Confidentiality Requested: Yes No

Recompletion Date

KANSAS CORPORATION COMMISSION **OIL & GAS CONSERVATION DIVISION**

1220254

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:	
Address 2:	Feet from North / South Line of Section
City: State: Zip:+	Feet from East / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	
CONTRACTOR: License #	GPS Location: Lat:, Long:
Name:	(e.g. xx.xxxx) (e.gxxx.xxxx)
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
New Well Re-Entry Workover	Field Name:
	Producing Formation:
☐ Oil ☐ WSW ☐ SWD ☐ SIOW □ Gas □ D&A □ ENHR □ SIGW	Elevation: Ground: Kelly Bushing:
OG GSW Temp. Abd.	Total Vertical Depth: Plug Back Total Depth:
CM (Coal Bed Methane)	Amount of Surface Pipe Set and Cemented at: Feet
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used?
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet
Operator:	If Alternate II completion, cement circulated from:
Well Name:	feet depth to: w/ sx cmt.
Original Comp. Date: Original Total Depth:	
Deepening Re-perf. Conv. to ENHR Conv. to SWD	Drilling Fluid Management Plan
Plug Back Conv. to GSW Conv. to Producer	(Data must be collected from the Reserve Pit)
	Chloride content: ppm Fluid volume: bbls
Commingled Permit #:	Dewatering method used:
Dual Completion Permit #:	Dewatering method used.
SWD Permit #:	Location of fluid disposal if hauled offsite:
ENHR Permit #:	Operator Name:
GSW Permit #:	Lease Name: License #:
	Quarter Sec TwpS. R East West
Spud Date or Date Reached TD Completion Date or	

County:

AFFIDAVIT

Recompletion Date

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:

Permit #:_

	Page Two	1220254
Operator Name:	Lease Name:	Well #:
Sec TwpS. R □ East □ West	County:	
INCTRUCTIONS. Show important tang of formations panetrated	Datail all aaraa Babart a	Il final conice of drill stome tests giving interval tested, time test

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 (Attach Additional Sh	neets)	Yes No		-	on (Top), Depth a		Sample
Samples Sent to Geolo	gical Survey	Yes No	Nam	e		Тор	Datum
Cores Taken Electric Log Run		Yes No Yes No					
List All E. Logs Run:							
		CASING Report all strings set-o	RECORD Ne		on, 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 / SQU	IEEZE RECORD	1		
Purpose:	Depth Tan Battern	Type of Cement	# Sacks Used		Type and F	Percent Additives	

Purpose: Perforate	Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
Protect Casing				
Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?	Yes
Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?	Yes
Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?	Yes

(If No, skip questions 2 and 3) (If No, skip question 3)

No

No No

No

(If No, fill out Page Three of the ACO-1)

					0e				Depth
Siz	e:	Set At:		Packer	r At:	Liner F	Run:	No	
Producti	on, SWD or ENH	٦.	Producing M	_	ping	Gas Lift	Other (Explain)		
	Oil Bb	ls.	Gas	Mcf	Wat	er	Bbls.	Gas-Oil Ratio	Gravity
ON OF G	AS:			METHOD	OF COMPLE	ETION:		PRODUCTION IN	TERVAL:
1 🗌 L	Jsed on Lease			Perf.	Dually	Comp.	Commingled (Submit ACO-4)		
	ON OF G	Specify For Size: Production, SWD or ENHf Oil Bb	Specify Footage of Size: Set At: Size: Set At: Oil Bbls. ON OF GAS: Used on Lease	Specify Footage of Each Interval P	Specify Footage of Each Interval Perforated Size: Set At: Packe Production, SWD or ENHR. Producing Method: Flowing Pum Oil Bbls. Gas Mcf ON OF GAS: METHOD O Used on Lease Open Hole Perf.	Size: Set At: Packer At: Production, SWD or ENHR. Producing Method: Production, SWD or ENHR. Producing Method: Oil Bbls. Gas Method Oil Oil Bbls. Gas Method Oil Wat	Specify Footage of Each Interval Perforated	Specify Footage of Each Interval Perforated (Amount and Kind (Amount and Kind (Amount and Kind Size: Set At: Packer At: Liner Run: Yes [] Production, SWD or ENHR. Producing Method: [] Yes Production, SWD or ENHR. Producing Method: [] Other (Explain) Oil Bbls. Gas Mcf Water Bbls. ON OF GAS: METHOD OF COMPLETION: [] Commingled (Submit ACO-4) Image: Method in Lease [] Open Hole Perf. [] Dually Comp. [] Commingled (Submit ACO-4)	Specify Footage of Each Interval Perforated (Amount and Kind of Material Used) (Amount and Kind of Material Used) (Amount and Kind of Material Used) Size: Set At: Packer At: Liner Run: Yes No Production, SWD or ENHR. Producing Method: Yes Flowing Pumping Gas Gas Oil Bbls. Gas Mcf Water ON OF GAS: METHOD OF COMPLETION: PRODUCTION IN I Used on Lease Open Hole Perf. Dually Comp. Commingled (Submit ACO-5)

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	John 3404 1-20H
Doc ID	1220254

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	8649-8894	1500 gals 15% HCL acid, 4626 bbls Fresh Slickwater, Running TLTR 4848 bbls	
5	8298-8568	1500 gals 15% HCL acid, 5128 bbls Fresh Slickwater, Running TLTR 10116 bbls	
5	7918-8230	1500 gals 15% HCL acid, 4790 bbls Fresh Slickwater, Running TLTR 15060 bbls	
5	7584-7830	1500 gals 15% HCL acid, 4782 bbls Fresh Slickwater, Running TLTR 19974 bbls	
5	7149-7469	1500 gals 15% HCL acid, 3816 bbls Fresh Slickwater, Running TLTR 23890 bbls	
5	6789-7075	1500 gals 15% HCL acid, 3782 bbls Fresh Slickwater, Running TLTR 27768 bbls	
5	6430-6754	1500 gals 15% HCL acid, 3633 bbls Fresh Slickwater, Running TLTR 31482 bbls	
5	6058-6348	1500 gals 15% HCL acid, 3704 bbls Fresh Slickwater, Running TLTR 35259 bbls	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	John 3404 1-20H
Doc ID	1220254

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	5710-5979	1500 gals 15% HCL acid, 4049 bbls Fresh Slickwater, Running TLTR 39279 bbls	
5	5324-5611	1500 gals 15% HCL acid, 3776 bbls Fresh Slickwater, Running TLTR 43099 bbls	
5	4695-5152	1500 gals 15% HCL acid, 4051 bbls Fresh Slickwater, Running TLTR 47150 bbls	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	John 3404 1-20H
Doc ID	1220254

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	24	20	75	93	Basin Services 10 sack grout	16	none
Surface	12.25	9.63	36	510	Schlumber ger Class C	270	2% CaCl2, .13 lb/sk LCM
Intermedia te	8.75	7	26	5330	Schlumber ger Class H	370	4% D020, 2.0 lb/sk D042, .6% D112



SANDRIDGE ENERGY

***** BILL IN ADP!! *****

123 ROBERT S KERR AVE

OKLAHOMA CITY, OK 73102-6406

ABILENE, TX 79608-4268 Phone # (325)690-0053 Fax # (325)698-0055



TICKET NUMBER: WY-290-1 TICKET DATE: 05/14/2014

ELECTRONIC

YARD: WY WAYNOKA OK LEASE: John 3404 WELL#: 1-20H RIG #: Horizon 15 Co/St: SUMNER, KS

•

DESCRIPTION	QUANTITY	RATE	AMOUNT
5/13-14/2014 DRILLED 30" CONDUCTOR HOLE			
5/13-14/2014 20" CONDUCTOR PIPE (.250 WALL)			
5/13-14/2014 6' X 6' CELLAR TINHORN WITH PROTECTIVE RING			
5/13-14/2014 DRILL & INSTALL 6' X 6' CELLAR TINHORN			
5/13-14/2014 DRILLED 20" MOUSE HOLE (PER FOOT)			
5/13-14/2014 16" CONDUCTOR PIPE (.250 WALL)			
5/13-14/2014 MOBILIZATION OF EQUIPMENT & ROAD PERMITTING FEE			
5/13-14/2014 WELDING SERVICES FOR PIPE & LIDS			
5/13-14/2014 PROVIDED EQUIPMENT & LABOR TO ASSIST IN PUMPING			× .
CONCRETE			
5/13-14/2014 PROVIDED METAL LIDS (1 FOR CONDUCTOR & 2 FOR			
MOUSEHOLE PIPE)			
5/13-14/2014 16 YDS OF 10 SACK GROUT			
5/13-14/2014 TAXABLE ITEMS			5,760.00
5/13-14/2014 BID - TAXABLE ITEMS			11,490.00
Sub 1	Total:		17,250.00
Tax SUMNER COUNTY (6.6	5 %):	-	383.04
I, the undersigned, acknowledge the acceptance of the above listed goods and/or services.	TAL:	=	\$ 17,633.04

Approved Signature _____

AFE Number: 13786	
Well Name: MiSALL 3404 1-30H	
Code: 850-010	
Amount: #17,633, @	
Co. Man: Ceds De	
Co. Man Sig.: Ceden	
Notes:	

Schlumberger

Service Contract Receipt SCHLUMBERGER TECHNOLOGY CORPORATION

				CL16-00084		
Invoice Maliing Address:		Left District	Date: 24-May-201	4 Time: 11:00 PM		
SANDRIDGE ENERGY INC FOR	ELECTRONIC INVOICING ONLY (EDI)	Arrive Location	Date: 25-May-201	4 Time: 2:30 AM		
		Start Job	Date: 25-May-201	4 Time: 4:00 AM		
123 ROBERT S. KERR AVENUE		Complete Job	Date: 25-May-201	4 Time: 5:00 AM		
		Leave Location	Date: 25-May-201	4 Time: 6:00 AM		
OKLAHOMA CITY	ок	Arrived District	Date: 25-May-201	4 Time: 9:00 AM		
73102-6406	United States	Service Description	Service Description Cementing Primary, Primary Su			
Customer PO	Contract	Well Name & Numb	er	Field		
		John 3404 1-20H				
AFE	Cust Ref	County / Parish / Bl	ock / Borough	State / Province		
DC 13843		Sumner		Kansas		
Customer or Authorized Representativ	e	Schlumberger Loca	ition	Legal Location		
Sandridge Energy Inc. Representat	ive	El Reno, OK				
API / UWI	Pricebook			Rig		
		Horizon 15				

Service Instructions:

Provide services, equipment, equipment and materials to safely cement 9 5/8" Surface casing per client specifications. Pump 10 bbl WATER, 160 sks 35:65 PozC + Adds @ 12.4 ppg, 110 sks Class C + Adds @ 14.8 ppg, drop top plug and displace per customer request.

ZIPS: H2O: 016480 LEAD: 016588 TAIL: 016029

tem	Description	GES AND DATA SHOWN BELOW A	Quantity		Price				
roducts	Description		Quantity						
5702095	Diur Comer	ting Top Dirette 0.625 in	1	EA	500.00	47.00%	265.0		
		ting Top Plastic 9.625 in		LB			205.0		
0020 0035-CF	Bentonite Ex		835	CF	0.50	47.00%	273.0		
035-CF 0130	LITEPOZ 3 E		56 34	LB	9.20 4.40	47.00% 47.00%	273.0		
	Polyester Fla								
5000	Content, Cia		278	LB	دد.ین 1.44	47.00%	212.1		
0001	Caldum Chi	oride 77pct concentration							
				Products Subtotal: Discount:		6,916.87 3,250.93			
				F	Products Total:	3,66	5.94		
Services									
8019000	Bulk Unit, Ce	ment Add Hr	2.5	HR	115.00	47.00%	152.3		
8601000	Cement Plug	Container	1	JOB	556.40	47.00%	294.8		
9100000	Cement Blen	ding Charge	290	CF	2.43	47.00%	373.4		
9102000	(ransportatio	n, Cement Ton-mile	636	MI	2.16	47.00%	728.0		
9200002	Transportatio	n, Mileage Heavy Vehides	100	MI	5.91	47.00%	313.2		
9200005	Transportatio	n, Mileage Light Vehicles	100	MI	3.47	47.00%	183.9		
9697004	CemCA1 Mo	nitoring System	1	JOB	941.60	47.00%	499.0		
02871020	Pump, Casin	g Cement 0-2000 ft	1	EA	2,396.80	47.00%	1,270.30		
02946000	Fuel Surchar	ge (non-discounted)	2	EA	450.00		900.0		
07130100	Circulating L	tribinent neinie Inn	1		1,430.00	20.00 %	1,120.00		
07264001	Regulatory C	onformance Charge	2	EA	364.87		729.74		
				Services Subtotal: Discount:		10,320 3,75			
					Services Total:	6,56	3.57		
I otal (Before D	scount):	17,243.37					i		
The second second second second second second second	viscount:	7,008.86							
Special D	iscount:	0.00	Estimated Total (USD):			10	10,234.51		

Origin of

Service Contract Number

CI 16 00004

Schlumberger

Service Contract Receipt SCHLUMBERGER TECHNOLOGY CORPORATION

ocummer.det.		SCHLUMBERGER TECHNO	LOGY CORPORAT	ION		CQKW-0	0028	
			Left District	Date: 0)1-Jun-2014	Time: 10:00 AM		
voice Malling Address; ANDRIDGE ENERGY INC FC		VOICING ONLY (EDI)	Arrive Location	Date: 0)1-Jun-2014	Time: 2:00 PM		
GANDRIDGE ENERGY INC PU	OR ELECTRONIC IN	VOIDING ONET (ED.)	Start Job	Date: 0	01-Jun-2014	Time: 7:00 PM		
	-		Complete Job	Date: 0)1-Jun-2014	Time: 8:00 PM		
23 ROBERT S. KERR AVENUE	-		Leave Location	Date: 0	01-Jun-2014	Time: 9:00 PM		
s. Internities proce Valuation-Proces	-	12	Arrived District	Date: (02-Jun-2014	Time: 1:00 AM		
KLAHOMA CITY	0	nited States	Service Description	Cemei	nting Primary, Primar	Primary Intermediate		
3102-6406			Well Name & Numb		Field			
ustomer PO		ontract	JOHN -3404- 1-2		EDEN	ROAD		
			County / Parish / B	and the second se	ough State / P	rovince		
AFE .	Ci	ust Ref	Sumner		KS			
			Schlumberger Loc	ation	Legal Lo	cation		
Customer or Authorized Represent	ative		El Reno, OK					
Tim Mills			Li ricino, eri		Rig			
API / UWI		ricebook 00JS / WSV_GEOREF_USL_2011_USE	D Pressure Pumping US		HORIZ	ON #15		
15191227490100	E	DJ3/W9V_GEOREF_DSL_2011_03L	J_Pleasure_rumping_oog					
Service Instructions:								
Provide services, equipment, eq	uipment and materla	ils to safely cement 7" intermediate cas	ing per client specifications					
	SO-50 Doz H + Adde	@ 13.60 ppg, 100 sks Class H + Adds (@ 15.60 ppg, drop top plug	and disp	lace per customer re	quest.	_	
Pump 10 bbi WATER, 270 sks c	0.00 P02.H + Adds (DECTI	ON BY SCHILIMB	FRGER		
THE EST		ES AND DATA SHOWN BELOW	Quantity	UOM	Price	Discount	Amoun	
tem	Description		Quantity	00M				
Products							Average and the second	
	Retarder		92	LB	2.79	47.00%	136.0	
0013	Bentonite Exte	nder	908	LB	0.50	47.00%	240.6	
0020			136	CF	9.20	47.00%	663.1	
0035-CF	LITEPOZ 3 Ex		540	LB	0.99	47.00%	283.3	
0042		Circulation Additive	22	LB	7.86	47.00%	91.6	
0065	TIC Dispersar		46	LB	3.05	47.00%	74.3	
0079	Chemical Exte		136	LB	15.20	47.00%	1,095.6	
0112	FLAC Fluid Lo	oss Additive	238	CF	24.13	47.00%	3,043.7	
D909	Cement, Clas				110.60	47.00%	351.7	
J916ND	J916ND Non-	diesel CMHPG Slurry	6	GA				
				Pro	ducts Subtotal:	11,28		
					Discount:	5,30		
					Products Total:	5,98	0.24	
Services					115.00	47.00%	975.2	
48019000	Bulk Unit, Per	r Hr on location	16	HR	115.00		1,585.7	
48020000	Pump, Ceme		4	HR	609.90	35.00%	294.8	
48601000	Cement Plug		1	JOB	556.40	47.00%		
49100000	Cement Blen		400	CF	2.43	47.00%	515.	
		n, Cement Ton-mile	855	MI	2.16	47.00%	978.	
49102000		n, Mileage Heavy Vehicles	100	MI	5.91	47.00%	313.	
59200002		n, Mileage Light Vehicles	100	М	3.47	47.00%	183.	
59200005		nitoring System	1	JOB	941.60	47.00%	499.	
59697004			1	EA	3,531.00	47.00%	1,871.	
102871055		g Cement 5001-5500 ft	3	EA	450.00		1,350	
102946000		ge (non-discounted)	1	EA	1,498.00	25.00%	1,123	
107138100		quipment before job	3	EA	364.87		1,094	
107264001	Regulatory C	conformance Charge	3			17,00		
				S	ervices Subtotal:		2.49	
					Discount:	10,78		
					Services Total:	10,78		
		28,291.45					1	
Total (Before Disc	ount):							
Total (Before Disco Disc Special Disc	ount:	11,525.69 0.00	Estimated	Total (1	6,765.76	

Date Printed: 01-Jun-2014 8:17 PM

This document is Confidential and intended for authorized users only

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Page 1 of 2

Original

Service Contract Number

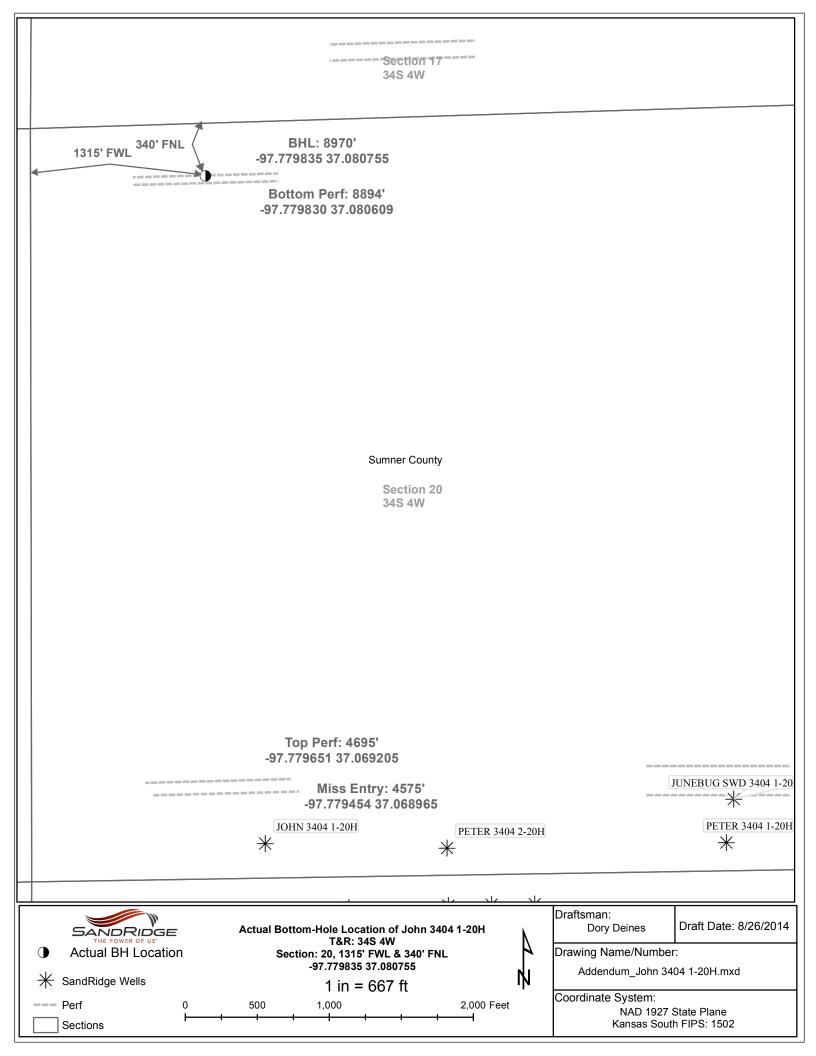
Directional	Measured	Sub-Sea	Vertical	True Vert	Northings (+)	Eastings (+)	Vert	DLS				
Survey	Depth	Incl.	Azim.	Depth	Southings (-)	Westings (-)	Section	deg/100'				
Calculations	(ft)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(deg)	FNL	FSL	FWL	FEL
SHL	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5037	255	1600	3712
BHL	8970	92.70	359.60	4468.44	4690.30	-288.54	4699.17	0.00	340	4951	1315	4008
Miss Entry	4575	55.87	324.45	4434.66	354.67	-259.66	369.69	8.82	4676	615	1341	3972
Top Perf	4695	65.68	333.16	4492.57	443.77	-314.82	461.95	11.18	4586	705	1286	4028
Boltom Perf	8970	92.70	359.60	4468.44	4690.30	-288.54	4699.17	0.00	340	4951	1315	4008
-												

Survey Points

X Y NW Corner XY Coord 2209009 151945 SW Corner XY Coord 2209013 146661 Surface XY NE Corner XY Coord 2214333 152071 SE Corner XY Coord 2214325 146760	X 2210613	Y 146946	North Line slope East Line slope South Line slope West Line slope	0.0015063 0.018637
--	--------------	-------------	--	-----------------------

	Measured	Sub-Sea	Vertical	True Vert	Northings (+)	Eastings (+)	Vert	DLS				
	Depth	Incl.	Azim.	Depth	Southings (-)	Westings (-)	Section	deg/100'	FNL	FSL	FWL	FEL
	(ft) 0	(deg) 0.0	(ft) 0	(ít) 0	(ft) 0	(ft) 0	(ft) 0	(deg) 0	5037	255	1600	3712
	250	0.20	258.70	250.00	-0.1	-0.4	-0.06	0.08	5037	255	1600	3713
	500	1.20	258.70	499.98	-0.7		-0,48	0.40	5038	255	1597	3716
	597 689	1.10 1.20	258.70 266.40	596.96 688.94	-1.1 -1.3		-0.74 -0.86	0.10 0.20	5038 5038	254 254	1595 1593	3718 3719
	781	1.20	278.00	780.91	-1.3		-0.61	0.20	5038	254	1593	3719
	873	1.20	280.50	872.88	-0.8		-0.12	0.44	5038	255	1589	3724
	964	0.70	279.30	963.87	-0.6		0.23	0.55	5037	255	1587	3725
	1054	0.30	344.20	1053.87	-0.2		0.58	0.70	5037	255	1587	3726
	1422 1896	0.40 0.70	323.00 50.20	1421.86 1895.85	1.7 4.9		2.59 5.69	0.04 0.17	5035 5032	257 260	1585 1587	3727 3726
	2369	1.00	0.00	2368.80	10.9	-11.3	11.52	0.16	5026	266	1589	3724
	2841	0.40	55.90	2840.77	15.9	-9.9	16.47	0.18	5021	271	1590	3722
	2936	0.20	13.50	2935.76	16.2		16.80	0.30	5020	272	1591	3722
	3031	0.50	61.00	3030.76	16.6	-9.2	17.13	0.41	5020	272	1591 1592	3722
	3125 3220	0.60 0.50	62.50 34.70	3124.76 3219.75	17.0 17.6	-8.4 -7.7	17.51 18.04	0.11 0.30	5020 5019	272 273	1592	3721 3720
	3315	0.50	267.30	3314.75	17.9	-7.9	18.37	0.94	5019	273	1592	3720
	3410	0.60	275.00	3409.75	18.0	-8.8	18.45	0.13	5019	273	1591	3721
	3506	0.90	333.90	3505.74	18.7	-9.7	19.22	0.81	5018	274	1591	3722
	3599 3662	0.70 0.50	340.40 314.30	3598.73 3661.73	19.9 20.4	-10.2 -10.5	20.44 21.01	0.24 0.53	5017 5016	275 276	1590 1590	3722 3723
	3694	0.60	241.00	3693.73	20.4	-10.5	21.04	2.07	5016	276	1589	3723
	3726	1.60	285.40	3725.72	20.5	-11.3	21.12	3.89	5016	276	1589	3724
	3757	4.50	310.10	3756.68	21.4	-12.7	22.09	10.06	5015	277	1588	3725
	3789	7.30	317.10	3788.50	23.7	-15.0	24.53	9.02	5013	279	1585	3727
	3821 3852	10.30 13.10	321.50 322.60	3820.12 3850.48	27.4 32.4	-18.2 -22.0	28.44 33.63	9.60 9.06	5009 5004	283 288	1582 1578	3731 3734
	3883	15.80	322.70	3880.49	38.5	-26.7	40.05	8.71	4998	294	1574	3739
	3915	17.70	322.00	3911.13	45.8	-32.4	47.68	5.97	4990	302	1568	3745
	3947	19.40	322.50	3941.47	53.9	-38.6	56.09	5.34	4982	310	1562	3751
	3978 4010	21.70 24.40	323.00 323.40	3970.50 3999.94	62.5 72.6	-45.2 -52.7	65.13 75.60	7.44 8.45	4973 4963	319 329	1555 1548	3758 3765
Top of Tangent	4010	26.40	323.80	4027.94	83.3	-60.6	86.76	6.48	4903	340	1540	3773
@ 5064'	4073	26.60	327.20	4056.58	95.0	-68,7	98,99	4.78	4940	351	1532	3781
	4104	27.80	329.40	4084.15	107.1	-76.1	111.47	5.05	4928	364	1524	3789
	4136	30.10	329.60	4112.15	120.4	-84.0	125.27	7.19	4915	377	1516	3796
Btm of Tangent	4168 4199	31.90 33.30	328.70 326.90	4139.58 4165.70	134.6 148.7	-92.4 -101.3	139.90 154.54	5.81 5.49	4900 4886	391 406	1508 1499	3805 3814
@ 5355'	4231	35.50	325.20	4192.10	163.7	-111.4	170.11	7.50	4871	421	1489	3824
	4262	37.40	323.60	4217.03	178.7	-122.1	185.70	6.85	4855	436	1478	3835
	4293	39.50	321.90	4241.31	194.0	-133.8	201.71	7.58	4840	452	1467	3846
	4325 4356	41.50 43.50	321.40 320.50	4265.64 4288.50	210.3 226,6	-146.7 -159.9	218.76 235.79	6.33 6.74	4823 4807	468 485	1454 1440	3859 3873
	4388	44.00	321.00	4311.61	243.7	-173.9	253.73	1.90	4789	502	1426	3887
	4420	44.60	321.60	4334.51	261.1	-187.9	271.99	2.29	4771	520	1413	3901
	4451	45.70	322.10	4356.38	278.4	-201.4	290.06	3.73	4754	537	1399	3914
	4483	48.10	322.30	4378.24	296.9	-215.8	309.35	7.51	4735	556	1385 1370	3928 3943
	4514 4546	50.90 53.60	321.90 323.00	4398.37 4417.96	315.5 335.5	-230.2 -245.7	328.79 349.74	9.09 8.86	4716 4696	575 595	1370	3943
	4578	56.10	324.60	4436.38	356.6	-261.1	371.75	8.82	4674	617	1339	3974
	4609	59.10	326.00	4452.99	378.2	-276.0	394.13	10.40	4652	638	1324	3989
	4641	61.70	327.90	4468.80	401.5	-291.2	418.32	9.63	4629	662	1309	4004
	4672 4704	64.10 66.30	331.00 334.00	4482.92 4496.35	425.3 451.0	-305.2 -318.6	442.89 469.41	11.80 10.94	4604 4578	686 712	1295 1282	4018 4032
	4736	68.50	336.70	4508.65	477.9	-310.0	496.95	10.34	4551	739	1270	4032
	4767	70.60	339.30	4519.48	504.8	-341.8	524.49	10.37	4524	766	1259	4055
	4799	73.50	342.50	4529.34	533.6	-351.7	553.80	13.14	4495	795	1249	4065
	4830	75.80	345.10	4537.55	562.3	-360.1	582.95	10.97	4466	824	1241	4073
	4862 4895	77.80 79 <i>.</i> 50	348.40 352.10	4544.86 4551.35	592.6 624.5	-367.2 -372.7	613.65 645.80	11.83 12.14	4436 4404	855 887	1233 1228	4080 4086
	4926	81.70	354.80	4556.42	654.8	-376.2	676.34	11.14	4373	917	1225	4089
	4958	84.10	358.10	4560.37	686.5	-378.1	708.08	12.69	4341	949	1223	4091
	4989	85.00	0.30	4563.32	717.4	-378.6	738.91	7.64	4311	980	1222	4092
	5020	86.00	2.20	4565.75	748.3	-377.9	769.71	6.91	4280	1010	1223	4091

Drophi (0) Ind.: Arim. Depth (0) Southing(c) (0) Westing(c) (0) Southing(c) (0) Westing(c) (0) Southing(c) (0) Hesting(c) (0) Hesting(c) (0) <th< th=""><th>Measured</th><th>Sub-Sea</th><th>Vertical</th><th>True Vert</th><th>Northings (+)</th><th>Eastings (+)</th><th>Vert</th><th>DLS</th><th></th><th></th><th></th><th></th></th<>	Measured	Sub-Sea	Vertical	True Vert	Northings (+)	Eastings (+)	Vert	DLS				
5062 67.40 4.30 7602 -376.1 801.43 7.78 4.244 1042 1227 4050 514 90.00 5.30 4650.03 842.9 -373.5 833.00 4.77 4216 1074 1227 4057 5147 92.00 5.30 4567.7 92.57 2.97 4123 1168 1238 4078 5210 91.30 5.10 4566.7 986.3 -586.0 986.23 5.84 4060 1238 4076 5241 89.30 4566.75 988.3 -535.0 986.23 5.84 4062 1223 1242 4073 547 91.00 5.50 4566.58 1008.25 50.61 160.422 1232 1248 4076 5487 91.00 4.50 4562.48 103.7.8 -327.4 1325.18 118.4 3271 1288 4066 5487 90.10 3.20 4561.34 1087.3 33.2 1612.45 <												
5044 88,70 5.10 468.68 812.0 -373.5 833.09 4.77 4216 1105 1127 1227 4097 5117 91.00 5.50 4568.72 874.8 -367.6 895.35 3.4.9 4153 1137 1238 4061 5170 91.30 5.10 4566.06 937.5 -361.6 987.69 2.27 4001 1199 1238 4076 5211 91.00 5.00 4566.26 1032.0 -322.4 1037.38 3.16 4060 1230 1244 4076 5311 91.00 5.60 4566.26 119.7 -322.4 1037.48 1344 1476 1266 4056 5467 91.00 5.60 4562.27 1402.6 -320.4 1418.32 0.98 327.1 1526 4055 5777 89.10 4.10 4561.84 1591.0 -308.3 377.1 1228 4022 5877 89.10 4.10		(deg)	(ft)	(ft)				(deg)	FNL	FSL	FWL	FEL
6115 90.00 5.30 4650.03 642.9 -370.6 803.73 4.24 4163 1105 123.0 4001 6170 92.00 5.30 4667.89 905.6 -364.7 925.57 2.97 4123 1116 123.0 476 6211 89.60 5.50 4666.76 906.3 -358.0 906.23 5.64 4002 123.0 124.2 4073 6311 91.10 5.50 4666.76 906.3 -358.0 1019.8 1.40 4028 1222 124.4 4076 5311 91.10 5.50 4666.48 103.0 -352.4 110.51.4 30.0 143.4 100.9 112.4 4060 4060 4661.48 4077 4125.1 114.13.2 125.1 114.4 10.2 126.4 4060 4050 4061.4 4053 4132.1 151.4 152.1 156.1 106.2 106.2 106.2 106.2 106.2 106.2 126.4 402.0												
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	8910	92.70	359,60	4468.44	4690.3	-288.5	4699.17	0.00	340	4951	1315	4008



Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/19/2014
Job End Date:	8/20/2014
State:	Kansas
County:	Sumner
API Number:	
Operator Name:	0 07
Well Name and Number:	
Longitude:	-97.77820122
Latitude:	37.06799080
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,468
Total Base Water Volume (gal):	2,418,065
Total Base Non Water Volume:	0





Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Archer	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	95.60212	None
Sand (Proppant)	Archer	Proppant					
			Silica Substrate	NA	100.00000	3.58203	None
Hydrochloric Acid (15%)	Archer	Acidizing					
			Hydrochloric Acid	7647-01-0	15.00000	0.10534	None
			NONYL PHENOL, 4 MOL	104-40-5	10.0000	0.00378	None
			Methyl Alcohol	67-56-1	80.0000	0.00087	None
			thiourea-formaldehyde copolymer	68527-49-1	15.00000	0.00016	None
AIC	Archer	Liquid Acid Iron Control					
			Acetic Acid	64-19-7	50.0000	0.00194	
			Citric Acid	77-92-9	30.00000	0.00116	None
DiKlor	Sabre Energy Services	SOxidizer					
			Chlorine Dioxide	10069-04-4	0.40000	0.00029	
			Water	7732-18-5	99.90000		
Ingredients shown ab	ove are subject to 29 CF	FR 1910.1200(i) and ap	pear on Material Safety Data She	eets (MSDS). Ingredie	nts shown below are	Non-MSDS.	
		Other Chemicals					
			Water	7732-18-5		0.03731	

WATER	7732-18-5	0.02267	
Aliphatic Hydrocarbon	64742-47-8	0.01865	
Anionic Polymer	N/A	0.01865	
TRADE SECRET	N/A	0.01512	
Water	7732-18-5	0.00780	
METHANOL	67-56-1	0.00378	
ISOPROPANOL	67-63-0	0.00378	
Oxyalkylated Alcohol	68002-97-1	0.00311	
Polyol Ester	N/A	0.00311	
Water	7732-18-5	0.00136	
Sodium Salt of Phosphate Ester	68131-72-6	0.00130	
Acrylic Polymer	28205-96-1	0.00130	
Polyglycol Ester	N/A	0.00062	
Alcohol Ethoxylate Surfactants	N/A	0.00016	
n-olefins	N/A	0.0009	
Propargyl Alcohol	107-19-7	0.00006	
Ethylenediaminetetraacetate	64-02-8	0.00006	
Surfactant	N/A		
Water	7732-18-5		
	N/A		
Cinnamic Aldehyde	104-55-2		
Acetic Acid	64-19-7		

* 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)