CORRECTION #1 [redacted]

Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1267335

Form ACO-1
November 2016
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: Wanda Ledbetter
Phone: (405) 429-5500
CONTRACTOR: License # 34464
Name: Lariat Services, Inc. dba Chaparral, Drilling, Fluids
Wellsite Geologist: Ray Tichenor
Purchaser: Plains & WWGG

Designate Type of Completion:
☑ New Well ☐ Re-Entry ☐ Workover

☐ Oil ☐ WSW ☐ SWD
☐ Gas ☐ DH ☐ EOR
☑ OG ☐ GSW
☐ 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 EOR ☐ Conv. to SWD
☐ Plug Back ☐ Liner ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ EOR Permit #:
☐ GSW Permit #:

6/12/2015 Spud Date or Recompletion Date
7/5/2015 Date Reached TD
8/7/2015 Completion Date or Recompletion Date

API No.: 15-077-22149-01-00
Spot Description:
SW- SW- SW-SW Sec. 3 Twp. 34 S. R. 8 ☐ East ☑ West
200 Feet from ☐ North / ☑ South Line of Section
300 Feet from ☐ East / ☑ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Harper
Lease Name: Wharton 3408 Well #: 1-3H34
Field Name:
Producing Formation: Mississippi
Elevation: Ground: 1343 Kelly Bushing: 1362
Total Vertical Depth: 6917 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 804 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: 10/06/2015
☑ **Confidential Release Date:** 10/05/2017
☐ **Wireline Log Received** ☐ **Drill Stem Tests Received**
☐ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 10/13/2015

CORRECTION #1
Page Two

[redacted]

1267335

Operator Name: SandRidge Exploration and Production LLC Lease Name: Wharton 3408 Well #: 1-3H34

Sec. 3 Twp. 34 S. R. 8 ☐ East ☑ West County: Harper

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 ☐ Yes ☑ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☐ Yes ☑ No

Geolgist Report / Mud Logs ☐ Yes ☐ No

List All E. Logs Run:

☐ Log Formation (Top), Depth and Datum ☑ Sample

Name: Attached Top: Attached Datum: Attached

CASING RECORD ☑ New ☐ 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
Conductor	30	20	75	90	Grout	10	none
Surface	12.25	9.625	36	804	Class A Slury	395	See Report
Intermediate	8.75	7	29	5190	Class A	270	See Report

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	-			
	-			

1. Did you perform a hydraulic fracturing treatment on this well? ☑ Yes ☐ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☑ Yes ☐ No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/ Injection: 8/20/2015

Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☑ Other *(Explain)* ESP

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	11	3	3788		

DISPOSITION OF GAS: ☐ Vented ☑ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*

METHOD OF COMPLETION: ☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*

PRODUCTION INTERVAL: Top 5208-11335 Bottom

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*

TUBING RECORD: Size: Set At: Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Wharton 3408 1-3H34
Doc ID	1267335

Tops

Name	Top	Datum
Base Heebner	3427	-2066
Tonkawa	3831	-2470
Cottage Grove	4036	-2675
Swope	4190	-2829
Oswego	4349	-2994
Pawnee	4401	-3046
Cherokee	4458	-3103
Mississippi	4601	-3240

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Wharton 3408 1-3H34
Doc ID	1267335

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Conductor	30	20	75	90	Grout	10	none
Surface	12.25	9.625	36	804	Class A Slury	395	See Report
Intermediate	8.75	7	29	5190	Class A	270	See Report

Summary of Changes

Lease Name and Number: Wharton 3408 1-3H34

API/Permit #: 15-077-22149-01-00

Doc ID: 1267335

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Approved Date	10/08/2015	10/13/2015
Save Link	../../kcc/detail/operatorEditDetail.cfm?docID=1265721	../../kcc/detail/operatorEditDetail.cfm?docID=1267335
Well Type	SIOW	OG

Confidentiality Requested:
☑ Yes ☐ No

CONFIDENTIAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1265721

Form ACO-1
August 2013
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Phone: (405) 429-5500
CONTRACTOR: License # 34464
Name: Lariat Services, Inc. dba Chaparral, Drilling, Fluids
Wellsite Geologist: Ray Tichenor
Purchaser: Plains & WWGG

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.)*:

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Operator:
Well Name:
Original Comp. Date: Original Total Depth:

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☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

6/12/2015	7/5/2015	8/7/2015
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-077-22149-01-00
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Field Name:
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Amount of Surface Pipe Set and Cemented at: 804 Feet
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If yes, show depth set: Feet
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(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

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Date: 10/06/2015
☐ **Confidential Release Date:**
☐ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 10/08/2015

Page Two

Operator Name: SandRidge Exploration and Production LLC Lease Name: Wharton 3408 Well #: 1-3H34

Sec. 3 Twp. 34 S. R. 8 ☐ East ☑ West County: Harper

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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 *(Attach Additional Sheets)*	☐ Yes	☑ No	☐ Log	Formation (Top), Depth and Datum	☑ Sample
Samples Sent to Geological Survey	☑ Yes	☐ No	Name	Top	Datum
Cores Taken	☐ Yes	☑ No	Attached	Attached	Attached
Electric Log Run	☐ Yes	☑ No			
Geologist Report / Mud Logs	☐ Yes	☐ No			
List All E. Logs Run:					

CASING RECORD ☑ New ☐ 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
Conductor	30	20	75	90	Grout	10	none
Surface	12.25	9.625	36	804	Class A Slury	395	See Report
Intermediate	8.75	7	29	5190	Class A	270	See Report

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	-			
	-			

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DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:	
		Top	Bottom
☐ Vented ☑ Sold ☐ Used on Lease	☐ Open Hole ☑ Perf. ☐ Dually Comp. ☐ Commingled	5208-11335	
(If vented, Submit ACO-18.)	*(Submit ACO-5)* *(Submit ACO-4)*		

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*

TUBING RECORD: Size: Set At: Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Wharton 3408 1-3H34
Doc ID	1265721

Tops

Name	Top	Datum
Base Heebner	3427	-2066
Tonkawa	3831	-2470
Cottage Grove	4036	-2675
Swope	4190	-2829
Oswego	4349	-2994
Pawnee	4401	-3046
Cherokee	4458	-3103
Mississippi	4601	-3240

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Wharton 3408 1-3H34
Doc ID	1265721

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	4648-4671		
1	4647-11333		

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Wharton 3408 1-3H34
Doc ID	1265721

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Conductor	30	20	75	90	Grout	10	none
Surface	12.25	9.625	36	804	Class A Slury	395	See Report
Intermediate	8.75	7	29	5190	Class A	270	See Report

Wharton 3408 1-3H34 Perforations & Shot Density

Stage Number	Date	Type	Top Depth	Top Depth (TVD)	Bottom Depth	Bottom Depth (TVD)	Zone	Shot Density	Wellbore	String Perforated
28	08/04/15	Perforated	5,208	4,671	5,210	4,671	Miss Lime - Upper	5	Original Hole	Production Liner
28	08/04/15	Perforated	5,300	4,668	5,302	4,668	Miss Lime - Upper	5	Original Hole	Production Liner
28	08/04/15	Perforated	5,391	4,664	5,393	4,664	Miss Lime - Upper	5	Original Hole	Production Liner
28	08/04/15	Perforated	5,483	4,661	5,485	4,661	Miss Lime - Upper	5	Original Hole	Production Liner
28	08/04/15	Perforated	5,574	4,657	5,576	4,657	Miss Lime - Upper	5	Original Hole	Production Liner
27	08/04/15	Perforated	5,634	4,655	5,636	4,655	Miss Lime - Upper	5	Original Hole	Production Liner
27	08/04/15	Perforated	5,717	4,652	5,719	4,652	Miss Lime - Upper	5	Original Hole	Production Liner
27	08/04/15	Perforated	5,801	4,650	5,803	4,650	Miss Lime - Upper	5	Original Hole	Production Liner
27	08/04/15	Perforated	5,884	4,648	5,886	4,648	Miss Lime - Upper	5	Original Hole	Production Liner
27	08/04/15	Perforated	5,967	4,647	5,969	4,647	Miss Lime - Upper	5	Original Hole	Production Liner
26	08/04/15	Perforated	6,027	4,647	6,029	4,647	Miss Lime - Upper	5	Original Hole	Production Liner
26	08/04/15	Perforated	6,109	4,648	6,111	4,648	Miss Lime - Upper	5	Original Hole	Production Liner
26	08/04/15	Perforated	6,192	4,649	6,194	4,649	Miss Lime - Upper	5	Original Hole	Production Liner
26	08/04/15	Perforated	6,274	4,648	6,276	4,648	Miss Lime - Upper	5	Original Hole	Production Liner
26	08/04/15	Perforated	6,356	4,648	6,358	4,648	Miss Lime - Upper	5	Original Hole	Production Liner
25	08/04/15	Frac Sleeve	6,488	4,647	6,490	4,647	Miss Lime - Upper	1	Original Hole	Production Liner
24	08/04/15	Frac Sleeve	6,672	4,647	6,674	4,647	Miss Lime - Upper	1	Original Hole	Production Liner
23	08/04/15	Frac Sleeve	6,893	4,654	6,895	4,654	Miss Lime - Upper	1	Original Hole	Production Liner
22	08/04/15	Frac Sleeve	7,076	4,656	7,078	4,656	Miss Lime - Upper	1	Original Hole	Production Liner
21	08/04/15	Frac Sleeve	7,305	4,650	7,307	4,650	Miss Lime - Upper	1	Original Hole	Production Liner
20	08/04/15	Frac Sleeve	7,531	4,652	7,533	4,652	Miss Lime - Upper	1	Original Hole	Production Liner
19	08/04/15	Frac Sleeve	7,757	4,648	7,759	4,648	Miss Lime - Upper	1	Original Hole	Production Liner
18	08/04/15	Frac Sleeve	7,985	4,643	7,987	4,643	Miss Lime - Upper	1	Original Hole	Production Liner
17	08/04/15	Frac Sleeve	8,208	4,635	8,210	4,635	Miss Lime - Upper	1	Original Hole	Production Liner
16	08/04/15	Frac Sleeve	8,392	4,637	8,394	4,637	Miss Lime - Upper	1	Original Hole	Production Liner
15	08/04/15	Frac Sleeve	8,572	4,641	8,574	4,641	Miss Lime - Upper	1	Original Hole	Production Liner
14	08/03/15	Frac Sleeve	8,754	4,641	8,756	4,641	Miss Lime - Upper	1	Original Hole	Production Liner
13	08/03/15	Frac Sleeve	8,984	4,637	8,986	4,637	Miss Lime - Upper	1	Original Hole	Production Liner
12	08/03/15	Frac Sleeve	9,211	4,640	9,213	4,640	Miss Lime - Upper	1	Original Hole	Production Liner
11	08/03/15	Frac Sleeve	9,392	4,637	9,394	4,637	Miss Lime - Upper	1	Original Hole	Production Liner
10	08/03/15	Frac Sleeve	9,575	4,628	9,577	4,628	Miss Lime - Upper	1	Original Hole	Production Liner
9	08/03/15	Frac Sleeve	9,759	4,628	9,761	4,628	Miss Lime - Upper	1	Original Hole	Production Liner
8	08/03/15	Frac Sleeve	9,982	4,629	9,984	4,629	Miss Lime - Upper	1	Original Hole	Production Liner
7	08/03/15	Frac Sleeve	10,165	4,625	10,167	4,625	Miss Lime - Upper	1	Original Hole	Production Liner
6	08/03/15	Frac Sleeve	10,347	4,628	10,349	4,628	Miss Lime - Upper	1	Original Hole	Production Liner

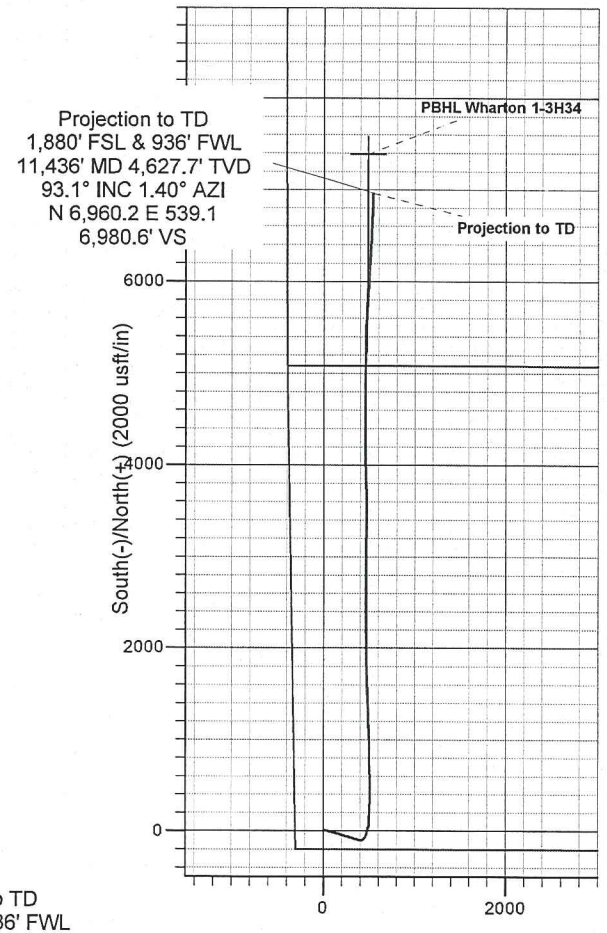
Stage Number	Date	Type	Top Depth	Top Depth (TVD)	Bottom Depth	Bottom Depth (TVD)	Zone	Shot Density	Wellbore	String Perforated
5	08/03/15	Frac Sleeve	10,574	4,639	10,576	4,639	Miss Lime - Upper	1	Original Hole	Production Liner
4	08/03/15	Frac Sleeve	10,712	4,643	10,714	4,643	Miss Lime - Upper	1	Original Hole	Production Liner
3	08/03/15	Frac Sleeve	10,932	4,645	10,934	4,645	Miss Lime - Upper	1	Original Hole	Production Liner
2	08/03/15	Frac Sleeve	11,112	4,643	11,114	4,643	Miss Lime - Upper	1	Original Hole	Production Liner
1	08/03/15	P-Sleeve	11,333	4,633	11,335	4,633	Miss Lime - Upper	1	Original Hole	Production Liner

Sandridge Energy

DrillRight TECHNOLOGY, INC.

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	Annotation
9984.0	90.80	1.40	4628.6	5510.9	469.9	0.00	0.00	5529.8	Start DLS 2.00 TFO 161.05
10141.0	87.83	2.42	4630.4	5667.8	475.2	2.00	161.05	5686.7	Start 100.0 hold at 10141.0 MD
10241.0	87.83	2.42	4634.2	5767.6	479.4	0.00	0.00	5786.6	Start DLS 2.00 TFO -45.62
10410.4	90.20	0.00	4637.1	5936.9	483.0	2.00	-45.62	5955.7	Start DLS 0.00 TFO 129.32
11863.5	90.20	0.00	4632.1	7390.0	483.0	0.00	129.32	7405.8	TD at 11863.5

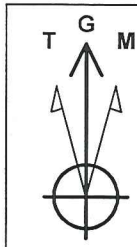


WELL DETAILS: Wharton 3408 1-3H34

Ground Level: 1343.0

Northing	Easting	Latittude	Longitude
161240.00	2092535.00	37° 6' 32.601 N	98° 10' 57.716 W

Project: Harper County (NAD-27)
Site: Sec 03-T34S-R08W
Well: Wharton 3408 1-3H34
Plan: Plan 070115 A3 (Wharton 3408 1-3H34/Wellbore #1)



Azimuths to Grid North
Magnetic North: 4.11°

Magnetic Field
Strength: 51514.6snT
Dip Angle: 65.10°
Date: 6/4/2015
Model: IGRF2010

Target Line: 7-01-15
4658 KBTVD @ 0' VS
90.2° @ 3.74 AZI Plane

SandRidge ENERGY

Survey Report

Company:	Sandridge Energy	**Local Co-ordinate Reference:**	Well Wharton 3408 1-3H34
Project:	Harper County (NAD-27)	**TVD Reference:**	KB @ 1361.0usft
Site:	Sec 03-T34S-R08W	**MD Reference:**	KB @ 1361.0usft
Well:	Wharton 3408 1-3H34	**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 03-T34S-R08W

Site Position:		**Northing:**	161,040.00 usft	**Latitude:**	37° 6' 30.634 N
From:	Map	**Easting:**	2,092,238.00 usft	**Longitude:**	98° 11' 1.391 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.19 °

Well Wharton 3408 1-3H34

Well Position	**+N/-S**	0.0 usft	**Northing:**	161,240.00 usft	**Latitude:**	37° 6' 32.601 N
	+E/-W	0.0 usft	**Easting:**	2,092,535.00 usft	**Longitude:**	98° 10' 57.716 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	0.0 usft	**Ground Level:**	1,343.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/4/2015	4.30	65.10	51,515

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	3.74

Survey Program **Date** 7/6/2015

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
890.0	11,436.0	DRT MWD Surveys (Wellbore #1)	MWD	MWD - Standard

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
890.0	0.50	42.40	890.0	2.9	2.6	3.0	0.06	0.06	0.00
First DRT MWD Survey									
1,347.0	0.90	72.90	1,347.0	5.4	7.4	5.9	0.12	0.09	6.67
1,712.0	0.70	82.70	1,711.9	6.5	12.3	7.3	0.07	-0.05	2.68
1,803.0	2.30	109.70	1,802.9	6.0	14.6	6.9	1.87	1.76	29.67
1,894.0	4.80	103.70	1,893.7	4.5	20.0	5.8	2.77	2.75	-6.59
1,985.0	6.60	104.00	1,984.3	2.3	28.8	4.2	1.98	1.98	0.33
2,077.0	7.90	105.20	2,075.5	-0.6	40.0	2.0	1.42	1.41	1.30
2,168.0	10.20	101.90	2,165.4	-3.9	54.0	-0.4	2.59	2.53	-3.63
2,259.0	10.50	106.50	2,254.9	-8.0	69.8	-3.4	0.97	0.33	5.05

Survey Report

Company:	Sandridge Energy	**Local Co-ordinate Reference:**	Well Wharton 3408 1-3H34
Project:	Harper County (NAD-27)	**TVD Reference:**	KB @ 1361.0usft
Site:	Sec 03-T34S-R08W	**MD Reference:**	KB @ 1361.0usft
Well:	Wharton 3408 1-3H34	**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)
2,351.0	11.70	103.20	2,345.2	-12.5	86.9	-6.8	1.48	1.30	-3.59
2,442.0	12.30	104.60	2,434.2	-17.0	105.3	-10.1	0.73	0.66	1.54
2,533.0	12.90	105.70	2,523.0	-22.2	124.4	-14.1	0.71	0.66	1.21
2,625.0	11.40	102.10	2,612.9	-26.9	143.2	-17.5	1.83	-1.63	-3.91
2,716.0	12.70	106.70	2,701.9	-31.7	161.6	-21.1	1.78	1.43	5.05
2,808.0	15.00	109.50	2,791.2	-38.5	182.5	-26.6	2.60	2.50	3.04
2,899.0	15.00	109.10	2,879.1	-46.3	204.7	-32.9	0.11	0.00	-0.44
2,990.0	13.40	108.00	2,967.4	-53.4	225.9	-38.6	1.78	-1.76	-1.21
3,082.0	11.90	104.10	3,057.1	-59.0	245.2	-42.9	1.88	-1.63	-4.24
3,173.0	12.30	110.20	3,146.1	-64.7	263.4	-47.4	1.47	0.44	6.70
3,265.0	11.50	108.30	3,236.1	-70.9	281.3	-52.4	0.97	-0.87	-2.07
3,356.0	10.20	104.20	3,325.5	-75.8	297.8	-56.2	1.66	-1.43	-4.51
3,447.0	10.00	103.10	3,415.1	-79.5	313.3	-58.9	0.31	-0.22	-1.21
3,538.0	11.10	108.30	3,504.6	-84.1	329.3	-62.4	1.60	1.21	5.71
3,630.0	11.30	106.80	3,594.8	-89.5	346.3	-66.7	0.38	0.22	-1.63
3,721.0	12.40	107.60	3,683.9	-95.0	364.2	-71.0	1.22	1.21	0.88
3,813.0	12.70	103.50	3,773.7	-100.3	383.4	-75.1	1.02	0.33	-4.46
3,844.0	12.50	103.00	3,803.9	-101.9	390.0	-76.2	0.73	-0.65	-1.61
3,874.0	12.50	95.60	3,833.2	-102.9	396.4	-76.9	5.34	0.00	-24.67
3,904.0	13.40	87.90	3,862.5	-103.1	403.1	-76.6	6.48	3.00	-25.67
3,935.0	14.20	81.00	3,892.6	-102.4	410.4	-75.4	5.90	2.58	-22.26
3,965.0	14.80	73.60	3,921.6	-100.7	417.8	-73.3	6.49	2.00	-24.67
3,995.0	15.20	66.80	3,950.6	-98.1	425.0	-70.2	6.01	1.33	-22.67
4,026.0	15.00	57.70	3,980.5	-94.4	432.2	-66.0	7.67	-0.65	-29.35
4,056.0	15.30	49.90	4,009.5	-89.7	438.5	-61.0	6.86	1.00	-26.00
4,087.0	16.00	45.10	4,039.3	-84.1	444.6	-54.9	4.75	2.26	-15.48
4,117.0	17.80	41.00	4,068.0	-77.7	450.6	-48.2	7.19	6.00	-13.67
4,148.0	19.80	36.00	4,097.4	-69.9	456.8	-39.9	8.28	6.45	-16.13
4,178.0	21.70	31.70	4,125.4	-61.1	462.7	-30.8	8.11	6.33	-14.33
4,208.0	23.40	26.30	4,153.1	-51.0	468.2	-20.3	8.93	5.67	-18.00
4,239.0	25.40	21.70	4,181.4	-39.3	473.4	-8.3	8.90	6.45	-14.84
4,269.0	26.90	16.90	4,208.3	-26.8	477.8	4.4	8.64	5.00	-16.00
4,300.0	28.90	13.50	4,235.7	-12.8	481.6	18.6	8.24	6.45	-10.97
4,330.0	31.50	11.50	4,261.6	1.9	484.8	33.5	9.29	8.67	-6.67
4,361.0	33.50	9.80	4,287.8	18.3	487.9	50.1	7.09	6.45	-5.48
4,391.0	35.50	8.30	4,312.5	35.1	490.5	67.0	7.24	6.67	-5.00
4,422.0	37.60	7.10	4,337.4	53.3	493.0	85.4	7.16	6.77	-3.87
4,452.0	40.20	6.80	4,360.7	72.0	495.3	104.2	8.69	8.67	-1.00
4,483.0	43.20	6.50	4,383.9	92.5	497.7	124.8	9.70	9.68	-0.97
4,513.0	45.30	4.90	4,405.4	113.4	499.8	145.7	7.93	7.00	-5.33
4,543.0	47.60	3.70	4,426.0	135.0	501.4	167.4	8.20	7.67	-4.00
4,574.0	50.30	2.50	4,446.4	158.4	502.6	190.8	9.19	8.71	-3.87
4,604.0	53.00	1.90	4,465.0	181.9	503.5	214.3	9.14	9.00	-2.00

Survey Report

Company:	Sandridge Energy	**Local Co-ordinate Reference:**	Well Wharton 3408 1-3H34
Project:	Harper County (NAD-27)	**TVD Reference:**	KB @ 1361.0usft
Site:	Sec 03-T34S-R08W	**MD Reference:**	KB @ 1361.0usft
Well:	Wharton 3408 1-3H34	**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)
4,636.0	56.00	1.60	4,483.6	207.9	504.3	240.4	9.41	9.38	-0.94
4,667.0	59.10	1.00	4,500.2	234.1	504.9	266.5	10.13	10.00	-1.94
4,727.0	63.10	0.80	4,529.2	286.6	505.7	319.0	6.67	6.67	-0.33
4,819.0	62.60	0.60	4,571.2	368.4	506.7	400.7	0.58	-0.54	-0.22
4,880.0	62.50	0.10	4,599.3	422.6	507.1	454.7	0.75	-0.16	-0.82
4,910.0	62.90	359.80	4,613.1	449.2	507.1	481.3	1.60	1.33	-1.00
4,940.0	65.70	359.80	4,626.1	476.3	507.0	508.3	9.33	9.33	0.00
4,971.0	69.00	359.70	4,638.0	504.9	506.8	536.8	10.65	10.65	-0.32
5,001.0	72.20	359.80	4,648.0	533.2	506.7	565.1	10.67	10.67	0.33
5,032.0	75.80	359.80	4,656.5	562.9	506.6	594.8	11.61	11.61	0.00
5,062.0	79.50	359.50	4,662.9	592.2	506.4	624.0	12.37	12.33	-1.00
5,093.0	82.90	0.00	4,667.7	622.9	506.3	654.6	11.08	10.97	1.61
5,123.0	86.10	359.90	4,670.6	652.7	506.3	684.4	10.67	10.67	-0.33
5,167.0	90.60	358.90	4,671.8	696.7	505.8	728.2	10.48	10.23	-2.27
5,214.0	91.80	359.30	4,670.8	743.7	505.1	775.0	2.69	2.55	0.85
5,309.0	92.40	358.90	4,667.4	838.6	503.6	869.7	0.76	0.63	-0.42
5,404.0	91.90	358.90	4,663.8	933.5	501.8	964.3	0.53	-0.53	0.00
5,499.0	92.10	358.40	4,660.5	1,028.4	499.5	1,058.8	0.57	0.21	-0.53
5,594.0	92.80	358.90	4,656.4	1,123.3	497.3	1,153.4	0.91	0.74	0.53
5,687.0	91.60	357.60	4,652.9	1,216.2	494.4	1,245.9	1.90	-1.29	-1.40
5,782.0	91.60	357.30	4,650.2	1,311.1	490.2	1,340.3	0.32	0.00	-0.32
5,876.0	90.70	357.30	4,648.3	1,405.0	485.8	1,433.6	0.96	-0.96	0.00
5,971.0	90.90	357.70	4,647.0	1,499.9	481.6	1,528.1	0.47	0.21	0.42
6,066.0	89.00	358.30	4,647.1	1,594.8	478.3	1,622.6	2.10	-2.00	0.63
6,160.0	89.40	357.70	4,648.4	1,688.7	475.1	1,716.1	0.77	0.43	-0.64
6,255.0	90.60	357.50	4,648.4	1,783.6	471.1	1,810.6	1.28	1.26	-0.21
6,349.0	89.80	358.30	4,648.1	1,877.6	467.6	1,904.1	1.20	-0.85	0.85
6,444.0	90.80	0.00	4,647.6	1,972.6	466.2	1,998.8	2.08	1.05	1.79
6,539.0	91.00	358.60	4,646.1	2,067.5	465.1	2,093.5	1.49	0.21	-1.47
6,633.0	89.00	358.60	4,646.1	2,161.5	462.8	2,187.1	2.13	-2.13	0.00
6,728.0	88.90	0.40	4,647.8	2,256.5	461.9	2,281.8	1.90	-0.11	1.89
6,823.0	87.40	359.70	4,650.9	2,351.4	462.0	2,376.6	1.74	-1.58	-0.74
6,916.0	88.40	359.60	4,654.3	2,444.4	461.5	2,469.3	1.08	1.08	-0.11
7,009.0	89.50	359.60	4,656.0	2,537.3	460.8	2,562.0	1.18	1.18	0.00
7,101.0	91.10	0.40	4,655.5	2,629.3	460.8	2,653.8	1.94	1.74	0.87
7,193.0	91.80	2.40	4,653.2	2,721.3	463.0	2,745.7	2.30	0.76	2.17
7,284.0	91.40	1.40	4,650.6	2,812.2	466.1	2,836.6	1.18	-0.44	-1.10
7,377.0	90.50	0.40	4,649.1	2,905.2	467.5	2,929.5	1.45	-0.97	-1.08
7,470.0	88.10	359.20	4,650.2	2,998.1	467.2	3,022.2	2.89	-2.58	-1.29
7,562.0	90.20	359.80	4,651.6	3,090.1	466.4	3,114.0	2.37	2.28	0.65
7,654.0	91.40	359.30	4,650.3	3,182.1	465.7	3,205.7	1.41	1.30	-0.54
7,745.0	91.50	359.20	4,648.0	3,273.1	464.5	3,296.4	0.16	0.11	-0.11
7,837.0	90.20	0.10	4,646.6	3,365.1	463.9	3,388.2	1.72	-1.41	0.98

Survey Report

Company:	Sandridge Energy	**Local Co-ordinate Reference:**	Well Wharton 3408 1-3H34
Project:	Harper County (NAD-27)	**TVD Reference:**	KB @ 1361.0usft
Site:	Sec 03-T34S-R08W	**MD Reference:**	KB @ 1361.0usft
Well:	Wharton 3408 1-3H34	**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)
7,930.0	92.10	0.70	4,644.8	3,458.0	464.6	3,481.0	2.14	2.04	0.65
8,022.0	92.70	359.90	4,640.9	3,550.0	465.1	3,572.7	1.09	0.65	-0.87
8,116.0	91.60	1.10	4,637.4	3,643.9	465.9	3,666.5	1.73	-1.17	1.28
8,208.0	91.00	0.20	4,635.3	3,735.9	466.9	3,758.3	1.18	-0.65	-0.98
8,301.0	89.20	359.40	4,635.1	3,828.8	466.6	3,851.1	2.12	-1.94	-0.86
8,393.0	88.60	358.30	4,636.9	3,920.8	464.7	3,942.8	1.36	-0.65	-1.20
8,486.0	89.30	358.50	4,638.6	4,013.8	462.1	4,035.4	0.78	0.75	0.22
8,577.0	87.20	358.40	4,641.4	4,104.7	459.7	4,125.9	2.31	-2.31	-0.11
8,670.0	90.40	358.50	4,643.3	4,197.6	457.2	4,218.5	3.44	3.44	0.11
8,762.0	92.40	358.30	4,641.1	4,289.5	454.6	4,310.1	2.18	2.17	-0.22
8,853.0	91.50	359.10	4,638.0	4,380.5	452.5	4,400.7	1.32	-0.99	0.88
8,944.0	90.10	0.60	4,636.7	4,471.4	452.3	4,491.4	2.25	-1.54	1.65
9,038.0	88.30	0.50	4,638.0	4,565.4	453.2	4,585.3	1.92	-1.91	-0.11
9,133.0	89.60	0.60	4,639.8	4,660.4	454.1	4,680.1	1.37	1.37	0.11
9,228.0	90.10	0.50	4,640.0	4,755.4	455.0	4,775.0	0.54	0.53	-0.11
9,322.0	91.10	0.20	4,639.0	4,849.4	455.6	4,868.8	1.11	1.06	-0.32
9,417.0	93.30	359.90	4,635.4	4,944.3	455.7	4,963.5	2.34	2.32	-0.32
9,512.0	92.60	0.10	4,630.5	5,039.2	455.7	5,058.2	0.77	-0.74	0.21
9,606.0	91.50	2.30	4,627.1	5,133.1	457.7	5,152.0	2.62	-1.17	2.34
9,700.0	88.80	2.20	4,626.9	5,227.0	461.3	5,246.0	2.87	-2.87	-0.11
9,795.0	89.00	1.90	4,628.7	5,321.9	464.7	5,340.9	0.38	0.21	-0.32
9,890.0	90.20	1.50	4,629.4	5,416.9	467.6	5,435.9	1.33	1.26	-0.42
9,984.0	90.80	1.40	4,628.6	5,510.9	469.9	5,529.8	0.65	0.64	-0.11
10,079.0	91.50	1.80	4,626.7	5,605.8	472.6	5,624.7	0.85	0.74	0.42
10,143.0	90.70	3.30	4,625.4	5,669.7	475.4	5,688.7	2.66	-1.25	2.34
10,237.0	89.60	4.10	4,625.2	5,763.5	481.5	5,782.7	1.45	-1.17	0.85
10,332.0	88.00	3.60	4,627.2	5,858.3	487.9	5,877.6	1.76	-1.68	-0.53
10,427.0	86.70	2.90	4,631.6	5,953.0	493.3	5,972.5	1.55	-1.37	-0.74
10,521.0	87.50	3.50	4,636.3	6,046.8	498.5	6,066.4	1.06	0.85	0.64
10,615.0	87.80	4.10	4,640.2	6,140.5	504.7	6,160.3	0.71	0.32	0.64
10,710.0	88.70	3.40	4,643.1	6,235.2	510.9	6,255.3	1.20	0.95	-0.74
10,805.0	89.30	3.40	4,644.7	6,330.1	516.6	6,350.3	0.63	0.63	0.00
10,899.0	90.40	3.40	4,645.0	6,423.9	522.1	6,444.3	1.17	1.17	0.00
10,994.0	90.30	1.70	4,644.4	6,518.8	526.4	6,539.2	1.79	-0.11	-1.79
11,088.0	91.00	1.30	4,643.3	6,612.7	528.8	6,633.2	0.86	0.74	-0.43
11,183.0	92.70	1.90	4,640.3	6,707.7	531.5	6,728.0	1.90	1.79	0.63
11,277.0	92.60	2.00	4,635.9	6,801.5	534.7	6,821.9	0.15	-0.11	0.11
11,372.0	93.10	1.40	4,631.2	6,896.3	537.5	6,916.7	0.82	0.53	-0.63
Last DRT MWD Survey									
11,436.0	93.10	1.40	4,627.7	6,960.2	539.1	6,980.6	0.00	0.00	0.00
Projection to TD - PBHL Wharton 1-3H34									

Company:	Sandridge Energy	**Local Co-ordinate Reference:**	Well Wharton 3408 1-3H34
Project:	Harper County (NAD-27)	**TVD Reference:**	KB @ 1361.0usft
Site:	Sec 03-T34S-R08W	**MD Reference:**	KB @ 1361.0usft
Well:	Wharton 3408 1-3H34	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
890.0	890.0	2.9	2.6	First DRT MWD Survey
11,372.0	4,631.2	6,896.3	537.5	Last DRT MWD Survey
11,436.0	4,627.7	6,960.2	539.1	Projection to TD

Checked By: _____ Approved By: _____ Date: _____

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/3/2015
Job End Date:	8/5/2015
State:	Kansas
County:	Harper
API Number:	15-077-22149-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Wharton 3408 #1-3H34
Longitude:	-98.18269800
Latitude:	37.10905544
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,628
Total Base Water Volume (gal):	3,169,782
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	Well Operator	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	95.14984	None
40/70 Northern White Sand	COWS	Proppant, Scouring, Fill					
			Crystalline Silica (quartz)	14808-60-7	100.00000	4.49947	None
15% Unihibited HCl Acid	COWS	Etching, Dissolving, Cleaning					
			Water	7732-18-5	85.00000	0.23314	None
			Hydrochloric Acid	7647-01-0	15.00000	0.04114	None
SI-2	COWS	Scale Inhibitor					
			Water	7732-18-5	50.00000	0.00479	None
			Hydrochloric Acid	7647-01-0	16.80000	0.00161	None
			Ethylene Glycol	107-21-1	12.70000	0.00122	None
			Methanol	67-56-1	3.60000	0.00035	None
BIO-3L	COWS	Biocide					
			Proprietary	Proprietary	100.00000	0.00711	None
FR-1	COWS	Friction Reducer					
			Petroleum Hydrotreated Light Distillate	64742-47-8	2.50000	0.00147	None
CIA-1	COWS	Acid Corrosion Inhibitor					

			Water	7732-18-5	24.00000	0.00011	None
			Methanol	67-56-1	9.00000	0.00004	None
			2-Butoxyethanol	111-76-2	8.40000	0.00004	None
			Ethylene Glycol	107-21-1	8.40000	0.00004	None
			Ethoxylated Nonylphenol	68412-54-4	8.40000	0.00004	None
			Cinnamaldehyde	104-55-2	8.40000	0.00004	None
			Isopropyl Alchohol	67-63-0	8.40000	0.00004	None
			Triethyl Phosphate	78-40-0	8.40000	0.00004	None
			N-Dimethyformamide	68-12-2	8.40000	0.00004	None
			Tar Bases-quinoline derivs-benzyl chloride/quaternized	72480-70-7	8.40000	0.00004	None
NE-1	COWS	Non-Emulsifier					
			Water	7732-18-5	54.50000	0.00008	None
			Water	7732-18-5	54.50000	0.00008	None
			Isopropanol	67-63-0	13.60000	0.00002	None
			Polyglycol Ethers	52624-57-4	13.60000	0.00002	None
			Glycol Ether EB	111-76-2	9.00000	0.00001	None
			Methanol	67-56-1	9.00000	0.00001	None
			Methanol	67-56-1	9.00000	0.00001	None
IC-3	COWS	Iron Control					
			Sodium Erythorbate	6381-77-7	100.00000	0.00018	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.

* 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)

ALLIED
OIL & GAS SERVICES, LLC

SandRidge Energy
Wharton 1-3H34
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 Wharton 1-3H34 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 2500 psi. After a successful test we began the job by pumping 10 bbls of preflush spacer. We then mixed and pumped the following cements:

80.72 bbl 245 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. 46 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.

ALLIED
OIL & GAS SERVICES, LLC

SandRidge Energy
Wharton 3408 1-3H34
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 Wharton 3408 1-3H34 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 4000 psi. After a successful test we began the job by pumping 30 bbls of spacer. We then mixed and pumped the following cements:

42.39	bbl	170	Sacks of 13.6 ppg	
50/50 Poz:A Slurry -		1.4	Yield	

2.0% Gel
0.4% FL-160
0.1% SA-51

21.02	bbl	100	Sacks of 15.6 ppg	
Class A Slurry -		1.18	Yield	

0.8% FL-160
0.2% CD-31

The top plug was then released and displaced with 191 Bbls of fresh water. The plug bumped and pressure was raised to 1600 psi. Pressure was released and floats held with 1 bbl back to the truck. Well maintained circulation throughout the job.

Due to technical difficulty no chart was taken.

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.