

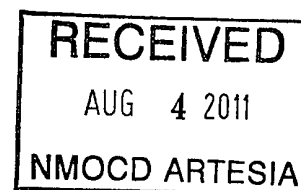


An Operating Unit of Smith International, Inc.

## ***DIRECTIONAL SURVEY REPORT***

30-015-37749

**OGX RESOURCES, LLC.**  
**COOPER 31 FEDERAL #3**  
***EDDY COUNTY, NEW MEXICO***



**PREPARED BY: FRANCISCO SINISTERRA**

Pathfinder Energy Services, Inc.  
6213 W. Interstate 20 • Midland, TX • 79706  
(432) 681-6000

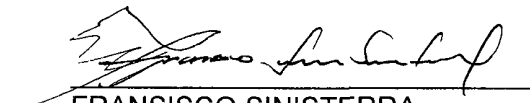
DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY: A) JEFF HULL
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 01-30-11 TO 02-06-11
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

OGX RESOURCES, LLC.  
COOPER 31 FEDERAL #3  
EDDY COUNTY, NM  
RIG: SILVER OAK 11

9. SURVEY CERTIFIED FROM: 6657 TO 10782 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 3943.42 FEET ON A BEARING OF 268.27 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 10860 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

  
FRANSISCO SINISTERRA  
M/LWD SERVICE COORDINATOR

# PathFinder Energy Services, Inc.

## BHL Report

Page 01/01  
Tie-in Date: 01/31/2011  
Date Completed: 02/07/2011

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OGX RESOURCES, LLC.  
COOPER 31 FEDERAL #3H  
EDDY COUNTY, NM  
Rig:SILVER OAK 11  
PathFinder Office Supervisor: FFRANCISCO SINISTERRA  
PathFinder Field Engineers:JEFF HULL  
MIKE SWINEY

Survey Horiz. Reference:WELLHEAD  
Ref Coordinates: LAT:32.5.20.7641 N LON:104.1.5.4048 W  
GRID Reference:NAD83 new mexico east Transverse Mercator  
Ref GRID Coord: X: 638940.6140 Y: 396294.5120  
North Aligned To:GRID NORTH  
Total Magnetic Correction: 7.66° EAST TO GRID  
Vertical Section Plane: 268.31  
Survey Vert. Reference: 17.00' Kelly Bushing To Ground  
Altitude:2975.00' Ground To MSL

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|                       |                |             |
|-----------------------|----------------|-------------|
| Measured Depth        | 10860.00       | (feet)      |
| Inclination           | 91.10          | (deg)       |
| Azimuth               | 268.78         | (deg)       |
| True Vertical Depth   | 7061.09        | (feet)      |
| Vertical Section      | 3943.42        | (feet)      |
| Survey X cord         | 634998.98      | (feet)      |
| Survey Y cord         | 396175.34      | (feet)      |
| Survey Lat            | 32.08880455 N  | (deg)       |
| Survey Lon            | 104.03089666 W | (deg)       |
| Rectangular Corr. N/S | 119.16 S       | (feet)      |
| Rectangular Corr. E/W | 3941.62 W      | (feet)      |
| Closure Distance      | 3943.42        | (feet)      |
| Direction of Closure  | 268.27         | (deg)       |
| Dogleg Severity       | 0.00           | (deg/100ft) |

## PathFinder Energy Services, Inc.

## Survey Report

OGX RESOURCES, LLC.  
 COOPER 31 FEDERAL #3H  
 EDDY COUNTY, NM  
 Rig: SILVER OAK 11  
 PathFinder Office Supervisor: FRANCISCO SINISTERRA  
 PathFinder Field Engineers: JEFF HULL  
 MIKE SWINEY

Survey Horiz. Reference: WELLHEAD  
 Ref Coordinates: LAT: 32.5.20.7641 N LON: 104.1.5.4048 W  
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 Total Magnetic Correction: 7.66° EAST TO GRID  
 Vertical Section Plane: 268.31  
 Survey Vert. Reference: 17.00' Kelly Bushing To Ground  
 Altitude: 2975.00' Ground To MSL

Survey Calculations by RX4 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 |         | Closure<br>Dist Dir |        | DLS        |
|---------------------------------------------------------------|---------------|------------------------|-------------|--------------------------|-----------------------------|------------------------------|---------|---------------------|--------|------------|
| (ft)                                                          | (deg)         | (deg)                  | (ft)        | (ft)                     | (ft)                        | (ft)                         | (ft)    | (ft)                | (deg)  | (dg/100ft) |
| THE FOLLOWING ARE SCIENTIFIC DRILLING GYRO MULTI-SHOT SURVEYS |               |                        |             |                          |                             |                              |         |                     |        |            |
| 100.00                                                        | 0.21          | 273.43                 | 100.00      | 0.00                     | 0.17                        | 0.02 N                       | 0.17 W  | 0.17@               | 275.30 | 0.00       |
| 200.00                                                        | 0.51          | 230.37                 | 199.99      | 100.00                   | 0.71                        | 0.26 S                       | 0.70 W  | 0.75@               | 249.84 | 0.38       |
| 300.00                                                        | 0.52          | 206.95                 | 299.99      | 100.00                   | 1.28                        | 0.95 S                       | 1.25 W  | 1.57@               | 232.86 | 0.21       |
| 400.00                                                        | 0.57          | 203.20                 | 399.99      | 100.00                   | 1.70                        | 1.81 S                       | 1.65 W  | 2.45@               | 222.39 | 0.06       |
| 500.00                                                        | 0.52          | 223.02                 | 499.98      | 100.00                   | 2.23                        | 2.60 S                       | 2.15 W  | 3.37@               | 219.70 | 0.19       |
| 600.00                                                        | 0.88          | 243.78                 | 599.97      | 100.00                   | 3.25                        | 3.27 S                       | 3.15 W  | 4.54@               | 223.99 | 0.43       |
| 700.00                                                        | 0.97          | 236.80                 | 699.96      | 100.00                   | 4.67                        | 4.07 S                       | 4.55 W  | 6.10@               | 228.19 | 0.14       |
| 800.00                                                        | 1.42          | 223.12                 | 799.94      | 100.00                   | 6.26                        | 5.44 S                       | 6.11 W  | 8.18@               | 228.31 | 0.53       |
| 900.00                                                        | 1.48          | 216.30                 | 899.91      | 100.00                   | 7.93                        | 7.38 S                       | 7.72 W  | 10.68@              | 226.27 | 0.18       |
| 1000.00                                                       | 1.60          | 213.36                 | 999.87      | 100.00                   | 9.53                        | 9.59 S                       | 9.25 W  | 13.32@              | 223.97 | 0.14       |
| 1100.00                                                       | 1.73          | 212.95                 | 1099.83     | 100.00                   | 11.19                       | 12.02 S                      | 10.84 W | 16.19@              | 222.04 | 0.13       |
| 1200.00                                                       | 2.03          | 220.05                 | 1199.77     | 100.00                   | 13.23                       | 14.64 S                      | 12.80 W | 19.45@              | 221.15 | 0.38       |
| 1300.00                                                       | 2.17          | 218.93                 | 1299.71     | 100.00                   | 15.64                       | 17.47 S                      | 15.13 W | 23.11@              | 220.89 | 0.15       |
| 1400.00                                                       | 2.15          | 213.05                 | 1399.64     | 100.00                   | 17.94                       | 20.52 S                      | 17.34 W | 26.86@              | 220.20 | 0.22       |
| 1500.00                                                       | 2.03          | 213.18                 | 1499.57     | 100.00                   | 20.02                       | 23.57 S                      | 19.33 W | 30.49@              | 219.36 | 0.12       |
| 1600.00                                                       | 1.51          | 222.09                 | 1599.52     | 100.00                   | 21.94                       | 26.03 S                      | 21.19 W | 33.56@              | 219.14 | 0.59       |
| 1700.00                                                       | 0.98          | 222.63                 | 1699.50     | 100.00                   | 23.45                       | 27.64 S                      | 22.65 W | 35.73@              | 219.33 | 0.53       |
| 1800.00                                                       | 0.90          | 223.02                 | 1799.48     | 100.00                   | 24.60                       | 28.84 S                      | 23.76 W | 37.37@              | 219.48 | 0.08       |
| 1900.00                                                       | 0.93          | 220.25                 | 1899.47     | 100.00                   | 25.70                       | 30.04 S                      | 24.82 W | 38.97@              | 219.57 | 0.05       |
| 2000.00                                                       | 1.04          | 220.38                 | 1999.46     | 100.00                   | 26.85                       | 31.35 S                      | 25.94 W | 40.69@              | 219.60 | 0.11       |
| 2100.00                                                       | 0.49          | 185.41                 | 2099.45     | 100.00                   | 27.51                       | 32.46 S                      | 26.56 W | 41.95@              | 219.29 | 0.70       |
| 2200.00                                                       | 1.48          | 112.37                 | 2199.43     | 100.00                   | 26.38                       | 33.38 S                      | 25.41 W | 41.95@              | 217.28 | 1.42       |
| 2300.00                                                       | 1.47          | 105.07                 | 2299.40     | 100.00                   | 23.98                       | 34.21 S                      | 22.98 W | 41.21@              | 213.89 | 0.19       |
| 2400.00                                                       | 2.32          | 99.04                  | 2399.35     | 100.00                   | 20.76                       | 34.86 S                      | 19.74 W | 40.06@              | 209.52 | 0.87       |

# PathFinder Energy Services, Inc.

## Survey Report

OGX RESOURCES, LLC.  
COOPER 31 FEDERAL #3H  
EDDY COUNTY, NM  
RIG:SILVER OAK 11

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) |
|---------------------------|---------------|------------------------|-------------|--------------------------|-----------------------------|-------------------------------------------|---------|-----------------------------------|--------|-------------------|
| 2500.00                   | 3.09          | 94.75                  | 2499.23     | 100.00                   | 16.09                       | 35.40 S                                   | 15.05 W | 38.47@                            | 203.04 | 0.80              |
| 2600.00                   | 3.79          | 97.05                  | 2599.05     | 100.00                   | 10.15                       | 36.03 S                                   | 9.09 W  | 37.16@                            | 194.16 | 0.71              |
| 2700.00                   | 2.95          | 95.02                  | 2698.88     | 100.00                   | 4.32                        | 36.66 S                                   | 3.25 W  | 36.80@                            | 185.06 | 0.85              |
| 2800.00                   | 2.11          | 90.45                  | 2798.78     | 100.00                   | -0.07                       | 36.90 S                                   | 1.16 E  | 36.92@                            | 178.20 | 0.86              |
| 2900.00                   | 1.86          | 87.92                  | 2898.72     | 100.00                   | -3.53                       | 36.85 S                                   | 4.62 E  | 37.14@                            | 172.85 | 0.27              |
| 3000.00                   | 1.73          | 85.54                  | 2998.67     | 100.00                   | -6.66                       | 36.68 S                                   | 7.75 E  | 37.49@                            | 168.07 | 0.15              |
| 3100.00                   | 1.76          | 81.01                  | 3098.63     | 100.00                   | -9.69                       | 36.32 S                                   | 10.77 E | 37.88@                            | 163.48 | 0.14              |
| 3200.00                   | 1.65          | 77.70                  | 3198.58     | 100.00                   | -12.63                      | 35.77 S                                   | 13.69 E | 38.31@                            | 159.05 | 0.15              |
| 3300.00                   | 1.45          | 85.20                  | 3298.54     | 100.00                   | -15.31                      | 35.36 S                                   | 16.36 E | 38.96@                            | 155.17 | 0.28              |
| 3400.00                   | 1.19          | 82.04                  | 3398.52     | 100.00                   | -17.61                      | 35.11 S                                   | 18.65 E | 39.76@                            | 152.02 | 0.27              |
| 3500.00                   | 0.91          | 86.23                  | 3498.50     | 100.00                   | -19.43                      | 34.92 S                                   | 20.47 E | 40.47@                            | 149.62 | 0.29              |
| 3600.00                   | 0.84          | 88.46                  | 3598.49     | 100.00                   | -20.96                      | 34.84 S                                   | 22.00 E | 41.21@                            | 147.74 | 0.08              |
| 3700.00                   | 0.80          | 101.31                 | 3698.48     | 100.00                   | -22.37                      | 34.96 S                                   | 23.41 E | 42.08@                            | 146.19 | 0.19              |
| 3800.00                   | 0.55          | 80.70                  | 3798.47     | 100.00                   | -23.53                      | 35.02 S                                   | 24.57 E | 42.78@                            | 144.95 | 0.34              |
| 3900.00                   | 0.56          | 75.15                  | 3898.47     | 100.00                   | -24.48                      | 34.82 S                                   | 25.52 E | 43.17@                            | 143.76 | 0.05              |
| 4000.00                   | 0.48          | 75.80                  | 3998.46     | 100.00                   | -25.36                      | 34.59 S                                   | 26.40 E | 43.51@                            | 142.65 | 0.08              |
| 4100.00                   | 0.35          | 72.19                  | 4098.46     | 100.00                   | -26.07                      | 34.39 S                                   | 27.09 E | 43.78@                            | 141.77 | 0.13              |
| 4200.00                   | 0.36          | 79.94                  | 4198.46     | 100.00                   | -26.67                      | 34.25 S                                   | 27.69 E | 44.04@                            | 141.04 | 0.05              |
| 4300.00                   | 0.17          | 134.87                 | 4298.46     | 100.00                   | -27.08                      | 34.30 S                                   | 28.11 E | 44.34@                            | 140.66 | 0.30              |
| 4400.00                   | 0.27          | 158.40                 | 4398.46     | 100.00                   | -27.27                      | 34.62 S                                   | 28.30 E | 44.71@                            | 140.74 | 0.13              |
| 4500.00                   | 0.41          | 179.11                 | 4498.46     | 100.00                   | -27.34                      | 35.20 S                                   | 28.39 E | 45.22@                            | 141.11 | 0.18              |
| 4600.00                   | 0.40          | 186.13                 | 4598.45     | 100.00                   | -27.29                      | 35.90 S                                   | 28.36 E | 45.75@                            | 141.69 | 0.05              |
| 4700.00                   | 0.53          | 173.06                 | 4698.45     | 100.00                   | -27.28                      | 36.71 S                                   | 28.38 E | 46.40@                            | 142.29 | 0.17              |
| 4800.00                   | 0.80          | 163.03                 | 4798.44     | 100.00                   | -27.51                      | 37.83 S                                   | 28.64 E | 47.45@                            | 142.88 | 0.29              |
| 4900.00                   | 0.80          | 154.75                 | 4898.43     | 100.00                   | -27.97                      | 39.13 S                                   | 29.14 E | 48.79@                            | 143.33 | 0.12              |
| 5000.00                   | 0.64          | 166.71                 | 4998.43     | 100.00                   | -28.36                      | 40.31 S                                   | 29.57 E | 49.99@                            | 143.74 | 0.22              |
| 5100.00                   | 0.56          | 169.74                 | 5098.42     | 100.00                   | -28.55                      | 41.33 S                                   | 29.78 E | 50.94@                            | 144.23 | 0.09              |
| 5200.00                   | 0.79          | 172.75                 | 5198.41     | 100.00                   | -28.69                      | 42.50 S                                   | 29.96 E | 51.99@                            | 144.82 | 0.23              |
| 5300.00                   | 0.64          | 182.81                 | 5298.41     | 100.00                   | -28.71                      | 43.74 S                                   | 30.02 E | 53.05@                            | 145.54 | 0.20              |
| 5400.00                   | 0.50          | 185.08                 | 5398.40     | 100.00                   | -28.62                      | 44.73 S                                   | 29.95 E | 53.83@                            | 146.20 | 0.14              |

# PathFinder Energy Services, Inc.

## Survey Report

OGX RESOURCES, LLC.  
COOPER 31 FEDERAL #3H  
EDDY COUNTY, NM  
RIG: SILVER OAK 11

Page 03/06

| 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) |
|---------------------------------------------------------|---------------|------------------------|-------------|--------------------------|-----------------------------|-------------------------------------------|----------|-----------------------------------|--------|-------------------|
| 5500.00                                                 | 0.62          | 184.85                 | 5498.40     | 100.00                   | -28.50                      | 45.70 S                                   | 29.86 E  | 54.60@                            | 146.84 | 0.12              |
| 5600.00                                                 | 0.56          | 188.86                 | 5598.39     | 100.00                   | -28.35                      | 46.73 S                                   | 29.74 E  | 55.39@                            | 147.52 | 0.07              |
| 5700.00                                                 | 0.60          | 192.44                 | 5698.39     | 100.00                   | -28.14                      | 47.72 S                                   | 29.56 E  | 56.13@                            | 148.23 | 0.05              |
| 5800.00                                                 | 0.65          | 184.46                 | 5798.38     | 100.00                   | -27.95                      | 48.80 S                                   | 29.40 E  | 56.97@                            | 148.93 | 0.10              |
| 5900.00                                                 | 0.63          | 172.69                 | 5898.37     | 100.00                   | -27.94                      | 49.91 S                                   | 29.42 E  | 57.94@                            | 149.48 | 0.13              |
| 6000.00                                                 | 0.70          | 177.71                 | 5998.37     | 100.00                   | -28.00                      | 51.06 S                                   | 29.52 E  | 58.98@                            | 149.97 | 0.09              |
| 6100.00                                                 | 0.72          | 180.54                 | 6098.36     | 100.00                   | -27.98                      | 52.30 S                                   | 29.54 E  | 60.07@                            | 150.54 | 0.04              |
| 6200.00                                                 | 0.80          | 173.44                 | 6198.35     | 100.00                   | -28.02                      | 53.62 S                                   | 29.61 E  | 61.26@                            | 151.09 | 0.12              |
| 6300.00                                                 | 0.80          | 170.93                 | 6298.34     | 100.00                   | -28.17                      | 55.01 S                                   | 29.80 E  | 62.56@                            | 151.55 | 0.03              |
| 6400.00                                                 | 0.87          | 154.81                 | 6398.33     | 100.00                   | -28.56                      | 56.38 S                                   | 30.23 E  | 63.98@                            | 151.80 | 0.24              |
| 6500.00                                                 | 0.60          | 178.75                 | 6498.32     | 100.00                   | -28.86                      | 57.59 S                                   | 30.57 E  | 65.20@                            | 152.04 | 0.40              |
| ** TIED INTO SCIENTIFIC DRILLING GYRO SURVEY AT 6552'MD |               |                        |             |                          |                             |                                           |          |                                   |        |                   |
| 6552.00                                                 | 0.34          | 174.34                 | 6550.32     | 52.00                    | -28.87                      | 58.02 S                                   | 30.59 E  | 65.59@                            | 152.20 | 0.50              |
| THE FOLLOWING ARE PATHFINDER MWD SURVEYS                |               |                        |             |                          |                             |                                           |          |                                   |        |                   |
| 6657.00                                                 | 3.96          | 272.53                 | 6655.24     | 105.00                   | -25.27                      | 58.17 S                                   | 27.00 E  | 64.13@                            | 155.10 | 3.83              |
| 6688.00                                                 | 9.23          | 272.96                 | 6686.02     | 31.00                    | -21.72                      | 57.99 S                                   | 23.44 E  | 62.55@                            | 157.99 | 17.00             |
| 6719.00                                                 | 14.16         | 271.73                 | 6716.37     | 31.00                    | -15.45                      | 57.75 S                                   | 17.17 E  | 60.25@                            | 163.45 | 15.92             |
| 6750.00                                                 | 18.20         | 271.83                 | 6746.13     | 31.00                    | -6.83                       | 57.48 S                                   | 8.53 E   | 58.11@                            | 171.56 | 13.03             |
| 6781.00                                                 | 20.93         | 270.26                 | 6775.34     | 31.00                    | 3.53                        | 57.30 S                                   | 1.84 W   | 57.33@                            | 181.84 | 8.97              |
| 6812.00                                                 | 24.45         | 269.20                 | 6803.94     | 31.00                    | 15.49                       | 57.37 S                                   | 13.80 W  | 59.00@                            | 193.53 | 11.43             |
| 6843.00                                                 | 27.44         | 266.79                 | 6831.81     | 31.00                    | 29.04                       | 57.86 S                                   | 27.35 W  | 64.00@                            | 205.30 | 10.23             |
| 6875.00                                                 | 31.74         | 268.77                 | 6859.63     | 32.00                    | 44.84                       | 58.45 S                                   | 43.13 W  | 72.64@                            | 216.43 | 13.78             |
| 6907.00                                                 | 36.49         | 268.25                 | 6886.12     | 32.00                    | 62.78                       | 58.92 S                                   | 61.07 W  | 84.86@                            | 226.03 | 14.87             |
| 6938.00                                                 | 41.68         | 267.83                 | 6910.17     | 31.00                    | 82.32                       | 59.59 S                                   | 80.60 W  | 100.24@                           | 233.52 | 16.76             |
| 6970.00                                                 | 45.73         | 265.55                 | 6933.30     | 32.00                    | 104.41                      | 60.89 S                                   | 102.66 W | 119.36@                           | 239.33 | 13.58             |
| 7001.00                                                 | 49.51         | 266.32                 | 6954.19     | 31.00                    | 127.29                      | 62.50 S                                   | 125.50 W | 140.20@                           | 243.52 | 12.33             |
| 7032.00                                                 | 53.38         | 265.17                 | 6973.51     | 31.00                    | 151.50                      | 64.31 S                                   | 149.67 W | 162.90@                           | 246.75 | 12.82             |
| 7063.00                                                 | 55.66         | 264.85                 | 6991.50     | 31.00                    | 176.70                      | 66.51 S                                   | 174.82 W | 187.04@                           | 249.17 | 7.40              |
| 7094.00                                                 | 57.60         | 264.87                 | 7008.55     | 31.00                    | 202.54                      | 68.83 S                                   | 200.60 W | 212.08@                           | 251.06 | 6.26              |
| 7125.00                                                 | 59.53         | 265.06                 | 7024.72     | 31.00                    | 228.95                      | 71.15 S                                   | 226.95 W | 237.84@                           | 252.59 | 6.25              |
| 7156.00                                                 | 61.73         | 265.42                 | 7039.92     | 31.00                    | 255.92                      | 73.39 S                                   | 253.87 W | 264.26@                           | 253.88 | 7.17              |

# PathFinder Energy Services, Inc.

## Survey Report

OGX RESOURCES, LLC.  
COOPER 31 FEDERAL #3H  
EDDY COUNTY, NM  
RIG: SILVER OAK 11

Page 04/06

| 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) |
|---------------------------|---------------|------------------------|-------------|--------------------------|-----------------------------|-------------------------------------------|-----------|-----------------------------------|--------|-------------------|
| 7187.00                   | 64.81         | 265.72                 | 7053.87     | 31.00                    | 283.57                      | 75.52 S                                   | 281.47 W  | 291.42@                           | 254.98 | 9.97              |
| 7219.00                   | 67.88         | 266.46                 | 7066.70     | 32.00                    | 312.86                      | 77.52 S                                   | 310.71 W  | 320.23@                           | 255.99 | 9.83              |
| 7250.00                   | 71.49         | 266.89                 | 7077.46     | 31.00                    | 341.91                      | 79.21 S                                   | 339.73 W  | 348.84@                           | 256.88 | 11.72             |
| 7281.00                   | 75.27         | 266.97                 | 7086.33     | 31.00                    | 371.60                      | 80.80 S                                   | 369.38 W  | 378.12@                           | 257.66 | 12.20             |
| 7312.00                   | 78.79         | 268.51                 | 7093.29     | 31.00                    | 401.81                      | 81.98 S                                   | 399.56 W  | 407.89@                           | 258.40 | 12.34             |
| 7344.00                   | 78.44         | 268.87                 | 7099.60     | 32.00                    | 433.18                      | 82.70 S                                   | 430.92 W  | 438.79@                           | 259.14 | 1.55              |
| 7376.00                   | 77.73         | 268.56                 | 7106.21     | 32.00                    | 464.49                      | 83.40 S                                   | 462.23 W  | 469.69@                           | 259.77 | 2.41              |
| 7407.00                   | 78.79         | 268.13                 | 7112.52     | 31.00                    | 494.84                      | 84.28 S                                   | 492.56 W  | 499.72@                           | 260.29 | 3.68              |
| 7438.00                   | 82.39         | 267.32                 | 7117.58     | 31.00                    | 525.41                      | 85.49 S                                   | 523.12 W  | 530.06@                           | 260.72 | 11.90             |
| 7470.00                   | 86.35         | 267.38                 | 7120.72     | 32.00                    | 557.25                      | 86.97 S                                   | 554.92 W  | 561.70@                           | 261.09 | 12.38             |
| 7501.00                   | 89.87         | 267.38                 | 7121.75     | 31.00                    | 588.22                      | 88.38 S                                   | 585.87 W  | 592.50@                           | 261.42 | 11.35             |
| 7532.00                   | 90.75         | 267.38                 | 7121.58     | 31.00                    | 619.22                      | 89.80 S                                   | 616.84 W  | 623.34@                           | 261.72 | 2.84              |
| 7563.00                   | 90.48         | 266.41                 | 7121.24     | 31.00                    | 650.20                      | 91.48 S                                   | 647.79 W  | 654.22@                           | 261.96 | 3.25              |
| 7657.00                   | 90.92         | 265.36                 | 7120.10     | 94.00                    | 744.11                      | 98.22 S                                   | 741.54 W  | 748.01@                           | 262.45 | 1.21              |
| 7751.00                   | 91.10         | 266.67                 | 7118.44     | 94.00                    | 838.02                      | 104.76 S                                  | 835.29 W  | 841.84@                           | 262.85 | 1.41              |
| 7845.00                   | 92.51         | 266.50                 | 7115.48     | 94.00                    | 931.93                      | 110.35 S                                  | 929.08 W  | 935.61@                           | 263.23 | 1.51              |
| 7939.00                   | 92.59         | 266.41                 | 7111.30     | 94.00                    | 1025.79                     | 116.16 S                                  | 1022.81 W | 1029.38@                          | 263.52 | 0.13              |
| 8032.00                   | 92.95         | 266.94                 | 7106.80     | 93.00                    | 1118.64                     | 121.55 S                                  | 1115.54 W | 1122.14@                          | 263.78 | 0.69              |
| 8125.00                   | 92.24         | 267.38                 | 7102.59     | 93.00                    | 1211.52                     | 126.15 S                                  | 1208.33 W | 1214.90@                          | 264.04 | 0.90              |
| 8219.00                   | 92.33         | 268.70                 | 7098.84     | 94.00                    | 1305.45                     | 129.36 S                                  | 1302.20 W | 1308.61@                          | 264.33 | 1.41              |
| 8312.00                   | 92.07         | 269.22                 | 7095.27     | 93.00                    | 1398.37                     | 131.05 S                                  | 1395.11 W | 1401.25@                          | 264.63 | 0.63              |
| 8406.00                   | 91.19         | 270.10                 | 7092.60     | 94.00                    | 1492.30                     | 131.61 S                                  | 1489.07 W | 1494.88@                          | 264.95 | 1.32              |
| 8499.00                   | 90.66         | 267.38                 | 7091.10     | 93.00                    | 1585.28                     | 133.65 S                                  | 1582.03 W | 1587.66@                          | 265.17 | 2.98              |
| 8593.00                   | 90.48         | 270.28                 | 7090.16     | 94.00                    | 1679.26                     | 135.57 S                                  | 1675.99 W | 1681.47@                          | 265.38 | 3.09              |
| 8687.00                   | 91.63         | 268.70                 | 7088.43     | 94.00                    | 1773.22                     | 136.41 S                                  | 1769.97 W | 1775.22@                          | 265.59 | 2.08              |
| 8780.00                   | 91.80         | 268.34                 | 7085.65     | 93.00                    | 1866.18                     | 138.81 S                                  | 1862.90 W | 1868.06@                          | 265.74 | 0.43              |
| 8874.00                   | 91.10         | 270.45                 | 7083.27     | 94.00                    | 1960.13                     | 139.80 S                                  | 1956.86 W | 1961.84@                          | 265.91 | 2.36              |
| 8967.00                   | 91.01         | 270.72                 | 7081.56     | 93.00                    | 2053.04                     | 138.85 S                                  | 2049.83 W | 2054.53@                          | 266.12 | 0.31              |
| 9061.00                   | 92.15         | 271.07                 | 7078.97     | 94.00                    | 2146.90                     | 137.38 S                                  | 2143.79 W | 2148.18@                          | 266.33 | 1.27              |
| 9155.00                   | 92.42         | 270.54                 | 7075.22     | 94.00                    | 2240.74                     | 136.06 S                                  | 2237.70 W | 2241.83@                          | 266.52 | 0.63              |

# PathFinder Energy Services, Inc.

## Survey Report

OGX RESOURCES, LLC.  
COOPER 31 FEDERAL #3H  
EDDY COUNTY, NM  
RIG:SILVER OAK 11

Page 05/06

| 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) |
|-------------------------------------------------|---------------|------------------------|-------------|--------------------------|-----------------------------|-------------------------------------------|-----------|-----------------------------------|--------|-------------------|
| 9249.00                                         | 92.59         | 270.37                 | 7071.11     | 94.00                    | 2334.59                     | 135.32 S                                  | 2331.61 W | 2335.53@                          | 266.68 | 0.25              |
| 9343.00                                         | 92.86         | 272.04                 | 7066.64     | 94.00                    | 2428.36                     | 133.34 S                                  | 2425.48 W | 2429.14@                          | 266.85 | 1.80              |
| 9436.00                                         | 91.36         | 272.21                 | 7063.22     | 93.00                    | 2521.08                     | 129.90 S                                  | 2518.35 W | 2521.70@                          | 267.05 | 1.62              |
| 9499.00                                         | 89.96         | 272.83                 | 7062.49     | 63.00                    | 2583.91                     | 127.13 S                                  | 2581.28 W | 2584.41@                          | 267.18 | 2.43              |
| 9530.00                                         | 89.87         | 272.65                 | 7062.54     | 31.00                    | 2614.81                     | 125.64 S                                  | 2612.25 W | 2615.27@                          | 267.25 | 0.65              |
| 9561.00                                         | 88.37         | 272.65                 | 7063.01     | 31.00                    | 2645.72                     | 124.21 S                                  | 2643.21 W | 2646.13@                          | 267.31 | 4.84              |
| 9592.00                                         | 88.02         | 272.65                 | 7063.99     | 31.00                    | 2676.62                     | 122.78 S                                  | 2674.16 W | 2676.98@                          | 267.37 | 1.13              |
| 9623.00                                         | 87.85         | 272.30                 | 7065.11     | 31.00                    | 2707.52                     | 121.44 S                                  | 2705.11 W | 2707.84@                          | 267.43 | 1.25              |
| 9717.00                                         | 89.34         | 272.04                 | 7067.41     | 94.00                    | 2801.27                     | 117.88 S                                  | 2799.01 W | 2801.49@                          | 267.59 | 1.61              |
| 9810.00                                         | 90.13         | 271.86                 | 7067.84     | 93.00                    | 2894.08                     | 114.72 S                                  | 2891.96 W | 2894.23@                          | 267.73 | 0.87              |
| 9904.00                                         | 89.69         | 271.51                 | 7067.99     | 94.00                    | 2987.92                     | 111.95 S                                  | 2985.92 W | 2988.01@                          | 267.85 | 0.60              |
| 9998.00                                         | 90.84         | 271.07                 | 7067.55     | 94.00                    | 3081.79                     | 109.84 S                                  | 3079.89 W | 3081.85@                          | 267.96 | 1.31              |
| 10091.00                                        | 91.36         | 270.72                 | 7065.77     | 93.00                    | 3174.68                     | 108.39 S                                  | 3172.86 W | 3174.71@                          | 268.04 | 0.67              |
| 10184.00                                        | 90.04         | 270.63                 | 7064.63     | 93.00                    | 3267.59                     | 107.29 S                                  | 3265.84 W | 3267.61@                          | 268.12 | 1.42              |
| 10278.00                                        | 89.43         | 270.37                 | 7065.07     | 94.00                    | 3361.52                     | 106.47 S                                  | 3359.84 W | 3361.53@                          | 268.18 | 0.71              |
| 10372.00                                        | 89.60         | 268.61                 | 7065.86     | 94.00                    | 3455.49                     | 107.31 S                                  | 3453.83 W | 3455.49@                          | 268.22 | 1.88              |
| 10466.00                                        | 89.25         | 268.43                 | 7066.81     | 94.00                    | 3549.49                     | 109.73 S                                  | 3547.79 W | 3549.49@                          | 268.23 | 0.42              |
| 10560.00                                        | 90.48         | 268.52                 | 7067.03     | 94.00                    | 3643.48                     | 112.24 S                                  | 3641.76 W | 3643.49@                          | 268.23 | 1.31              |
| 10653.00                                        | 91.45         | 268.61                 | 7065.46     | 93.00                    | 3736.47                     | 114.56 S                                  | 3734.71 W | 3736.47@                          | 268.24 | 1.05              |
| 10782.00                                        | 91.10         | 268.78                 | 7062.59     | 129.00                   | 3865.43                     | 117.50 S                                  | 3863.65 W | 3865.43@                          | 268.26 | 0.30              |
| STRAIGHT LINE PROJECTION TO THE BIT AT 10860'MD |               |                        |             |                          |                             |                                           |           |                                   |        |                   |
| 10860.00                                        | 91.10         | 268.78                 | 7061.09     | 78.00                    | 3943.42                     | 119.16 S                                  | 3941.62 W | 3943.42@                          | 268.27 | 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:                   | OGX RESOURCES, LLC         |               |     |
| LEASE / WELL No.:         | COOPER                     | 31 FEDERAL #3 |     |
| WELL LOCATION:            | DELAWARE                   |               |     |
| COUNTY / STATE / COUNTRY: | EDDY                       | NM            | USA |
| RIG:                      | SILVER OAK 11              |               |     |
| API WELL No:              | 30-015-37749               |               |     |
| JOB No:                   | 700001494-WT-WT            |               |     |
| P.O. / AFE No.            | N/A                        |               |     |
| DIRECTIONAL COMPANY:      | PATHFINDER ENERGY SERVICES |               |     |

**WELL SITE INFORMATION**

|                                  |                                                                                             |                 |                   |
|----------------------------------|---------------------------------------------------------------------------------------------|-----------------|-------------------|
| TOTAL MAGNETIC CORRECTION (TMC): |                                                                                             |                 |                   |
| On Wall Plat:                    | 7.66                                                                                        | LWD Calculated: | 7.66              |
| Agreed Upon:                     |                                                                                             | 7.66            |                   |
| X =                              | 638940.614000                                                                               | Feet            | Y = 396294.512000 |
|                                  |                                                                                             | Feet            |                   |
| SITE LATITUDE:                   | 32.089101 N                                                                                 | SITE LONGITUDE: | 104.018168 W      |
| GRID SYSTEM:                     | TRUE <input type="checkbox"/> UTM <input type="checkbox"/> LAMBERT <input type="checkbox"/> | ZONE:           | NEW MEXICO EAST   |
| PROPOSED DRIFT DIRECTION:        | 268.31                                                                                      |                 |                   |
| KELLY BUSHING ELEVATION:         | 17'                                                                                         |                 |                   |
| ALTITUDE:                        | 2975                                                                                        | Feet            | WATER DEPTH:      |
|                                  |                                                                                             | Feet            |                   |

**TIE-IN SURVEY**

|                                    |                                                                     |                                        |                                                         |
|------------------------------------|---------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------|
| MEASURED DEPTH:                    | 6552                                                                |                                        |                                                         |
| DRIFT ANGLE:                       | 0.34                                                                |                                        |                                                         |
| DRIFT DIRECTION:                   | 174.34                                                              |                                        |                                                         |
| TRUE VERTICAL DEPTH:               | 6550.32                                                             |                                        |                                                         |
| VERTICAL SECTION:                  | -30.11                                                              |                                        |                                                         |
| RECTANGULAR COORDINATE ( N / S ) : | -58.02                                                              |                                        |                                                         |
| RECTANGULAR COORDINATE ( E / W ) : | 30.59                                                               |                                        |                                                         |
| CLOSURE DISTANCE / DIRECTION:      | 65.58                                                               | 152.2                                  |                                                         |
| 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 ): | SCIENTIFIC DRILLING                                                 |                                        |                                                         |
| COPY OF TIE-IN SURVEY REPORT       | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO |                                        |                                                         |

**WELL PLAN**

|                |       |              |        |
|----------------|-------|--------------|--------|
| KICKOFF DEPTH: | 6625' | TOTAL DEPTH: | 10959' |
| KICKOFF ANGLE: | 0.34° | MAX ANGLE:   | 91.23° |

PES Engineers: JEFF HULL  
MIKE SWINEY

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

Directional Driller: SHAWN COOKDATE: 30-Jan-2011



A Schlumberger Company **PathFinder Energy Services, Inc.**  
**Magnetic & Grid Calculations**

OGX RESOURCES  
COOPER "31" FEDERAL #3H  
EDDY COUNTY, NEW MEXICO  
Rig:SILVER OAK 11

Thu Jan 27 16:20:03 2011

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## Coordinates

Latitude: 32.089101 N ( 32 deg. 5 min. 20.7641 sec.)  
Longitude: 104.018168 W (-104 deg. 1 min. 5.4048 sec.)  
Elevation: 2994.00 feet.  
Calculation Date: Jan/27/2011

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## Magnetic Calculations

Model: IGRF2010  
Dip Angle: 59.9922 degrees  
Total Magnetic Field: 0.48526 gauss  
Magnetic Declination: 7.825509 degrees  
Horizontal Intensity: 0.242686 gauss  
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.825509 Degr

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## Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east  
Ellipsoid: GRS80  
X: 638940.6140 feet  
Y: 396294.5120 feet  
True to Grid: (convergence) -0.167429 degrees  
Magnetic to Grid: 7.658080 degrees  
To Convert a Magnetic Dir. to a GRID dir. Add 7.658080 Degr.

**PathFinder Energy Services, Inc.**  
**Magnetic & Grid Calculations**

*field copy*

Sun Jan 30 10:46:25 2011

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**Coordinates**

Latitude: 32.089101 N ( 32 deg. 5 min. 20.7641 sec.)  
Longitude: 104.018168 W (-104 deg. 1 min. 5.4048 sec.)  
Elevation: 2994.00 feet.  
Calculation Date: Jan/30/2011

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**Magnetic Calculations**

Model: IGRF2010  
Dip Angle: 59.9920 degrees  
Total Magnetic Field: 0.48525 gauss  
Magnetic Declination: 7.824511 degrees  
Horizontal Intensity: 0.242683 gauss  
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.824511 Degr

---

**Transverse Mercator Grid Calculations NAD83**

Grid System: Transverse Mercator: new mexico east  
Ellipsoid: GRS80  
X: 638940.6140 feet  
Y: 396294.5120 feet  
True to Grid: (convergence) -0.167429 degrees  
Magnetic to Grid: 7.657082 degrees  
To Convert a Magnetic Dir. to a GRID dir. Add 7.657082 Degr.