Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1213339

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 # 33596
Name: Unit Petroleum Company
Wellsite Geologist: Hanna Thornberg/ Trey Boardman
Purchaser:

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☑ Oil ☐ WSW ☐ SWD ☐ SIOW
☐ Gas ☐ D&A ☐ ENHR ☐ SIGW
☐ OG ☐ GSW ☐ Temp. Abd.
☐ CM *(Coal Bed Methane)*
☐ Cathodic ☐ Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

3/19/2014	4/7/2014	5/30/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-191-22724-01-00
Spot Description:
NW NW NE NW Sec. 22 Twp. 34 S. R. 4 ☐ East ☑ West
200 Feet from ☑ North / ☐ South Line of Section
1630 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: Sumner
Lease Name: Bobek 3404 Well #: 1-22H
Field Name:
Producing Formation: Mississippian
Elevation: Ground: 1226 Kelly Bushing: 1242
Total Vertical Depth: 9137 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 538 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: 12000 ppm Fluid volume: 2280 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: SandRidge Expl. and Prod., LLC
Lease Name: Charles 3306 2-33H License #: 34192
Quarter NE Sec. 33 Twp. 33 S. R. 6 ☐ East ☑ West
County: Harper, KS Permit #: 15-077-22006-01-00

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: 07/16/2014
☑ **Confidential Release Date:** 07/15/2016
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 07/16/2014

[redacted] 1213339

Operator Name: SandRidge Exploration and Production LLC Lease Name: Bobek 3404 Well #: 1-22H

Sec. 22 Twp. 34 S. R. 4 ☐ East ☑ West County: Sumner

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:

Array Induction Gamma Ray Memory Log
Dual Spaced Neutron Spectral Density Memory Log
Borehole Profile Gamma Ray Memory Log

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

Name	Top	Datum
Base Heebner	3067	
Lansing	3393	
Cottage Grove	3774	
Oswego	4165	
Cherokee	4331	
Miss Unconformity	4960	

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
Conductor	30	20	75	90	Basin Services 10 Sack Grout	13	none
Surface	12.25	9.63	36	538	Halliburton Class A	340	3% Calcium Chloride, .25lbm Poly-E-Flak
Intermediate	8.75	7	26	5236	Halliburton Class A	160	2% Bentonite, .4% Halad (R)-9

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
2	7453-9008	1500 gals 15% HCL Acid, 8348 bbls Fresh Slickwater, 8348 TLTR	
5	6800-7144	1500 gals 15% HCL Acid, 5112 bbls Fresh Slickwater (Avg per stage), 32496 TLTR	Kiel Slickwater Frac (6 st

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

Date of First, Resumed Production, SWD or ENHR. 6/22/2014

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:
_____
_____

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Bobek 3404 1-22H
Doc ID	1213339

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	Basin Services 10 Sack Grout	13	none
Surface	12.25	9.63	36	538	Halliburton Class A	340	3% Calcium Chloride, .25lbm Poly-E-Flake
Intermediate	8.75	7	26	5236	Halliburton Class A	160	2% Bentonite, .4% Halad (R)-9

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

TICKET

TICKET NUMBER: WY-247-1
TICKET DATE: 03/20/2014

ELECTRONIC

SANDRIDGE ENERGY
***** BILL IN ADP!! *****
123 ROBERT S KERR AVE
OKLAHOMA CITY, OK 73102-6406

YARD: WY WAYNOKA OK
LEASE: Bobek 3404
WELL#: 1-22H
RIG #: Unit 310
Co/St: SUMNER, KS

DESCRIPTION	QUANTITY	RATE	AMOUNT
3/19-20/2014 DRILLED 30" CONDUCTOR HOLE			
3/19-20/2014 20" CONDUCTOR PIPE (.250 WALL)			
3/19-20/2014 6' X 6' CELLAR TINHORN WITH PROTECTIVE RING			
3/19-20/2014 DRILL & INSTALL 6' X 6' CELLAR TINHORN			
3/19-20/2014 DRILLED 20" MOUSE HOLE (PER FOOT)			
3/19-20/2014 16" CONDUCTOR PIPE (.250 WALL)			
3/19-20/2014 MOBILIZATION OF EQUIPMENT & ROAD PERMITTING FEE			
3/19-20/2014 WELDING SERVICES FOR PIPE & LIDS			
3/19-20/2014 PROVIDED EQUIPMENT & LABOR TO ASSIST IN PUMPING CONCRETE			
3/19-20/2014 PROVIDED METAL LIDS (1 FOR CONDUCTOR & 2 FOR MOUSEHOLE PIPE)			
3/19-20/2014 13 YDS OF 10 SACK GROUT			
3/19-20/2014 TAXABLE ITEMS			5,580.00
3/19-20/2014 BID - TAXABLE ITEMS			11,670.00

Sub Total:	17,250.00
Tax SUMNER COUNTY (6.65 %):	371.07
TICKET TOTAL:	$ 17,621.07

I, the undersigned, acknowledge the acceptance of the above listed goods and/or services.

Approved Signature _____

AFE Number: DC 13784
Well Name: Bobek 3404 1-22H
Code: 850.010
Amount: $17,621.07
Co. Man: David / Steve
Co. Man Sig.: DO
Notes: _____

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 305021	**Ship To #:** 3423735	**Quote #:**	**Sales Order #:** 901214236
Customer: SANDRIDGE ENERGY INC EBUSINESS		**Customer Rep:**	
Well Name: BOBEK 3404	**Well #:** 1-22		**API/UWI #:**
Field:	**City (SAP):** BLUFF CITY	**County/Parish:**	**State:**
Contractor: *UNIT DRILLING*	**Rig/Platform Name/Num:** UNIT 310		
Job Purpose: Cement Surface Casing			
Well Type: Development Well	**Job Type:** Cement Surface Casing		
Sales Person: FRENCH, JEREMY	**Srvc Supervisor:** UNDERWOOD, BILLY	**MBU ID Emp #:** 159068	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
COE, KYLE E	8	518980	MENDOZA, VICTOR	8	442596	UNDERWOOD, BILLY Dale	10	159068

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10624564C	mile	10804555	mile	11706678	mile		

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
3-23-14	6	0	3-24-14	2	1			
TOTAL			*Total is the sum of each column separately*					

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**			
Job depth MD	1000. ft	**Job Depth TVD**			
Water Depth		**Wk Ht Above Floor**			
Perforation Depth (MD)	**From**		**To**		

Job Times

	Date	Time	Time Zone
Called Out	23 - Mar - 2014	14:00	CST
On Location	23 - Mar - 2014	16:00	CST
Job Started	24 - Mar - 2014	00:00	CST
Job Completed	24 - Mar - 2014	00:55	CST
Departed Loc	24 - Mar - 2014	02:00	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

Tools and Accessories

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

Miscellaneous Materials

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

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield 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	

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density uom	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom
2	HLC Standard	EXTENDACEM (TM) SYSTEM (452981)	190.0	sacks	12.4	2.11	11.57		11.57

HALLIBURTON

Cementing Job Summary

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
	3 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
	0.25 lbm	POLY-E-FLAKE (101216940)							
	11.57 Gal	FRESH WATER							
3	**Standard**	**SWIFTCEM (TM) SYSTEM (452990)**	**150.0**	**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**		**38**	**bbl**	**8.33**	**.0**	**.0**	**.0**	

Calculated Values		Pressures		Volumes					
Displacement	38	Shut In: Instant		Lost Returns		Cement Slurry	71/32	Pad	
Top Of Cement		5 Min		Cement Returns	40	Actual Displacement	38	Treatment	
Frac Gradient		15 Min		Spacers	10	Load and Breakdown		Total Job	151

Rates							
Circulating	5	Mixing	5	Displacement	5	Avg. Job	5

Cement Left In Pipe	Amount	0 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

SALES ORDER

Halliburton Energy Services, Inc.

Sales Order Number: 901233241 **Sales Order Date: March 24, 2014**

SOLD TO:
SANDRIDGE ENERGY INC EBUSINESS
ATTN: ACCOUNTS PAYABLE DEPT
PO BOX 548807 - DO NOT MAIL
OKLAHOMA CITY OK 73154
USA

SHIP TO:
BOBEK -3404- 1-22 H,SUMNER
BOBEK -3404- 1-22 H
SUMNER
CORBIN KS 67022
USA

Rig Name:	~~LARIAT-19~~ UNIT 310
Well/Rig Name:	BOBEK -3404- 1-22 H,SUMNER
Company Code:	1100
Customer P.O. No.:	NA
Shipping Point:	Woodward, OK, USA
Sales Office:	Mid-Continent BD
Well Type:	Horizontal Oil
Well Category:	Development
Service Location:	0042
Payment Terms:	Net 60 days from Invoice date
Ticket Type:	Services
Order Type:	ZOH

Material	Description	QTY	UOM	Base Amount	Unit Amount	Gross Amount	Discount	Net Amount
7522	CMT INTERMEDIATE CASING BOM JP015	1.00	JOB					
16091	ZI - PUMPING CHARGE 001-016	1.000	EA		10,733.00	10,733.00	1,180.63-	9,552.37
	DEPTH	7500	FT					
2	MILEAGE FOR CEMENTING CREW 000-119	140.000	MI					
1	ZI-MILEAGE FROM NEAREST HES BASE,/UNIT 000-117	140.000	MI					
141	RCM II W/ADC,/JOB,ZI 046-065	1.000	JOB					
132	PORT. DAS W/CEMWIN;ACQUIRE W/HES, ZI 045-050	1.000	JOB					
74038	ZI PLUG CONTAINER RENTAL-1ST DAY	1.000	EA					
101229888	PLUG,CMTG,TOP,7,HWE,5.66 PLUG, CEMENTING, TOP, 7, HWE, 5.66 MIN/6.54 MAX CASING ID, SYNTHETIC	1.00	EA	0.00	0.00	0.00	0.00	0.00

HALLIBURTON

Halliburton Energy Services, Inc.

Sales Order Number: 901233241 **Sales Order Date: March 24, 2014**

Material	Description	QTY	UOM	Base Amount	Unit Amount	Gross Amount	Discount	Net Amount
	SERVICE							
100003650	CHEM, CAUSTIC SODA BEADS, 50#	50.00	LB	0.00	0.00	0.00	0.00	0.00
	Caustic Soda Beads							
101252566	AQUAGEL - 100 LB BAG	3.00	BAG	0.00	0.00	0.00	0.00	0.00
	AQUAGEL - 100 LB BAG							
452992	CMT, EconoCem (TM) system	160.00	SK		31.15	4,984.00	2,492.00-	2,492.00
	CMT, EconoCem (TM) system							
100001617	CHEM, Halad-9, 50 lb	57.00	LB	0.00	0.00	0.00	0.00	0.00
	Halad(R)-9							
100003682	CHEM, BENTONITE (PER 100 LB)	3.00	SK	0.00	0.00	0.00	0.00	0.00
	Bentonite							
452986	CMT, HalCem (TM) system	190.00	SK		48.19	9,156.10	4,578.05-	4,578.05
100001617	CHEM, Halad-9, 50 lb	72.00	LB	0.00	0.00	0.00	0.00	0.00
	Halad(R)-9							
76400	MILEAGE,CMT MTLS DEL/RET MIN	70.000	MI					
	500-306							
	MILEAGE,CMTG MTLS DEL/RET PER/TON MI.MIN							
3965	HANDLE&DUMP SVC CHRG, CMT&ADDITIVES,ZI	364.000	CF					
	500-207							
86954	ZI FUEL SURCHG-CARS/PICKUPS< 1 1/2TON	140.000	MI					
	FUEL SURCHG-CARS/PICKUPS< 1 1/2TON/PER/MI							
86955	ZI FUEL SURCHG-HEAVY TRKS > 1 1/2 TON	140.000	MI					
	FUEL SURCHG-HEAVY TRKS > 1 1/2 TON/PER MI							
87605	FUEL SURCHG-CMT & CMT ADDITIVES	70.000	MI					
	FUEL SURCHG-CMT & CMT ADDITIVES/PER TNM							
	SALES ORDER AMOUNT					**24,873.10**	**8,250.68-**	
	SALES ORDER TOTAL					**24,873.10**	**8,250.68-**	**16,622.42**
								16,622.42
								US Dollars
	Total Weight: 33,349.48 LB							

AFE Number: DC 13785
Well Name: BOBEK 3404 1-27H
Code: 830-370
Amount: 16,622.42
Co. Man: JOHN WEBSTER
Co. Man Sig.: [signature]
Notes:

INVOICE INSTRUCTIONS:

Operator Name:
Customer Agent:

Halliburton Approval: X_____
Customer Signature: X_____

BAKER HUGHES INTEQ

Company:	SandRidge	Job Number:	6245389	Calculation Method	Minimum Curvature
Well:	Bobek 3404 1-22H	Magnetic Decl.:	4.29	Proposed Azimuth	193.05
Location:	Sumner County KS	Grid Corr.:	0.47	Depth Reference	
Rig:	Unit 310	Total Grid Corr.:	3.82	Tie Into:	

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
Tie In Coordinates														
Tie In	0	0.00	0.00	N 0.0 E	0	0	0	0 N	0 W					
MWD	18	0.00	0.00	N 0.0 E	18	18.00	0.00	0.00 N	0.00 E	0.00	0.00	0.00	0.00	0.00
MWD	250	0.25	111.54	S 68.5 E	232	250.00	0.07	0.19 S	0.47 E	0.51	111.54	0.11	0.11	48.08
MWD	538	0.75	111.54	S 68.5 E	288	537.99	0.45	1.11 S	2.81 E	3.02	111.54	0.17	0.17	0.00
MWD	610	0.52	111.54	S 68.5 E	72	609.98	0.56	1.40 S	3.55 E	3.82	111.54	0.32	-0.32	0.00
MWD	703	0.82	263.41	S 83.4 W	93	702.98	0.85	1.63 S	3.28 E	3.67	116.45	1.40	0.32	163.30
MWD	734	1.32	272.15	N 87.9 W	31	733.97	0.99	1.64 S	2.71 E	3.17	121.30	1.69	1.61	28.19
MWD	795	2.24	279.47	N 80.5 W	61	794.94	1.20	1.42 S	0.83 E	1.65	149.83	1.55	1.51	12.00
MWD	858	3.71	277.12	N 82.9 W	63	857.86	1.49	0.97 S	2.41 W	2.60	248.13	2.34	2.33	-3.73
MWD	918	5.26	278.11	N 81.9 W	60	917.67	1.92	0.34 S	7.06 W	7.07	267.25	2.59	2.58	1.65
MWD	981	6.77	277.89	N 82.1 W	63	980.32	2.51	0.58 N	13.60 W	13.61	272.44	2.40	2.40	-0.35
MWD	1042	7.72	276.43	N 83.6 W	61	1040.84	3.30	1.53 N	21.23 W	21.28	274.12	1.59	1.56	-2.39
MWD	1105	8.69	277.38	N 82.6 W	63	1103.19	4.26	2.62 N	30.15 W	30.27	274.96	1.55	1.54	1.51
MWD	1167	9.54	280.08	N 79.9 W	62	1164.41	4.99	4.12 N	39.86 W	40.07	275.90	1.53	1.37	4.35
MWD	1260	10.46	280.94	N 79.1 W	93	1255.99	5.70	7.07 N	55.74 W	56.18	277.23	1.00	0.99	0.92
MWD	1353	11.35	279.49	N 80.5 W	93	1347.31	6.58	10.18 N	73.05 W	73.76	277.93	1.00	0.96	-1.56
MWD	1446	11.39	279.69	N 80.3 W	93	1438.49	7.68	13.23 N	91.13 W	92.08	278.26	0.06	0.04	0.22
MWD	1493	11.67	277.72	N 82.3 W	47	1484.54	8.40	14.65 N	100.41 W	101.48	278.30	1.03	0.60	-4.19
MWD	1540	11.60	276.20	N 83.8 W	47	1530.57	9.40	15.80 N	109.82 W	110.95	278.19	0.67	-0.15	-3.23
MWD	1588	11.83	276.01	N 84.0 W	48	1577.57	10.58	16.84 N	119.51 W	120.69	278.02	0.49	0.48	-0.40
MWD	1635	12.10	275.59	N 84.4 W	47	1623.55	11.81	17.82 N	129.21 W	130.43	277.85	0.60	0.57	-0.89
MWD	1682	11.87	273.71	N 86.3 W	47	1669.53	13.24	18.62 N	138.93 W	140.17	277.63	0.96	-0.49	-4.00
MWD	1730	11.72	272.92	N 87.1 W	48	1716.51	14.89	19.18 N	148.73 W	149.96	277.35	0.46	-0.31	-1.65
MWD	1777	12.32	273.48	N 86.5 W	47	1762.48	16.57	19.73 N	158.50 W	159.72	277.10	1.30	1.28	1.19
MWD	1825	12.53	272.91	N 87.1 W	48	1809.36	18.34	20.31 N	168.81 W	170.03	276.86	0.51	0.44	-1.19
MWD	1872	12.52	272.56	N 87.4 W	47	1855.24	20.16	20.79 N	178.99 W	180.20	276.63	0.16	-0.02	-0.74
MWD	1920	12.91	272.34	N 87.7 W	48	1902.06	22.11	21.24 N	189.55 W	190.73	276.39	0.82	0.81	-0.46
MWD	1967	12.80	271.61	N 88.4 W	47	1947.89	24.11	21.60 N	200.00 W	201.16	276.17	0.42	-0.23	-1.55
MWD	2015	13.20	272.88	N 87.1 W	48	1994.66	26.14	22.03 N	210.79 W	211.93	275.97	1.02	0.83	2.65
MWD	2062	13.57	273.77	N 86.2 W	47	2040.38	27.97	22.66 N	221.65 W	222.80	275.84	0.90	0.79	1.89
MWD	2110	13.29	274.54	N 85.5 W	48	2087.07	29.70	23.47 N	232.77 W	233.95	275.76	0.69	-0.58	1.60
MWD	2205	11.43	274.31	N 85.7 W	95	2179.86	32.74	25.04 N	253.04 W	254.28	275.65	1.96	-1.96	-0.24
MWD	2268	11.45	275.30	N 84.7 W	63	2241.61	34.54	26.09 N	265.49 W	266.77	275.61	0.31	0.03	1.57
MWD	2332	11.74	277.86	N 82.1 W	64	2304.30	35.98	27.56 N	278.27 W	279.63	275.66	0.92	0.45	4.00

BAKER HUGHES INTEQ

Company: SandRidge
Well: Bobek 3404 1-22H
Location: Sumner County KS
Rig: Unit 310

Job Number: 6245389
Magnetic Decl.: 4.29
Grid Corr.: 0.47
Total Grid Corr.: 3.82

Calculation Method: Minimum Curvature
Proposed Azimuth: 193.05
Depth Reference:
Tie Into:

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
MWD	2395	11.75	277.71	N 82.3 W	63	2365.98	37.16	29.30 N	290.97 W	292.44	275.75	0.05	0.02	-0.24
MWD	2458	12.56	280.41	N 79.6 W	63	2427.57	38.07	31.40 N	304.07 W	305.68	275.90	1.57	1.29	4.29
MWD	2521	13.56	283.64	N 76.4 W	63	2488.94	38.31	34.38 N	317.98 W	319.84	276.17	1.96	1.59	5.13
MWD	2584	13.19	283.13	N 76.9 W	63	2550.23	38.22	37.75 N	332.16 W	334.30	276.48	0.62	-0.59	-0.81
MWD	2679	13.47	281.86	N 78.1 W	95	2642.67	38.44	42.49 N	353.54 W	356.09	276.85	0.43	0.29	-1.34
MWD	2774	13.14	282.31	N 77.7 W	95	2735.12	38.81	47.07 N	374.92 W	377.86	277.16	0.36	-0.35	0.47
MWD	2869	13.53	285.25	N 74.8 W	95	2827.56	38.52	52.29 N	396.19 W	399.63	277.52	0.82	0.41	3.09
MWD	2964	10.31	283.14	N 76.9 W	95	2920.50	38.08	57.15 N	415.20 W	419.11	277.84	3.42	-3.39	-2.22
MWD	3059	10.06	279.83	N 80.2 W	95	3014.01	38.53	60.50 N	431.65 W	435.87	277.98	0.67	-0.26	-3.48
MWD	3122	11.40	282.38	N 77.6 W	63	3075.90	38.91	62.77 N	443.16 W	447.58	278.06	2.26	2.13	4.05
MWD	3185	11.58	281.48	N 78.5 W	63	3137.64	39.16	65.36 N	455.43 W	460.10	278.17	0.40	0.29	-1.43
MWD	3248	11.29	282.03	N 78.0 W	63	3199.39	39.44	67.91 N	467.66 W	472.57	278.26	0.49	-0.46	0.87
MWD	3312	11.98	284.88	N 75.1 W	64	3262.08	39.34	70.92 N	480.21 W	485.42	278.40	1.40	1.08	4.45
MWD	3375	12.10	284.93	N 75.1 W	63	3323.69	38.92	74.30 N	492.91 W	498.48	278.57	0.19	0.19	0.08
MWD	3438	12.58	283.33	N 76.7 W	63	3385.24	38.67	77.58 N	505.96 W	511.88	278.72	0.94	0.76	-2.54
MWD	3533	15.10	278.79	N 81.2 W	95	3477.47	39.54	81.86 N	528.26 W	534.57	278.81	2.89	2.65	-4.78
MWD	3596	14.10	276.85	N 83.2 W	63	3538.44	40.97	84.03 N	543.99 W	550.45	278.78	1.77	-1.59	-3.08
MWD	3691	12.14	273.87	N 86.1 W	95	3630.95	43.82	86.08 N	565.45 W	571.97	278.66	2.18	-2.06	-3.14
MWD	3754	11.97	272.97	N 87.0 W	63	3692.57	46.02	86.87 N	578.59 W	585.07	278.54	0.40	-0.27	-1.43
MWD	3817	13.60	263.63	S 83.6 W	63	3754.01	49.63	86.39 N	592.47 W	598.74	278.30	4.17	2.59	-14.83
MWD	3849	14.80	256.78	S 76.8 W	32	3785.03	52.69	85.03 N	600.19 W	606.19	278.06	6.45	3.75	-21.41
MWD	3880	16.07	251.03	S 71.0 W	31	3814.91	56.71	82.73 N	608.10 W	613.71	277.75	6.41	4.10	-18.55
MWD	3912	17.46	244.68	S 64.7 W	32	3845.56	62.04	79.24 N	616.63 W	621.70	277.32	7.18	4.34	-19.84
MWD	3944	18.97	239.75	S 59.8 W	32	3875.95	68.59	74.57 N	625.47 W	629.90	276.80	6.74	4.72	-15.41
MWD	3975	20.00	234.82	S 54.8 W	31	3905.18	76.00	68.97 N	634.15 W	637.89	276.21	6.26	3.32	-15.90
MWD	4007	21.23	230.08	S 50.1 W	32	3935.13	84.71	62.10 N	643.07 W	646.06	275.52	6.48	3.84	-14.81
MWD	4039	22.72	224.78	S 44.8 W	32	3964.81	94.59	54.00 N	651.87 W	654.10	274.74	7.75	4.66	-16.56
MWD	4070	24.68	224.61	S 44.6 W	31	3993.19	105.20	45.14 N	660.63 W	662.17	273.91	6.33	6.32	-0.55
MWD	4102	26.17	223.54	S 43.5 W	32	4022.09	116.97	35.27 N	670.19 W	671.11	273.01	4.87	4.66	-3.34
MWD	4133	28.10	221.59	S 41.6 W	31	4049.68	129.28	24.85 N	679.74 W	680.20	272.09	6.85	6.23	-6.29
MWD	4165	29.45	218.90	S 38.9 W	32	4077.73	142.98	13.09 N	689.68 W	689.81	271.09	5.84	4.22	-8.41
MWD	4196	31.48	216.71	S 36.7 W	31	4104.45	157.25	0.67 N	699.31 W	699.31	270.05	7.46	6.55	-7.06
MWD	4228	34.04	214.27	S 34.3 W	32	4131.36	173.26	13.43 S	709.35 W	709.48	268.92	9.00	8.00	-7.62
MWD	4259	37.02	211.44	S 31.4 W	31	4156.59	190.21	28.57 S	719.11 W	719.67	267.72	10.98	9.61	-9.13
MWD	4291	39.95	208.61	S 28.6 W	32	4181.63	209.25	45.81 S	729.05 W	730.49	266.40	10.68	9.16	-8.84

BAKER HUGHES INTEQ

Company:	SandRidge	Job Number:	6245389	Calculation Method	Minimum Curvature
Well:	Bobek 3404 1-22H	Magnetic Decl.:	4.29	Proposed Azimuth	193.05
Location:	Sumner County KS	Grid Corr.:	0.47	Depth Reference	
Rig:	Unit 310	Total Grid Corr.:	3.82	Tie Into:	

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
MWD	4322	42.94	207.18	S 27.2 W	31	4204.87	229.09	63.95 S	738.65 W	741.41	265.05	10.12	9.65	-4.61
MWD	4354	45.46	204.72	S 24.7 W	32	4227.81	250.83	84.01 S	748.40 W	753.10	263.60	9.52	7.88	-7.69
MWD	4386	47.52	202.85	S 22.9 W	32	4249.84	273.63	105.25 S	757.75 W	765.02	262.09	7.71	6.44	-5.84
MWD	4417	50.46	201.67	S 21.7 W	31	4270.18	296.72	126.89 S	766.60 W	777.03	260.60	9.91	9.48	-3.81
MWD	4449	53.36	200.46	S 20.5 W	32	4289.92	321.65	150.40 S	775.65 W	790.10	259.03	9.54	9.06	-3.78
MWD	4480	55.44	199.53	S 19.5 W	31	4307.97	346.67	174.08 S	784.27 W	803.35	257.49	7.14	6.71	-3.00
MWD	4512	57.43	199.05	S 19.1 W	32	4325.66	373.18	199.25 S	793.07 W	817.72	255.90	6.34	6.22	-1.50
MWD	4544	59.65	199.16	S 19.2 W	32	4342.36	400.32	225.04 S	802.01 W	832.98	254.33	6.94	6.94	0.34
MWD	4575	61.56	198.97	S 19.0 W	31	4357.57	427.18	250.56 S	810.83 W	848.66	252.83	6.18	6.16	-0.61
MWD	4607	63.99	199.04	S 19.0 W	32	4372.21	455.48	277.47 S	820.09 W	865.76	251.31	7.60	7.59	0.22
MWD	4638	66.06	198.94	S 18.9 W	31	4385.30	483.43	304.04 S	829.24 W	883.22	249.86	6.68	6.68	-0.32
MWD	4670	68.21	199.31	S 19.3 W	32	4397.73	512.75	331.89 S	838.90 W	902.16	248.41	6.80	6.72	1.16
MWD	4701	70.41	198.69	S 18.7 W	31	4408.68	541.59	359.31 S	848.34 W	921.29	247.04	7.34	7.10	-2.00
MWD	4733	71.92	198.11	S 18.1 W	32	4419.01	571.74	388.05 S	857.90 W	941.58	245.66	5.02	4.72	-1.81
MWD	4765	73.99	197.31	S 17.3 W	32	4428.39	602.23	417.19 S	867.20 W	962.33	244.31	6.90	6.47	-2.50
MWD	4796	76.41	197.42	S 17.4 W	31	4436.31	632.12	445.80 S	876.15 W	983.04	243.03	7.81	7.81	0.35
MWD	4828	78.99	197.37	S 17.4 W	32	4443.13	663.29	475.63 S	885.49 W	1005.15	241.76	8.06	8.06	-0.16
MWD	4859	81.88	197.26	S 17.3 W	31	4448.28	693.77	504.81 S	894.59 W	1027.19	240.56	9.33	9.32	-0.35
MWD	4906	83.67	197.02	S 17.0 W	47	4454.19	740.28	549.36 S	908.33 W	1061.54	238.83	3.84	3.81	-0.51
MWD	4954	83.80	197.10	S 17.1 W	48	4459.43	787.87	594.98 S	922.33 W	1097.58	237.17	0.32	0.27	0.17
MWD	5001	84.47	196.55	S 16.6 W	47	4464.23	834.53	639.73 S	935.86 W	1133.62	235.64	1.84	1.43	-1.17
MWD	5049	84.78	196.92	S 16.9 W	48	4468.73	882.22	685.49 S	949.62 W	1171.19	234.18	1.00	0.65	0.77
MWD	5096	85.37	196.79	S 16.8 W	47	4472.76	928.94	730.31 S	963.20 W	1208.76	232.83	1.29	1.26	-0.28
MWD	5143	86.18	196.84	S 16.8 W	47	4476.23	975.71	775.18 S	976.76 W	1246.98	231.56	1.73	1.72	0.11
MWD	5216	88.21	195.64	S 15.6 W	73	4479.80	1048.50	845.18 S	997.15 W	1307.14	229.72	3.23	2.78	-1.64
MWD	5275	89.63	195.21	S 15.2 W	59	4480.91	1107.44	902.04 S	1012.84 W	1356.29	228.31	2.51	2.41	-0.73
MWD	5338	90.00	192.60	S 12.6 W	63	4481.11	1170.43	963.19 S	1027.97 W	1408.71	226.86	4.18	0.59	-4.14
MWD	5401	89.66	191.37	S 11.4 W	63	4481.30	1233.42	1024.81 S	1041.06 W	1460.83	225.45	2.03	-0.54	-1.95
MWD	5465	89.23	190.34	S 10.3 W	64	4481.92	1297.37	1087.66 S	1053.11 W	1513.95	224.08	1.74	-0.67	-1.61
MWD	5528	88.89	188.91	S 8.9 W	63	4482.95	1360.24	1149.77 S	1063.64 W	1566.30	222.77	2.33	-0.54	-2.27
MWD	5623	89.04	187.27	S 7.3 W	95	4484.67	1454.87	1243.80 S	1077.01 W	1645.29	220.89	1.73	0.16	-1.73
MWD	5718	89.02	185.41	S 5.4 W	95	4486.28	1549.20	1338.20 S	1087.49 W	1724.36	219.10	1.96	-0.02	-1.96
MWD	5813	89.88	184.13	S 4.1 W	95	4487.19	1643.20	1432.87 S	1095.39 W	1803.61	217.40	1.62	0.91	-1.35
MWD	5908	89.45	181.55	S 1.6 W	95	4487.75	1736.69	1527.74 S	1100.10 W	1882.61	215.76	2.75	-0.45	-2.72
MWD	6002	88.34	180.11	S 0.1 W	94	4489.56	1828.54	1621.71 S	1101.46 W	1960.40	214.18	1.93	-1.18	-1.53

BAKER HUGHES INTEQ

Company: SandRidge
Well: Bobek 3404 1-22H
Location: Sumner County KS
Rig: Unit 310

Job Number: 6245389
Magnetic Decl.: 4.29
Grid Corr.: 0.47
Total Grid Corr.: 3.82

Calculation Method: Minimum Curvature
Proposed Azimuth: 193.05
Depth Reference:
Tie Into:

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
MWD	6098	89.11	179.89	S 0.1 E	96	4491.69	1922.03	1717.68 S	1101.46 W	2040.50	212.67	0.83	0.80	-0.23
MWD	6193	89.38	179.84	S 0.2 E	95	4492.95	2014.52	1812.68 S	1101.24 W	2120.97	211.28	0.29	0.28	-0.05
MWD	6288	89.60	179.55	S 0.4 E	95	4493.79	2106.95	1907.67 S	1100.73 W	2202.46	209.99	0.38	0.23	-0.31
MWD	6383	90.22	179.59	S 0.4 E	95	4493.94	2199.33	2002.67 S	1100.02 W	2284.89	208.78	0.65	0.65	0.04
MWD	6478	90.28	179.56	S 0.4 E	95	4493.53	2291.72	2097.66 S	1099.31 W	2368.27	207.66	0.07	0.06	-0.03
MWD	6573	90.55	179.24	S 0.8 E	95	4492.84	2384.03	2192.66 S	1098.32 W	2452.36	206.61	0.44	0.28	-0.34
MWD	6668	90.19	178.88	S 1.1 E	95	4492.22	2476.21	2287.64 S	1096.76 W	2536.96	205.61	0.54	-0.38	-0.38
MWD	6721	90.15	178.52	S 1.5 E	53	4492.07	2527.56	2340.63 S	1095.56 W	2584.33	205.08	0.68	-0.08	-0.68
MWD	6784	90.55	178.65	S 1.3 E	63	4491.68	2588.56	2403.61 S	1094.00 W	2640.87	204.47	0.67	0.63	0.21
MWD	6879	89.35	178.87	S 1.1 E	95	4491.77	2680.62	2498.58 S	1091.95 W	2726.77	203.61	1.28	-1.26	0.23
MWD	6974	89.97	178.72	S 1.3 E	95	4492.33	2772.69	2593.56 S	1089.95 W	2813.28	202.79	0.67	0.65	-0.16
MWD	7069	88.27	179.75	S 0.3 E	95	4493.79	2864.92	2688.54 S	1088.68 W	2900.59	202.04	2.09	-1.79	1.08
MWD	7164	88.55	179.69	S 0.3 E	95	4496.42	2957.33	2783.50 S	1088.22 W	2988.66	201.35	0.30	0.29	-0.06
MWD	7258	88.95	179.61	S 0.4 E	94	4498.48	3048.75	2877.47 S	1087.64 W	3076.17	200.71	0.43	0.43	-0.09
MWD	7353	89.32	179.52	S 0.5 E	95	4499.91	3141.12	2972.46 S	1086.92 W	3164.95	200.09	0.40	0.39	-0.09
MWD	7448	89.69	178.95	S 1.1 E	95	4500.73	3233.37	3067.45 S	1085.65 W	3253.90	199.49	0.72	0.39	-0.60
MWD	7543	89.11	179.44	S 0.6 E	95	4501.72	3325.60	3162.43 S	1084.32 W	3343.16	198.93	0.80	-0.61	0.52
MWD	7638	88.83	179.04	S 1.0 E	95	4503.43	3417.84	3257.41 S	1083.06 W	3432.74	198.39	0.51	-0.29	-0.42
MWD	7733	88.67	178.16	S 1.8 E	95	4505.51	3509.81	3352.36 S	1080.74 W	3522.26	197.87	0.94	-0.17	-0.93
MWD	7828	88.18	178.97	S 1.0 E	95	4508.12	3601.75	3447.29 S	1078.36 W	3612.02	197.37	1.00	-0.52	0.85
MWD	7922	90.59	179.43	S 0.6 E	94	4509.13	3693.01	3541.27 S	1077.05 W	3701.43	196.92	2.61	2.56	0.49
MWD	8017	90.74	179.60	S 0.4 E	95	4508.02	3785.36	3636.26 S	1076.24 W	3792.18	196.49	0.24	0.16	0.18
MWD	8112	90.77	179.52	S 0.5 E	95	4506.77	3877.73	3731.25 S	1075.51 W	3883.16	196.08	0.09	0.03	-0.08
MWD	8207	91.29	179.01	S 1.0 E	95	4505.06	3969.98	3826.22 S	1074.30 W	3974.18	195.68	0.77	0.55	-0.54
MWD	8301	90.80	179.80	S 0.2 E	94	4503.35	4061.31	3920.20 S	1073.32 W	4064.48	195.31	0.99	-0.52	0.84
MWD	8396	88.98	179.50	S 0.5 E	95	4503.53	4153.72	4015.19 S	1072.74 W	4156.03	194.96	1.94	-1.92	-0.32
MWD	8491	89.32	179.52	S 0.5 E	95	4504.94	4246.07	4110.18 S	1071.93 W	4247.66	194.62	0.36	0.36	0.02
MWD	8586	88.83	181.14	S 1.1 W	95	4506.47	4338.72	4205.16 S	1072.47 W	4339.77	194.31	1.78	-0.52	1.71
MWD	8681	88.86	180.42	S 0.4 W	95	4508.39	4431.53	4300.13 S	1073.77 W	4432.17	194.02	0.76	0.03	-0.76
MWD	8775	88.40	180.28	S 0.3 W	94	4510.64	4523.21	4394.11 S	1074.34 W	4523.54	193.74	0.51	-0.49	-0.15
MWD	8870	88.67	179.94	S 0.1 E	95	4513.07	4615.77	4489.07 S	1074.52 W	4615.88	193.46	0.46	0.28	-0.36
MWD	8965	88.58	178.89	S 1.1 E	95	4515.34	4708.06	4584.04 S	1073.55 W	4708.07	193.18	1.11	-0.09	-1.11
MWD	9060	88.60	178.24	S 1.8 E	95	4517.68	4800.01	4678.98 S	1071.18 W	4800.03	192.89	0.68	0.02	-0.68
MWD	9137	88.60	178.24	S 1.8 E	77	4519.56	4874.43	4755.92 S	1068.81 W	4874.54	192.67	0.00	0.00	0.00
MWD														

BAKER HUGHES INTEQ

Company:	SandRidge	Job Number:	6245389	Calculation Method	Minimum Curvature
Well:	Bobek 3404 1-22H	Magnetic Decl.:	4.29	Proposed Azimuth	193.05
Location:	Sumner County KS	Grid Corr.:	0.47	Depth Reference	
Rig:	Unit 310	Total Grid Corr.:	3.82	Tie Into:	

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
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Company: SandRidge
Well: Bobek 3404 1-22H
Location: Sumner County KS
Rig: Unit 310

Job Number: 6245389
Magnetic Decl.: 4.29
Grid Corr.: 0.47
Total Grid Corr.: 3.82

Calculation Method: Minimum Curvature
Proposed Azimuth: 193.05
Depth Reference:
Tie Into:

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
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BAKER HUGHES INTEQ

Company: SandRidge
Well: Bobek 3404 1-22H
Location: Sumner County KS
Rig: Unit 310

Job Number: 6245389
Magnetic Decl.: 4.29
Grid Corr.: 0.47
Total Grid Corr.: 3.82

Calculation Method: Minimum Curvature
Proposed Azimuth: 193.05
Depth Reference:
Tie Into:

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
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Well:	Bobek 3404 1-22H
Location:	Sumner County KS
Rig:	Unit 310

Job Number:	6245389
Magnetic Decl.:	4.29
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Total Grid Corr.:	3.82

Calculation Method	Minimum Curvature
Proposed Azimuth	193.05
Depth Reference	
Tie Into:	

Survey Tool Type	Survey Depth (ft)	Inclina-tion (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
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BAKER HUGHES INTEQ

Company: SandRidge
Well: Bobek 3404 1-22H
Location: Sumner County KS
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Total Grid Corr.: 3.82

Calculation Method: Minimum Curvature
Proposed Azimuth: 193.05
Depth Reference:
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Company:	SandRidge	Job Number:	6245389	Calculation Method	Minimum Curvature
Well:	Bobek 3404 1-22H	Magnetic Decl.:	4.29	Proposed Azimuth	193.05
Location:	Sumner County KS	Grid Corr.:	0.47	Depth Reference	
Rig:	Unit 310	Total Grid Corr.:	3.82	Tie Into:	

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
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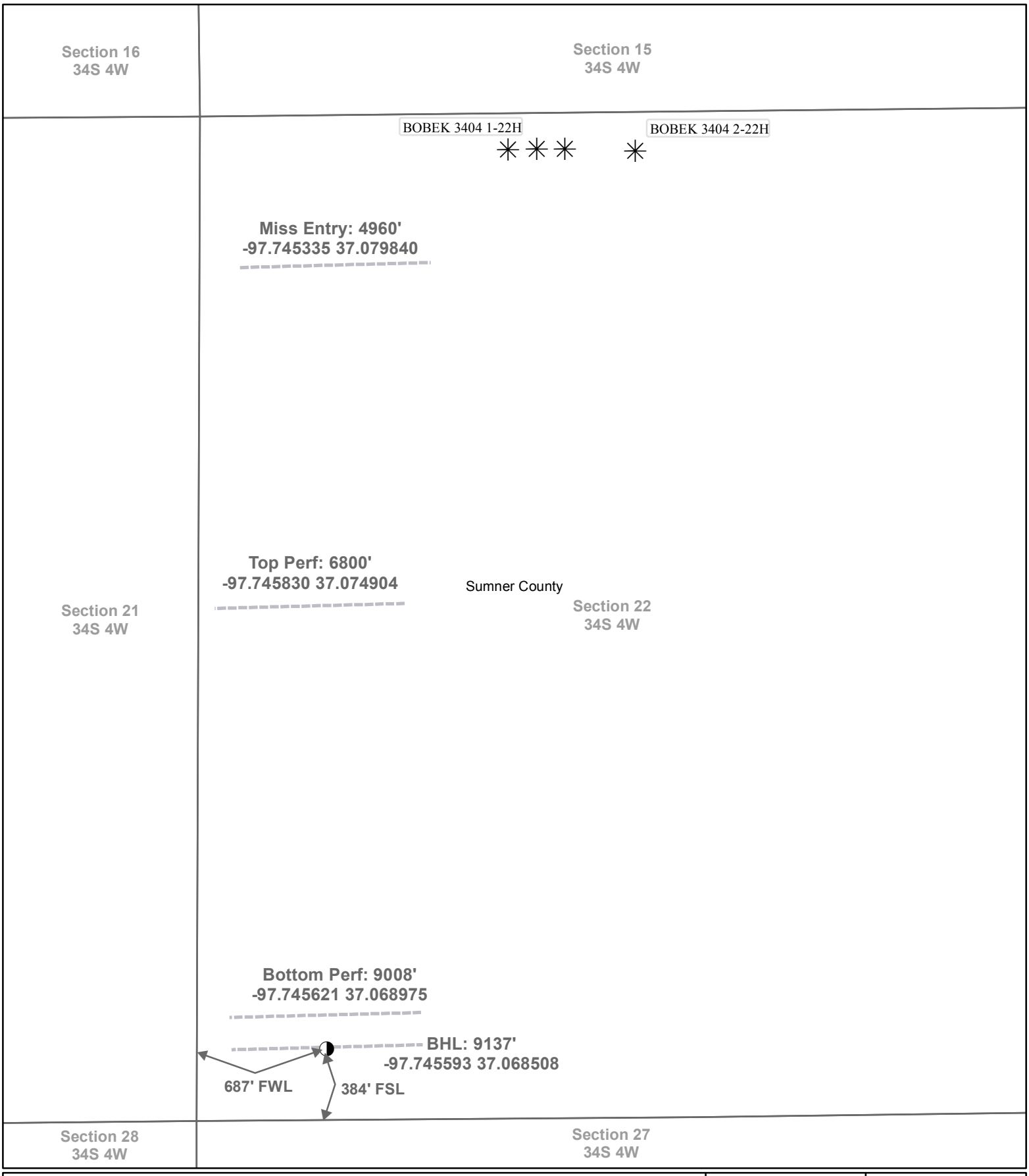

SANDRIDGE
THE POWER OF US

Actual BH Location

SandRidge Wells

Perf

Sections

Actual Bottom-Hole Location of Bobek 3404 1-22H
T&R: 34S 4W
Section: 22, 687' FWL & 368' FSL
-97.745593 37.068508

1 in = 667 ft

0 500 1,000 2,000 Feet

N

Draftsman: Naomi Martinez	Draft Date: 7/10/2014
Drawing Name/Number: Addendum_Bobek 3404 1-22H.mxd	
Coordinate System: NAD 1927 State Plane Kansas South FIPS: 1502	

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/13/2014
Job End Date:	6/14/2014
State:	Kansas
County:	Sumner
API Number:	15-191-22724-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Bobek 3404 1-22H
Longitude:	-97.74185000
Latitude:	37.08148000
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,519
Total Base Water Volume (gal):	1,430,814
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	93.33594	None
Sand (Proppant)	Archer	Proppant					
			Silica Substrate	NA	100.00000	4.69332	None
DiKlor	Sabre Energy Services	Oxidizer					
			Chlorine Dioxide	10069-04-4	0.40000	0.30077	
			Water	7732-18-5	99.90000	0.30077	
Hydrochloric Acid (15%)	Archer	Acidizing					
			Hydrochloric Acid	7647-01-0	15.00000	0.09215	None
			NONYL PHENOL, 4 MOL	104-40-5	10.00000	0.00447	None
			Methyl Alcohol	67-56-1	80.00000	0.00078	None
			thiourea-formaldehyde copolymer	68527-49-1	15.00000	0.00015	None
LG-1	Archer	Gelling Agent					
			Petroleum Distillate	64742-47-8	55.00000	0.00817	None
			Guar Gum	9000-30-0	50.00000	0.00743	None
			Clay	NA	5.00000	0.00074	None
AIC	Archer	Liquid Acid Iron Control					
			Acetic Acid	64-19-7	50.00000	0.00173	None

			Citric Acid	77-92-9	30.00000	0.00104	None
Chemflush	Archer	Enviro-Friendly Chemical Flush					
			Hydrotreated Petroleum Distillate	64742-47-8	99.00000	0.00186	None
			Alcohol Ethoxylate Surfactants	NA	10.00000	0.00019	None
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							
		Other Chemicals					
			Water	7732-18-5		0.04640	
			WATER	7732-18-5		0.02681	
			Anionic Polymer	N/A		0.02320	
			Aliphatic Hydrocarbon	64742-47-8		0.02320	
			TRADE SECRET	N/A		0.01787	
			Water	7732-18-5		0.00912	
			METHANOL	67-56-1		0.00447	
			ISOPROPANOL	67-63-0		0.00447	
			Oxyalkylated Alcohol	68002-97-1		0.00387	
			Polyol Ester	N/A		0.00387	
			Acrylic Polymer	28205-96-1		0.00152	
			Sodium Salt of Phosphate Ester	68131-72-6		0.00152	
			Water	7732-18-5		0.00121	
			Polyglycol Ester	N/A		0.00077	
			Buffer	N/A		0.00074	
			Surfactant	N/A		0.00074	
			Alcohol Ethoxylate Surfactants	N/A		0.00015	
			n-olefins	N/A		0.00008	
			Tetrasodium Ethylenediaminetetraacetate	64-02-8		0.00008	
			Propargyl Alcohol	107-19-7		0.00006	
			Water	7732-18-5			
			Acetic Acid	64-19-7			
			Cinnamic Aldehyde	104-55-2			

* 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)