

Confidentiality Requested:

Yes No

Kansas Corporation Commission Oil & Gas Conservation Division

1133584

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 #			API No. 15				
Name:			Spot Description:				
Address 1:			SecTwpS. R				
Address 2:			F6	eet from North / S	South Line of Section		
City: S	tate: Zi	p:+	Fe	eet from East / V	West Line of Section		
Contact Person:			Footages Calculated from	Nearest Outside Section Co	orner:		
Phone: ()			□ NE □ NW	V □SE □SW			
CONTRACTOR: License #			GPS Location: Lat:	, Long:			
Name:				(e.g. xx.xxxxx)	(e.gxxx.xxxxx)		
Wellsite Geologist:			Datum: NAD27	NAD83 WGS84			
Purchaser:			County:				
Designate Type of Completion:			Lease Name:	We	ell #:		
New Well Re	-Fntrv	Workover	Field Name:				
	_	_	Producing Formation:				
☐ Oil ☐ WSW ☐ D&A	☐ SWD	∐ SIOW □ SIGW	Elevation: Ground: Kelly Bushing:				
	GSW	Temp. Abd.	Total Vertical Depth:	Plug Back Total De	epth:		
CM (Coal Bed Methane)	dow	тетір. ды.	Amount of Surface Pipe Se	et and Cemented at:	Feet		
Cathodic Other (Con	e. Expl., etc.):		Multiple Stage Cementing	Collar Used? Yes	No		
If Workover/Re-entry: Old Well In			If yes, show depth set:		Feet		
Operator:			If Alternate II completion, o	cement circulated from:			
Well Name:			feet depth to:	w/	sx cmt.		
Original Comp. Date:	Original To	otal Depth:					
Deepening Re-perf.	Conv. to E	NHR Conv. to SWD	Drilling Fluid Managemer	nt Plan			
☐ Plug Back	Conv. to G	SW Conv. to Producer	(Data must be collected from t				
O constitued and	D		Chloride content:	ppm Fluid volume:	bbls		
CommingledDual Completion			Dewatering method used:				
SWD			Location of fluid disposal if	f haulad offsita:			
☐ ENHR			Location of fluid disposal fi	nauleu olisite.			
			Operator Name:				
_			Lease Name:	License #:			
Spud Date or Date Rea	ached TD	Completion Date or	QuarterSec	TwpS. R	East _ West		
Recompletion Date Recompletion Date			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 Approved by: Date:				

Page Two



Operator Name:				_ Lease l	Name: _			Well #:		
Sec Twp	S. R	East V	West	County	:					
INSTRUCTIONS: Shopen and closed, flow and flow rates if gas to	ring and shut-in pres o surface test, along	sures, whether s with final chart(shut-in pre s). Attach	ssure reac extra shee	hed stati t if more	c level, hydrosta space is neede	itic pressures, bot d.	tom hole temp	erature, flui	d recovery,
Final Radioactivity Lo- files must be submitte						gs must be ema	ailed to kcc-well-lo	gs@kcc.ks.go	v. Digital el	ectronic log
Drill Stem Tests Taker (Attach Additional S		Yes	No				on (Top), Depth ar			mple
Samples Sent to Geo	logical Survey	Yes	☐ No		Nam	e		Тор	Da	tum
Cores Taken Electric Log Run		☐ Yes ☐ Yes	☐ No ☐ No							
List All E. Logs Run:										
			CASING		☐ Ne					
	0: 11-1-	· ·				ermediate, product		# O	T	d Damasat
Purpose of String	Size Hole Drilled	Size Cas Set (In O		Weig Lbs. /		Setting Depth	Type of Cement	# Sacks Used		d Percent itives
		AD	DITIONAL	CEMENTIN	NG / SQL	JEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Ce	ement	# Sacks	Used		Type and F	ercent Additives		
Perforate Protect Casing										
Plug Back TD Plug Off Zone										
Did you perform a hydrau	•					Yes	No (If No, ski	p questions 2 ar	nd 3)	
Does the volume of the to							= :	p question 3)	of the ACO	()
Was the hydraulic fractur	ing treatment information	on submitted to the	e chemicai d	isciosure re	gistry?	Yes	No (If No, fill	out Page Three	or the ACO-1	<i>)</i>
Shots Per Foot		ION RECORD - I Footage of Each I					cture, Shot, Cement mount and Kind of Ma		d	Depth
TUBING RECORD:	Size:	Set At:		Packer A	i:	Liner Run:	Yes No			
Date of First, Resumed	Production, SWD or Ef	NHR. Prod	ducing Meth	ıod:		1				
			Flowing	Pumpin	g	Gas Lift C	Other (Explain)			
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Wate	er B	bls. (Gas-Oil Ratio		Gravity
DISPOSITIO	ON OF GAS:		M	METHOD OF	COMPLE	ETION:		PRODUCTION	ON INTERVA	
Vented Sold		Open		Perf.	Dually	Comp. Cor	mmingled			
	bmit ACO-18.)		(Specify)		(Submit)	ACO-5) (Sub	mit ACO-4)			

Form	ACO1 - Well Completion			
Operator	SandRidge Exploration and Production LLC			
Well Name	Anne 3306 1-16H			
Doc ID	1133584			

All Electric Logs Run

Side Track Boresight
Mud Log
Porosity
Resistivity
Prizm

Form	ACO1 - Well Completion			
Operator	SandRidge Exploration and Production LLC			
Well Name	Anne 3306 1-16H			
Doc ID	1133584			

Tops

Name	Тор	Datum
Base Heebner	3253	
Lansing	3625	
Cottage Grove	3862	
Oswego Limestone	4138	
Cherokee Group	4292	
Verdigris Limestone	4316	
Mississippi Unconformity	4480	
Mississippi Lime	4500	

Form	ACO1 - Well Completion			
Operator	SandRidge Exploration and Production LLC			
Well Name	Anne 3306 1-16H			
Doc ID	1133584			

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	8475-8689	4093 bbls water, 36 bbls acid, 75M lbs sd, 4347 TLTR	
5	8093-8420	4087 bbls water, 36 bbls acid, 75M lbs sd, 8792 TLTR	
5	7717-8034	4082 bbls water, 36 bbls acid, 75M lbs sd, 13166 TLTR	
5	7402-7670	4077 bbls water, 36 bbls acid, 75M lbs sd, 17937 TLTR	
5	7054-7315	4071 bbls water, 36 bbls acid, 75M lbs sd, 21639 TLTR	
5	6589-6988	4064 bbls water, 36 bbls acid, 75M lbs sd, 26037 TLTR	
5	6298-6546	4060 bbls water, 36 bbls acid, 75M lbs sd, 30330 TLTR	
5	5916-6227	4054 bbls water, 36 bbls acid, 75M lbs sd, 35344 TLTR	
5	5288-5850	4044 bbls water, 36 bbls acid, 75M lbs sd, 39628 TLTR	

Form	ACO1 - Well Completion			
Operator	SandRidge Exploration and Production LLC			
Well Name	Anne 3306 1-16H			
Doc ID	1133584			

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Conductor	30	20	75	90	Mid- Continent Conductor grout	10	none
Surface	12.25	9.63	36	751	Halliburton Extendac em and Swiftcem Systems	360	3% Calcium Chloride, .25 lbm Ploy-E- Flake
Intermedia te	8.75	7	26	5245	Halliburton Econocem and Halcem Systems	350	5 lbm Kol- Seal, .25% SA-1015, .2% CFR- 3
Liner	6.12	4.5	11.6	8883	Halliburton Econocem System	410	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/

Sam Brownback, Governor

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

April 16, 2013

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

Re: ACO1 API 15-077-21916-01-00 Anne 3306 1-16H NE/4 Sec.16-33S-06W Harper County, Kansas

Dear Production Department:

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

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

Respectfully, Tiffany Golay

Mid-Continent Conductor, LC

P.O. Box 1570

Woodward, OK 73802

Phone: (580)254-5400 Fax: (580)254-3242

Bill To	
SandRidge Energy, Inc. Attn: Purchasing Mgr. 123 Robert S. Kerr Avenue Oklahoma City, OK. 73102	

Invoice

Date	Invoice #
3/21/2013	1776

	Ordered By	Terms	Da	ate of Service	Lea	ase Nar	ne/Legal Desc.	Drilling	Rig
	Earl Sullivan	Net 45		3/21/2013	Anne 33	306 1-16	6H, Harper Cnty, KS	Latshaw	38
	ltem	Quantity					Description		1
20" F Mous 16" F Cella 6' X (Mud Trans Groud Groud Trans Fence Weld Dirt F	se Hole ripe r Hole S Tinhorn and Water sport Truck - Conductor t & Trucking t Pump sport Truck - Conductor e Panels or & Materials Removal r Plate	1	90 80 80 1 1 1 10 1 4 1 1	Drilled 90 ft. con Furnished 90 ft. co Drilled 80 ft. mot Furnished 80 ft. co Drilled 6' X 6' ce Furnished and se Furnished mud an Furnished grout a Furnished grout a Furnished grout a Furnished safety Furnished safety Furnished welder Furnished labor a Furnished cover a Furnished cover a Furnished cover a	of 20 inch of use hole of 16 inch roll ar hole to 'X 6' tin and water to und trucking oump and water to and mater and equipm plates AFE No.	mouse handom location g to location g to location odisplace odispl	ole pipe ation se cement down center of ductor holes dirt removal F. DC 12 ANNE 60-010 0,340		
					S	Subto	tal		\$19,340.00
					S	Sales	Tax (0.0%)		\$0.00
							Total	\$19,340	0.00

Cementing Job Summary

The Road to Excellence Starts with Safety Quote #: Sales Order #: 900313193 Ship To #: 2988996 Sold To #: 305021 Customer Rep: Melland, Carl **Customer: SANDRIDGE ENERGY INC EBUSINESS** API/UWI #: 15-077-21916 Well #: 1-16H Well Name: Anne 3306 County/Parish: Harper State: Kansas City (SAP): ANTHONY Field: Legal Description: Section 16 Township 33S Range 6W Rig/Platform Name/Num: 38 Contractor: LATSHAW Job Purpose: Cement Surface Casing Job Type: Cement Surface Casing Well Type: Development Well Srvc Supervisor: UNDERWOOD, BILLY MBU ID Emp #: 159068 Sales Person: FRENCH, JEREMY Job Personnel Exp Hrs Emp# **HES Emp Name** Exp Hrs Emp# **HES Emp Name** Exp Hrs Emp# **HES Emp Name** 515877 VAN DER HORST, 6.5 UNDERWOOD, BILLY 159068 518980 7.5 6.5 COE, KYLE E **DANIEL Scott** Dale Equipment Distance-1 way **HES Unit #** Distance-1 way **HES Unit# HES Unit#** Distance-1 way **HES Unit#** Distance-1 way 11748363 100 mile 11706678 100 mile 10825967 100 mile 11288856 100 mile NA 100 mile Job Hours On Location Operating On Location Operating **Date** On Location Operating Date Date Hours Hours Hours Hours Hours Hours 3-28-13 3-27-12 5 0 Total is the sum of each column separately TOTAL **Job Times** Job Time **Time Zone** Date Formation Name 27 - Mar - 2013 14:30 CST Called Out Bottom Formation Depth (MD) Top 27 - Mar - 2013 18:30 CST BHST On Location Form Type 28 - Mar - 2013 00:35 CST 750. ft Job Depth TVD 750. ft Job Started Job depth MD 28 - Mar - 2013 01:25 CST Wk Ht Above Floor Job Completed Water Depth 28 - Mar - 2013 02:00 CST Departed Loc Perforation Depth (MD) From To Well Data Bottom Bottom Top MD Top Size ID Weight Thread Grade Description New / Max TVD TVD MD Used pressure in in lbm/ft ft ft ft ft psig 750. 12.25" Open Hole 12.25 LTC J-55 750. 36. 9.625" Surface Unknow 9.625 8.921 Casing **Tools and Accessories** Make Size Size Qty Make Depth Type Qty Type Size | Qty Make Depth Type Top Plug **Guide Shoe** Packer **Bottom Plug** Float Shoe Bridge Plug SSR plug set Retainer Float Collar Plug Container Insert Float Centralizers Stage Tool Miscellaneous Materials % Acid Type Qty Conc Conc Surfactant Conc **Gelling Agt** Sand Type Size Qty Inhibitor Conc Treatment Fld Conc Fluid Data Stage/Plug #: 1 Mix Fluid Rate **Total Mix** Mixing Yield Fluid Name Qty Fluid Stage Type Qty bbl/min Fluid Gal/sk ft3/sk Gal/sk Density # uom Ibm/gal

Stage/Plug #: 1

Cementing Job Summary

Si	tage/F	lug	#: 1													
Fluid #	Sta	ige T	уре		Fluid	Name		Qty	Qty uom	Mixing Density Ibm/gal	Yield ft3/sk	Mix FI Gal/s		Rate ol/min		al Mix Gal/sk
1	Frest	n Wa	ter					10.00	bbl	8.33	.0	.0		.0		
2	HLC STANI	DAR	D	EXTE	NDACEM (TM)	SYSTEM (4	52981)	160.0	sacks	12.4	2.11	11.6	4		11	.64
	3 (%		CALC	IUM CHLORIDI	E, PELLET,	50 LB (1	01509387	')							
	0.25	lbm		POLY	-E-FLAKE (101	216940)										
	11.63	7 Ga	I	FRES	H WATER											
3	STAN	IDAF	RD	SWIF	CEM (TM) SY	STEM (4529	90)	200.0	sacks	15.6	1.2	5.32			5.	.32
	2 9	%		CALC	IUM CHLORIDI	E, PELLET, 5	50 LB (1	01509387	")	-						
	0.125	lbm		POLY	-E-FLAKE (101	216940)										
	5.319	Gal		FRES	H WATER											
4	Displ	acer	nent					55.00	bbl	8.33	.0	.0		.0		
Ca	lcula	ted \	Values		Pressu	res				V	olumes					
Displac	cemen	t	55	SI	ut In: Instant		Lost Re	turns		Cement S	lurry	60	/42 F	ad		
Top Of				5	Viin		Cemen	t Returns		Actual Di	<u> </u>	-		reatm		
Frac G	radien	t		15	Min		Spacer	S	10	Load and	Breakdo	wn	Т	otal J	ob	167
			1				R	ates								
Circul	lating		5		Mixing	5		Displac	ement	5		Avg.	. Job		5	
Cem	ent Le	ft In	Pipe	Amou	nt 42 ft Re	ason Shoe	Joint									
Frac F	Ring#	1@		ID _	Frac ring # 2	2@ 1	D	Frac Rin		The second secon		Frac Rii	ng # 4	@	IC	
Th	e Info	orm	ation	State	d Herein Is	Correct	Custom	er Represe	entative S							

Cementing Job Summary

The Road to Excellence Starts with Safety Sold To #: 305021 **Ship To #:** 2988996 Quote #: Sales Order #: 900328241 Customer: SANDRIDGE ENERGY INC EBUSINESS Customer Rep: Melland, Carl Well Name: Anne 3306 Well #: 1-16H API/UWI #: 15-077-21916 Field: City (SAP): ANTHONY County/Parish: Harper State: Kansas Legal Description: Section 16 Township 33S Range 6W Contractor: Latshaw Drlg. Rig/Platform Name/Num: 38 Job Purpose: Cement Intermediate Casing Well Type: Development Well Job Type: Cement Intermediate Casing Sales Person: FRENCH, JEREMY Srvc Supervisor: VAUGHAN, RYAN MBU ID Emp #: 453194 Job Personnel **HES Emp Name HES Emp Name** Exp Hrs Emp# Exp Hrs Emp# **HES Emp Name** Exp Hrs Emp# VAUGHAN, RYAN AIRINGTON, 14 497322 14 453194 JOSEPH Tyler Nicholas Equipment HES Unit # HES Unit# Distance-1 way Distance-1 way HES Unit# Distance-1 way **HES Unit#** Distance-1 way **Job Hours** Date On Location Operating Date On Location Operating Date On Location Operating Hours Hours Hours Hours Hours Hours 4/1/13 14 1.5 TOTAL Total is the sum of each column separately Job **Job Times Formation Name** Date Time Time Zone Formation Depth (MD) Top Bottom 31 - Mar - 2013 Called Out 05:30 CST BHST Form Type 31 - Mar - 2013 CST On Location 14:00 Job depth MD 5201. ft Job Depth TVD 5201. ft 01 - Apr - 2013 02:43 CST Job Started Water Depth Wk Ht Above Floor 5. ft Job Completed 01 - Apr - 2013 03:43 CST Perforation Depth (MD) From 01 - Apr - 2013 CST To Departed Loc 05:10 **Well Data** Description New / Max Size ID Top MD Weight Thread Grade **Bottom Bottom** Top Used pressure in lbm/ft MD TVD in ft TVD psig ft ft ft 8.75" Open Hole 8.75 5201. 750. 7" Intermediate Unknow 7. 6.276 26. LTC P-110 5201. Casing n 9.625" Surface Unknow 9.625 8.921 36. LTC J-55 750. Casing n **Tools and Accessories** Type Size Qty Make Depth Type Size Qty Make Depth Type Size Qty Make **Guide Shoe** Packer Top Plug hes 1 Float Shoe **Bridge Plug Bottom Plug** Float Collar Retainer SSR plug set Insert Float Plug Container hes Stage Tool Centralizers Miscellaneous Materials Gelling Agt Conc Surfactant Conc Acid Type Conc % Qty **Treatment Fld** Conc Inhibitor Conc Sand Type Size Qty Fluid Data Stage/Plug #: 1 Fluid Stage Type Fluid Name Mixing Qty Qty Yield Mix Fluid Rate **Total Mix**

Stage/Plug #: 1

#

Summit Version: 7.3.0045

uom

Density

lbm/gal

ft3/sk

Gal/sk

bbl/min Fluid Gal/sk

Cementing Job Summary

Fluid #	Stage T	уре		Fluid N	lame		Qty	Qty uom	Mixing Density Ibm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Rig Supp Gel Water	lied					30.00	bbl	8.33	.0	.0	.0	
2	Lead Cen	nent	ECO	NOCEM (TM) SY	STEM (452	992)	150.0	sacks	13.6	1.5	6.76		6.76
	5 lbm		KOL-	SEAL, BULK (10	0064233)								
	0.25 %		SA-10	015, 50 LB SAC	(10207704	l6)							
	0.2 %		CFR-	3, W/O DEFOAM	1ER, 50 LB	SK (100	003653)						
	6.756 Gal		FRES	SH WATER			-						
3	Tail Ceme	ent	HALC	CEM (TM) SYSTI	EM (452986)	200.0	sacks	15.6	1.19	5.08		5.08
	0.4 %		HALA	D(R)-9, 50 LB (1	00001617)		2						
	2 lbm		KOL-	SEAL, BULK (10	0064233)								
	5.076 Gal		FRES	SH WATER									
4	Displacer	nent					198.00	bbl	8.33	.0	.0	.0	
C	alculated \	/alues		Pressur	es				V	olumes			
Displa	cement	198	S	hut In: Instant		Lost Re	turns	0	Cement S	lurry	82	Pad	
Top O	f Cement	306	5 5	Min		Cemen	t Returns	0	Actual Di		ent 198	Treatm	ent
Frac G	Bradient		1	5 Min		Spacer	S	30	Load and	Breakdo	wn	Total J	lob
						R	ates						
Circu	ılating			Mixing	6		Displac	ement	6		Avg. Jo	ob	6
Cem	nent Left In	Pipe	Amou	unt 84 ft Rea	son Shoe	Joint							
Frac	Ring # 1 @		ID	Frac ring # 2	@ 1	D	Frac Rin	g#3@	l IE) F	rac Ring	#4@	ID
Tł	he Inform	ation	State	ed Herein Is (Correct	Custom	er Represe	entative S	Signature				8

Summit Version: 7.3.0078

Cementing Job Summary

Sold To #	3050	121		Shin '		: 29889		cellence	<i>Stai</i> Quot		ith Saf	ety		Sales	Order	#: 9003	41944	4
Customer			E EN								r Ren	Melland,						
Well Name				LINGTH	40 E			: 1-16H	Just	JIIIC	ixep.			// #- 1	15-077-	21916		
Field:	. 411	16 3300		ity (SAP) · ^		CONTRACTOR CONTRACTOR	County	/Pari	ch. L	darner				: Kansa			
Legal Des	orint:	001 50							rail	311. F	iaipei			Juic	· Kans	10		
				IO IOWII					Aluma -	. 20								
Contracto						Kig/Pia	ırorm	Name/N	vum:	. 38								_
Job Purpo																<u> </u>		
Well Type		<u> </u>						ement P										
Sales Pers	on:	FRENC	H, JE	REMY		Srvc St	•	sor: Ol			RIC	MBL	ID En	np #:	45533	9		
***								Job Per										
HES En			Ехр Н					Name		p Hrs			IES Em			Exp Hrs		•
KIRKLANI	D, LAR	RRY	5	28616	2	MCLAIN	I, MAR	SHALL	5		51452	8 OLS	ON, EF	RIC E	igene	5	4553	139
Don	IC Da		E	50200	,	Shelby									_			
STILL, ER	IC Dea	an	5	52389	/													
	. 200	_		1		1		Equip					to allow at		111411	D:-4-	4	
HES Unit		stance-	1 way	HES U			nce-1			Unit		stance-1			Unit #	Distan		vay
107142530		0 mile		107840		100 m			1085) mile		11360	545	100 mil	U	
11706676	10	0 mile		117158	03	100 m	ile		11748	8311	100) mile						
								Job H	ours									
Date	On	Location	on (perating		Date		On Locat	tion		erating		ate	On	Locati		perati	_
		Hours		Hours	\perp			Hours	;		Hours				Hours		Hours	;
					丄									ļ				
OTAL								To	tal is	the s	um of ea	ach colun						
				Job										Time				
ormation !													Date		Tim		ne Zo	ne
ormation [epth)	(MD) T	ор			Botto	om				d Out		- Apr - 2		15:0		CST	
orm Type					IST			137 de	_		ocation		- Apr - 2		18:0		CST	
ob depth N		8	8913. f			epth TVE		5201.			Started	_	- Apr - 2		20:3		CST	_
Vater Depth				W	k Ht	Above F	loor				Complet	NO. TO	- Apr - 2		22:0		CST	
erforation	Depth	(MD)F	rom			То				Depa	rted Lo	c 15	- Apr - 2	2013	23:5	0	CST	
		-						Well D								1		
Descripti	on	New /		ax Si		ID	Weig		Th	read		Grade	Тор		Botton		Bott	
		Used	pres		n	in	lbm/	ft					fi	t	MD ft	TVD	TV	
10E" Ones	Llala		ps	ıg		6 105							520)1	8912.	11	11	-
6.125" Oper 1.5" Product		Unknow		4.	5	6.125 4.	11.6		1	TC		N-80	524	-	8913.	+	1	
iner	1011	n	*	4.	5	٦.	11.0		L			14 00	32		55 10.			
7" Intermedi	ate	Unknow	/	7	. 1	6.276	26.		Ľ	TC		P-110			5245.			
asing		n																
1" Drill Pipe		Unknow	/	4		3.34	14.		Unk	nown				İ	3739.8			
		n													1000	_	-	
" HW Drill P	ipe	Unknow	1	4			29.		Unk	nown					1380.			
		n															L	
		1		1_			,	and Ac	-				- 200			01	6.0	
Туре	Size	Qty	Make	Depth		Туре	Size	Qty	M	ake	Depth		pe	S	ize	Qty	Ma	ке
uide Shoe				-	Pac			-				Top Plu		-			-	
oat Shoe					_	lge Plug	-		-			Bottom		-			-	
loat Collar		1			Reta	ainer						SSR plu					-	
sert Float				-				-	-			Plug Co		-			-	
tage Tool								10	n.F.			Centrali	zers				L	-
								laneous	s Ma			Ta						01
elling Agt				onc		Surfac				Con		Acid Ty			Qty		onc	%
reatment F	d		Co	nc		Inhibit	tor			Con	C	Sand T	ype		Size		Qty	

Monday, April 15, 2013 22:41:00

Cementing Job Summary

						Flu	id Data									
St	age/Plug	#: 1														
Fluid #	Stage 1	Гуре		Fluid	lame		Qty	Qty uom	Mixing Density Ibm/gal	Yield ft3/sk	Flu Gal	iid	Rate bbl/min		otal M id Gal	
1	TUNED SPACER II	11 2	TUNE	D SPACER III	SBM (4838	326)	30.00	bbl	10.	.0	.0)	5.0			
	38.32 gal/b	bl	FRES	SH WATER												
	59.8 lbm/b	bl	BARC	OID 41 - 100 LB	BAG (47809	96)										
1	STANDAI POZ 34 / ENHANCE		ECO	NOCEM (TM) S	YSTEM (452	2992)	410.0	sacks	13.6	1.51	6.8	19	5.0		6.89	
	5 lbm		KOL-	SEAL, BULK (10	00064233)											9
	0.25 %		SA-10	15, 50 LB SAC	K (10207704	16)										
	0.2 %		CFR-	3, W/O DEFOAM	MER, 50 LB	SK (100	003653)									
	6.886 Gal		FRES	H WATER												
3	Displacer	nent					107.00	bbl	8.33	.0	.0		6.0			
Ca	lculated	Values		Pressu	res				V	olumes						
Displa	cement	107	s	hut In: Instant		Lost Re	eturns	no	Cement S	lurry		110				
Top Of	Cement	5120	5	Min		Cemen	t Returns		Actual Di			107	Treatm			
Frac G	radient		15	Min		Spacer	S	137	Load and	Breakd	own		Total J	lob	247	7
					e was	R	ates									
Circul				Mixing			Displac	ement	10	7	Av	g. Jo	ob			
	ent Left In		Amou													
Frac R	Ring # 1 @		D	Frac ring # 2	@		Frac Ring)	Frac R	ing	#4@		ID	_
Th	e Inform	ation	State	d Herein Is (Correct	Custom	er Represe	ntative Sig	gnature UL		<u></u>					

Ω O Z				4	4	4.	τί	r.i	rvi r	ύr	i rù	z.	ιż	rύ i	rð i	rvi r	υn	iri	ι	τί	9.	9.	ا بو	· ·	. 7.	∞.	∞.	∞.	o.	oj o	ا م	. o	o;	o:	o:	ō:	o.	o:	ەن م	u c	ນ່ ຍ່
4485 4750 4750.00 N	51.00 W	Direction Needed		359.4	359.4		359.5			359.5						359.5								359.7						359.9					359.9				359.9		359.9
TARGET TVD VS N/S	E/W	Inc. Needed		48.37	50.11	51.69	52.37	53.36	57.66	66.55	71.51	76.78	80.31	80.8	81.16	81.53	87.75	82.6	82.96	83.3	83.63	83.97	84.29	84.61	85.22	85.51	85.81	86.08	86.36	86.63	87.14	87.39	87.62	87.84	88.05	88.27	88.46	88.65	88.82	00.00	89.13
F F > 2	E 98.71 W		0	100.38	0	0	0	-12.31	-42.72	51.96	-24.62	-11.74	-3.44	-193.1	12.97	10.06	7.0	-0.19	-6.06	-4.32	-4.26	-5.63	-0.94	2.03	2.37	4.29	4.63	4.74	4.38	1.81	0.56	-0.81	2	2.94	2.48	1.12	2.87	2.06	1.75	2.10	0.45
359.38 89.85 4530		Rate	0	0.22	0.07	-0.28	0.71	-0.07	-0.13	0.01	0	-0.01	-0.02	3.24	8.42	9.41	3.01 7	6.35	10.28	12.26	13.26	9.53	6.59	6.03	6.41	7.32	7	7.19	6.34	5.84	6.22	99.9	5.74	7.03	6.61	5.58	6.84	6.88	6.44	71.33	6.61
	3it: 4793.17 N E/W		0	0.22	0.07	0.28	0.71	0.17	0.13	0.03	0.04	0.02	0.02	3.3	8.44	9.45	50.5	6.35	10.38	12.33	13.35	9.82	6.61	6.74	6.54	7.74	7.56	7.82	7	5.98	6.23	6.69	5.96	7.43	6.93	99.5	7.28	7.11	6.63	7.00	6.63
zimuth: nation: TVD: BRN From Survey:	om Bit: 4793.:	DLS (*/100')	0	92	92	.92	92	38	8.5	61														77.		.43	.19	.95	.76	53	83	.37	.84	.32	.79	.27	.71	.17	.62 75	20.	.83
Proposed Azimuth: Target Inclination: BRN Frc	BRN From Bit: 6 N/S 479	Ang (°)	0	5 243.92		8 243.92	9 243.92			4 241.61						5 264.63								3 344.22		7 346.43				5 349.53				7 352.32	5 352.79				354.62		
Proposed Azimuth Target Inclination: BRN Fr	BRN 4793.96 N/S	Closure Dist (ft)		1.15	3.89	5.48	6.19	7.8	10.81	10.94	11.22	10.73	10.42	10.26	9.9	9.65	13.76	18.57	25.55	34.48	45.62	59.08	73.89	89.71	123.6	141.67	161.3	181.23	202.65	224.85	270.82	295.32	319.73	345.57	371.25	399.18	425.94	454.12	482.82	CA 043	569.81
	S			,	,	_	,	,			,	,	,	ζ.				. ~	,	,	,				,	,	,	,				,	,	,	_	,	,	,	, ,		. >
5390954 4.52 -0.33 4.19	27-Mar-13 VS	E/W (ft)	0 E	1.03 W	3.5 W	4.93 W	5.56 W		9.22 W	9.62 W	9.67 W	8.94 W	8.63 W	8.76 W	9.08 W	9.6 W	10.7 W	11.29 W	12.18 W	13.52 W	15.4 W	18.01 W	21.13 W	27.46 W	30.49 W	33.25 W	35.77 W	37.83 W	39.5 W	40.85 W	43.14 W	44.31 W	45.4 W	46.2 W	46.61 W	46.78 W	46.65 W	46.12 W	45.28 W	72 70 10	42.73 W
ы	27- 4539.58	E																																							
	45	nates)	2 0	0.5 S	1.71 S	2.41 S	2.72 S	3.61 S	5.65 S	5.2 S	5.7 S	5.93 S	5.84 S	5.35 S	3.93 5	0.9 S	8.65 N	14.75 N	22.45 N	31.72 N	42.94 N	56.26 N	N 18.07	102.3 N	119.78 N	137.71 N	157.28 N	177.23 N	198.76 N	243.5 N	267.36 N		316.49 N	342.47 N	368.31 N			451.78 N	480.69 N 509.18 N	730 02 N	568.3 N
Job Number: Magnetic Decl: Grid Corr: Total Survey Corr:	e Printed: 358.66 TVD	Coordinates N/S (ft)	0	-0.49							-5.59			-5.25		8.0.8														4	14										
Job Number: Magnetic Decl: Grid Corr: Total Survey Co	Date Printed: 358.66 TV	S (£)	_	•	3 -1.67	121	-			i								Н	22.58	(1)			71.03							221.54			316.96	342.95					3 481.15 509.62		
	Azmuth	(f.)	20	263	512.98	729.97	820.97	949.96	14/3.95	2421.95	2894.95	3367.95	3672.95	3/14.94	3/45.5	3809.45	3840.01	3870.39	3901.43	3930.98	3959.81	3988.78	401/.11	4071.29	4097.92	4123.06	4148.24	4171.88	4195.49	4218.36	4261.05	4281.46	4300.41	4319.07	4336.18	4353.46	4368.77	4383.51	4397.18	7420.82	4430.9
		Course Lgth(ft)	0	243	250	217	91	129	524	474	473	473	302	42	Z C	3 6	31	31	32	31	31	32	32	31	32	31	32	31	32	37	32	32	31	32	31	33	31	32	32	7 6	31
	89.11	8 2																																							
			∧	63.92 W	63.92 W	63.92 W	63.92 W	48.04 W	4.19 E 1.46 F	W 92.76	48.71 E	75.78 E	65.28 E	15.82 W	11.6 W	6.35 W	5.47 W	5.53 W	7.47 W	8.81 W	10.13 W	11.93 W	12.23 W	10.2 W	9.44 W	8.11 W	6.63 W	5.16 W	3.76 W	3.18 W	2.6 W	2.86 W	2.24 W	1.3 W	0.53 W			1.39 E	1.95 E 2.62 E	2.02 C	2.69 E
101		Ħ		Ð	9	v	v	7		A	7	1	Ψ,	7										,																	
e Energy pi Lime ounty 36 1-16H S	naw 38 8928 Incl.	Quadrant	N O	2.5		12 S	12 S	2 S	4.19 N 1.46 N	S 9.	S 6	N 8	z :	Z Z	2 2	2 2	: Z	N V	N S	Z 6	Z:	z z	2 2		N 9	Z O	N C	Z :	Z 2	2 Z		Z 4	N 9.	N L		4		z :	2 Z Z Z		: Z
Sandridge Energy Mississippi Lime Harper County Anne 3306 1-16H	Latshaw 38 8928	Azimuth (°)		243.92	243.92	243.92	243.92	228.04 S	1.19	247.76	131.29	75.78	65.28 N	344.18	240.2	353.63	354.53				349.87	348.07	347.77						356.24	357.22	357.4	357.14	357.76	358.7	359.47	359.84	0.73	1.39	1.95	2 55	2.69
pany: : nty: Name	Kig: 43 Depth (ft)	Incl (°)	0	0.54	0.72	0.12	0.77	0.68	0.01	0.11	0.12	0.09	0.03	L.38	4 5	8.87	10.42	12.39	15.68	19.48	23.59	26.64	30.68	32.64	34.69	36.96	39.2	41.43	43.46	47.31	49.3	51.43	53.21	55.46	57.51	59.35	61.47	63.67	65.73	66 69	72.04
0 11 0 > 1	43 D	Inc Depth (ft) (°)	20	263	513	730	821	950	1948	2422	2895	3368	3673	3776	2770	3810	3841	3872	3904	3935	3966	3998	4050	4093	4125	4156	4188	4219	4251	4203	4346	4378	4409	4441	4472	4505	4536	4568	4600	4663	4694
			Ę	0	0	0	17	01	7 6	D1	D1	01	01	3 5	3 2	7 10	01	D1	D1	D1	01	10 12	3 5	01	D1	D1	01	01	T 2	D1	D1	D1	D1	D1	D1	01	7 7	1 1	D1 D1	1 2	01
	tion.	Tool Type	0 Tie on	1 GYRO	2 GYRO	3 GYRO	4 MWD1	5 MWD1	7 MWD1	8 MWD1	9 MWD1	10 MWD1	11 MWD1	12 MWD1	14 MWD1	15 MWD1	16 MWD1	17 MWD1	18 MWD1	19 MWD1	20 MWD1	TOWN 17	23 MWD1	24 MWD1	25 MWD1	26 MWD1	27 MWD1	28 MWD1	TOWIN 67	31 MWD1	32 MWD1	33 MWD1	34 MWD1	35 MWD1	36 MWD1	37 MWD1	38 MWD1	39 MWD1	40 MWD1 41 MWD1	42 MWD1	
	Projection	No.																																							

359.8	359.8	329.8	359.8	359.8	359.8	250.7	359.7	359.6	359.6	359.5	359.5	359.5	359.4	359.4	359.3	359.3	359.3	359.3	359.3	359.3	359.3	359.3	359.4	359.4	359.4	359.5	359.5	359.6	359.6	359.6	359.7	359.7	359.7	359.8	359.8	360	0.1	0.5	5. C	† L	ט כ	9.0	9.0	0.8	0.9	н	1.2	1.3	1.4	1.5
89.38	89.48	89.58	89.66	89.73	89.78	20.60	89.91	89.94	86.68	-89.98	-89.95	-89.93	-89.9	-89.85	-89.81	8.68-	-89.79	-89.79	-89.78	-89.77	-89.76	-89.75	-89.73	-89.7	-89.68	-89.65	-89.61	-89.57	-89.52	-89.47	-89.43	-89.39	-89.35	-89.3	-89.21	-89.14	-89.1	-89.04	-88.38	0000	20 00	-88 71	-88.51	-88.3	-88.1	-87.93	-87.78	-87.6	-87.38	-87.18
-0.78	-0.65	0.19	0.42	-0.09	0.66		1.62	0.9	-1.42	-0.76	-0.38	0.15	0.31	-1.04	-0.42	-2.39	0.21	-1.29	-0.81	0.61	4.34	4.23	-0.74	-1.47	0.35	-3.03	0.83	-0.26	2.81	3.1	П	-1.23	-0.17	0.42	0.07	-1.81	1.32	2.65	1.66	1.00	F. 0	25.0-	-0.23	-1.51	1.22	0.12	0.57	-0.05	96.0	-0.72
7.44	6.35	5.53	6.35	6.34	4.84	0.30	-0.36	0.2	0.07	-0.06	-0.09	0.15	-0.04	1.58	0.73	0.89	-0.34	-0.33	-0.39	-1.29	-1.07	-2.48	-0.61	0.43	-0.61	-3.06	-2.3	-1.74	1.26	1.47	-1.29	3.68	-1.67	6.0-	0.82	3.59	-0.89	-0.3	0.27	0.00	7 1	-2 01	0.19	-0.06	1.79	-0.23	1.49	-1.56	1.12	0.48
7.48	6.39	5.53	6.37	6.34	4.89	0.0	1.66	0.92	1.42	0.76	0.39	0.22	0.31	1.89	0.84	2.55	0.4	1.33	0.89	1.43	4.47	4.9	96.0	1.53	0.71	4.31	2.45	1.76	3.07	3.42	1.63	3.88	1.67	н	0.82	4.02	1.6	7.67	1 87	1 0,	1.51	20.5	0.3	1.51	2.17	0.26	1.6	1.56	1.47	98.0
356.17	356.46	356.74	356.99	357.22	357.44	357.02	358.22	358.49	358.72	358.91	359.07	359.15	359.23	359.44	359.59	359.62	359.6	359.59	359.58	359.56	359.54	359.49	359.43	359.36	359.3	359.23	359.15	329.08	359.02	358.98	358.94	358.91	358.88	358.84	358.78	358.66	358.54	358.51	250.52	2505	258 54	358 57	358.58	358.57	358.55	358.56	358.57	358.59	358.62	358.66
600.25	630.08	661.14	691.44	722.92	705 22	849.01	893.8	943.53	988.32	1038.13	1082.99	1108.91	1134.83	1226.65	1319.58	1412.56	1483.56	1504.56	1535.56	1566.55	1595.54	1626.5	1657.43	1687.35	1718.27	1749.17	1779.03	1809.87	1840.73	1870.64	1901.55	1932.48	1962.42	1993.35	2054.21	2145.07	2237.95	2329.93	2420.32	25.515	220002	2795.83	2889.73	2983.64	3078.59	3172.57	3267.56	3362.55	3456.53	3551.51
40.08 W		37.62 W	36.36 W	35.03 W	33.76 W	30.02 W	27.82 W	24.8 W	22.16 W	19.67 W	17.64 W	16.5 W	15.33 W	11.9 W	9.52 W	9.26 W	10.35 W	10.69 W	11.34 W	12 W	12.89 W	14.54 W	16.6 W	18.77 W	21.1 W	23.65 W	26.3 W	28.99 W	31.47 W	33.4 W	35.06 W	36.74 W	38.47 W	40.25 W	43.65 W	20 W	56.83 W	60.65 W	65.29 W	68 OF W	68 97 W	W 76 69	71.53 W	74.47 W	77.65 W	79.75 W	81.35 W	82.53 W	83.01 W	83.31 W
598.91 N	628.88 N	660.07 N	690.49 N	752.08 N	787 65 N	848.48 N		943.21 N	988.07 N	1037.95 N	1082.84 N	1108.78 N	1134.72 N	1226.59 N	1319.54 N	1412.53 N	1483.52 N	1504.52 N	1535.51 N	1566.51 N	1595.49 N	1626.43 N	1657.35 N	1687.25 N	1718.14 N	1749.01 N	1778.83 N	1809.64 N	1840.46 N	1870.34 N	1901.23 N	1932.13 N	1962.04 N	1992.94 N	2053.75 N	2144.48 N	N 57.757	2329.14 N	2420.11 IN	N CO 909C	220002	N 96.462	2888.85 N	2982.71 N	3077.61 N	3171.57 N	3266.55 N	3361.54 N	3455.53 N	3550.53 N
599.31	629.26	660.44	690.84	754.1	787.96	848.75	893.61	943.42	988.25	1038.1	1082.97		1134.82	1226.65	1319.57	1412.55	1483.55	1504.55	1535.55	1566.54	1595.53	1626.49	1657.43	1687.35	1718.27	1749.16	1779.02			1870.59			1962.35	1993.26			1/1/577	2329.66			22002	2795.55			3078.27	3172.25	3267.24	3362.24	3456.23	3551.22
4440.14	4447.95	4455	4460.83	4465.76	4469.7	4476.49	4478.78	4481.34	4483.6	4486.11	4488.39		4491.03	4494.52	4496.32			4497.05	4497.22	4497.52	4497.99	4498.78	4499.84	4500.87	4501.96	4503.35			4509.5	4511.42	4513.39	4515.17	4516.72	4518.53	4521.98	4524.13	4524.35	4525.46	4526.30	4526 17	4576 27	4529.13	4533.37	4537.52	4540.36	4541.95	4542.56	4543.23	4544.23	4544
35					3 27				45							6									31					° 08			, 06		61			7, 7						94	32	94	95	95	94	95
2.44 E	2.24 E	2.3 E	2.43 E	2.4 E	2.13 E	2.51 E	3.24 E	3.69 E	3.05 E	2.67 E	2.5 E	2.54 E	2.62 E		1.27 E	0.95 W	0.8 W	1.07 W	1.32 W	1.13 W	2.39 W	3.7 W	3.93 W	4.37 W	4.26 W	5.2 W	4.95 W	5.03 W	4.16 W	3.23 W	2.92 W	3.3 W	3.35 W	3.22 W	3.18 W	4.83 W	3.0 W	1.10 W	2.56 W	2 25 W	0.31 W	0.86 W	1.08 W	2.5 W	1.34 W	1.23 W	W 69.0	0.74 W	0.16 E	0.52 W
2.44 N	2.24 N		2.43 N			2.51 N		3.69 N	3.05 N	2.67 N	2.5 N	2.54 N	2.62 N	1.66 N	1.27 N	359.05 N	359.2 N	358.93 N	358.68 N	358.87 N	357.61 N	356.3 N	356.07 N	355.63 N	355.74 N	354.8 N	355.05 N	354.97 N	355.84 N	356.77 N	357.08 N	356.7 N	356.65 N	356.78 N	356.82 N		N 4.000	250.04 N	357.44 N	359 18 N	359.69 N	359.14 N	358.92 N	357.5 N	358.66 N	358.77 N		359.26 N	0.16 N	359.48 N
74.42	76.39	/8.1b	80.13	92.70	85.75	87.17	87.01	87.11	87.14	87.11	87.07	87.11	87.1	88.55	89.23	90.06	89.82	89.75	89.63	89.23	88.92	88.15	87.96	88.09	87.9	86.95	86.26	85.72	86.11	86.55	86.15	87.29	86.79	86.51	87.01	90.28	07.40	09.T/	90.21	90.65	89.23	87.32	87.5	87.44	89.14	88.92	90.34	88.86	89.91	90.37
4726	14/5/	2004	4820	7887	4915	4979	5024	5074	5119	5169	5214	5240	2766	5358	5451	5544	5615	2636	2995	2698	5727	5758	5789	5819	2850	5881	5911	5942	5973	6003	6034	6065	6095	6126	6187	6278	1/CO	6557	6646	6740	6834	6929	7023	7117	7212	7306	7401	7496	7590	7685
	45 MWD1		47 MWD1		50 MWD1	51 MWD1	52 MWD1	53 MWD1	54 MWD1	55 MWD1	56 MWD1	57 MWD1	58 MWD2	59 MWD2	60 MWD2	61 MWD6	62 MWD6	63 MWD6	64 MWD6	65 MWD6	66 MWD6	67 MWD6	68 MWD6	90WM 69	70 MWD6	71 MWD6	72 MWD6	73 MWD6	74 MWD6	75 MWD6		77 MWD6	78 MWD6	79 MWD7	80 MWD7	81 MWD7	22 MWD/	84 MWD7	85 MWD7	86 MWD7	87 MWD7	88 MWD7	89 MWD7	90 MWD7	91 MWD7	92 MWD8		94 MWD8	95 MWD8	96 MWD8

7	6	7 7	2 2	6	9 (- م	+ O	9	1	o (7																																					
		7 7									90.																																					
-86.99	-86.76	-86.5	-85.79	-85.38	-84.77	-83.58	-78.76	-72.31	-54.2	-49.62	-40.91																																					
0.19	0.52	0.53	0.01	-0.34	-0.76	0.16 -0.06	-1.2	0.22	0.69	-0.53	0																																					
0.26	0.12	-0.16	-0.02	1.33	-2.04	-0.9 7.45	1.22	-2.81	0.71	1.47	0																																					
0.32	0.54	0.56	0.02	1.37	2.18	0.91	1.71	2.82	0.99	1.56	>																																					
358.68	358.71	358.75	358.82	358.84	358.85	358.85	358.85	358.83	358.82	358.82	28.85																																					
		3836.41			4216.27					4708.2																																						
36,	327	38. 6	407	4	421	45,	450	456	46	4 !	4/2																																					
84.02 W	84.17 W	83.5 W	83.04 W	83.35 W	84.52 W	W CT.00	90.37 W	93.73 W	96.36 W	96.7 W																																						
8	84	∞ <u>6</u>	83	83	8 8	87.8	06	93	96	<u>o</u> 0	70																																					
Z	z	zz	z	z	zz	zz	Z			zz																																						
3645.52	3741.51	3835.51	4026.49	4120.45	4215.42	4406.39	4502.35	4597.28	4692.21	4707.2	4/50.TS																																					
3646.22	3742.21	3836.18	4027.15	4121.11	4216.09	4407.08	4503.06	4598.02	4692.98	4707.97	4/20.3/																																					
4543.18	4542.04	4540.95	4538.33	4535.92	4534.07	4535.36	4534.85	4535.58	4537.98	4538.24	400004																																					
										15																																						
0.34 W	0.16 E	0.66 E 0.04 W	0.03 W	0.35 W	W 70.1	0.98 W	2.13 W	1.92 W	1.26 W	1.34 W	7.7 W																																					
	0.16 N	N 96	N 76							N N																																						
36		36			358.93					358.66																																						
90.62	90.74	90.39	90.84	92.09	50.15 89.79	89.72	90.89	88.22	88.89	89.11	7																																					
7780	0/8/	9908	8161	8255	8350	8541	8637	8732	8827	8842																																						
MWD8	MWD8	MWD8	MWD8	MWD8	MWD8	MWD8	MWD8	MWD8	MWD8	MWD8	3																																					
VM 76	98 MIV	100 MV	101 MV	102 MV	104 MV	105 MV	106 MV	107 MV	108 MV	109 MWD	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	130	13/	138	139	140	141	142	147	145	146	147	148	149

Hydraulic Fracturing Fluid Product Component Information Disclosure

5/2/2013
5/4/2013
Kansas
Harper
15-077-21916-01-00
SandRidge Energy
Anne 3306 1-16H
-97.96810000
37.17490000
NAD27
NO
1,622,125







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
_			pear on Material Safety Data She	ets (MSDS). Ingredie	nts shown below are	Non-MSDS.	
HCL 15, Slickwater		Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant, Acid, Iron Control Agent, Propping Agent					
				NA		95.05236	
			Crystalline silica	14808-60-7	95.97828	4.74866	
			Hydrogen chloride	7647-01-0	2.73824	0.13548	
			hydrotreated light	64742-47-8	0.34917	0.01728	
			Acrylamide/ammonium acrylate copolymer		0.26603		
			Ammonium chloride	12125-02-9	0.16627	0.00823	
			Polyethylene glycol monohexyl ether	31726-34-8	0.12028	0.00595	
			Glutaraldehyde	111-30-8	0.07115	0.00352	
			Sorbitan monooleate	1338-43-8	0.03325	0.00165	
			Ethoxylated oleic acid	9004-96-0	0.03325	0.00165	
			Trisodium ortho phosphate	7601-54-9	0.02920	0.00144	
			Sodium erythorbate	6381-77-7	0.02342	0.00116	
			Alkyl(c12-16) dimethylbenzyl ammonium chloride	68424-85-1	0.01270	0.00063	

	Methanol	67-56-1	0.01023	0.00051	
	Sorbitol Tetraoleate	61723-83-9	0.00998	0.00049	
	Sodium sulfocyanate	540-72-7	0.00865	0.00043	
	Ethane-1,2-diol	107-21-1	0.00831	0.00041	
	2-Propenoic acid, ammonium salt	10604-69-0	0.00815	0.00040	
	Fatty acids, tall-oil	61790-12-3	0.00699	0.00035	
	Alcohols, C10-C16, ethoxylated	68002-97-1	0.00665	0.00033	
	formaldehyde and 1- phenylethanone	68527-49-1	0.00575		
	Dicoco dimethyl quaternary ammonium chloride	61789-77-3	0.00527		
	1 ' ' '	68551-12-2	0.00499	0.00025	
		68439-50-9	0.00499	0.00025	
		84133-50-6	0.00499	0.00025	
	Alcohols, C14-15, ethoxylated (7EO)	68951-67-7	0.00268	0.00013	
	Prop-2-yn-1-ol	107-19-7	0.00178	0.00009	
	Ethanol	64-17-5	0.00152	0.00008	
	2-propenamid	79-06-1	0.00150	0.00007	
	Alkenes, C>10 a-	64743-02-8	0.00119	0.00006	
	Propan-2-ol	67-63-0	0.00105	0.00005	
	Potassium hydroxide	1310-58-3	0.00024	0.00001	

^{*} 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)

