



**PHOENIX  
TECHNOLOGY SERVICES**

July 22, 2015

Oil Conservation Division  
State of New Mexico  
1625 N. French Drive  
Hobbs, New Mexico 88240

HOBBS OCD

NOV 16 2015

RECEIVED

Dear District 1 - Hobbs

Re: Chevron North America Exploration  
Salado Draw 29 26 33 Fed Com 5H – WB1  
Lea County, NM  
API #30-025-42440  
Job No. 1513132

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced Well by Phoenix Technology Services, Inc. Other information required by your office is as follows:

| Name & Title of Surveyor | Drain Hole Number | Surveyed Depths |       | Dates Performed |          | Type of Survey |
|--------------------------|-------------------|-----------------|-------|-----------------|----------|----------------|
|                          |                   | From            | To    | Start           | End      |                |
| Zak Dawson               | 5H                | 955             | 9,489 | 03/24/15        | 04/01/15 | MWD            |

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

Best Regards,

*Claudia Carreon*

Claudia Carreon  
Operations Administrator

Certified mail receipt number: Do not need no certify mail number

NOV 30 2015



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## **Chevron**

Lea County, NM (NAD27 NME)  
Salado Draw 29 26 33 Fed Com  
5H

Wellbore #2 Job #1513132

Survey: Phoenix MWD Surveys

## **Standard Survey Report**

22 April, 2015





## Survey Report



|           |                              |                              |                                      |
|-----------|------------------------------|------------------------------|--------------------------------------|
| Company:  | Chevron                      | Local Co-ordinate Reference: | Well 5H                              |
| Project:  | Lea County, NM (NAD27 NME)   | TVD Reference:               | WELL @ 3274.00usft (Nabors Pace X30) |
| Site:     | Salado Draw 29 26 33 Fed Com | MD Reference:                | WELL @ 3274.00usft (Nabors Pace X30) |
| Well:     | 5H                           | North Reference:             | Grid                                 |
| Wellbore: | Wellbore #2 Job #1513132     | Survey Calculation Method:   | Minimum Curvature                    |
| Design:   | Surveys (Pace X30)           | Database:                    | Compass 5000 GCR                     |

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

|                       |                              |              |                 |                   |                     |
|-----------------------|------------------------------|--------------|-----------------|-------------------|---------------------|
| Site                  | Salado Draw 29 26 33 Fed Com |              |                 |                   |                     |
| Site Position:        |                              | Northing:    | 372,173.00 usft | Latitude:         | 32° 1' 15.91374 N   |
| From:                 | Map                          | Easting:     | 727,838.00 usft | Longitude:        | 103° 35' 53.52012 W |
| Position Uncertainty: | 0.00 usft                    | Slot Radius: | 13-3/16 "       | Grid Convergence: | 0.39 °              |

|                      |       |           |                     |                 |               |                     |
|----------------------|-------|-----------|---------------------|-----------------|---------------|---------------------|
| Well                 | 5H    |           |                     |                 |               |                     |
| Well Position        | +N/-S | 0.00 usft | Northing:           | 372,254.00 usft | Latitude:     | 32° 1' 16.54286 N   |
|                      | +E/-W | 0.00 usft | Easting:            | 730,385.00 usft | Longitude:    | 103° 35' 23.93078 W |
| Position Uncertainty |       | 0.00 usft | Wellhead Elevation: | 0.00 usft       | Ground Level: | 3,247.00 usft       |

|           |                          |             |                 |               |                     |
|-----------|--------------------------|-------------|-----------------|---------------|---------------------|
| Wellbore  | Wellbore #2 Job #1513132 |             |                 |               |                     |
| Magnetics | Model Name               | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|           | BGGM2014                 | 4/2/2015    | 7.29            | 59.89         | 48,061              |

|                   |                            |                 |                 |                  |          |
|-------------------|----------------------------|-----------------|-----------------|------------------|----------|
| Design            | Surveys (Pace X30)         |                 |                 |                  |          |
| Audit Notes:      |                            |                 |                 |                  |          |
| Version:          | 1.0                        | Phase:          | ACTUAL          | Tie On Depth:    | 8,767.00 |
| Vertical Section: | Depth From (TVD)<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Direction<br>(°) |          |
|                   | 0.00                       | 0.00            | 0.00            | 186.05           |          |

|                |                |                                           |              |                                      |  |
|----------------|----------------|-------------------------------------------|--------------|--------------------------------------|--|
| Survey Program | Date 4/22/2015 |                                           |              |                                      |  |
| From<br>(usft) | To<br>(usft)   | Survey (Wellbore)                         | Tool Name    | Description                          |  |
| 145.00         | 837.00         | Teledrift Surveys (Wellbore #1 Job #15131 | MWD          | MWD - Standard                       |  |
| 955.00         | 8,767.00       | Phoenix MWD Surveys (Wellbore #1 Job #    | PHX+MWD+BGGM | PHX+MWD+BGGM v3:standard declination |  |
| 8,816.00       | 16,621.00      | Phoenix MWD Surveys (Wellbore #2 Job #    | PHX+MWD+BGGM | PHX+MWD+BGGM v3:standard declination |  |

|                             |                    |                |                             |                 |                 |                               |                               |                              |                             |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| Survey                      |                    |                |                             |                 |                 |                               |                               |                              |                             |
| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
| 8,767.00                    | 7.21               | 280.16         | 8,723.33                    | 55.56           | -766.34         | 25.52                         | 0.00                          | 0.00                         | 0.00                        |
| Tie-in to WB1               |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 8,816.00                    | 11.74              | 227.12         | 8,771.73                    | 52.71           | -773.03         | 29.06                         | 19.10                         | 9.24                         | -108.24                     |
| WB2 First Phoenix Survey    |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 8,860.00                    | 16.70              | 217.23         | 8,814.38                    | 44.62           | -780.14         | 37.85                         | 12.51                         | 11.27                        | -22.48                      |
| 8,905.00                    | 21.23              | 205.98         | 8,856.94                    | 32.14           | -787.63         | 51.06                         | 12.89                         | 10.07                        | -25.00                      |
| 8,949.00                    | 27.04              | 194.66         | 8,897.10                    | 15.28           | -793.66         | 68.46                         | 16.83                         | 13.20                        | -25.73                      |
| 8,993.00                    | 31.81              | 185.53         | 8,935.43                    | -5.97           | -797.31         | 89.97                         | 14.85                         | 10.84                        | -20.75                      |



## Survey Report



Company: Chevron  
 Project: Lea County, NM (NAD27 NME)  
 Site: Salado Draw 29 26 33 Fed Com  
 Well: 5H  
 Wellbore: Wellbore #2 Job #1513132  
 Design: Surveys (Pace X30)

Local Co-ordinate Reference: Well 5H  
 TVD Reference: WELL @ 3274.00usft (Nabors Pace X30)  
 MD Reference: WELL @ 3274.00usft (Nabors Pace X30)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature  
 Database: Compass 5000 GCR

## Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 9,038.00              | 37.42           | 182.32      | 8,972.45              | -31.45       | -799.01      | 115.49                  | 13.10                   | 12.47                  | -7.13                 |
| 9,082.00              | 41.79           | 180.49      | 9,006.35              | -59.49       | -799.68      | 143.44                  | 10.28                   | 9.93                   | -4.16                 |
| 9,126.00              | 46.58           | 180.53      | 9,037.89              | -90.14       | -799.95      | 173.95                  | 10.89                   | 10.89                  | 0.09                  |
| 9,171.00              | 49.84           | 180.12      | 9,067.87              | -123.69      | -800.14      | 207.33                  | 7.28                    | 7.24                   | -0.91                 |
| 9,215.00              | 51.37           | 179.37      | 9,095.80              | -157.69      | -799.98      | 241.13                  | 3.72                    | 3.48                   | -1.70                 |
| 9,259.00              | 52.27           | 180.96      | 9,123.00              | -192.27      | -800.09      | 275.53                  | 3.50                    | 2.05                   | 3.61                  |
| 9,303.00              | 56.05           | 181.44      | 9,148.75              | -227.93      | -800.84      | 311.06                  | 8.64                    | 8.59                   | 1.09                  |
| 9,348.00              | 60.55           | 181.75      | 9,172.39              | -266.19      | -801.90      | 349.23                  | 10.02                   | 10.00                  | 0.69                  |
| 9,392.00              | 64.77           | 180.96      | 9,192.60              | -305.26      | -802.82      | 388.17                  | 9.72                    | 9.59                   | -1.80                 |
| 9,436.00              | 68.99           | 180.14      | 9,209.87              | -345.71      | -803.21      | 428.44                  | 9.74                    | 9.59                   | -1.86                 |
| 9,481.00              | 75.61           | 179.47      | 9,223.55              | -388.56      | -803.06      | 471.03                  | 14.78                   | 14.71                  | -1.49                 |
| 9,524.00              | 82.18           | 179.51      | 9,231.82              | -430.73      | -802.68      | 512.93                  | 15.28                   | 15.28                  | 0.09                  |
| 9,569.00              | 87.26           | 180.05      | 9,235.96              | -475.52      | -802.51      | 557.45                  | 11.35                   | 11.29                  | 1.20                  |
| 9,613.00              | 88.21           | 179.39      | 9,237.70              | -519.48      | -802.30      | 601.15                  | 2.63                    | 2.16                   | -1.50                 |
| 9,702.00              | 89.58           | 182.76      | 9,239.42              | -608.44      | -803.97      | 689.78                  | 4.09                    | 1.54                   | 3.79                  |
| 9,790.00              | 89.36           | 183.81      | 9,240.23              | -696.29      | -809.01      | 777.68                  | 1.22                    | -0.25                  | 1.19                  |
| 9,879.00              | 87.49           | 184.69      | 9,242.68              | -785.00      | -815.60      | 866.59                  | 2.32                    | -2.10                  | 0.99                  |
| 9,967.00              | 86.84           | 182.79      | 9,247.03              | -872.70      | -821.33      | 954.41                  | 2.28                    | -0.74                  | -2.16                 |
| 10,056.00             | 86.34           | 180.72      | 9,252.33              | -961.50      | -824.05      | 1,043.00                | 2.39                    | -0.56                  | -2.33                 |
| 10,144.00             | 86.56           | 178.66      | 9,257.78              | -1,049.33    | -823.58      | 1,130.28                | 2.35                    | 0.25                   | -2.34                 |
| 10,233.00             | 87.96           | 178.40      | 9,262.03              | -1,138.19    | -821.30      | 1,218.41                | 1.60                    | 1.57                   | -0.29                 |
| 10,322.00             | 87.99           | 178.01      | 9,265.17              | -1,227.09    | -818.51      | 1,306.53                | 0.44                    | 0.03                   | -0.44                 |
| 10,410.00             | 89.86           | 178.52      | 9,266.83              | -1,315.03    | -815.85      | 1,393.70                | 2.20                    | 2.13                   | 0.58                  |
| 10,499.00             | 90.64           | 180.76      | 9,266.44              | -1,404.02    | -815.29      | 1,482.13                | 2.67                    | 0.88                   | 2.52                  |
| 10,588.00             | 90.14           | 181.21      | 9,265.83              | -1,493.01    | -816.82      | 1,570.78                | 0.76                    | -0.56                  | 0.51                  |
| 10,676.00             | 88.35           | 181.62      | 9,266.99              | -1,580.97    | -818.99      | 1,658.48                | 2.09                    | -2.03                  | 0.47                  |
| 10,765.00             | 89.55           | 180.72      | 9,268.62              | -1,669.93    | -820.81      | 1,747.14                | 1.69                    | 1.35                   | -1.01                 |
| 10,854.00             | 88.19           | 180.11      | 9,270.38              | -1,758.91    | -821.45      | 1,835.69                | 1.67                    | -1.53                  | -0.69                 |
| 10,942.00             | 88.60           | 179.81      | 9,272.84              | -1,846.88    | -821.39      | 1,923.16                | 0.58                    | 0.47                   | -0.34                 |
| 11,031.00             | 87.68           | 180.76      | 9,275.73              | -1,935.83    | -821.83      | 2,011.66                | 1.49                    | -1.03                  | 1.07                  |
| 11,120.00             | 87.73           | 180.66      | 9,279.29              | -2,024.75    | -822.94      | 2,100.21                | 0.13                    | 0.06                   | -0.11                 |
| 11,208.00             | 87.76           | 180.66      | 9,282.76              | -2,112.67    | -823.95      | 2,187.75                | 0.03                    | 0.03                   | 0.00                  |
| 11,297.00             | 87.71           | 182.07      | 9,286.27              | -2,201.58    | -826.07      | 2,276.38                | 1.58                    | -0.06                  | 1.58                  |
| 11,385.00             | 87.71           | 181.02      | 9,289.79              | -2,289.47    | -828.44      | 2,364.04                | 1.19                    | 0.00                   | -1.19                 |
| 11,474.00             | 90.09           | 180.50      | 9,291.50              | -2,378.44    | -829.62      | 2,452.63                | 2.74                    | 2.67                   | -0.58                 |
| 11,563.00             | 90.17           | 179.55      | 9,291.30              | -2,467.44    | -829.66      | 2,541.14                | 1.07                    | 0.09                   | -1.07                 |
| 11,652.00             | 90.81           | 178.54      | 9,290.54              | -2,556.42    | -828.17      | 2,629.47                | 1.34                    | 0.72                   | -1.13                 |
| 11,740.00             | 91.84           | 177.79      | 9,288.50              | -2,644.35    | -825.36      | 2,716.62                | 1.45                    | 1.17                   | -0.85                 |
| 11,829.00             | 91.04           | 178.57      | 9,286.26              | -2,733.28    | -822.53      | 2,804.75                | 1.26                    | -0.90                  | 0.88                  |
| 11,917.00             | 90.39           | 179.41      | 9,285.17              | -2,821.26    | -820.98      | 2,892.07                | 1.21                    | -0.74                  | 0.95                  |
| 12,006.00             | 91.93           | 179.45      | 9,283.36              | -2,910.23    | -820.10      | 2,980.46                | 1.73                    | 1.73                   | 0.04                  |
| 12,095.00             | 90.22           | 180.44      | 9,281.69              | -2,999.21    | -820.01      | 3,068.93                | 2.22                    | -1.92                  | 1.11                  |
| 12,184.00             | 89.61           | 179.76      | 9,281.83              | -3,088.21    | -820.17      | 3,157.45                | 1.03                    | -0.69                  | -0.76                 |
| 12,272.00             | 90.25           | 177.59      | 9,281.93              | -3,176.18    | -818.13      | 3,244.72                | 2.57                    | 0.73                   | -2.47                 |



## Survey Report



|                  |                              |                                     |                                      |
|------------------|------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>  | Chevron                      | <b>Local Co-ordinate Reference:</b> | Well 5H                              |
| <b>Project:</b>  | Lea County, NM (NAD27 NME)   | <b>TVD Reference:</b>               | WELL @ 3274.00usft (Nabors Pace X30) |
| <b>Site:</b>     | Salado Draw 29 26 33 Fed Com | <b>MD Reference:</b>                | WELL @ 3274.00usft (Nabors Pace X30) |
| <b>Well:</b>     | 5H                           | <b>North Reference:</b>             | Grid                                 |
| <b>Wellbore:</b> | Wellbore #2 Job #1513132     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Design:</b>   | Surveys (Pace X30)           | <b>Database:</b>                    | Compass 5000 GCR                     |

| Survey                |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 12,361.00             | 89.02           | 175.43      | 9,282.50              | -3,265.01    | -812.71      | 3,332.48                | 2.79                    | -1.38                  | -2.43                 |
| 12,450.00             | 89.78           | 176.15      | 9,283.43              | -3,353.76    | -806.18      | 3,420.05                | 1.18                    | 0.85                   | 0.81                  |
| 12,538.00             | 90.67           | 178.54      | 9,283.09              | -3,441.66    | -802.10      | 3,507.03                | 2.90                    | 1.01                   | 2.72                  |
| 12,627.00             | 88.91           | 178.77      | 9,283.41              | -3,530.63    | -800.02      | 3,595.29                | 1.99                    | -1.98                  | 0.26                  |
| 12,715.00             | 88.88           | 179.25      | 9,285.11              | -3,618.60    | -798.50      | 3,682.61                | 0.55                    | -0.03                  | 0.55                  |
| 12,804.00             | 90.36           | 179.57      | 9,285.70              | -3,707.59    | -797.58      | 3,771.00                | 1.70                    | 1.66                   | 0.36                  |
| 12,893.00             | 89.83           | 180.53      | 9,285.55              | -3,796.59    | -797.66      | 3,859.51                | 1.23                    | -0.60                  | 1.08                  |
| 12,982.00             | 89.41           | 180.28      | 9,286.14              | -3,885.59    | -798.29      | 3,948.08                | 0.55                    | -0.47                  | -0.28                 |
| 13,070.00             | 90.95           | 180.97      | 9,285.87              | -3,973.58    | -799.25      | 4,035.68                | 1.92                    | 1.75                   | 0.78                  |
| 13,159.00             | 91.34           | 181.40      | 9,284.09              | -4,062.54    | -801.09      | 4,124.34                | 0.65                    | 0.44                   | 0.48                  |
| 13,247.00             | 86.78           | 177.84      | 9,285.53              | -4,150.49    | -800.50      | 4,211.74                | 6.57                    | -5.18                  | -4.05                 |
| 13,336.00             | 87.59           | 177.95      | 9,289.90              | -4,239.32    | -797.24      | 4,299.74                | 0.92                    | 0.91                   | 0.12                  |
| 13,425.00             | 89.89           | 177.33      | 9,291.86              | -4,328.22    | -793.58      | 4,387.75                | 2.68                    | 2.58                   | -0.70                 |
| 13,513.00             | 89.75           | 177.54      | 9,292.14              | -4,416.13    | -789.64      | 4,474.76                | 0.29                    | -0.16                  | 0.24                  |
| 13,602.00             | 88.38           | 177.53      | 9,293.59              | -4,505.03    | -785.81      | 4,562.76                | 1.54                    | -1.54                  | -0.01                 |
| 13,691.00             | 89.61           | 178.54      | 9,295.15              | -4,593.96    | -782.76      | 4,650.88                | 1.79                    | 1.38                   | 1.13                  |
| 13,780.00             | 91.62           | 180.02      | 9,294.20              | -4,682.94    | -781.64      | 4,739.24                | 2.80                    | 2.26                   | 1.66                  |
| 13,868.00             | 92.91           | 180.52      | 9,290.72              | -4,770.87    | -782.05      | 4,826.73                | 1.57                    | 1.47                   | 0.57                  |
| 13,957.00             | 90.19           | 181.03      | 9,288.31              | -4,859.82    | -783.26      | 4,915.31                | 3.11                    | -3.06                  | 0.57                  |
| 14,046.00             | 89.55           | 181.30      | 9,288.51              | -4,948.80    | -785.07      | 5,003.98                | 0.78                    | -0.72                  | 0.30                  |
| 14,134.00             | 90.09           | 181.28      | 9,288.79              | -5,036.78    | -787.05      | 5,091.68                | 0.61                    | 0.61                   | -0.02                 |
| 14,223.00             | 91.62           | 180.74      | 9,287.46              | -5,125.75    | -788.62      | 5,180.32                | 1.82                    | 1.72                   | -0.61                 |
| 14,311.00             | 88.71           | 183.64      | 9,287.21              | -5,213.67    | -791.98      | 5,268.10                | 4.67                    | -3.31                  | 3.30                  |
| 14,400.00             | 90.53           | 186.80      | 9,287.80              | -5,302.28    | -800.08      | 5,357.08                | 4.10                    | 2.04                   | 3.55                  |
| 14,488.00             | 89.72           | 188.37      | 9,287.61              | -5,389.51    | -811.69      | 5,445.04                | 2.01                    | -0.92                  | 1.78                  |
| 14,577.00             | 88.93           | 184.55      | 9,288.65              | -5,477.92    | -821.70      | 5,534.02                | 4.38                    | -0.89                  | -4.29                 |
| 14,666.00             | 87.37           | 182.50      | 9,291.53              | -5,566.70    | -827.17      | 5,622.88                | 2.89                    | -1.75                  | -2.30                 |
| 14,754.00             | 86.08           | 180.70      | 9,296.56              | -5,654.52    | -829.63      | 5,710.46                | 2.51                    | -1.47                  | -2.05                 |
| 14,770.00             | 85.85           | 180.40      | 9,297.68              | -5,670.48    | -829.78      | 5,726.35                | 2.36                    | -1.44                  | -1.88                 |
| 14,858.00             | 86.83           | 179.12      | 9,303.30              | -5,758.29    | -829.41      | 5,813.64                | 1.83                    | 1.11                   | -1.45                 |
| 14,947.00             | 89.55           | 178.47      | 9,306.11              | -5,847.22    | -827.54      | 5,901.87                | 3.14                    | 3.06                   | -0.73                 |
| 15,036.00             | 92.22           | 178.39      | 9,304.74              | -5,936.17    | -825.10      | 5,990.07                | 3.00                    | 3.00                   | -0.09                 |
| 15,124.00             | 94.62           | 178.69      | 9,299.49              | -6,023.98    | -822.86      | 6,077.15                | 2.75                    | 2.73                   | 0.34                  |
| 15,213.00             | 95.64           | 178.39      | 9,291.53              | -6,112.59    | -820.60      | 6,165.03                | 1.19                    | 1.15                   | -0.34                 |
| 15,302.00             | 94.66           | 178.08      | 9,283.54              | -6,201.19    | -817.87      | 6,252.85                | 1.15                    | -1.10                  | -0.35                 |
| 15,391.00             | 95.44           | 177.66      | 9,275.71              | -6,289.78    | -814.58      | 6,340.60                | 0.99                    | 0.88                   | -0.47                 |
| 15,481.00             | 95.18           | 177.76      | 9,267.38              | -6,379.32    | -811.00      | 6,429.27                | 0.31                    | -0.29                  | 0.11                  |
| 15,570.00             | 91.37           | 177.16      | 9,262.29              | -6,468.07    | -807.06      | 6,517.11                | 4.33                    | -4.28                  | -0.67                 |
| 15,658.00             | 88.96           | 176.55      | 9,262.04              | -6,555.93    | -802.23      | 6,603.97                | 2.82                    | -2.74                  | -0.69                 |
| 15,747.00             | 88.74           | 176.40      | 9,263.83              | -6,644.75    | -796.76      | 6,691.71                | 0.30                    | -0.25                  | -0.17                 |
| 15,835.00             | 88.52           | 176.45      | 9,265.93              | -6,732.55    | -791.28      | 6,778.45                | 0.26                    | -0.25                  | 0.06                  |
| 15,924.00             | 89.72           | 177.37      | 9,267.30              | -6,821.41    | -786.48      | 6,866.31                | 1.70                    | 1.35                   | 1.03                  |
| 16,013.00             | 90.56           | 177.00      | 9,267.08              | -6,910.30    | -782.11      | 6,954.24                | 1.03                    | 0.94                   | -0.42                 |



## Survey Report



Company: Chevron  
Project: Lea County, NM (NAD27 NME)  
Site: Salado Draw 29 26 33 Fed Com  
Well: 5H  
Wellbore: Wellbore #2 Job #1513132  
Design: Surveys (Pace X30)

Local Co-ordinate Reference: Well 5H  
TVD Reference: WELL @ 3274.00usft (Nabors Pace X30)  
MD Reference: WELL @ 3274.00usft (Nabors Pace X30)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Compass 5000 GCR

## Survey

| Measured Depth (usft)           | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 16,102.00                       | 91.48           | 178.62      | 9,265.49              | -6,999.22    | -778.71      | 7,042.31                | 2.09                    | 1.03                   | 1.82                  |
| 16,190.00                       | 91.17           | 179.91      | 9,263.46              | -7,087.18    | -777.58      | 7,129.66                | 1.51                    | -0.35                  | 1.47                  |
| 16,279.00                       | 89.66           | 181.52      | 9,262.81              | -7,176.17    | -778.69      | 7,218.27                | 2.48                    | -1.70                  | 1.81                  |
| 16,368.00                       | 89.16           | 181.65      | 9,263.73              | -7,265.13    | -781.15      | 7,307.00                | 0.58                    | -0.56                  | 0.15                  |
| 16,456.00                       | 89.75           | 181.69      | 9,264.57              | -7,353.09    | -783.72      | 7,394.73                | 0.67                    | 0.67                   | 0.05                  |
| 16,545.00                       | 90.50           | 181.52      | 9,264.37              | -7,442.05    | -786.21      | 7,483.47                | 0.86                    | 0.84                   | -0.19                 |
| 16,561.00                       | 90.31           | 181.50      | 9,264.26              | -7,458.05    | -786.63      | 7,499.41                | 1.19                    | -1.19                  | -0.13                 |
| <b>WB2 Final Phoenix Survey</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 16,621.00                       | 90.31           | 181.50      | 9,263.94              | -7,518.02    | -788.20      | 7,559.22                | 0.00                    | 0.00                   | 0.00                  |
| <b>WB2 Projection to TD</b>     |                 |             |                       |              |              |                         |                         |                        |                       |

## Survey Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                  |
|-----------------------|-----------------------|-------------------|--------------|--------------------------|
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                          |
| 8,767.00              | 8,723.33              | 55.56             | -766.34      | Tie-in to WB1            |
| 8,816.00              | 8,771.73              | 52.71             | -773.03      | WB2 First Phoenix Survey |
| 16,561.00             | 9,264.26              | -7,458.05         | -786.63      | WB2 Final Phoenix Survey |
| 16,621.00             | 9,263.94              | -7,518.02         | -788.20      | WB2 Projection to TD     |

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

# Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER 1513132

OPERATOR Chevron

WELL NAME Salado Draw 29 26 33 Fed 5H - WB1

COUNTY & STATE Lea County, NM

API WELL NUMBER 30-025-42440

PROPOSED DIRECTION 186.05

| TIE-IN DATA |           |        |          |         |          |          |
|-------------|-----------|--------|----------|---------|----------|----------|
| MEASURED    | VERTICAL  |        |          | N-S     | E-W      | DATA     |
| DEPTH       | DEPTH     | INCLIN | AZIMUTH  | COORD   | COORD    | SOURCE   |
| 837 ft      | 836.93 ft | 1.0 ft | 268.9 ft | 4.67 ft | -6.52 ft | TeleDrit |

| FIRST     | FIRST  |        |         |
|-----------|--------|--------|---------|
| SURVEY    | SURVEY |        |         |
| DATE      | DEPTH  | INCLIN | AZIMUTH |
| 24-Mar-15 | 955 ft | 1.01   | 237.98  |

| SURVEY INSTRUMENT |
|-------------------|
| TYPE              |
| APS / QDT         |

| LAST     | LAST     |        |         |
|----------|----------|--------|---------|
| SURVEY   | SURVEY   |        |         |
| DATE     | DEPTH    | INCLIN | AZIMUTH |
| 1-Apr-15 | 9,489 ft | 3.87   | 268.76  |

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

| PROJECTED | PROJECTED |        |         |
|-----------|-----------|--------|---------|
| TD SURVEY | TD SURVEY |        |         |
| DATE      | DEPTH     | INCLIN | AZIMUTH |
| 1-Apr-15  | 9,548 ft  | 3.87   | 268.76  |

Zak Dawson

PRINT YOUR NAME ABOVE

*Zak Dawson*

SIGN YOUR NAME ABOVE

4/1/2015

TODAY'S DATE

## MAGNETIC DECLINATION OR TOTAL GRID

|                       |      |
|-----------------------|------|
| TOTAL CORRECTION USED | 6.89 |
| DECLINATION OR GRID   | GRID |

MWD SUPERVISOR 1

Zak Dawson

DIRECTIONAL DRILLER 1

Keith Scheppler/ Casey Tubbe

MWD SUPERVISOR 2

Daniel Johnson / Billy Bews

DIRECTIONAL DRILLER 2

Dustin StClair

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