



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1230038
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

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
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

| | | |
|-----------------------------------|-----------------|---|
| Spud Date or Recompletion Date | Date Reached TD | Completion Date or Recompletion Date |
|-----------------------------------|-----------------|---|

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ 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: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

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

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1230038

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

| | | | | |
|---|--|------------------------------|----------------------------------|---------------------------------|
| Drill Stem Tests Taken <i>(Attach Additional Sheets)</i> | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Log | Formation (Top), Depth and Datum | <input type="checkbox"/> Sample |
| Samples Sent to Geological Survey | <input type="checkbox"/> Yes <input type="checkbox"/> No | Name | Top | Datum |
| Cores Taken | <input type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| Electric Log Run | <input type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| List All E. Logs Run: | | | | |

| CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used | | | | | | | |
|---|-------------------|---------------------------|-------------------|---------------|----------------|--------------|----------------------------|
| Report all strings set-conductor, surface, intermediate, production, etc. | | | | | | | |
| Purpose of String | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| ADDITIONAL CEMENTING / SQUEEZE RECORD | | | | |
|---|------------------|----------------|--------------|----------------------------|
| Purpose: | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
| <input type="checkbox"/> Perforate | | | | |
| <input type="checkbox"/> Protect Casing | | | | |
| <input type="checkbox"/> Plug Back TD | | | | |
| <input type="checkbox"/> Plug Off Zone | | | | |

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i> | Depth |
|----------------|---|--|-------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity |
|-----------------------------------|-----------|---------|-------------|---------------|---------|
| | | | | | |

| | | |
|--|--|---|
| DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ | PRODUCTION INTERVAL: _____ _____ |
|--|--|---|

Hydraulic Fracturing Fluid Product Component Information Disclosure

| | |
|--------------------------------|--------------------|
| Job Start Date: | 8/31/2014 |
| Job End Date: | 9/1/2014 |
| State: | Kansas |
| County: | Harper |
| API Number: | 15-077-22071-01-00 |
| Operator Name: | SandRidge Energy |
| Well Name and Number: | Rose 3408 3-31HR |
| Longitude: | -98.23505735 |
| Latitude: | 37.03642227 |
| Datum: | NAD27 |
| Federal/Tribal Well: | NO |
| True Vertical Depth: | 4,750 |
| Total Base Water Volume (gal): | 2,910,768 |
| Total Base Non Water Volume: | 0 |



Hydraulic Fracturing Fluid Composition:

| Trade Name | Supplier | Purpose | Ingredients | Chemical Abstract Service Number (CAS #) | Maximum Ingredient Concentration in Additive (% by mass)** | Maximum Ingredient Concentration in HF Fluid (% by mass)** | Comments |
|--|----------|--------------------------------|-----------------------------------|--|--|--|----------|
| Water | Archer | Carrier/Base Fluid | | | | | |
| | | | Water | 7732-18-5 | 100.00000 | 96.25810 | None |
| Sand (Proppant) | Archer | Proppant | | | | | |
| | | | Silica Substrate | NA | 100.00000 | 3.01566 | None |
| Hydrochloric Acid (15%) | Archer | Acidizing | | | | | |
| | | | Hydrochloric Acid | 7647-01-0 | 15.00000 | 0.08758 | None |
| | | | NONYL PHENOL, 4 MOL | 104-40-5 | 10.00000 | 0.00460 | None |
| | | | Methyl Alcohol | 67-56-1 | 80.00000 | 0.00072 | None |
| | | | thiourea-formaldehyde copolymer | 68527-49-1 | 15.00000 | 0.00014 | None |
| Chemflush | Archer | Enviro-Friendly Chemical Flush | | | | | |
| | | | Hydrotreated Petroleum Distillate | 64742-47-8 | 99.00000 | 0.00416 | None |
| | | | Alcohol Ethoxylate Surfactants | NA | 10.00000 | 0.00042 | None |
| AIC | Archer | Liquid Acid Iron Control | | | | | |
| | | | Acetic Acid | 64-19-7 | 50.00000 | 0.00162 | None |
| | | | Citric Acid | 77-92-9 | 30.00000 | 0.00097 | None |
| Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS. | | | | | | | |
| | | Other Chemicals | | | | | |

| | | | | | |
|--|--|---|------------|--|---------|
| | | Water | 7732-18-5 | | 0.04654 |
| | | WATER | 7732-18-5 | | 0.02759 |
| | | Anionic Polymer | N/A | | 0.02327 |
| | | Aliphatic Hydrocarbon | 64742-47-8 | | 0.02327 |
| | | TRADE SECRET | N/A | | 0.01839 |
| | | Water | 7732-18-5 | | 0.00945 |
| | | ISOPROPANOL | 67-63-0 | | 0.00460 |
| | | METHANOL | 67-56-1 | | 0.00460 |
| | | Polyol Ester | N/A | | 0.00388 |
| | | Oxyalkylated Alcohol | 68002-97-1 | | 0.00388 |
| | | Acrylic Polymer | 28205-96-1 | | 0.00157 |
| | | Sodium Salt of Phosphate Ester | 68131-72-6 | | 0.00157 |
| | | Water | 7732-18-5 | | 0.00113 |
| | | Polyglycol Ester | N/A | | 0.00078 |
| | | Alcohol Ethoxylate Surfactants | N/A | | 0.00014 |
| | | Tetrasodium Ethylenediaminetetraacetate | 64-02-8 | | 0.00008 |
| | | n-olefins | N/A | | 0.00007 |
| | | Propargyl Alcohol | 107-19-7 | | 0.00005 |
| | | Cinnamic Aldehyde | 104-55-2 | | |
| | | Water | 7732-18-5 | | |
| | | Buffer | N/A | | |
| | | Acetic Acid | 64-19-7 | | |
| | | Surfactant | N/A | | |

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)



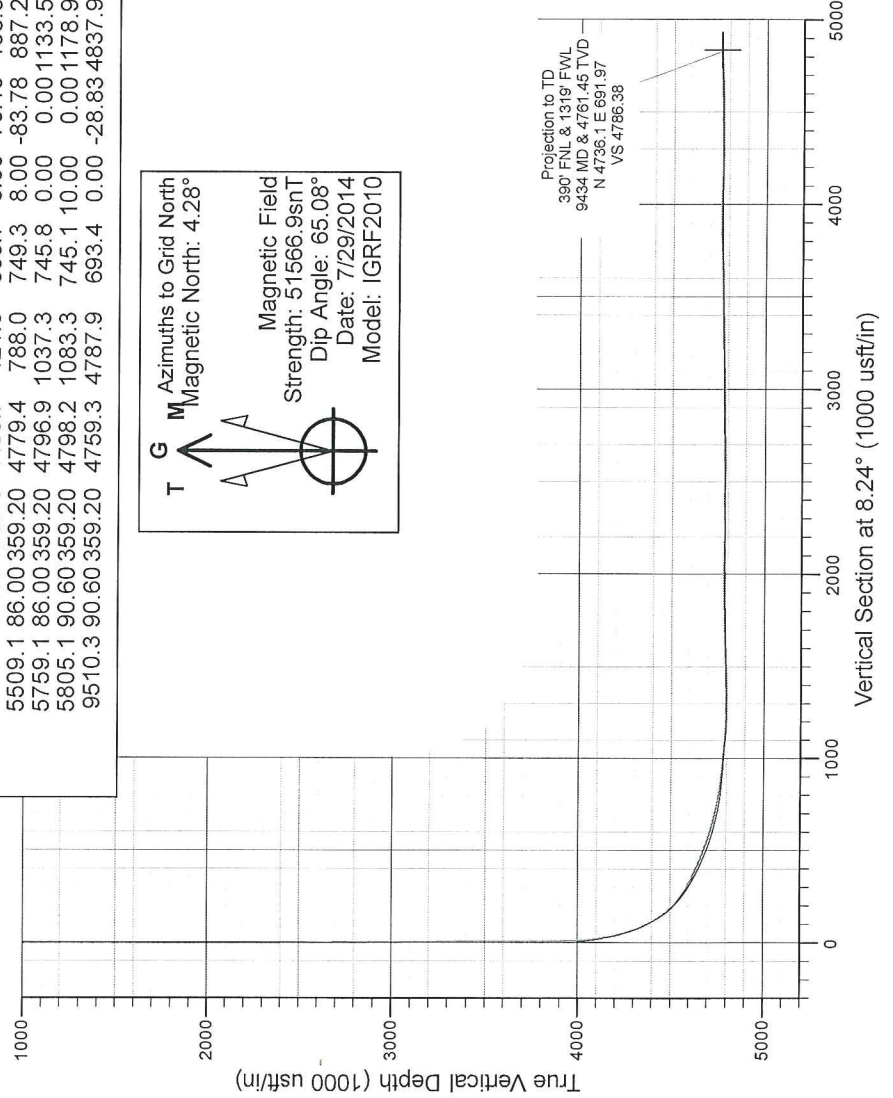
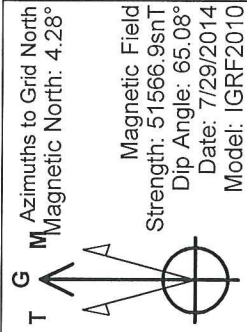
Project: Harper County (NAD-27)
 Site: Sec 31-T34S-R08W
 Well: Rose 3408 3-31H/ Horizon 4
 Plan: Plan 063014 A0 (Rose 3408 3-31H/ Horizon 4/Wellbore #1)

WELL DETAILS: Rose 3408 3-31H/ Horizon 4

| | |
|---------------|-----------------|
| Ground Level: | 1259.0 |
| Northing | 134746.20 |
| Easting | 2077355.30 |
| Latitude | 37° 2' 11.124 N |
| Longitude | 98° 14' 6.028 W |

SECTION DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | Vsect |
|--------|-------|--------|--------|--------|-------|-------|--------|--------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 |
| 3865.5 | 0.00 | 0.00 | 3865.5 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 |
| 4615.5 | 60.00 | 70.10 | 4485.7 | 121.9 | 336.7 | 8.00 | 70.10 | 168.9 |
| 5509.1 | 86.00 | 359.20 | 4779.4 | 788.0 | 749.3 | 8.00 | -83.78 | 887.2 |
| 5759.1 | 86.00 | 359.20 | 4796.9 | 1037.3 | 745.8 | 0.00 | 0.00 | 1133.5 |
| 5805.1 | 90.60 | 359.20 | 4798.2 | 1083.3 | 745.1 | 10.00 | 0.00 | 1178.9 |
| 9510.3 | 90.60 | 359.20 | 4759.3 | 4787.9 | 693.4 | 0.00 | -28.83 | 4837.9 |



Company: Sandridge
Well Name: Rose 3408 3-31H
Legals: Sec: 31 Township: 34S
 Range: 08W
County/State: Harper KS
Rig Name: Horizon 4

| Customer Rep | Position | Directional Driller | MWD Operator |
|--------------|----------|---------------------|-------------------|
| | | Bill Sneed | darryle davenport |
| | | Bill Wright | Tommy Lewis |

Rose 3-31H Surveys

| Type | M Depth | Incl. | Azimuth | TVD | North | East | V Section | Dogleg | B Rate | T Rate | Clos Azi | Clos Dist |
|------------|---------|-------|---------|---------|--------|--------|-----------|--------|--------|--------|----------|-----------|
| TieInPoint | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| Survey | 950.00 | 0.50 | 114.60 | 949.99 | -1.73 | 3.77 | -1.17 | 0.05 | 0.05 | 12.06 | 114.65 | 4.15 |
| Survey | 1452.00 | 0.80 | 112.00 | 1451.96 | -3.95 | 9.01 | -2.62 | 0.06 | 0.06 | 0.52 | 113.67 | 9.84 |
| Survey | 1927.00 | 1.10 | 90.40 | 1926.90 | -5.22 | 16.64 | -2.78 | 0.10 | 0.06 | 4.55 | 107.42 | 17.44 |
| Survey | 2399.00 | 0.40 | 25.90 | 2398.86 | -3.77 | 21.89 | -0.59 | 0.21 | 0.15 | 13.67 | 99.77 | 22.21 |
| Survey | 2871.00 | 0.60 | 9.50 | 2870.84 | 0.15 | 23.02 | 3.45 | 0.05 | 0.04 | 3.47 | 89.63 | 23.02 |
| Survey | 3344.00 | 0.50 | 45.40 | 3343.82 | 4.04 | 24.90 | 7.57 | 0.07 | 0.02 | 7.59 | 80.78 | 25.23 |
| Survey | 3815.00 | 0.80 | 96.70 | 3814.79 | 5.10 | 29.63 | 9.29 | 0.13 | 0.06 | 10.89 | 80.23 | 30.07 |
| Survey | 3847.00 | 1.00 | 93.00 | 3846.79 | 5.06 | 30.13 | 9.33 | 0.65 | 0.63 | 11.56 | 80.47 | 30.55 |
| Survey | 3878.00 | 1.80 | 75.00 | 3877.78 | 5.17 | 30.87 | 9.54 | 2.91 | 2.58 | 58.06 | 80.49 | 31.30 |
| Survey | 3910.00 | 3.30 | 71.90 | 3909.74 | 5.59 | 32.23 | 10.15 | 4.71 | 4.69 | 9.69 | 80.16 | 32.71 |
| Survey | 3941.00 | 5.40 | 69.70 | 3940.65 | 6.37 | 34.45 | 11.24 | 6.79 | 6.77 | 7.10 | 79.52 | 35.03 |
| Survey | 3973.00 | 6.60 | 73.80 | 3972.48 | 7.41 | 37.63 | 12.73 | 3.98 | 3.75 | 12.81 | 78.86 | 38.35 |
| Survey | 4004.00 | 8.10 | 74.60 | 4003.22 | 8.48 | 41.44 | 14.33 | 4.85 | 4.84 | 2.58 | 78.44 | 42.30 |
| Survey | 4035.00 | 10.00 | 73.80 | 4033.83 | 9.81 | 46.13 | 16.32 | 6.14 | 6.13 | 2.58 | 77.99 | 47.16 |
| Survey | 4067.00 | 12.40 | 72.80 | 4065.22 | 11.60 | 52.08 | 18.94 | 7.52 | 7.50 | 3.13 | 77.44 | 53.36 |
| Survey | 4098.00 | 14.50 | 70.20 | 4095.37 | 13.90 | 58.91 | 22.20 | 7.05 | 6.77 | 8.39 | 76.72 | 60.53 |
| Survey | 4130.00 | 16.20 | 67.80 | 4126.23 | 16.95 | 66.82 | 26.35 | 5.67 | 5.31 | 7.50 | 75.77 | 68.94 |
| Survey | 4162.00 | 18.40 | 66.80 | 4156.78 | 20.63 | 75.60 | 31.25 | 6.94 | 6.88 | 3.13 | 74.74 | 78.36 |
| Survey | 4193.00 | 21.30 | 66.50 | 4185.94 | 24.80 | 85.26 | 36.76 | 9.36 | 9.35 | 0.97 | 73.78 | 88.79 |
| Survey | 4224.00 | 25.20 | 66.30 | 4214.42 | 29.70 | 96.47 | 43.22 | 12.58 | 12.58 | 0.65 | 72.89 | 100.94 |
| Survey | 4256.00 | 28.90 | 67.40 | 4242.91 | 35.41 | 109.85 | 50.79 | 11.67 | 11.56 | 3.44 | 72.13 | 115.42 |
| Survey | 4287.00 | 32.30 | 69.00 | 4269.59 | 41.26 | 124.50 | 58.68 | 11.28 | 10.97 | 5.16 | 71.66 | 131.16 |
| Survey | 4318.00 | 34.30 | 69.00 | 4295.50 | 47.36 | 140.39 | 66.99 | 6.45 | 6.45 | 0.00 | 71.36 | 148.16 |
| Survey | 4350.00 | 36.60 | 68.90 | 4321.56 | 54.03 | 157.71 | 76.08 | 7.19 | 7.19 | 0.31 | 71.09 | 166.71 |
| Survey | 4381.00 | 39.50 | 67.40 | 4345.97 | 61.15 | 175.44 | 85.66 | 9.82 | 9.35 | 4.84 | 70.78 | 185.79 |
| Survey | 4412.00 | 42.60 | 65.70 | 4369.35 | 69.26 | 194.11 | 96.36 | 10.63 | 10.00 | 5.48 | 70.36 | 206.10 |
| Survey | 4443.00 | 46.10 | 65.00 | 4391.51 | 78.30 | 213.80 | 108.13 | 11.40 | 11.29 | 2.26 | 69.89 | 227.69 |
| Survey | 4476.00 | 49.10 | 65.90 | 4413.76 | 88.42 | 235.96 | 121.32 | 9.31 | 9.09 | 2.73 | 69.46 | 251.98 |
| Survey | 4507.00 | 52.60 | 66.40 | 4433.33 | 98.14 | 257.95 | 134.10 | 11.36 | 11.29 | 1.61 | 69.17 | 275.99 |
| Survey | 4540.00 | 55.60 | 67.50 | 4452.68 | 108.60 | 282.54 | 147.97 | 9.48 | 9.09 | 3.33 | 68.97 | 302.69 |
| Survey | 4572.00 | 58.10 | 68.40 | 4470.17 | 118.65 | 307.37 | 161.48 | 8.16 | 7.81 | 2.81 | 68.89 | 329.48 |
| Survey | 4603.00 | 59.50 | 68.80 | 4486.23 | 128.33 | 332.06 | 174.60 | 4.65 | 4.52 | 1.29 | 68.87 | 355.99 |
| Survey | 4635.00 | 59.70 | 67.50 | 4502.42 | 138.60 | 357.68 | 188.43 | 3.56 | 0.63 | 4.06 | 68.82 | 383.59 |
| Survey | 4666.00 | 61.10 | 64.40 | 4517.74 | 149.59 | 382.28 | 202.83 | 9.80 | 4.52 | 10.00 | 68.63 | 410.51 |
| Survey | 4698.00 | 62.20 | 61.30 | 4532.94 | 162.44 | 407.34 | 219.14 | 9.19 | 3.44 | 9.69 | 68.26 | 438.53 |
| Survey | 4729.00 | 63.60 | 57.80 | 4547.06 | 176.43 | 431.12 | 236.40 | 11.02 | 4.52 | 11.29 | 67.74 | 465.82 |
| Survey | 4760.00 | 64.50 | 54.50 | 4560.63 | 191.95 | 454.26 | 255.07 | 10.00 | 2.90 | 10.65 | 67.09 | 493.15 |
| Survey | 4792.00 | 65.80 | 51.90 | 4574.08 | 209.35 | 477.51 | 275.63 | 8.42 | 4.06 | 8.12 | 66.33 | 521.39 |
| Survey | 4823.00 | 66.30 | 50.70 | 4586.66 | 227.06 | 499.62 | 296.32 | 3.89 | 1.61 | 3.87 | 65.56 | 548.80 |
| Survey | 4854.00 | 67.00 | 47.70 | 4598.95 | 245.66 | 521.16 | 317.82 | 9.17 | 2.26 | 9.68 | 64.76 | 576.16 |
| Survey | 4885.00 | 67.50 | 44.50 | 4610.94 | 265.48 | 541.75 | 340.38 | 9.65 | 1.61 | 10.32 | 63.89 | 603.30 |

Rose 3-31H Surveys

| Type | M Depth | Incl. | Azimuth | TVD | North | East | V Section | Dogleg | B Rate | T Rate | Clos Azi | Clos Dist |
|--------|---------|-------|---------|---------|---------|--------|-----------|--------|--------|--------|----------|-----------|
| Survey | 4917.00 | 67.30 | 42.00 | 4623.24 | 287.00 | 562.00 | 364.58 | 7.24 | 0.63 | 7.81 | 62.95 | 631.04 |
| Survey | 4948.00 | 68.00 | 39.00 | 4635.03 | 308.80 | 580.62 | 388.83 | 9.23 | 2.26 | 9.68 | 61.99 | 657.63 |
| Survey | 4980.00 | 68.70 | 36.00 | 4646.84 | 332.39 | 598.72 | 414.77 | 8.98 | 2.19 | 9.37 | 60.96 | 684.80 |
| Survey | 5012.00 | 68.50 | 33.80 | 4658.52 | 356.83 | 615.76 | 441.40 | 6.43 | 0.63 | 6.88 | 59.91 | 711.68 |
| Survey | 5044.00 | 69.40 | 31.20 | 4670.01 | 382.01 | 631.81 | 468.62 | 8.09 | 2.81 | 8.12 | 58.84 | 738.32 |
| Survey | 5075.00 | 69.90 | 28.50 | 4680.79 | 407.22 | 646.27 | 495.64 | 8.32 | 1.61 | 8.71 | 57.78 | 763.87 |
| Survey | 5107.00 | 71.70 | 26.10 | 4691.31 | 434.07 | 660.13 | 524.20 | 9.04 | 5.63 | 7.50 | 56.67 | 790.06 |
| Survey | 5138.00 | 72.40 | 23.10 | 4700.87 | 460.88 | 672.40 | 552.49 | 9.48 | 2.26 | 9.68 | 55.57 | 815.19 |
| Survey | 5170.00 | 73.10 | 21.90 | 4710.36 | 489.12 | 684.09 | 582.11 | 4.20 | 2.19 | 3.75 | 54.44 | 840.96 |
| Survey | 5201.00 | 74.00 | 20.60 | 4719.14 | 516.83 | 694.87 | 611.08 | 4.96 | 2.90 | 4.19 | 53.36 | 866.00 |
| Survey | 5233.00 | 75.40 | 17.40 | 4727.59 | 546.01 | 704.91 | 641.40 | 10.59 | 4.38 | 10.00 | 52.24 | 891.64 |
| Survey | 5264.00 | 76.60 | 14.10 | 4735.09 | 574.96 | 713.08 | 671.22 | 11.03 | 3.87 | 10.65 | 51.12 | 916.00 |
| Survey | 5295.00 | 77.30 | 11.90 | 4742.09 | 604.38 | 719.87 | 701.31 | 7.27 | 2.26 | 7.10 | 49.98 | 939.94 |
| Survey | 5328.00 | 78.40 | 9.70 | 4749.04 | 636.07 | 725.92 | 733.54 | 7.32 | 3.33 | 6.67 | 48.77 | 965.17 |
| Survey | 5359.00 | 79.50 | 7.60 | 4754.98 | 666.15 | 730.49 | 763.97 | 7.54 | 3.55 | 6.77 | 47.64 | 988.62 |
| Survey | 5390.00 | 81.20 | 5.90 | 4760.18 | 696.50 | 734.08 | 794.52 | 7.70 | 5.48 | 5.48 | 46.50 | 1011.92 |
| Survey | 5421.00 | 82.70 | 4.20 | 4764.52 | 727.07 | 736.78 | 825.16 | 7.27 | 4.84 | 5.48 | 45.38 | 1035.12 |
| Survey | 5452.00 | 83.10 | 3.50 | 4768.35 | 757.76 | 738.85 | 855.83 | 2.59 | 1.29 | 2.26 | 44.28 | 1058.35 |
| Survey | 5484.00 | 83.40 | 3.20 | 4772.11 | 789.49 | 740.70 | 887.50 | 1.32 | 0.94 | 0.94 | 43.17 | 1082.56 |
| Survey | 5515.00 | 84.40 | 1.50 | 4775.40 | 820.29 | 741.96 | 918.16 | 6.34 | 3.23 | 5.48 | 42.13 | 1106.07 |
| Survey | 5546.00 | 84.90 | 1.10 | 4778.29 | 851.14 | 742.66 | 948.79 | 2.06 | 1.61 | 1.29 | 41.11 | 1129.59 |
| Survey | 5578.00 | 85.00 | 0.20 | 4781.11 | 883.01 | 743.02 | 980.38 | 2.82 | 0.31 | 2.81 | 40.08 | 1154.03 |
| Survey | 5609.00 | 84.90 | 0.10 | 4783.84 | 913.89 | 743.10 | 1010.96 | 0.46 | 0.32 | 0.32 | 39.12 | 1177.88 |
| Survey | 5641.00 | 84.90 | 0.00 | 4786.68 | 945.76 | 743.13 | 1042.50 | 0.31 | 0.00 | 0.31 | 38.16 | 1202.79 |
| Survey | 5672.00 | 84.90 | 359.60 | 4789.44 | 976.64 | 743.02 | 1073.05 | 1.29 | 0.00 | 1.29 | 37.26 | 1227.15 |
| Survey | 5704.00 | 85.00 | 359.70 | 4792.26 | 1008.52 | 742.83 | 1104.57 | 0.44 | 0.31 | 0.31 | 36.37 | 1252.56 |
| Survey | 5728.00 | 85.00 | 359.20 | 4794.35 | 1032.42 | 742.60 | 1128.19 | 2.08 | 0.00 | 2.08 | 35.73 | 1271.75 |
| Survey | 5801.00 | 87.30 | 359.00 | 4799.25 | 1105.24 | 741.46 | 1200.10 | 3.16 | 3.15 | 0.27 | 33.86 | 1330.91 |
| Survey | 5893.00 | 91.30 | 359.70 | 4800.37 | 1197.21 | 740.42 | 1290.97 | 4.41 | 4.35 | 0.76 | 31.73 | 1407.67 |
| Survey | 5987.00 | 89.80 | 358.40 | 4799.47 | 1291.19 | 738.86 | 1383.75 | 2.11 | 1.60 | 1.38 | 29.78 | 1487.64 |
| Survey | 6082.00 | 92.50 | 357.30 | 4797.56 | 1386.09 | 735.30 | 1477.16 | 3.07 | 2.84 | 1.16 | 27.95 | 1569.05 |
| Survey | 6177.00 | 92.50 | 358.50 | 4793.42 | 1480.93 | 731.82 | 1570.53 | 1.26 | 0.00 | 1.26 | 26.30 | 1651.88 |
| Survey | 6271.00 | 92.80 | 357.90 | 4789.07 | 1574.78 | 728.87 | 1662.98 | 0.71 | 0.32 | 0.64 | 24.84 | 1735.28 |
| Survey | 6365.00 | 90.50 | 1.20 | 4786.37 | 1668.72 | 728.13 | 1755.85 | 4.28 | 2.45 | 3.51 | 23.57 | 1820.66 |
| Survey | 6462.00 | 92.00 | 0.10 | 4784.25 | 1765.69 | 729.23 | 1851.97 | 1.92 | 1.55 | 1.13 | 22.44 | 1910.35 |
| Survey | 6556.00 | 90.00 | 1.70 | 4782.61 | 1859.66 | 730.71 | 1945.19 | 2.72 | 2.13 | 1.70 | 21.45 | 1998.07 |
| Survey | 6651.00 | 88.90 | 0.50 | 4783.52 | 1954.63 | 732.53 | 2039.44 | 1.71 | 1.16 | 1.26 | 20.54 | 2087.39 |
| Survey | 6745.00 | 89.20 | 0.20 | 4785.08 | 2048.62 | 733.10 | 2132.54 | 0.45 | 0.32 | 0.32 | 19.69 | 2175.84 |
| Survey | 6840.00 | 88.80 | 0.80 | 4786.74 | 2143.60 | 733.93 | 2226.66 | 0.76 | 0.42 | 0.63 | 18.90 | 2265.76 |
| Survey | 6934.00 | 91.30 | 358.10 | 4786.65 | 2237.58 | 733.03 | 2319.54 | 3.91 | 2.66 | 2.87 | 18.14 | 2354.59 |
| Survey | 7030.00 | 89.70 | 358.00 | 4785.81 | 2333.52 | 729.76 | 2414.02 | 1.67 | 1.67 | 0.10 | 17.37 | 2444.97 |
| Survey | 7125.00 | 88.80 | 358.60 | 4787.05 | 2428.47 | 726.94 | 2507.58 | 1.14 | 0.95 | 0.63 | 16.66 | 2534.94 |
| Survey | 7219.00 | 89.70 | 359.30 | 4788.28 | 2522.44 | 725.22 | 2600.34 | 1.21 | 0.96 | 0.74 | 16.04 | 2624.62 |
| Survey | 7314.00 | 91.70 | 1.70 | 4787.12 | 2617.42 | 726.05 | 2694.46 | 3.29 | 2.11 | 2.53 | 15.50 | 2716.25 |
| Survey | 7408.00 | 89.70 | 0.10 | 4785.97 | 2711.39 | 727.52 | 2787.67 | 2.72 | 2.13 | 1.70 | 15.02 | 2807.30 |
| Survey | 7503.00 | 91.00 | 0.40 | 4785.39 | 2806.39 | 727.93 | 2881.74 | 1.40 | 1.37 | 0.32 | 14.54 | 2899.26 |
| Survey | 7597.00 | 90.60 | 0.00 | 4784.08 | 2900.38 | 728.25 | 2974.81 | 0.61 | 0.43 | 0.43 | 14.09 | 2990.41 |
| Survey | 7691.00 | 91.60 | 2.20 | 4782.27 | 2994.34 | 730.05 | 3068.06 | 2.57 | 1.06 | 2.34 | 13.70 | 3082.05 |

Rose 3-31H Surveys

| Type | M Depth | Incl. | Azimuth | TVD | North | East | V Section | Dogleg | B Rate | T Rate | Clos Azi | Clos Dist |
|------------|---------|-------|---------|---------|---------|--------|-----------|--------|--------|--------|----------|-----------|
| Survey | 7785.00 | 91.40 | 359.80 | 4779.81 | 3088.29 | 731.69 | 3161.27 | 2.56 | 0.21 | 2.55 | 13.33 | 3173.78 |
| Survey | 7879.00 | 91.60 | 358.30 | 4777.35 | 3182.24 | 730.14 | 3254.03 | 1.61 | 0.21 | 1.60 | 12.92 | 3264.93 |
| Survey | 7973.00 | 90.20 | 357.80 | 4775.87 | 3276.17 | 726.94 | 3346.53 | 1.58 | 1.49 | 0.53 | 12.51 | 3355.85 |
| Survey | 8067.00 | 90.70 | 356.90 | 4775.14 | 3370.07 | 722.59 | 3438.84 | 1.10 | 0.53 | 0.96 | 12.10 | 3446.67 |
| Survey | 8161.00 | 91.10 | 357.40 | 4773.66 | 3463.94 | 717.92 | 3531.07 | 0.68 | 0.43 | 0.53 | 11.71 | 3537.55 |
| Survey | 8256.00 | 91.60 | 357.30 | 4771.42 | 3558.81 | 713.53 | 3624.33 | 0.54 | 0.53 | 0.11 | 11.34 | 3629.64 |
| Survey | 8350.00 | 93.20 | 357.80 | 4767.48 | 3652.64 | 709.51 | 3716.62 | 1.78 | 1.70 | 0.53 | 10.99 | 3720.91 |
| Survey | 8445.00 | 91.30 | 358.00 | 4763.75 | 3747.50 | 706.03 | 3810.00 | 2.01 | 2.00 | 0.21 | 10.67 | 3813.43 |
| Survey | 8540.00 | 90.30 | 359.50 | 4762.42 | 3842.47 | 703.96 | 3903.69 | 1.90 | 1.05 | 1.58 | 10.38 | 3906.42 |
| Survey | 8634.00 | 88.40 | 359.90 | 4763.49 | 3936.46 | 703.47 | 3996.64 | 2.07 | 2.02 | 0.43 | 10.13 | 3998.82 |
| Survey | 8728.00 | 88.70 | 0.20 | 4765.86 | 4030.43 | 703.55 | 4089.65 | 0.45 | 0.32 | 0.32 | 9.90 | 4091.37 |
| Survey | 8824.00 | 88.90 | 359.00 | 4767.87 | 4126.40 | 702.88 | 4184.54 | 1.27 | 0.21 | 1.25 | 9.67 | 4185.84 |
| Survey | 8917.00 | 90.50 | 0.70 | 4768.36 | 4219.39 | 702.64 | 4276.53 | 2.51 | 1.72 | 1.83 | 9.45 | 4277.49 |
| Survey | 9012.00 | 89.40 | 359.60 | 4768.44 | 4314.39 | 702.89 | 4370.59 | 1.64 | 1.16 | 1.16 | 9.25 | 4371.27 |
| Survey | 9106.00 | 90.40 | 359.50 | 4768.60 | 4408.39 | 702.15 | 4463.51 | 1.07 | 1.06 | 0.11 | 9.05 | 4463.96 |
| Survey | 9201.00 | 90.00 | 358.60 | 4768.27 | 4503.38 | 700.57 | 4557.29 | 1.04 | 0.42 | 0.95 | 8.84 | 4557.55 |
| Survey | 9295.00 | 91.90 | 357.90 | 4766.71 | 4597.32 | 697.70 | 4649.85 | 2.15 | 2.02 | 0.74 | 8.63 | 4649.96 |
| Survey | 9388.00 | 92.30 | 357.50 | 4763.30 | 4690.18 | 693.97 | 4741.22 | 0.61 | 0.43 | 0.43 | 8.42 | 4741.24 |
| PrjCalcPnt | 9434 | 92.3 | 357.5 | 4761.45 | 4736.10 | 691.97 | 4786.38 | 0 | 0 | 0 | 8.31 | 4786.38 |



SandRidge Energy
Rose #3408 3-31H
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 Rose #3408 3-31H 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 3000 psi. After a successful test we began the job by pumping 10 bbls of preflush spacer. We then mixed and pumped the following cements:

95 Bbls (255 sacks) of 12.7 ppg Lead slurry:
Class A poz Blend Yeild 1.87
6% Gel
2% CC
¼# Floseal

33 Bbls (155 sacks) of 15.6 ppg Tail slurry
Class A Yeild 1.20
2% CC
¼ # Floseal

The top plug was then released and displaced with 57 Bbls of fresh water. The plug bumped and pressured up to 780 psi. Pressure was released and floats held.

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
Rose #3408 3-31H
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 Rose #3408 3-31H 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 20 bbls of LC spacer. We then mixed and pumped the following cements:

60 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

21Bbls (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 displace 218 .75 Bbls of fresh water. The plug bumped and pressured up to 900 psi. Pressure was released and floats held.

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.

Q DT

DRILLING REPORT

Rig # _____

Computer # _____

Driller R S Coffman

Pusher _____

Helper Josh Davis, Scottie O'Khold

Helper Kelton Kinde

Company Sandridge

Lease Name Rose 3908 3-31 H

City Waldron

County Harper

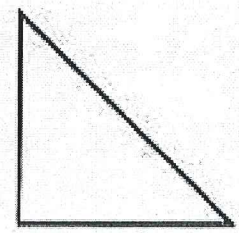
State KS

| ITEM | DATE | TIME |
|-----------------|------|---------|
| DEPART SHOP | 7-4 | 6:30 AM |
| ARRIVED AT RIG | 7-4 | 7:30 AM |
| STARTED JOB | 7-4 | 8:00 AM |
| FINISHED JOB | 7-5 | 2:00 AM |
| DEPARTED RIG | 7-5 | 2:30 AM |
| ARRIVED AT SHOP | 7-5 | 3:30 AM |
| TOTAL HOURS | | 21 |

Directions _____

| | Depth | X | Diameter |
|------------------|-----------|---|-----------|
| Conductor | | | |
| Hole | <u>80</u> | X | <u>30</u> |
| Pipe | <u>80</u> | X | <u>20</u> |
| Rat | | | |
| Hole | _____ | X | _____ |
| Casing | _____ | X | _____ |
| Mouse | | | |
| Hole | <u>20</u> | X | <u>20</u> |
| Casing | <u>30</u> | X | <u>10</u> |
| Cellar | | | |
| Tin Horn | <u>6</u> | X | <u>6</u> |

Drill Rig Horizon 4



Drilling Conditions:
0ft - 35ft sand
35ft - 80ft clay

CEMENT

Yards: 10 Type: _____ Furnished by: _____

| | | | | |
|--------------|--------------------------------------|----|--|-----------------------|
| Pumped: | <input checked="" type="radio"/> Yes | No | Furnished by: <u>Basin Services</u> | # trucks <u>1</u> |
| Mud Truck: | <input checked="" type="radio"/> Yes | No | Furnished by: <u>Basin Services</u> | # trucks <u>3 1/2</u> |
| Water Truck: | <input checked="" type="radio"/> Yes | No | Furnished by: <u>Basin Services</u> | # trucks <u>1</u> |
| VacTruck: | <input checked="" type="radio"/> Yes | No | Furnished by: <u>S & B Transport</u> | # trucks <u>1</u> |

HOLE COVERS: Main # _____ M/R# _____ OLD NEW NONE

10250
 (Need to charge \$3,000 extra)

Rose 3408 3-31HR

Perforations

| Perforations | | | |
|--------------|------------|------------|--------------------------|
| Date | Top (ftKB) | Btm (ftKB) | Zone |
| 8/11/2014 | 5,200.0 | 5,202.0 | Miss Lime, Original Hole |
| 8/11/2014 | 5,270.0 | 5,272.0 | Miss Lime, Original Hole |
| 8/11/2014 | 5,336.0 | 5,338.0 | Miss Lime, Original Hole |
| 9/1/2014 | 5,800.0 | 5,802.0 | Miss Lime, Original Hole |
| 9/1/2014 | 5,852.0 | 5,854.0 | Miss Lime, Original Hole |
| 9/1/2014 | 5,904.0 | 5,906.0 | Miss Lime, Original Hole |
| 9/1/2014 | 5,956.0 | 5,958.0 | Miss Lime, Original Hole |
| 8/30/2014 | 6,079.0 | 6,081.0 | Miss Lime, Original Hole |
| 8/30/2014 | 6,267.0 | 6,269.0 | Miss Lime, Original Hole |
| 8/30/2014 | 6,455.0 | 6,457.0 | Miss Lime, Original Hole |
| 8/30/2014 | 6,644.0 | 6,646.0 | Miss Lime, Original Hole |
| 8/30/2014 | 6,832.0 | 6,834.0 | Miss Lime, Original Hole |
| 8/30/2014 | 7,024.0 | 7,026.0 | Miss Lime, Original Hole |
| 8/30/2014 | 7,196.0 | 7,198.0 | Miss Lime, Original Hole |
| 8/30/2014 | 7,372.0 | 7,374.0 | Miss Lime, Original Hole |
| 8/30/2014 | 7,558.0 | 7,560.0 | Miss Lime, Original Hole |
| 8/30/2014 | 7,740.0 | 7,742.0 | Miss Lime, Original Hole |
| 8/30/2014 | 7,928.0 | 7,930.0 | Miss Lime, Original Hole |
| 8/30/2014 | 8,105.0 | 8,107.0 | Miss Lime, Original Hole |
| 8/30/2014 | 8,286.0 | 8,288.0 | Miss Lime, Original Hole |
| 8/30/2014 | 8,471.0 | 8,473.0 | Miss Lime, Original Hole |
| 8/30/2014 | 8,660.0 | 8,662.0 | Miss Lime, Original Hole |
| 8/30/2014 | 8,852.0 | 8,854.0 | Miss Lime, Original Hole |
| 8/30/2014 | 9,036.0 | 9,038.0 | Miss Lime, Original Hole |
| 8/30/2014 | 9,221.0 | 9,223.0 | Miss Lime, Original Hole |
| 8/30/2014 | 9,413.0 | 9,415.0 | Miss Lime, Original Hole |