



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1149955  
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
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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: \_\_\_\_\_



1149955

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](mailto: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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  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: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	4J Ranch 3408 3-33H
Doc ID	1149955

All Electric Logs Run

Induction
Prizm
Nuclear
Boresight
Mud Log

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	4J Ranch 3408 3-33H
Doc ID	1149955

#### Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	8954-9245	1500 gals 15% HCL, 3998 bbls Fresh Slickwater, Running TLTR= 4384 bbls	
5	8592-8904	1500 gals 15% HCL, 4092 bbls Fresh Slickwater, Running TLTR= 8699 bbls	
5	8252-8542	1500 gals 15% HCL, 4052 bbls Fresh Slickwater, Running TLTR= 13939 bbls	
5	7848-8158	1500 gals 15% HCL, 4173 bbls Fresh Slickwater, Running TLTR= 17289 bbls	
5	7466-7775	1500 gals 15% HCL, 4314 bbls Fresh Slickwater, Running TLTR= 21748 bbls	
5	7094-7384	1500 gals 15% HCL, 4309 bbls Fresh Slickwater, Running TLTR= 26201 bbls	
5	6697-6874	1500 gals 15% HCL, 4236 bbls Fresh Slickwater, Running TLTR= 30558 bbls	
5	6297-6624	1500 gals 15% HCL, 4104 bbls Fresh Slickwater, Running TLTR= 34706 bbls	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	4J Ranch 3408 3-33H
Doc ID	1149955

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	5963-6234	1500 gals 15% HCL, 4005 bbls Fresh Slickwater, Running TLTR= 38981 bbls	
5	5532-5843	1500 gals 15% HCL, 4082 bbls Fresh Slickwater, Running TLTR= 43150 bbls	

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

June 28, 2013

Tiffany Golay  
SandRidge Exploration and Production LLC  
123 ROBERT S. KERR AVE  
OKLAHOMA CITY, OK 73102-6406

Re: ACO1  
API 15-077-21931-01-00  
4J Ranch 3408 3-33H  
SW/4 Sec.33-34S-08W  
Harper County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Tiffany Golay



**INVOICE**

DATE	INVOICE #
6/10/2013	3989

<b>BILL TO</b>
SANDRIDGE ENERGY, INC. ATTN: PURCHASING MANAGER 123 ROBERT S. KERR AVENUE OKLAHOMA CITY, OK 73102

<b>REMIT TO</b>
EDGE SERVICES, INC. PO BOX 609 WOODWARD, OK 73802

COUNTY	STARTING D...	WORK ORDER	RIG NUMBER	LEASE NAME	Terms
HARPER, KS	6/5/2013	3150	UNIT 310	4J RANCH 3408 3-33H	Due on rec...

Description	
DRILLED 90' OF 30" CONDUCTOR HOLE DRILLED 6' OF 76" HOLE FURNISHED AND SET 6' X 6' TINHORN CELLAR FURNISHED 90' OF 20" CONDUCTOR PIPE FURNISHED t LOAD(S) MUD FURNISHED WELDER AND MATERIALS FURNISHED 11 YARDS OF GRADE A CEMENT FURNISHED GROUT PUMP DRILL MOUSE HOLE FURNISHED 80' OF 14" CONDUCTOR PIPE  TOTAL BID \$ 17,000.00	

<b>Sales Tax (0.0%)</b>	\$0.00
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<b>TOTAL</b>	\$17,000.00
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RECEIVED

JUN 20 2013

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 305021	Ship To #: 3004611	Quote #:	Sales Order #: 900520806
Customer: SANDRIDGE ENERGY INC EBUSINESS		Customer Rep:	
Well Name: 4J Ranch 3408	Well #: 3-33H	API/UWI #:	
Field:	City (SAP): WALDRON	County/Parish: Harper	State: Kansas
Contractor: UNIT		Rig/Platform Name/Num: 310	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: GUSTKE, GREGORY		Srvc Supervisor: HECKENBACH, AUGUST	MBU ID Emp #: 511867

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ARSENAULT, JOSEPH Allen	7	524872	HECKENBACH, AUGUST Abbott	7	511867	JOHNSON, CALEB Lemuel	7	216972

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10872345	95 mile	10897901	95 mile	11706681	95 mile	11748363	95 mile

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
6/16/13	8	3						
TOTAL			Total is the sum of each column separately					

Job

Job Times

Formation Name	Top	Bottom	Date	Time	Time Zone
Formation Depth (MD)			Called Out	16 - Jun - 2013 10:00	CST
Form Type	BHST		On Location	16 - Jun - 2013 15:00	CST
Job depth MD	785. ft	Job Depth TVD	785. ft	Job Started	16 - Jun - 2013 00:00 CST
Water Depth		Wk Ht Above Floor	6. ft	Job Completed	16 - Jun - 2013 00:00 CST
Perforation Depth (MD)	From	To	Departed Loc	16 - Jun - 2013 00:00	CST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
12.25" Open Hole				12.25				80.	800.		
9.625" Surface Casing	Unknown		9.625	8.921	36.	LTC	J-55	.	800.		
Preset Conductor	Unknown		20.	19.124	94.			.	80.		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug	9.625	1	HES
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	9.625	1	HES
Stage Tool										Centralizers			

Miscellaneous Materials


Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc	%
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty	

Fluid Data

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk	

Stage/Plug #: 1



Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Fresh Water		10.00	bbl	8.33	.0	.0	.0	
2	HLC STANDARD	EXTENDACEM (TM) SYSTEM (452981)	210.0	sacks	12.4	2.11	11.64		11.64
	3 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
	0.25 lbm	POLY-E-FLAKE (101216940)							
	11.637 Gal	FRESH WATER							
3	STANDARD	SWIFTCEM (TM) SYSTEM (452990)	200.0	sacks	15.6	1.2	5.32		5.32
	2 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
	0.125 lbm	POLY-E-FLAKE (101216940)							
	5.319 Gal	FRESH WATER							
4	Displacement		58.00	bbl	8.33	.0	.0	.0	
Calculated Values		Pressures		Volumes					
Displacement	58	Shut In: Instant		Lost Returns		Cement Slurry	122	Pad	10
Top Of Cement	Surface	5 Min		Cement Returns	55	Actual Displacement	58	Treatment	
Frac Gradient		15 Min		Spacers	10	Load and Breakdown		Total Job	190
Rates									
Circulating	5	Mixing	5	Displacement	6	Avg. Job	5		
Cement Left In Pipe	Amount	45.95 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
<b>The Information Stated Herein Is Correct</b>				Customer Representative Signature 					

# HALLIBURTON

# Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 305021	Ship To #: 3004611	Quote #:	Sales Order #: 900522954
Customer: SANDRIDGE ENERGY INC EBUSINESS		Customer Rep: Webster, John	
Well Name: 4J Ranch 3408	Well #: 3-33H	API/UWI #: 15-077-21931	
Field:	City (SAP): WALDRON	County/Parish: Harper	State: Kansas
Legal Description: Section 33 Township 34S Range 8W			
Contractor: UNIT		Rig/Platform Name/Num: 310	
Job Purpose: Cement Intermediate Casing			
Well Type: Development Well		Job Type: Cement Intermediate Casing	
Sales Person: FRENCH, JEREMY		Srvc Supervisor: VAUGHAN, RYAN	MBU ID Emp #: 453194

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
STOOPS, LEVI Keith	4	523378	TORRES, DIEGO Lopez	4	390647	VAUGHAN, RYAN Nicholas	4	453194

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
6/22/13	4	1						
<b>TOTAL</b>			<i>Total is the sum of each column separately</i>					

Job				Job Times			
Formation Name					Date	Time	Time Zone
Formation Depth (MD)	Top		Bottom		Called Out	22 - Jun - 2013 12:00	CST
Form Type	BHST				On Location	22 - Jun - 2013 18:00	CST
Job depth MD	5515. ft		Job Depth TVD	5514. ft	Job Started	22 - Jun - 2013 00:00	CST
Water Depth			Wk Ht Above Floor	5. ft	Job Completed	22 - Jun - 2013 02:00	CST
Perforation Depth (MD)	From		To		Departed Loc	22 - Jun - 2013 00:00	CST

### Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
8.75" Open Hole				8.75				800.	5515.		
7" Intermediate Casing	Unknow n		7.	6.276	26.	LTC	P-110	.	5515.		
9.625" Surface Casing	Unknow n		9.625	8.921	36.	LTC	J-55	.	800.		

### Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug	7	1	hes
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	7	1	hes
Stage Tool										Centralizers			

### Miscellaneous Materials

Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc	%
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty	

### Fluid Data

Stage/Plug #: 1											
Fluid #	Stage Type	Fluid Name			Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk

Stage/Plug #: 1

Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Rig Supplied Gel Water		30.00	bbl	8.33	.0	.0	.0	
2	50/50 POZ STANDARD ( w/ 2% extra gel)	ECONOCEM (TM) SYSTEM (452992)	140.0	sacks	13.6	1.51	7.34		7.34
	0.4 %	HALAD(R)-9, 50 LB (100001617)							
	2 %	BENTONITE, BULK (100003682)							
	7.337 Gal	FRESH WATER							
3	Premium	HALCEM (TM) SYSTEM (452986)	190.0	sacks	15.6	1.18	5.2		5.2
	0.4 %	HALAD(R)-9, 50 LB (100001617)							
	5.197 Gal	FRESH WATER							
4	Displacement		206.00	bbl	8.33	.0	.0	.0	
Calculated Values		Pressures			Volumes				
Displacement	206	Shut In: Instant		Lost Returns	0	Cement Slurry	78	Pad	
Top Of Cement	3447	5 Min		Cement Returns	0	Actual Displacement	206	Treatment	
Frac Gradient		15 Min		Spacers	30	Load and Breakdown		Total Job	
Rates									
Circulating		Mixing	4.5	Displacement	7	Avg. Job	6		
Cement Left In Pipe	Amount	84 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
<b>The Information Stated Herein Is Correct</b>				Customer Representative Signature					



# Actual Wellpath Report

Sandridge 4J Ranch 3408 3-33H (Unit 310)\_Final Surveys.  
Page n of nn



REFERENCE WELLPATH IDENTIFICATION			
Operator	Sandridge Energy	Slot	4J Ranch 3408 3-33H (Unit 310)
Area	Kansas	Well	SL (220 FSL, 1715 FWL) Sec 33
Field	Harper County, Kansas (Sandridge Energy) NAD27 / Grid	Wellbore	Actual 4J Ranch 3408 3-33H
Facility	4J Ranch 3408 3-33H Sec 33-34S8W		

REPORT SETUP INFORMATION			
Projection System	NAD27 / Lambert Kansas SP, Southern Zone (1502), US feet		
North Reference	Grid	Software System	WellArchitect™ 3.0.0
Convergence at slot	0.19° East	User	Adammic
Scale	1.00005	Report Generated	09/Sep/2013 at 1:38:35 PM
Wellbore last revised	06-16-2013	Database/Source file	intokcapp01

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	2089148.00	134878.00	37°02'12.071"N	98°11'40.592"W
Facility Reference Pt			2089148.00	134878.00	37°02'12.071"N	98°11'40.592"W
Field Reference Pt			2132248.82	161602.28	37°06'34.560"N	98°02'47.460"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Unit 310 (RT) to Facility Vertical Datum	15.00ft
Horizontal Reference Pt	Slot	Unit 310 (RT) to Mean Sea Level	1266.00ft
Vertical Reference Pt	Unit 310 (RT)	Unit 310 (RT) to Mud Line at Slot (4J Ranch 3408 3-33H (Unit 310))	15.00ft
MD Reference Pt	Unit 310 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	358.63°



# Actual Wellpath Report

Sandridge 4J Ranch 3408 3-33H (Unit 310)\_Final Surveys.  
Page n of nn



REFERENCE WELLPATH IDENTIFICATION			
Operator	Sandridge Energy	Slot	4J Ranch 3408 3-33H (Unit 310)
Area	Kansas	Well	SL (220 FSL, 1715 FWL) Sec 33
Field	Harper County, Kansas (Sandridge Energy) NAD27 / Grid	Wellbore	Actual 4J Ranch 3408 3-33H
Facility	4J Ranch 3408 3-33H Sec 33-34S8W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
0.00†	0.000	150.750	0.00	0.00	0.00	0.00	2089148.00	134878.00	0.00	
15.00	0.000	150.750	15.00	0.00	0.00	0.00	2089148.00	134878.00	0.00	
500.00	0.250	150.750	500.00	-0.94	-0.92	0.52	2089148.52	134877.08	0.05	
785.00	1.000	150.750	784.98	-3.68	-3.64	2.04	2089150.04	134874.36	0.26	
818.00	0.890	150.750	817.97	-4.16	-4.11	2.30	2089150.30	134873.89	0.33	
910.00	0.850	147.760	909.96	-5.38	-5.31	3.02	2089151.02	134872.69	0.07	
1001.00	0.700	139.960	1000.96	-6.39	-6.31	3.73	2089151.73	134871.69	0.20	
1093.00	0.830	140.400	1092.95	-7.36	-7.25	4.52	2089152.52	134870.75	0.14	
1184.00	0.550	150.570	1183.94	-8.26	-8.14	5.15	2089153.15	134869.86	0.33	
1276.00	0.300	64.380	1275.94	-8.55	-8.42	5.59	2089153.59	134869.58	0.66	
1458.00	0.040	273.150	1457.94	-8.35	-8.21	5.95	2089153.95	134869.79	0.18	
1550.00	0.310	153.970	1549.94	-8.57	-8.43	6.03	2089154.03	134869.57	0.36	
1642.00	0.380	193.340	1641.94	-9.10	-8.95	6.07	2089154.07	134869.05	0.26	
1829.00	0.160	206.930	1828.93	-9.92	-9.79	5.81	2089153.81	134868.21	0.12	
1924.00	0.250	157.580	1923.93	-10.24	-10.10	5.83	2089153.83	134867.90	0.20	
2019.00	1.170	128.580	2018.93	-11.05	-10.90	6.67	2089154.67	134867.10	1.01	
2051.00	1.880	119.930	2050.91	-11.53	-11.36	7.38	2089155.38	134866.64	2.33	
2082.00	2.690	114.890	2081.89	-12.12	-11.92	8.48	2089156.48	134866.08	2.69	
2114.00	3.490	114.220	2113.84	-12.87	-12.64	10.05	2089158.05	134865.36	2.50	
2145.00	4.330	113.180	2144.77	-13.77	-13.48	11.98	2089159.98	134864.52	2.72	
2177.00	5.130	114.610	2176.66	-14.90	-14.56	14.39	2089162.39	134863.44	2.53	
2208.00	5.870	113.400	2207.52	-16.17	-15.76	17.11	2089165.11	134862.24	2.42	
2240.00	5.650	114.480	2239.36	-17.54	-17.06	20.04	2089168.04	134860.93	0.77	
2272.00	5.880	113.650	2271.19	-18.92	-18.38	22.98	2089170.98	134859.62	0.76	
2303.00	6.460	113.890	2302.01	-20.33	-19.72	26.03	2089174.03	134858.28	1.87	
2335.00	6.650	116.690	2333.81	-21.97	-21.28	29.33	2089177.33	134856.72	1.16	
2366.00	6.550	120.830	2364.60	-23.76	-22.99	32.45	2089180.45	134855.01	1.57	
2398.00	6.120	123.530	2396.41	-25.71	-24.87	35.44	2089183.44	134853.13	1.63	
2429.00	6.250	125.630	2427.22	-27.67	-26.77	38.19	2089186.19	134851.23	0.84	
2461.00	6.630	126.830	2459.02	-29.86	-28.89	41.08	2089189.09	134849.11	1.26	
2492.00	6.770	125.000	2489.81	-32.05	-31.01	44.01	2089192.01	134846.99	0.82	
2523.00	7.180	126.590	2520.58	-34.33	-33.21	47.06	2089195.07	134844.79	1.46	
2555.00	7.270	125.030	2552.33	-36.76	-35.57	50.33	2089198.33	134842.43	0.67	
2586.00	7.640	127.470	2583.07	-39.21	-37.94	53.57	2089201.57	134840.05	1.57	
2618.00	8.190	127.480	2614.76	-41.98	-40.63	57.07	2089205.07	134837.37	1.72	
2649.00	7.320	129.620	2645.48	-44.66	-43.23	60.34	2089208.34	134834.77	2.96	
2680.00	6.420	128.980	2676.25	-47.08	-45.58	63.21	2089211.21	134832.42	2.91	
2712.00	7.190	125.990	2708.03	-49.45	-47.88	66.22	2089214.22	134830.12	2.65	
2776.00	7.260	124.620	2771.52	-54.26	-52.53	72.79	2089220.79	134825.47	0.29	
2807.00	7.570	125.060	2802.26	-56.62	-54.82	76.07	2089224.08	134823.18	1.02	
2839.00	8.130	127.390	2833.96	-59.29	-57.40	79.60	2089227.60	134820.59	2.01	
2870.00	8.270	127.290	2864.64	-62.05	-60.08	83.11	2089231.12	134817.91	0.45	
2965.00	7.680	128.300	2958.72	-70.37	-68.16	93.53	2089241.53	134809.84	0.64	
3061.00	7.500	130.050	3053.88	-78.61	-76.17	103.36	2089251.36	134801.83	0.31	
3156.00	7.520	128.610	3148.07	-86.71	-84.03	112.96	2089260.97	134793.96	0.20	



# Actual Wellpath Report

Sandridge 4J Ranch 3408 3-33H (Unit 310)\_Final Surveys.  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Sandridge Energy	Slot	4J Ranch 3408 3-33H (Unit 310)
Area	Kansas	Well	SL (220 FSL, 1715 FWL) Sec 33
Field	Harper County, Kansas (Sandridge Energy) NAD27 / Grid	Wellbore	Actual 4J Ranch 3408 3-33H
Facility	4J Ranch 3408 3-33H Sec 33-34S8W		

WELLPATH DATA (141 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
3250.00	7.430	126.530	3241.27	-94.40	-91.49	122.65	2089270.66	134786.51	0.30	
3345.00	7.260	126.970	3335.49	-101.89	-98.76	132.38	2089280.39	134779.24	0.19	
3440.00	7.440	127.590	3429.71	-109.48	-106.12	142.05	2089290.06	134771.88	0.21	
3535.00	8.000	127.410	3523.85	-117.49	-113.89	152.18	2089300.19	134764.11	0.59	
3630.00	7.450	128.940	3617.99	-125.62	-121.77	162.22	2089310.23	134756.22	0.62	
3725.00	7.340	125.350	3712.20	-133.23	-129.16	171.96	2089319.97	134748.84	0.50	
3820.00	7.530	124.500	3806.40	-140.51	-136.19	182.04	2089330.05	134741.80	0.23	
3914.00	7.620	123.040	3899.58	-147.64	-143.08	192.34	2089340.35	134734.91	0.23	
3946.00	7.360	119.400	3931.30	-149.88	-145.24	195.90	2089343.91	134732.75	1.69	
4009.00	7.250	97.970	3993.81	-152.59	-147.77	203.36	2089351.37	134730.22	4.30	
4041.00	8.110	79.920	4025.52	-152.58	-147.66	207.58	2089355.59	134730.33	7.96	
4072.00	9.090	64.440	4056.18	-151.24	-146.22	211.94	2089359.95	134731.77	8.08	
4104.00	10.100	54.640	4087.73	-148.64	-143.50	216.51	2089364.52	134734.49	5.99	
4136.00	11.380	44.800	4119.17	-144.88	-139.64	221.03	2089369.04	134738.35	6.97	
4167.00	13.570	32.900	4149.44	-139.76	-134.42	225.16	2089373.17	134743.58	10.86	
4199.00	15.810	25.140	4180.40	-132.76	-127.32	229.05	2089377.06	134750.68	9.30	
4231.00	18.890	22.630	4210.94	-124.12	-118.59	232.90	2089380.91	134759.41	9.90	
4262.00	21.770	22.370	4240.01	-114.27	-108.64	237.02	2089385.03	134769.36	9.29	
4294.00	23.480	22.430	4269.54	-103.01	-97.25	241.71	2089389.72	134780.74	5.34	
4326.00	24.990	22.950	4298.72	-91.01	-85.14	246.77	2089394.79	134792.86	4.77	
4357.00	26.540	22.890	4326.64	-78.73	-72.73	252.02	2089400.03	134805.27	5.00	
4389.00	28.320	22.060	4355.04	-65.25	-59.10	257.65	2089405.67	134818.89	5.69	
4420.00	30.440	19.600	4382.05	-51.17	-44.89	263.05	2089411.06	134833.11	7.87	
4452.00	32.210	16.440	4409.39	-35.47	-29.07	268.18	2089416.20	134848.93	7.55	
4484.00	34.480	13.150	4436.12	-18.58	-12.07	272.66	2089420.67	134865.93	9.07	
4515.00	36.600	9.660	4461.35	-1.01	5.59	276.21	2089424.22	134883.59	9.46	
4546.00	38.570	7.250	4485.91	17.61	24.29	278.98	2089426.99	134902.29	7.93	
4578.00	40.390	5.200	4510.61	37.78	44.52	281.18	2089429.19	134922.52	6.99	
4609.00	42.560	3.290	4533.84	58.21	64.99	282.69	2089430.70	134942.99	8.10	
4641.00	44.800	2.120	4556.98	80.25	87.06	283.73	2089431.74	134965.07	7.44	
4673.00	46.900	1.020	4579.27	103.18	110.01	284.35	2089432.37	134988.02	7.01	
4704.00	49.950	0.580	4599.84	126.35	133.20	284.67	2089432.69	135011.20	9.90	
4736.00	52.540	0.470	4619.87	151.29	158.15	284.90	2089432.92	135036.16	8.10	
4767.00	54.720	0.400	4638.25	176.24	183.11	285.09	2089433.11	135061.12	7.03	
4798.00	56.810	0.410	4655.69	201.85	208.73	285.27	2089433.29	135086.74	6.74	
4830.00	59.450	0.360	4672.58	229.01	235.91	285.46	2089433.47	135113.92	8.25	
4862.00	62.000	0.320	4688.23	256.91	263.82	285.62	2089433.64	135141.83	7.97	
4893.00	65.220	0.260	4702.01	284.67	291.58	285.76	2089433.78	135169.60	10.39	
4925.00	68.140	359.820	4714.67	314.04	320.97	285.78	2089433.79	135198.98	9.21	
4956.00	70.870	359.450	4725.53	343.07	350.00	285.59	2089433.61	135228.02	8.88	
4988.00	73.970	359.000	4735.19	373.57	380.50	285.18	2089433.20	135258.52	9.78	
5020.00	76.580	358.920	4743.32	404.52	411.44	284.62	2089432.63	135289.46	8.16	
5051.00	78.600	358.710	4749.99	434.79	441.71	283.99	2089432.01	135319.73	6.55	
5083.00	81.040	358.170	4755.64	466.28	473.19	283.13	2089431.15	135351.21	7.80	
5114.00	83.060	357.890	4759.93	496.98	503.87	282.08	2089430.09	135381.90	6.58	



# Actual Wellpath Report

Sandridge 4J Ranch 3408 3-33H (Unit 310)\_Final Surveys.  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Sandridge Energy	Slot	4J Ranch 3408 3-33H (Unit 310)
Area	Kansas	Well	SL (220 FSL, 1715 FWL) Sec 33
Field	Harper County, Kansas (Sandridge Energy) NAD27 / Grid	Wellbore	Actual 4J Ranch 3408 3-33H
Facility	4J Ranch 3408 3-33H Sec 33-34S8W		

WELLPATH DATA (141 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
5146.00	84.980	357.650	4763.26	528.80	535.67	280.84	2089428.86	135413.70	6.05	
5241.00	85.100	357.200	4771.48	623.43	630.22	276.59	2089424.60	135508.25	0.49	
5336.00	85.470	357.300	4779.28	718.08	724.79	272.05	2089420.06	135602.83	0.40	
5430.00	85.720	357.240	4786.50	811.77	818.41	267.58	2089415.60	135696.45	0.27	
5462.00	86.580	357.250	4788.65	843.69	850.30	266.05	2089414.06	135728.34	2.69	
5484.00	88.210	357.250	4789.65	865.66	872.25	264.99	2089413.01	135750.29	7.41	
5532.00	90.690	356.950	4790.11	913.64	920.18	262.57	2089410.58	135798.23	5.20	
5593.00	90.560	357.270	4789.45	974.61	981.10	259.49	2089407.50	135859.15	0.57	
5688.00	90.930	357.470	4788.21	1069.58	1075.99	255.13	2089403.14	135954.05	0.44	
5783.00	90.740	356.730	4786.83	1164.54	1170.86	250.33	2089398.34	136048.92	0.80	
5878.00	90.460	356.810	4785.83	1259.48	1265.70	244.97	2089392.99	136143.77	0.31	
5972.00	91.040	358.030	4784.60	1353.45	1359.60	240.74	2089388.75	136237.67	1.44	
6068.00	90.160	358.310	4783.60	1449.44	1455.54	237.68	2089385.69	136333.62	0.96	
6162.00	91.020	357.830	4782.63	1543.43	1549.48	234.51	2089382.52	136427.56	1.05	
6257.00	91.020	357.960	4780.94	1638.41	1644.40	231.02	2089379.03	136522.49	0.14	
6352.00	91.660	359.770	4778.72	1733.38	1739.35	229.14	2089377.15	136617.44	2.02	
6446.00	92.160	359.120	4775.58	1827.31	1833.30	228.23	2089376.24	136711.39	0.87	
6541.00	91.420	358.700	4772.62	1922.27	1928.23	226.42	2089374.44	136806.33	0.90	
6635.00	90.430	357.810	4771.10	2016.25	2022.17	223.56	2089371.57	136900.28	1.42	
6730.00	89.570	357.340	4771.10	2111.23	2117.09	219.54	2089367.55	136995.20	1.03	
6825.00	89.810	358.450	4771.61	2206.22	2212.02	216.05	2089364.06	137090.13	1.20	
6920.00	90.000	358.680	4771.77	2301.22	2306.99	213.67	2089361.69	137185.11	0.31	
7014.00	93.630	358.010	4768.79	2395.16	2400.89	210.96	2089358.97	137279.01	3.93	
7109.00	92.660	357.250	4763.58	2490.00	2495.66	207.04	2089355.05	137373.79	1.30	
7204.00	92.800	357.340	4759.06	2584.86	2590.45	202.56	2089350.57	137468.58	0.18	
7299.00	92.610	357.390	4754.57	2679.74	2685.24	198.20	2089346.21	137563.38	0.21	
7362.00	91.500	357.930	4752.31	2742.68	2748.15	195.63	2089343.64	137626.29	1.96	
7394.00	91.570	356.870	4751.46	2774.67	2780.10	194.18	2089342.19	137658.24	3.32	
7489.00	92.500	356.920	4748.08	2869.56	2874.90	189.03	2089337.04	137753.05	0.98	
7552.00	90.250	358.010	4746.57	2932.52	2937.82	186.25	2089334.26	137815.97	3.97	
7584.00	91.210	358.340	4746.16	2964.52	2969.80	185.23	2089333.24	137847.95	3.17	
7679.00	90.400	358.350	4744.83	3059.51	3064.75	182.49	2089330.50	137942.91	0.85	
7774.00	90.370	357.800	4744.19	3154.50	3159.69	179.30	2089327.30	138037.85	0.58	
7869.00	89.200	357.800	4744.55	3249.49	3254.62	175.65	2089323.66	138132.79	1.23	
7964.00	89.110	357.730	4745.95	3344.47	3349.54	171.94	2089319.95	138227.71	0.12	
8059.00	88.110	358.450	4748.25	3439.43	3444.45	168.78	2089316.79	138322.63	1.30	
8153.00	88.180	358.400	4751.30	3533.38	3538.37	166.20	2089314.21	138416.55	0.09	
8249.00	88.640	358.380	4753.96	3629.35	3634.29	163.50	2089311.51	138512.48	0.48	
8344.00	88.630	358.270	4756.22	3724.32	3729.23	160.72	2089308.73	138607.42	0.12	
8439.00	87.540	357.850	4759.40	3819.26	3824.12	157.51	2089305.52	138702.31	1.23	
8534.00	88.160	358.200	4762.96	3914.19	3918.99	154.24	2089302.25	138797.19	0.75	
8628.00	89.230	358.020	4765.10	4008.16	4012.92	151.14	2089299.15	138891.12	1.15	
8723.00	90.550	358.770	4765.28	4103.15	4107.88	148.48	2089296.49	138986.09	1.60	
8818.00	92.010	359.770	4763.16	4198.12	4202.84	147.27	2089295.28	139081.06	1.86	
8913.00	92.020	0.150	4759.82	4293.04	4297.78	147.20	2089295.21	139176.00	0.40	



# Actual Wellpath Report

Sandridge 4J Ranch 3408 3-33H (Unit 310)\_Final Surveys.  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Sandridge Energy	Slot	4J Ranch 3408 3-33H (Unit 310)
Area	Kansas	Well	SL (220 FSL, 1715 FWL) Sec 33
Field	Harper County, Kansas (Sandridge Energy) NAD27 / Grid	Wellbore	Actual 4J Ranch 3408 3-33H
Facility	4J Ranch 3408 3-33H Sec 33-34S8W		

WELLPATH DATA (141 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
9007.00	88.670	357.980	4759.26	4387.01	4391.75	145.67	2089293.68	139269.97	4.25	
9102.00	88.730	358.410	4761.41	4481.98	4486.68	142.68	2089290.68	139364.91	0.46	
9197.00	88.720	358.960	4763.53	4576.96	4581.63	140.50	2089288.50	139459.86	0.58	
9292.00	88.100	357.390	4766.16	4671.92	4676.54	137.47	2089285.48	139554.78	1.78	
9309.00	88.300	357.160	4766.70	4688.90	4693.51	136.67	2089284.67	139571.75	1.79	
9352.00	88.300	357.160	4767.97	4731.87	4736.44	134.54	2089282.54	139614.68	0.00	Actual BHL 9352 MD (4768 TVD) X:2089283 Y:139615 VS:4732 340 FNL 1963 FWL

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
4J Ranch 3408 3-33H BHL		4718.90	4746.76	151.99	2089300.00	139625.00	37°02'59.000"N	98°11'38.525"W	point

WELLPATH COMPOSITION - Ref Wellbore: Actual 4J Ranch 3408 3-33H Ref Wellpath: AWP (Final)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	785.00	EMS (Standard)	Rig Surveys	Actual 4J Ranch 3408 3-33H
785.00	9309.00	NaviTrak (Standard)	Inteq MWD	Actual 4J Ranch 3408 3-33H
9309.00	9352.00	Blind Drilling (std)	Projection to bit	Actual 4J Ranch 3408 3-33H



Section 29  
34S 8W

Section 28  
34S 8W

1969' FWL

353' FNL

BHL: 9352'  
-98.194439 37.049718

Bottom Perf: 8954'  
-98.194401 37.048513

Section 32  
34S 8W

Section 33  
34S 8W

Harper County

Top Perf: 5532'  
-98.194043 37.039236

Miss Entry: 4899  
-98.193971 37.03751

4J RANCH 3408 2-33H

4J RANCH 3408 3-33H

4J RANCH 3408 1-33H



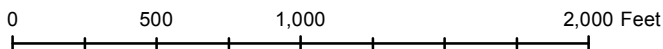
Section 5  
35S 8W

Section 4  
35S 8W



Actual Bottom-Hole Location of 4J Ranch 3408 3-33H  
Harper County, Kansas  
T&R: 34S 8W  
Section: 33, 1969' FWL & 353' FNL  
-98.194439 37.049718

1 in = 667 ft



● Actual BH Location

\* SandRidge Wells

--- Perf

□ Sections

Draftsman:

Aaron Birk

Draft Date: 9/20/2013

Drawing Name/Number:

Addendum\_4J Ranch 3408 3-33H.mxd

Coordinate System:

NAD 1927 State Plane  
Kansas South FIPS: 1502