



PO Box 1370  
Artesia, NM 88211-1370  
(575) 748-1288

**NM OIL CONSERVATION**  
ARTESIA DISTRICT

APR 06 2016

RECEIVED

April 28, 2014

Mack Energy Corporation  
PO Box 960  
Artesia, NM 88211-0960

RE: Burnet Fee #1  
400' FSL & 2150' FEL  
Sec. 3, T23S, R27E  
Eddy County, New Mexico

3001542019

Dear Sir,

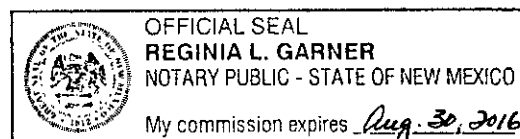
The attached is the Deviation Survey for the above captioned well.

Very truly yours,

Chris Graham  
Drilling Superintendent

State of New Mexico }  
County of Eddy }

*The foregoing was acknowledged before me this 28<sup>th</sup> day of April, 2014.*

  
\_\_\_\_\_  
Notary Public

## BURNET FEE #1

| Date      | Depth | Deviation | Direction | TVD     | Horiz | 500' test |
|-----------|-------|-----------|-----------|---------|-------|-----------|
| 4/13/2014 | 358   | 1.20      | 0.00      | 0.00    | 0.00  |           |
| 4/15/2014 | 503   | 1.80      | 249.60    | 0.00    | 0.00  | 145       |
| 4/15/2014 | 678   | 1.90      | 230.10    | 0.00    | 0.00  | 175       |
| 4/15/2014 | 830   | 1.80      | 223.30    | 0.00    | 0.00  | 152       |
| 4/15/2014 | 1019  | 1.60      | 208.80    | 0.00    | 0.00  | 189       |
| 4/16/2014 | 1208  | 1.00      | 168.70    | 0.00    | 0.00  | 189       |
| 4/16/2014 | 1397  | 1.80      | 123.40    | 0.00    | 0.00  | 189       |
| 4/16/2014 | 1586  | 2.30      | 107.40    | 0.00    | 0.00  | 189       |
| 4/16/2014 | 1775  | 1.60      | 53.70     | 0.00    | 0.00  | 189       |
| 4/16/2014 | 1886  | 1.60      | 44.00     | 0.00    | 0.00  | 111       |
| 4/17/2014 | 1958  | 1.40      | 0.00      | 0.00    | 0.00  | 72        |
| 4/17/2014 | 2053  | 4.20      | 355.50    | 0.00    | 0.00  | 95        |
| 4/17/2014 | 2147  | 9.30      | 345.30    | 0.00    | 0.00  | 94        |
| 4/17/2014 | 2242  | 13.00     | 342.80    | 0.00    | 0.00  | 95        |
| 4/17/2014 | 2337  | 15.90     | 343.10    | 0.00    | 0.00  | 95        |
| 4/17/2014 | 2526  | 16.10     | 343.80    | 0.00    | 0.00  | 189       |
| 4/18/2014 | 2715  | 14.80     | 344.20    | 2694.00 | 0.00  | 189       |
| 4/18/2014 | 2905  | 14.20     | 343.90    | 287.80  | 0.00  | 190       |
| 4/18/2014 | 3094  | 13.10     | 342.50    | 3062.00 | 0.00  | 189       |
| 4/18/2014 | 3283  | 14.10     | 345.50    | 3245.00 | 0.00  | 189       |
| 4/18/2014 | 3472  | 14.80     | 344.70    | 0.00    | 0.00  | 189       |
| 4/18/2014 | 3661  | 15.50     | 345.50    | 0.00    | 0.00  | 189       |
| 4/18/2014 | 3850  | 16.60     | 347.50    | 0.00    | 0.00  | 189       |
| 4/18/2014 | 4040  | 16.60     | 347.80    | 0.00    | 0.00  | 190       |
| 4/18/2014 | 4229  | 13.20     | 341.80    | 0.00    | 0.00  | 189       |
| 4/18/2014 | 4323  | 11.90     | 341.10    | 0.00    | 0.00  | 94        |
| 4/18/2014 | 4418  | 9.90      | 344.40    | 0.00    | 0.00  | 95        |
| 4/18/2014 | 4513  | 6.10      | 346.60    | 0.00    | 0.00  | 95        |
| 4/18/2014 | 4607  | 3.50      | 337.20    | 0.00    | 0.00  | 94        |
| 4/19/2014 | 4796  | 1.30      | 338.50    | 4719.00 | 0.00  | 189       |
| 4/19/2014 | 4985  | 1.20      | 337.90    | 4908.00 | 0.00  | 189       |
| 4/19/2014 | 5174  | 0.60      | 359.90    | 5097.00 | 0.00  | 189       |
| 4/19/2014 | 5364  | 0.50      | 46.70     | 5287.00 | 0.00  | 190       |
| 4/19/2014 | 5552  | 0.60      | 73.60     | 0.00    | 0.00  | 188       |
| 4/19/2014 | 5928  | 0.40      | 149.30    | 0.00    | 0.00  | 376       |
| 4/19/2014 | 6115  | 2.50      | 108.30    | 0.00    | 0.00  | 187       |
| 4/20/2014 | 6302  | 1.30      | 210.40    | 6224.00 | 0.00  | 187       |
| 4/20/2014 | 6489  | 2.30      | 210.30    | 6411.00 | 0.00  | 187       |
| 4/20/2014 | 6676  | 0.40      | 129.10    | 0.00    | 0.00  | 187       |
| 4/20/2014 | 6863  | 0.60      | 162.80    | 0.00    | 0.00  | 187       |
| 4/20/2014 | 7050  | 0.40      | 329.70    | 0.00    | 0.00  | 187       |
| 4/20/2014 | 7237  | 1.70      | 247.70    | 0.00    | 0.00  | 187       |
| 4/20/2014 | 7424  | 1.30      | 259.50    | 0.00    | 0.00  | 187       |

| Date      | Depth | Deviation | Direction | TVD     | Horiz | 500' test |
|-----------|-------|-----------|-----------|---------|-------|-----------|
| 4/21/2014 | 7610  | 1.40      | 269.00    | 7532.00 | 0.00  | 186       |
| 4/21/2014 | 7798  | 1.70      | 275.70    | 7720.00 | 0.00  | 188       |
| 4/21/2014 | 7985  | 0.90      | 290.50    | 0.00    | 0.00  | 187       |
| 4/21/2014 | 8365  | 2.20      | 182.80    | 0.00    | 0.00  | 380       |
| 4/22/2014 | 8560  | 1.20      | 147.60    | 8414.00 | 1.88  | 195       |
| 4/22/2014 | 8747  | 1.00      | 206.90    | 8669.00 | 0.43  | 187       |
| 4/23/2014 | 9119  | 0.10      | 217.40    | 9041.00 | 0.00  | 372       |
| 4/23/2014 | 9248  | 3.10      | 198.40    | 9170.00 | 0.00  | 129       |
| # EOF     |       |           |           |         |       |           |

# NEXUS

## DIRECTIONAL SOLUTIONS, L.P.

### Survey Sheet

|           |               |              |               |                     |                   |
|-----------|---------------|--------------|---------------|---------------------|-------------------|
| Company:  | Mack          | Job Number:  | 14-0048       | Calculation Method: | Minimum Curvature |
| Well:     | Burnet Fee #1 | Mag Decl.:   | 7.33          | Proposed Azimuth    | 344.36            |
| Location: | Eddy County   | Dir Driller: | Pennington    | Depth Reference     |                   |
| Rig:      | Silver Oak #6 | MWD Eng:     | Ryan Mayfield | Tit Info:           | Rig               |
| Leg:      |               | MWD Eng:     |               |                     | Rig               |

| Survey Number | Survey Depth (ft) | Inclina- tion (deg) | Azimuth (deg) | Course Length (ft) | True Vertical Depth (ft) | Vertical Section (ft) | N/S (ft) | E/W (ft) | Closure Distance (ft) | Closure Direction Azimuth | Dogleg Severity (ft/100') | Build Rate (d/100') | Walk Rate (d/100') |
|---------------|-------------------|---------------------|---------------|--------------------|--------------------------|-----------------------|----------|----------|-----------------------|---------------------------|---------------------------|---------------------|--------------------|
| 1             | 358               | 1.50                | 0.00          | 358                | 357.96                   | 4.51                  | 4.69 N   | 0.00 E   | 4.69                  | 0.00                      | 0.42                      | 0.42                | 0.00               |
| 2             | 503               | 1.80                | 249.60        | 145                | 502.93                   | 6.15                  | 5.79 N   | 2.13 W   | 6.17                  | 339.76                    | 1.87                      | 0.21                | 172.14             |
| 3             | 678               | 1.90                | 230.10        | 175                | 677.84                   | 4.73                  | 2.97 N   | 6.94 W   | 7.55                  | 293.19                    | 0.36                      | 0.06                | -11.14             |
| 4             | 830               | 1.80                | 223.30        | 152                | 829.76                   | 2.46                  | 0.38 S   | 10.51 W  | 10.51                 | 267.92                    | 0.16                      | -0.07               | -4.47              |
| 5             | 1019              | 1.60                | 208.80        | 189                | 1018.67                  | -0.95                 | 4.85 S   | 13.81 W  | 14.64                 | 250.64                    | 0.25                      | -0.11               | -7.67              |
| 6             | 1208              | 1.00                | 168.70        | 189                | 1207.63                  | -4.48                 | 8.78 S   | 14.76 W  | 17.18                 | 239.24                    | 0.56                      | -0.32               | -21.22             |
| 7             | 1397              | 1.80                | 123.40        | 189                | 1396.58                  | -8.37                 | 12.04 S  | 11.96 W  | 16.97                 | 224.82                    | 0.69                      | 0.42                | -23.97             |
| 8             | 1586              | 2.30                | 107.40        | 189                | 1585.46                  | -12.68                | 14.80 S  | 5.86 W   | 15.92                 | 201.61                    | 0.40                      | 0.26                | -8.47              |
| 9             | 1775              | 1.60                | 53.70         | 189                | 1774.36                  | -13.81                | 14.38 S  | 0.12 W   | 14.38                 | 180.47                    | 0.99                      | -0.37               | -28.41             |
| 10            | 1886              | 1.60                | 44.00         | 111                | 1885.32                  | -12.48                | 12.34 S  | 2.21 E   | 12.54                 | 169.86                    | 0.24                      | 0.00                | -8.74              |
| 11            | 1958              | 1.40                | 40.50         | 72                 | 1957.29                  | -11.48                | 10.95 S  | 3.48 E   | 11.49                 | 162.38                    | 0.31                      | -0.28               | -4.86              |
| 12            | 2053              | 4.20                | 355.50        | 95                 | 2052.18                  | -7.42                 | 6.60 S   | 3.96 E   | 7.70                  | 149.05                    | 3.54                      | 2.95                | 331.58             |
| 13            | 2147              | 9.30                | 345.30        | 94                 | 2145.50                  | 3.56                  | 4.19 N   | 1.76 E   | 4.54                  | 22.80                     | 5.55                      | 5.43                | -10.85             |
| 14            | 2242              | 13.00               | 342.80        | 95                 | 2238.69                  | 21.92                 | 21.82 N  | 3.35 W   | 22.08                 | 351.27                    | 3.93                      | 3.89                | -2.63              |
| 15            | 2337              | 15.90               | 343.10        | 95                 | 2330.67                  | 45.62                 | 44.49 N  | 10.29 W  | 45.66                 | 346.97                    | 3.05                      | 3.05                | 0.32               |
| 16            | 2526              | 16.10               | 343.80        | 189                | 2512.35                  | 97.70                 | 94.42 N  | 25.13 W  | 97.71                 | 345.10                    | 0.15                      | 0.11                | 0.37               |
| 17            | 2715              | 14.80               | 344.20        | 189                | 2694.52                  | 148.05                | 142.82 N | 39.02 W  | 148.05                | 344.72                    | 0.69                      | -0.69               | 0.21               |
| 18            | 2905              | 14.20               | 343.90        | 190                | 2878.47                  | 195.62                | 188.56 N | 52.09 W  | 195.62                | 344.56                    | 0.32                      | -0.32               | -0.16              |
| 19            | 3094              | 13.10               | 342.50        | 189                | 3062.13                  | 240.21                | 231.26 N | 64.96 W  | 240.21                | 344.31                    | 0.61                      | -0.58               | -0.74              |
| 20            | 3283              | 14.10               | 346.50        | 189                | 3245.83                  | 284.63                | 274.08 N | 76.77 W  | 284.63                | 344.35                    | 0.73                      | 0.53                | 2.12               |
| 21            | 3472              | 14.80               | 344.70        | 189                | 3428.85                  | 331.77                | 319.75 N | 88.52 W  | 331.77                | 344.53                    | 0.44                      | 0.37                | -0.95              |
| 22            | 3661              | 15.50               | 345.50        | 189                | 3611.28                  | 381.16                | 367.48 N | 101.21 W | 381.16                | 344.60                    | 0.39                      | 0.37                | 0.42               |
| 23            | 3850              | 16.60               | 347.50        | 189                | 3792.91                  | 433.37                | 418.29 N | 113.38 W | 433.38                | 344.83                    | 0.65                      | 0.58                | 1.06               |
| 24            | 4040              | 16.60               | 347.80        | 190                | 3974.99                  | 487.56                | 471.31 N | 124.99 W | 487.61                | 345.15                    | 0.05                      | 0.00                | 0.16               |
| 25            | 4229              | 13.20               | 341.80        | 189                | 4157.62                  | 536.08                | 518.22 N | 137.44 W | 536.13                | 345.15                    | 1.97                      | -1.80               | -3.17              |
| 26            | 4323              | 11.90               | 341.10        | 94                 | 4249.37                  | 556.48                | 537.58 N | 143.93 W | 556.52                | 345.01                    | 1.39                      | -1.38               | -0.74              |
| 27            | 4418              | 9.90                | 344.40        | 95                 | 4342.66                  | 574.43                | 554.72 N | 149.30 W | 574.46                | 344.94                    | 2.20                      | -2.11               | 3.47               |
| 28            | 4513              | 6.10                | 346.60        | 95                 | 4436.71                  | 567.64                | 567.50 N | 152.66 W | 567.67                | 344.94                    | 4.01                      | -4.00               | 2.32               |
| 29            | 4607              | 3.50                | 337.20        | 94                 | 4530.38                  | 565.48                | 575.00 N | 154.93 W | 585.51                | 344.92                    | 2.88                      | -2.77               | -10.00             |
| 30            | 4796              | 1.30                | 338.50        | 189                | 4719.20                  | 603.34                | 582.32 N | 157.95 W | 603.36                | 344.82                    | 1.16                      | -1.16               | 0.69               |
| 31            | 4985              | 1.20                | 337.90        | 189                | 4908.15                  | 607.44                | 586.15 N | 159.49 W | 607.46                | 344.78                    | 0.05                      | -0.05               | -0.32              |
| 32            | 5174              | 0.60                | 359.90        | 189                | 5097.13                  | 610.36                | 588.97 N | 160.23 W | 610.38                | 344.78                    | 0.36                      | -0.32               | 11.64              |
| 33            | 5364              | 0.50                | 46.70         | 190                | 5287.12                  | 611.10                | 590.53 N | 159.63 W | 611.73                | 344.87                    | 0.23                      | -0.05               | -164.84            |
| 34            | 5552              | 0.60                | 73.60         | 188                | 5475.12                  | 612.10                | 591.37 N | 158.09 W | 612.14                | 345.03                    | 0.15                      | 0.05                | 14.31              |
| 35            | 5741              | 1.20                | 120.90        | 189                | 5664.09                  | 610.67                | 590.64 N | 155.44 W | 610.75                | 345.26                    | 0.48                      | 0.32                | 25.03              |
| 36            | 5928              | 0.40                | 149.30        | 187                | 5851.07                  | 608.62                | 589.07 N | 153.43 W | 608.72                | 345.40                    | 0.46                      | -0.43               | 15.19              |
| 37            | 6115              | 2.50                | 108.30        | 187                | 6038.01                  | 605.71                | 587.23 N | 149.22 W | 605.89                | 345.74                    | 1.18                      | 1.12                | -21.93             |
| 38            | 6302              | 1.30                | 210.40        | 187                | 6224.94                  | 601.96                | 584.12 N | 146.42 W | 602.19                | 345.93                    | 1.63                      | -0.64               | 54.60              |

