

CORRECTION #1

KANSAS CORPORATION COMMISSION 1075770  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

June 2009

Form Must Be Typed

Form must be Signed

All blanks must be Filled

**CONFIDENTIAL****WELL COMPLETION FORM****WELL HISTORY - DESCRIPTION OF WELL & LEASE**OPERATOR: License # 34192Name: SandRidge Exploration and Production LLCAddress 1: 123 ROBERT S. KERR AVE

Address 2: \_\_\_\_\_

City: OKLAHOMA CITY State: OK Zip: 73102 + 6406Contact Person: Tiffany GolayPhone: ( 405 ) 429-6543CONTRACTOR: License # 34464Name: Lariat Services, Inc.Wellsite Geologist: Tammy AlcornPurchaser: Parnon (Oil)

Designate Type of Completion:

- New Well     Re-Entry     Workover
- Oil     WSW     SWD     SLOW
- Gas     D&A     ENHR     SIGW
- OG     GSW     Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic     Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening     Re-perf.     Conv. to ENHR     Conv. to SWD
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- Commingled    Permit #: \_\_\_\_\_
- Dual Completion    Permit #: \_\_\_\_\_
- SWD    Permit #: \_\_\_\_\_
- ENHR    Permit #: \_\_\_\_\_
- GSW    Permit #: \_\_\_\_\_

| 11/08/2011                        | 11/28/2011      | 12/1/2011                               |
|-----------------------------------|-----------------|---|
| Spud Date or<br>Recompletion Date | Date Reached TD | Completion Date or<br>Recompletion Date |

API No. 15 - 15-077-21754-01-00

Spot Description: \_\_\_\_\_

SW SW SE SW Sec. 14 Twp. 35 S. R. 6  East  West200 Feet from  North /  South Line of Section1450 Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

 NE     NW     SE     SWCounty: HarperLease Name: Cynthia Well #: 1-14HField Name: UnnamedProducing Formation: MississippiElevation: Ground: 1229 Kelly Bushing: 1209Total Depth: 9308 Plug Back Total Depth: \_\_\_\_\_Amount of Surface Pipe Set and Cemented at: 713 FeetMultiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmft.

**Drilling Fluid Management Plan**

(Data must be collected from the Reserve Pit)

Chloride content: 9200 ppm Fluid volume: 870 bblsDewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: Richard GrayLease Name: Gray mud disposal License #: 32300Quarter SW Sec. 15 Twp. 24 S. R. 7  East  WestCounty: Garfield, OK Permit #: 355765**AFFIDAVIT**

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

**KCC Office Use ONLY**

- Letter of Confidentiality Received  
Date: 03/01/2012
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: NAOMI JAMES Date: 03/06/2012



KANSAS CORPORATION COMMISSION 1072166  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
June 2009  
Form Must Be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 34192  
Name: SandRidge Exploration and Production LLC  
Address 1: 123 ROBERT S. KERR AVE  
Address 2: \_\_\_\_\_  
City: OKLAHOMA CITY State: OK Zip: 73102 + 6406  
Contact Person: Tiffany Golay  
Phone: ( 405 ) 429-6543  
CONTRACTOR: License # 34464  
Name: Lariat Services, Inc.  
Wellsite Geologist: Tammy Alcorn  
Purchaser: Parnon (Oil)

Designate Type of Completion:

- New Well     Re-Entry     Workover
- Oil     WSW     SWD     SIOW  
 Gas     D&A     ENHR     SIGW  
 OG     GSW     Temp. Abd.  
 CM (Coal Bed Methane)  
 Cathodic     Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_  
Well Name: \_\_\_\_\_  
Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_  
 Deepening     Re-perf.     Conv. to ENHR     Conv. to SWD  
 Conv. to GSW  
 Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_  
 Commingled    Permit #: \_\_\_\_\_  
 Dual Completion    Permit #: \_\_\_\_\_  
 SWD    Permit #: \_\_\_\_\_  
 ENHR    Permit #: \_\_\_\_\_  
 GSW    Permit #: \_\_\_\_\_

|                                   |                   |   |
|-----------------------------------|-------------------|---|
| <u>11/01/2011</u>                 | <u>11/28/2011</u> | <u>12/1/2011</u>                        |
| Spud Date or<br>Recompletion Date | Date Reached TD   | Completion Date or<br>Recompletion Date |

API No. 15 - 15-077-21754-01-00  
Spot Description: \_\_\_\_\_  
SW SW SE SW Sec. 14 Twp. 35 S. R. 6  East  West  
200 Feet from  North /  South Line of Section  
1450 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Harper  
Lease Name: Cynthia Well #: 1-14H  
Field Name: Unnamed  
Producing Formation: Mississippi  
Elevation: Ground: 1229 Kelly Bushing: 1209  
Total Depth: 9308 Plug Back Total Depth: \_\_\_\_\_  
Amount of Surface Pipe Set and Cemented at: 713 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: \_\_\_\_\_ Feet  
If Alternate II completion, cement circulated from: \_\_\_\_\_  
feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 9200 ppm Fluid volume: 870 bbls  
Dewatering method used: Hauled to Disposal  
Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name: Richard Gray  
Lease Name: Gray mud disposal License #: 32300  
Quarter SW Sec. 15 Twp. 24 S. R. 7  East  West  
County: Garfield, OK Permit #: 355765

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

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Date: 03/01/2012  
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 UIC Distribution  
ALT  I  II  III Approved by: Deanna Gantsov Date: 03/05/2012

# **Sandridge Energy**

**Harper County (KS27S)**

**Sec 14-T35S-R6W**

**Cynthia 1-14H**

**Wellbore #1**

**Survey: MWD Surveys**

## **Standard Survey Report**

**29 November, 2011**

## Wolverine Directional, LLC Survey Report

|                                |  |                                   |
|--------------------------------|--|-----------------------------------|
| Company: Sandridge Energy      | Local Co-ordinate Reference: Well Cynthia 1-14H  | Well Cynthia 1-14H                |
| Project: Harper County (KS27S) | TVD Reference: WELL @ 0.0ft (Original Well Elev) | WELL @ 0.0ft (Original Well Elev) |
| Site: Sec 14-T35S-R6W          | MD Reference: WELL @ 0.0ft (Original Well Elev)  | Grid                              |
| Well: Cynthia 1-14H            | North Reference: Grid                            |                                   |
| Wellbore: Wellbore #1          | Survey Calculation Method: Minimum Curvature     |                                   |
| Design: Wellbore #1            | Database: EDM 2003.21 Single User Db             |                                   |

Design Wellbore #1

Audit Notes:

|  |               |                   |
|--|---------------|-------------------|
| Version: 1.0                               | Phase: ACTUAL | Tie On Depth: 0.0 |
| Vertical Section: Depth From (TVD)<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft)     |
| 0.0  | 0.0           | 0.0               |
|  |               | Direction<br>(°)  |
|  |               | 359.16            |

Survey Program Date 2011/11/29

| From (ft) | To (ft) | Survey (Wellbore)         | Tool Name | Description    |
|-----------|---------|---------------------------|-----------|----------------|
| 250.0     | 9,308.0 | MWD Surveys (Wellbore #1) | MWD       | MWD - Standard |

Survey

| Measured Depth (ft)     | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|-------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 0.0                     | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 250.0                   | 0.40            | 233.50      | 250.0               | -0.5       | -0.7       | -0.5                  | 0.16                  | 0.16                 | 0.00                |
| <b>First Rig Survey</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 503.0                   | 0.70            | 233.50      | 503.0               | -2.0       | -2.7       | -1.9                  | 0.12                  | 0.12                 | 0.00                |
| 713.0                   | 0.30            | 233.50      | 713.0               | -3.1       | -4.1       | -3.0                  | 0.19                  | -0.19                | 0.00                |
| <b>Last Rig Survey</b>  |                 |             |                     |            |            |                       |                       |                      |                     |
| 812.0                   | 0.30            | 233.50      | 812.0               | -3.4       | -4.5       | -3.3                  | 0.00                  | 0.00                 | 0.00                |
| <b>First MWD Survey</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 1,059.0                 | 1.00            | 217.20      | 1,059.0             | -5.5       | -6.4       | -5.4                  | 0.29                  | 0.28                 | -6.60               |
| 1,343.0                 | 0.90            | 211.70      | 1,342.9             | -9.3       | -9.0       | -9.2                  | 0.05                  | -0.04                | -1.94               |
| 1,818.0                 | 0.40            | 273.50      | 1,815.9             | -12.4      | -12.6      | -12.2                 | 0.17                  | -0.11                | 13.07               |
| 2,289.0                 | 0.60            | 120.90      | 2,288.9             | -13.6      | -12.2      | -13.4                 | 0.21                  | 0.04                 | -32.28              |
| 2,761.0                 | 1.00            | 100.00      | 2,760.8             | -15.6      | -6.0       | -15.5                 | 0.10                  | 0.08                 | -4.43               |
| 3,232.0                 | 2.80            | 100.70      | 3,231.6             | -18.4      | 9.4        | -18.5                 | 0.38                  | 0.38                 | 0.15                |
| 3,706.0                 | 1.10            | 61.90       | 3,705.3             | -18.4      | 24.8       | -18.8                 | 0.43                  | -0.36                | -8.19               |
| 3,758.0                 | 1.30            | 59.10       | 3,757.3             | -17.9      | 25.7       | -18.2                 | 0.40                  | 0.38                 | -5.38               |
| 3,801.0                 | 1.50            | 46.50       | 3,800.3             | -17.2      | 26.5       | -17.6                 | 0.85                  | 0.47                 | -29.30              |
| 3,833.0                 | 2.60            | 3.00        | 3,832.2             | -16.2      | 26.9       | -16.6                 | 5.72                  | 3.44                 | -135.94             |
| 3,864.0                 | 5.30            | 350.70      | 3,863.2             | -14.1      | 26.7       | -14.5                 | 9.08                  | 8.71                 | -39.68              |
| 3,896.0                 | 6.70            | 352.30      | 3,895.0             | -10.8      | 26.2       | -11.2                 | 4.41                  | 4.38                 | 5.00                |
| 3,928.0                 | 8.70            | 355.20      | 3,926.7             | -6.5       | 25.7       | -6.9                  | 6.36                  | 6.25                 | 9.06                |
| 3,959.0                 | 10.60           | 353.00      | 3,957.3             | -1.4       | 25.2       | -1.7                  | 6.24                  | 6.13                 | -7.10               |
| 3,991.0                 | 12.00           | 353.50      | 3,988.6             | 4.9        | 24.5       | 4.5                   | 4.39                  | 4.38                 | 1.56                |
| 4,023.0                 | 13.80           | 352.90      | 4,019.8             | 12.0       | 23.6       | 11.6                  | 5.64                  | 5.63                 | -1.88               |
| 4,054.0                 | 15.20           | 352.60      | 4,049.8             | 19.7       | 22.6       | 19.3                  | 4.52                  | 4.52                 | -0.97               |
| 4,086.0                 | 15.30           | 355.50      | 4,080.7             | 28.0       | 21.8       | 27.7                  | 2.40                  | 0.31                 | 9.06                |
| 4,118.0                 | 16.00           | 356.40      | 4,111.5             | 36.6       | 21.2       | 36.3                  | 2.32                  | 2.19                 | 2.81                |
| 4,149.0                 | 19.10           | 355.60      | 4,141.1             | 46.0       | 20.5       | 45.7                  | 10.03                 | 10.00                | -2.58               |
| 4,181.0                 | 22.20           | 355.90      | 4,171.0             | 57.2       | 19.7       | 56.9                  | 9.69                  | 9.69                 | 0.94                |
| 4,213.0                 | 24.10           | 355.10      | 4,200.4             | 69.8       | 18.7       | 69.5                  | 6.02                  | 5.94                 | -2.50               |
| 4,244.0                 | 25.30           | 355.40      | 4,228.6             | 82.7       | 17.6       | 82.4                  | 3.89                  | 3.87                 | 0.97                |
| 4,276.0                 | 26.60           | 356.10      | 4,257.4             | 96.6       | 16.6       | 96.4                  | 4.17                  | 4.06                 | 2.19                |
| 4,308.0                 | 29.60           | 355.50      | 4,285.6             | 111.7      | 15.5       | 111.4                 | 9.42                  | 9.38                 | -1.88               |
| 4,339.0                 | 31.70           | 355.10      | 4,312.3             | 127.4      | 14.2       | 127.2                 | 6.81                  | 6.77                 | -1.29               |
| 4,371.0                 | 32.20           | 354.00      | 4,339.4             | 144.3      | 12.5       | 144.1                 | 2.40                  | 1.56                 | -3.44               |
| 4,403.0                 | 33.50           | 353.00      | 4,366.3             | 161.5      | 10.6       | 161.3                 | 4.40                  | 4.06                 | -3.13               |
| 4,434.0                 | 36.50           | 352.70      | 4,391.9             | 178.9      | 8.4        | 178.8                 | 6.47                  | 6.45                 | -0.97               |
| 4,466.0                 | 38.20           | 354.40      | 4,417.5             | 198.0      | 6.2        | 197.9                 | 9.02                  | 8.44                 | 5.31                |

## Wolverine Directional, LLC

### Survey Report

|                                |  |                       |
|--------------------------------|--|-----------------------|
| Company: Sandridge Energy      | Local Co-ordinate Reference: Well Cynthia 1-14H  | Well: Cynthia 1-14H   |
| Project: Harper County (KS27S) | TVD Reference: WELL @ 0.0ft (Original Well Elev) | Wellbore: Wellbore #1 |
| Site: Sec 14-T35S-R6W          | MD Reference: WELL @ 0.0ft (Original Well Elev)  | Design: Wellbore #1   |
| Well: Cynthia 1-14H            | North Reference: Grid                            |                       |
| Wellbore: Wellbore #1          | Survey Calculation Method: Minimum Curvature     |                       |
| Design: Wellbore #1            | Database: EDM 2003.21 Single User Db             |                       |

**Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 4,498.0             | 41.50           | 355.70      | 4,442.0             | 218.4      | 4.5        | 218.3                 | 10.64                 | 10.31                | 4.06                |
| 4,529.0             | 43.10           | 356.60      | 4,465.0             | 239.2      | 3.1        | 239.2                 | 5.52                  | 5.16                 | 2.90                |
| 4,561.0             | 45.50           | 357.20      | 4,487.9             | 261.5      | 1.9        | 261.5                 | 7.61                  | 7.50                 | 1.88                |
| 4,592.0             | 48.40           | 358.00      | 4,509.0             | 284.2      | 0.9        | 284.1                 | 9.54                  | 9.35                 | 2.58                |
| 4,624.0             | 50.80           | 357.60      | 4,529.8             | 308.5      | 0.0        | 308.5                 | 7.56                  | 7.50                 | -1.25               |
| 4,656.0             | 51.30           | 357.60      | 4,549.9             | 333.4      | -1.0       | 333.4                 | 1.56                  | 1.58                 | 0.00                |
| 4,687.0             | 50.50           | 356.70      | 4,569.4             | 357.4      | -2.2       | 357.4                 | 3.43                  | -2.58                | -2.90               |
| 4,719.0             | 49.50           | 356.50      | 4,590.0             | 381.9      | -3.7       | 381.9                 | 3.16                  | -3.13                | -0.63               |
| 4,751.0             | 50.00           | 356.60      | 4,610.7             | 406.3      | -5.2       | 406.3                 | 1.58                  | 1.50                 | 0.31                |
| 4,781.0             | 51.30           | 357.10      | 4,629.7             | 429.4      | -6.4       | 429.5                 | 4.52                  | 4.33                 | 1.67                |
| 4,813.0             | 50.70           | 357.20      | 4,649.8             | 454.3      | -7.7       | 454.3                 | 1.89                  | -1.88                | 0.31                |
| 4,844.0             | 52.50           | 357.20      | 4,669.1             | 478.5      | -8.9       | 478.6                 | 5.81                  | 5.81                 | 0.00                |
| 4,876.0             | 55.50           | 358.50      | 4,687.9             | 504.4      | -9.8       | 504.5                 | 9.93                  | 9.38                 | 4.06                |
| 4,908.0             | 58.90           | 359.00      | 4,705.2             | 531.3      | -10.4      | 531.4                 | 10.71                 | 10.63                | 1.56                |
| 4,939.0             | 61.50           | 359.90      | 4,720.6             | 558.2      | -10.7      | 558.3                 | 8.76                  | 8.39                 | 2.90                |
| 4,971.0             | 64.90           | 359.50      | 4,735.0             | 586.7      | -10.8      | 586.8                 | 10.68                 | 10.63                | -1.25               |
| 5,002.0             | 67.90           | 359.90      | 4,747.5             | 615.1      | -11.0      | 615.2                 | 9.75                  | 9.68                 | 1.29                |
| 5,034.0             | 70.20           | 359.90      | 4,756.9             | 645.0      | -11.0      | 645.1                 | 7.19                  | 7.19                 | 0.00                |
| 5,065.0             | 73.80           | 359.50      | 4,768.5             | 674.5      | -11.2      | 674.6                 | 11.68                 | 11.61                | -1.29               |
| 5,097.0             | 76.50           | 358.70      | 4,776.7             | 705.4      | -11.7      | 705.5                 | 8.78                  | 8.44                 | -2.50               |
| 5,129.0             | 78.90           | 357.80      | 4,783.5             | 736.7      | -12.6      | 736.8                 | 7.99                  | 7.50                 | -2.81               |
| 5,160.0             | 82.70           | 357.40      | 4,788.4             | 767.2      | -13.9      | 767.4                 | 12.32                 | 12.26                | -1.29               |
| 5,196.0             | 85.50           | 357.20      | 4,792.2             | 803.0      | -15.6      | 803.2                 | 7.80                  | 7.78                 | -0.56               |
| 5,231.0             | 89.30           | 357.60      | 4,793.7             | 837.9      | -17.2      | 838.1                 | 10.92                 | 10.86                | 1.14                |
| 5,263.0             | 89.40           | 357.20      | 4,794.1             | 869.9      | -18.6      | 870.1                 | 1.29                  | 0.31                 | -1.25               |
| 5,294.0             | 89.00           | 357.90      | 4,794.5             | 900.9      | -19.9      | 901.1                 | 2.60                  | -1.29                | 2.26                |
| 5,326.0             | 89.60           | 358.40      | 4,794.9             | 932.8      | -21.0      | 933.1                 | 2.44                  | 1.88                 | 1.56                |
| 5,358.0             | 90.70           | 359.10      | 4,794.8             | 964.8      | -21.7      | 965.1                 | 4.07                  | 3.44                 | 2.19                |
| 5,390.0             | 90.90           | 359.00      | 4,794.4             | 996.8      | -22.2      | 997.1                 | 0.70                  | 0.63                 | -0.31               |
| 5,421.0             | 90.60           | 359.00      | 4,794.0             | 1,027.8    | -22.7      | 1,028.0               | 0.97                  | -0.97                | 0.00                |
| 5,484.0             | 91.30           | 358.40      | 4,792.9             | 1,090.8    | -24.2      | 1,091.0               | 1.46                  | 1.11                 | -0.95               |
| 5,516.0             | 91.10           | 358.70      | 4,792.3             | 1,122.8    | -25.0      | 1,123.0               | 1.13                  | -0.63                | 0.94                |
| 5,510.0             | 91.40           | 358.50      | 4,790.2             | 1,216.7    | -27.3      | 1,217.0               | 0.38                  | 0.32                 | -0.21               |
| 5,705.0             | 91.60           | 359.30      | 4,787.7             | 1,311.7    | -29.1      | 1,312.0               | 0.87                  | 0.21                 | 0.84                |
| 5,800.0             | 91.90           | 359.40      | 4,784.8             | 1,406.6    | -30.2      | 1,406.9               | 0.33                  | 0.32                 | 0.11                |
| 5,894.0             | 90.20           | 358.80      | 4,783.1             | 1,500.6    | -31.7      | 1,500.9               | 1.92                  | -1.81                | -0.64               |
| 5,989.0             | 90.90           | 358.30      | 4,782.2             | 1,595.6    | -34.1      | 1,595.9               | 0.91                  | 0.74                 | -0.53               |
| 6,085.0             | 89.90           | 359.60      | 4,781.5             | 1,691.5    | -35.8      | 1,691.9               | 1.71                  | -1.04                | 1.35                |
| 6,180.0             | 90.50           | 359.30      | 4,781.2             | 1,786.5    | -36.7      | 1,786.9               | 0.71                  | 0.63                 | -0.32               |
| 6,275.0             | 90.50           | 0.40        | 4,780.4             | 1,881.5    | -37.0      | 1,881.9               | 1.16                  | 0.00                 | 1.16                |
| 6,370.0             | 88.90           | 1.10        | 4,780.9             | 1,976.5    | -35.7      | 1,976.8               | 1.84                  | -1.68                | 0.74                |
| 6,465.0             | 89.50           | 0.60        | 4,782.2             | 2,071.5    | -34.3      | 2,071.8               | 0.82                  | 0.63                 | -0.53               |
| 6,560.0             | 90.20           | 0.60        | 4,782.4             | 2,166.5    | -33.3      | 2,166.7               | 0.74                  | 0.74                 | 0.00                |
| 6,655.0             | 91.60           | 1.30        | 4,780.9             | 2,261.5    | -31.8      | 2,261.7               | 1.65                  | 1.47                 | 0.74                |
| 6,750.0             | 90.90           | 1.50        | 4,778.9             | 2,356.4    | -29.4      | 2,356.6               | 0.77                  | -0.74                | 0.21                |
| 6,845.0             | 90.60           | 1.30        | 4,777.6             | 2,451.4    | -27.1      | 2,451.5               | 0.38                  | -0.32                | -0.21               |
| 6,940.0             | 91.80           | 0.60        | 4,775.6             | 2,546.3    | -25.5      | 2,546.4               | 1.46                  | 1.26                 | -0.74               |
| 7,035.0             | 90.80           | 359.80      | 4,773.5             | 2,641.3    | -25.2      | 2,641.4               | 1.35                  | -1.05                | -0.84               |
| 7,130.0             | 90.70           | 359.90      | 4,772.2             | 2,736.3    | -25.5      | 2,736.4               | 0.15                  | -0.11                | 0.11                |
| 7,226.0             | 89.80           | 359.70      | 4,771.8             | 2,832.3    | -25.8      | 2,832.4               | 0.98                  | -0.94                | -0.21               |
| 7,321.0             | 89.80           | 358.40      | 4,772.2             | 2,927.3    | -27.4      | 2,927.4               | 1.37                  | 0.00                 | -1.37               |
| 7,416.0             | 91.20           | 358.10      | 4,771.3             | 3,022.2    | -30.3      | 3,022.4               | 1.51                  | 1.47                 | -0.32               |
| 7,511.0             | 91.60           | 357.10      | 4,769.0             | 3,117.1    | -34.2      | 3,117.3               | 1.13                  | 0.42                 | -1.05               |
| 7,606.0             | 90.70           | 357.80      | 4,767.1             | 3,212.0    | -38.5      | 3,212.2               | 1.20                  | -0.95                | 0.74                |

## Wolverine Directional, LLC

### Survey Report

|                                |  |  |
|--------------------------------|--|--|
| Company: Sandridge Energy      | Local Co-ordinate Reference: Well Cynthia 1-14H  |  |
| Project: Harper County (KS27S) | TVD Reference: WELL @ 0.0ft (Original Well Elev) |  |
| Site: Sec 14-T35S-R6W          | MD Reference: WELL @ 0.0ft (Original Well Elev)  |  |
| Well: Cynthia 1-14H            | North Reference: Grid                            |  |
| Wellbore: Wellbore #1          | Survey Calculation Method: Minimum Curvature     |  |
| Design: Wellbore #1            | Database: EDM 2003.21 Single User Db             |  |

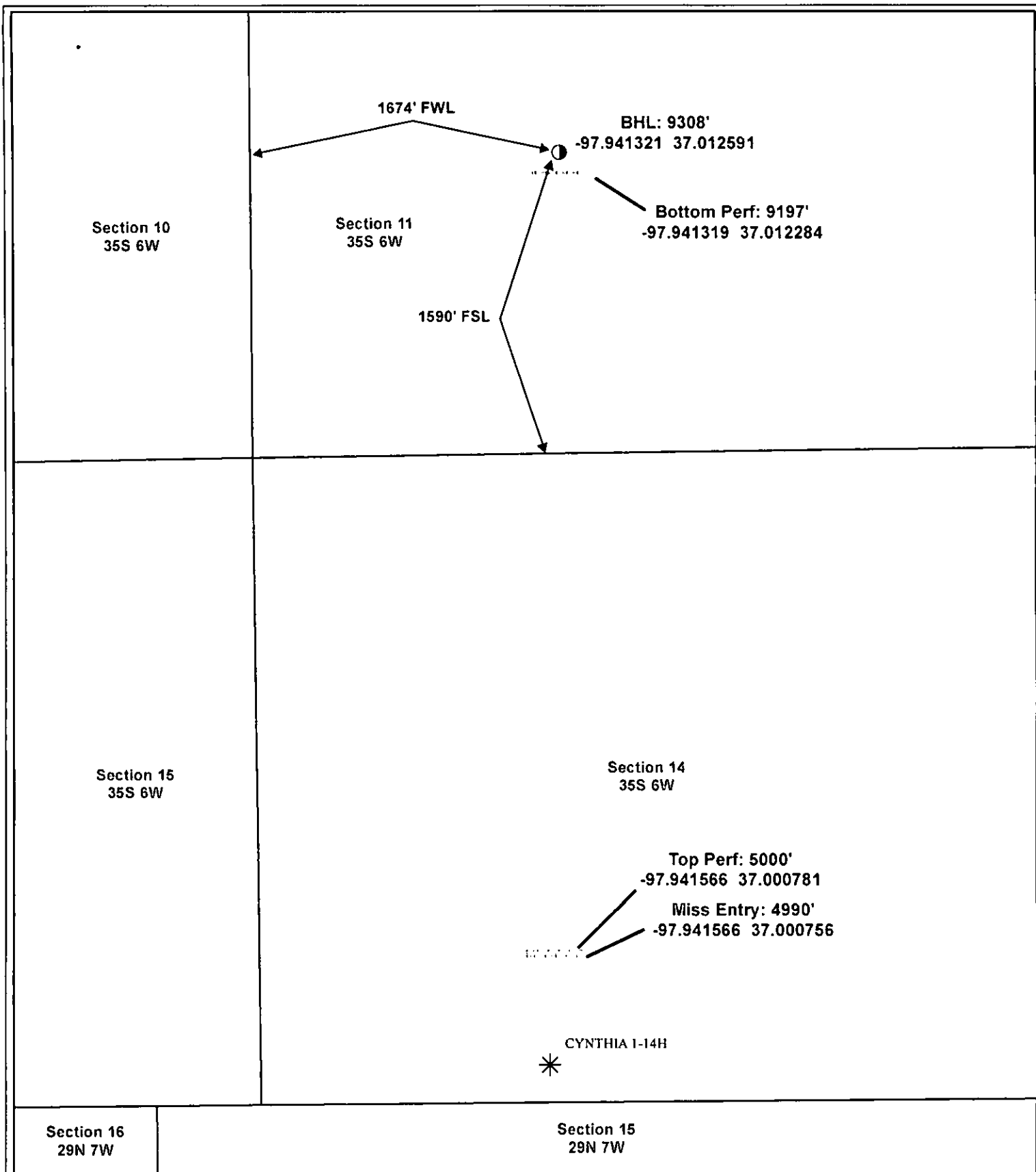
#### Survey


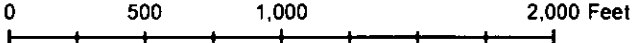

| Measured Depth (ft)             | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 7,701.0                         | 90.50           | 359.10      | 4,766.1             | 3,307.0    | -41.0      | 3,307.2               | 1.38                  | -0.21                | 1.37                |
| 7,796.0                         | 91.50           | 358.90      | 4,764.4             | 3,401.9    | -42.7      | 3,402.2               | 1.07                  | 1.05                 | -0.21               |
| 7,891.0                         | 90.70           | 358.30      | 4,762.6             | 3,496.9    | -45.0      | 3,497.2               | 1.05                  | -0.84                | -0.63               |
| 7,986.0                         | 90.30           | 357.60      | 4,761.8             | 3,591.8    | -48.4      | 3,592.1               | 0.85                  | -0.42                | -0.74               |
| 8,081.0                         | 90.80           | 357.70      | 4,760.9             | 3,686.7    | -52.3      | 3,687.1               | 0.54                  | 0.53                 | 0.11                |
| 8,176.0                         | 90.80           | 357.40      | 4,759.6             | 3,781.6    | -56.4      | 3,782.1               | 0.32                  | 0.00                 | -0.32               |
| 8,272.0                         | 89.60           | 359.90      | 4,759.2             | 3,877.6    | -58.6      | 3,878.0               | 2.89                  | -1.25                | 2.60                |
| 8,367.0                         | 90.20           | 359.50      | 4,759.4             | 3,972.6    | -59.1      | 3,973.0               | 0.76                  | 0.63                 | -0.42               |
| 8,461.0                         | 90.20           | 0.20        | 4,759.1             | 4,066.6    | -59.4      | 4,067.0               | 0.74                  | 0.00                 | 0.74                |
| 8,556.0                         | 90.90           | 359.90      | 4,758.1             | 4,161.6    | -59.3      | 4,162.0               | 0.80                  | 0.74                 | -0.32               |
| 8,651.0                         | 90.40           | 0.40        | 4,757.1             | 4,256.6    | -59.0      | 4,257.0               | 0.74                  | -0.53                | 0.53                |
| 8,745.0                         | 90.10           | 359.90      | 4,756.7             | 4,350.6    | -58.8      | 4,351.0               | 0.62                  | -0.32                | -0.53               |
| 8,840.0                         | 90.10           | 359.90      | 4,756.5             | 4,445.6    | -59.0      | 4,446.0               | 0.00                  | 0.00                 | 0.00                |
| 8,935.0                         | 90.30           | 359.60      | 4,756.2             | 4,540.6    | -59.4      | 4,541.0               | 0.38                  | 0.21                 | -0.32               |
| 9,030.0                         | 90.50           | 359.90      | 4,755.5             | 4,635.6    | -59.8      | 4,636.0               | 0.38                  | 0.21                 | 0.32                |
| 9,125.0                         | 89.50           | 1.00        | 4,755.5             | 4,730.6    | -59.0      | 4,730.9               | 1.56                  | -1.05                | 1.16                |
| 9,220.0                         | 90.50           | 0.50        | 4,755.5             | 4,825.6    | -57.8      | 4,825.9               | 1.18                  | 1.05                 | -0.53               |
| 9,264.0                         | 90.40           | 0.80        | 4,755.2             | 4,869.6    | -57.3      | 4,869.9               | 0.72                  | -0.23                | 0.68                |
| Last MWD Survey                 |                 |             |                     |            |            |                       |                       |                      |                     |
| 9,308.0                         | 90.40           | 0.80        | 4,754.8             | 4,913.6    | -56.7      | 4,913.9               | 0.00                  | 0.00                 | 0.00                |
| Proj to TD - Cynthia 1-14H PBHL |                 |             |                     |            |            |                       |                       |                      |                     |

#### Survey Annotations

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates |            | Comment          |
|---------------------|---------------------|-------------------|------------|------------------|
|                     |                     | +N/-S (ft)        | +E/-W (ft) |                  |
| 250.0               | 250.0               | -0.5              | -0.7       | First Rig Survey |
| 713.0               | 713.0               | -3.1              | -4.1       | Last Rig Survey  |
| 812.0               | 812.0               | -3.4              | -4.5       | First MWD Survey |
| 9,264.0             | 4,755.2             | 4,869.6           | -57.3      | Last MWD Survey  |
| 9,308.0             | 4,754.8             | 4,913.6           | -56.7      | Proj to TD       |

|                   |                    |             |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|



|  |  |   |   |  |
|--|--|---|---|--|
|  <p><b>SANDRIDGE</b><br/>THE POWER OF US™</p> <ul style="list-style-type: none"> <li>● Actual BH Location</li> <li>* SandRidge Wells</li> <li>--- Perf</li> <li>□ Sections</li> </ul> | <p><b>Actual Bottom-Hole Location of Cynthia 1-14H</b><br/>Harper County, Kansas<br/>T&amp;R: 35S 6W<br/>Section: 14 &amp; 11, 1590' FSL &amp; 1674' FWL<br/>Long: -97.941321 Lat: 37.012591</p> <p><b>1 in = 679 ft</b></p> | <p>Draftsman:<br/>Matt White</p> <p>Draft Date: 2/29/2012</p>                         |   |  |
|  |    |  | <p>Drawing Name/Number:<br/><b>Addendum_Cynthia_1-14H.mxd</b></p> |  |
|  | <p>Coordinate System:<br/>NAD 1927 State Plane<br/>Kansas South FIPS: 1502</p>   |   |   |  |