Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1146106

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 # 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: Tiffany Golay
Phone: (405) 429-6543
CONTRACTOR: License # 34464
Name: Lariat Services, Inc.
Wellsite Geologist: William Scott
Purchaser: DCP Midstream, LP (gas) NCRA (oil)

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 #:

5/7/2013	6/5/2013	7/2/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-033-21714-01-00
Spot Description:
SW SE SW SW Sec. 21 Twp. 33 S. R. 19 ☐ East ☑ West
200 Feet from ☐ North / ☑ South Line of Section
810 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: Comanche
Lease Name: Thomas 3319 Well #: 1-28H
Field Name:
Producing Formation: Mississippian
Elevation: Ground: 1974 Kelly Bushing: 1994
Total Vertical Depth: 9999 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 359 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: 15000 ppm Fluid volume: 80 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: KBW Oil & Gas Company
Lease Name: Harmon 1 License #: 5993
Quarter NW Sec. 11 Twp. 33 S. R. 20 ☐ East ☑ West
County: Comanche Permit #: D-22304

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: 09/03/2013
☑ **Confidential Release Date:** 09/03/2015
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ I ☐ II ☐ III **Approved by:** NAOMI JAMES **Date:** 09/03/2013

1146106

Operator Name: SandRidge Exploration and Production LLC Lease Name: Thomas 3319 Well #: 1-28H

Sec. 21 Twp. 33 S. R. 19 ☐ East ☑ West County: Comanche

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

List All E. Logs Run:

Resistivity
Porosity

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

Name	Top	Datum
Heebner	4330	
Lansing	4520	
Swope	4892	
Oswego	5102	
Cherokee	5194	
Mississippian	5302	

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
Attached	Attached	Attached	Attached	Attached	Attached	Attached	Attached

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	- -			

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 *(Amount and Kind of Material Used)*	Depth
Attached	Attached	Attached	Attached

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

Date of First, Resumed Production, SWD or ENHR. 7/5/2013

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

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

DISPOSITION OF GAS:
☐ 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)*
☐ Other *(Specify)* _____

PRODUCTION INTERVAL:
_____
_____

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Thomas 3319 1-28H
Doc ID	1146106

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	9737-10025	1500 gals 15% HCL, 4174 bbls Fresh Slickwater, Running TLTR 4214 bbls	
5	9288-9640	1500 gals 15% HCL, 4075 bbls Fresh Slickwater, Running TLTR 9143 bbls	
5	8894-9251	1500 gals 15% HCL, 4104 bbls Fresh Slickwater, Running TLTR 13406 bbls	
5	8502-8836	1500 gals 15% HCL, 4067 bbls Fresh Slickwater, Running TLTR 17617 bbls	
5	8116-8423	1500 gals 15% HCL, 4066 bbls Fresh Slickwater, Running TLTR 21815 bbls	
5	7702-8025	1500 gals 15% HCL, 4063 bbls Fresh Slickwater, Running TLTR 25994 bbls	
5	7278-7632	1500 gals 15% HCL, 4115 bbls Fresh Slickwater, Running TLTR 30283 bbls	
5	6913-7194	1500 gals 15% HCL, 4059 bbls Fresh Slickwater, Running TLTR 34435 bbls	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Thomas 3319 1-28H
Doc ID	1146106

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	6508-6826	1500 gals 15% HCL, 4030 bbls Fresh Slickwater, Running TLTR 38558 bbls	
5	6187-6450	1500 gals 15% HCL, 4040 bbls Fresh Slickwater, Running TLTR 42673 bbls	
5	5800-6098	1500 gals 15% HCL, 4035 bbls Fresh Slickwater, Running TLTR 46786 bbls	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Thomas 3319 1-28H
Doc ID	1146106

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	26	20	75	120	Basin Services 10 Sack Grout	11	none
Surface	17.5	13.38	68	359	Halliburton Extendacem and Swiftcem Systems	400	3% Calcium Chloride, .25 lbm Poly-E-Flake
Intermediate 1	12.25	9.63	36	890	Halliburton Extendacem and Swiftcem Systems	490	3% Calcium Chloride, .25 lbm Poly-E-Flake
Intermediate 2	8.75	7	26	5780	Halliburton Econocem and Halcem Systems	235	.4% Halad(R)-9, 2 lbm Kol-Seal, 2% Bentonite

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

Kansas
Corporation Commission

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

June 07, 2013

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

Re: ACO1
API 15-033-21714-01-00
Thomas 3319 1-28H
SW/4 Sec.21-33S-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

BASIN SERVICES, LLC
P O BOX 4268
ABILENE, TX 79608-4268
Phone # (325)690-0053
Fax # (325)698-0055

TICKET

TICKET NUMBER: WY-18-1
TICKET DATE: 05/08/2013

SANDRIDGE ENERGY
123 ROBERT S KERR AVE
OKLAHOMA CITY, OK 73102-6406

YARD: WY WAYNOKA OK
LEASE: Thomas
WELL#: 3319 1-28H
RIG #: Lariat 3
Co/St: COMANCHE, KS

DESCRIPTION	QUANTITY	RATE	AMOUNT
5/7-8/2013 DRILLED 30" CONDUCTOR HOLE			
5/7-8/2013 20" CONDUCTOR PIPE (.250 WALL)			
5/7-8/2013 6' X 6' CELLAR TINHORN WITH PROTECTIVE RING			
5/7-8/2013 DRILL & INSTALL 6' X 6' CELLAR TINHORN			
5/7-8/2013 DRILLED 20" MOUSE HOLE (PER FOOT)			
5/7-8/2013 16" CONDUCTOR PIPE (.250 WALL)			
5/7-8/2013 MOBILIZATION OF EQUIPMENT & ROAD PERMITTING FEE			
5/7-8/2013 WELDING SERVICES FOR PIPE & LIDS			
5/7-8/2013 PROVIDED EQUIPMENT & LABOR TO ASSIST IN PUMPING CONCRETE			
5/7-8/2013 PROVIDED METAL LIDS (1 FOR CONDUCTOR & 2 FOR MOUSEHOLE PIPE)			
5/7-8/2013 11 YARDS 10 SACK GROUT			
5/7-8/2013 TAXABLE ITEMS			6,490.00
5/7-8/2013 BID + TAXABLE ITEMS			14,760.00
		Sub Total:	21,250.00
		Tax COMANCHE COUNTY (6.3 %):	408.87
I, the undersigned, acknowledge the acceptance of the above listed goods and/or services.		TICKET TOTAL:	$ 21,658.87

Approved Signature _____

AFE Number: DC 12784
Well Name: Thomas 3319 1-28H
Code: 850.010
Amount: 921,658.87
Co. Man: John Fortune
Co. Man Sig.: 6/12/2013
Notes:

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 305021	**Ship To #:** 2998273	**Quote #:**	**Sales Order #:** 900438188
Customer: SANDRIDGE ENERGY INC EBUSINESS		**Customer Rep:** ., Jessie	
Well Name: Thomas 1	**Well #:** 28H		**API/UWI #:**
Field:	**City (SAP):** COLDWATER	**County/Parish:** Comanche	**State:** Kansas
Contractor: Lariat	**Rig/Platform Name/Num:** 3		
Job Purpose: Cement Conductor Casing			
Well Type: Development Well	**Job Type:** Cement Conductor 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 #
JOHNSON, MATTHEW Warren	23.5	525955	RAMIREZ, JORGE M.	23.5	498481	RODRIGUEZ, EDGAR Alejandro	23.5	442125

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
5/14/2013	3.5	1	5/15/2013	20	5			
TOTAL			*Total is the sum of each column separately*					

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**			
Job depth MD	365. ft	**Job Depth TVD**	365. ft		
Water Depth		**Wk Ht Above Floor**	6. ft		
Perforation Depth (MD)	**From**		**To**		

Job Times

	Date	Time	Time Zone
Called Out	14 - May - 2013	15:45	CST
On Location	14 - May - 2013	20:00	CST
Job Started	15 - May - 2013	03:41	CST
Job Completed	15 - May - 2013	18:15	CST
Departed Loc	15 - May - 2013	20:00	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
17.5" Open Hole				17.5				.	330.		
13.375" Water String	Unknown		13.375	12.415	68.	BTC	N-80	.	330.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG,TOP,13 3/8,HWE,11.79 MIN/12.72	1	EA		
SUGAR - GRANULATED	40	LB		

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 ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk

HALLIBURTON

Cementing Job Summary

1	Fresh Water		10.00	bbl	8.33	.0	.0	.0	
2	Lead Cement	EXTENDACEM (TM) SYSTEM (452981)	200.0	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)	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		48.00	bbl	8.33	.0	.0	.0	

Calculated Values		Pressures		Volumes					
Displacement	48	Shut In: Instant		Lost Returns	YES	Cement Slurry	118 / 76	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	NO	Actual Displacement	48	Treatment	
Frac Gradient		15 Min		Spacers	10	Load and Breakdown		Total Job	252

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

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 305021	**Ship To #:** 2998273	**Quote #:**	**Sales Order #:** 900443680
Customer: SANDRIDGE ENERGY INC EBUSINESS		**Customer Rep:** Cummings, Parker	
Well Name: Thomas 3319	**Well #:** 1-28H		**API/UWI #:** 15-033-21714
Field:	**City (SAP):** COLDWATER	**County/Parish:** Comanche	**State:** Kansas
Legal Description: Section 21 Township 33S Range 19W			
Contractor: Lariat	**Rig/Platform Name/Num:** 3		
Job Purpose: Cement Surface Casing			
Well Type: Development Well	**Job Type:** Cement Surface Casing		
Sales Person: FRENCH, JEREMY	**Srvc Supervisor:** WILTSHIRE, MERSHEK	**MBU ID Emp #:** 195811	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BERUMEN, EDUARDO	7	267804	ESTRADA, JOSE Corral	7	541275	HEIDT, JAMES Nicholas	7	517102
WILTSHIRE, MERSHEK TonJe	7	195811						

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
TOTAL			*Total is the sum of each column separately*					

Job

Formation Name			
Formation Depth (MD)	**Top**		**Bottom**
Form Type		**BHST**	
Job depth MD	900. ft	**Job Depth TVD**	
Water Depth		**Wk Ht Above Floor**	
Perforation Depth (MD)	**From**		**To**

Job Times

	Date	Time	Time Zone
Called Out	16 - May - 2013	07:30	CST
On Location			
Job Started	16 - May - 2013	08:32	CST
Job Completed	16 - May - 2013	19:45	GMT
Departed Loc	16 - May - 2013	21:00	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				325.	900.		
13.375" Water String	Unknown		13.375	12.415	68.	BTC	N-80	.	325.		
9.625" Surface Casing	Unknown		9.625	8.921	36.	LTC	J-55	.	894.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG,TOP,9 5/8,HWE,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			
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	

HALLIBURTON

Cementing Job Summary

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/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)	290.0	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)	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		66.00	bbl	8.33	.0	.0	.0	

Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	

Rates

Circulating		Mixing		Displacement		Avg. Job	

Cement Left In Pipe	Amount	43 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

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 305021	**Ship To #:** 2998273	**Quote #:**	**Sales Order #:** 900463092
Customer: SANDRIDGE ENERGY INC EBUSINESS		**Customer Rep:** ., Jessie	
Well Name: Thomas 3319	**Well #:** 1-28H		**API/UWI #:** 15-033-21714
Field:	**City (SAP):** COLDWATER	**County/Parish:** Comanche	**State:** Kansas
Legal Description: Section 21 Township 33S Range 19W			
Contractor: Lariat	**Rig/Platform Name/Num:** 3		
Job Purpose: Cement Intermediate Casing			
Well Type: Development Well	**Job Type:** Cement Intermediate Casing		
Sales Person: FRENCH, JEREMY	**Srvc Supervisor:** CHRISTENSEN, STUART	**MBU ID Emp #:** 476488	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
CHRISTENSEN, STUART	5.5	476488	GARCIA, DAVID F	6.5	519312	STELL, KEVIN Woodrow	5.5	450776

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10872308	100 mile	11256865	100 mile	11288858	100 mile	11851725	100 mile
12075278	100 mile						

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
5/25/2013	5.5	3.5						
TOTAL			*Total is the sum of each column separately*					

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**			
Job depth MD	5807. ft	**Job Depth TVD**	5807. ft		
Water Depth		**Wk Ht Above Floor**	5. ft		
Perforation Depth (MD)	**From**		**To**		

Job Times

	Date	Time	Time Zone
Called Out	25 - May - 2013	02:00	CST
On Location	25 - May - 2013	10:00	CST
Job Started	25 - May - 2013	20:40	CST
Job Completed	25 - May - 2013	21:50	CST
Departed Loc	25 - May - 2013	23:30	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				900.	5785.		
7" Intermediate Casing	Unknown		7.	6.276	26.	LTC	P-110	.	5785.		
9.625" Surface Casing	Unknown		9.625	8.921	36.	LTC	J-55	.	900.		

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	

HALLIBURTON

Cementing Job Summary

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/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	Lead Cement	ECONOCEM (TM) SYSTEM (452992)	135.0	sacks	13.6	1.53	7.24		7.24
	0.4 %	HALAD(R)-9, 50 LB (100001617)							
	2 lbm	KOL-SEAL, 50 LB BAG (100064232)							
	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, 50 LB BAG (100064232)							
	5.076 Gal	FRESH WATER							
4	Displacement		217.00	bbl	8.33	.0	.0	.0	

Calculated Values		Pressures		Volumes					
Displacement	217	Shut In: Instant		Lost Returns	0	Cement Slurry	59	Pad	
Top Of Cement	3758	5 Min		Cement Returns	0	Actual Displacement	217	Treatment	
Frac Gradient		15 Min		Spacers	30	Load and Breakdown		Total Job	

Rates

Circulating	4	Mixing	4	Displacement	6	Avg. Job	5

Cement Left In Pipe	Amount	94 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

Archer

OPERATOR	FIELD NAME	Well name/No.	Rig Name & No.	Archer Job No.	Calculation Method	Minimum Curvature
SandRidge Energy, Ir	Mississippi Lime	Thomas 3319 1-28H	Lariat 3	04249-431-22	Proposed Azimuth	179.19°
MWD OPERATOR	DIR SUPERVISOR	COUNTY	STATE	Start Date	Depth Reference:	RKB
Craig Campbell	Eric Nyce	Comanche	Kansas	17-May-13	Tie Into:	MWD
DipA: 65.09	Mag Field: 0.51682	Mag Dec. 5.88	Total Cor.: 0		Job Service:	Gamma-Dir.
Mag Spacing Req.	Mag Spacing Actual	Mag Spacing Req.	Mag Spacing Actual			
Below 9	Below 20	Above 15	Above 50			

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)		Coordinates E/W (ft)		Closure Distance (ft)	Closure Direction Azimuth	Dogleg Severity (°/100')	Build Rate (°/100')	Walk Rate (°/100')
Tie-In	0.00'	0.00°	0.00°	0.00'	0.00'	0.00'	0.00'		0.00'		0.00'	0.00°	0.00°	0.0°	0.0°
1	965.00'	1.00°	89.40°	965.00'	964.95'	0.03'	0.09'	N	8.42'		8.42'	449.40°	0.10°	0.1°	9.3°
2	1423.00'	1.20°	69.10°	458.00'	1422.87'	-1.60'	1.84'	N	16.90'	E	17.00'	83.78°	0.09°	0.0°	-4.4°
3	1898.00'	0.80°	74.20°	475.00	1897.79	-4.17	4.52	N	24.73	E	25.14	79.65°	0.09°	-0.1°	1.1°
4	2372.00'	0.90°	161.20°	474.00'	2371.76'	-1.48'	1.90'	N	29.12'	E	29.18'	86.28°	0.25°	0.0°	18.4°
5	2846.00'	0.60°	112.50°	474.00	2845.72	3.04	2.58	S	32.61	E	32.71	94.52°	0.14°	-0.1°	-10.3°
6	3322.00'	1.20°	69.70°	476.00'	3321.67'	2.36'	1.80'	S	39.59'	E	39.63'	92.61°	0.18°	0.1°	-9.0°
7	3797.00'	0.90°	240.40°	475.00	3796.64	2.50	1.92	S	41.01	E	41.05	92.68°	0.44°	-0.1°	35.9°
8	3891.00'	0.90°	237.30°	94.00'	3890.63'	3.25'	2.68'	S	39.75'	E	39.84'	93.86°	0.05°	0.0°	-3.3°
9	3987.00'	1.30°	235.70°	96.00'	3986.61'	4.24'	3.70'	S	38.21'	E	38.39'	95.54°	0.42°	0.4°	-1.7°
10	4082.00'	2.40°	238.30°	95.00'	4081.56'	5.86'	5.36'	S	35.63'	E	36.03'	98.55°	1.16°	1.2°	2.7°
11	4177.00'	2.40°	236.40°	95.00'	4176.47'	7.96'	7.50'	S	32.28'	E	33.14'	103.09°	0.08°	0.0°	-2.0°
12	4271.00'	2.40°	231.60°	94.00'	4270.39'	10.23'	9.82'	S	29.10'	E	30.71'	108.64°	0.21°	0.0°	-5.1°
13	4366.00'	1.70°	231.90°	95.00'	4365.33'	12.29'	11.92'	S	26.43'	E	28.99'	114.27°	0.74°	-0.7°	0.3°
14	4397.00'	1.80°	240.10°	31.00'	4396.32'	12.81'	12.45'	S	25.65'	E	28.51'	115.89°	0.87°	0.3°	26.5°
15	4428.00'	3.10°	229.90°	31.00'	4427.29'	13.58'	13.23'	S	24.58'	E	27.92'	118.29°	4.41°	4.2°	-32.9°
16	4460.00'	5.80°	218.60°	32.00'	4459.19'	15.37'	15.05'	S	22.91'	E	27.41'	123.30°	8.83°	8.4°	-35.3°
17	4491.00'	8.40°	215.50°	31.00'	4489.95'	18.41'	18.12'	S	20.62'	E	27.45'	131.30°	8.47°	8.4°	-10.0°
18	4523.00'	9.90°	205.70°	32.00'	4521.54'	22.75'	22.50'	S	18.07'	E	28.86'	141.23°	6.74°	4.7°	-30.6°
19	4554.00'	10.50°	200.10°	31.00'	4552.05'	27.78'	27.55'	S	15.94'	E	31.84'	149.95°	3.74°	1.9°	-18.1°
20	4586.00'	11.20°	192.70°	32.00'	4583.48'	33.52'	33.33'	S	14.26'	E	36.25'	156.84°	4.87°	2.2°	-23.1°
21	4617.00'	11.90°	187.90°	31.00'	4613.85'	39.61'	39.43'	S	13.16'	E	41.57'	161.55°	3.83°	2.3°	-15.5°
22	4649.00'	11.90°	187.70°	32.00'	4645.17'	46.13'	45.97'	S	12.26'	E	47.57'	165.06°	0.13°	0.0°	-0.6°
23	4680.00'	13.60°	187.90°	31.00'	4675.40'	52.90'	52.74'	S	11.33'	E	53.95'	167.87°	5.49°	5.5°	0.6°
24	4711.00'	15.90°	185.70°	31.00'	4705.38'	60.72'	60.58'	S	10.41'	E	61.47'	170.25°	7.63°	7.4°	-7.1°
25	4743.00'	16.80°	181.60°	32.00'	4736.08'	69.70'	69.56'	S	9.85'	E	70.26'	171.94°	4.57°	2.8°	-12.8°
26	4775.00'	18.70°	179.50°	32.00'	4766.56'	79.45'	79.32'	S	9.76'	E	79.92'	172.98°	6.26°	5.9°	-6.6°
27	4806.00'	20.60°	178.30°	31.00'	4795.75'	89.87'	89.74'	S	9.97'	E	90.29'	173.66°	6.27°	6.1°	-3.9°
28	4838.00'	22.90°	178.70°	32.00'	4825.47'	101.73'	101.59'	S	10.27'	E	102.11'	174.23°	7.20°	7.2°	1.2°
29	4869.00'	26.10°	179.90°	31.00'	4853.68'	114.58'	114.45'	S	10.42'	E	114.92'	174.80°	10.45°	10.3°	3.9°
30	4901.00'	29.10°	180.30°	32.00'	4882.03'	129.40'	129.27'	S	10.39'	E	129.69'	175.40°	9.39°	9.4°	1.3°
31	4933.00'	31.70°	179.60°	32.00'	4909.63'	145.59'	145.46'	S	10.41'	E	145.83'	175.91°	8.20°	8.1°	-2.2°
32	4964.00'	34.10°	178.90°	31.00'	4935.66'	162.43'	162.30'	S	10.64'	E	162.64'	176.25°	7.84°	7.7°	-2.3°
33	4996.00'	36.30°	178.90°	32.00'	4961.81'	180.87'	180.74'	S	10.99'	E	181.07'	176.52°	6.88°	6.9°	0.0°
34	5028.00'	38.90°	179.10°	32.00'	4987.16'	200.40'	200.26'	S	11.33'	E	200.58'	176.76°	8.13°	8.1°	0.6°
35	5060.00'	41.50°	179.00°	32.00'	5011.60'	221.05'	220.91'	S	11.67'	E	221.22'	176.98°	8.13°	8.1°	-0.3°
36	5091.00'	43.70°	178.50°	31.00'	5034.41'	242.03'	241.88'	S	12.13'	E	242.19'	177.13°	7.18°	7.1°	-1.6°
37	5123.00'	44.90°	178.70°	32.00'	5057.32'	264.38'	264.23'	S	12.68'	E	264.53'	177.25°	3.78°	3.7°	0.6°
38	5155.00'	47.00°	178.80°	32.00'	5079.56'	287.38'	287.22'	S	13.18'	E	287.52'	177.37°	6.57°	6.6°	0.3°
39	5186.00'	49.40°	179.50°	31.00'	5100.22'	310.48'	310.32'	S	13.52'	E	310.62'	177.51°	7.92°	7.7°	2.3°
40	5218.00'	50.30°	179.40°	32.00'	5120.86'	334.94'	334.78'	S	13.75'	E	335.06'	177.65°	2.82°	2.8°	-0.3°
41	5250.00'	50.40°	179.10°	32.00'	5141.28'	359.58'	359.42'	S	14.08'	E	359.69'	177.76°	0.79°	0.3°	-0.9°
42	5281.00'	50.30°	179.30°	31.00'	5161.06'	383.45'	383.28'	S	14.41'	E	383.56'	177.85°	0.59°	-0.3°	0.6°
43	5313.00'	50.40°	179.00°	32.00'	5181.48'	408.09'	407.92'	S	14.78'	E	408.19'	177.93°	0.79°	0.3°	-0.9°
44	5344.00'	49.90°	179.00°	31.00'	5201.34'	431.89'	431.72'	S	15.19'	E	431.98'	177.98°	1.61°	-1.6°	0.0°
45	5376.00'	50.70°	178.80°	32.00'	5221.78'	456.51'	456.33'	S	15.66'	E	456.60'	178.03°	2.55°	2.5°	-0.6°
46	5408.00'	52.60°	179.20°	32.00'	5241.64'	481.60'	481.42'	S	16.10'	E	481.69'	178.08°	6.02°	5.9°	1.2°
47	5439.00'	55.60°	179.40°	31.00'	5259.81'	506.71'	506.53'	S	16.41'	E	506.79'	178.14°	9.69°	9.7°	0.6°
48	5470.00'	59.10°	179.40°	31.00'	5276.53'	532.81'	532.63'	S	16.68'	E	532.89'	178.21°	11.29°	11.3°	0.0°
49	5502.00'	62.70°	178.90°	32.00'	5292.09'	560.76'	560.58'	S	17.10'	E	560.84'	178.25°	11.33°	11.3°	-1.6°
50	5533.00'	66.40°	178.30°	31.00'	5305.41'	588.75'	588.56'	S	17.78'	E	588.83'	178.27°	12.06°	11.9°	-1.9°

Archer

51	5565.00'	69.50°	177.90°	32.00'	5317.42'	618.40'	618.20'	S	18.77'	E	618.48'	178.26°	9.76°	9.7°	-1.3°
52	5596.00'	72.50°	177.00°	31.00'	5327.52'	647.69'	647.47'	S	20.07'	E	647.79'	178.22°	10.06°	9.7°	-2.9°
53	5628.00'	75.20°	176.50°	32.00'	5336.42'	678.40'	678.16'	S	21.82'	E	678.51'	178.16°	8.57°	8.4°	-1.6°
54	5659.00'	78.10°	176.90°	31.00'	5343.57'	708.53'	708.27'	S	23.55'	E	708.66'	178.10°	9.44°	9.4°	1.3°
55	5690.00'	80.60°	177.30°	31.00'	5349.30'	738.97'	738.69'	S	25.09'	E	739.12'	178.05°	8.16°	8.1°	1.3°
56	5722.00'	82.20°	177.00°	32.00'	5354.09'	770.59'	770.29'	S	26.67'	E	770.75'	178.02°	5.09°	5.0°	-0.9°
57	5751.00'	85.20°	176.70°	29.00'	5357.27'	799.39'	799.07'	S	28.25'	E	799.57'	177.98°	10.40°	10.3°	-1.0°
58	5837.00'	88.70°	177.00°	86.00'	5361.84'	885.18'	884.81'	S	32.97'	E	885.42'	177.87°	4.08°	4.1°	0.3°
59	5867.00'	88.50°	177.20°	30.00'	5362.58'	915.15'	914.76'	S	34.49'	E	915.41'	177.84°	0.94°	-0.7°	0.7°
60	5898.00'	89.90°	177.50°	31.00'	5363.01'	946.13'	945.72'	S	35.92'	E	946.40'	177.82°	4.62°	4.5°	1.0°

Archer

61	5928.00'	90.20°	177.60°	30.00'	5362.98'	976.12'	975.69'	S	37.20'	E	976.40'	177.82°	1.05°	1.0°	0.3°
62	5959.00'	90.80°	178.90°	31.00'	5362.71'	1007.12'	1006.68'	S	38.15'	E	1007.40'	177.83°	4.62°	1.9°	4.2°
63	5989.00'	91.50°	179.50°	30.00'	5362.11'	1037.11'	1036.67'	S	38.57'	E	1037.38'	177.87°	3.07°	2.3°	2.0°
64	6020.00'	91.60°	179.40°	31.00'	5361.27'	1068.10'	1067.65'	S	38.86'	E	1068.36'	177.92°	0.46°	0.3°	-0.3°
65	6051.00'	91.20°	180.30°	31.00'	5360.51'	1099.09'	1098.65'	S	38.95'	E	1099.34'	177.97°	3.18°	-1.3°	2.9°
66	6081.00'	91.30°	180.30°	30.00'	5359.86'	1129.07'	1128.64'	S	38.79'	E	1129.30'	178.03°	0.33°	0.3°	0.0°
67	6111.00'	90.40°	181.00°	30.00'	5359.42'	1159.06'	1158.63'	S	38.45'	E	1159.27'	178.10°	3.80°	-3.0°	2.3°
68	6142.00'	90.20°	181.00°	31.00'	5359.25'	1190.04'	1189.63'	S	37.91'	E	1190.23'	178.17°	0.65°	-0.6°	0.0°
69	6173.00'	89.80°	181.00°	31.00'	5359.25'	1221.03'	1220.62'	S	37.37'	E	1221.19'	178.25°	1.29°	-1.3°	0.0°
70	6203.00'	90.30°	181.30°	30.00'	5359.23'	1251.01'	1250.62'	S	36.76'	E	1251.16'	178.32°	1.94°	1.7°	1.0°
71	6233.00'	90.40°	181.00°	30.00'	5359.04'	1280.99'	1280.61'	S	36.16'	E	1281.12'	178.38°	1.05°	0.3°	-1.0°
72	6264.00'	89.30°	180.90°	31.00'	5359.12'	1311.98'	1311.60'	S	35.65'	E	1312.09'	178.44°	3.56°	-3.5°	-0.3°
73	6294.00'	89.40°	179.90°	30.00'	5359.46'	1341.97'	1341.60'	S	35.44'	E	1342.07'	178.49°	3.35°	0.3°	-3.3°
74	6324.00'	89.20°	178.90°	30.00'	5359.83'	1371.97'	1371.60'	S	35.75'	E	1372.06'	178.51°	3.40°	-0.7°	-3.3°
75	6354.00'	89.10°	178.90°	30.00'	5360.28'	1401.96'	1401.59'	S	36.33'	E	1402.06'	178.52°	0.33°	-0.3°	0.0°
76	6385.00'	89.30°	179.90°	31.00'	5360.71'	1432.96'	1432.58'	S	36.65'	E	1433.05'	178.53°	3.29°	0.6°	3.2°
77	6415.00'	89.70°	180.30°	30.00'	5360.97'	1462.95'	1462.58'	S	36.60'	E	1463.04'	178.57°	1.89°	1.3°	1.3°
78	6446.00'	89.90°	180.00°	31.00'	5361.08'	1493.95'	1493.58'	S	36.52'	E	1494.03'	178.60°	1.16°	0.6°	-1.0°
79	6476.00'	90.00°	179.90°	30.00'	5361.11'	1523.95'	1523.58'	S	36.55'	E	1524.02'	178.63°	0.47°	0.3°	-0.3°
80	6537.00'	90.30°	179.70°	61.00'	5360.95'	1584.94'	1584.58'	S	36.76'	E	1585.01'	178.67°	0.59°	0.5°	-0.3°
81	6568.00'	90.20°	179.60°	31.00'	5360.81'	1615.94'	1615.58'	S	36.95'	E	1616.00'	178.69°	0.46°	-0.3°	-0.3°
82	6598.00'	90.00°	179.50°	30.00'	5360.76'	1645.94'	1645.58'	S	37.18'	E	1646.00'	178.71°	0.75°	-0.7°	-0.3°
83	6659.00'	89.80°	180.00°	61.00'	5360.86'	1706.94'	1706.58'	S	37.45'	E	1706.99'	178.74°	0.88°	-0.3°	0.8°
84	6690.00'	90.20°	179.60°	31.00'	5360.86'	1737.93'	1737.58'	S	37.56'	E	1737.98'	178.76°	1.82°	1.3°	-1.3°
85	6720.00'	91.20°	179.50°	30.00'	5360.50'	1767.93'	1767.57'	S	37.79'	E	1767.98'	178.78°	3.35°	3.3°	-0.3°
86	6751.00'	92.50°	179.50°	31.00'	5359.50'	1798.91'	1798.56'	S	38.06'	E	1798.96'	178.79°	4.19°	4.2°	0.0°
87	6782.00'	92.70°	180.00°	31.00'	5358.09'	1829.88'	1829.52'	S	38.20'	E	1829.92'	178.80°	1.74°	0.6°	1.6°
88	6812.00'	91.60°	181.40°	30.00'	5356.97'	1859.85'	1859.50'	S	37.83'	E	1859.88'	178.83°	5.93°	-3.7°	4.7°
89	6843.00'	90.20°	182.10°	31.00'	5356.48'	1890.81'	1890.48'	S	36.89'	E	1890.84'	178.88°	5.05°	-4.5°	2.3°
90	6873.00'	88.60°	182.10°	30.00'	5356.79'	1920.77'	1920.46'	S	35.79'	E	1920.79'	178.93°	5.33°	-5.3°	0.0°
91	6904.00'	85.40°	182.20°	31.00'	5358.42'	1951.68'	1951.39'	S	34.63'	E	1951.70'	178.98°	10.33°	-10.3°	0.3°
92	6935.00'	84.70°	181.70°	31.00'	5361.09'	1982.53'	1982.25'	S	33.57'	E	1982.54'	179.03°	2.77°	-2.3°	-1.6°
93	6965.00'	85.00°	181.50°	30.00'	5363.78'	2012.38'	2012.12'	S	32.74'	E	2012.39'	179.07°	1.20°	1.0°	-0.7°
94	6995.00'	87.50°	181.20°	30.00'	5365.74'	2042.30'	2042.05'	S	32.03'	E	2042.30'	179.10°	8.39°	8.3°	-1.0°
95	7026.00'	87.90°	181.10°	31.00'	5366.99'	2073.25'	2073.02'	S	31.41'	E	2073.25'	179.13°	1.33°	1.3°	-0.3°
96	7056.00'	86.40°	180.50°	30.00'	5368.48'	2103.20'	2102.97'	S	30.99'	E	2103.20'	179.16°	5.38°	-5.0°	-2.0°
97	7087.00'	85.90°	180.10°	31.00'	5370.56'	2134.13'	2133.90'	S	30.83'	E	2134.13'	179.17°	2.06°	-1.6°	-1.3°
98	7117.00'	86.70°	179.60°	30.00'	5372.50'	2164.06'	2163.84'	S	30.91'	E	2164.06'	179.18°	3.14°	2.7°	-1.7°
99	7148.00'	88.70°	178.90°	31.00'	5373.74'	2195.04'	2194.81'	S	31.32'	E	2195.04'	179.18°	6.83°	6.5°	-2.3°
100	7179.00'	90.10°	178.00°	31.00'	5374.07'	2226.03'	2225.80'	S	32.16'	E	2226.03'	179.17°	5.37°	4.5°	-2.9°
101	7209.00'	91.00°	177.70°	30.00'	5373.78'	2256.02'	2255.78'	S	33.28'	E	2256.02'	179.15°	3.16°	3.0°	-1.0°
102	7240.00'	90.30°	178.10°	31.00'	5373.43'	2287.01'	2286.75'	S	34.42'	E	2287.01'	179.14°	2.60°	-2.3°	1.3°
103	7272.00'	88.50°	178.80°	32.00'	5373.76'	2319.00'	2318.74'	S	35.28'	E	2319.01'	179.13°	6.04°	-5.6°	2.2°
104	7304.00'	87.00°	179.40°	32.00'	5375.02'	2350.98'	2350.71'	S	35.78'	E	2350.98'	179.13°	5.05°	-4.7°	1.9°
105	7335.00'	87.60°	179.60°	31.00'	5376.48'	2381.94'	2381.67'	S	36.05'	E	2381.94'	179.13°	2.04°	1.9°	0.6°
106	7367.00'	88.80°	179.40°	32.00'	5377.48'	2413.93'	2413.65'	S	36.33'	E	2413.93'	179.14°	3.80°	3.8°	-0.6°
107	7398.00'	89.50°	178.90°	31.00'	5377.94'	2444.92'	2444.65'	S	36.79'	E	2444.92'	179.14°	2.77°	2.3°	-1.6°
108	7430.00'	88.40°	178.80°	32.00'	5378.53'	2476.92'	2476.63'	S	37.44'	E	2476.92'	179.13°	3.45°	-3.4°	-0.3°
109	7462.00'	87.30°	178.90°	32.00'	5379.73'	2508.89'	2508.61'	S	38.08'	E	2508.89'	179.13°	3.45°	-3.4°	0.3°
110	7493.00'	86.30°	179.40°	31.00'	5381.46'	2539.84'	2539.55'	S	38.54'	E	2539.85'	179.13°	3.61°	-3.2°	1.6°
111	7520.00'	86.20°	179.00°	27.00'	5383.23'	2566.79'	2566.49'	S	38.91'	E	2566.79'	179.13°	1.52°	-0.4°	-1.5°
112	7615.00'	87.20°	178.20°	95.00'	5388.70'	2661.62'	2661.30'	S	41.23'	E	2661.62'	179.11°	1.35°	1.1°	-0.8°
113	7710.00'	88.60°	178.60°	95.00'	5392.18'	2756.55'	2756.20'	S	43.88'	E	2756.55'	179.09°	1.53°	1.5°	0.4°
114	7805.00'	90.40°	178.70°	95.00'	5393.01'	2851.53'	2851.17'	S	46.12'	E	2851.54'	179.07°	1.90°	1.9°	0.1°
115	7901.00'	90.90°	178.60°	96.00'	5391.92'	2947.52'	2947.13'	S	48.38'	E	2947.53'	179.06°	0.53°	0.5°	-0.1°
116	7977.00'	89.60°	178.80°	76.00'	5391.58'	3023.52'	3023.11'	S	50.10'	E	3023.53'	179.05°	1.73°	-1.7°	0.3°
117	8072.00'	90.60°	177.90°	95.00'	5391.42'	3118.51'	3118.07'	S	52.84'	E	3118.52'	179.03°	1.42°	1.1°	-0.9°
118	8167.00'	89.60°	177.50°	95.00'	5391.25'	3213.47'	3212.99'	S	56.65'	E	3213.49'	178.99°	1.13°	-1.1°	-0.4°
119	8261.00'	90.40°	176.90°	94.00'	5391.25'	3307.41'	3306.88'	S	61.24'	E	3307.45'	178.94°	1.06°	0.9°	-0.6°
120	8356.00'	89.00°	176.50°	95.00'	5391.75'	3402.32'	3401.72'	S	66.71'	E	3402.37'	178.88°	1.53°	-1.5°	-0.4°
121	8451.00'	89.60°	178.10°	95.00'	5392.91'	3497.26'	3496.60'	S	71.19'	E	3497.33'	178.83°	1.80°	0.6°	1.7°
122	8561.00'	89.70°	179.30°	110.00'	5393.58'	3607.25'	3606.57'	S	73.68'	E	3607.32'	178.83°	1.09°	0.1°	1.1°
123	8659.00'	91.00°	180.10°	98.00'	5392.98'	3705.24'	3704.56'	S	74.20'	E	3705.31'	178.85°	1.56°	1.3°	0.8°

Archer

124	8754.00'	91.10°	178.40°	95.00'	5391.24'	3800.22'	3799.54'	S	75.44'	E	3800.28'	178.86°	1.79°	0.1°	-1.8°
125	8849.00'	91.70°	180.00°	95.00'	5388.92'	3895.19'	3894.49'	S	76.77'	E	3895.25'	178.87°	1.80°	0.6°	1.7°
126	8944.00'	90.60°	179.80°	95.00'	5387.02'	3990.16'	3989.47'	S	76.93'	E	3990.22'	178.90°	1.18°	-1.2°	-0.2°
127	9039.00'	90.60°	181.00°	95.00'	5386.02'	4085.13'	4084.46'	S	76.27'	E	4085.18'	178.93°	1.26°	0.0°	1.3°
128	9134.00'	89.60°	178.30°	95.00'	5385.86'	4180.12'	4179.45'	S	76.85'	E	4180.16'	178.95°	3.03°	-1.1°	-2.8°
129	9230.00'	91.50°	177.90°	96.00'	5384.93'	4276.09'	4275.39'	S	80.03'	E	4276.14'	178.93°	2.02°	2.0°	-0.4°
130	9324.00'	89.60°	179.60°	94.00'	5384.03'	4370.08'	4369.36'	S	82.08'	E	4370.13'	178.92°	2.71°	-2.0°	1.8°

Archer

131	9419.00'	89.00°	178.90°	95.00'	5385.19'	4465.07'	4464.34'	S	83.32'	E	4465.12'	178.93°	0.97°	-0.6°	-0.7°
132	9514.00'	87.80°	181.70°	95.00'	5387.85'	4560.01'	4559.29'	S	82.83'	E	4560.04'	178.96°	3.21°	-1.3°	2.9°
133	9609.00'	89.00°	180.30°	95.00'	5390.50'	4654.92'	4654.23'	S	81.17'	E	4654.94'	179.00°	1.94°	1.3°	-1.5°
134	9704.00'	88.30°	180.30°	95.00'	5392.74'	4749.87'	4749.21'	S	80.67'	E	4749.89'	179.03°	0.74°	-0.7°	0.0°
135	9798.00'	90.10°	181.30°	94.00'	5394.05'	4843.82'	4843.18'	S	79.36'	E	4843.83'	179.06°	2.19°	1.9°	1.1°
136	9893.00'	92.40°	183.70°	95.00'	5391.98'	4938.63'	4938.06'	S	75.22'	E	4938.63'	179.13°	3.50°	2.4°	2.5°
137	9988.00'	91.80°	179.60°	95.00'	5388.49'	5033.45'	5032.93'	S	72.49'	E	5033.45'	179.17°	4.36°	-0.6°	-4.3°
138	10048.00'	93.10°	180.00°	60.00'	5385.93'	5093.40'	5092.88'	S	72.70'	E	5093.40'	179.18°	2.27°	2.2°	0.7°
139	10098.00'	93.10°	180.00°	50.00'	5383.22'	5143.32'	5142.80'	S	72.70'	E	5143.32'	179.19°	0.00°	0.0°	0.0°
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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/27/2013
Job End Date:	6/29/2013
State:	Kansas
County:	Comanche
API Number:	15-033-21714-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Thomas 3319 1-28H
Longitude:	-99.39540000
Latitude:	37.14970000
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	5,383
Total Base Water Volume (gal):	1,894,555
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
C102	Bosque Disposal Systems, LLC	Oxidizer					
			Chlorine Dioxide	10049-04-4	15.00000	100.00000	
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.							
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Guar gum	9000-30-0	0.00563		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Distillates (petroleum), hydrotreated light	64742-47-8	0.32832		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					

			Sorbitol Tetraoleate	61723-83-9	0.00921		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alcohols, C12-C16, ethoxylated	68551-12-2	0.00461		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Polyethylene glycol monohexyl ether	31726-34-8	0.11183		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alcohols, C12-C14, ethoxylated	68439-50-9	0.00461		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Prop-2-yn-1-ol	107-19-7	0.00217		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alcohols, C12-13, ethoxylated	66455-14-9	0.00006		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			2-propenamid	79-06-1	0.00138		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Hydrogen chloride	7647-01-0	2.72085		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					

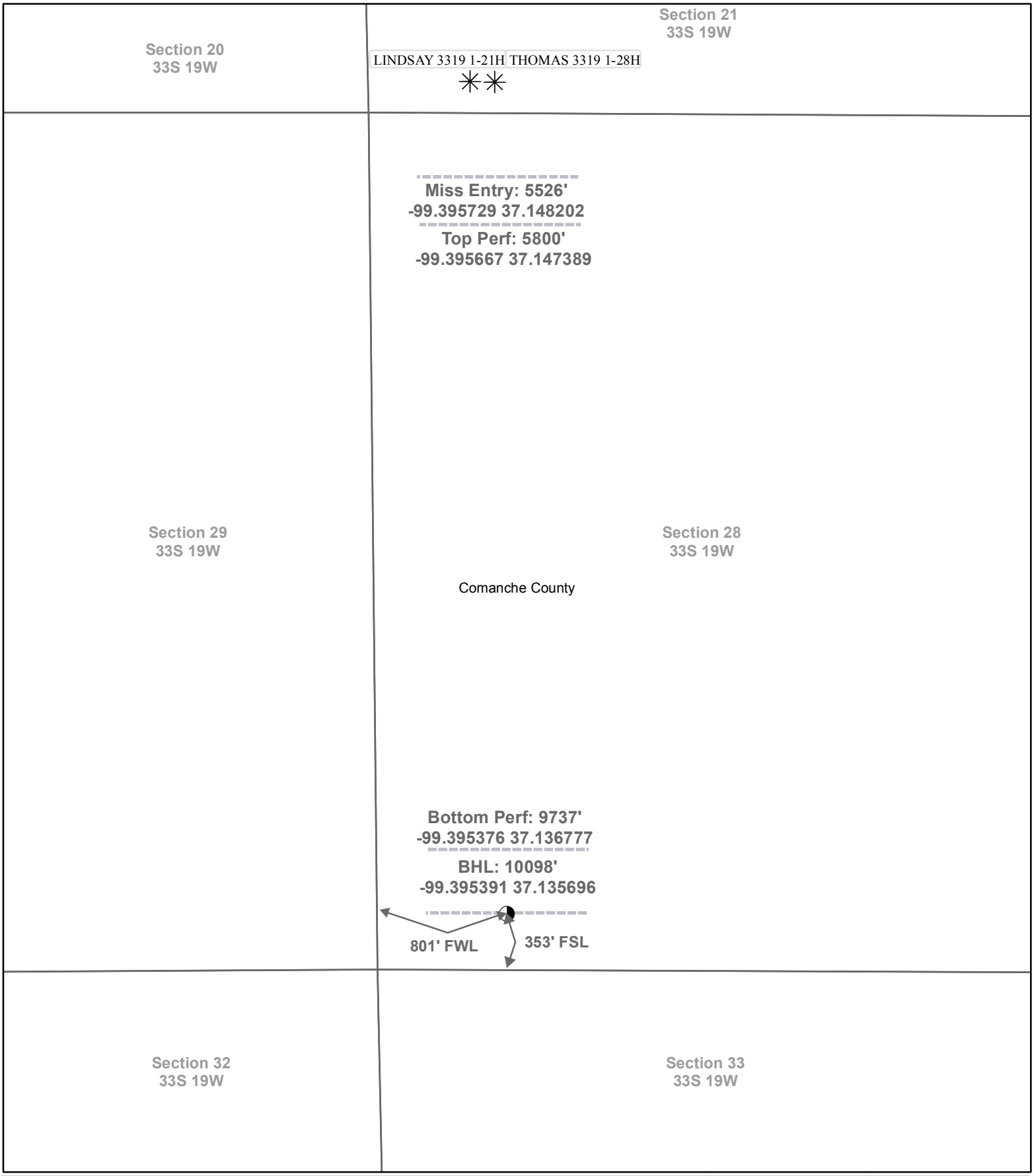
			Ethoxylated oleic acid	9004-96-0	0.03070		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Thiourea, polymer with formaldehyde and 1-phenylethanone	68527-49-1	0.00699		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Sodium erythorbate	6381-77-7	0.01921		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Sorbitan monooleate	1338-43-8	0.03070		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alkenes, C>10 a-	64743-02-8	0.00145		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alcohols, C10-C16, ethoxylated	68002-97-1	0.00614		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Sodium sulfocyanate	540-72-7	0.00798		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Water (Including Mix Water Supplied by Client)*	NA			

HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alcohols, C14-15, ethoxylated (7EO)	68951-67-7	0.00325		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Bis(hydrogenated tallow alkyl) dimethylammonium bentonite	68953-58-2	0.00024		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			2-Propenoic acid, ammonium salt	10604-69-0	0.00752		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Propan-2-ol	67-63-0	0.00098		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Trisodium ortho phosphate	7601-54-9	0.03341		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Methanol	67-56-1	0.01157		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			C14 alpha olefin ethoxylate	84133-50-6	0.00461		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					

			Ethane-1,2-diol	107-21-1	0.00951		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Fatty acids, tall-oil	61790-12-3	0.00849		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Crystalline silica	14808-60-7	96.14612		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Dicoco dimethyl quaternary ammonium chloride	61789-77-3	0.00490		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Potassium hydroxide	1310-58-3	0.00022		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Ammonium chloride	12125-02-9	0.15352		
HCL 15, Slickwater, WF105	Schlumberger	Corrosion Inhibitor, Gelling Agent, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Acrylamide/ammonium acrylate copolymer	26100-47-0	0.24563		

* 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)



SANDRIDGE
THE POWER OF US

Actual BH Location

SandRidge Wells

Perf

Sections

Actual Bottom-Hole Location of Thomas 3319 1-28H
Comanche County, Kansas
T&R: 33S 19W
Section: 28, 801' FWL & 353' FNL
-99.395391 37.135696

1 in = 785 ft

0 550 1,100 2,200 Feet

N

Draftsman: Aaron Birk	Draft Date: 8/29/2013
Drawing Name/Number: Addendum_Thomas 3319 1-28H.mxd	
Coordinate System: NAD 1927 State Plane Kansas South FIPS: 1502	

Remarks

Tiffany Golay 06/07/013 10:40 am	TD= 10,098'
Tiffany Golay 08/12/013 12:27 pm	Conductor weight = 133 lbs/ft No liner cemented downhole
Tiffany Golay 08/30/013 08:33 am	Additional Fluid Mgmt Info: 2580 bbls hauled to Guard, Inc., 23-22N-13W, Major, OK; 140 bbls hauled to West OK Disposal, 21-23N-21W, Woodward, OK