



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1131153
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: _____



1131153

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
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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> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Rock 3319 1-16H
Doc ID	1131153

All Electric Logs Run

Mud Log
Density
Boresight
Induction

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Rock 3319 1-16H
Doc ID	1131153

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	8978-9240	4224 bbls water, 36 bbls acid, 75M lbs sd, 4364 TLTR	
5	8594-8880	4218 bbls water, 36 bbls acid, 75M lbs sd, 8736 TLTR	
5	8096-8456	4210 bbls water, 36 bbls acid, 75M lbs sd, 13194 TLTR	
5	7638-8008	4203 bbls water, 36 bbls acid, 75M lbs sd	
5	7218-7565	4196 bbls water, 36 bbls acid, 75M lbs sd, 23302 TLTR	
5	6835-7108	4190 bbls water, 36 bbls acid, 75M lbs sd, 27730 TLTR	
5	6492-6746	4185 bbls water, 36 bbls acid, 75M lbs sd, 32079 TLTR	
5	6123-6422	4179 bbls water, 36 bbls acid, 75M lbs sd, 36381 TLTR	
5	5838-6060	4175 bbls water, 36 bbls acid, 75M lbs sd, 40901 TLTR	
5	5523-5780	4170 bbls water, 36 bbls acid, 75M lbs sd, 45169 TLTR	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Rock 3319 1-16H
Doc ID	1131153

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	130	Pro Oilfield Services 10 sack grout	12	none
Surface	17.5	13.38	68	329	Halliburton Extendacem and Swiftcem Systems and CMT- Standard Cement	695	3% Calcium Chloride, .25 lbm Poly-E- Flake
Intermediate 1	12.25	9.63	36	960	Halliburton Extendacem and Swiftcem Systems	450	3% Calcium Chloride, .25 lbm Poly-E- Flake
Intermediate 2	8.75	7	26	5795	Halliburton Econocem and Halcem Systems	300	.4% Halad(R)- 9, 2 lbm Kol-Seal, 2% Bentonite
Production Liner	6.125	4.5	11.6	9615	Halliburton Econocem System	500	5 lbm Kol- Seal, .25% SA-1015, .2% CFR- 3

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

April 02, 2013

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

Re: ACO1
API 15-033-21696-01-00
Rock 3319 1-16H
SW/4 Sec.16-33S-19W
Comanche 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

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	4/18/2013
Job End Date:	4/21/2013
State:	Kansas
County:	Comanche
API Number:	15-033-21696-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Rock 3319 1-16H
Longitude:	-99.39640000
Latitude:	37.16430000
Datum:	NAD27
Federal/Tribal Well:	NO
Total Base Water Volume (gal):	1,818,133
Total Base Non Water Volume:	



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	Sandridge Energy Corp	Carrier / Base Fluid					
			Carrier / Base Fluid - Water	7732-18-5	100.00000	94.32849	
40/70 Premium	WFT	Proppant					
			Crystalline Silica in the form of Quartz	14808-60-7	100.00000	4.67113	
15% HCL	WFT	Acid					
			Hydrochloric Acid	7647-01-0	15.00000	0.11384	
WNE-363L	WFT	Surfactant					
			Ethylene/Propylene Oxide Polymer	9003-11-6	30.00000	0.01405	
			Dodecylbenzenesulfonic acid, monoethanolamine salt	26836-07-7	15.00000	0.00703	
			2-Ethylhexanol	104-76-7	7.00000	0.00328	
			Poly(oxy-1,2-ethanediyl), a-isotridecyl-w-hydroxy-	9043-30-5	5.00000	0.00234	
28% HCL	WFT	Acid					
			Hydrochloric Acid	7647-01-0	28.00000	0.02506	
WSI-671L	WFT	Inhibitor					
			Ammonium Chloride	12125-02-9	20.00000	0.00590	
WAI-251LC	WFT	Inhibitor					
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	10.00000		
			Ethylene Glycol	111-76-2	40.00000		

			N,N-Dimethylformamide	68-12-2	20.00000		
			2-Butoxyethanol	111-76-2	10.00000		
			Isopropyl Alcohol	67-63-0	5.00000		
			Ethoxylated Nonylphenol	68412-54-4	5.00000		
			Triethylphosphate	78-40-0	5.00000		
			1-Octanol	111-87-5	5.00000		
			1-Decanol	112-30-1	5.00000		
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					
			Proprietary Ingredient	Proprietary		0.06045	
			Anionic water soluble polymer	Proprietary		0.02267	
			Amines, polyethylenepoly-, ethoxylated, phosphonomethylated	68966-36-9		0.01180	
			Cinnamaldehyde	104-55-2			
			Dioxane	123-91-1			
			Acetaldehyde	75-07-0			
			Ethylene Oxide	75-21-8			

* 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)



P.O. BOX 3680
HOUMA, LA 70381-3680

Customer : SAN400

BILL TO : SANDRIDGE ENERGY
123 ROBERT S KERR AVENUE
OKLAHOMA CITY, OK 73102-6408
PHONE: (405) 753-6500 FAX: ()

Division : 0701
Delivery Ticket : 4481
Delivery Date : 3/11/2013
Office : 12/1/1901

Inv. 12375

Ordered By :
Lease/Well : ROCK 3319 1-16H
Rig Name/Number : LARIAT 41
AFE Number :
Site Contact :

Qty	Description	Min / Standby / Usage Charge	Add Day	Unit Price	Start Date / Stop Date	Extended Line Total
1	ROCK 3319 1-16H	\$21,250.00	\$0.00	\$21,250.00	3/10/2013 / 3/10/2013	\$21,250.00
120	DRILLED 30" CONDUCTOR HOLE	\$0.00	\$0.00	\$0.00	3/10/2013 / 3/10/2013	
120	20" CONDUCTOR PIPE (.250 WALL)	\$0.00	\$0.00	\$0.00	3/10/2013 / 3/10/2013	
1	6'X8' CELLAR TINHORN WITH PROTECTIVE RING	\$0.00	\$0.00	\$0.00	3/10/2013 / 3/10/2013	
1	DRILL & INSTALL 6'X8' CELLAR TINHORN	\$0.00	\$0.00	\$0.00	3/10/2013 / 3/10/2013	
80	DRILLED 20" MOUSE HOLE (PER FOOT)	\$0.00	\$0.00	\$0.00	3/10/2013 / 3/10/2013	
80	16" CONDUCTOR PIPE (.250 WALL)	\$0.00	\$0.00	\$0.00	3/10/2013 / 3/10/2013	
1	MOBILIZATION OF EQUIPMENT & ROAD PERMITTING FEE	\$0.00	\$0.00	\$0.00	3/10/2013 / 3/10/2013	
1	WELDING SERVICES FOR PIPE & LIDS	\$0.00	\$0.00	\$0.00	3/10/2013 / 3/10/2013	
1	PROVIDED EQUIPMENT & LABOR FOR DIRT REMOVAL	\$0.00	\$0.00	\$0.00	3/10/2013 / 3/10/2013	
1	PROVIDED METAL LIDS (1 FOR CONDUCTOR & 2 FOR THE MOUSEHOLE PIPE)	\$0.00	\$0.00	\$0.00	3/10/2013 / 3/10/2013	
12	CEMENT 10 SACK GROUT	\$0.00	\$0.00	\$0.00	3/10/2013 / 3/10/2013	

Sub Total: \$21,250.00 \$0.00 \$21,250.00

AFE Number: DC12155
Well Name: Rock 3319 1-16H
Code: 860.010
Amount: \$21,250.00
Co. Man: Carl Miller
Co. Man Sig.: [Signature]
Notes: _____

Print Name

Signature

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MAR 22 2013

HALLIBURTON

Cementing Job Summary

REGULATORY DEPT
The Road to Excellence Starts with Safety

Sold To #: 305021	Ship To #: 2986450	Quote #:	Sales Order #: 900294427
Customer: SANDRIDGE ENERGY INC EBUSINESS		Customer Rep: , Quincy	
Well Name: Rock 3319	Well #: 1-16H	API/UWI #:	
Field:	City (SAP): PROTECTION	County/Parish: Comanche	State: Kansas
Contractor: Lariat		Rig/Platform Name/Num: 41	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: FRENCH, JEREMY		Srvc Supervisor: RODRIGUEZ, EDGAR	MBU ID Emp #: 442125

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
AGUILERA, FABIAN J	11.5	442123	HEIDT, JAMES Nicholas	11.5	517102	NASH, ANDREW Mark	10.5	536983
RAMIREZ, JORGE	9	498481	REEVES, SCOTT L	20.5	518947	RODRIGUEZ, EDGAR Alejandro	9	442125
TORRES, CLEMENTE	3	344233						

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
3/16/2013	1	1	3/17/2013	19.5	6			

TOTAL Total is the sum of each column separately

Job

Job Times

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
Formation Depth (MD)			On Location	16 - Mar - 2013	18:00	CST
Form Type		BHST	Job Started	16 - Mar - 2013	22:30	CST
Job depth MD	339. ft	Job Depth TVD	Job Completed	17 - Mar - 2013	00:56	CST
Water Depth		Wk Ht Above Floor	Departed Loc	17 - Mar - 2013	17:31	CST
Perforation Depth (MD)	From	To		17 - Mar - 2013	19:40	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
17.5" Open Hole				17.5					341.		
13.375" Water String	Unknown		13.375	12.415	68.	BTC	N-80		340.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG,BOT,13 3/8,HWE,11.79 MIN/12.72	1	EA		

Tools and Accessories

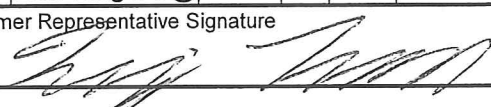
Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug	13 3/8	1	HES
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	13 3/8	1	HES
Stage Tool										Centralizers			

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 ³ /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	Lead Cement	EXTENDACEM (TM) SYSTEM (452981)	150.0	sacks	12.4	2.11	11.57		11.57
	3 %	CALCIUM CHLORIDE, PELLETT, 50 LB (101509387)							
	0.25 lbm	POLY-E-FLAKE (101216940)							
	11.571 Gal	FRESH WATER							
3	Tail Cement	SWIFTCEM (TM) SYSTEM (452990)	115.0	sacks	15.6	1.2	5.32		5.32
	2 %	CALCIUM CHLORIDE, PELLETT, 50 LB (101509387)							
	0.125 lbm	POLY-E-FLAKE (101216940)							
	5.319 Gal	FRESH WATER							
4	Displacement		45.00	bbl	8.33	.0	.0	.0	
5	400SKS W/CC ON THE SIDE	CMT - STANDARD CEMENT (100003684)	430.0	sacks	15.6	1.2	5.26		5.26
	94 lbm	CMT - STANDARD - CLASS A REG OR TYPE I, BULK (100003684)							
	2 %	CALCIUM CHLORIDE, PELLETT, 50 LB (101509387)							
	5.258 Gal	FRESH WATER							
Calculated Values		Pressures			Volumes				
Displacement	45	Shut In: Instant		Lost Returns		Cement Slurry	184	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	topout	Actual Displacement	45	Treatment	
Frac Gradient		15 Min		Spacers	10	Load and Breakdown		Total Job	239
Rates									
Circulating	5	Mixing	5	Displacement	5	Avg. Job	5		
Cement Left In Pipe	Amount	42 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
The Information Stated Herein Is Correct				Customer Representative Signature 					

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MAR 22 2013

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 305021	Ship To #: 2986450	Quote #:	Sales Order #: 900294102
Customer: SANDRIDGE ENERGY INC EBUSINESS		Customer Rep: ., Quincy	
Well Name: Rock 3319	Well #: 1-16H	API/UWI #: 15-033-21696	
Field:	City (SAP): PROTECTION	County/Parish: Comanche	State: Kansas
Legal Description: Section 16 Township 33S Range 19W			
Contractor: Lariat		Rig/Platform Name/Num: 41	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: FRENCH, JEREMY		Srcv Supervisor: RODRIGUEZ, EDGAR MBU ID Emp #: 442125	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
JOHNSON, MATTHEW Warren	6	525955	RAMIREZ, JORGE	6	498481	RODRIGUEZ, EDGAR Alejandro	6	442125
SPENCE, PAT	6	534792						

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
3/18/2013	3	1	3/19/2013	3	2			
TOTAL			Total is the sum of each column separately					

Job

Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
					18 - Mar - 2013	13:00	CST
Form Type			BHST	On Location	18 - Mar - 2013	18:00	CST
Job depth MD	965.9 ft		Job Depth TVD	960. ft	Job Started	18 - Mar - 2013	23:57
Water Depth			Wk Ht Above Floor	5. ft	Job Completed	19 - Mar - 2013	01:05
Perforation Depth (MD)	From		To		Departed Loc	19 - Mar - 2013	02:50

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				90.	1000.		
9.625" Surface Casing	Unknown		9.625	8.921	36.	LTC	J-55	.	1000.		
Preset Conductor	Unknown		20.	19.124	94.			.	90.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG, TOP, 9 5/8, HW, 8.16 MIN/9.06 MA	1	EA		

Tools and Accessories


Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug	9 5/8	1	HES
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	9 5/8	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 ³ /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	Lead Cement	EXTENDACEM (TM) SYSTEM (452981)	285.0	sacks	12.4	2.11	11.57		11.57
	3 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
	0.25 lbm	POLY-E-FLAKE (101216940)							
	11.571 Gal	FRESH WATER							
3	Tail Cement	SWIFTCEM (TM) SYSTEM (452990)	165.0	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		71.00	bbl	8.33	.0	.0	.0	
Calculated Values		Pressures			Volumes				
Displacement	71	Shut In: Instant		Lost Returns		Cement Slurry	142	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	70	Actual Displacement	71	Treatment	
Frac Gradient		15 Min		Spacers	10	Load and Breakdown		Total Job	223
Rates									
Circulating	5	Mixing	5	Displacement	5	Avg. Job	5		
Cement Left In Pipe	Amount	46.09 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
The Information Stated Herein Is Correct				Customer Representative Signature 					

The Road to Excellence Starts with Safety

Sold To #: 305021	Ship To #: 2986450	Quote #:	Sales Order #: 900309982
Customer: SANDRIDGE ENERGY INC EBUSINESS		Customer Rep:	
Well Name: Rock 3319	Well #: 1-16H	API/UWI #: 15-033-21696	
Field:	City (SAP): PROTECTION	County/Parish: Comanche	State: Kansas
Legal Description: Section 16 Township 33S Range 19W			
Contractor: Lariat		Rig/Platform Name/Num: 41	
Job Purpose: Cement Intermediate Casing			
Well Type: Development Well		Job Type: Cement Intermediate Casing	
Sales Person: FRENCH, JEREMY		Srvc Supervisor: VILLARREAL, ARTURO	MBU ID Emp #: 106127

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
DALRYMPLE, BRIAN Kieth	11	456242	JOHNSON, MATTHEW Warren	11	525955	VILLARREAL, ARTURO	11	106127

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10924982	70 mile	10998524	70 mile	11706673	70 mile	11749437	70 mile
11808729	70 mile						

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
3-25-13	4	0	3-26-13	7	2.5			

TOTAL Total is the sum of each column separately

Job

Job Times

Formation Name	Formation Depth (MD) Top	Bottom	Called Out	Date	Time	Time Zone
			On Location	25 - Mar - 2013	14:00	CST
Form Type		BHST	On Location	25 - Mar - 2013	20:00	CST
Job depth MD	5842. ft	Job Depth TVD	Job Started	26 - Mar - 2013	01:00	CST
Water Depth		Wk Ht Above Floor	Job Completed	26 - Mar - 2013	04:40	CST
Perforation Depth (MD) From		To	Departed Loc	26 - Mar - 2013	07:00	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				1000.	5842.		
7" Intermediate Casing	Unknown		7.	6.276	26.	LTC	P-110	.	5842.		
9.625" Surface Casing	Unknown		9.625	8.921	36.	LTC	J-55	.	1000.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG, TOP, 7, HWE, 5.66 MIN/6.54 MAX CS	1	EA		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
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 ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Rig Supplied Gel Spacer		30.00	bbl	8.33	.0	.0	.0	
2	Lead Cement	ECONOCEM (TM) SYSTEM (452992)	200.0	sacks	13.6	1.53	7.24		7.24
	0.4 %	HALAD(R)-9, 50 LB (100001617)							
	2 lbm	KOL-SEAL, BULK (100064233)							
	2 %	BENTONITE, BULK (100003682)							
	7.24 Gal	FRESH WATER							
3	Tail Cement	HALCEM (TM) SYSTEM (452986)	100.0	sacks	15.6	1.19	5.08		5.08
	0.4 %	HALAD(R)-9, 50 LB (100001617)							
	2 lbm	KOL-SEAL, BULK (100064233)							
	5.076 Gal	FRESH WATER							
4	Displacement		218.00	bbl	8.33	.0	.0	.0	
Calculated Values		Pressures		Volumes					
Displacement	218	Shut In: Instant		Lost Returns	NO	Cement Slurry	75	Pad	
Top Of Cement	3125	5 Min		Cement Returns	NO	Actual Displacement	218	Treatment	
Frac Gradient		15 Min		Spacers	30	Load and Breakdown		Total Job	
Rates									
Circulating		Mixing	5	Displacement	7	Avg. Job			5
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		
The Information Stated Herein Is Correct				Customer Representative Signature					

The Road to Excellence Starts with Safety

Sold To #: 305021	Ship To #: 2986450	Quote #:	Sales Order #: 900328475
Customer: SANDRIDGE ENERGY INC EBUSINESS		Customer Rep: Hill, Richard	
Well Name: Rock 3319	Well #: 1-16H	API/UWI #: 15-033-21696	
Field:	City (SAP): PROTECTION	County/Parish: Comanche	State: Kansas
Legal Description: Section 16 Township 33S Range 19W			
Contractor: Lariat	Rig/Platform Name/Num: 41		
Job Purpose: Cement Production Liner			
Well Type: Development Well		Job Type: Cement Production Liner	
Sales Person: FRENCH, JEREMY	Srvc Supervisor: AGUILERA, FABIAN	MBU ID Emp #: 442123	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
AGUILERA, FABIAN J	13	442123	HEIDT, JAMES Nicholas	13	517102	NASH, ANDREW Mark	13	536983
TORRES, CLEMENTE	13	344233						

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
4/1/2013	13	1.5						
TOTAL			<i>Total is the sum of each column separately</i>					

Job

Job Times

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
Formation Depth (MD)			On Location	01 - Apr - 2013	00:00	CST
Form Type	BHST		Job Started	01 - Apr - 2013	04:00	CST
Job depth MD	9646.3 ft	Job Depth TVD	5380. ft	Job Started	01 - Apr - 2013	12:30
Water Depth		Wk Ht Above Floor	30. ft	Job Completed	01 - Apr - 2013	14:08
Perforation Depth (MD)	From	To	Departed Loc	01 - Apr - 2013	16:00	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
6.125" Open Hole				6.125				5842.	9696.		
4.5" Production Liner	Unknown		4.5	4.	11.6	LTC	N-80	5435.	9696.		
7" Intermediate Casing	Unknown		7.	6.276	26.	LTC	P-110	.	5842.		
4" Drill Pipe	Unknown		4.	3.34	14.	Unknown		.	5435.		

Tools and Accessories

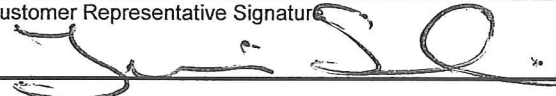
Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

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 ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Rig Supplied Gel Spacer		30.00	bbl	8.5	.0	.0	.0	
2	Primary Cement E923	ECONOCEM (TM) SYSTEM (452992)	500.0	sacks	13.6	1.5	6.76		6.76
	5 lbm	KOL-SEAL, BULK (100064233)							
	0.25 %	SA-1015, 50 LB SACK (102077046)							
	0.2 %	CFR-3, W/O DEFOAMER, 50 LB SK (100003653)							
	6.756 Gal	FRESH WATER							
3	Displacement		114.00	bbl	8.33	.0	.0	.0	
Calculated Values			Pressures			Volumes			
Displacement	113.74 BBL	Shut In: Instant		Lost Returns	NO	Cement Slurry	134 BBL	Pad	
Top Of Cement	2376 FT.	5 Min		Cement Returns	NO	Actual Displacement	114	Treatment	
Frac Gradient		15 Min		Spacers	30 BBL	Load and Breakdown		Total Job	
Rates									
Circulating	5	Mixing	5	Displacement	6	Avg. Job	5		
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		
The Information Stated Herein Is Correct				Customer Representative Signature 					

Sandridge Energy, INC.(mid-con.)

Comanche County (KS27S)

Sec 16-T33S-R19W

Rock 3319 1-16H/ Job #04150-431-22/ Lariat 41

Wellbore #1

Design: Wellbore #1

Standard Survey Report

01 April, 2013

Archer Survey Report

Company:	Sandridge Energy, INC.(mid-con.)	Local Co-ordinate Reference:	Well Rock 3319 1-16H/ Job #04150-431-22/ Lariat 41
Project:	Comanche County (KS27S)	TVD Reference:	WELL @ 1997.0usft (Original Well Elev)
Site:	Sec 16-T33S-R19W	MD Reference:	WELL @ 1997.0usft (Original Well Elev)
Well:	Rock 3319 1-16H/ Job #04150-431-22/ Lariat 41	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project Comanche County (KS27S), KS South			
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Kansas South 1502		

Site Sec 16-T33S-R19W			
Site Position:		Northing:	182,272.00 usft
From:	Map	Easting:	1,738,109.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	37° 9' 49.625 N
		Longitude:	99° 23' 55.287 W
		Grid Convergence:	-0.55 °

Well Rock 3319 1-16H/ Job #04150-431-22/ Lariat 41			
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
			182,471.00 usft
			Latitude:
			37° 9' 51.655 N
			Longitude:
			99° 23' 47.183 W
Position Uncertainty		0.0 usft	Wellhead Elevation:
			usft
			Ground Level:
			1,979.0 usft

Wellbore Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2013/03/14	5.36	65.11	51,709

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		359.25

Survey Program Date 2013/04/01					
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
1,038.0	9,615.0	Archer 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	
1,038.0	1.10	67.50	1,037.9	3.8	9.2	3.7	0.11	0.11	0.00	
First Archer MWD Survey										
1,494.0	1.70	67.30	1,493.8	8.1	19.5	7.8	0.13	0.13	-0.04	
1,951.0	1.30	189.30	1,950.7	5.6	24.9	5.3	0.58	-0.09	26.70	
2,408.0	0.70	208.40	2,407.6	-2.0	22.7	-2.3	0.15	-0.13	4.18	
2,864.0	1.20	248.80	2,863.6	-6.2	17.0	-6.4	0.18	0.11	8.86	
3,321.0	1.80	244.10	3,320.4	-11.0	6.0	-11.1	0.13	0.13	-1.03	
3,777.0	2.10	2.10	3,776.3	-5.8	-0.1	-5.8	0.73	0.07	25.88	
4,234.0	0.80	17.80	4,233.1	5.6	1.2	5.6	0.29	-0.28	3.44	

Archer

Survey Report

Company:	Sandridge Energy, INC.(mid-con.)	Local Co-ordinate Reference:	Well Rock 3319 1-16H/ Job #04150-431-22/ Lariat 41
Project:	Comanche County (KS27S)	TVD Reference:	WELL @ 1997.0usft (Original Well Elev)
Site:	Sec 16-T33S-R19W	MD Reference:	WELL @ 1997.0usft (Original Well Elev)
Well:	Rock 3319 1-16H/ Job #04150-431-22/ Lariat 41	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)	
4,389.0	0.90	7.20	4,388.1	7.8	1.7	7.8	0.12	0.06	-6.84	
4,415.0	0.80	12.20	4,414.1	8.2	1.7	8.2	0.48	-0.38	19.23	
4,446.0	1.80	7.00	4,445.1	8.9	1.8	8.9	3.24	3.23	-16.77	
4,476.0	3.60	358.30	4,475.1	10.3	1.9	10.3	6.14	6.00	-29.00	
4,507.0	5.50	352.30	4,506.0	12.8	1.6	12.8	6.31	6.13	-19.35	
4,537.0	7.70	347.90	4,535.8	16.2	1.0	16.2	7.52	7.33	-14.67	
4,568.0	10.20	344.90	4,566.4	20.9	-0.1	20.9	8.20	8.06	-9.68	
4,598.0	12.60	346.60	4,595.8	26.6	-1.6	26.6	8.08	8.00	5.67	
4,629.0	15.40	348.00	4,625.9	33.9	-3.2	34.0	9.10	9.03	4.52	
4,659.0	17.40	348.70	4,654.7	42.2	-4.9	42.3	6.70	6.67	2.33	
4,690.0	19.30	351.10	4,684.1	51.8	-6.6	51.9	6.59	6.13	7.74	
4,720.0	21.10	352.60	4,712.2	62.1	-8.1	62.2	6.24	6.00	5.00	
4,750.0	22.90	354.00	4,740.0	73.2	-9.4	73.4	6.25	6.00	4.67	
4,781.0	24.80	355.20	4,768.4	85.7	-10.6	85.8	6.33	6.13	3.87	
4,811.0	26.80	355.60	4,795.4	98.7	-11.6	98.9	6.69	6.67	1.33	
4,842.0	29.30	356.70	4,822.8	113.3	-12.6	113.4	8.24	8.06	3.55	
4,872.0	30.50	358.40	4,848.8	128.2	-13.2	128.4	4.90	4.00	5.67	
4,903.0	31.20	0.40	4,875.4	144.1	-13.4	144.3	4.01	2.26	6.45	
4,933.0	32.50	0.50	4,900.9	159.9	-13.3	160.1	4.34	4.33	0.33	
4,963.0	33.90	359.80	4,926.0	176.4	-13.2	176.5	4.84	4.67	-2.33	
4,994.0	35.00	359.00	4,951.5	193.9	-13.4	194.1	3.84	3.55	-2.58	
5,024.0	36.60	358.40	4,975.9	211.4	-13.8	211.6	5.46	5.33	-2.00	
5,055.0	39.50	357.10	5,000.3	230.5	-14.6	230.7	9.70	9.35	-4.19	
5,085.0	40.70	356.00	5,023.2	249.8	-15.7	250.0	4.65	4.00	-3.67	
5,116.0	42.50	354.90	5,046.4	270.3	-17.4	270.5	6.27	5.81	-3.55	
5,146.0	44.70	355.50	5,068.1	290.9	-19.1	291.2	7.46	7.33	2.00	
5,177.0	47.80	357.60	5,089.6	313.3	-20.4	313.5	11.13	10.00	6.77	
5,207.0	51.30	358.30	5,109.0	336.1	-21.2	336.4	11.80	11.67	2.33	
5,237.0	52.50	358.40	5,127.5	359.7	-21.9	360.0	4.01	4.00	0.33	
5,268.0	52.90	358.30	5,146.3	384.3	-22.6	384.6	1.32	1.29	-0.32	
5,298.0	53.10	357.70	5,164.4	408.3	-23.5	408.6	1.73	0.67	-2.00	
5,329.0	52.70	357.60	5,183.1	433.0	-24.5	433.3	1.32	-1.29	-0.32	
5,360.0	52.70	357.40	5,201.9	457.6	-25.6	457.9	0.51	0.00	-0.65	
5,390.0	52.70	357.60	5,220.0	481.5	-26.6	481.8	0.53	0.00	0.67	
5,421.0	55.20	358.60	5,238.3	506.5	-27.4	506.8	8.48	8.06	3.23	
5,451.0	58.90	359.10	5,254.6	531.7	-27.9	532.0	12.41	12.33	1.67	
5,482.0	61.80	359.70	5,269.9	558.6	-28.2	558.9	9.50	9.35	1.94	
5,512.0	64.40	0.20	5,283.5	585.4	-28.2	585.7	8.79	8.67	1.67	
5,543.0	66.10	0.50	5,296.5	613.5	-28.1	613.8	5.55	5.48	0.97	
5,573.0	66.50	0.80	5,308.5	641.0	-27.7	641.3	1.62	1.33	1.00	
5,604.0	68.70	1.90	5,320.4	669.6	-27.1	669.9	7.82	7.10	3.55	
5,634.0	70.50	2.50	5,330.8	697.7	-26.0	698.0	6.29	6.00	2.00	

Archer

Survey Report

Company:	Sandridge Energy, INC.(mid-con.)	Local Co-ordinate Reference:	Well Rock 3319 1-16H/ Job #04150-431-22/ Lariat 41
Project:	Comanche County (KS27S)	TVD Reference:	WELL @ 1997.0usft (Original Well Elev)
Site:	Sec 16-T33S-R19W	MD Reference:	WELL @ 1997.0usft (Original Well Elev)
Well:	Rock 3319 1-16H/ Job #04150-431-22/ Lariat 41	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,665.0	72.90	2.50	5,340.5	727.1	-24.7	727.4	7.74	7.74	0.00
5,695.0	76.40	2.20	5,348.5	756.0	-23.5	756.3	11.71	11.67	-1.00
5,726.0	80.10	2.00	5,354.8	786.4	-22.4	786.6	11.95	11.94	-0.65
5,756.0	84.10	1.20	5,358.9	816.1	-21.6	816.3	13.59	13.33	-2.67
5,856.0	90.00	1.30	5,364.1	915.9	-19.4	916.0	5.90	5.90	0.10
5,887.0	90.50	1.00	5,363.9	946.9	-18.8	947.0	1.88	1.61	-0.97
5,917.0	90.70	1.00	5,363.6	976.9	-18.2	977.0	0.67	0.67	0.00
5,947.0	89.10	1.10	5,363.7	1,006.8	-17.7	1,007.0	5.34	-5.33	0.33
5,977.0	89.40	0.90	5,364.1	1,036.8	-17.2	1,037.0	1.20	1.00	-0.67
6,008.0	90.00	0.70	5,364.2	1,067.8	-16.7	1,068.0	2.04	1.94	-0.65
6,039.0	90.50	0.80	5,364.1	1,098.8	-16.3	1,099.0	1.64	1.61	0.32
6,069.0	91.10	0.60	5,363.7	1,128.8	-16.0	1,128.9	2.11	2.00	-0.67
6,099.0	89.10	1.20	5,363.6	1,158.8	-15.5	1,158.9	6.96	-6.67	2.00
6,130.0	88.80	1.30	5,364.2	1,189.8	-14.8	1,189.9	1.02	-0.97	0.32
6,160.0	89.10	1.20	5,364.7	1,219.8	-14.2	1,219.9	1.05	1.00	-0.33
6,191.0	89.40	1.50	5,365.1	1,250.8	-13.4	1,250.9	1.37	0.97	0.97
6,221.0	89.80	1.10	5,365.3	1,280.8	-12.8	1,280.8	1.89	1.33	-1.33
6,252.0	89.90	1.30	5,365.4	1,311.8	-12.1	1,311.8	0.72	0.32	0.65
6,282.0	88.30	1.90	5,365.9	1,341.8	-11.3	1,341.8	5.70	-5.33	2.00
6,313.0	88.40	2.00	5,366.8	1,372.7	-10.2	1,372.7	0.46	0.32	0.32
6,344.0	89.00	1.80	5,367.5	1,403.7	-9.2	1,403.7	2.04	1.94	-0.65
6,374.0	89.20	2.00	5,368.0	1,433.7	-8.2	1,433.7	0.94	0.67	0.67
6,405.0	89.70	1.70	5,368.3	1,464.7	-7.2	1,464.6	1.88	1.61	-0.97
6,435.0	90.20	1.80	5,368.3	1,494.6	-6.3	1,494.6	1.70	1.67	0.33
6,465.0	90.80	1.30	5,368.0	1,524.6	-5.5	1,524.6	2.60	2.00	-1.67
6,495.0	89.70	0.20	5,367.9	1,554.6	-5.1	1,554.6	5.19	-3.67	-3.67
6,526.0	89.70	0.10	5,368.1	1,585.6	-5.0	1,585.6	0.32	0.00	-0.32
6,557.0	90.40	0.30	5,368.0	1,616.6	-4.9	1,616.6	2.35	2.26	0.65
6,587.0	90.90	0.10	5,367.7	1,646.6	-4.8	1,646.5	1.80	1.67	-0.67
6,618.0	91.50	0.10	5,367.0	1,677.6	-4.7	1,677.5	1.94	1.94	0.00
6,649.0	90.30	359.10	5,366.6	1,708.6	-4.9	1,708.5	5.04	-3.87	-3.23
6,681.0	90.30	359.10	5,366.4	1,740.6	-5.4	1,740.5	0.00	0.00	0.00
6,712.0	90.90	358.80	5,366.1	1,771.6	-6.0	1,771.5	2.16	1.94	-0.97
6,744.0	91.50	358.60	5,365.4	1,803.6	-6.7	1,803.5	1.98	1.88	-0.63
6,775.0	89.80	358.50	5,365.0	1,834.6	-7.5	1,834.5	5.49	-5.48	-0.32
6,807.0	89.80	358.60	5,365.2	1,866.6	-8.3	1,866.5	0.31	0.00	0.31
6,838.0	90.30	358.60	5,365.1	1,897.6	-9.1	1,897.5	1.61	1.61	0.00
6,870.0	90.90	358.60	5,364.8	1,929.5	-9.9	1,929.5	1.88	1.88	0.00
6,901.0	89.40	358.80	5,364.7	1,960.5	-10.6	1,960.5	4.88	-4.84	0.65
6,933.0	89.30	358.90	5,365.1	1,992.5	-11.2	1,992.5	0.44	-0.31	0.31
6,964.0	89.70	358.90	5,365.3	2,023.5	-11.8	2,023.5	1.29	1.29	0.00
6,996.0	90.00	358.60	5,365.4	2,055.5	-12.5	2,055.5	1.33	0.94	-0.94
7,027.0	90.80	358.70	5,365.2	2,086.5	-13.2	2,086.5	2.60	2.58	0.32

Archer

Survey Report

Company:	Sandridge Energy, INC.(mid-con.)	Local Co-ordinate Reference:	Well Rock 3319 1-16H/ Job #04150-431-22/ Lariat 41
Project:	Comanche County (KS27S)	TVD Reference:	WELL @ 1997.0usft (Original Well Elev)
Site:	Sec 16-T33S-R19W	MD Reference:	WELL @ 1997.0usft (Original Well Elev)
Well:	Rock 3319 1-16H/ Job #04150-431-22/ Lariat 41	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)
7,059.0	91.10	358.60	5,364.7	2,118.5	-14.0	2,118.5	0.99	0.94	-0.31
7,090.0	89.70	357.20	5,364.5	2,149.5	-15.1	2,149.5	6.39	-4.52	-4.52
7,122.0	89.40	356.80	5,364.7	2,181.4	-16.8	2,181.5	1.56	-0.94	-1.25
7,153.0	90.20	357.10	5,364.8	2,212.4	-18.5	2,212.4	2.76	2.58	0.97
7,185.0	90.60	356.70	5,364.6	2,244.3	-20.2	2,244.4	1.77	1.25	-1.25
7,216.0	91.40	356.90	5,364.1	2,275.3	-21.9	2,275.4	2.66	2.58	0.65
7,248.0	90.00	357.10	5,363.7	2,307.2	-23.6	2,307.3	4.42	-4.38	0.63
7,279.0	90.20	356.90	5,363.6	2,338.2	-25.2	2,338.3	0.91	0.65	-0.65
7,311.0	90.70	356.50	5,363.4	2,370.1	-27.1	2,370.3	2.00	1.56	-1.25
7,342.0	89.40	357.60	5,363.3	2,401.1	-28.7	2,401.3	5.49	-4.19	3.55
7,373.0	89.20	357.70	5,363.7	2,432.1	-29.9	2,432.2	0.72	-0.65	0.32
7,405.0	89.80	357.60	5,364.0	2,464.0	-31.2	2,464.2	1.90	1.88	-0.31
7,436.0	90.30	357.40	5,364.0	2,495.0	-32.6	2,495.2	1.74	1.61	-0.65
7,468.0	89.10	358.00	5,364.1	2,527.0	-33.9	2,527.2	4.19	-3.75	1.88
7,499.0	89.50	358.20	5,364.5	2,558.0	-34.9	2,558.2	1.44	1.29	0.65
7,531.0	90.60	358.40	5,364.5	2,589.9	-35.8	2,590.2	3.49	3.44	0.63
7,562.0	89.80	359.10	5,364.4	2,620.9	-36.5	2,621.2	3.43	-2.58	2.26
7,594.0	90.20	359.30	5,364.4	2,652.9	-37.0	2,653.2	1.40	1.25	0.63
7,625.0	89.40	0.20	5,364.5	2,683.9	-37.1	2,684.2	3.88	-2.58	2.90
7,657.0	89.50	0.50	5,364.8	2,715.9	-36.9	2,716.2	0.99	0.31	0.94
7,688.0	90.30	0.30	5,364.8	2,746.9	-36.7	2,747.2	2.66	2.58	-0.65
7,720.0	91.00	0.20	5,364.5	2,778.9	-36.6	2,779.2	2.21	2.19	-0.31
7,751.0	89.60	0.10	5,364.3	2,809.9	-36.5	2,810.2	4.53	-4.52	-0.32
7,783.0	87.80	0.70	5,365.0	2,841.9	-36.2	2,842.1	5.93	-5.63	1.88
7,814.0	87.90	0.70	5,366.2	2,872.9	-35.9	2,873.1	0.32	0.32	0.00
7,846.0	88.70	0.50	5,367.2	2,904.9	-35.5	2,905.1	2.58	2.50	-0.63
7,877.0	87.30	359.90	5,368.2	2,935.9	-35.4	2,936.1	4.91	-4.52	-1.94
7,909.0	87.60	359.80	5,369.7	2,967.8	-35.5	2,968.0	0.99	0.94	-0.31
7,940.0	88.40	359.80	5,370.7	2,998.8	-35.6	2,999.0	2.58	2.58	0.00
7,972.0	89.10	359.60	5,371.4	3,030.8	-35.8	3,031.0	2.27	2.19	-0.63
8,003.0	87.80	359.80	5,372.3	3,061.8	-35.9	3,062.0	4.24	-4.19	0.65
8,035.0	87.70	359.80	5,373.5	3,093.8	-36.1	3,094.0	0.31	-0.31	0.00
8,066.0	87.80	0.20	5,374.8	3,124.7	-36.1	3,124.9	1.33	0.32	1.29
8,098.0	87.90	0.10	5,376.0	3,156.7	-36.0	3,156.9	0.44	0.31	-0.31
8,129.0	86.30	359.50	5,377.5	3,187.7	-36.1	3,187.9	5.51	-5.16	-1.94
8,161.0	86.20	359.10	5,379.6	3,219.6	-36.5	3,219.8	1.29	-0.31	-1.25
8,192.0	86.70	359.50	5,381.5	3,250.5	-36.9	3,250.7	2.06	1.61	1.29
8,224.0	87.00	359.60	5,383.3	3,282.5	-37.1	3,282.7	0.99	0.94	0.31
8,255.0	87.30	359.70	5,384.8	3,313.4	-37.3	3,313.7	1.02	0.97	0.32
8,287.0	87.60	359.10	5,386.3	3,345.4	-37.6	3,345.6	2.09	0.94	-1.88
8,318.0	87.70	358.80	5,387.5	3,376.4	-38.2	3,376.6	1.02	0.32	-0.97
8,350.0	88.90	359.50	5,388.5	3,408.4	-38.7	3,408.6	4.34	3.75	2.19

Archer Survey Report

Company:	Sandridge Energy, INC.(mid-con.)	Local Co-ordinate Reference:	Well Rock 3319 1-16H/ Job #04150-431-22/ Lariat 41
Project:	Comanche County (KS27S)	TVD Reference:	WELL @ 1997.0usft (Original Well Elev)
Site:	Sec 16-T33S-R19W	MD Reference:	WELL @ 1997.0usft (Original Well Elev)
Well:	Rock 3319 1-16H/ Job #04150-431-22/ Lariat 41	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)
8,381.0	90.10	359.80	5,388.8	3,439.4	-38.9	3,439.6	3.99	3.87	0.97
8,413.0	89.90	359.30	5,388.8	3,471.4	-39.1	3,471.6	1.68	-0.63	-1.56
8,445.0	91.20	359.30	5,388.4	3,503.4	-39.5	3,503.6	4.06	4.06	0.00
8,476.0	93.10	0.60	5,387.3	3,534.3	-39.5	3,534.5	7.42	6.13	4.19
8,507.0	93.50	0.70	5,385.5	3,565.3	-39.2	3,565.5	1.33	1.29	0.32
8,539.0	92.20	0.10	5,383.9	3,597.2	-39.0	3,597.4	4.47	-4.06	-1.88
8,571.0	91.90	359.60	5,382.8	3,629.2	-39.0	3,629.4	1.82	-0.94	-1.56
8,602.0	91.20	0.60	5,381.9	3,660.2	-39.0	3,660.4	3.94	-2.26	3.23
8,634.0	90.10	1.30	5,381.6	3,692.2	-38.5	3,692.4	4.07	-3.44	2.19
8,665.0	91.00	2.70	5,381.3	3,723.2	-37.4	3,723.3	5.37	2.90	4.52
8,697.0	92.40	3.90	5,380.3	3,755.1	-35.5	3,755.2	5.76	4.38	3.75
8,728.0	93.60	5.40	5,378.7	3,786.0	-33.0	3,786.1	6.19	3.87	4.84
8,760.0	92.60	4.10	5,377.0	3,817.8	-30.4	3,817.9	5.12	-3.13	-4.06
8,791.0	89.70	2.10	5,376.3	3,848.7	-28.7	3,848.8	11.36	-9.35	-6.45
8,823.0	88.10	0.10	5,377.0	3,880.7	-28.1	3,880.8	8.00	-5.00	-6.25
8,854.0	88.70	359.90	5,377.8	3,911.7	-28.1	3,911.8	2.04	1.94	-0.65
8,886.0	88.20	359.10	5,378.7	3,943.7	-28.4	3,943.7	2.95	-1.56	-2.50
8,917.0	89.30	359.80	5,379.4	3,974.7	-28.7	3,974.7	4.21	3.55	2.26
8,949.0	91.60	1.00	5,379.1	4,006.7	-28.4	4,006.7	8.11	7.19	3.75
8,980.0	94.50	4.40	5,377.5	4,037.6	-27.0	4,037.6	14.40	9.35	10.97
9,012.0	95.20	4.40	5,374.8	4,069.4	-24.5	4,069.4	2.19	2.19	0.00
9,043.0	93.10	3.10	5,372.5	4,100.2	-22.5	4,100.2	7.96	-6.77	-4.19
9,075.0	90.10	3.10	5,371.6	4,132.2	-20.8	4,132.1	9.38	-9.38	0.00
9,106.0	90.00	2.00	5,371.6	4,163.2	-19.4	4,163.0	3.56	-0.32	-3.55
9,138.0	89.50	1.10	5,371.7	4,195.1	-18.5	4,195.0	3.22	-1.56	-2.81
9,169.0	90.60	1.40	5,371.7	4,226.1	-17.9	4,226.0	3.68	3.55	0.97
9,201.0	89.30	0.50	5,371.7	4,258.1	-17.3	4,258.0	4.94	-4.06	-2.81
9,232.0	87.70	359.00	5,372.5	4,289.1	-17.5	4,289.0	7.07	-5.16	-4.84
9,264.0	86.60	358.10	5,374.1	4,321.1	-18.3	4,320.9	4.44	-3.44	-2.81
9,295.0	86.80	357.60	5,375.9	4,352.0	-19.4	4,351.9	1.73	0.65	-1.61
9,327.0	87.10	357.60	5,377.6	4,383.9	-20.8	4,383.8	0.94	0.94	0.00
9,358.0	87.40	358.40	5,379.1	4,414.9	-21.9	4,414.8	2.75	0.97	2.58
9,390.0	87.60	357.50	5,380.5	4,446.8	-23.0	4,446.7	2.88	0.63	-2.81
9,421.0	88.10	357.30	5,381.7	4,477.8	-24.4	4,477.7	1.74	1.61	-0.65
9,452.0	88.70	356.70	5,382.5	4,508.7	-26.0	4,508.7	2.74	1.94	-1.94
9,484.0	89.10	356.50	5,383.1	4,540.6	-27.9	4,540.6	1.40	1.25	-0.63
9,515.0	89.10	357.10	5,383.6	4,571.6	-29.7	4,571.6	1.94	0.00	1.94
9,547.0	89.40	357.30	5,384.1	4,603.5	-31.2	4,603.6	1.13	0.94	0.63
9,566.0	89.60	357.20	5,384.2	4,622.5	-32.1	4,622.5	1.18	1.05	-0.53
Last Archer MWD Survey									
9,615.0	89.60	357.20	5,384.6	4,671.5	-34.5	4,671.5	0.00	0.00	0.00
Projection to TD - PBHL Rock 1-16H									

Archer Survey Report

Company:	Sandridge Energy, INC.(mid-con.)	Local Co-ordinate Reference:	Well Rock 3319 1-16H/ Job #04150-431-22/ Lariat 41
Project:	Comanche County (KS27S)	TVD Reference:	WELL @ 1997.0usft (Original Well Elev)
Site:	Sec 16-T33S-R19W	MD Reference:	WELL @ 1997.0usft (Original Well Elev)
Well:	Rock 3319 1-16H/ Job #04150-431-22/ Lariat 41	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		Comment
		+N/-S (usft)	+E/-W (usft)	
1,038.0	1,037.9	3.8	9.2	First Archer MWD Survey
9,566.0	5,384.2	4,622.5	-32.1	Last Archer MWD Survey
9,615.0	5,384.6	4,671.5	-34.5	Projection to TD

Checked By: _____	Approved By: _____	Date: _____
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Section 8
33S 19W

Section 9
33S 19W

691' FWL
304' FNL
BHL: 9615'
-99.397105 37.177203

Bottom Perf: 8978'
-99.397058 37.175462

Comanche County

Section 17
33S 19W

Section 16
33S 19W

Top Perf: 5523'
-99.396949 37.166059
Miss Entry: 5482'
-99.396947 37.165908

ROCK 3319 1-16H



ROCK 3319 2-16H



Section 20
33S 19W

Section 21
33S 19W



Actual Bottom-Hole Location of Rock 3319 1-16H
Comanche County, Kansas
T&R: 33S 19W
Section: 17, 691' FWL & 304' FNL
-99.397105 37.177203

1 in = 703 ft

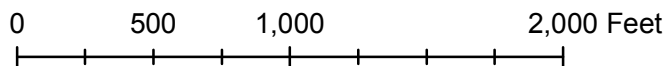


● Actual BH Location

* SandRidge Wells

--- Perf

□ Sections



Draftsman:

Aaron Birk

Draft Date: 7/3/2013

Drawing Name/Number:

Addendum_Rock 3319 1-16H.mxd

Coordinate System:

NAD 1927 State Plane
Kansas South FIPS: 1502

Remarks

Tiffany Golay
06/24/013 08:59 am

Conductor weight= 94 lbs/ft