   | 208.77             | 599.9                      | -9.2                      | 6.1                     | 146.63                     | 11.1                           |  |
| 700.0                        | 1.08                   | 210.80             | 699.8                      | -10.8                     | 5.2                     | 154.35                     | 12.0                           |  |
| 800.0                        | 1.53                   | 199.43             | 799.8                      | -12.9                     | 4.3                     | 161.68                     | 13.6                           |  |
| 900.0                        | 1.34                   | 205.98             | 899.8                      | -15.2                     | 3.3                     | 167.71                     | 15.5                           |  |
| 1,000.0                      | 1.70                   | 211.96             | 999.7                      | -17.5                     | 2.0                     | 173.44                     | 17.6                           |  |
| 1,100.0                      | 1.56                   | 208.68             | 1,099.7                    | -20.0                     | 0.6                     | 178.36                     | 20.0                           |  |

**Scientific Drilling International, Inc.**  
SDI Standard Survey Report

|                  |                      |                                     |                                     |
|------------------|----------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>  | DEVON ENERGY         | <b>Local Co-ordinate Reference:</b> | Well Cooter 16 State #8H            |
| <b>Project:</b>  | Willow Lake          | <b>TVD Reference:</b>               | WELL @ 0.0usft (Original Well Elev) |
| <b>Site:</b>     | Eddy County, NM      | <b>MD Reference:</b>                | WELL @ 0.0usft (Original Well Elev) |
| <b>Well:</b>     | Cooter 16 State #8H  | <b>North Reference:</b>             | Grid                                |
| <b>Wellbore:</b> | VH - Job #32K1010744 | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Design:</b>   | VH - Job #32K1010744 | <b>Database:</b>                    | EDM-Regulatory                      |

| Survey                   |                    |                |                        |                       |                     |                        |                            |  |
|--------------------------|--------------------|----------------|------------------------|-----------------------|---------------------|------------------------|----------------------------|--|
| Measured Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | True Vertical<br>Depth | North/South<br>(usft) | East/West<br>(usft) | Closure Azimuth<br>(°) | Closure Distance<br>(usft) |  |
| 1,200.0                  | 0.74               | 198.85         | 1,199.7                | -21.8                 | -0.3                | 180.76                 | 21.8                       |  |
| 1,300.0                  | 0.93               | 184.04         | 1,299.7                | -23.2                 | -0.6                | 181.37                 | 23.2                       |  |
| 1,400.0                  | 1.31               | 183.79         | 1,399.7                | -25.1                 | -0.7                | 181.57                 | 25.1                       |  |
| 1,500.0                  | 1.45               | 184.56         | 1,499.6                | -27.5                 | -0.9                | 181.80                 | 27.5                       |  |
| 1,600.0                  | 1.56               | 182.98         | 1,599.6                | -30.2                 | -1.0                | 181.97                 | 30.2                       |  |
| 1,700.0                  | 1.29               | 182.22         | 1,699.6                | -32.6                 | -1.1                | 182.02                 | 32.7                       |  |
| 1,800.0                  | 0.93               | 174.57         | 1,799.5                | -34.6                 | -1.1                | 181.85                 | 34.6                       |  |
| 1,900.0                  | 0.29               | 169.27         | 1,899.5                | -35.6                 | -1.0                | 181.60                 | 35.6                       |  |
| 2,000.0                  | 0.22               | 217.64         | 1,999.5                | -36.0                 | -1.1                | 181.69                 | 36.0                       |  |
| 2,100.0                  | 0.48               | 206.43         | 2,099.5                | -36.6                 | -1.4                | 182.14                 | 36.6                       |  |
| 2,200.0                  | 0.37               | 212.80         | 2,199.5                | -37.2                 | -1.7                | 182.66                 | 37.2                       |  |
| 2,300.0                  | 0.25               | 239.25         | 2,299.5                | -37.6                 | -2.1                | 183.18                 | 37.6                       |  |
| 2,400.0                  | 0.83               | 134.92         | 2,399.5                | -38.2                 | -1.8                | 182.64                 | 38.2                       |  |
| 2,500.0                  | 1.33               | 111.07         | 2,499.5                | -39.1                 | -0.2                | 180.25                 | 39.1                       |  |
| 2,600.0                  | 1.49               | 104.85         | 2,599.5                | -39.9                 | 2.2                 | 176.88                 | 39.9                       |  |
| 2,700.0                  | 2.59               | 106.68         | 2,699.4                | -40.9                 | 5.6                 | 172.21                 | 41.2                       |  |
| 2,800.0                  | 3.23               | 109.04         | 2,799.3                | -42.4                 | 10.4                | 166.20                 | 43.7                       |  |
| 2,900.0                  | 3.45               | 109.54         | 2,899.1                | -44.4                 | 15.9                | 160.26                 | 47.1                       |  |
| 3,000.0                  | 2.57               | 107.61         | 2,999.0                | -46.0                 | 20.9                | 155.60                 | 50.6                       |  |
| 3,100.0                  | 1.82               | 104.96         | 3,098.9                | -47.1                 | 24.6                | 152.48                 | 53.1                       |  |
| 3,200.0                  | 1.74               | 105.96         | 3,198.8                | -48.0                 | 27.6                | 150.12                 | 55.3                       |  |
| 3,300.0                  | 1.61               | 103.31         | 3,298.8                | -48.7                 | 30.4                | 148.04                 | 57.4                       |  |
| 3,400.0                  | 1.24               | 96.96          | 3,398.8                | -49.2                 | 32.8                | 146.27                 | 59.1                       |  |
| 3,500.0                  | 1.01               | 102.78         | 3,498.8                | -49.5                 | 34.8                | 144.92                 | 60.5                       |  |
| 3,600.0                  | 1.22               | 114.27         | 3,598.7                | -50.1                 | 36.6                | 143.87                 | 62.0                       |  |
| 3,700.0                  | 1.11               | 108.11         | 3,698.7                | -50.9                 | 38.5                | 142.89                 | 63.8                       |  |
| 3,800.0                  | 1.01               | 108.95         | 3,798.7                | -51.4                 | 40.2                | 141.97                 | 65.3                       |  |
| 3,900.0                  | 0.61               | 124.76         | 3,898.7                | -52.0                 | 41.5                | 141.42                 | 66.6                       |  |
| 4,000.0                  | 0.77               | 121.35         | 3,998.7                | -52.7                 | 42.5                | 141.10                 | 67.7                       |  |
| 4,100.0                  | 0.51               | 107.49         | 4,098.7                | -53.2                 | 43.5                | 140.70                 | 68.7                       |  |
| 4,200.0                  | 0.45               | 116.05         | 4,198.7                | -53.5                 | 44.3                | 140.37                 | 69.4                       |  |
| 4,300.0                  | 0.40               | 124.97         | 4,298.7                | -53.8                 | 44.9                | 140.16                 | 70.1                       |  |
| 4,400.0                  | 0.19               | 137.73         | 4,398.7                | -54.2                 | 45.3                | 140.08                 | 70.6                       |  |
| 4,500.0                  | 0.26               | 201.85         | 4,498.7                | -54.5                 | 45.4                | 140.23                 | 70.9                       |  |
| 4,600.0                  | 0.32               | 185.36         | 4,598.7                | -55.0                 | 45.2                | 140.55                 | 71.2                       |  |
| 4,700.0                  | 0.44               | 196.44         | 4,698.7                | -55.6                 | 45.1                | 140.97                 | 71.6                       |  |
| 4,800.0                  | 0.13               | 176.50         | 4,798.7                | -56.1                 | 45.0                | 141.27                 | 71.9                       |  |
| 4,900.0                  | 0.44               | 192.17         | 4,898.7                | -56.6                 | 44.9                | 141.56                 | 72.3                       |  |
| 5,000.0                  | 0.45               | 199.82         | 4,998.7                | -57.4                 | 44.7                | 142.06                 | 72.7                       |  |
| 5,100.0                  | 0.27               | 219.98         | 5,098.7                | -57.9                 | 44.4                | 142.50                 | 73.0                       |  |
| 5,200.0                  | 0.54               | 188.80         | 5,198.7                | -58.5                 | 44.2                | 142.94                 | 73.4                       |  |
| 5,300.0                  | 0.46               | 195.51         | 5,298.6                | -59.4                 | 44.0                | 143.45                 | 73.9                       |  |
| 5,400.0                  | 0.45               | 199.72         | 5,398.6                | -60.2                 | 43.8                | 143.95                 | 74.4                       |  |
| 5,500.0                  | 0.40               | 216.31         | 5,498.6                | -60.8                 | 43.5                | 144.45                 | 74.7                       |  |

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## SDI Standard Survey Report

|                  |                      |                                     |                                     |
|------------------|----------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>  | DEVON ENERGY         | <b>Local Co-ordinate Reference:</b> | Well Cooter 16 State #8H            |
| <b>Project:</b>  | Willow Lake          | <b>TVD Reference:</b>               | WELL @ 0.0usft (Original Well Elev) |
| <b>Site:</b>     | Eddy County, NM      | <b>MD Reference:</b>                | WELL @ 0.0usft (Original Well Elev) |
| <b>Well:</b>     | Cooter 16 State #8H  | <b>North Reference:</b>             | Grid                                |
| <b>Wellbore:</b> | VH - Job #32K1010744 | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Design:</b>   | VH - Job #32K1010744 | <b>Database:</b>                    | EDM-Regulatory                      |

### Survey

| Measured Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | True Vertical<br>Depth | North/South<br>(usft) | East/West<br>(usft) | Closure Azimuth<br>(°) | Closure Distance<br>(usft) |
|--------------------------|--------------------|----------------|------------------------|-----------------------|---------------------|------------------------|----------------------------|
| 5,600.0                  | 0.62               | 219.28         | 5,598.6                | -61.5                 | 42.9                | 145.10                 | 75.0                       |
| 5,700.0                  | 0.60               | 200.80         | 5,698.6                | -62.4                 | 42.4                | 145.83                 | 75.4                       |
| 5,800.0                  | 0.64               | 189.07         | 5,798.6                | -63.5                 | 42.1                | 146.44                 | 76.2                       |
| 5,900.0                  | 0.84               | 193.99         | 5,898.6                | -64.7                 | 41.8                | 147.12                 | 77.1                       |
| 6,000.0                  | 0.61               | 172.42         | 5,998.6                | -66.0                 | 41.7                | 147.68                 | 78.0                       |
| 6,100.0                  | 0.68               | 174.50         | 6,098.6                | -67.1                 | 41.9                | 148.04                 | 79.1                       |
| 6,200.0                  | 0.77               | 159.85         | 6,198.6                | -68.3                 | 42.1                | 148.32                 | 80.3                       |
| 6,300.0                  | 0.82               | 163.70         | 6,298.6                | -69.6                 | 42.6                | 148.55                 | 81.6                       |
| 6,400.0                  | 0.89               | 152.20         | 6,398.6                | -71.0                 | 43.1                | 148.71                 | 83.1                       |
| 6,500.0                  | 1.03               | 166.30         | 6,498.6                | -72.5                 | 43.7                | 148.93                 | 84.7                       |
| 6,503.0                  | 0.76               | 174.22         | 6,501.6                | -72.6                 | 43.7                | 148.94                 | 84.7                       |



Project: Willow Lake  
Eddy County, NM  
Well: Cooter 16 State #8H  
Wellbore: VH - Job #32K1010744  
Design: VH - Job #32K1010744

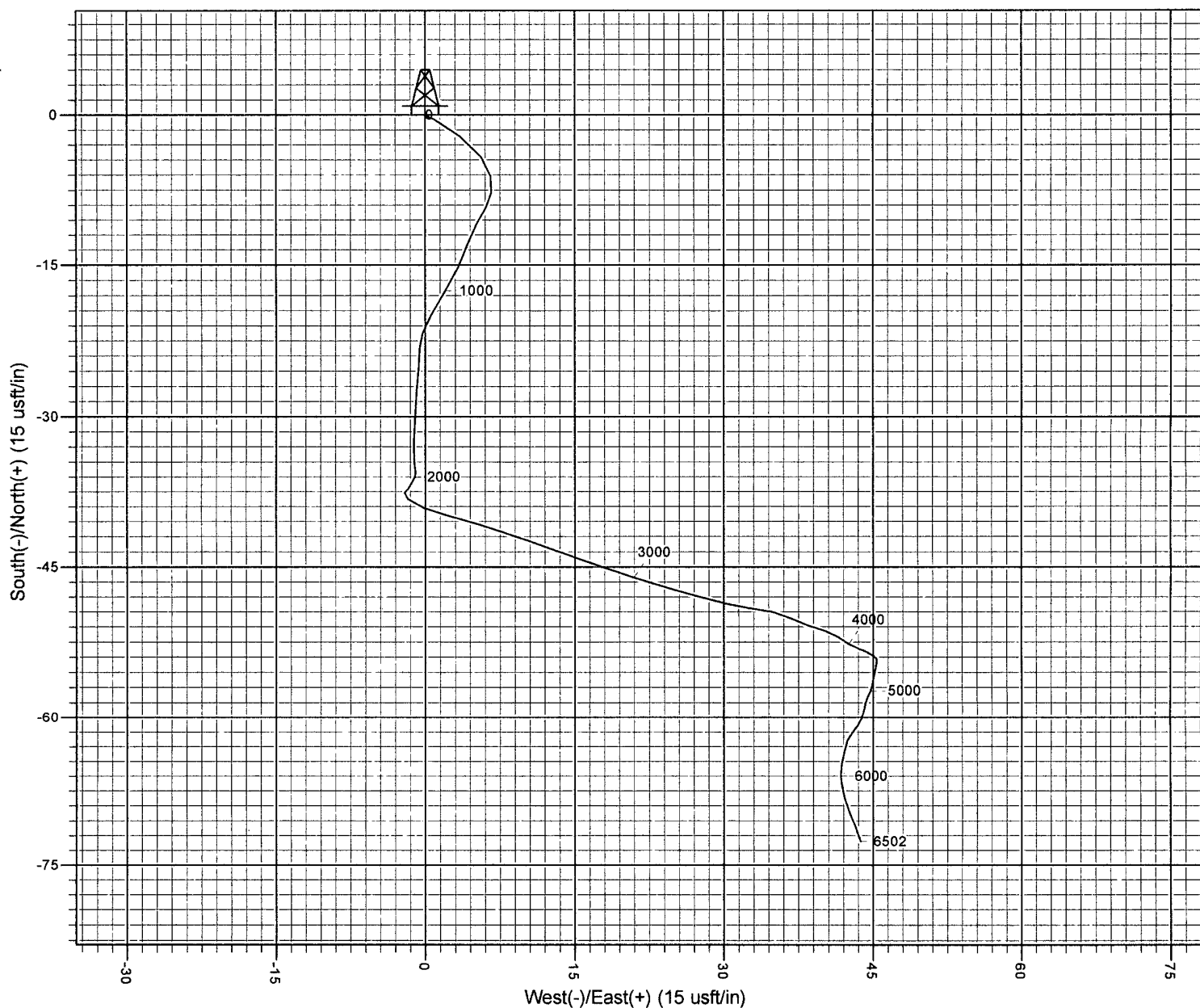


Azimuths to Grid North  
True North:  $-0.22^\circ$   
Magnetic North:  $7.67^\circ$

Magnetic Field  
Strength: 48645.6snT  
Dip Angle:  $60.05^\circ$   
Date: 10/2/2010  
Model: BGGM2010

WELL DETAILS: Cooter 16 State #8H  
WELL @ 0.0usft (Original Well Elev)  
Ground Level: 0.0

| +N/-S | +E/-W | Northing  | Easting   | Latitude                      | Longitude                       | Slot |
|-------|-------|-----------|-----------|-------------------------------|---------------------------------|------|
| 0.0   | 0.0   | 409069.62 | 625482.24 | $32^\circ 7' 26.400\text{ N}$ | $103^\circ 55' 40.800\text{ W}$ |      |



PROJECT DETAILS: Willow Lake  
Geodetic System: US State Plane 1927 (Exact solution)  
Datum: NAD 1927 (NADCON CONUS)  
Ellipsoid: Clarke 1866  
Zone: New Mexico East 3001  
System Datum: Mean Sea Level

SITE DETAILS: Eddy County, NM  
Site Centre Latitude:  $32^\circ 7' 22.800\text{ N}$   
Longitude:  $103^\circ 59' 16.800\text{ W}$   
Positional Uncertainty: 0.0  
Convergence: 0.18  
Local North: Grid