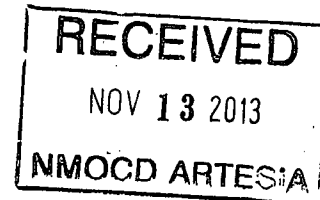




A GYRO TECHNOLOGIES INC. COMPANY

PO Box 261021  
Corpus Christi, Texas 78426  
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

July 25, 2013



Devon Energy Production Co., LP  
333 West Sheridan Ave  
Oklahoma City, Oklahoma 73102-5010

Attn: Patti Riechers

30-015-41059

Re: **Cerf 10 Federal Com No 004H**

Please find enclosed a copy of the survey from 0' to 5.813' ran on the above referenced well.

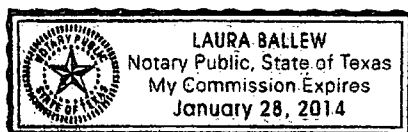
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

Sincerely,

Keith Havelka  
Operations

STATE OF TEXAS §  
COUNTY OF NUECES §

This instrument was acknowledged before me on the 25<sup>th</sup> day of July, A.D., 2013, by Keith Havelka.



Laura Ballew  
Laura Ballew  
Notary Public, State of Texas



Company: Devon Energy Production  
Lease/Well: Cerf 10 Federal Com/No 004H  
Location: Sec 9 T21S R27E  
Rig Name: Cactus 126  
State/County: New Mexico/Eddy  
Latitude: 32.50, Longitude: -104.19  
GRID North is 0.08 Degrees East of True North  
VS-Azi: 0.00 Degrees



30-015-41059

Depth Reference : RKB 25 Feet

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: msgyro\_run01-01-de\_01.ut

Minimum Curvature Method

Report Date/Time: 7/25/2013 / 13:48

Vaughn Energy Services

West Texas

Surveyor: Chris Bankson

432-563-5444

Cerf 10 Federal Com No 004H / API 30-015-41059

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 0.00                    | 0.00                 | 0.00                      | 0.00      | 0.00        | 0.00        | 0.00                      | 0.00                      | 0.00                        | ****                          |
| 109.38                  | 0.21                 | 306.03                    | 109.38    | 0.12        | -0.17       | 0.12                      | 0.20                      | 306.03                      | 0.20                          |
| 204.01                  | 0.28                 | 308.04                    | 204.01    | 0.37        | -0.49       | 0.37                      | 0.62                      | 306.79                      | 0.07                          |
| 298.64                  | 0.17                 | 313.25                    | 298.64    | 0.61        | -0.78       | 0.61                      | 0.99                      | 308.00                      | 0.12                          |
| 393.27                  | 0.41                 | 305.31                    | 393.27    | 0.90        | -1.16       | 0.90                      | 1.47                      | 307.88                      | 0.26                          |
| 487.90                  | 0.76                 | 310.02                    | 487.89    | 1.50        | -1.92       | 1.50                      | 2.44                      | 308.08                      | 0.38                          |
| 582.53                  | 0.78                 | 316.12                    | 582.51    | 2.37        | -2.85       | 2.37                      | 3.71                      | 309.80                      | 0.09                          |
| 677.16                  | 0.54                 | 318.05                    | 677.14    | 3.17        | -3.59       | 3.17                      | 4.79                      | 311.41                      | 0.25                          |
| 771.79                  | 0.57                 | 335.29                    | 771.76    | 3.93        | -4.09       | 3.93                      | 5.67                      | 313.87                      | 0.18                          |
| 866.42                  | 0.79                 | 341.68                    | 866.39    | 4.98        | -4.49       | 4.98                      | 6.71                      | 317.95                      | 0.24                          |
| 961.05                  | 0.68                 | 356.24                    | 961.01    | 6.15        | -4.73       | 6.15                      | 7.76                      | 322.44                      | 0.23                          |
| 1055.68                 | 0.65                 | 343.56                    | 1055.63   | 7.23        | -4.92       | 7.23                      | 8.74                      | 325.75                      | 0.16                          |
| 1150.31                 | 0.71                 | 332.75                    | 1150.26   | 8.27        | -5.34       | 8.27                      | 9.84                      | 327.12                      | 0.15                          |
| 1244.94                 | 0.64                 | 330.03                    | 1244.88   | 9.25        | -5.88       | 9.25                      | 10.96                     | 327.56                      | 0.08                          |
| 1339.57                 | 0.73                 | 323.58                    | 1339.50   | 10.19       | -6.50       | 10.19                     | 12.09                     | 327.48                      | 0.12                          |
| 1434.20                 | 0.60                 | 261.40                    | 1434.13   | 10.60       | -7.35       | 10.60                     | 12.90                     | 325.27                      | 0.73                          |
| 1528.83                 | 0.75                 | 260.57                    | 1528.75   | 10.42       | -8.45       | 10.42                     | 13.42                     | 320.97                      | 0.16                          |
| 1623.46                 | 0.80                 | 262.59                    | 1623.37   | 10.24       | -9.72       | 10.24                     | 14.11                     | 316.49                      | 0.06                          |
| 1718.09                 | 0.73                 | 275.27                    | 1717.99   | 10.21       | -10.98      | 10.21                     | 14.99                     | 312.92                      | 0.19                          |

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 1812.72                 | 1.03                 | 326.70                    | 1812.61   | 10.97       | -12.05      | 10.97                     | 16.29                     | 312.33                      | 0.85                          |
| 1907.35                 | 1.08                 | 328.86                    | 1907.23   | 12.45       | -12.97      | 12.45                     | 17.98                     | 313.81                      | 0.08                          |
| 2001.98                 | 1.08                 | 326.15                    | 2001.84   | 13.95       | -13.93      | 13.95                     | 19.72                     | 315.04                      | 0.05                          |
| 2096.61                 | 0.77                 | 298.97                    | 2096.46   | 15.00       | -14.99      | 15.00                     | 21.21                     | 315.03                      | 0.56                          |
| 2191.24                 | 0.81                 | 299.89                    | 2191.08   | 15.64       | -16.12      | 15.64                     | 22.46                     | 314.13                      | 0.04                          |
| 2285.87                 | 0.85                 | 306.22                    | 2285.70   | 16.39       | -17.27      | 16.39                     | 23.81                     | 313.51                      | 0.11                          |
| 2380.50                 | 0.84                 | 313.66                    | 2380.32   | 17.29       | -18.34      | 17.29                     | 25.20                     | 313.31                      | 0.12                          |
| 2475.13                 | 0.88                 | 322.99                    | 2474.94   | 18.35       | -19.28      | 18.35                     | 26.81                     | 313.58                      | 0.15                          |
| 2569.76                 | 0.97                 | 330.13                    | 2569.56   | 19.62       | -20.12      | 19.62                     | 28.10                     | 314.29                      | 0.15                          |
| 2664.39                 | 0.99                 | 323.28                    | 2664.17   | 20.97       | -21.00      | 20.97                     | 29.68                     | 314.96                      | 0.13                          |
| 2759.02                 | 0.90                 | 309.63                    | 2758.79   | 22.10       | -22.07      | 22.10                     | 31.23                     | 315.05                      | 0.26                          |
| 2853.65                 | 1.00                 | 298.25                    | 2853.41   | 22.98       | -23.36      | 22.98                     | 32.76                     | 314.51                      | 0.23                          |
| 2948.28                 | 0.94                 | 303.16                    | 2948.02   | 23.78       | -24.74      | 23.78                     | 34.31                     | 313.87                      | 0.11                          |
| 3042.91                 | 1.00                 | 323.45                    | 3042.64   | 24.87       | -25.88      | 24.87                     | 35.89                     | 313.86                      | 0.37                          |
| 3137.54                 | 1.03                 | 335.01                    | 3137.25   | 26.31       | -26.73      | 26.31                     | 37.51                     | 314.54                      | 0.22                          |
| 3232.17                 | 1.01                 | 329.95                    | 3231.87   | 27.80       | -27.51      | 27.80                     | 39.12                     | 315.30                      | 0.10                          |
| 3326.80                 | 1.25                 | 303.64                    | 3326.48   | 29.10       | -28.79      | 29.10                     | 40.94                     | 315.31                      | 0.60                          |
| 3421.43                 | 1.29                 | 302.47                    | 3421.09   | 30.24       | -30.55      | 30.24                     | 42.99                     | 314.71                      | 0.05                          |
| 3516.06                 | 0.92                 | 304.90                    | 3515.70   | 31.25       | -32.07      | 31.25                     | 44.78                     | 314.26                      | 0.39                          |
| 3610.69                 | 0.89                 | 305.24                    | 3610.32   | 32.11       | -33.30      | 32.11                     | 46.26                     | 313.96                      | 0.03                          |
| 3705.32                 | 0.79                 | 307.14                    | 3704.94   | 32.93       | -34.42      | 32.93                     | 47.63                     | 313.73                      | 0.11                          |
| 3799.95                 | 0.82                 | 300.76                    | 3799.56   | 33.67       | -35.52      | 33.67                     | 48.94                     | 313.47                      | 0.10                          |
| 3894.58                 | 0.97                 | 298.05                    | 3894.18   | 34.39       | -36.81      | 34.39                     | 50.38                     | 313.06                      | 0.16                          |
| 3989.21                 | 0.99                 | 286.58                    | 3988.79   | 35.00       | -38.30      | 35.00                     | 51.88                     | 312.42                      | 0.21                          |
| 4083.84                 | 1.58                 | 280.76                    | 4083.40   | 35.48       | -40.37      | 35.48                     | 53.74                     | 311.31                      | 0.64                          |
| 4178.47                 | 1.59                 | 275.21                    | 4177.99   | 35.84       | -42.96      | 35.84                     | 55.94                     | 309.84                      | 0.16                          |
| 4273.10                 | 1.66                 | 275.87                    | 4272.59   | 36.10       | -45.63      | 36.10                     | 58.18                     | 308.35                      | 0.08                          |
| 4367.73                 | 1.63                 | 283.52                    | 4367.18   | 36.56       | -48.30      | 36.56                     | 60.58                     | 307.12                      | 0.23                          |
| 4462.36                 | 1.28                 | 285.01                    | 4461.78   | 37.15       | -50.64      | 37.15                     | 62.80                     | 306.26                      | 0.37                          |
| 4556.99                 | 1.29                 | 285.89                    | 4556.38   | 37.71       | -52.68      | 37.71                     | 64.79                     | 305.60                      | 0.02                          |
| 4651.62                 | 1.38                 | 291.75                    | 4650.99   | 38.43       | -54.77      | 38.43                     | 66.90                     | 305.06                      | 0.17                          |
| 4746.25                 | 1.35                 | 287.41                    | 4745.59   | 39.18       | -56.89      | 39.18                     | 69.08                     | 304.56                      | 0.11                          |
| 4840.88                 | 1.70                 | 276.76                    | 4840.19   | 39.68       | -59.35      | 39.68                     | 71.39                     | 303.77                      | 0.47                          |
| 4935.51                 | 1.84                 | 277.03                    | 4934.78   | 40.01       | -62.09      | 40.01                     | 73.86                     | 302.80                      | 0.07                          |
| 5030.14                 | 1.49                 | 292.32                    | 5029.37   | 40.64       | -64.57      | 40.64                     | 76.29                     | 302.19                      | 0.47                          |
| 5124.77                 | 1.41                 | 296.22                    | 5123.97   | 41.63       | -66.75      | 41.63                     | 78.67                     | 301.95                      | 0.13                          |
| 5219.40                 | 1.56                 | 304.18                    | 5218.57   | 42.86       | -68.86      | 42.86                     | 81.11                     | 301.90                      | 0.26                          |
| 5314.03                 | 1.52                 | 296.80                    | 5313.16   | 44.15       | -71.05      | 44.15                     | 83.65                     | 301.86                      | 0.21                          |
| 5408.66                 | 1.49                 | 293.46                    | 5407.76   | 45.21       | -73.30      | 45.21                     | 86.12                     | 301.67                      | 0.10                          |

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 5503.29                 | 1.86                 | 288.16                    | 5502.35   | 46.18       | -75.88      | 46.18                     | 88.83                     | 301.32                      | 0.42                          |
| 5597.92                 | 1.52                 | 293.65                    | 5596.94   | 47.16       | -78.49      | 47.16                     | 91.57                     | 301.00                      | 0.40                          |
| 5692.55                 | 0.90                 | 324.96                    | 5691.55   | 48.27       | -80.06      | 48.27                     | 93.49                     | 301.09                      | 0.93                          |
| 5787.00                 | 0.37                 | 23.29                     | 5785.99   | 49.16       | -80.37      | 49.16                     | 94.21                     | 301.46                      | 0.82                          |
| 5813.00                 | 0.46                 | 49.94                     | 5811.99   | 49.31       | -80.26      | 49.31                     | 94.19                     | 301.57                      | 0.80                          |



## Directional Survey

|                                                     |                       |                                   |                                     |                                |                       |                               |                            |
|-----------------------------------------------------|-----------------------|-----------------------------------|-------------------------------------|--------------------------------|-----------------------|-------------------------------|----------------------------|
| District<br>PERMIAN BASIN                           | County<br>EDDY        | Field Name<br>BURTON FLAT         | Project Group<br>DELAWARE BASIN     | State/Province<br>NM           |                       |                               |                            |
| Surface Legal Location<br>SEC9 T21S R27E            | API/UWI<br>3001541059 | Latitude (")<br>32° 29' 53.842" N | Longitude (")<br>104° 11' 14.124" W | Ground Elev.<br>3,211.20       | KB - GL (ft)<br>25.00 | Orig KB Elev (ft)<br>3,236.20 | Tubing Head Elevation (ft) |
| <b>Wellbores</b>                                    |                       |                                   |                                     |                                |                       |                               |                            |
| Wellbore Name<br>OH                                 | Parent Wellbore<br>OH | Property Number<br>065327-030     | Kick Off Depth (ftKB)               | Vertical Section Direction (*) |                       |                               |                            |
| Actual Deviation Survey<br>GYRO & MWD, Proposed? No |                       | Definitive?<br>Yes                | Proposed?<br>No                     | Proposed Deviation Survey      |                       |                               |                            |

## Deviation Survey

|                   |                           |                        |                    |                |                |
|-------------------|---------------------------|------------------------|--------------------|----------------|----------------|
| Date<br>7/17/2013 | Description<br>GYRO & MWD |                        |                    |                |                |
| MD Tie In (ftKB)  | TVD Tie In (ftKB)         | Inclination Tie In (") | Azimuth Tie In (") | NS Tie In (ft) | EW Tie In (ft) |

## Survey Data

| Date      | MD (ftKB) | Incl (") | Azm (") | TVD (ftKB) | VS (ft) | N/S (ft) | E/W (ft) | DLS<br>(" / 100ft) | Survey<br>Tool | Survey Company         |
|-----------|-----------|----------|---------|------------|---------|----------|----------|--------------------|----------------|------------------------|
| 7/17/2013 | 0.00      | 0.00     | 0.00    | 0.00       | 0.00    | 0.00     | 0.00     | 0.00               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 109.38    | 0.21     | 306.03  | 109.38     | -0.18   | 0.12     | -0.16    | 0.19               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 204.01    | 0.28     | 308.04  | 204.01     | -0.53   | 0.36     | -0.48    | 0.07               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 298.64    | 0.17     | 313.25  | 298.64     | -0.85   | 0.60     | -0.77    | 0.12               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 393.27    | 0.41     | 305.31  | 393.27     | -1.26   | 0.89     | -1.15    | 0.26               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 487.90    | 0.76     | 310.02  | 487.89     | -2.10   | 1.49     | -1.90    | 0.37               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 582.53    | 0.78     | 316.12  | 582.51     | -3.14   | 2.36     | -2.83    | 0.09               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 677.16    | 0.54     | 318.05  | 677.14     | -4.00   | 3.16     | -3.58    | 0.25               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 771.79    | 0.57     | 335.29  | 771.76     | -4.60   | 3.92     | -4.07    | 0.18               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 866.42    | 0.79     | 341.68  | 866.39     | -5.15   | 4.96     | -4.47    | 0.25               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 961.05    | 0.68     | 356.24  | 961.01     | -5.56   | 6.14     | -4.71    | 0.23               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 1,055.68  | 0.65     | 343.56  | 1,055.63   | -5.90   | 7.22     | -4.90    | 0.16               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 1,150.31  | 0.71     | 332.75  | 1,150.26   | -6.47   | 8.25     | -5.32    | 0.15               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 1,244.94  | 0.64     | 330.03  | 1,244.88   | -7.13   | 9.23     | -5.86    | 0.08               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 1,339.57  | 0.73     | 323.58  | 1,339.50   | -7.89   | 10.17    | -6.48    | 0.13               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 1,434.20  | 0.60     | 261.40  | 1,434.13   | -8.78   | 10.59    | -7.33    | 0.74               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 1,528.83  | 0.75     | 260.57  | 1,528.75   | -9.85   | 10.41    | -8.43    | 0.16               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 1,623.46  | 0.80     | 262.59  | 1,623.37   | -11.07  | 10.22    | -9.69    | 0.06               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 1,718.09  | 0.73     | 275.27  | 1,717.99   | -12.31  | 10.19    | -10.95   | 0.19               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 1,812.72  | 1.03     | 326.70  | 1,812.61   | -13.48  | 10.96    | -12.02   | 0.86               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 1,907.35  | 1.08     | 328.86  | 1,907.23   | -14.61  | 12.43    | -12.94   | 0.07               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 2,001.98  | 1.08     | 326.15  | 2,001.84   | -15.78  | 13.94    | -13.90   | 0.05               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 2,096.61  | 0.77     | 298.97  | 2,096.46   | -16.97  | 14.99    | -14.95   | 0.56               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 2,191.24  | 0.81     | 299.89  | 2,191.08   | -18.19  | 15.63    | -16.09   | 0.04               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 2,285.87  | 0.85     | 306.22  | 2,285.70   | -19.43  | 16.38    | -17.24   | 0.11               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 2,380.50  | 0.84     | 313.66  | 2,380.32   | -20.62  | 17.27    | -18.30   | 0.12               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 2,475.13  | 0.88     | 322.99  | 2,474.94   | -21.70  | 18.33    | -19.24   | 0.15               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 2,569.76  | 0.97     | 330.13  | 2,569.56   | -22.71  | 19.60    | -20.08   | 0.15               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 2,664.39  | 0.99     | 323.28  | 2,664.17   | -23.79  | 20.95    | -20.97   | 0.13               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 2,759.02  | 0.90     | 309.63  | 2,758.79   | -25.00  | 22.08    | -22.03   | 0.26               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 2,853.65  | 1.00     | 298.25  | 2,853.41   | -26.41  | 22.95    | -23.33   | 0.23               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 2,948.28  | 0.94     | 303.16  | 2,948.02   | -27.89  | 23.76    | -24.71   | 0.11               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 3,042.91  | 1.00     | 323.45  | 3,042.64   | -29.18  | 24.85    | -25.85   | 0.37               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 3,137.54  | 1.03     | 335.01  | 3,137.25   | -30.23  | 26.29    | -26.70   | 0.22               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 3,232.17  | 1.01     | 329.95  | 3,231.87   | -31.22  | 27.78    | -27.48   | 0.10               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 3,326.80  | 1.25     | 303.64  | 3,326.48   | -32.67  | 29.07    | -28.75   | 0.60               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 3,421.43  | 1.29     | 302.47  | 3,421.09   | -34.57  | 30.22    | -30.51   | 0.05               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 3,516.06  | 0.92     | 304.90  | 3,515.70   | -36.23  | 31.22    | -32.03   | 0.39               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 3,610.69  | 0.89     | 305.24  | 3,610.32   | -37.56  | 32.08    | -33.26   | 0.03               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 3,705.32  | 0.79     | 307.14  | 3,704.94   | -38.79  | 32.90    | -34.38   | 0.11               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 3,799.95  | 0.82     | 300.76  | 3,799.56   | -39.99  | 33.64    | -35.48   | 0.10               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 3,894.58  | 0.97     | 298.05  | 3,894.18   | -41.37  | 34.36    | -36.77   | 0.16               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 3,989.21  | 0.99     | 286.58  | 3,988.79   | -42.93  | 34.97    | -38.26   | 0.21               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 4,083.84  | 1.58     | 280.76  | 4,083.40   | -45.04  | 35.45    | -40.32   | 0.64               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 4,178.47  | 1.59     | 275.21  | 4,177.99   | -47.66  | 35.81    | -42.91   | 0.16               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 4,273.10  | 1.66     | 275.87  | 4,272.59   | -50.34  | 36.07    | -45.58   | 0.08               | GYRO           | VAUHGN ENERGY SERVICES |
| 7/17/2013 | 4,367.73  | 1.63     | 283.52  | 4,367.18   | -53.05  | 36.53    | -48.25   | 0.23               | GYRO           | VAUHGN ENERGY SERVICES |



## Directional Survey

|                                          |                       |                                   |                                     |                               |
|------------------------------------------|-----------------------|-----------------------------------|-------------------------------------|-------------------------------|
| District<br>PERMIAN BASIN                | County<br>EDDY        | Field Name<br>BURTON FLAT         | Project Group<br>DELAWARE BASIN     | State/Province<br>NM          |
| Surface Legal Location<br>SEC9 T21S R27E | API/UWI<br>3001541059 | Latitude (°)<br>32° 29' 53.842" N | Longitude (°)<br>104° 11' 14.124" W | Ground Elev. (ft)<br>3,211.20 |
|                                          |                       |                                   | KB - GL (ft)<br>25.00               | Orig KB Elev (ft)<br>3,236.20 |
|                                          |                       |                                   |                                     | Tubing Head Elevation (ft)    |

| Survey Data |           |          |         |            |          |          |          |               |             |                        |
|-------------|-----------|----------|---------|------------|----------|----------|----------|---------------|-------------|------------------------|
| Date        | MD (ftKB) | Incl (°) | Azm (°) | TVD (ftKB) | VS (ft)  | N/S (ft) | E/W (ft) | DLS (°/100ft) | Survey Tool | Survey Company         |
| 7/17/2013   | 4,462.36  | 1.28     | 285.01  | 4,461.78   | -55.44   | 37.11    | -50.58   | 0.37          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 4,556.99  | 1.29     | 285.89  | 4,556.38   | -57.54   | 37.68    | -52.63   | 0.02          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 4,651.62  | 1.38     | 291.75  | 4,650.99   | -59.71   | 38.39    | -54.71   | 0.17          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 4,746.25  | 1.35     | 287.41  | 4,745.59   | -61.91   | 39.15    | -56.83   | 0.11          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 4,840.88  | 1.70     | 276.76  | 4,840.19   | -64.42   | 39.65    | -59.29   | 0.47          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 4,935.51  | 1.64     | 277.03  | 4,934.78   | -67.18   | 39.98    | -62.03   | 0.06          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 5,030.14  | 1.49     | 292.32  | 5,029.37   | -69.72   | 40.61    | -64.51   | 0.47          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 5,124.77  | 1.41     | 296.22  | 5,123.97   | -72.03   | 41.59    | -66.69   | 0.13          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 5,219.40  | 1.56     | 304.18  | 5,218.57   | -74.29   | 42.83    | -68.80   | 0.27          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 5,314.03  | 1.52     | 296.80  | 5,313.17   | -76.64   | 44.12    | -70.99   | 0.21          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 5,408.66  | 1.49     | 293.46  | 5,407.76   | -79.02   | 45.18    | -73.24   | 0.10          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 5,503.29  | 1.86     | 288.16  | 5,502.35   | -81.72   | 46.15    | -75.83   | 0.42          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 5,597.92  | 1.52     | 293.65  | 5,596.94   | -84.45   | 47.13    | -78.44   | 0.40          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 5,692.55  | 0.90     | 324.96  | 5,691.55   | -86.17   | 48.24    | -80.01   | 0.93          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 5,787.00  | 0.37     | 23.29   | 5,786.00   | -86.60   | 49.13    | -80.32   | 0.82          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 5,813.00  | 0.46     | 49.94   | 5,811.99   | -86.51   | 49.27    | -80.20   | 0.81          | GYRO        | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 5,873.00  | 0.79     | 80.16   | 5,871.99   | -85.95   | 49.50    | -79.61   | 0.76          | MWD         | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 5,936.00  | 3.61     | 117.25  | 5,934.94   | -83.66   | 48.66    | -77.42   | 4.79          | MWD         | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 5,967.00  | 7.91     | 119.36  | 5,965.78   | -80.75   | 47.17    | -74.69   | 13.89         | MWD         | VAUHGN ENERGY SERVICES |
| 7/17/2013   | 5,998.00  | 12.05    | 119.71  | 5,996.30   | -75.74   | 44.52    | -70.02   | 13.36         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,030.00  | 16.71    | 120.76  | 6,027.29   | -68.37   | 40.51    | -63.16   | 14.58         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,062.00  | 21.37    | 123.05  | 6,057.53   | -58.82   | 34.97    | -54.32   | 14.75         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,093.00  | 25.06    | 124.10  | 6,086.02   | -47.77   | 28.21    | -44.14   | 11.98         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,125.00  | 27.87    | 125.16  | 6,114.66   | -34.99   | 20.10    | -32.42   | 8.90          | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,156.00  | 30.60    | 126.39  | 6,141.71   | -21.56   | 11.25    | -20.14   | 9.02          | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,188.00  | 33.33    | 128.32  | 6,168.86   | -6.75    | 0.96     | -6.68    | 9.11          | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,220.00  | 36.32    | 130.96  | 6,195.12   | 8.85     | -10.71   | 7.38     | 10.46         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,251.00  | 39.57    | 133.50  | 6,219.57   | 24.66    | -23.53   | 21.48    | 11.63         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,281.00  | 42.74    | 134.13  | 6,242.15   | 40.74    | -37.19   | 35.72    | 10.66         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,313.00  | 45.37    | 134.83  | 6,265.15   | 58.71    | -52.79   | 51.59    | 8.36          | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,344.00  | 48.72    | 135.35  | 6,286.27   | 76.88    | -68.85   | 67.60    | 10.88         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,376.00  | 53.02    | 135.35  | 6,306.46   | 96.70    | -86.51   | 85.05    | 13.44         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,408.00  | 57.51    | 135.00  | 6,324.69   | 117.75   | -105.15  | 103.58   | 14.06         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,439.00  | 61.47    | 134.47  | 6,340.42   | 139.24   | -123.95  | 122.55   | 12.86         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,470.00  | 65.16    | 134.12  | 6,354.34   | 161.66   | -143.29  | 142.37   | 11.95         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,502.00  | 68.76    | 133.77  | 6,366.86   | 185.60   | -163.72  | 163.57   | 11.29         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,533.00  | 72.19    | 133.77  | 6,377.22   | 209.41   | -183.93  | 184.67   | 11.06         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,565.00  | 75.45    | 133.77  | 6,386.14   | 234.45   | -205.18  | 206.86   | 10.19         | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,597.00  | 78.61    | 133.42  | 6,393.32   | 259.91   | -226.68  | 229.44   | 9.93          | MWD         | VAUHGN ENERGY SERVICES |
| 7/18/2013   | 6,628.00  | 81.95    | 132.72  | 6,398.55   | 285.02   | -247.54  | 251.76   | 11.00         | MWD         | VAUHGN ENERGY SERVICES |
| 7/19/2013   | 6,655.00  | 85.21    | 132.72  | 6,401.57   | 307.16   | -265.74  | 271.47   | 12.07         | MWD         | VAUHGN ENERGY SERVICES |
| 7/19/2013   | 6,686.00  | 87.49    | 131.66  | 6,403.55   | 332.86   | -286.52  | 294.39   | 8.11          | MWD         | VAUHGN ENERGY SERVICES |
| 7/19/2013   | 6,778.00  | 89.25    | 130.96  | 6,406.16   | 410.01   | -347.22  | 363.46   | 2.06          | MWD         | VAUHGN ENERGY SERVICES |
| 7/19/2013   | 6,869.00  | 89.60    | 128.85  | 6,407.08   | 487.54   | -405.60  | 433.26   | 2.35          | MWD         | VAUHGN ENERGY SERVICES |
| 7/19/2013   | 6,930.00  | 89.16    | 126.92  | 6,407.74   | 540.61   | -443.05  | 481.40   | 3.24          | MWD         | VAUHGN ENERGY SERVICES |
| 7/19/2013   | 7,021.00  | 90.13    | 124.45  | 6,408.30   | 621.44   | -496.13  | 555.31   | 2.92          | MWD         | VAUHGN ENERGY SERVICES |
| 7/19/2013   | 7,111.00  | 89.87    | 121.47  | 6,408.30   | 703.25   | -545.09  | 630.81   | 3.32          | MWD         | VAUHGN ENERGY SERVICES |
| 7/19/2013   | 7,201.00  | 89.69    | 117.60  | 6,408.65   | 787.15   | -589.44  | 709.10   | 4.30          | MWD         | VAUHGN ENERGY SERVICES |
| 7/19/2013   | 7,292.00  | 90.57    | 114.61  | 6,408.44   | 873.80   | -629.48  | 790.81   | 3.43          | MWD         | VAUHGN ENERGY SERVICES |
| 7/19/2013   | 7,386.00  | 90.75    | 111.97  | 6,407.36   | 964.61   | -666.64  | 877.14   | 2.81          | MWD         | VAUHGN ENERGY SERVICES |
| 7/19/2013   | 7,481.00  | 91.45    | 108.46  | 6,405.53   | 1,057.54 | -699.46  | 966.25   | 3.77          | MWD         | VAUHGN ENERGY SERVICES |
| 7/20/2013   | 7,575.00  | 91.10    | 105.82  | 6,403.44   | 1,150.41 | -727.15  | 1,056.05 | 2.83          | MWD         | VAUHGN ENERGY SERVICES |
| 7/20/2013   | 7,669.00  | 90.66    | 103.01  | 6,402.00   | 1,243.86 | -750.54  | 1,147.07 | 3.03          | MWD         | VAUHGN ENERGY SERVICES |
| 7/20/2013   | 7,764.00  | 89.96    | 100.37  | 6,401.48   | 1,338.69 | -769.79  | 1,240.09 | 2.87          | MWD         | VAUHGN ENERGY SERVICES |
| 7/20/2013   | 7,859.00  | 89.16    | 97.56   | 6,402.21   | 1,433.67 | -784.59  | 1,333.91 | 3.08          | MWD         | VAUHGN ENERGY SERVICES |



## CERF 10 FED COM 4H

WEST UNRESTRICTED

## Directional Survey

|                                          |                       |                                   |                                     |                               |
|------------------------------------------|-----------------------|-----------------------------------|-------------------------------------|-------------------------------|
| District<br>PERMIAN BASIN                | County<br>EDDY        | Field Name<br>BURTON FLAT         | Project Group<br>DELAWARE BASIN     | State/Province<br>NM          |
| Surface Legal Location<br>SEC9 T21S R27E | API/UWI<br>3001541059 | Latitude (°)<br>32° 29' 53.842" N | Longitude (°)<br>104° 11' 14.124" W | Ground Elev. (ft)<br>3,211.20 |
|                                          |                       |                                   | KB - GL (ft)<br>25.00               | Orig KB Elev (ft)<br>3,236.20 |
|                                          |                       |                                   |                                     | Tubing Head Elevation (ft)    |

## Survey Data

| Date      | MD (ftKB) | Incl (°) | Azm (°) | TVD (ftKB) | VS (ft)  | N/S (ft) | E/W (ft) | DLS<br>(°/100ft) | Survey<br>Tool | Survey Company         |
|-----------|-----------|----------|---------|------------|----------|----------|----------|------------------|----------------|------------------------|
| 7/20/2013 | 7,953.00  | 89.16    | 94.57   | 6,403.59   | 1,527.57 | -794.52  | 1,427.37 | 3.18             | MWD            | VAUHGN ENERGY SERVICES |
| 7/20/2013 | 8,048.00  | 89.52    | 91.06   | 6,404.68   | 1,622.11 | -799.19  | 1,522.23 | 3.71             | MWD            | VAUHGN ENERGY SERVICES |
| 7/20/2013 | 8,142.00  | 90.57    | 89.47   | 6,404.61   | 1,715.17 | -799.62  | 1,616.23 | 2.03             | MWD            | VAUHGN ENERGY SERVICES |
| 7/20/2013 | 8,237.00  | 91.54    | 90.00   | 6,402.86   | 1,809.08 | -799.18  | 1,711.21 | 1.16             | MWD            | VAUHGN ENERGY SERVICES |
| 7/20/2013 | 8,332.00  | 90.13    | 89.47   | 6,401.48   | 1,903.00 | -798.74  | 1,806.19 | 1.59             | MWD            | VAUHGN ENERGY SERVICES |
| 7/20/2013 | 8,427.00  | 88.64    | 89.47   | 6,402.50   | 1,996.86 | -797.86  | 1,901.18 | 1.57             | MWD            | VAUHGN ENERGY SERVICES |
| 7/20/2013 | 8,522.00  | 89.43    | 89.83   | 6,404.10   | 2,090.75 | -797.28  | 1,996.16 | 0.91             | MWD            | VAUHGN ENERGY SERVICES |
| 7/20/2013 | 8,616.00  | 90.40    | 90.53   | 6,404.24   | 2,183.79 | -797.58  | 2,090.16 | 1.27             | MWD            | VAUHGN ENERGY SERVICES |
| 7/20/2013 | 8,711.00  | 88.90    | 89.12   | 6,404.82   | 2,277.74 | -797.29  | 2,185.16 | 2.17             | MWD            | VAUHGN ENERGY SERVICES |
| 7/20/2013 | 8,806.00  | 89.96    | 89.83   | 6,405.76   | 2,371.60 | -796.42  | 2,280.14 | 1.34             | MWD            | VAUHGN ENERGY SERVICES |
| 7/20/2013 | 8,901.00  | 88.20    | 89.65   | 6,407.29   | 2,465.51 | -795.99  | 2,375.13 | 1.86             | MWD            | VAUHGN ENERGY SERVICES |
| 7/20/2013 | 8,996.00  | 86.70    | 89.65   | 6,411.51   | 2,559.32 | -795.41  | 2,470.03 | 1.58             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 9,090.00  | 86.61    | 89.47   | 6,417.00   | 2,652.06 | -794.69  | 2,563.87 | 0.21             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 9,185.00  | 87.41    | 90.18   | 6,421.95   | 2,745.88 | -794.40  | 2,658.73 | 1.13             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 9,280.00  | 87.05    | 88.77   | 6,426.54   | 2,839.64 | -793.53  | 2,753.62 | 1.53             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 9,373.00  | 87.85    | 88.95   | 6,430.68   | 2,931.27 | -791.68  | 2,846.51 | 0.88             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 9,467.00  | 89.08    | 88.95   | 6,433.20   | 3,023.98 | -789.96  | 2,940.45 | 1.31             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 9,560.00  | 89.16    | 89.30   | 6,434.63   | 3,115.76 | -788.54  | 3,033.43 | 0.39             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 9,655.00  | 86.61    | 87.72   | 6,438.13   | 3,209.29 | -786.07  | 3,128.33 | 3.16             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 9,749.00  | 87.05    | 87.89   | 6,443.33   | 3,301.56 | -782.48  | 3,222.11 | 0.50             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 9,844.00  | 87.93    | 88.24   | 6,447.49   | 3,394.95 | -779.27  | 3,316.97 | 1.00             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 9,938.00  | 85.82    | 87.72   | 6,452.62   | 3,487.27 | -775.96  | 3,410.76 | 2.31             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 10,034.00 | 86.70    | 88.24   | 6,458.88   | 3,581.50 | -772.59  | 3,506.50 | 1.06             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 10,129.00 | 87.23    | 88.60   | 6,463.91   | 3,674.95 | -769.97  | 3,601.33 | 0.67             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 10,223.00 | 86.88    | 88.42   | 6,468.74   | 3,767.44 | -767.53  | 3,695.17 | 0.42             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 10,318.00 | 87.67    | 88.77   | 6,473.26   | 3,860.97 | -765.20  | 3,790.03 | 0.91             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 10,411.00 | 88.20    | 89.30   | 6,476.61   | 3,952.68 | -763.64  | 3,882.96 | 0.81             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 10,505.00 | 87.23    | 88.42   | 6,480.35   | 4,045.32 | -761.77  | 3,976.86 | 1.39             | MWD            | VAUHGN ENERGY SERVICES |
| 7/21/2013 | 10,601.00 | 87.58    | 88.60   | 6,484.70   | 4,139.81 | -759.28  | 4,072.73 | 0.41             | MWD            | VAUHGN ENERGY SERVICES |
| 7/22/2013 | 10,696.00 | 87.85    | 89.12   | 6,488.49   | 4,233.44 | -757.39  | 4,167.64 | 0.62             | MWD            | VAUHGN ENERGY SERVICES |
| 7/22/2013 | 10,790.00 | 84.50    | 89.12   | 6,494.76   | 4,326.00 | -755.95  | 4,261.40 | 3.56             | MWD            | VAUHGN ENERGY SERVICES |
| 7/22/2013 | 10,885.00 | 85.12    | 89.65   | 6,503.35   | 4,419.46 | -754.93  | 4,356.01 | 0.86             | MWD            | VAUHGN ENERGY SERVICES |
| 7/22/2013 | 10,980.00 | 86.17    | 90.53   | 6,510.57   | 4,513.20 | -755.08  | 4,450.73 | 1.44             | MWD            | VAUHGN ENERGY SERVICES |
| 7/22/2013 | 11,074.00 | 87.58    | 91.41   | 6,515.69   | 4,606.28 | -756.67  | 4,544.58 | 1.77             | MWD            | VAUHGN ENERGY SERVICES |
| 7/22/2013 | 11,168.00 | 86.79    | 91.76   | 6,520.31   | 4,699.51 | -759.27  | 4,638.43 | 0.92             | MWD            | VAUHGN ENERGY SERVICES |
| 7/22/2013 | 11,263.00 | 88.64    | 92.46   | 6,524.09   | 4,793.87 | -762.76  | 4,733.28 | 2.08             | MWD            | VAUHGN ENERGY SERVICES |
| 7/22/2013 | 11,358.00 | 87.05    | 92.11   | 6,527.67   | 4,888.27 | -766.55  | 4,828.14 | 1.71             | MWD            | VAUHGN ENERGY SERVICES |
| 7/23/2013 | 11,453.00 | 86.53    | 91.58   | 6,532.99   | 4,982.51 | -769.60  | 4,922.94 | 0.78             | MWD            | VAUHGN ENERGY SERVICES |
| 7/23/2013 | 11,548.00 | 86.70    | 91.06   | 6,538.59   | 5,076.63 | -771.79  | 5,017.75 | 0.57             | MWD            | VAUHGN ENERGY SERVICES |
| 7/23/2013 | 11,643.00 | 87.49    | 90.88   | 6,543.41   | 5,170.72 | -773.39  | 5,112.61 | 0.85             | MWD            | VAUHGN ENERGY SERVICES |
| 7/23/2013 | 11,743.00 | 86.00    | 89.12   | 6,549.09   | 5,269.50 | -773.39  | 5,212.44 | 2.30             | MWD            | VAUHGN ENERGY SERVICES |
| 7/23/2013 | 11,797.00 | 86.00    | 89.12   | 6,552.85   | 5,322.67 | -772.57  | 5,266.30 | 0.00             | BIT            | VAUHGN ENERGY SERVICES |



October 1, 2013

Devon Energy Corp  
Well: Cerf 10 Fed 4H  
County/Parish: Eddy County, NM

30-015-41059

Leam MWD: (OH) from 5,873' MD to 11,734' MD  
Projection: 11,797'

This Borehole Survey taken between 07/17/2013 and 07/23/2013 has been conducted and calculated according to the highest professional standards and complies with all known State and federal requirements.

Reviewed and Approved:

Date: October 1, 2013





## Survey Certification Form

State of NM  
Eddy County

I, Randy W. Rakowitz, certify that; I am employed by LEAM Drilling Systems LLC, that I did on the day(s) of July 17, 2013 through July 23, 2013, conduct or supervise the taking of MWD Survey from a depth of 5,873' to 11,797' MD; that the data is true, correct, complete and within the limitations of the tools as set forth by LEAM Drilling Systems LLC, that I am authorized and qualified to make this report; that this survey was conducted at the request of Devon Energy Corp for the Cerf 10 Fed 4H in Eddy County, NM; and that I reviewed this report and find that it conforms to the principals and procedures as set forth by LEAM Drilling Systems LLC.

A handwritten signature in black ink, appearing to read 'Randy W. Rakowitz', written over a horizontal line.

Randy W. Rakowitz  
MWD Operations Coordinator

# Leam Drilling Systems LLC Survey Report

|                              |                                              |
|------------------------------|----------------------------------------------|
| Company:                     | DEVON ENERGY                                 |
| Project:                     | Eddy County, NM (NAD-83)                     |
| Site:                        | Cert 10 Fed                                  |
| Well:                        | 4H                                           |
| Wellbore:                    | OH                                           |
| Design:                      | OH                                           |
| Local Co-ordinate Reference: | Well 4H                                      |
| TVD Reference:               | GE 3212' + KB 25' @ 3237.00usft (Cactus 123) |
| MD Reference:                | GE 3212' + KB 25' @ 3237.00usft (Cactus 123) |
| North Reference:             | Grid                                         |
| Survey Calculation Method:   | Minimum Curvature                            |
| Database:                    | EDM 5000.1 Single User Db                    |

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

|                       |                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------|
| Site:                 | Cert 10 Fed                                                                                                         |
| Site Position:        | Northing: 545,089.31 usft<br>Latitude: 32° 29' 54.337 N<br>Easting: 586,373.32 usft<br>Longitude: 104° 11' 14.119 W |
| From:                 | Map                                                                                                                 |
| Position Uncertainty: | 0.00 usft                                                                                                           |
| Slot Radius:          | 13-3/16"                                                                                                            |
| Grid Convergence:     | 0.08°                                                                                                               |

|                       |                                                                                                                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Well:                 | 4H                                                                                                                                                        |
| Well Position:        | +N-S: 0.00 usft<br>Northing: 545,039.31 usft<br>Latitude: 32° 29' 53.842 N<br>+E-W: 0.00 usft<br>Easting: 586,372.92 usft<br>Longitude: 104° 11' 14.124 W |
| Position Uncertainty: | 0.00 usft                                                                                                                                                 |
| Wellhead Elevation:   | 3,212.00 usft                                                                                                                                             |
| Ground Level:         | 3,212.00 usft                                                                                                                                             |

|            |                                                                                                                       |
|------------|-----------------------------------------------------------------------------------------------------------------------|
| Wellbore:  | OH                                                                                                                    |
| Magnetics: | Model Name: IGRF2010<br>Sample Date: 07/03/13<br>Declination: 7.64<br>Dip Angle: 60.28<br>Field Strength: 48.510 (nT) |

|                   |                                                                        |
|-------------------|------------------------------------------------------------------------|
| Design:           | OH                                                                     |
| Audit Notes:      |                                                                        |
| Version:          | 1.0                                                                    |
| Phase:            | ACTUAL                                                                 |
| Tie On Depth:     |                                                                        |
| Vertical Section: | Depth From (TVD) (usft)<br>+N-S (usft)<br>+E-W (usft)<br>Direction (°) |
| Vertical Section: | 0.00<br>0.00<br>0.00<br>99.21                                          |

|                |                                                                              |
|----------------|------------------------------------------------------------------------------|
| Survey Program | From (usft)<br>To (usft)<br>Date: 09/06/13                                   |
| Tool Name      | NS-GYRO-MS                                                                   |
| Description    | LEAM MWD<br>North sensing gyrocompassing m/s<br>MWD - Standard<br>Projection |

|        |                       |                         |                          |                          |             |             |                         |                                  |                        |                       |
|--------|-----------------------|-------------------------|--------------------------|--------------------------|-------------|-------------|-------------------------|----------------------------------|------------------------|-----------------------|
| 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) |
|        | 109.38                | 5.813.00 Survey #2 (OH) | 11,734.00 Survey #3 (OH) | 11,797.00 Survey #4 (OH) | Project     | NS-GYRO-MS  | LEAM MWD                | North sensing gyrocompassing m/s | MWD - Standard         | Projection            |
|        | 0.00                  | 0.00                    | 0.00                     | 0.00                     | 0.00        | 0.00        | 0.00                    | 0.00                             | 0.00                   | 0.00                  |
|        | 109.38                | 0.21                    | 306.03                   | 109.38                   | 0.12        | -0.16       | -0.18                   | 0.19                             | 0.19                   | 0.00                  |
|        | 204.01                | 0.28                    | 308.04                   | 204.01                   | 0.36        | -0.48       | -0.54                   | 0.07                             | 0.07                   | 2.12                  |
|        | 298.64                | 0.17                    | 313.25                   | 298.64                   | 0.60        | -0.77       | -0.86                   | 0.12                             | -0.12                  | 5.51                  |
|        | 393.27                | 0.41                    | 305.31                   | 393.27                   | 0.89        | -1.15       | -1.28                   | 0.26                             | 0.25                   | -8.39                 |
|        | 487.90                | 0.76                    | 310.02                   | 487.89                   | 1.49        | -1.90       | -2.12                   | 0.37                             | 0.37                   | 4.98                  |
|        | 582.53                | 0.78                    | 316.12                   | 582.51                   | 2.36        | -2.83       | -3.17                   | 0.09                             | 0.02                   | 6.45                  |
|        | 677.16                | 0.54                    | 318.05                   | 677.14                   | 3.16        | -3.58       | -4.03                   | 0.25                             | -0.25                  | 2.04                  |
|        | 771.79                | 0.57                    | 335.29                   | 771.76                   | 3.92        | -4.07       | -4.64                   | 0.18                             | 0.03                   | 18.22                 |

# Leam Drilling Systems LLC

## Survey Report

|           |                          |                              |                                              |
|-----------|--------------------------|------------------------------|----------------------------------------------|
| Company:  | DEVON ENERGY             | Local Co-ordinate Reference: | Well 4H                                      |
| Project:  | Eddy County, NM (NAD-83) | TVD Reference:               | GE 3212' + KB 25' @ 3237.00usft (Cactus 123) |
| Site:     | Cerf 10 Fed              | MD Reference:                | GE 3212' + KB 25' @ 3237.00usft (Cactus 123) |
| Well:     | 4H                       | North Reference:             | Grid                                         |
| Wellbore: | OH                       | Survey Calculation Method:   | Minimum Curvature                            |
| Design:   | OH                       | Database:                    | 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) |
| 866.42                | 0.79            | 341.68      | 866.39                | 4.96         | -4.47        | -5.21                   | 0.25                    | 0.23                   | 6.75                  |
| 961.05                | 0.68            | 356.24      | 961.01                | 6.14         | -4.71        | -5.64                   | 0.23                    | -0.12                  | 15.39                 |
| 1,055.68              | 0.65            | 343.56      | 1,055.63              | 7.22         | -4.90        | -5.99                   | 0.16                    | -0.03                  | -13.40                |
| 1,150.31              | 0.71            | 332.75      | 1,150.26              | 8.25         | -5.32        | -6.58                   | 0.15                    | 0.06                   | -11.42                |
| 1,244.94              | 0.64            | 330.03      | 1,244.88              | 9.23         | -5.86        | -7.26                   | 0.08                    | -0.07                  | -2.87                 |
| 1,339.57              | 0.73            | 323.58      | 1,339.50              | 10.17        | -6.48        | -8.02                   | 0.13                    | 0.10                   | -6.82                 |
| 1,434.20              | 0.60            | 261.40      | 1,434.13              | 10.59        | -7.33        | -8.93                   | 0.74                    | -0.14                  | -65.71                |
| 1,528.83              | 0.75            | 260.57      | 1,528.75              | 10.41        | -8.43        | -9.98                   | 0.16                    | 0.16                   | -0.88                 |
| 1,623.46              | 0.80            | 262.59      | 1,623.37              | 10.22        | -9.69        | -11.20                  | 0.06                    | 0.05                   | 2.13                  |
| 1,718.09              | 0.73            | 275.27      | 1,717.99              | 10.19        | -10.95       | -12.44                  | 0.19                    | -0.07                  | 13.40                 |
| 1,812.72              | 1.03            | 326.70      | 1,812.61              | 10.96        | -12.02       | -13.61                  | 0.86                    | 0.32                   | 54.35                 |
| 1,907.35              | 1.08            | 328.86      | 1,907.23              | 12.43        | -12.94       | -14.77                  | 0.07                    | 0.05                   | 2.28                  |
| 2,001.98              | 1.08            | 326.15      | 2,001.84              | 13.94        | -13.90       | -15.95                  | 0.05                    | 0.00                   | -2.86                 |
| 2,096.61              | 0.77            | 298.97      | 2,096.46              | 14.99        | -14.95       | -17.16                  | 0.56                    | -0.33                  | -28.72                |
| 2,191.24              | 0.81            | 299.89      | 2,191.08              | 15.63        | -16.09       | -18.38                  | 0.04                    | 0.04                   | 0.97                  |
| 2,285.87              | 0.85            | 306.22      | 2,285.70              | 16.38        | -17.24       | -19.64                  | 0.11                    | 0.04                   | 6.69                  |
| 2,380.50              | 0.84            | 313.66      | 2,380.32              | 17.27        | -18.30       | -20.83                  | 0.12                    | -0.01                  | 7.86                  |
| 2,475.13              | 0.88            | 322.99      | 2,474.94              | 18.33        | -19.24       | -21.93                  | 0.15                    | 0.04                   | 9.86                  |
| 2,569.76              | 0.97            | 330.13      | 2,569.56              | 19.60        | -20.08       | -22.96                  | 0.15                    | 0.10                   | 7.55                  |
| 2,664.39              | 0.99            | 323.28      | 2,664.17              | 20.95        | -20.97       | -24.05                  | 0.13                    | 0.02                   | -7.24                 |
| 2,759.02              | 0.90            | 309.63      | 2,758.79              | 22.08        | -22.03       | -25.28                  | 0.26                    | -0.10                  | -14.42                |
| 2,853.65              | 1.00            | 298.25      | 2,853.41              | 22.95        | -23.33       | -26.70                  | 0.23                    | 0.11                   | -12.03                |
| 2,948.28              | 0.94            | 303.16      | 2,948.02              | 23.76        | -24.71       | -28.19                  | 0.11                    | -0.06                  | 5.19                  |
| 3,042.91              | 1.00            | 323.45      | 3,042.64              | 24.85        | -25.85       | -29.49                  | 0.37                    | 0.06                   | 21.44                 |
| 3,137.54              | 1.03            | 335.01      | 3,137.26              | 26.29        | -26.70       | -30.56                  | 0.22                    | 0.03                   | 12.22                 |
| 3,232.17              | 1.01            | 329.95      | 3,231.87              | 27.78        | -27.48       | -31.57                  | 0.10                    | -0.02                  | -5.35                 |
| 3,326.80              | 1.25            | 303.64      | 3,326.48              | 29.07        | -28.75       | -33.03                  | 0.60                    | 0.25                   | -27.80                |
| 3,421.43              | 1.29            | 302.47      | 3,421.09              | 30.22        | -30.51       | -34.95                  | 0.05                    | 0.04                   | -1.24                 |
| 3,516.06              | 0.92            | 304.90      | 3,515.70              | 31.22        | -32.03       | -36.62                  | 0.39                    | -0.39                  | 2.57                  |
| 3,610.69              | 0.89            | 305.24      | 3,610.32              | 32.08        | -33.26       | -37.96                  | 0.03                    | -0.03                  | 0.36                  |
| 3,705.32              | 0.79            | 307.14      | 3,704.94              | 32.90        | -34.38       | -39.20                  | 0.11                    | -0.11                  | 2.01                  |
| 3,799.95              | 0.82            | 300.76      | 3,799.56              | 33.64        | -35.48       | -40.40                  | 0.10                    | 0.03                   | -6.74                 |
| 3,894.58              | 0.97            | 298.05      | 3,894.18              | 34.36        | -36.77       | -41.79                  | 0.16                    | 0.16                   | -2.86                 |
| 3,989.21              | 0.99            | 286.58      | 3,988.79              | 34.97        | -38.26       | -43.36                  | 0.21                    | 0.02                   | -12.12                |
| 4,083.84              | 1.58            | 280.76      | 4,083.40              | 35.45        | -40.32       | -45.48                  | 0.64                    | 0.62                   | -6.15                 |
| 4,178.47              | 1.59            | 275.21      | 4,177.99              | 35.81        | -42.91       | -48.09                  | 0.16                    | 0.01                   | -5.86                 |
| 4,273.10              | 1.66            | 275.87      | 4,272.59              | 36.07        | -45.58       | -50.77                  | 0.08                    | 0.07                   | 0.70                  |
| 4,367.73              | 1.63            | 283.52      | 4,367.18              | 36.53        | -48.25       | -53.48                  | 0.23                    | -0.03                  | 8.08                  |
| 4,462.36              | 1.28            | 285.01      | 4,461.78              | 37.11        | -50.58       | -55.87                  | 0.37                    | -0.37                  | 1.57                  |
| 4,556.99              | 1.29            | 285.89      | 4,556.38              | 37.68        | -52.63       | -57.98                  | 0.02                    | 0.01                   | 0.93                  |
| 4,651.62              | 1.38            | 291.75      | 4,650.99              | 38.39        | -54.71       | -60.15                  | 0.17                    | 0.10                   | 6.19                  |
| 4,746.25              | 1.35            | 287.41      | 4,745.59              | 39.15        | -56.83       | -62.37                  | 0.11                    | -0.03                  | -4.59                 |
| 4,840.88              | 1.70            | 276.76      | 4,840.19              | 39.65        | -59.29       | -64.87                  | 0.47                    | 0.37                   | -11.25                |

# Leam Drilling Systems LLC

## Survey Report

|           |                          |                              |                                              |
|-----------|--------------------------|------------------------------|----------------------------------------------|
| Company:  | DEVON ENERGY             | Local Co-ordinate Reference: | Well 4H                                      |
| Project:  | Eddy County, NM (NAD-83) | TVD Reference:               | GE 3212' + KB 25' @ 3237.00usft (Cactus 123) |
| Site:     | Cerf 10 Fed              | MD Reference:                | GE 3212' + KB 25' @ 3237.00usft (Cactus 123) |
| Well:     | 4H                       | North Reference:             | Grid                                         |
| Wellbore: | OH                       | Survey Calculation Method:   | Minimum Curvature                            |
| Design:   | OH                       | Database:                    | 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) |  |
| 4,935.51              | 1.64            | 277.03      | 4,934.78              | 39.98        | -62.03       | -67.63                  | 0.06                    | -0.06                  | 0.29                  |  |
| 5,030.14              | 1.49            | 292.32      | 5,029.37              | 40.61        | -64.51       | -70.18                  | 0.47                    | -0.16                  | 16.16                 |  |
| 5,124.77              | 1.41            | 296.22      | 5,123.97              | 41.59        | -66.69       | -72.49                  | 0.13                    | -0.08                  | 4.12                  |  |
| 5,219.40              | 1.56            | 304.18      | 5,218.57              | 42.83        | -68.80       | -74.77                  | 0.27                    | 0.16                   | 8.41                  |  |
| 5,314.03              | 1.52            | 296.80      | 5,313.17              | 44.12        | -70.99       | -77.14                  | 0.21                    | -0.04                  | -7.80                 |  |
| 5,408.66              | 1.49            | 293.46      | 5,407.76              | 45.18        | -73.24       | -79.52                  | 0.10                    | -0.03                  | -3.53                 |  |
| 5,503.29              | 1.86            | 288.16      | 5,502.35              | 46.15        | -75.83       | -82.23                  | 0.42                    | 0.39                   | -5.60                 |  |
| 5,597.92              | 1.52            | 293.65      | 5,596.94              | 47.13        | -78.44       | -84.97                  | 0.40                    | -0.36                  | 5.80                  |  |
| 5,692.55              | 0.90            | 324.96      | 5,691.55              | 48.24        | -80.01       | -86.70                  | 0.93                    | -0.66                  | 33.09                 |  |
| 5,787.00              | 0.37            | 23.29       | 5,786.00              | 49.13        | -80.32       | -87.14                  | 0.82                    | -0.56                  | 61.76                 |  |
| 5,813.00              | 0.46            | 49.94       | 5,811.99              | 49.27        | -80.20       | -87.06                  | 0.81                    | 0.35                   | 102.50                |  |
| 5,873.00              | 0.79            | 80.16       | 5,871.99              | 49.50        | -79.61       | -86.51                  | 0.76                    | 0.55                   | 50.37                 |  |
| 5,936.00              | 3.61            | 117.25      | 5,934.94              | 48.66        | -77.42       | -84.21                  | 4.79                    | 4.48                   | 58.87                 |  |
| 5,967.00              | 7.91            | 119.36      | 5,965.78              | 47.17        | -74.69       | -81.28                  | 13.89                   | 13.87                  | 6.81                  |  |
| 5,998.00              | 12.05           | 119.71      | 5,996.30              | 44.52        | -70.02       | -76.24                  | 13.36                   | 13.35                  | 1.13                  |  |
| 6,030.00              | 16.71           | 120.76      | 6,027.29              | 40.51        | -63.16       | -68.83                  | 14.58                   | 14.56                  | 3.28                  |  |
| 6,062.00              | 21.37           | 123.05      | 6,057.53              | 34.97        | -54.32       | -59.21                  | 14.75                   | 14.56                  | 7.16                  |  |
| 6,093.00              | 25.06           | 124.10      | 6,086.02              | 28.21        | -44.14       | -48.09                  | 11.98                   | 11.90                  | 3.39                  |  |
| 6,125.00              | 27.87           | 125.16      | 6,114.66              | 20.10        | -32.42       | -35.21                  | 8.90                    | 8.78                   | 3.31                  |  |
| 6,156.00              | 30.60           | 126.39      | 6,141.71              | 11.25        | -20.14       | -21.68                  | 9.02                    | 8.81                   | 3.97                  |  |
| 6,188.00              | 33.33           | 128.32      | 6,168.86              | 0.96         | -6.68        | -6.75                   | 9.11                    | 8.53                   | 6.03                  |  |
| 6,220.00              | 36.32           | 130.96      | 6,195.12              | -10.71       | 7.38         | 9.00                    | 10.46                   | 9.34                   | 8.25                  |  |
| 6,251.00              | 39.57           | 133.24      | 6,219.57              | -23.49       | 21.51        | 24.99                   | 11.42                   | 10.48                  | 7.35                  |  |
| 6,281.00              | 42.74           | 134.12      | 6,242.15              | -37.13       | 35.78        | 41.26                   | 10.74                   | 10.57                  | 2.93                  |  |
| 6,313.00              | 45.37           | 134.83      | 6,265.15              | -52.72       | 51.65        | 59.42                   | 8.36                    | 8.22                   | 2.22                  |  |
| 6,344.00              | 48.72           | 135.35      | 6,286.27              | -68.79       | 67.67        | 77.80                   | 10.88                   | 10.81                  | 1.68                  |  |
| 6,376.00              | 53.02           | 135.35      | 6,306.46              | -86.44       | 85.11        | 97.84                   | 13.44                   | 13.44                  | 0.00                  |  |
| 6,408.00              | 57.51           | 135.00      | 6,324.69              | -105.09      | 103.64       | 119.12                  | 14.06                   | 14.03                  | -1.09                 |  |
| 6,439.00              | 61.47           | 134.47      | 6,340.42              | -123.88      | 122.61       | 140.86                  | 12.86                   | 12.77                  | -1.71                 |  |
| 6,470.00              | 65.16           | 134.12      | 6,354.34              | -143.22      | 142.44       | 163.52                  | 11.95                   | 11.90                  | -1.13                 |  |
| 6,502.00              | 68.76           | 133.77      | 6,366.86              | -163.65      | 163.64       | 187.72                  | 11.29                   | 11.25                  | -1.09                 |  |
| 6,533.00              | 72.19           | 133.77      | 6,377.22              | -183.86      | 184.73       | 211.77                  | 11.06                   | 11.06                  | 0.00                  |  |
| 6,565.00              | 75.45           | 133.77      | 6,386.14              | -205.12      | 206.92       | 237.08                  | 10.19                   | 10.19                  | 0.00                  |  |
| 6,597.00              | 78.61           | 133.42      | 6,393.32              | -226.62      | 229.50       | 262.81                  | 9.93                    | 9.88                   | -1.09                 |  |
| 6,628.00              | 81.95           | 132.72      | 6,398.55              | -247.48      | 251.82       | 288.18                  | 11.00                   | 10.77                  | -2.26                 |  |
| 6,655.00              | 85.21           | 132.72      | 6,401.57              | -265.68      | 271.53       | 310.55                  | 12.07                   | 12.07                  | 0.00                  |  |
| 6,686.00              | 87.49           | 131.66      | 6,403.55              | -286.45      | 294.45       | 336.50                  | 8.11                    | 7.35                   | -3.42                 |  |
| 6,778.00              | 89.25           | 130.96      | 6,406.16              | -347.16      | 363.53       | 414.39                  | 2.06                    | 1.91                   | -0.76                 |  |
| 6,869.00              | 89.60           | 128.85      | 6,407.08              | -405.53      | 433.32       | 492.64                  | 2.35                    | 0.38                   | -2.32                 |  |
| 6,930.00              | 89.16           | 126.92      | 6,407.74              | -442.98      | 481.46       | 546.15                  | 3.24                    | -0.72                  | -3.16                 |  |
| 7,021.00              | 90.13           | 124.45      | 6,408.30              | -496.06      | 555.37       | 627.59                  | 2.92                    | 1.07                   | -2.71                 |  |
| 7,111.00              | 89.87           | 121.47      | 6,408.30              | -545.02      | 630.87       | 709.96                  | 3.32                    | -0.29                  | -3.31                 |  |
| 7,201.00              | 89.69           | 117.60      | 6,408.65              | -589.38      | 709.16       | 794.34                  | 4.30                    | -0.20                  | -4.30                 |  |

# Leam Drilling Systems LLC

## Survey Report

|           |                          |                              |                                              |
|-----------|--------------------------|------------------------------|----------------------------------------------|
| Company:  | DEVON ENERGY             | Local Co-ordinate Reference: | Well 4H                                      |
| Project:  | Eddy County, NM (NAD-83) | TVD Reference:               | GE 3212' + KB 25' @ 3237.00usft (Cactus 123) |
| Site:     | Cerf 10 Fed              | MD Reference:                | GE 3212' + KB 25' @ 3237.00usft (Cactus 123) |
| Well:     | 4H                       | North Reference:             | Grid                                         |
| Wellbore: | OH                       | Survey Calculation Method:   | Minimum Curvature                            |
| Design:   | OH                       | Database:                    | EDM 5000.1 Single User Db                    |

| 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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 7,292.00              | 90.57           | 114.61      | 6,408.44              | -629.41      | 790.87       | 881.40                  | 3.43                    | 0.97                   | -3.29                 |
| 7,386.00              | 90.75           | 111.97      | 6,407.36              | -666.57      | 877.20       | 972.56                  | 2.81                    | 0.19                   | -2.81                 |
| 7,481.00              | 91.45           | 108.46      | 6,405.53              | -699.39      | 966.32       | 1,065.78                | 3.77                    | 0.74                   | -3.69                 |
| 7,575.00              | 91.10           | 105.82      | 6,403.44              | -727.08      | 1,056.11     | 1,158.85                | 2.83                    | -0.37                  | -2.81                 |
| 7,669.00              | 90.66           | 103.01      | 6,402.00              | -750.48      | 1,147.13     | 1,252.44                | 3.03                    | -0.47                  | -2.99                 |
| 7,764.00              | 89.96           | 100.37      | 6,401.48              | -769.72      | 1,240.15     | 1,347.34                | 2.87                    | -0.74                  | -2.78                 |
| 7,859.00              | 89.16           | 97.56       | 6,402.21              | -784.53      | 1,333.98     | 1,442.33                | 3.08                    | -0.84                  | -2.96                 |
| 7,953.00              | 89.16           | 94.57       | 6,403.59              | -794.46      | 1,427.43     | 1,536.17                | 3.18                    | 0.00                   | -3.18                 |
| 8,048.00              | 89.52           | 91.06       | 6,404.68              | -799.12      | 1,522.29     | 1,630.56                | 3.71                    | 0.38                   | -3.69                 |
| 8,142.00              | 90.57           | 89.47       | 6,404.61              | -799.55      | 1,616.29     | 1,723.41                | 2.03                    | 1.12                   | -1.69                 |
| 8,237.00              | 91.54           | 90.00       | 6,402.86              | -799.12      | 1,711.27     | 1,817.10                | 1.16                    | 1.02                   | 0.56                  |
| 8,332.00              | 90.13           | 89.47       | 6,401.48              | -798.68      | 1,806.26     | 1,910.79                | 1.59                    | -1.48                  | -0.56                 |
| 8,427.00              | 88.64           | 89.47       | 6,402.50              | -797.80      | 1,901.24     | 2,004.41                | 1.57                    | -1.57                  | 0.00                  |
| 8,522.00              | 89.43           | 89.83       | 6,404.10              | -797.22      | 1,996.23     | 2,098.08                | 0.91                    | 0.83                   | 0.38                  |
| 8,616.00              | 90.40           | 90.53       | 6,404.24              | -797.51      | 2,090.23     | 2,190.91                | 1.27                    | 1.03                   | 0.74                  |
| 8,711.00              | 88.90           | 89.12       | 6,404.82              | -797.22      | 2,185.22     | 2,284.63                | 2.17                    | -1.58                  | -1.48                 |
| 8,806.00              | 89.96           | 89.83       | 6,405.76              | -796.35      | 2,280.21     | 2,378.26                | 1.34                    | 1.12                   | 0.75                  |
| 8,901.00              | 88.20           | 89.65       | 6,407.29              | -795.92      | 2,375.19     | 2,471.95                | 1.86                    | -1.85                  | -0.19                 |
| 8,996.00              | 86.70           | 89.65       | 6,411.51              | -795.34      | 2,470.09     | 2,565.53                | 1.58                    | -1.58                  | 0.00                  |
| 9,090.00              | 86.61           | 89.47       | 6,417.00              | -794.62      | 2,563.93     | 2,658.05                | 0.21                    | -0.10                  | -0.19                 |
| 9,185.00              | 87.41           | 90.18       | 6,421.95              | -794.33      | 2,658.80     | 2,751.65                | 1.13                    | 0.84                   | 0.75                  |
| 9,280.00              | 87.05           | 88.77       | 6,426.54              | -793.46      | 2,753.68     | 2,845.17                | 1.53                    | -0.38                  | -1.48                 |
| 9,373.00              | 87.85           | 88.95       | 6,430.68              | -791.61      | 2,846.57     | 2,936.56                | 0.88                    | 0.86                   | 0.19                  |
| 9,467.00              | 89.08           | 89.65       | 6,433.20              | -790.47      | 2,940.53     | 3,029.13                | 1.51                    | 1.31                   | 0.74                  |
| 9,560.00              | 89.16           | 89.30       | 6,434.63              | -789.61      | 3,033.51     | 3,120.78                | 0.39                    | 0.09                   | -0.38                 |
| 9,655.00              | 86.61           | 87.72       | 6,438.13              | -787.15      | 3,128.40     | 3,214.05                | 3.16                    | -2.68                  | -1.66                 |
| 9,749.00              | 87.05           | 87.89       | 6,443.33              | -783.55      | 3,222.19     | 3,306.05                | 0.50                    | 0.47                   | 0.18                  |
| 9,844.00              | 87.93           | 88.24       | 6,447.49              | -780.35      | 3,317.04     | 3,399.17                | 1.00                    | 0.93                   | 0.37                  |
| 9,938.00              | 85.82           | 87.72       | 6,452.62              | -777.04      | 3,410.84     | 3,491.23                | 2.31                    | -2.24                  | -0.55                 |
| 10,034.00             | 86.70           | 88.24       | 6,458.88              | -773.66      | 3,506.58     | 3,585.19                | 1.06                    | 0.92                   | 0.54                  |
| 10,129.00             | 87.23           | 88.60       | 6,463.91              | -771.05      | 3,601.41     | 3,678.38                | 0.67                    | 0.56                   | 0.38                  |
| 10,223.00             | 86.88           | 88.42       | 6,468.74              | -768.61      | 3,695.25     | 3,770.62                | 0.42                    | -0.37                  | -0.19                 |
| 10,318.00             | 87.67           | 88.77       | 6,473.26              | -766.28      | 3,790.11     | 3,863.89                | 0.91                    | 0.83                   | 0.37                  |
| 10,411.00             | 88.20           | 89.30       | 6,476.61              | -764.71      | 3,883.04     | 3,955.37                | 0.81                    | 0.57                   | 0.57                  |
| 10,505.00             | 87.23           | 88.42       | 6,480.35              | -762.85      | 3,976.94     | 4,047.77                | 1.39                    | -1.03                  | -0.94                 |
| 10,601.00             | 87.58           | 88.60       | 6,484.70              | -760.35      | 4,072.81     | 4,142.00                | 0.41                    | 0.36                   | 0.19                  |
| 10,696.00             | 87.85           | 89.12       | 6,488.49              | -758.46      | 4,167.72     | 4,235.38                | 0.62                    | 0.28                   | 0.55                  |
| 10,790.00             | 84.50           | 89.12       | 6,494.76              | -757.02      | 4,261.48     | 4,327.71                | 3.56                    | -3.56                  | 0.00                  |
| 10,885.00             | 85.12           | 89.65       | 6,503.35              | -756.01      | 4,356.09     | 4,420.93                | 0.86                    | 0.65                   | 0.56                  |
| 10,980.00             | 86.17           | 90.53       | 6,510.57              | -756.16      | 4,450.81     | 4,514.46                | 1.44                    | 1.11                   | 0.93                  |
| 11,074.00             | 87.58           | 91.41       | 6,515.69              | -757.75      | 4,544.65     | 4,607.35                | 1.77                    | 1.50                   | 0.94                  |
| 11,168.00             | 86.79           | 91.76       | 6,520.31              | -760.34      | 4,638.50     | 4,700.40                | 0.92                    | -0.84                  | 0.37                  |
| 11,263.00             | 88.64           | 92.46       | 6,524.09              | -763.84      | 4,733.36     | 4,794.59                | 2.08                    | 1.95                   | 0.74                  |
| 11,358.00             | 87.05           | 92.11       | 6,527.67              | -767.62      | 4,828.21     | 4,888.83                | 1.71                    | -1.67                  | -0.37                 |

## Survey Report

| 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) |
| 11,453.00             | 86.53           | 91.58       | 6,532.99              | -770.68      | 4,923.01     | 4,982.90                | 0.78                    | -0.55                  | -0.56                 |
| 11,548.00             | 86.70           | 91.06       | 6,538.59              | -772.86      | 5,017.82     | 5,076.84                | 0.57                    | 0.18                   | -0.55                 |
| 11,643.00             | 87.49           | 90.88       | 6,543.41              | -774.47      | 5,112.69     | 5,170.73                | 0.85                    | 0.83                   | -0.19                 |
| 11,734.00             | 86.00           | 89.12       | 6,548.58              | -774.47      | 5,203.53     | 5,260.41                | 2.53                    | -1.64                  | -1.93                 |
| 11,797.00             | 86.00           | 89.12       | 6,552.97              | -773.50      | 5,266.37     | 5,322.29                | 0.00                    | 0.00                   | 0.00                  |

This image shows a blank sheet of white paper with horizontal ruling lines. A single, prominent dark horizontal line runs across the upper portion of the page, approximately one-fifth of the way down from the top edge. The rest of the page is mostly blank, with some very faint, sparse horizontal lines visible further down, suggesting a standard notebook or ledger format.

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

# CERF 10 FED COM 4H - Permian Basin Stimulation Summary - Page No. 1 - Date: 10/31/2013

| Stage # | Date            | Type           | Zone                | Min Top Depth (ftKB) | Max Btm Depth (ftKB) | Proppant Frm (lb) | Proppant Design (lb) | Total Clean Volume Pumped (bbl) | Conc Max (lb/gal) | P <sub>Max</sub> (psi) | ISIP (psi) | Q Start Max (bbl/min) |
|---------|-----------------|----------------|---------------------|----------------------|----------------------|-------------------|----------------------|---------------------------------|-------------------|------------------------|------------|-----------------------|
| 1       | 9/9/2013 09:15  | HYDRAULIC FRAC | BONE SPRING 1ST, OH | 11,492.0             | 11,751.0             | 173,118.8         | 180,000.0            | 3240.87                         | 3.59              | 5,469.0                | 1,295.0    | 81                    |
| 2       | 9/9/2013 12:36  | HYDRAULIC FRAC | BONE SPRING 1ST, OH | 11,054.0             | 11,348.0             | 187,618.4         | 180,000.0            | 3195.99                         | 3.71              | 5,369.0                | 1,353.0    | 81                    |
| 3       | 9/9/2013 16:07  | HYDRAULIC FRAC | BONE SPRING 1ST, OH | 10,616.0             | 10,910.0             | 187,410.1         | 180,000.0            | 3228.43                         | 3.63              | 4,686.0                | 1,317.0    | 81                    |
| 4       | 9/10/2013 04:36 | HYDRAULIC FRAC | BONE SPRING 1ST, OH | 10,178.0             | 10,472.0             | 188,508.8         | 180,000.0            | 3181.91                         | 3.64              | 4,677.0                | 1,317.0    | 81                    |
| 5       | 9/10/2013 08:51 | HYDRAULIC FRAC | BONE SPRING 1ST, OH | 9,740.0              | 10,034.0             | 188,836.3         | 180,000.0            | 3171.13                         | 3.68              | 4,446.0                | 1,272.0    | 81                    |
| 6       | 9/10/2013 12:08 | HYDRAULIC FRAC | BONE SPRING 1ST, OH | 9,302.0              | 9,596.0              | 186,713.4         | 180,000.0            | 3196.48                         | 3.47              | 4,922.0                | 1,328.0    | 81                    |
| 7       | 9/11/2013 04:08 | HYDRAULIC FRAC | BONE SPRING 1ST, OH | 8,864.0              | 9,158.0              | 176,257.1         | 180,000.0            | 3134.92                         | 3.48              | 4,571.0                | 1,235.0    | 81                    |
| 8       | 9/11/2013 08:38 | HYDRAULIC FRAC | BONE SPRING 1ST, OH | 8,426.0              | 8,720.0              | 174,509.0         | 180,000.0            | 3132.66                         | 3.40              | 3,871.0                | 1,203.0    | 80                    |
| 9       | 9/11/2013 11:42 | HYDRAULIC FRAC | BONE SPRING 1ST, OH | 7,988.0              | 8,282.0              | 170,558.6         | 180,000.0            | 3181.94                         | 3.40              | 4,219.0                | 1,203.0    | 80                    |
| 10      | 9/12/2013 03:58 | HYDRAULIC FRAC | BONE SPRING 1ST, OH | 7,550.0              | 7,844.0              | 168,653.3         | 180,000.0            | 3169.90                         | 3.54              | 4,146.0                | 1,254.0    | 81                    |
| 11      | 9/12/2013 08:20 | HYDRAULIC FRAC | BONE SPRING 1ST, OH | 7,112.0              | 7,406.0              | 171,446.5         | 180,000.0            | 3008.64                         | 3.81              | 4,119.0                | 1,250.0    | 82                    |