



INVOICE

| | |
|-----------|-----------|
| DATE | INVOICE # |
| 3/13/2015 | 5556 |

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|--|
| BILL TO |
| SANDRIDGE ENERGY, INC. ATTN: PURCHASING MANAGER 123 ROBERT S. KERR AVENUE OKLAHOMA CITY, OK 73102 |

| |
|---|
| REMIT TO |
| EDGE SERVICES, INC. PO BOX 609 WOODWARD, OK 73802 |

| COUNTY | Start Date | End Date | Work Order | Rig Number | LEASE NAME | Terms |
|------------|------------|----------|------------|------------|------------------|---------------|
| HARPER, KS | 3/12/2015 | | 4133 | LARIAT 20 | CATHER 3408 1-9H | Due on rec... |

| Description |
|---|
| DRILLED 100' OF 30" CONDUCTOR HOLE DRILLED 6' OF 76" HOLE FURNISHED AND SET 6' X 6' TINHORN CELLAR FURNISHED 100' OF 20" CONDUCTOR PIPE FURNISHED MUD, WATER, AND TRUCKING FURNISHED WELDER AND MATERIALS FURNISHED 10 YARDS OF 10 SACK GROUT FOR CONDUCTOR HOLE FURNISHED 4 YARDS OF 10 SACK GROUT FOR MOUSE HOLE FURNISHED GROUT PUMP DRILL MOUSE HOLE FURNISHED 80' OF 16" CONDUCTOR PIPE TOTAL BID \$15,700.00 |

| | |
|--------------------------|----------|
| Sales Tax (6.15%) | \$275.64 |
|--------------------------|----------|

| | |
|--------------|-------------|
| TOTAL | \$15,975.64 |
|--------------|-------------|



SandRidge Energy
 Cather Trust 3408 1-9H
 Harper County, KS

1.0 Executive Summary

Allied Oil & Gas Services would like to thank you, for the award of the provision of cementing products and services on the well Cather Trust 3408 1-9H Surface Casing.

A pre-job meeting was held to discuss job details, review the safety hazards, potential environmental impact and established emergency procedures.

Allied started the job testing lines to 3500 psi. After a successful test we began the job by pumping 10 bbls of preflush spacer. We then mixed and pumped the following cements:

| | |
|---------------------|-----------------------|
| 74.13 bbl | 225 Sacks of 13.2 ppg |
| Class A Slurry - | 1.85 Yield |
| 2% Calcium Chloride | |
| 2% Gypsum | |
| 2% NAMS | |
| .25 lb/sk Flocele | |

| | | | |
|---------------------|-----|-----|-------------------|
| 32.06 | bbl | 150 | Sacks of 15.6 ppg |
| Class A Slurry - | | 1.2 | Yield |
| 2% Calcium Chloride | | | |
| .25 lb/sk Flocele | | | |

The top plug was then released and displaced with 59 Bbls of fresh water. The plug bumped and pressured up to 980 psi. Pressure was released and floats held with .25 bbl back. 35 Bbl circulated to the pit.

All real time data is shown on the graph in the attachment section.

Allied Oil & Gas Services remains committed to provide operational excellence and superior product performance. All comments and suggestions are greatly appreciated and help us to continue to provide this level of service.

Again we want to thank you for the opportunity to perform these and your future cementing & acidizing service needs.



SandRidge Energy
Cather Trust 3408 1-9H
Harper County, KS.

1.0 Executive Summary

Allied Oil & Gas Services would like to thank you for the award of the provision of cementing products and services on the well **Cather Trust 3408 1-9H intermediate casing**.

A pre-job meeting was held to discuss job details, review the safety hazards, potential environmental impact and established emergency procedures.

Allied started the job testing lines to 3500 psi. After a successful test we began the job by pumping 30 bbls of spacer. We then mixed and pumped the following cements:

59.84 Bbls (**240 sacks**) of 13.6 ppg **Lead slurry**:

50:50 Class A:Poz Blend – 1.4 Yield

2.0% Gel

0.4% FL-160

0.1% SA-51

21.02 Bbls (**100 sacks**) of 15.6 ppg **Tail slurry**:

Class A - 1.18 Yield

0.8% FL-160

0.2% CD-31

The top plug was then released and displaced with 197 Bbls of fresh water. The plug bumped and pressured up to 1500 psi. Pressure was released and floats held with 1 bbl back to the truck. Well maintained circulation throughout the job.

All real time data can be review in the chart section of the report.

Allied Oil & Gas Services remains committed to provide operational excellence and superior product performance. All comments and suggestions are greatly appreciated and help us to continue to provide this level of service.

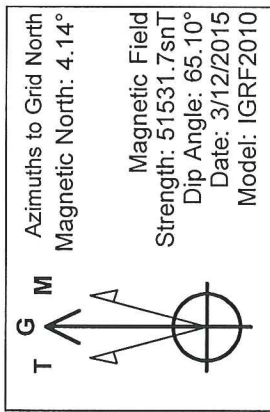
Again we want to thank you for the opportunity to perform these and your future cementing & acidizing service needs.

SECTION DETAILS

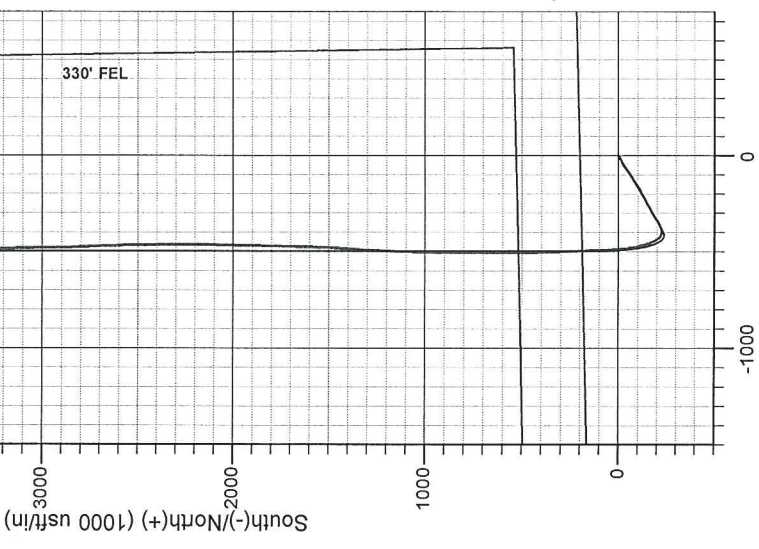
| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | Vsect | Annotation |
|--------|-------|--------|--------|--------|--------|-------|--------|--------|-------------------------------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 1250.0 | 0.00 | 0.00 | 1250.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | Start Build 2.00 |
| 1859.5 | 12.19 | 239.64 | 1854.9 | -32.6 | -55.7 | 2.00 | 239.64 | -27.1 | Start Turn 0.00 |
| 3744.0 | 12.19 | 239.60 | 3696.9 | -233.9 | -399.0 | 0.00 | -90.02 | -194.1 | Start DLS 7.00 TFO 125.56 |
| 4696.3 | 60.00 | 0.00 | 4492.2 | 174.8 | -497.0 | 7.00 | 125.56 | 222.1 | Start 200.0 hold at 4696.3 MD |
| 4896.3 | 60.00 | 0.00 | 4592.2 | 348.0 | -497.0 | 0.00 | 394.5 | 0.00 | Start DLS 10.00 TFO 0.00 |
| 5197.3 | 90.10 | 0.00 | 4669.0 | 635.4 | -497.0 | 10.00 | -0.01 | 680.6 | Start DLS 0.00 TFO 17.63 |
| 9666.9 | 90.10 | 360.00 | 4661.0 | 5105.0 | -497.0 | 0.00 | 0.00 | 5129.1 | TD at 9666.9 |

| WELL DETAILS: Cather Trust 3408 1-9H | | |
|--------------------------------------|-----------------|------------------|
| Ground Level: | Latitude | Longitude |
| 1320.0 | 37° 5' 36.500 N | 98° 11' 11.716 W |

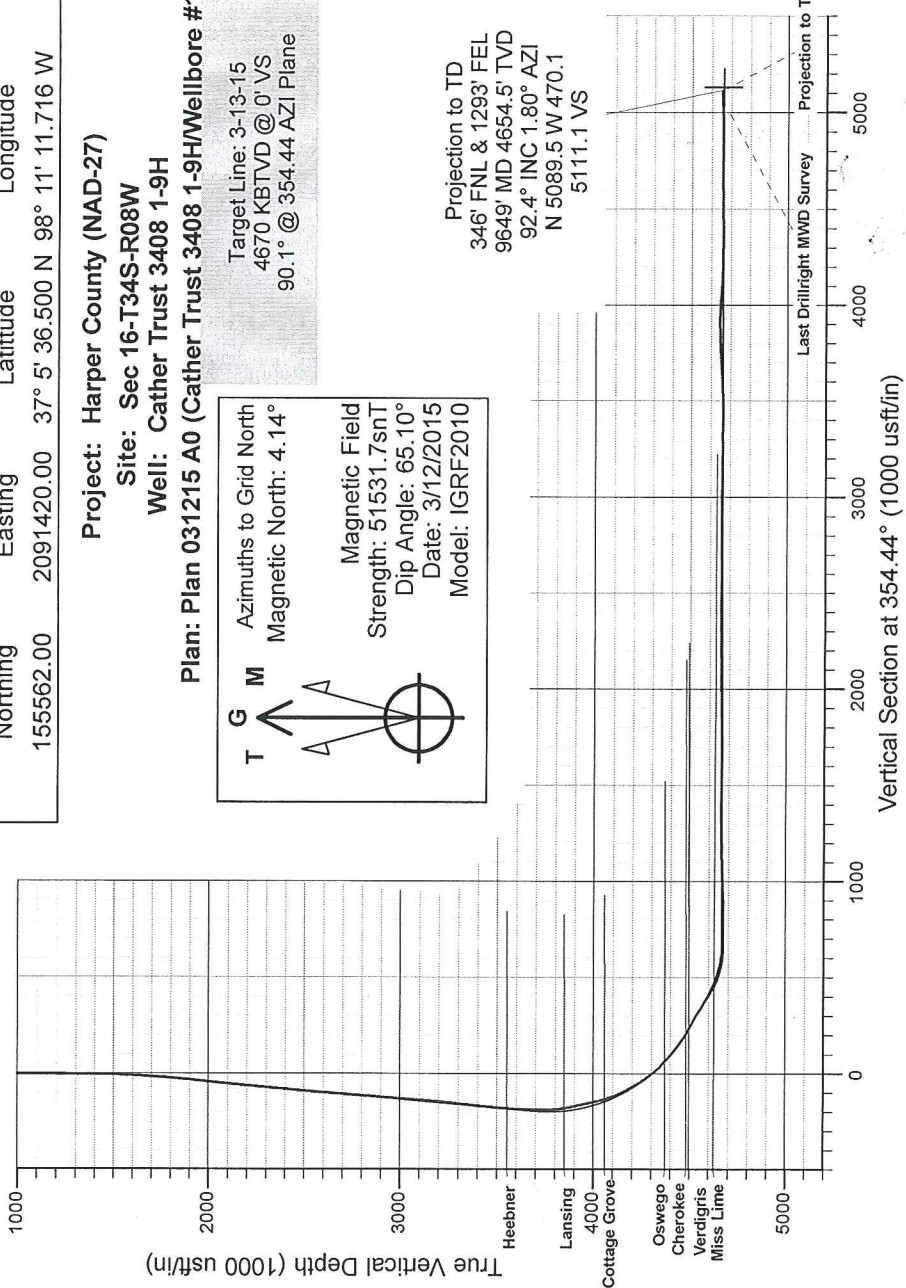
Project: Harper County (NAD-27)
Site: Sec 16-T34S-R08W
Well: Cather Trust 3408 1-9H
Plan: Plan 031215 A0 (Cather Trust 3408 1-9HWellbore #1)



Target Line: 3-13-15
 4670 KBTVD @ 0' VS
 90.1° @ 354.44 AZI Plane



Projection to TD
 346' FNL & 1293' FEL
 9649' MD 4654.5' TVD
 92.4° INC 1.80° AZI
 N 5089.5 W 470.1
 5111.1 VS



Projection to TD
 346' FNL & 1293' FEL
 9649' MD 4654.5' TVD
 92.4° INC 1.80° AZI
 N 5089.5 W 470.1
 5111.1 VS

Vertical Section at 354.44° (1000 usft/in)

DrillRight

Survey Report

| | |
|--|---|
| Company: Sandridge Energy | Local Co-ordinate Reference: Well Cather Trust 3408 1-9H |
| Project: Harper County (NAD-27) | TVD Reference: KB @ 1338.0usft |
| Site: Sec 16-T34S-R08W | MD Reference: KB @ 1338.0usft |
| Well: Cather Trust 3408 1-9H | North Reference: Grid |
| Wellbore: Wellbore #1 | Survey Calculation Method: Minimum Curvature |
| Design: Wellbore #1 | Database: EDM 5000.1 Single User Db |

| | | | |
|---|-------------------------------------|--|--|
| Project Harper County (NAD-27) | | | |
| Map System: US State Plane 1927 (Exact solution) | System Datum: Mean Sea Level | | |
| Geo Datum: NAD 1927 (NADCON CONUS) | | | |
| Map Zone: Kansas South 1502 | | | |

| | | | |
|---------------------------------------|-----------------------------------|-----------------------------------|--|
| Site Sec 16-T34S-R08W | | | |
| Site Position: | Northing: 150,433.00 usft | Latitude: 37° 4' 45.929 N | |
| From: Map | Easting: 2,087,114.00 usft | Longitude: 98° 12' 5.062 W | |
| Position Uncertainty: 0.0 usft | Slot Radius: 13-3/16 " | Grid Convergence: 0.18 ° | |

| | | | |
|------------------------------------|----------------------|-------------------------------------|------------------------------------|
| Well Cather Trust 3408 1-9H | | | |
| Well Position | +N-S 0.0 usft | Northing: 155,562.00 usft | Latitude: 37° 5' 36.500 N |
| | +E-W 0.0 usft | Easting: 2,091,420.00 usft | Longitude: 98° 11' 11.716 W |
| Position Uncertainty | 0.0 usft | Wellhead Elevation: 0.0 usft | Ground Level: 1,320.0 usft |

| Wellbore Wellbore #1 | | | | | |
|-----------------------------|------------|-------------|-----------------|---------------|---------------------|
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 3/12/2015 | 4.33 | 65.10 | 51,532 |

| Design Wellbore #1 | | | | | |
|---------------------------|-------------------------|--------------------------|-------------|---------------|--|
| Audit Notes: | | | | | |
| Version: 1.0 | Phase: ACTUAL | Tie On Depth: 0.0 | | | |
| Vertical Section: | Depth From (TVD) (usft) | +N-S (usft) | +E-W (usft) | Direction (°) | |
| | 0.0 | 0.0 | 0.0 | 354.44 | |

| Survey Program Date 3/30/2015 | | | | |
|--------------------------------------|-----------|--------------------------------------|-----------|------------------------------------|
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
| 50.0 | 778.0 | Gyro Surveys (Wellbore #1) | GYD_DP_MS | Gyrodatta gyro-compassing and drop |
| 825.0 | 9,649.0 | Drillright MWD Surveys (Wellbore #1) | MWD | MWD - Standard |

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N-S (usft) | +E-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | |
|--------------------------|-----------------|-------------|-----------------------|-------------|-------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | |
| 50.0 | 0.04 | 188.62 | 50.0 | 0.0 | 0.0 | 0.0 | 0.08 | 0.08 | 0.00 | |
| First Gyro Survey | | | | | | | | | | |
| 100.0 | 0.10 | 104.62 | 100.0 | 0.0 | 0.0 | 0.0 | 0.21 | 0.12 | -168.00 | |
| 150.0 | 0.21 | 52.35 | 150.0 | 0.0 | 0.2 | 0.0 | 0.34 | 0.22 | -104.54 | |
| 200.0 | 0.07 | 55.91 | 200.0 | 0.1 | 0.2 | 0.0 | 0.28 | -0.28 | 7.12 | |
| 250.0 | 0.17 | 91.21 | 250.0 | 0.1 | 0.3 | 0.1 | 0.24 | 0.20 | 70.60 | |
| 300.0 | 0.08 | 84.16 | 300.0 | 0.1 | 0.5 | 0.0 | 0.18 | -0.18 | -14.10 | |
| 350.0 | 0.17 | 98.66 | 350.0 | 0.1 | 0.6 | 0.0 | 0.19 | 0.18 | 29.00 | |
| 400.0 | 0.18 | 91.05 | 400.0 | 0.1 | 0.7 | 0.0 | 0.05 | 0.02 | -15.22 | |

DrillRight

Survey Report

| | | | |
|------------------|------------------------|-------------------------------------|-----------------------------|
| Company: | Sandridge Energy | Local Co-ordinate Reference: | Well Cather Trust 3408 1-9H |
| Project: | Harper County (NAD-27) | TVD Reference: | KB @ 1338.0usft |
| Site: | Sec 16-T34S-R08W | MD Reference: | KB @ 1338.0usft |
| Well: | Cather Trust 3408 1-9H | North Reference: | Grid |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | EDM 5000.1 Single User Db |

| Survey | | | | | | | | | | |
|------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | |
| 450.0 | 0.13 | 113.22 | 450.0 | 0.0 | 0.8 | 0.0 | 0.15 | -0.10 | 44.34 | |
| 500.0 | 0.07 | 54.48 | 500.0 | 0.0 | 0.9 | 0.0 | 0.22 | -0.12 | -117.48 | |
| 550.0 | 0.15 | 77.79 | 550.0 | 0.1 | 1.0 | 0.0 | 0.18 | 0.16 | 46.62 | |
| 600.0 | 0.03 | 156.18 | 600.0 | 0.1 | 1.1 | 0.0 | 0.29 | -0.24 | 156.78 | |
| 650.0 | 0.05 | 311.72 | 650.0 | 0.1 | 1.1 | 0.0 | 0.16 | 0.04 | 311.08 | |
| 700.0 | 0.14 | 203.69 | 700.0 | 0.0 | 1.0 | -0.1 | 0.33 | 0.18 | -216.06 | |
| 750.0 | 0.25 | 182.06 | 750.0 | -0.1 | 1.0 | -0.2 | 0.26 | 0.22 | -43.26 | |
| 778.0 | 0.41 | 172.28 | 778.0 | -0.3 | 1.0 | -0.4 | 0.60 | 0.57 | -34.93 | |
| Last Gyro Survey | | | | | | | | | | |
| 825.0 | 0.30 | 238.90 | 825.0 | -0.5 | 0.9 | -0.6 | 0.85 | -0.23 | 141.74 | |
| First Drillright MWD Survey | | | | | | | | | | |
| 1,108.0 | 0.20 | 228.40 | 1,108.0 | -1.2 | -0.1 | -1.2 | 0.04 | -0.04 | -3.71 | |
| 1,297.0 | 1.80 | 217.30 | 1,297.0 | -3.8 | -2.1 | -3.6 | 0.85 | 0.85 | -5.87 | |
| 1,392.0 | 1.60 | 288.90 | 1,391.9 | -4.6 | -4.3 | -4.1 | 2.10 | -0.21 | 75.37 | |
| 1,486.0 | 3.60 | 252.70 | 1,485.8 | -5.0 | -8.3 | -4.2 | 2.65 | 2.13 | -38.51 | |
| 1,580.0 | 7.50 | 248.10 | 1,579.4 | -8.2 | -16.8 | -6.5 | 4.17 | 4.15 | -4.89 | |
| 1,674.0 | 8.40 | 240.30 | 1,672.5 | -13.9 | -28.5 | -11.1 | 1.49 | 0.96 | -8.30 | |
| 1,769.0 | 10.80 | 239.10 | 1,766.1 | -21.9 | -42.2 | -17.7 | 2.53 | 2.53 | -1.26 | |
| 1,864.0 | 12.00 | 236.50 | 1,859.3 | -31.9 | -58.0 | -26.1 | 1.37 | 1.26 | -2.74 | |
| 1,959.0 | 12.80 | 236.40 | 1,952.0 | -43.2 | -75.0 | -35.7 | 0.84 | 0.84 | -0.11 | |
| 2,053.0 | 10.40 | 231.80 | 2,044.1 | -54.2 | -90.4 | -45.2 | 2.73 | -2.55 | -4.89 | |
| 2,148.0 | 12.00 | 236.40 | 2,137.3 | -65.0 | -105.4 | -54.4 | 1.93 | 1.68 | 4.84 | |
| 2,243.0 | 12.30 | 241.40 | 2,230.2 | -75.3 | -122.5 | -63.1 | 1.15 | 0.32 | 5.26 | |
| 2,337.0 | 13.00 | 238.60 | 2,321.9 | -85.6 | -140.3 | -71.6 | 0.99 | 0.74 | -2.98 | |
| 2,432.0 | 11.50 | 236.10 | 2,414.7 | -96.4 | -157.3 | -80.7 | 1.67 | -1.58 | -2.63 | |
| 2,527.0 | 11.30 | 240.30 | 2,507.9 | -106.3 | -173.2 | -89.0 | 0.90 | -0.21 | 4.42 | |
| 2,621.0 | 10.70 | 237.80 | 2,600.1 | -115.5 | -188.6 | -96.7 | 0.82 | -0.64 | -2.66 | |
| 2,715.0 | 12.40 | 243.10 | 2,692.2 | -124.7 | -205.0 | -104.3 | 2.13 | 1.81 | 5.64 | |
| 2,809.0 | 12.00 | 243.20 | 2,784.1 | -133.7 | -222.7 | -111.5 | 0.43 | -0.43 | 0.11 | |
| 2,904.0 | 11.90 | 242.90 | 2,877.0 | -142.6 | -240.2 | -118.7 | 0.12 | -0.11 | -0.32 | |
| 2,999.0 | 10.20 | 243.80 | 2,970.3 | -150.8 | -256.5 | -125.2 | 1.80 | -1.79 | 0.95 | |
| 3,093.0 | 11.30 | 242.30 | 3,062.6 | -158.8 | -272.1 | -131.7 | 1.21 | 1.17 | -1.60 | |
| 3,188.0 | 11.80 | 238.50 | 3,155.7 | -168.2 | -288.6 | -139.4 | 0.96 | 0.53 | -4.00 | |
| 3,283.0 | 13.90 | 237.30 | 3,248.3 | -179.4 | -306.5 | -148.9 | 2.23 | 2.21 | -1.26 | |
| 3,377.0 | 12.30 | 235.10 | 3,339.9 | -191.2 | -324.3 | -158.9 | 1.78 | -1.70 | -2.34 | |
| 3,472.0 | 12.00 | 233.00 | 3,432.8 | -203.0 | -340.4 | -169.0 | 0.56 | -0.32 | -2.21 | |
| 3,567.0 | 13.20 | 246.60 | 3,525.5 | -213.2 | -358.3 | -177.5 | 3.36 | 1.26 | 14.32 | |
| 3,661.0 | 10.40 | 245.60 | 3,617.5 | -221.0 | -375.9 | -183.5 | 2.99 | -2.98 | -1.06 | |
| 3,724.0 | 9.50 | 250.60 | 3,679.5 | -225.1 | -385.9 | -186.6 | 1.98 | -1.43 | 7.94 | |
| 3,756.0 | 10.20 | 260.20 | 3,711.1 | -226.4 | -391.2 | -187.5 | 5.57 | 2.19 | 30.00 | |
| 3,787.0 | 10.40 | 271.30 | 3,741.6 | -226.8 | -396.7 | -187.3 | 6.42 | 0.65 | 35.81 | |
| 3,819.0 | 11.20 | 281.30 | 3,773.0 | -226.2 | -402.7 | -186.1 | 6.36 | 2.50 | 31.25 | |
| 3,850.0 | 12.50 | 291.10 | 3,803.3 | -224.4 | -408.8 | -183.7 | 7.71 | 4.19 | 31.61 | |

DrillRight

Survey Report

| | | | |
|------------------|------------------------|-------------------------------------|-----------------------------|
| Company: | Sandridge Energy | Local Co-ordinate Reference: | Well Cather Trust 3408 1-9H |
| Project: | Harper County (NAD-27) | TVD Reference: | KB @ 1338.0usft |
| Site: | Sec 16-T34S-R08W | MD Reference: | KB @ 1338.0usft |
| Well: | Cather Trust 3408 1-9H | North Reference: | Grid |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | EDM 5000.1 Single User Db |

| Survey | | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | |
| 3,882.0 | 14.10 | 298.90 | 3,834.5 | -221.2 | -415.4 | -179.9 | 7.50 | 5.00 | 24.38 | |
| 3,913.0 | 14.90 | 306.70 | 3,864.5 | -217.0 | -421.9 | -175.1 | 6.80 | 2.58 | 25.16 | |
| 3,945.0 | 14.20 | 314.80 | 3,895.5 | -211.8 | -428.0 | -169.3 | 6.72 | -2.19 | 25.31 | |
| 3,976.0 | 13.80 | 324.80 | 3,925.6 | -206.1 | -432.8 | -163.2 | 7.90 | -1.29 | 32.26 | |
| 4,008.0 | 13.50 | 333.10 | 3,956.7 | -199.6 | -436.7 | -156.4 | 6.19 | -0.94 | 25.94 | |
| 4,039.0 | 13.20 | 336.00 | 3,986.8 | -193.2 | -439.8 | -149.7 | 2.37 | -0.97 | 9.35 | |
| 4,071.0 | 14.30 | 334.70 | 4,017.9 | -186.3 | -443.0 | -142.5 | 3.57 | 3.44 | -4.06 | |
| 4,102.0 | 16.20 | 336.40 | 4,047.8 | -178.9 | -446.3 | -134.8 | 6.30 | 6.13 | 5.48 | |
| 4,133.0 | 18.70 | 338.50 | 4,077.4 | -170.3 | -449.9 | -125.9 | 8.32 | 8.06 | 6.77 | |
| 4,165.0 | 22.10 | 340.50 | 4,107.4 | -159.8 | -453.8 | -115.1 | 10.84 | 10.63 | 6.25 | |
| 4,196.0 | 25.30 | 342.30 | 4,135.8 | -148.0 | -457.7 | -103.0 | 10.58 | 10.32 | 5.81 | |
| 4,228.0 | 27.80 | 343.70 | 4,164.4 | -134.3 | -461.9 | -88.9 | 8.05 | 7.81 | 4.38 | |
| 4,259.0 | 29.90 | 344.90 | 4,191.5 | -119.9 | -465.9 | -74.2 | 7.03 | 6.77 | 3.87 | |
| 4,291.0 | 30.90 | 347.40 | 4,219.1 | -104.2 | -469.8 | -58.2 | 5.04 | 3.13 | 7.81 | |
| 4,322.0 | 33.20 | 349.70 | 4,245.4 | -88.1 | -473.1 | -41.8 | 8.40 | 7.42 | 7.42 | |
| 4,354.0 | 35.70 | 351.10 | 4,271.8 | -70.2 | -476.1 | -23.8 | 8.19 | 7.81 | 4.38 | |
| 4,385.0 | 37.70 | 352.50 | 4,296.7 | -51.9 | -478.7 | -5.3 | 6.99 | 6.45 | 4.52 | |
| 4,417.0 | 39.80 | 353.80 | 4,321.6 | -32.0 | -481.1 | 14.8 | 7.04 | 6.56 | 4.06 | |
| 4,448.0 | 42.40 | 354.60 | 4,345.0 | -11.7 | -483.2 | 35.1 | 8.56 | 8.39 | 2.58 | |
| 4,480.0 | 45.60 | 355.20 | 4,368.0 | 10.4 | -485.1 | 57.4 | 10.08 | 10.00 | 1.88 | |
| 4,512.0 | 49.00 | 355.50 | 4,389.7 | 33.8 | -487.0 | 80.9 | 10.65 | 10.63 | 0.94 | |
| 4,543.0 | 51.50 | 355.90 | 4,409.5 | 57.6 | -488.8 | 104.7 | 8.13 | 8.06 | 1.29 | |
| 4,574.0 | 52.20 | 356.60 | 4,428.7 | 81.9 | -490.4 | 129.1 | 2.87 | 2.26 | 2.26 | |
| 4,606.0 | 53.60 | 357.40 | 4,448.0 | 107.4 | -491.7 | 154.6 | 4.81 | 4.38 | 2.50 | |
| 4,638.0 | 55.90 | 358.10 | 4,466.4 | 133.5 | -492.8 | 180.6 | 7.41 | 7.19 | 2.19 | |
| 4,701.0 | 60.50 | 358.50 | 4,499.6 | 187.0 | -494.4 | 234.0 | 7.32 | 7.30 | 0.63 | |
| 4,796.0 | 58.70 | 358.30 | 4,547.7 | 268.9 | -496.6 | 315.8 | 1.90 | -1.89 | -0.21 | |
| 4,859.0 | 57.70 | 357.40 | 4,580.9 | 322.4 | -498.6 | 369.2 | 2.00 | -1.59 | -1.43 | |
| 4,890.0 | 57.80 | 357.70 | 4,597.4 | 348.6 | -499.8 | 395.4 | 0.88 | 0.32 | 0.97 | |
| 4,922.0 | 60.60 | 358.30 | 4,613.8 | 376.1 | -500.7 | 422.8 | 8.90 | 8.75 | 1.88 | |
| 4,953.0 | 64.30 | 358.40 | 4,628.1 | 403.6 | -501.5 | 450.3 | 11.94 | 11.94 | 0.32 | |
| 4,985.0 | 68.20 | 358.60 | 4,641.0 | 432.8 | -502.3 | 479.5 | 12.20 | 12.19 | 0.63 | |
| 5,016.0 | 72.10 | 358.90 | 4,651.6 | 462.0 | -502.9 | 508.5 | 12.61 | 12.58 | 0.97 | |
| 5,047.0 | 76.20 | 358.80 | 4,660.0 | 491.8 | -503.5 | 538.3 | 13.23 | 13.23 | -0.32 | |
| 5,079.0 | 79.40 | 0.00 | 4,666.8 | 523.1 | -503.8 | 569.4 | 10.65 | 10.00 | 3.75 | |
| 5,110.0 | 83.00 | 0.00 | 4,671.5 | 553.7 | -503.8 | 599.9 | 11.61 | 11.61 | 0.00 | |
| 5,142.0 | 86.90 | 359.00 | 4,674.3 | 585.6 | -504.1 | 631.7 | 12.58 | 12.19 | -3.13 | |
| 5,173.0 | 89.50 | 359.90 | 4,675.3 | 616.5 | -504.4 | 662.5 | 8.87 | 8.39 | 2.90 | |
| 5,202.0 | 89.70 | 359.90 | 4,675.5 | 645.5 | -504.5 | 691.4 | 0.69 | 0.69 | 0.00 | |
| 5,296.0 | 90.50 | 359.90 | 4,675.3 | 739.5 | -504.6 | 785.0 | 0.85 | 0.85 | 0.00 | |
| 5,391.0 | 91.10 | 0.60 | 4,674.0 | 834.5 | -504.2 | 879.5 | 0.97 | 0.63 | 0.74 | |
| 5,485.0 | 92.20 | 359.90 | 4,671.3 | 928.5 | -503.8 | 972.9 | 1.39 | 1.17 | -0.74 | |
| 5,580.0 | 91.40 | 1.60 | 4,668.3 | 1,023.4 | -502.6 | 1,067.3 | 1.98 | -0.84 | 1.79 | |
| 5,674.0 | 91.10 | 3.20 | 4,666.3 | 1,117.3 | -498.6 | 1,160.4 | 1.73 | -0.32 | 1.70 | |

DrillRight

Survey Report

| | | | |
|------------------|------------------------|-------------------------------------|-----------------------------|
| Company: | Sandridge Energy | Local Co-ordinate Reference: | Well Cather Trust 3408 1-9H |
| Project: | Harper County (NAD-27) | TVD Reference: | KB @ 1338.0usft |
| Site: | Sec 16-T34S-R08W | MD Reference: | KB @ 1338.0usft |
| Well: | Cather Trust 3408 1-9H | North Reference: | Grid |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | EDM 5000.1 Single User Db |

| Survey | | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | |
| 5,769.0 | 90.80 | 3.30 | 4,664.7 | 1,212.2 | -493.2 | 1,254.2 | 0.33 | -0.32 | 0.11 | |
| 5,863.0 | 90.20 | 3.90 | 4,663.9 | 1,306.0 | -487.3 | 1,347.0 | 0.90 | -0.64 | 0.64 | |
| 5,958.0 | 88.90 | 2.80 | 4,664.6 | 1,400.8 | -481.8 | 1,440.9 | 1.79 | -1.37 | -1.16 | |
| 6,050.0 | 89.40 | 2.60 | 4,666.0 | 1,492.7 | -477.5 | 1,531.9 | 0.59 | 0.54 | -0.22 | |
| 6,140.0 | 89.70 | 2.30 | 4,666.7 | 1,582.6 | -473.6 | 1,621.0 | 0.47 | 0.33 | -0.33 | |
| 6,232.0 | 90.40 | 0.90 | 4,666.6 | 1,674.6 | -471.0 | 1,712.3 | 1.70 | 0.76 | -1.52 | |
| 6,323.0 | 91.70 | 1.60 | 4,665.0 | 1,765.5 | -469.1 | 1,802.7 | 1.62 | 1.43 | 0.77 | |
| 6,413.0 | 91.50 | 0.70 | 4,662.4 | 1,855.5 | -467.2 | 1,892.0 | 1.02 | -0.22 | -1.00 | |
| 6,504.0 | 90.50 | 0.70 | 4,660.9 | 1,946.4 | -466.1 | 1,982.5 | 1.10 | -1.10 | 0.00 | |
| 6,596.0 | 89.50 | 0.60 | 4,660.9 | 2,038.4 | -465.1 | 2,073.9 | 1.09 | -1.09 | -0.11 | |
| 6,687.0 | 90.80 | 1.20 | 4,660.6 | 2,129.4 | -463.7 | 2,164.3 | 1.57 | 1.43 | 0.66 | |
| 6,779.0 | 91.10 | 1.10 | 4,659.1 | 2,221.4 | -461.8 | 2,255.7 | 0.34 | 0.33 | -0.11 | |
| 6,869.0 | 89.80 | 359.60 | 4,658.4 | 2,311.4 | -461.3 | 2,345.2 | 2.21 | -1.44 | -1.67 | |
| 6,960.0 | 89.50 | 358.80 | 4,658.9 | 2,402.4 | -462.5 | 2,435.9 | 0.94 | -0.33 | -0.88 | |
| 7,050.0 | 88.30 | 359.10 | 4,660.7 | 2,492.3 | -464.2 | 2,525.6 | 1.37 | -1.33 | 0.33 | |
| 7,140.0 | 89.30 | 358.70 | 4,662.6 | 2,582.3 | -465.9 | 2,615.3 | 1.20 | 1.11 | -0.44 | |
| 7,230.0 | 92.30 | 357.80 | 4,661.3 | 2,672.2 | -468.7 | 2,705.1 | 3.48 | 3.33 | -1.00 | |
| 7,322.0 | 90.10 | 358.50 | 4,659.4 | 2,764.2 | -471.6 | 2,796.9 | 2.51 | -2.39 | 0.76 | |
| 7,416.0 | 89.60 | 357.60 | 4,659.6 | 2,858.1 | -474.8 | 2,890.7 | 1.10 | -0.53 | -0.96 | |
| 7,510.0 | 89.80 | 358.30 | 4,660.1 | 2,952.0 | -478.2 | 2,984.5 | 0.77 | 0.21 | 0.74 | |
| 7,603.0 | 89.00 | 359.70 | 4,661.1 | 3,045.0 | -479.8 | 3,077.2 | 1.73 | -0.86 | 1.51 | |
| 7,697.0 | 89.10 | 359.70 | 4,662.6 | 3,139.0 | -480.3 | 3,170.8 | 0.11 | 0.11 | 0.00 | |
| 7,792.0 | 90.40 | 358.80 | 4,663.1 | 3,234.0 | -481.6 | 3,265.4 | 1.66 | 1.37 | -0.95 | |
| 7,886.0 | 89.20 | 359.70 | 4,663.4 | 3,328.0 | -482.8 | 3,359.1 | 1.60 | -1.28 | 0.96 | |
| 7,981.0 | 90.50 | 359.50 | 4,663.6 | 3,423.0 | -483.4 | 3,453.7 | 1.38 | 1.37 | -0.21 | |
| 8,076.0 | 92.10 | 0.30 | 4,661.5 | 3,518.0 | -483.6 | 3,548.3 | 1.88 | 1.68 | 0.84 | |
| 8,171.0 | 92.80 | 359.10 | 4,657.4 | 3,612.9 | -484.1 | 3,642.8 | 1.46 | 0.74 | -1.26 | |
| 8,265.0 | 92.00 | 359.20 | 4,653.5 | 3,706.8 | -485.5 | 3,736.4 | 0.86 | -0.85 | 0.11 | |
| 8,360.0 | 94.10 | 359.10 | 4,648.4 | 3,801.6 | -486.9 | 3,830.9 | 2.21 | 2.21 | -0.11 | |
| 8,454.0 | 88.80 | 359.30 | 4,646.0 | 3,895.5 | -488.2 | 3,924.5 | 5.64 | -5.64 | 0.21 | |
| 8,549.0 | 85.30 | 358.50 | 4,650.9 | 3,990.4 | -490.0 | 4,019.1 | 3.78 | -3.68 | -0.84 | |
| 8,643.0 | 86.60 | 359.50 | 4,657.6 | 4,084.1 | -491.7 | 4,112.6 | 1.74 | 1.38 | 1.06 | |
| 8,738.0 | 88.20 | 0.40 | 4,661.9 | 4,179.0 | -491.8 | 4,207.0 | 1.93 | 1.68 | 0.95 | |
| 8,832.0 | 89.40 | 0.40 | 4,663.9 | 4,273.0 | -491.1 | 4,300.5 | 1.28 | 1.28 | 0.00 | |
| 8,926.0 | 91.20 | 2.60 | 4,663.4 | 4,367.0 | -488.6 | 4,393.8 | 3.02 | 1.91 | 2.34 | |
| 9,021.0 | 91.00 | 3.20 | 4,661.5 | 4,461.8 | -483.8 | 4,487.7 | 0.67 | -0.21 | 0.63 | |
| 9,116.0 | 90.50 | 1.40 | 4,660.3 | 4,556.7 | -480.0 | 4,581.8 | 1.97 | -0.53 | -1.89 | |
| 9,210.0 | 89.60 | 1.50 | 4,660.2 | 4,650.7 | -477.6 | 4,675.1 | 0.96 | -0.96 | 0.11 | |
| 9,304.0 | 91.10 | 1.90 | 4,659.6 | 4,744.7 | -474.9 | 4,768.3 | 1.65 | 1.60 | 0.43 | |
| 9,399.0 | 89.50 | 0.10 | 4,659.1 | 4,839.6 | -473.2 | 4,862.7 | 2.54 | -1.68 | -1.89 | |
| 9,493.0 | 90.40 | 359.90 | 4,659.2 | 4,933.6 | -473.2 | 4,956.3 | 0.98 | 0.96 | -0.21 | |
| 9,599.0 | 92.40 | 1.80 | 4,656.6 | 5,039.6 | -471.6 | 5,061.6 | 2.60 | 1.89 | 1.79 | |

Last Drillright MWD Survey

DrillRight

Survey Report

| | |
|--|---|
| Company: Sandridge Energy | Local Co-ordinate Reference: Well Cather Trust 3408 1-9H |
| Project: Harper County (NAD-27) | TVD Reference: KB @ 1338.0usft |
| Site: Sec 16-T34S-R08W | MD Reference: KB @ 1338.0usft |
| Well: Cather Trust 3408 1-9H | North Reference: Grid |
| Wellbore: Wellbore #1 | Survey Calculation Method: Minimum Curvature |
| Design: Wellbore #1 | Database: EDM 5000.1 Single User Db |

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 9,649.0 | 92.40 | 1.80 | 4,654.5 | 5,089.5 | -470.1 | 5,111.1 | 0.00 | 0.00 | 0.00 |
| Projection to TD - PBHL Cather Trust 1-9H | | | | | | | | | |

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
|-----------------------|-----------------------|-------------------|--------------|-----------------------------|
| | | +N/-S (usft) | +E/-W (usft) | |
| 50.0 | 50.0 | 0.0 | 0.0 | First Gyro Survey |
| 778.0 | 778.0 | -0.3 | 1.0 | Last Gyro Survey |
| 825.0 | 825.0 | -0.5 | 0.9 | First Drillright MWD Survey |
| 9,599.0 | 4,656.6 | 5,039.6 | -471.6 | Last Drillright MWD Survey |
| 9,649.0 | 4,654.5 | 5,089.5 | -470.1 | Projection to TD |

Checked By: _____ Approved By: _____ Date: _____