



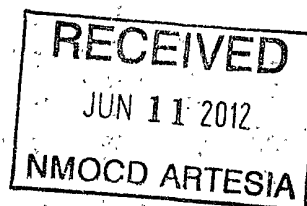
A GYRO TECHNOLOGIES INC. COMPANY

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

30-015-39231

February 1, 2012

Devon Energy Production Company  
20 North Broadway  
Oklahoma City, OK 73102



Attn: Mark Cooper

Re: **Beetle Juice 19 Fed 3**

Please find enclosed a copy of the survey from 0' to 8,143' ran on the above referenced well.

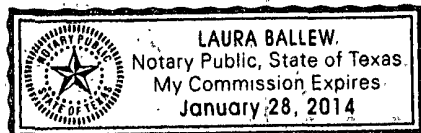
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

Sincerely,

Keith Havelka  
Operations

STATE OF TEXAS §  
COUNTY OF NUECES §

This instrument was acknowledged before me on the 3rd day of February A.D., 2012, by Keith Havelka.



Laura Ballew  
Notary Public, State of Texas



Company: Devon Energy  
 Lease/Well: Beetle Juice 19 Fed /3  
 Location: Sec 18 Town 19S Range 31E  
 Rig Name: H&P 300  
 State/County: New Mexico/Eddy  
 Latitude: 32.66  
 GRID North is 0.23 Degrees East of True North  
 VS-Azi: 170.94 Degrees



Depth Reference : RKB 26.2

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...juice 19 fed #3 ha gyro\_ed.ut

Minimum Curvature Method

Report Date/Time: 2/1/2012 / 10:59

Vaughn Energy Services

Fort Worth, Texas

817-741-3610

Surveyor: Troy Hardin

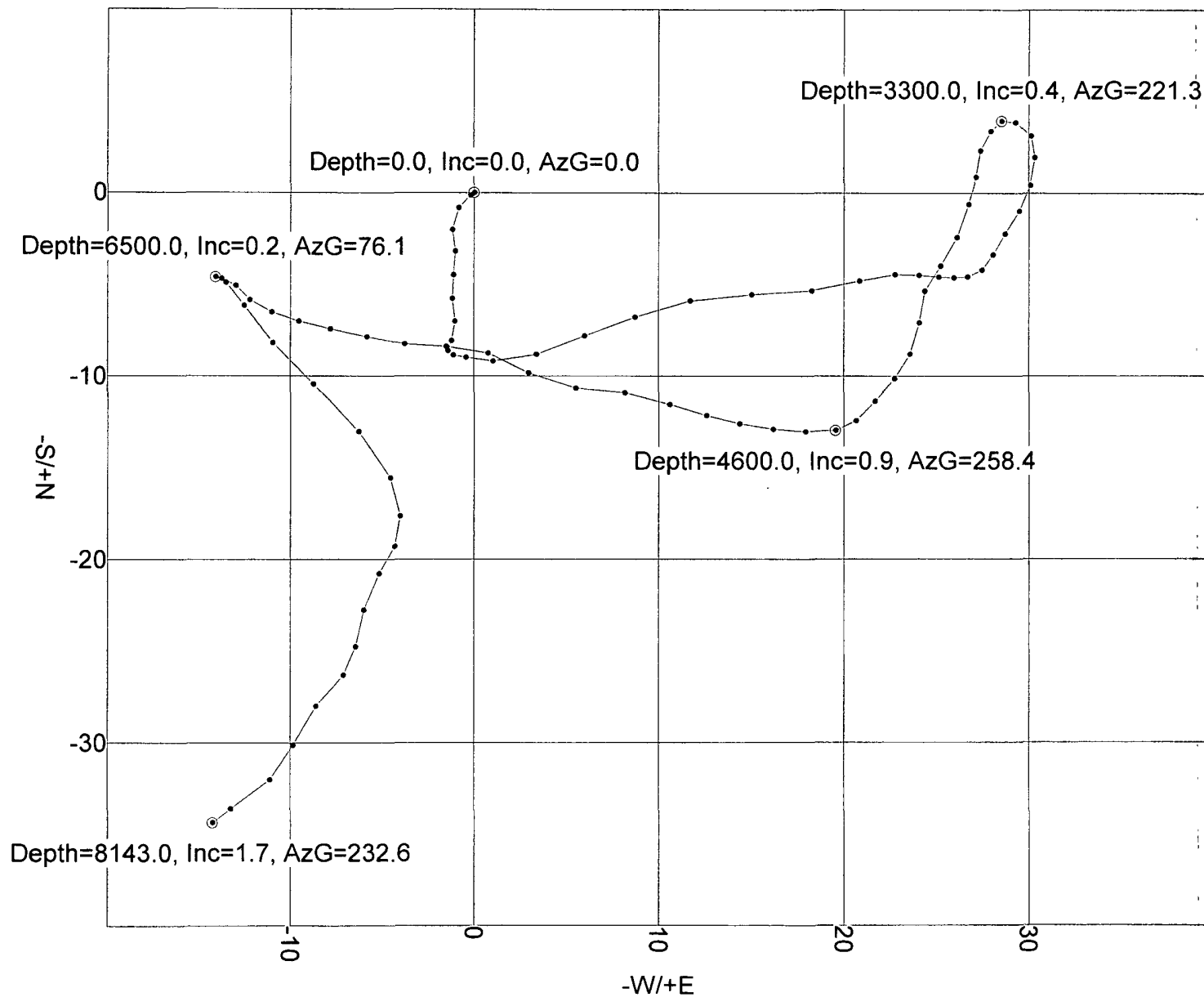
Beetle Juice 19 Fed 3 / API 30-015-39231

| 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                        | ****                          |
| 100.00                  | 0.27                 | 232.88                    | 100.00    | -0.14       | -0.19       | 0.11                      | 0.24                      | 232.88                      | 0.27                          |
| 200.00                  | 0.80                 | 220.64                    | 199.99    | -0.82       | -0.84       | 0.68                      | 1.17                      | 225.60                      | 0.54                          |
| 300.00                  | 0.77                 | 170.36                    | 299.99    | -2.02       | -1.18       | 1.81                      | 2.34                      | 210.34                      | 0.67                          |
| 400.00                  | 0.59                 | 175.61                    | 399.98    | -3.19       | -1.03       | 2.99                      | 3.35                      | 197.85                      | 0.20                          |
| 500.00                  | 0.90                 | 190.36                    | 499.97    | -4.48       | -1.13       | 4.24                      | 4.62                      | 194.18                      | 0.37                          |
| 600.00                  | 0.61                 | 170.67                    | 599.96    | -5.78       | -1.19       | 5.52                      | 5.90                      | 191.61                      | 0.39                          |
| 700.00                  | 0.81                 | 175.83                    | 699.95    | -7.01       | -1.05       | 6.76                      | 7.09                      | 188.52                      | 0.21                          |
| 800.00                  | 0.49                 | 212.02                    | 799.95    | -8.08       | -1.23       | 7.78                      | 8.17                      | 188.63                      | 0.51                          |
| 900.00                  | 0.21                 | 168.94                    | 899.95    | -8.62       | -1.42       | 8.29                      | 8.73                      | 189.34                      | 0.37                          |
| 1000.00                 | 0.30                 | 104.13                    | 999.95    | -8.86       | -1.13       | 8.57                      | 8.93                      | 187.27                      | 0.28                          |
| 1100.00                 | 0.51                 | 97.72                     | 1099.94   | -8.98       | -0.44       | 8.80                      | 8.99                      | 182.81                      | 0.21                          |
| 1200.00                 | 1.19                 | 98.11                     | 1199.93   | -9.19       | 1.03        | 9.24                      | 9.25                      | 173.61                      | 0.69                          |
| 1300.00                 | 1.64                 | 68.81                     | 1299.90   | -8.82       | 3.40        | 9.24                      | 9.45                      | 158.94                      | 0.84                          |
| 1400.00                 | 1.54                 | 68.65                     | 1399.86   | -7.81       | 5.98        | 8.66                      | 9.84                      | 142.55                      | 0.10                          |
| 1500.00                 | 1.78                 | 69.57                     | 1499.82   | -6.78       | 8.69        | 8.06                      | 11.02                     | 127.95                      | 0.24                          |
| 1600.00                 | 1.81                 | 77.28                     | 1599.77   | -5.89       | 11.69       | 7.66                      | 13.09                     | 116.75                      | 0.24                          |
| 1700.00                 | 2.03                 | 90.33                     | 1699.72   | -5.55       | 15.00       | 7.85                      | 15.99                     | 110.32                      | 0.49                          |
| 1800.00                 | 1.73                 | 81.54                     | 1799.66   | -5.34       | 18.26       | 8.15                      | 19.02                     | 106.31                      | 0.42                          |

| 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 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 1900.00                 | 1.28                 | 74.72                     | 1899.63   | -4.83       | 20.82       | 8.04                      | 21.38                     | 103.05                      | 0.48                          |
| 2000.00                 | 0.97                 | 85.70                     | 1999.61   | -4.47       | 22.75       | 7.99                      | 23.18                     | 101.11                      | 0.37                          |
| 2100.00                 | 0.54                 | 102.81                    | 2099.60   | -4.51       | 24.05       | 8.24                      | 24.47                     | 100.61                      | 0.49                          |
| 2200.00                 | 0.70                 | 89.33                     | 2199.59   | -4.60       | 25.12       | 8.50                      | 25.53                     | 100.39                      | 0.21                          |
| 2300.00                 | 0.24                 | 101.76                    | 2299.59   | -4.64       | 25.93       | 8.67                      | 26.34                     | 100.14                      | 0.46                          |
| 2400.00                 | 0.61                 | 80.51                     | 2399.59   | -4.60       | 26.66       | 8.74                      | 27.06                     | 99.78                       | 0.39                          |
| 2500.00                 | 0.45                 | 42.24                     | 2499.58   | -4.22       | 27.45       | 8.49                      | 27.77                     | 98.73                       | 0.38                          |
| 2600.00                 | 0.74                 | 30.61                     | 2599.58   | -3.37       | 28.04       | 7.75                      | 28.25                     | 96.86                       | 0.31                          |
| 2700.00                 | 0.77                 | 29.86                     | 2699.57   | -2.24       | 28.71       | 6.73                      | 28.79                     | 94.45                       | 0.03                          |
| 2800.00                 | 0.90                 | 32.89                     | 2799.56   | -0.99       | 29.47       | 5.62                      | 29.49                     | 91.93                       | 0.14                          |
| 2900.00                 | 0.88                 | 12.74                     | 2899.55   | 0.42        | 30.07       | 4.32                      | 30.07                     | 89.20                       | 0.31                          |
| 3000.00                 | 0.87                 | 7.08                      | 2999.54   | 1.92        | 30.33       | 2.88                      | 30.39                     | 86.37                       | 0.09                          |
| 3100.00                 | 0.59                 | 325.54                    | 3099.53   | 3.11        | 30.13       | 1.68                      | 30.29                     | 84.11                       | 0.58                          |
| 3200.00                 | 0.73                 | 299.03                    | 3199.52   | 3.84        | 29.29       | 0.82                      | 29.54                     | 82.53                       | 0.33                          |
| 3300.00                 | 0.36                 | 221.29                    | 3299.52   | 3.91        | 28.53       | 0.63                      | 28.79                     | 82.19                       | 0.74                          |
| 3400.00                 | 0.58                 | 231.12                    | 3399.51   | 3.36        | 27.93       | 1.08                      | 28.13                     | 83.13                       | 0.23                          |
| 3500.00                 | 0.88                 | 192.55                    | 3499.51   | 2.30        | 27.37       | 2.04                      | 27.47                     | 85.20                       | 0.56                          |
| 3600.00                 | 0.80                 | 185.53                    | 3599.50   | 0.86        | 27.14       | 3.43                      | 27.15                     | 88.19                       | 0.13                          |
| 3700.00                 | 0.99                 | 204.36                    | 3699.48   | -0.63       | 26.71       | 4.83                      | 26.72                     | 91.35                       | 0.35                          |
| 3800.00                 | 1.21                 | 194.65                    | 3799.47   | -2.44       | 26.09       | 6.52                      | 26.20                     | 95.34                       | 0.28                          |
| 3900.00                 | 0.92                 | 228.82                    | 3899.45   | -3.99       | 25.22       | 7.91                      | 25.53                     | 98.99                       | 0.68                          |
| 4000.00                 | 1.01                 | 195.94                    | 3999.44   | -5.37       | 24.37       | 9.14                      | 24.95                     | 102.42                      | 0.55                          |
| 4100.00                 | 1.02                 | 183.88                    | 4099.42   | -7.10       | 24.07       | 10.80                     | 25.09                     | 106.43                      | 0.21                          |
| 4200.00                 | 1.07                 | 208.23                    | 4199.40   | -8.81       | 23.57       | 12.41                     | 25.16                     | 110.49                      | 0.44                          |
| 4300.00                 | 0.75                 | 216.88                    | 4299.39   | -10.15      | 22.73       | 13.60                     | 24.90                     | 114.06                      | 0.35                          |
| 4400.00                 | 1.11                 | 224.06                    | 4399.38   | -11.37      | 21.67       | 14.64                     | 24.47                     | 117.69                      | 0.39                          |
| 4500.00                 | 0.58                 | 223.79                    | 4499.37   | -12.44      | 20.64       | 15.53                     | 24.10                     | 121.07                      | 0.53                          |
| 4600.00                 | 0.88                 | 258.40                    | 4599.36   | -12.96      | 19.54       | 15.87                     | 23.44                     | 123.55                      | 0.52                          |
| 4700.00                 | 1.02                 | 275.70                    | 4699.35   | -13.02      | 17.90       | 15.68                     | 22.14                     | 126.03                      | 0.32                          |
| 4800.00                 | 0.99                 | 272.61                    | 4799.33   | -12.89      | 16.16       | 15.28                     | 20.67                     | 128.59                      | 0.06                          |
| 4900.00                 | 1.15                 | 284.89                    | 4899.31   | -12.60      | 14.33       | 14.70                     | 19.08                     | 131.32                      | 0.28                          |
| 5000.00                 | 0.97                 | 283.43                    | 4999.30   | -12.14      | 12.54       | 13.97                     | 17.45                     | 134.09                      | 0.18                          |
| 5100.00                 | 1.40                 | 289.38                    | 5099.27   | -11.54      | 10.56       | 13.06                     | 15.65                     | 137.54                      | 0.44                          |
| 5200.00                 | 1.47                 | 280.27                    | 5199.24   | -10.91      | 8.15        | 12.06                     | 13.62                     | 143.24                      | 0.24                          |
| 5300.00                 | 1.56                 | 271.15                    | 5299.21   | -10.65      | 5.52        | 11.39                     | 12.00                     | 152.59                      | 0.25                          |
| 5400.00                 | 1.64                 | 303.75                    | 5399.17   | -9.83       | 2.98        | 10.18                     | 10.27                     | 163.15                      | 0.90                          |
| 5500.00                 | 1.24                 | 285.55                    | 5499.14   | -8.75       | 0.75        | 8.76                      | 8.78                      | 175.09                      | 0.60                          |
| 5600.00                 | 1.42                 | 273.04                    | 5599.11   | -8.40       | -1.52       | 8.05                      | 8.53                      | 190.28                      | 0.34                          |
| 5700.00                 | 1.16                 | 274.76                    | 5699.09   | -8.25       | -3.77       | 7.55                      | 9.07                      | 204.55                      | 0.26                          |



Vaughn Energy Services  
Fort Worth, Texas  
817-741-3610  
Surveyor: Troy Hardin  
Beetle Juice 19 Fed 3 / API 30-015-39231



VES Survey Date: 01/18/2012

Pathfinder

6213 WCR 112  
Midland Texas 79706  
Tel (432) 687-1647  
Fax (432) 687-1544



February 14, 2012

Devon Energy  
20 N. Broadway  
Oklahoma City, OK

RE: Devon Energy  
Beetle Juice 19 FED #3H  
API: 30-015-39231  
Eddy County, NM  
RIG: H&P 300  
FIELD: Hackberry; Bone Spring, NW  
PES FILE NO.: 700005065-WT-WT

To whom it may concern:

We hereby certify that the enclosed Original Field Survey Data contained in this report represents to the best of our knowledge, a true and accurate survey of the well at the time the survey was run.

DIRECTIONAL SURVEY DATA  
1 – Original survey report  
2 – Survey report copies

We appreciate the opportunity to work with you and we look forward to your business support. If you have any questions, I can be reached at (432) 687-1647

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Bibb".

STEVE BIBB  
M/LWD Service Coordinator  
PathFinder Energy Services

ML:sh



A Schlumberger Company

***DIRECTIONAL SURVEY REPORT***

**DEVON ENERGY**

***BEETLE JUICE 19 FED #3H***

***EDDY COUNTY, NEW MEXICO***

**PREPARED BY: STEVE BIBB**

Pathfinder

6213 WCR 112  
Midland, Texas 79706  
Tel (432)687-1647  
Fax (432)687-1544



DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:  
A) JEREMY HOLMES
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 01-19-12 TO 01-27-12
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY
7. TYPE OF SURVEY(S) PERFORMED: GAMMA-RAY
8. COMPLETE IDENTIFICATION OF WELL:

DEVON ENERGY  
BEETLE JUICE 19 FED #3H  
EDDY COUNTY, NM  
RIG: H&P 300

9. SURVEY CERTIFIED FROM: 8163 TO 13365 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 4771.48 FEET ON A BEARING OF 171.28 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 13430 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

A handwritten signature in black ink, appearing to read "Steve Bibb".

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STEVE BIBB  
M/LWD SERVICE COORDINATOR

# PathFinder Energy Services, Inc.

## BHL Report

Page 01/01  
Tie-in Date: 01/18/2012  
Date Completed: 01/27/2012

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DEVON ENERGY CORPORATION  
BEETLEJUICE 19 FED #3H  
EDDY COUNTY, NM  
Rig:H&P 300  
PathFinder Office Supervisor: STEVE BIBB  
PathFinder Field Engineers: JEREMY HOLMES  
ROLDAN DIAZ

Survey Horiz. Reference: WELLHEAD  
Ref Coordinates: LAT: 32.39.8.8928 N LON: 103.54.43.5160 W  
GRID Reference: NAD83 new mexico east Transverse Mercator  
Ref GRID Coord: X: 670985.9200 Y: 601356.7800  
North Aligned To: GRID NORTH  
Total Magnetic Correction: 7.48° EAST TO GRID  
Vertical Section Plane: 170.94  
Survey Vert. Reference: 26.00' Rotary Table To Ground  
Altitude: 3397.00' Ground To MSL

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|                       |                |             |
|-----------------------|----------------|-------------|
| Measured Depth        | 13430.00       | (feet)      |
| Inclination           | 91.45          | (deg)       |
| Azimuth               | 180.53         | (deg)       |
| True Vertical Depth   | 8842.68        | (feet)      |
| Vertical Section      | 4771.40        | (feet)      |
| Survey X cord         | 671709.58      | (feet)      |
| Survey Y cord         | 596640.48      | (feet)      |
| Survey Lat            | 32.63949887 N  | (deg)       |
| Survey Lon            | 103.90979766 W | (deg)       |
| Rectangular Corr. N/S | 4716.29 S      | (feet)      |
| Rectangular Corr. E/W | 723.68 E       | (feet)      |
| Closure Distance      | 4771.48        | (feet)      |
| Direction of Closure  | 171.28         | (deg)       |
| Dogleg Severity       | 0.00           | (deg/100ft) |

# PathFinder Energy Services, Inc.

## Survey Report

DEVON ENERGY CORPORATION  
BEETLEJUICE 19 FED #3H  
EDDY COUNTY, NM  
Rig:H&P 300  
PathFinder Office Supervisor: STEVE BIBB  
PathFinder Field Engineers: JEREMY HOLMES  
ROLDAN DIAZ

Page 01/06  
Tie-in Date: 01/18/2012  
Date Completed: 01/27/2012

Survey Horiz. Reference:WELLHEAD  
Ref Coordinates: LAT:32.39.8.8928 N LON:103.54.43.5160 W  
GRID Reference:NAD83 new mexico east Transverse Mercator  
Ref GRID Coord: X: 670985.9200 Y: 601356.7800  
North Aligned To:GRID NORTH  
Total Magnetic Correction: 7.48° EAST TO GRID  
Vertical Section Plane: 170.94  
Survey Vert. Reference: 26.00' Rotary Table To Ground  
Altitude:3397.00' Ground To MSL

Survey Calculations by RX5 V6.03E using Minimum Curvature

| Measured<br>Depth<br>(ft)                              | Incl<br>(deg) | Drift<br>Dir.<br>(deg) | TVD<br>(ft) | Course<br>Length<br>(ft) | Vertical<br>Section<br>(ft) | TOTAL<br>Rectangular Offsets<br>(ft) (ft) | Closure<br>Dist Dir<br>(ft) (deg) | DLS<br>(dg/100ft) |
|--------------------------------------------------------|---------------|------------------------|-------------|--------------------------|-----------------------------|-------------------------------------------|-----------------------------------|-------------------|
| THE FOLLOWING ARE VAUGHN ENERGY SERVICES GYRO SURVEYS. |               |                        |             |                          |                             |                                           |                                   |                   |
| 100.00                                                 | 0.27          | 232.88                 | 100.00      | 0.00                     | 0.11                        | 0.14 S 0.18 W                             | 0.23@ 233.23                      | 0.00              |
| 200.00                                                 | 0.80          | 220.64                 | 199.99      | 100.00                   | 0.67                        | 0.81 S 0.83 W                             | 1.16@ 225.60                      | 0.54              |
| 300.00                                                 | 0.77          | 170.36                 | 299.98      | 100.00                   | 1.79                        | 2.00 S 1.17 W                             | 2.32@ 210.29                      | 0.67              |
| 400.00                                                 | 0.59          | 175.61                 | 399.98      | 100.00                   | 2.98                        | 3.18 S 1.02 W                             | 3.34@ 197.75                      | 0.19              |
| 500.00                                                 | 0.90          | 190.36                 | 499.97      | 100.00                   | 4.23                        | 4.46 S 1.12 W                             | 4.60@ 194.08                      | 0.36              |
| 600.00                                                 | 0.61          | 170.67                 | 599.96      | 100.00                   | 5.50                        | 5.76 S 1.17 W                             | 5.88@ 191.52                      | 0.39              |
| 700.00                                                 | 0.81          | 175.83                 | 699.95      | 100.00                   | 6.74                        | 6.99 S 1.04 W                             | 7.07@ 188.43                      | 0.21              |
| 800.00                                                 | 0.49          | 212.02                 | 799.94      | 100.00                   | 7.77                        | 8.06 S 1.21 W                             | 8.15@ 188.55                      | 0.50              |
| 900.00                                                 | 0.21          | 168.94                 | 899.94      | 100.00                   | 8.27                        | 8.60 S 1.40 W                             | 8.72@ 189.27                      | 0.37              |
| 1000.00                                                | 0.30          | 104.13                 | 999.94      | 100.00                   | 8.56                        | 8.85 S 1.11 W                             | 8.92@ 187.18                      | 0.28              |
| 1100.00                                                | 0.51          | 97.72                  | 1099.94     | 100.00                   | 8.79                        | 8.97 S 0.42 W                             | 8.98@ 182.68                      | 0.21              |
| 1200.00                                                | 1.19          | 98.11                  | 1199.93     | 100.00                   | 9.23                        | 9.18 S 1.05 E                             | 9.24@ 173.47                      | 0.68              |
| 1300.00                                                | 1.64          | 68.81                  | 1299.90     | 100.00                   | 9.23                        | 8.80 S 3.41 E                             | 9.44@ 158.82                      | 0.84              |
| 1400.00                                                | 1.54          | 68.65                  | 1399.86     | 100.00                   | 8.65                        | 7.80 S 6.00 E                             | 9.84@ 142.44                      | 0.10              |
| 1500.00                                                | 1.78          | 69.57                  | 1499.82     | 100.00                   | 8.05                        | 6.77 S 8.70 E                             | 11.03@ 127.86                     | 0.24              |
| 1600.00                                                | 1.81          | 77.28                  | 1599.77     | 100.00                   | 7.65                        | 5.88 S 11.70 E                            | 13.09@ 116.67                     | 0.24              |
| 1700.00                                                | 2.03          | 90.33                  | 1699.71     | 100.00                   | 7.83                        | 5.54 S 15.01 E                            | 16.00@ 110.25                     | 0.49              |
| 1800.00                                                | 1.73          | 81.54                  | 1799.66     | 100.00                   | 8.14                        | 5.33 S 18.28 E                            | 19.04@ 106.25                     | 0.42              |
| 1900.00                                                | 1.28          | 74.72                  | 1899.62     | 100.00                   | 8.03                        | 4.81 S 20.85 E                            | 21.39@ 103.00                     | 0.48              |
| 2000.00                                                | 0.97          | 85.70                  | 1999.61     | 100.00                   | 7.98                        | 4.45 S 22.77 E                            | 23.20@ 101.07                     | 0.38              |
| 2100.00                                                | 0.54          | 102.81                 | 2099.60     | 100.00                   | 8.23                        | 4.49 S 24.07 E                            | 24.49@ 100.58                     | 0.48              |
| 2200.00                                                | 0.70          | 89.33                  | 2199.59     | 100.00                   | 8.49                        | 4.59 S 25.14 E                            | 25.56@ 100.35                     | 0.21              |
| 2300.00                                                | 0.24          | 101.76                 | 2299.59     | 100.00                   | 8.66                        | 4.63 S 25.96 E                            | 26.37@ 100.11                     | 0.47              |
| 2400.00                                                | 0.61          | 80.51                  | 2399.58     | 100.00                   | 8.73                        | 4.58 S 26.69 E                            | 27.08@ 99.74                      | 0.40              |
| 2500.00                                                | 0.45          | 42.24                  | 2499.58     | 100.00                   | 8.48                        | 4.20 S 27.48 E                            | 27.80@ 98.70                      | 0.38              |

# PathFinder Energy Services, Inc.

## Survey Report

DEVON ENERGY CORPORATION  
BEETLEJUICE 19 FED #3H  
EDDY COUNTY, NM  
RIG:H&P 300

Page 02/06

| Measured<br>Depth<br>(ft) | Incl<br>(deg) | Drift<br>Dir.<br>(deg) | TVD<br>(ft) | Course<br>Length<br>(ft) | Vertical<br>Section<br>(ft) | TOTAL<br>Rectangular Offsets<br>(ft) (ft) |         | Closure<br>Dist Dir<br>(ft) (deg) |        | DLS<br>(dg/100ft) |
|---------------------------|---------------|------------------------|-------------|--------------------------|-----------------------------|-------------------------------------------|---------|-----------------------------------|--------|-------------------|
| 2600.00                   | 0.74          | 30.61                  | 2599.57     | 100.00                   | 7.74                        | 3.36 S                                    | 28.07 E | 28.27@                            | 96.82  | 0.31              |
| 2700.00                   | 0.77          | 29.86                  | 2699.57     | 100.00                   | 6.72                        | 2.22 S                                    | 28.73 E | 28.82@                            | 94.42  | 0.03              |
| 2800.00                   | 0.90          | 32.89                  | 2799.56     | 100.00                   | 5.61                        | 0.98 S                                    | 29.49 E | 29.51@                            | 91.90  | 0.14              |
| 2900.00                   | 0.88          | 12.74                  | 2899.54     | 100.00                   | 4.31                        | 0.43 N                                    | 30.09 E | 30.09@                            | 89.18  | 0.31              |
| 3000.00                   | 0.87          | 7.08                   | 2999.53     | 100.00                   | 2.87                        | 1.93 N                                    | 30.35 E | 30.41@                            | 86.35  | 0.09              |
| 3100.00                   | 0.59          | 325.54                 | 3099.52     | 100.00                   | 1.68                        | 3.11 N                                    | 30.16 E | 30.32@                            | 84.11  | 0.58              |
| 3200.00                   | 0.73          | 299.03                 | 3199.52     | 100.00                   | 0.82                        | 3.85 N                                    | 29.31 E | 29.56@                            | 82.52  | 0.33              |
| 3300.00                   | 0.36          | 221.29                 | 3299.51     | 100.00                   | 0.62                        | 3.92 N                                    | 28.54 E | 28.81@                            | 82.18  | 0.74              |
| 3400.00                   | 0.58          | 231.12                 | 3399.51     | 100.00                   | 1.08                        | 3.37 N                                    | 27.94 E | 28.14@                            | 83.13  | 0.23              |
| 3500.00                   | 0.88          | 192.55                 | 3499.50     | 100.00                   | 2.04                        | 2.30 N                                    | 27.38 E | 27.48@                            | 85.20  | 0.56              |
| 3600.00                   | 0.80          | 185.53                 | 3599.49     | 100.00                   | 3.43                        | 0.85 N                                    | 27.15 E | 27.16@                            | 88.20  | 0.13              |
| 3700.00                   | 0.99          | 204.36                 | 3699.48     | 100.00                   | 4.83                        | 0.63 S                                    | 26.72 E | 26.73@                            | 91.35  | 0.35              |
| 3800.00                   | 1.21          | 194.65                 | 3799.46     | 100.00                   | 6.52                        | 2.44 S                                    | 26.10 E | 26.21@                            | 95.33  | 0.29              |
| 3900.00                   | 0.92          | 228.82                 | 3899.45     | 100.00                   | 7.91                        | 3.99 S                                    | 25.23 E | 25.54@                            | 98.98  | 0.68              |
| 4000.00                   | 1.01          | 195.94                 | 3999.43     | 100.00                   | 9.14                        | 5.36 S                                    | 24.38 E | 24.96@                            | 102.41 | 0.55              |
| 4100.00                   | 1.02          | 183.88                 | 4099.42     | 100.00                   | 10.80                       | 7.10 S                                    | 24.08 E | 25.10@                            | 106.43 | 0.21              |
| 4200.00                   | 1.07          | 208.23                 | 4199.40     | 100.00                   | 12.41                       | 8.81 S                                    | 23.58 E | 25.17@                            | 110.49 | 0.44              |
| 4300.00                   | 0.75          | 216.88                 | 4299.39     | 100.00                   | 13.61                       | 10.16 S                                   | 22.74 E | 24.91@                            | 114.06 | 0.35              |
| 4400.00                   | 1.11          | 224.06                 | 4399.37     | 100.00                   | 14.65                       | 11.37 S                                   | 21.68 E | 24.48@                            | 117.69 | 0.38              |
| 4500.00                   | 0.58          | 223.79                 | 4499.36     | 100.00                   | 15.53                       | 12.44 S                                   | 20.65 E | 24.11@                            | 121.05 | 0.53              |
| 4600.00                   | 0.88          | 258.40                 | 4599.36     | 100.00                   | 15.87                       | 12.96 S                                   | 19.55 E | 23.45@                            | 123.53 | 0.52              |
| 4700.00                   | 1.02          | 275.70                 | 4699.34     | 100.00                   | 15.68                       | 13.02 S                                   | 17.91 E | 22.15@                            | 126.02 | 0.32              |
| 4800.00                   | 0.99          | 272.61                 | 4799.33     | 100.00                   | 15.28                       | 12.89 S                                   | 16.16 E | 20.68@                            | 128.58 | 0.06              |
| 4900.00                   | 1.15          | 284.89                 | 4899.31     | 100.00                   | 14.70                       | 12.60 S                                   | 14.33 E | 19.08@                            | 131.32 | 0.28              |
| 5000.00                   | 0.97          | 283.43                 | 4999.29     | 100.00                   | 13.97                       | 12.14 S                                   | 12.54 E | 17.45@                            | 134.08 | 0.18              |
| 5100.00                   | 1.40          | 289.38                 | 5099.27     | 100.00                   | 13.06                       | 11.54 S                                   | 10.56 E | 15.64@                            | 137.53 | 0.45              |
| 5200.00                   | 1.47          | 280.27                 | 5199.24     | 100.00                   | 12.05                       | 10.91 S                                   | 8.15 E  | 13.61@                            | 143.24 | 0.24              |
| 5300.00                   | 1.56          | 271.15                 | 5299.20     | 100.00                   | 11.39                       | 10.65 S                                   | 5.52 E  | 12.00@                            | 152.58 | 0.26              |

# PathFinder Energy Services, Inc.

## Survey Report

DEVON ENERGY CORPORATION  
BEETLEJUICE 19 FED #3H  
EDDY COUNTY, NM  
RIG:H&P 300

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| Measured<br>Depth<br>(ft) | Incl<br>(deg) | Drift<br>Dir.<br>(deg) | TVD<br>(ft) | Course<br>Length<br>(ft) | Vertical<br>Section<br>(ft) | TOTAL<br>Rectangular Offsets<br>(ft) (ft) |         | Closure<br>Dist Dir<br>(ft) (deg) |        | DLS<br>(dg/100ft) |
|---------------------------|---------------|------------------------|-------------|--------------------------|-----------------------------|-------------------------------------------|---------|-----------------------------------|--------|-------------------|
| 5400.00                   | 1.64          | 303.75                 | 5399.17     | 100.00                   | 10.17                       | 9.83 S                                    | 2.97 E  | 10.27@                            | 163.16 | 0.90              |
| 5500.00                   | 1.24          | 285.55                 | 5499.14     | 100.00                   | 8.75                        | 8.74 S                                    | 0.74 E  | 8.77@                             | 175.15 | 0.60              |
| 5600.00                   | 1.42          | 273.04                 | 5599.11     | 100.00                   | 8.04                        | 8.39 S                                    | 1.54 W  | 8.53@                             | 190.39 | 0.34              |
| 5700.00                   | 1.16          | 274.76                 | 5699.08     | 100.00                   | 7.54                        | 8.24 S                                    | 3.78 W  | 9.07@                             | 204.67 | 0.26              |
| 5800.00                   | 1.24          | 286.00                 | 5799.06     | 100.00                   | 6.84                        | 7.86 S                                    | 5.83 W  | 9.78@                             | 216.59 | 0.25              |
| 5900.00                   | 1.12          | 277.72                 | 5899.04     | 100.00                   | 6.10                        | 7.43 S                                    | 7.84 W  | 10.80@                            | 226.56 | 0.21              |
| 6000.00                   | 0.91          | 291.54                 | 5999.03     | 100.00                   | 5.41                        | 7.00 S                                    | 9.55 W  | 11.84@                            | 233.74 | 0.32              |
| 6100.00                   | 0.89          | 286.25                 | 6099.01     | 100.00                   | 4.68                        | 6.49 S                                    | 11.03 W | 12.80@                            | 239.52 | 0.09              |
| 6200.00                   | 0.73          | 312.92                 | 6199.00     | 100.00                   | 3.84                        | 5.84 S                                    | 12.24 W | 13.57@                            | 244.49 | 0.41              |
| 6300.00                   | 0.53          | 317.37                 | 6299.00     | 100.00                   | 2.95                        | 5.07 S                                    | 13.02 W | 13.98@                            | 248.73 | 0.21              |
| 6400.00                   | 0.54          | 275.99                 | 6398.99     | 100.00                   | 2.45                        | 4.68 S                                    | 13.81 W | 14.58@                            | 251.28 | 0.38              |
| 6500.00                   | 0.17          | 76.07                  | 6498.99     | 100.00                   | 2.31                        | 4.59 S                                    | 14.13 W | 14.86@                            | 251.99 | 0.70              |
| 6600.00                   | 0.61          | 129.41                 | 6598.99     | 100.00                   | 2.70                        | 4.90 S                                    | 13.58 W | 14.43@                            | 250.16 | 0.53              |
| 6700.00                   | 1.25          | 146.64                 | 6698.98     | 100.00                   | 4.09                        | 6.15 S                                    | 12.56 W | 13.99@                            | 243.93 | 0.69              |
| 6800.00                   | 1.71          | 138.56                 | 6798.94     | 100.00                   | 6.35                        | 8.18 S                                    | 10.98 W | 13.69@                            | 233.32 | 0.50              |
| 6900.00                   | 1.92          | 132.91                 | 6898.89     | 100.00                   | 8.92                        | 10.43 S                                   | 8.76 W  | 13.63@                            | 220.02 | 0.28              |
| 7000.00                   | 2.18          | 139.36                 | 6998.83     | 100.00                   | 11.86                       | 13.02 S                                   | 6.30 W  | 14.46@                            | 205.81 | 0.35              |
| 7100.00                   | 1.37          | 155.28                 | 7098.78     | 100.00                   | 14.64                       | 15.55 S                                   | 4.56 W  | 16.20@                            | 196.34 | 0.94              |
| 7200.00                   | 1.15          | 178.11                 | 7198.76     | 100.00                   | 16.78                       | 17.64 S                                   | 4.03 W  | 18.09@                            | 192.86 | 0.54              |
| 7300.00                   | 0.84          | 206.87                 | 7298.74     | 100.00                   | 18.37                       | 19.29 S                                   | 4.32 W  | 19.77@                            | 192.63 | 0.58              |
| 7400.00                   | 1.11          | 212.31                 | 7398.73     | 100.00                   | 19.69                       | 20.77 S                                   | 5.17 W  | 21.40@                            | 193.99 | 0.28              |
| 7500.00                   | 1.37          | 195.51                 | 7498.70     | 100.00                   | 21.51                       | 22.74 S                                   | 6.01 W  | 23.52@                            | 194.81 | 0.44              |
| 7600.00                   | 0.99          | 188.08                 | 7598.68     | 100.00                   | 23.42                       | 24.74 S                                   | 6.45 W  | 25.57@                            | 194.61 | 0.41              |
| 7700.00                   | 1.02          | 218.67                 | 7698.67     | 100.00                   | 24.84                       | 26.29 S                                   | 7.13 W  | 27.24@                            | 195.17 | 0.53              |
| 7800.00                   | 1.60          | 223.99                 | 7798.64     | 100.00                   | 26.28                       | 27.99 S                                   | 8.65 W  | 29.30@                            | 197.18 | 0.59              |
| 7900.00                   | 1.33          | 192.63                 | 7898.61     | 100.00                   | 28.20                       | 30.13 S                                   | 9.88 W  | 31.71@                            | 198.15 | 0.83              |
| 8000.00                   | 1.43          | 233.00                 | 7998.58     | 100.00                   | 29.86                       | 32.01 S                                   | 11.13 W | 33.89@                            | 199.17 | 0.96              |
| 8100.00                   | 1.65          | 234.36                 | 8098.55     | 100.00                   | 31.09                       | 33.60 S                                   | 13.29 W | 36.14@                            | 201.59 | 0.22              |

# PathFinder Energy Services, Inc.

## Survey Report

DEVON ENERGY CORPORATION  
BEETLEJUICE 19 FED #3H  
EDDY COUNTY, NM  
RIG:H&P 300

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| Measured<br>Depth<br>(ft)                                  | Incl<br>(deg) | Drift<br>Dir.<br>(deg) | TVD<br>(ft) | Course<br>Length<br>(ft) | Vertical<br>Section<br>(ft) | TOTAL<br>Rectangular Offsets<br>(ft) (ft) |          | Closure<br>Dist Dir<br>(ft) (deg) |        | DLS<br>(dg/100ft) |
|------------------------------------------------------------|---------------|------------------------|-------------|--------------------------|-----------------------------|-------------------------------------------|----------|-----------------------------------|--------|-------------------|
| ** TIED INTO VAUGHN ENERGY SERVICES GYRO SURVEY @ 8143'MD. |               |                        |             |                          |                             |                                           |          |                                   |        |                   |
| 8143.00                                                    | 1.65          | 232.62                 | 8141.53     | 43.00                    | 31.66                       | 34.34 S                                   | 14.29 W  | 37.19@                            | 202.59 | 0.12              |
| THE FOLLOWING ARE PATHFINDER MWD SURVEYS.                  |               |                        |             |                          |                             |                                           |          |                                   |        |                   |
| 8163.00                                                    | 1.14          | 195.29                 | 8161.52     | 20.00                    | 31.98                       | 34.71 S                                   | 14.57 W  | 37.64@                            | 202.77 | 5.08              |
| 8194.00                                                    | 3.96          | 145.90                 | 8192.49     | 31.00                    | 33.23                       | 35.89 S                                   | 14.05 W  | 38.54@                            | 201.38 | 10.75             |
| 8226.00                                                    | 8.00          | 138.60                 | 8224.31     | 32.00                    | 36.11                       | 38.48 S                                   | 11.96 W  | 40.29@                            | 197.27 | 12.82             |
| 8257.00                                                    | 11.87         | 137.20                 | 8254.84     | 31.00                    | 40.59                       | 42.44 S                                   | 8.37 W   | 43.25@                            | 191.15 | 12.51             |
| 8289.00                                                    | 14.95         | 136.85                 | 8285.97     | 32.00                    | 46.75                       | 47.86 S                                   | 3.31 W   | 47.98@                            | 183.95 | 9.63              |
| 8320.00                                                    | 17.59         | 136.05                 | 8315.72     | 31.00                    | 53.90                       | 54.15 S                                   | 2.68 E   | 54.22@                            | 177.16 | 8.55              |
| 8352.00                                                    | 19.43         | 136.32                 | 8346.07     | 32.00                    | 62.25                       | 61.49 S                                   | 9.71 E   | 62.25@                            | 171.02 | 5.76              |
| 8384.00                                                    | 21.37         | 136.93                 | 8376.06     | 32.00                    | 71.46                       | 69.59 S                                   | 17.37 E  | 71.73@                            | 165.98 | 6.10              |
| 8415.00                                                    | 22.77         | 138.43                 | 8404.79     | 31.00                    | 81.20                       | 78.21 S                                   | 25.21 E  | 82.17@                            | 162.13 | 4.87              |
| 8447.00                                                    | 24.80         | 140.36                 | 8434.07     | 32.00                    | 92.20                       | 88.01 S                                   | 33.60 E  | 94.21@                            | 159.10 | 6.79              |
| 8478.00                                                    | 27.08         | 141.68                 | 8461.94     | 31.00                    | 103.96                      | 98.56 S                                   | 42.13 E  | 107.18@                           | 156.86 | 7.59              |
| 8510.00                                                    | 29.55         | 142.21                 | 8490.11     | 32.00                    | 117.24                      | 110.51 S                                  | 51.48 E  | 121.91@                           | 155.02 | 7.76              |
| 8541.00                                                    | 32.36         | 141.68                 | 8516.69     | 31.00                    | 131.18                      | 123.06 S                                  | 61.31 E  | 137.49@                           | 153.52 | 9.11              |
| 8573.00                                                    | 34.65         | 140.62                 | 8543.37     | 32.00                    | 146.50                      | 136.81 S                                  | 72.39 E  | 154.78@                           | 152.12 | 7.39              |
| 8604.00                                                    | 37.64         | 138.87                 | 8568.41     | 31.00                    | 162.14                      | 150.76 S                                  | 84.21 E  | 172.68@                           | 150.81 | 10.20             |
| 8636.00                                                    | 40.27         | 136.85                 | 8593.29     | 32.00                    | 178.99                      | 165.67 S                                  | 97.72 E  | 192.34@                           | 149.47 | 9.13              |
| 8667.00                                                    | 43.26         | 136.67                 | 8616.41     | 31.00                    | 196.07                      | 180.71 S                                  | 111.86 E | 212.53@                           | 148.24 | 9.65              |
| 8699.00                                                    | 45.99         | 137.28                 | 8639.18     | 32.00                    | 214.71                      | 197.14 S                                  | 127.19 E | 234.61@                           | 147.17 | 8.64              |
| 8730.00                                                    | 49.07         | 138.87                 | 8660.11     | 31.00                    | 233.92                      | 214.15 S                                  | 142.46 E | 257.21@                           | 146.37 | 10.63             |
| 8762.00                                                    | 52.06         | 140.45                 | 8680.44     | 32.00                    | 255.04                      | 232.99 S                                  | 158.45 E | 281.77@                           | 145.78 | 10.09             |
| 8793.00                                                    | 55.66         | 141.33                 | 8698.72     | 31.00                    | 276.71                      | 252.42 S                                  | 174.24 E | 306.72@                           | 145.38 | 11.84             |
| 8825.00                                                    | 58.12         | 141.68                 | 8716.19     | 32.00                    | 300.05                      | 273.40 S                                  | 190.92 E | 333.46@                           | 145.07 | 7.74              |
| 8857.00                                                    | 61.47         | 141.41                 | 8732.29     | 32.00                    | 324.14                      | 295.05 S                                  | 208.12 E | 361.07@                           | 144.80 | 10.49             |
| 8888.00                                                    | 65.95         | 141.15                 | 8746.02     | 31.00                    | 348.29                      | 316.73 S                                  | 225.50 E | 388.80@                           | 144.55 | 14.47             |
| 8920.00                                                    | 70.17         | 141.94                 | 8757.97     | 32.00                    | 374.14                      | 339.97 S                                  | 243.95 E | 418.44@                           | 144.34 | 13.38             |

# PathFinder Energy Services, Inc.

## Survey Report

DEVON ENERGY CORPORATION  
BEETLEJUICE 19 FED #3H  
EDDY COUNTY, NM  
RIG:H&P 300

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| Measured<br>Depth<br>(ft) | Incl<br>(deg) | Drift<br>Dir.<br>(deg) | TVD<br>(ft) | Course<br>Length<br>(ft) | Vertical<br>Section<br>(ft) | TOTAL<br>Rectangular Offsets<br>(ft) (ft) |          | Closure<br>Dist Dir<br>(ft) (deg) |        | DLS<br>(dg/100ft) |
|---------------------------|---------------|------------------------|-------------|--------------------------|-----------------------------|-------------------------------------------|----------|-----------------------------------|--------|-------------------|
| 8951.00                   | 73.60         | 142.73                 | 8767.61     | 31.00                    | 400.01                      | 363.29 S                                  | 261.95 E | 447.88@                           | 144.21 | 11.33             |
| 8983.00                   | 77.21         | 143.26                 | 8775.67     | 32.00                    | 427.36                      | 388.02 S                                  | 280.59 E | 478.84@                           | 144.13 | 11.40             |
| 9014.00                   | 80.72         | 143.61                 | 8781.60     | 31.00                    | 454.34                      | 412.45 S                                  | 298.71 E | 509.26@                           | 144.09 | 11.38             |
| 9046.00                   | 84.50         | 143.26                 | 8785.72     | 32.00                    | 482.48                      | 437.93 S                                  | 317.61 E | 540.98@                           | 144.05 | 11.86             |
| 9140.00                   | 89.34         | 139.48                 | 8790.77     | 94.00                    | 564.08                      | 511.22 S                                  | 376.19 E | 634.72@                           | 143.65 | 6.53              |
| 9186.00                   | 89.69         | 141.77                 | 8791.16     | 46.00                    | 603.79                      | 546.78 S                                  | 405.37 E | 680.65@                           | 143.45 | 5.04              |
| 9281.00                   | 90.92         | 145.11                 | 8790.65     | 95.00                    | 688.04                      | 623.07 S                                  | 461.95 E | 775.64@                           | 143.45 | 3.75              |
| 9375.00                   | 90.57         | 148.27                 | 8789.43     | 94.00                    | 773.73                      | 701.61 S                                  | 513.56 E | 869.48@                           | 143.80 | 3.38              |
| 9470.00                   | 89.96         | 151.79                 | 8788.99     | 95.00                    | 862.45                      | 783.89 S                                  | 561.01 E | 963.96@                           | 144.41 | 3.76              |
| 9564.00                   | 88.46         | 157.15                 | 8790.29     | 94.00                    | 952.55                      | 868.67 S                                  | 601.50 E | 1056.60@                          | 145.30 | 5.92              |
| 9659.00                   | 87.67         | 161.28                 | 8793.50     | 95.00                    | 1045.50                     | 957.42 S                                  | 635.19 E | 1148.96@                          | 146.44 | 4.42              |
| 9753.00                   | 86.97         | 163.65                 | 8797.89     | 94.00                    | 1138.36                     | 1046.95 S                                 | 663.47 E | 1239.47@                          | 147.64 | 2.63              |
| 9848.00                   | 86.88         | 167.69                 | 8802.99     | 95.00                    | 1232.80                     | 1138.84 S                                 | 686.95 E | 1329.98@                          | 148.90 | 4.25              |
| 9943.00                   | 86.79         | 171.47                 | 8808.24     | 95.00                    | 1327.61                     | 1232.11 S                                 | 704.10 E | 1419.10@                          | 150.25 | 3.97              |
| 10037.00                  | 89.08         | 174.29                 | 8811.63     | 94.00                    | 1421.48                     | 1325.31 S                                 | 715.74 E | 1506.23@                          | 151.63 | 3.86              |
| 10133.00                  | 89.08         | 177.80                 | 8813.17     | 96.00                    | 1517.08                     | 1421.06 S                                 | 722.36 E | 1594.11@                          | 153.05 | 3.66              |
| 10226.00                  | 89.52         | 179.65                 | 8814.30     | 93.00                    | 1609.21                     | 1514.02 S                                 | 724.43 E | 1678.41@                          | 154.43 | 2.05              |
| 10321.00                  | 89.16         | 180.18                 | 8815.40     | 95.00                    | 1703.04                     | 1609.01 S                                 | 724.57 E | 1764.63@                          | 155.76 | 0.67              |
| 10415.00                  | 88.46         | 181.05                 | 8817.35     | 94.00                    | 1795.68                     | 1702.99 S                                 | 723.56 E | 1850.33@                          | 156.98 | 1.19              |
| 10510.00                  | 88.72         | 180.44                 | 8819.69     | 95.00                    | 1889.26                     | 1797.95 S                                 | 722.33 E | 1937.62@                          | 158.11 | 0.70              |
| 10604.00                  | 91.28         | 179.74                 | 8819.69     | 94.00                    | 1982.06                     | 1891.94 S                                 | 722.18 E | 2025.09@                          | 159.11 | 2.82              |
| 10699.00                  | 91.01         | 179.65                 | 8817.79     | 95.00                    | 2075.93                     | 1986.92 S                                 | 722.68 E | 2114.27@                          | 160.01 | 0.30              |
| 10793.00                  | 90.66         | 180.44                 | 8816.42     | 94.00                    | 2168.74                     | 2080.91 S                                 | 722.61 E | 2202.81@                          | 160.85 | 0.92              |
| 10888.00                  | 90.40         | 181.41                 | 8815.54     | 95.00                    | 2262.29                     | 2175.89 S                                 | 721.08 E | 2292.26@                          | 161.67 | 1.06              |
| 10983.00                  | 89.16         | 180.35                 | 8815.91     | 95.00                    | 2355.86                     | 2270.88 S                                 | 719.62 E | 2382.17@                          | 162.42 | 1.72              |
| 11077.00                  | 88.81         | 181.14                 | 8817.57     | 94.00                    | 2448.47                     | 2364.85 S                                 | 718.40 E | 2471.56@                          | 163.10 | 0.92              |
| 11172.00                  | 87.58         | 179.82                 | 8820.56     | 95.00                    | 2542.11                     | 2459.80 S                                 | 717.60 E | 2562.34@                          | 163.74 | 1.90              |
| 11266.00                  | 87.05         | 179.82                 | 8824.97     | 94.00                    | 2634.88                     | 2553.69 S                                 | 717.90 E | 2652.68@                          | 164.30 | 0.56              |

# PathFinder Energy Services, Inc.

## Survey Report

DEVON ENERGY CORPORATION  
BEETLEJUICE 19 FED #3H  
EDDY COUNTY, NM  
RIG:H&P 300

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| Measured<br>Depth<br>(ft)                                 | Incl<br>(deg) | Drift<br>Dir.<br>(deg) | TVD<br>(ft) | Course<br>Length<br>(ft) | Vertical<br>Section<br>(ft) | TOTAL<br>Rectangular Offsets<br>(ft) (ft) |          | Closure<br>Dist Dir<br>(ft) (deg) |        | DLS<br>(dg/100ft) |
|-----------------------------------------------------------|---------------|------------------------|-------------|--------------------------|-----------------------------|-------------------------------------------|----------|-----------------------------------|--------|-------------------|
| 11361.00                                                  | 87.23         | 180.70                 | 8829.71     | 95.00                    | 2728.51                     | 2648.57 S                                 | 717.46 E | 2744.03@                          | 164.84 | 0.94              |
| 11456.00                                                  | 86.97         | 179.74                 | 8834.51     | 95.00                    | 2822.14                     | 2743.45 S                                 | 717.10 E | 2835.62@                          | 165.35 | 1.05              |
| 11550.00                                                  | 88.99         | 178.77                 | 8837.83     | 94.00                    | 2915.09                     | 2837.38 S                                 | 718.32 E | 2926.89@                          | 165.79 | 2.38              |
| 11644.00                                                  | 90.22         | 178.42                 | 8838.47     | 94.00                    | 3008.25                     | 2931.35 S                                 | 720.63 E | 3018.62@                          | 166.19 | 1.36              |
| 11739.00                                                  | 90.66         | 179.30                 | 8837.75     | 95.00                    | 3102.34                     | 3026.32 S                                 | 722.52 E | 3111.38@                          | 166.57 | 1.04              |
| 11833.00                                                  | 90.57         | 179.91                 | 8836.74     | 94.00                    | 3195.26                     | 3120.32 S                                 | 723.17 E | 3203.02@                          | 166.95 | 0.66              |
| 11928.00                                                  | 90.57         | 180.79                 | 8835.79     | 95.00                    | 3288.98                     | 3215.31 S                                 | 722.58 E | 3295.50@                          | 167.33 | 0.93              |
| 12023.00                                                  | 89.08         | 180.18                 | 8836.08     | 95.00                    | 3382.66                     | 3310.30 S                                 | 721.78 E | 3388.08@                          | 167.70 | 1.69              |
| 12117.00                                                  | 88.55         | 179.82                 | 8838.03     | 94.00                    | 3475.47                     | 3404.28 S                                 | 721.78 E | 3479.96@                          | 168.03 | 0.68              |
| 12212.00                                                  | 88.37         | 180.79                 | 8840.58     | 95.00                    | 3569.17                     | 3499.24 S                                 | 721.28 E | 3572.81@                          | 168.35 | 1.04              |
| 12306.00                                                  | 88.29         | 180.35                 | 8843.32     | 94.00                    | 3661.80                     | 3593.20 S                                 | 720.34 E | 3664.69@                          | 168.66 | 0.48              |
| 12401.00                                                  | 88.30         | 180.09                 | 8846.14     | 95.00                    | 3755.52                     | 3688.16 S                                 | 719.98 E | 3757.77@                          | 168.95 | 0.27              |
| 12495.00                                                  | 88.11         | 180.97                 | 8849.09     | 94.00                    | 3848.16                     | 3782.11 S                                 | 719.11 E | 3849.86@                          | 169.23 | 0.96              |
| 12590.00                                                  | 88.11         | 181.32                 | 8852.22     | 95.00                    | 3941.60                     | 3877.03 S                                 | 717.21 E | 3942.81@                          | 169.52 | 0.37              |
| 12685.00                                                  | 87.93         | 182.37                 | 8855.50     | 95.00                    | 4034.83                     | 3971.93 S                                 | 714.15 E | 4035.62@                          | 169.81 | 1.12              |
| 12779.00                                                  | 88.37         | 180.00                 | 8858.54     | 94.00                    | 4127.28                     | 4065.85 S                                 | 712.21 E | 4127.76@                          | 170.06 | 2.56              |
| 12874.00                                                  | 89.69         | 178.15                 | 8860.15     | 95.00                    | 4221.30                     | 4160.82 S                                 | 713.74 E | 4221.59@                          | 170.27 | 2.39              |
| 12968.00                                                  | 94.26         | 176.92                 | 8856.91     | 94.00                    | 4314.60                     | 4254.65 S                                 | 717.78 E | 4314.77@                          | 170.42 | 5.03              |
| 13063.00                                                  | 91.80         | 178.51                 | 8851.89     | 95.00                    | 4408.79                     | 4349.43 S                                 | 721.56 E | 4408.88@                          | 170.58 | 3.08              |
| 13158.00                                                  | 91.45         | 179.12                 | 8849.19     | 95.00                    | 4502.86                     | 4444.37 S                                 | 723.53 E | 4502.88@                          | 170.75 | 0.74              |
| 13252.00                                                  | 91.28         | 179.82                 | 8846.95     | 94.00                    | 4595.79                     | 4538.34 S                                 | 724.40 E | 4595.79@                          | 170.93 | 0.77              |
| 13347.00                                                  | 91.36         | 180.18                 | 8844.77     | 95.00                    | 4689.58                     | 4633.31 S                                 | 724.40 E | 4689.60@                          | 171.11 | 0.39              |
| 13365.00                                                  | 91.45         | 180.53                 | 8844.32     | 18.00                    | 4707.33                     | 4651.31 S                                 | 724.28 E | 4707.36@                          | 171.15 | 2.01              |
| STRAIGHT LINE PROJECTION TO BIT @ 13430'MD (8842.68'TVD). |               |                        |             |                          |                             |                                           |          |                                   |        |                   |
| 13430.00                                                  | 91.45         | 180.53                 | 8842.68     | 65.00                    | 4771.40                     | 4716.29 S                                 | 723.68 E | 4771.48@                          | 171.28 | 0.00              |

\*\* The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.



A Schlumberger Company

**TIE-IN SURVEY INFORMATION SHEET****CLIENT INFORMATION**

|                           |                    |    |     |
|---------------------------|--------------------|----|-----|
| CLIENT:                   | Devon Energy       |    |     |
| LEASE / WELL No.:         | Beetlejuice 19 Fed | 3H |     |
| WELL LOCATION:            | Eddy County        |    |     |
| COUNTY / STATE / COUNTRY: | Eddy               | NM | USA |
| RIG:                      | H & P 300          |    |     |
| API WELL No:              | 30-015-39231       |    |     |
| JOB No:                   | 700005065-WT-WT    |    |     |
| P.O. / AFE No.            | 157340             |    |     |
| DIRECTIONAL COMPANY:      | PES                |    |     |

**WELL SITE INFORMATION**

|                                  |                                                                                                        |                 |                   |
|----------------------------------|--------------------------------------------------------------------------------------------------------|-----------------|-------------------|
| TOTAL MAGNETIC CORRECTION (TMC): |                                                                                                        |                 |                   |
| On Wall Plat:                    | 7.47                                                                                                   | LWD Calculated: | 7.47              |
| X =                              | 670985.920000                                                                                          | Feet            | Y = 601356.780000 |
|                                  |                                                                                                        |                 | Feet              |
| SITE LATITUDE:                   | 32.652470 N                                                                                            | SITE LONGITUDE: | 103.912088 W      |
| GRID SYSTEM:                     | TRUE <input type="checkbox"/> UTM <input checked="" type="checkbox"/> LAMBERT <input type="checkbox"/> | ZONE:           | New Mexico East   |
| PROPOSED DRIFT DIRECTION:        | 170.94                                                                                                 |                 |                   |
| KELLY BUSHING ELEVATION:         | 3423' 26.00'                                                                                           |                 |                   |
| ALTITUDE:                        | 3397                                                                                                   | Feet            | WATER DEPTH: N/A  |
|                                  |                                                                                                        |                 | Feet              |

**TIE-IN SURVEY**

|                                    |                                                                     |                                        |                                                         |
|------------------------------------|---------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------|
| MEASURED DEPTH:                    | 8143'                                                               |                                        |                                                         |
| DRIFT ANGLE:                       | 1.65                                                                |                                        |                                                         |
| DRIFT DIRECTION:                   | 232.62                                                              |                                        |                                                         |
| TRUE VERTICAL DEPTH:               | 8141.53                                                             |                                        |                                                         |
| VERTICAL SECTION:                  | 31.66                                                               |                                        |                                                         |
| RECTANGULAR COORDINATE ( N / S ) : | -34.34                                                              |                                        |                                                         |
| RECTANGULAR COORDINATE ( E / W ) : | -14.29                                                              |                                        |                                                         |
| CLOSURE DISTANCE / DIRECTION:      | 37.19                                                               | 202.58                                 |                                                         |
| SURVEY CALCULATION METHOD:         | AA <input type="checkbox"/>                                         | MC <input checked="" type="checkbox"/> | RC <input type="checkbox"/> BT <input type="checkbox"/> |
| SOURCE OF TIE-IN DATA ( COMPANY ): | VAUGHN ENERGY SERVICES                                              |                                        |                                                         |
| COPY OF TIE-IN SURVEY REPORT       | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO |                                        |                                                         |

**WELL PLAN**

|                |      |              |       |
|----------------|------|--------------|-------|
| KICKOFF DEPTH: | 8178 | TOTAL DEPTH: | 13430 |
| KICKOFF ANGLE: | 0    | MAX ANGLE:   | 94.26 |

PES Engineers: J.HOLMES  
R.DIAZ

\*\*Signature of both field engineers required if applicable

Directional Driller: JORDAN WILLIAMS

DATE: 19-Jan-2012



Company: Devon Energy  
Lease/Well: Beetle Juice 19 Fed /#3  
Location: Sec 18 Town 19S Range 31E

Rig Name: H&P 300  
State/County: Texas/Eddy

Latitude: 32.66, Longitude: -103.92  
GRID North is 0.23 Degrees East of True North  
VS-Azi: 170.94 Degrees



FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : RKB 26.2

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...juice 19 fed #3 ha gyro\_ed.ut

Minimum Curvature Method

Report Date/Time: 1/18/2012 / 16:41

Vaughn Energy Services  
Fort Worth, Texas  
817-741-3610  
Troy Hardin

| 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                        | ****                          |
| 100.00                  | 0.27                 | 232.88                    | 100.00    | -0.14       | -0.19       | 0.11                      | 0.24                      | 232.88                      | 0.27                          |
| 200.00                  | 0.80                 | 220.64                    | 199.99    | -0.82       | -0.84       | 0.68                      | 1.17                      | 225.60                      | 0.54                          |
| 300.00                  | 0.77                 | 170.36                    | 299.99    | -2.02       | -1.18       | 1.81                      | 2.34                      | 210.34                      | 0.67                          |
| 400.00                  | 0.59                 | 175.61                    | 399.98    | -3.19       | -1.03       | 2.99                      | 3.35                      | 197.85                      | 0.20                          |
| 500.00                  | 0.90                 | 190.36                    | 499.97    | -4.48       | -1.13       | 4.24                      | 4.62                      | 194.18                      | 0.37                          |
| 600.00                  | 0.61                 | 170.67                    | 599.96    | -5.78       | -1.19       | 5.52                      | 5.90                      | 191.61                      | 0.39                          |
| 700.00                  | 0.81                 | 175.83                    | 699.95    | -7.01       | -1.05       | 6.76                      | 7.09                      | 188.52                      | 0.21                          |
| 800.00                  | 0.49                 | 212.02                    | 799.95    | -8.08       | -1.23       | 7.78                      | 8.17                      | 188.63                      | 0.51                          |
| 900.00                  | 0.21                 | 168.94                    | 899.95    | -8.62       | -1.42       | 8.29                      | 8.73                      | 189.34                      | 0.37                          |
| 1000.00                 | 0.30                 | 104.13                    | 999.95    | -8.86       | -1.13       | 8.57                      | 8.93                      | 187.27                      | 0.28                          |
| 1100.00                 | 0.51                 | 97.72                     | 1099.94   | -8.98       | -0.44       | 8.80                      | 8.99                      | 182.81                      | 0.21                          |
| 1200.00                 | 1.19                 | 98.11                     | 1199.93   | -9.19       | 1.03        | 9.24                      | 9.25                      | 173.61                      | 0.69                          |
| 1300.00                 | 1.64                 | 68.81                     | 1299.90   | -8.82       | 3.40        | 9.24                      | 9.45                      | 158.94                      | 0.84                          |
| 1400.00                 | 1.54                 | 68.65                     | 1399.86   | -7.81       | 5.98        | 8.66                      | 9.84                      | 142.55                      | 0.10                          |
| 1500.00                 | 1.78                 | 69.57                     | 1499.82   | -6.78       | 8.69        | 8.06                      | 11.02                     | 127.95                      | 0.24                          |
| 1600.00                 | 1.81                 | 77.28                     | 1599.77   | -5.89       | 11.69       | 7.66                      | 13.09                     | 116.75                      | 0.24                          |
| 1700.00                 | 2.03                 | 90.33                     | 1699.72   | -5.55       | 15.00       | 7.85                      | 15.99                     | 110.32                      | 0.49                          |
| 1800.00                 | 1.73                 | 81.54                     | 1799.66   | -5.34       | 18.26       | 8.15                      | 19.02                     | 106.31                      | 0.42                          |
| 1900.00                 | 1.28                 | 74.72                     | 1899.63   | -4.83       | 20.82       | 8.04                      | 21.38                     | 103.05                      | 0.48                          |
| 2000.00                 | 0.97                 | 85.70                     | 1999.61   | -4.47       | 22.75       | 7.99                      | 23.18                     | 101.11                      | 0.37                          |
| 2100.00                 | 0.54                 | 102.81                    | 2099.60   | -4.51       | 24.05       | 8.24                      | 24.47                     | 100.61                      | 0.49                          |
| 2200.00                 | 0.70                 | 89.33                     | 2199.59   | -4.60       | 25.12       | 8.50                      | 25.53                     | 100.39                      | 0.21                          |
| 2300.00                 | 0.24                 | 101.76                    | 2299.59   | -4.64       | 25.93       | 8.67                      | 26.34                     | 100.14                      | 0.46                          |
| 2400.00                 | 0.61                 | 80.51                     | 2399.59   | -4.60       | 26.66       | 8.74                      | 27.06                     | 99.78                       | 0.39                          |
| 2500.00                 | 0.45                 | 42.24                     | 2499.58   | -4.22       | 27.45       | 8.49                      | 27.77                     | 98.73                       | 0.38                          |
| 2600.00                 | 0.74                 | 30.61                     | 2599.58   | -3.37       | 28.04       | 7.75                      | 28.25                     | 96.86                       | 0.31                          |
| 2700.00                 | 0.77                 | 29.86                     | 2699.57   | -2.24       | 28.71       | 6.73                      | 28.79                     | 94.45                       | 0.03                          |
| 2800.00                 | 0.90                 | 32.89                     | 2799.56   | -0.99       | 29.47       | 5.62                      | 29.49                     | 91.93                       | 0.14                          |
| 2900.00                 | 0.88                 | 12.74                     | 2899.55   | 0.42        | 30.07       | 4.32                      | 30.07                     | 89.20                       | 0.31                          |
| 3000.00                 | 0.87                 | 7.08                      | 2999.54   | 1.92        | 30.33       | 2.88                      | 30.39                     | 86.37                       | 0.09                          |
| 3100.00                 | 0.59                 | 325.54                    | 3099.53   | 3.11        | 30.13       | 1.68                      | 30.29                     | 84.11                       | 0.58                          |

| 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 | Logleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 3200.00                 | 0.73                 | 299.03                    | 3199.52   | 3.84        | 29.29       | 0.82                      | 29.54                     | 82.53                       | 0.33                          |
| 3300.00                 | 0.36                 | 221.29                    | 3299.52   | 3.91        | 28.53       | 0.63                      | 28.79                     | 82.19                       | 0.74                          |
| 3400.00                 | 0.58                 | 231.12                    | 3399.51   | 3.36        | 27.93       | 1.08                      | 28.13                     | 83.13                       | 0.23                          |
| 3500.00                 | 0.88                 | 192.55                    | 3499.51   | 2.30        | 27.37       | 2.04                      | 27.47                     | 85.20                       | 0.56                          |
| 3600.00                 | 0.80                 | 185.53                    | 3599.50   | 0.86        | 27.14       | 3.43                      | 27.15                     | 88.19                       | 0.13                          |
| 3700.00                 | 0.99                 | 204.36                    | 3699.48   | -0.63       | 26.71       | 4.83                      | 26.72                     | 91.35                       | 0.35                          |
| 3800.00                 | 1.21                 | 194.65                    | 3799.47   | -2.44       | 26.09       | 6.52                      | 26.20                     | 95.34                       | 0.28                          |
| 3900.00                 | 0.92                 | 228.82                    | 3899.45   | -3.99       | 25.22       | 7.91                      | 25.53                     | 98.99                       | 0.68                          |
| 4000.00                 | 1.01                 | 195.94                    | 3999.44   | -5.37       | 24.37       | 9.14                      | 24.95                     | 102.42                      | 0.55                          |
| 4100.00                 | 1.02                 | 183.88                    | 4099.42   | -7.10       | 24.07       | 10.80                     | 25.09                     | 106.43                      | 0.21                          |
| 4200.00                 | 1.07                 | 208.23                    | 4199.40   | -8.81       | 23.57       | 12.41                     | 25.16                     | 110.49                      | 0.44                          |
| 4300.00                 | 0.75                 | 216.88                    | 4299.39   | -10.15      | 22.73       | 13.60                     | 24.90                     | 114.06                      | 0.35                          |
| 4400.00                 | 1.11                 | 224.06                    | 4399.38   | -11.37      | 21.67       | 14.64                     | 24.47                     | 117.69                      | 0.39                          |
| 4500.00                 | 0.58                 | 223.79                    | 4499.37   | -12.44      | 20.64       | 15.53                     | 24.10                     | 121.07                      | 0.53                          |
| 4600.00                 | 0.88                 | 258.40                    | 4599.36   | -12.96      | 19.54       | 15.87                     | 23.44                     | 123.55                      | 0.52                          |
| 4700.00                 | 1.02                 | 275.70                    | 4699.35   | -13.02      | 17.90       | 15.68                     | 22.14                     | 126.03                      | 0.32                          |
| 4800.00                 | 0.99                 | 272.61                    | 4799.33   | -12.89      | 16.16       | 15.28                     | 20.67                     | 128.59                      | 0.06                          |
| 4900.00                 | 1.15                 | 284.89                    | 4899.31   | -12.60      | 14.33       | 14.70                     | 19.08                     | 131.32                      | 0.28                          |
| 5000.00                 | 0.97                 | 283.43                    | 4999.30   | -12.14      | 12.54       | 13.97                     | 17.45                     | 134.09                      | 0.18                          |
| 5100.00                 | 1.40                 | 289.38                    | 5099.27   | -11.54      | 10.56       | 13.06                     | 15.65                     | 137.54                      | 0.44                          |
| 5200.00                 | 1.47                 | 280.27                    | 5199.24   | -10.91      | 8.15        | 12.06                     | 13.62                     | 143.24                      | 0.24                          |
| 5300.00                 | 1.56                 | 271.15                    | 5299.21   | -10.65      | 5.52        | 11.39                     | 12.00                     | 152.59                      | 0.25                          |
| 5400.00                 | 1.64                 | 303.75                    | 5399.17   | -9.83       | 2.98        | 10.18                     | 10.27                     | 163.15                      | 0.90                          |
| 5500.00                 | 1.24                 | 285.55                    | 5499.14   | -8.75       | 0.75        | 8.76                      | 8.78                      | 175.09                      | 0.60                          |
| 5600.00                 | 1.42                 | 273.04                    | 5599.11   | -8.40       | -1.52       | 8.05                      | 8.53                      | 190.28                      | 0.34                          |
| 5700.00                 | 1.16                 | 274.76                    | 5699.09   | -8.25       | -3.77       | 7.55                      | 9.07                      | 204.55                      | 0.26                          |
| 5800.00                 | 1.24                 | 286.00                    | 5799.07   | -7.86       | -5.82       | 6.85                      | 9.78                      | 216.52                      | 0.25                          |
| 5900.00                 | 1.12                 | 277.72                    | 5899.05   | -7.43       | -7.84       | 6.10                      | 10.80                     | 226.52                      | 0.21                          |
| 6000.00                 | 0.91                 | 291.54                    | 5999.03   | -7.01       | -9.55       | 5.42                      | 11.84                     | 233.71                      | 0.33                          |
| 6100.00                 | 0.89                 | 286.25                    | 6099.02   | -6.50       | -11.02      | 4.69                      | 12.80                     | 239.46                      | 0.09                          |
| 6200.00                 | 0.73                 | 312.92                    | 6199.01   | -5.85       | -12.23      | 3.85                      | 13.56                     | 244.43                      | 0.40                          |
| 6300.00                 | 0.53                 | 317.37                    | 6299.00   | -5.08       | -13.01      | 2.97                      | 13.97                     | 248.68                      | 0.21                          |
| 6400.00                 | 0.54                 | 275.99                    | 6399.00   | -4.69       | -13.79      | 2.46                      | 14.57                     | 251.22                      | 0.38                          |
| 6500.00                 | 0.17                 | 76.07                     | 6499.00   | -4.60       | -14.12      | 2.32                      | 14.85                     | 251.94                      | 0.71                          |
| 6600.00                 | 0.61                 | 129.41                    | 6598.99   | -4.91       | -13.56      | 2.71                      | 14.42                     | 250.10                      | 0.53                          |
| 6700.00                 | 1.25                 | 146.64                    | 6698.98   | -6.16       | -12.55      | 4.10                      | 13.97                     | 243.86                      | 0.68                          |
| 6800.00                 | 1.71                 | 138.56                    | 6798.95   | -8.18       | -10.96      | 6.35                      | 13.68                     | 233.26                      | 0.51                          |
| 6900.00                 | 1.92                 | 132.91                    | 6898.90   | -10.44      | -8.75       | 8.93                      | 13.62                     | 219.95                      | 0.28                          |
| 7000.00                 | 2.18                 | 139.36                    | 6998.83   | -13.03      | -6.28       | 11.88                     | 14.46                     | 205.73                      | 0.35                          |
| 7100.00                 | 1.37                 | 155.28                    | 7098.79   | -15.56      | -4.54       | 14.65                     | 16.21                     | 196.26                      | 0.94                          |
| 7200.00                 | 1.15                 | 178.11                    | 7198.76   | -17.64      | -4.01       | 16.79                     | 18.09                     | 192.79                      | 0.54                          |
| 7300.00                 | 0.84                 | 206.87                    | 7298.75   | -19.30      | -4.30       | 18.38                     | 19.77                     | 192.57                      | 0.58                          |
| 7400.00                 | 1.11                 | 212.31                    | 7398.73   | -20.77      | -5.15       | 19.70                     | 21.40                     | 193.94                      | 0.29                          |
| 7500.00                 | 1.37                 | 195.51                    | 7498.71   | -22.74      | -5.99       | 21.51                     | 23.52                     | 194.76                      | 0.44                          |
| 7600.00                 | 0.99                 | 188.08                    | 7598.69   | -24.75      | -6.43       | 23.42                     | 25.57                     | 194.57                      | 0.41                          |
| 7700.00                 | 1.02                 | 218.67                    | 7698.67   | -26.29      | -7.11       | 24.84                     | 27.24                     | 195.13                      | 0.53                          |
| 7800.00                 | 1.60                 | 223.99                    | 7798.65   | -27.99      | -8.63       | 26.28                     | 29.29                     | 197.14                      | 0.60                          |
| 7900.00                 | 1.33                 | 192.63                    | 7898.62   | -30.12      | -9.86       | 28.20                     | 31.70                     | 198.12                      | 0.83                          |
| 8000.00                 | 1.43                 | 233.00                    | 7998.59   | -32.01      | -11.11      | 29.86                     | 33.88                     | 199.14                      | 0.96                          |
| 8100.00                 | 1.65                 | 234.36                    | 8098.55   | -33.60      | -13.28      | 31.09                     | 36.13                     | 201.57                      | 0.22                          |
| 8143.00                 | 1.65                 | 232.62                    | 8141.53   | -34.34      | -14.28      | 31.66                     | 37.19                     | 202.58                      | 0.12                          |

| 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 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|

HORIZONTAL DISPLACEMENT IS  
37.19 FEET AT 202.58 DEGREES



A Schlumberger Company **PathFinder Energy Services, Inc.**

## Magnetic & Grid Calculations

Devon Energy  
Beetlejuice 19 Fed #3H  
Eddy County, NM  
Rig:HP 300

Fri Jan 13 15:57:09 2012

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### Coordinates

Latitude: 32.652470 N ( 32 deg. 39 min. 8.8928 sec.)  
Longitude: 103.912088 W (-103 deg. 54 min. 43.5160 sec.)  
Elevation: 3423.00 feet.  
Calculation Date: Jan/13/2012

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### Magnetic Calculations

Model: IGRF2010  
Dip Angle: 60.5105 degrees  
Total Magnetic Field: 0.48779 gauss  
Magnetic Declination: 7.704051 degrees  
Horizontal Intensity: 0.240120 gauss  
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.704051 Degr

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### Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east  
Ellipsoid: GRS80  
X: 670985.9200 feet  
Y: 601356.7800 feet  
True to Grid: (convergence) -0.227283 degrees  
Magnetic to Grid: 7.476768 degrees  
To Convert a Magnetic Dir. to a GRID dir. Add 7.476768 Degr.

# PathFinder Energy Services, Inc.

## Magnetic & Grid Calculations

DEVON ENERGY CORPORATION  
BEETLEJUICE 19 FED #3H  
HACKBERRY, BONE SPRINGS, NW  
Rig:HP 300

FIELD CALCULATION

Wed Jan 18 21:40:49 2012

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### Coordinates

Latitude: 32.652470 N ( 32 deg. 39 min. 8.8928 sec.)  
Longitude: 103.912088 W (-103 deg. 54 min. 43.5160 sec.)  
Elevation: 3423.00 feet.  
Calculation Date: Jan/18/2012

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### Magnetic Calculations

Model: IGRF2010  
Dip Angle: 60.5102 degrees  
Total Magnetic Field: 0.48777 gauss  
Magnetic Declination: 7.702369 degrees  
Horizontal Intensity: 0.240116 gauss  
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.702369 Degr

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### Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east  
Ellipsoid: GRS80  
X: 670985.9200 feet  
Y: 601356.7800 feet  
True to Grid: (convergence) -0.227283 degrees  
Magnetic to Grid: 7.475087 degrees  
To Convert a Magnetic Dir. to a GRID dir. Add 7.475087 Degr.

OCD-ARTESIA

Form 3160-3  
(February 2005)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007 **EA 679**

|                                                                                                                                                                                                                       |                                                  |                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| 1a. Type of work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER                                                                                                                           |                                                  | 5. Lease Serial No.<br>USA NMNM 90534                                                                                    |
| 1b. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone |                                                  | 6. If Indian, Allottee or Tribe Name                                                                                     |
| 2. Name of Operator<br>Devon Energy Production Co., LP <b>(6137)</b>                                                                                                                                                  |                                                  | 7. If Unit or CA Agreement, Name and No.                                                                                 |
| 3a. Address 20 North Broadway<br>OKC, OK 73102                                                                                                                                                                        |                                                  | 8. Lease Name and Well No.<br>Beetle Juice 19 Federal 3H <b>(38505)</b>                                                  |
| 3b. Phone No. (include area code)<br>(405)-552-7802                                                                                                                                                                   |                                                  | 9. API Well No.<br>30-015-392-31                                                                                         |
| 4. Location of Well (Report location clearly and in accordance with any State requirements*)<br>At surface NENW 220' FNL & 1500' FWL Lot C<br>At proposed prod. zone SESW 330' FSL & 2040' FWL Lot N                  |                                                  | 10. Field and Pool, or Exploratory<br>Hackberry; Bone Spring, NW <b>(97020)</b>                                          |
| 11. Sec, T R M. or Blk and Survey or Area<br>Sec 19-T19S-R31E                                                                                                                                                         |                                                  | 12. County or Parish<br>Eddy                                                                                             |
| 13. State<br>NM                                                                                                                                                                                                       |                                                  | 14. Distance in miles and direction from nearest town or post office*<br>Approximately 12 miles south of Loco Hills, NM. |
| 15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg. unit line, if any) 220'                                                                                              | 16. No. of acres in lease 632.68                 | 17. Spacing Unit dedicated to this well 160                                                                              |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. SL: 50' BHL: 645'                                                                                          | 19. Proposed Depth TVD 8820' MD 13358'           | 20. BLM/BIA Bond No. on file CO-1104                                                                                     |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc) 3397.02' GL                                                                                                                                                        | 22. Approximate date work will start* 03/15/2011 | 23. Estimated duration 45 days                                                                                           |

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form.

- |                                                                                                                                               |                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 1. Well plat certified by a registered surveyor.                                                                                              | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.                                                                                                                           | 5. Operator certification                                                                       |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office) | 6. Such other site specific information and/or plans as may be required by the BLM.             |

|                                           |                                              |                     |
|-------------------------------------------|----------------------------------------------|---------------------|
| 25. Signature                             | Name (Printed/Typed)<br>Stephanie A. Ysasaga | Date<br>02/15/2011  |
| Title<br>Sr. Staff Engineering Technician |                                              |                     |
| Approved by (Signature)                   | Name (Printed/Typed)<br>Isi Don Peterson     | Date<br>JUL 19 2011 |
| Title<br>FIELD MANAGER                    |                                              |                     |
| Office<br>CARLSBAD FIELD OFFICE           |                                              |                     |

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached

APPROVAL FOR TWO YEARS

Title 18 USC Section 1001 and Title 43 USC Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

\*(Instructions on page 2)

Capitan Controlled Water Basin

RECEIVED  
JUL 20 2011  
NMOCD ARTESIA

Approval Subject to General Requirements  
& Special Stipulations Attached

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

District I  
1625 N. French Dr., Hobbs, NM 88240

District II  
1301 W. Grand Avenue, Artesia, NM 88210

District III  
1000 Rio Brazos Rd., Artec, NM 87410

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-102  
Revised October 15, 2009  
Submit one copy to appropriate  
District Office  
☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|                                                              |                      |                                                                            |                      |                                  |                             |                                  |                              |                                         |                       |
|--------------------------------------------------------------|----------------------|----------------------------------------------------------------------------|----------------------|----------------------------------|-----------------------------|----------------------------------|------------------------------|-----------------------------------------|-----------------------|
| <sup>1</sup> API Number                                      |                      | <sup>2</sup> Pool Code                                                     |                      | <sup>3</sup> Pool Name           |                             |                                  |                              |                                         |                       |
| <sup>4</sup> Property Code                                   |                      | <sup>5</sup> Property Name<br><b>BEETLE JUICE "19" FEDERAL</b>             |                      |                                  |                             |                                  |                              | <sup>6</sup> Well Number<br><b>3H</b>   |                       |
| <sup>7</sup> OGRID No.<br><b>6137</b>                        |                      | <sup>8</sup> Operator Name<br><b>DEVON ENERGY PRODUCTION COMPANY, L.P.</b> |                      |                                  |                             |                                  |                              | <sup>9</sup> Elevation<br><b>3397.0</b> |                       |
| <sup>10</sup> Surface Location                               |                      |                                                                            |                      |                                  |                             |                                  |                              |                                         |                       |
| U/L or lot no.<br><b>C</b>                                   | Section<br><b>19</b> | Township<br><b>19 S</b>                                                    | Range<br><b>31 E</b> | Lot Idn                          | Feet from the<br><b>220</b> | North/South line<br><b>NORTH</b> | Feet from the<br><b>1500</b> | East/West line<br><b>WEST</b>           | County<br><b>EDDY</b> |
| <sup>11</sup> Bottom Hole Location If Different From Surface |                      |                                                                            |                      |                                  |                             |                                  |                              |                                         |                       |
| U/L or lot no.<br><b>N</b>                                   | Section<br><b>19</b> | Township<br><b>19 S</b>                                                    | Range<br><b>31 E</b> | Lot Idn                          | Feet from the<br><b>330</b> | North/South line<br><b>SOUTH</b> | Feet from the<br><b>2040</b> | East/West line<br><b>WEST</b>           | County<br><b>EDDY</b> |
| <sup>12</sup> Dedicated Acres                                |                      | <sup>13</sup> Joint or Infill                                              |                      | <sup>14</sup> Consolidation Code |                             | <sup>15</sup> Order No.          |                              |                                         |                       |

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1500'</p> <p>SURFACE LOCATION</p> <p>220'</p> <p>NW CORNER SEC. 19<br/>LAT. = 32.6531030°N<br/>LONG. = 103.9169475°W<br/>NMSP EAST (FT)<br/>N = 601564.85<br/>E = 669485.12</p> <p>BEETLE JUICE "19" FEDERAL #3H<br/>ELEV. = 3397.0'<br/>LAT. = 32.6525150°N (NAD83)<br/>LONG. = 103.9120752°W<br/>NMSP EAST (FT)<br/>N = 601356.78<br/>E = 670985.92</p> <p>NE CORNER SEC. 19<br/>LAT. = 32.6531625°N<br/>LONG. = 103.9000245°W<br/>NMSP EAST (FT)<br/>N = 601607.32<br/>E = 674694.79</p> |  | <p><b>17 OPERATOR CERTIFICATION</b><br/>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> |
| <p>SW CORNER SEC. 19<br/>LAT. = 32.6385944°N<br/>LONG. = 103.9169644°W<br/>NMSP EAST (FT)<br/>N = 596284.86<br/>E = 669500.63</p> <p>BOTTOM OF HOLE<br/>LAT. = 32.63947316°N<br/>LONG. = 103.9103495°W<br/>NMSP EAST (FT)<br/>N = 596630.45<br/>E = 671639.75</p> <p>SE CORNER SEC. 19<br/>LAT. = 32.6386459°N<br/>LONG. = 103.8999714°W<br/>NMSP EAST (FT)<br/>N = 596324.81<br/>E = 674732.70</p> <p>2040'</p> <p>BOTTOM OF HOLE</p>                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p><b>18 SURVEYOR CERTIFICATION</b><br/>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>NOVEMBER 13, 2010</p> <p>Date of Survey _____</p> <p>Signature and Seal of Professional Surveyor: _____<br/>Certificate No. _____</p> <p>SURVEY NO 282-R1</p>                                                                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |