Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1219150

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: Will Scott
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 #:

4/24/2014	5/17/2014	6/18/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-191-22735-01-00
Spot Description:
SW SE SE SW Sec. 8 Twp. 34 S. R. 4 ☐ East ☑ West
212 Feet from ☐ North / ☑ South Line of Section
2173 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: Subera 3404 Well #: 1-17H
Field Name:
Producing Formation: Mississippian
Elevation: Ground: 1243 Kelly Bushing: 1259
Total Vertical Depth: 9353 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 520 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: 1200 ppm Fluid volume: 1020 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: SandRidge Expl. and Prod., LLC
Lease Name: Bobek 3404 3-21H License #: 34192
Quarter SE Sec. 16 Twp. 34 S. R. 4 ☐ East ☑ West
County: Sumner Permit #: 15191227430100

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: 08/22/2014
☑ **Confidential Release Date:** 08/21/2016
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 08/22/2014

1219150

Operator Name: SandRidge Exploration and Production LLC Lease Name: Subera 3404 Well #: 1-17H

Sec. 8 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
Spectral Density Dual Spaced Neutron Memory Log

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

Name	Top	Datum
Base Heebner	3026	
Lansing	3341	
Cottage Grove	3695	
Oswego	4056	
Cherokee	4210	
Verdigris	4239	
Mississippian	4574	

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	24	20	75	90	Mid-Continent Conductor grout	12	none
Surface	12.25	9.63	36	520	Halliburton Class A	340	3.0% CaCl2, 12.01 Gal Fresh Water, .25
Intermediate	8.75	7	26	5196	Halliburton Class A	350	2.0% Bentonite, 7.42 gal Fresh Water, .4

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☑ Yes ☐ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☑ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☑ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
Attached	Attached	Attached	Attached

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

Date of First, Resumed Production, SWD or ENHR. 7/14/2014

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	Subera 3404 1-17H
Doc ID	1219150

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	8970-9184	1500 gals 15% HCl Acid, 6076 bbls Fresh Slickwater, Running TLTR 6409 bbls	
5	8640-8910	1500 gals 15% HCl Acid, 5687 bbls Fresh Slickwater, Running TLTR 12267 bbls	
5	8262-8562	1500 gals 15% HCl Acid, 5802 bbls Fresh Slickwater, Running TLTR 18204 bbls	
5	7914-8190	1500 gals 15% HCl Acid, 5720 bbls Fresh Slickwater, Running TLTR 24040 bbls	
5	7500-7815	1500 gals 15% HCl Acid, 5708 bbls Fresh Slickwater, Running TLTR 29870 bbls	
5	7157-7410	1500 gals 15% HCl Acid, 5674 bbls Fresh Slickwater, Running TLTR 35540 bbls	
5	6805-7083	1500 gals 15% HCl Acid, 5675 bbls Fresh Slickwater, Running TLTR 41298 bbls	
5	6415-6675	1500 gals 15% HCl Acid, 5712 bbls Fresh Slickwater, Running TLTR 47081 bbls	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Subera 3404 1-17H
Doc ID	1219150

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	6026-6335	1500 gals 15% HCl Acid, 5628 bbls Fresh Slickwater, Running TLTR 52802 bbls	
5	5673-5920	1500 gals 15% HCl Acid, 5619 bbls Fresh Slickwater, Running TLTR 58471 bbls	
5	5240-5575	1500 gals 15% HCl Acid, 5598 bbls Fresh Slickwater, Running TLTR 64106 bbls	
5	4758-4960	1500 gals 15% HCl Acid, 4053 bbls Fresh Slickwater, Running TLTR 68159 bbls	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Subera 3404 1-17H
Doc ID	1219150

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	90	Mid-Continent Conductor grout	12	none
Surface	12.25	9.63	36	520	Halliburton Class A	340	3.0% CaCl2, 12.01 Gal Fresh Water, .25 lbm Poly-E-Flake
Intermediate	8.75	7	26	5196	Halliburton Class A	350	2.0% Bentonite, 7.42 gal Fresh Water, .4% Halad(R)-9

Mid-Continent Conductor, LLC

Invoice

P.O. Box 1570
Woodward, OK 73802

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

Date	Invoice #
4/24/2014	2626

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

Ordered By	Terms	Date of Service	Lease Name/Legal Desc.	Drilling Rig
Felix Ortiz	Net 30	4/24/2014	Subera 3404 1-17H, Sumner Cnty, KS	Unit 310

Item	Quantity	Description
Conductor Hole	90	Drilled 90 ft. conductor hole.
20" Pipe	90	Furnished 90 ft. of 20 inch conductor pipe.
Mouse Hole	80	Drilled 80 ft. mouse hole.
16" Pipe	80	Furnished 80 ft. of 16 inch mouse hole pipe.
Cellar Hole	1	Drilled 6x6 cellar hole.
6' X 6' Tinhorn	1	Furnished and set 6x6 tinhorn.
Mud and Water	1	Furnished mud and water.
Transport Truck - Conductor	1	Transport mud and water to location.
Grout & Trucking	12	Furnished 12 yards of grout and trucking to location.
Grout Pump	1	Furnished grout pump.
Fence Panels	1	Furnished and set safety netting around holes.
Welder & Materials	1	Furnished welder and materials.
Dirt Removal	1	Labor and equipment for dirt removal.
Cover Plate	1	Furnished cover plates.
Permits	1	Permits

AFE Number: DC 13839
Well Name: SUBERA 3404-1-17H
Code: 850.010
Amount: 18,500
Co. Man: MICHAEL KULCHISKY
Co. Man Sig:
Notes:

Subtotal	$18,500.00
Sales Tax (0.0%)	$0.00
Total	$18,500.00

HALLIBURTON

Field Ticket

Field Ticket Number:	0901310648	Field Ticket Date:	Wednesday, April 30, 2014	Planning Order #:	NA

Bill To:
SANDRIDGE ENERGY INC EBUSINESS,
PO BOX 548807 - DO NOT MAIL,
OKLAHOMA CITY, OK, 73154

Ship To:
SUBERA -3404- 1-17 H,SUMNER,
CORBIN, KS, 67022

Job Name:	9.625" Surface Casing
Order Type:	ZOH
Well Name:	SUBERA -3404- 1-17 H
Company Code:	1100
Customer PO No.:	NA
Shipping Point:	WOODWARD Shipping Point
Sales Office:	MID-CONTINENT BD
Well Type:	HORIZONTAL OIL
Well Category:	Development

Material	Description	QTY	UOM	Unit Amount	Gross Amount	Discount	Net Amount
7521	CMT SURFACE CASING BOM	1	JOB	0.00	0.00		0.00
16091	ZI - PUMPING CHARGE *FEET/METERS (FT/M)* *DEPTH*	1 FT 2500	EA	7,095.00	7,095.00		7,095.00
2	MILEAGE FOR CEMENTING CREW	140	MI	0.00	0.00		0.00
1	ZI-MILEAGE FROM NEAREST HES BASE,/UNIT	140	MI	0.00	0.00		0.00
452981	CMT, ExtendaCem (TM) system	190	SK	34.63	6,579.70	3224.05	3,355.65
101216940	CHEM, Pol-E-Flake, 25 lb bag *Poly-E-Flake*	48	LB	0.00	0.00		0.00
101509387	CHEM, CALCIUM CHLORIDE-PELLET, 50 LB SK *Calcium Chlonde, Pellet*	11	SK	0.00	0.00		0.00
452986	CMT, HalCem (TM) system	150	SK	47.04	7,056.00	3457.44	3,598.56
101216940	CHEM, Pol-E-Flake, 25 lb bag *Poly-E-Flake*	19	LB	0.00	0.00		0.00
101509387	CHEM, CALCIUM CHLORIDE-PELLET, 50 LB SK *Calcium Chloride, Pellet*	6	SK	0.00	0.00		0.00
3965	HANDLE&DUMP SVC CHRG, CMT&ADDITIVES,ZI	382	CF	0.00	0.00		0.00
86954	ZI FUEL SURCHG-CARS/PICKUPS<1 1/2TON	140	MI	0.00	0.00		0.00
86955	ZI FUEL SURCHG-HEAVY TRKS >1 1/2 TON	140	MI	0.00	0.00		0.00
87605	FUEL SURCHG-CMT & CMT ADDITIVES	70	MI	0.00	0.00		0.00
76400	MILEAGE,CMT MTLS DEL/RET MIN	70	MI	0.00	0.00		0.00
			Totals	*USD*	**$ 20,730.70**	**$ 6,681.49**	**$ 14,049.21**

HALLIBURTON

Field Ticket Signature

Field Ticket Number: 0901310648	Field Ticket Date:	Wednesday, April 30, 2014	Planning Order #: NA

Bill To:
SANDRIDGE ENERGY INC EBUSINESS,
PO BOX 548807 - DO NOT MAIL,
OKLAHOMA CITY, OK, 73154

Ship To:
SUBERA -3404- 1-17 H,SUMNER,
CORBIN, KS, 67022

Job Name:	9.625" Surface Casing
Order Type:	ZOH
Well Name:	SUBERA -3404- 1-17 H
Company Code:	1100
Customer PO No.:	NA
Shipping Point:	WOODWARD Shipping Point
Sales Office:	MID-CONTINENT BD
Well Type:	HORIZONTAL OIL
Well Category:	Development

THIS OUTPUT DOES NOT INCLUDE TAXES. APPLICABLE SALES TAX WILL BE BILLED ON THE FINAL INVOICE. CUSTOMER HEREBY ACKNOWLEDGES RECEIPT OF THE MATERIALS AND SERVICES DESCRIBED ABOVE , ON ANY PRECEDING PAGES, AND ATTACHED DOCUMENTS.

Gross Amount Total:	$ 20,730.70
Item Discount Total:	$ 6,681.49
Net Amount Total:	$ 14,049.21 USD

Customer Representative Signature: _____ **Date:** _____

Antonio Leija
Customer Representative

Billy Underwood
Halliburton Representative

Was our HSE performance satisfactory? (Health, Safety, Environment) ☐Yes ☐ No

Were you satisfied with our equipment? ☐Yes ☐ No

Were you satisfied with our people? ☐Yes ☐ No

Comments:

AFE Number: DC13839
Well Name: Subera 3404 1-17H
Code: 830-360
Amount: $ 14,049.21
Co. Man: Antonio Leija SR
Co. Man Sig.:
Notes:

HALLIBURTON

Summary Report

Crew: _____

Job Start Date: 4/30/2014

Sales Order #: 0901310648
WO #: 0901310648
PO/AFE #: NA

Customer:	SANDRIDGE ENERGY INC EBUSINESS	**Field:**	EDEN ROAD WEST	**Job Type:**	CMT SURFACE CASING BOM
UWI / API Number:	15-191-22735-01	**County/Parish:**	SUMNER	**Service Supervisor:**	Billy Underwood
Well Name:	SUBERA -3404-	**State:**	KANSAS		
Well No:	1-17 H	**Latitude:**	37.096957		
		Longitude:	-97.776287	**Cust Rep Name:**	Antonio Leija
		Sect / Twn / Rng:	8/34/4	**Cust Rep Phone #:**	

Remarks:

The Information Stated Herein Is Correct	Customer Representative Signature	Date
	Customer Representative Printed Name: Antonio Leija JR	

HALLIBURTON

Field Ticket

Original

Field Ticket Number:	0901324266	Field Ticket Date:	Tuesday, May 06, 2014	Planning Order #:	NA

Bill To:

SANDRIDGE ENERGY INC EBUSINESS,
PO BOX 548807 - DO NOT MAIL,
OKLAHOMA CITY, OK, 73154

Ship To:

SUBERA -3404- 1-17 H,SUMNER,
CORBIN, KS, 67022

Job Name:	7" Intermediate Casing
Order Type:	ZOH
Well Name:	SUBERA -3404- 1-17 H
Company Code:	1100
Customer PO No.:	NA
Shipping Point:	WOODWARD Shipping Point
Sales Office:	MID-CONTINENT BD
Well Type:	HORIZONTAL OIL
Well Category:	Development

Material	Description	QTY	UOM	Unit Amount	Gross Amount	Discount	Net Amount
7522	CMT INTERMEDIATE CASING BOM	1	Job	0.00	0.00		0.00
16091	ZI - PUMPING CHARGE *DEPTH* *FEET/METERS (FT/M)*	1 7500 FT	EA	10,733.00	10,733.00	11.000 %	9,552.37
2	MILEAGE FOR CEMENTING CREW	140	MI	0.00	0.00		0.00
1	ZI-MILEAGE FROM NEAREST HES BASE,/UNIT	140	MI	0.00	0.00		0.00
141	RCM II W/ADC,/JOB,ZI	1	Job	0.00	0.00		0.00
132	PORT. DAS W/CEMWIN;ACQUIRE W/HES, ZI	1	Job	0.00	0.00		0.00
74038	ZI PLUG CONTAINER RENTAL-1ST DAY	1	EA	0.00	0.00		0.00
101229888	PLUG,CMTG,TOP,7,HWE,5.66 MIN/6.54 MAX CS	1	EA	0.00	0.00		0.00
100003650	CHEM, CAUSTIC SODA BEADS, 50# *Caustic Soda Beads*	50	LB	0.00	0.00		0.00
101252566	AQUAGEL - 100 LB BAG *AQUAGEL - 100 LB BAG*	3	BG	0.00	0.00		0.00
452992	CMT, EconoCem (TM) system	160	SK	0.00	4,984.00		2,492.00
100001617	CHEM, Halad-9, 50 lb *Halad(R)-9*	58	LB	0.00	0.00		0.00
100003682	CHEM, BENTONITE (PER 100 LB) *Bentonite*	3	SK	0.00	0.00		0.00
452986	CMT, HalCem (TM) system	190	SK	0.00	9,156.10		4,578.05
100001617	CHEM, Halad-9, 50 lb *Halad(R)-9*	72	LB	0.00	0.00		0.00
76400	MILEAGE,CMT MTLS DEL/RET MIN	70	MI	0.00	0.00		0.00
3965	HANDLE&DUMP SVC CHRG, CMT&ADDITIVES,ZI	364	CF	0.00	0.00		0.00
86954	ZI FUEL SURCHG-CARS/PICKUPS<1 1/2TON	140	MI	0.00	0.00		0.00
86955	ZI FUEL SURCHG-HEAVY TRKS >1 1/2 TON	140	MI	0.00	0.00		0.00
87605	FUEL SURCHG-CMT & CMT ADDITIVES	70	MI	0.00	0.00		0.00
			Totals	*USD*	$ 24,873.10	$ 8,250.68	$ 16,622.42

AFE Number: DC 13839
Well Name: Subera 3404 1-17H
Code: 830.3720
Amount: $ 16,622.42
Co. Man: Anthonio Aguilar
Co. Man Sig.:
Notes:

Field ticket Number: 0901324266

Last Printed 5/6/2014 6:34 AM

HALLIBURTON

Original

Field Ticket Signature

Field Ticket Number: 0901324266	Field Ticket Date: Tuesday, May 06, 2014	Planning Order #: NA

Bill To:
SANDRIDGE ENERGY INC EBUSINESS,
PO BOX 548807 - DO NOT MAIL,
OKLAHOMA CITY, OK, 73154

Ship To:
SUBERA -3404- 1-17 H,SUMNER,
CORBIN, KS, 67022

Job Name:	7" Intermediate Casing
Order Type:	ZOH
Well Name:	SUBERA -3404- 1-17 H
Company Code:	1100
Customer PO No.:	NA
Shipping Point:	WOODWARD Shipping Point
Sales Office:	MID-CONTINENT BD
Well Type:	HORIZONTAL OIL
Well Category:	Development

THIS OUTPUT DOES NOT INCLUDE TAXES. APPLICABLE SALES TAX WILL BE BILLED ON THE FINAL INVOICE. CUSTOMER HEREBY ACKNOWLEDGES RECEIPT OF THE MATERIALS AND SERVICES DESCRIBED ABOVE , ON ANY PRECEDING PAGES, AND ATTACHED DOCUMENTS.

Gross Amount Total:	$ 24,873.10
Item Discount Total:	$ 8,250.68
Net Amount Total:	$ 16,622.42 USD

Customer Representative Signature: **Date:**

Brian Penn

Customer Representative **Halliburton Representative**

Was our HSE performance satisfactory? (Health, Safety, Environment) ☐Yes ☐ No

Were you satisfied with our equipment? ☐Yes ☐ No

Were you satisfied with our people? ☐Yes ☐ No

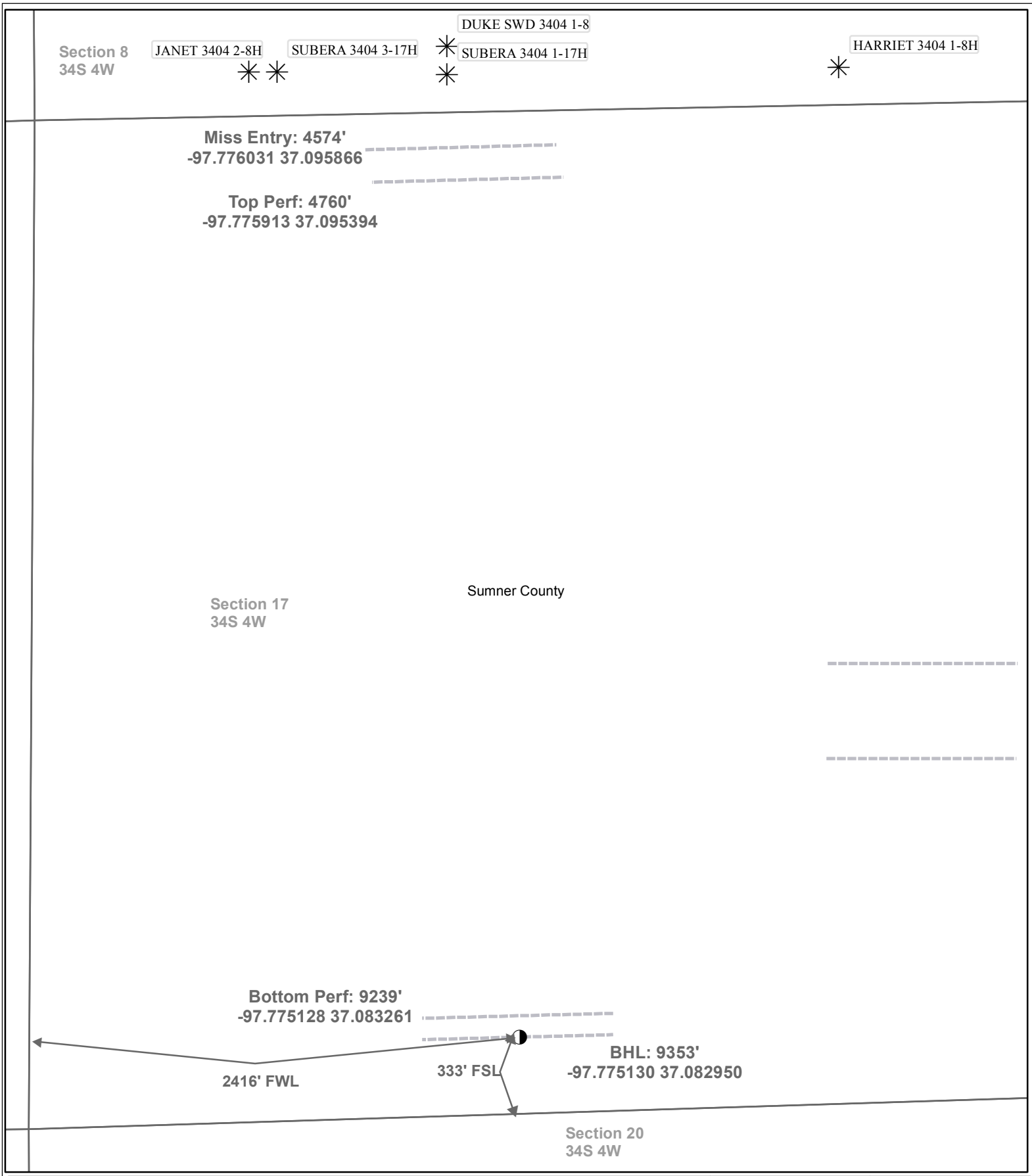
Comments:

Directional Survey Calculations	Measured Depth (ft)	Sub-Sea Incl. (deg)	Vertical Azim. (ft)	True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vert Section (ft)	DLS deg/100' (deg)	FNL	FSL	FWL	FEL
SHL	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-212	5483	2172	3170
BHL	9353	90.65	181.52	4507.19	-5144.47	234.98	5149.84	0.00	4938	333	2416	2908
Miss Entry	4574	65.41	171.07	4413.27	-392.31	63.38	394.83	8.28	182	5089	2236	3105
Top Perf	4760	78.74	168.89	4469.94	-566.27	94.15	570.03	6.20	357	4915	2267	3073
Bottom Perf	9239	90.58	180.82	4508.43	-5030.51	237.51	5036.12	0.14	4825	447	2418	2906

Survey Points		X	Y					m
	NW Corner XY Coord	2209018	157214				North Line slope	0.0245227
	SW Corner XY Coord	2209009	151944		X	Y	East Line slope	0.0053091
	NE Corner XY Coord	2214360	157345	Surface XY	2211190.3	157479.1	South Line slope	0.0238587
	SE Corner XY Coord	2214332	152071				West Line slope	0.0017078

	Measured Depth (ft)	Sub-Sea Incl. (deg)	Vertical Azim. (ft)	True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vert Section (ft)	DLS deg/100' (deg)	FNL	FSL	FWL	FEL
	0	0.0	0	0	0	0	0	0	-212	5483	2172	3170
	15	0.00	0.00	15.00	0.0	0.0	0.00	0.00	-212	5483	2172	3170
	260	0.25	268.36	260.00	0.0	-0.5	-0.01	0.10	-212	5483	2171	3171
	520	0.75	268.36	519.99	-0.1	-2.8	-0.05	0.19	-212	5483	2169	3173
	613	0.40	268.36	612.98	-0.1	-3.7	-0.07	0.38	-212	5483	2168	3174
	1075	0.45	34.53	1074.98	1.3	-4.3	-1.54	0.16	-213	5485	2168	3175
	1542	0.41	27.22	1541.96	4.3	-2.5	-4.45	0.01	-216	5487	2169	3173
	2017	0.25	100.33	2016.96	5.7	-0.7	-5.69	0.09	-218	5489	2171	3171
	2491	0.11	2.75	2490.96	5.9	0.3	-5.91	0.06	-218	5489	2172	3170
	2965	0.55	1.84	2964.95	8.7	0.4	-8.63	0.09	-220	5492	2172	3170
	3438	0.80	297.48	3437.92	12.5	-2.4	-12.55	0.16	-224	5496	2169	3173
	3722	0.35	227.57	3721.91	12.8	-4.8	-12.99	0.27	-225	5496	2167	3175
	3753	2.09	172.71	3752.90	12.2	-4.8	-12.37	6.16	-224	5495	2167	3175
	3785	3.74	169.96	3784.86	10.6	-4.6	-10.75	5.17	-222	5494	2167	3175
	3817	5.97	168.31	3816.74	7.9	-4.1	-8.07	6.98	-220	5491	2168	3175
	3848	7.91	167.06	3847.51	4.2	-3.3	-4.38	6.28	-216	5487	2169	3174
	3880	9.61	166.54	3879.14	-0.5	-2.1	0.41	5.32	-211	5483	2170	3173
	3911	11.73	168.07	3909.60	-6.1	-0.9	6.06	6.90	-206	5477	2171	3171
	3942	14.07	169.42	3939.82	-12.9	0.5	12.90	7.61	-199	5470	2172	3170
	3974	16.14	170.65	3970.71	-21.1	1.9	21.17	6.55	-191	5462	2174	3168
	4006	18.44	171.05	4001.26	-30.5	3.4	30.62	7.20	-181	5452	2175	3167
	4037	20.41	171.37	4030.49	-40.7	5.0	40.87	6.36	-171	5442	2177	3165
	4069	23.09	171.88	4060.21	-52.4	6.7	52.67	8.40	-159	5430	2179	3163
	4100	25.47	171.39	4088.47	-65.0	8.6	65.35	7.70	-147	5418	2181	3162
	4132	28.21	170.97	4117.02	-79.3	10.8	79.72	8.58	-132	5404	2183	3159
	4163	30.95	170.93	4143.98	-94.4	13.2	94.92	8.84	-117	5388	2185	3157
	4195	33.53	170.73	4171.04	-111.3	15.9	111.88	8.07	-100	5371	2188	3154
	4226	36.39	170.02	4196.44	-128.8	18.9	129.51	9.32	-83	5354	2191	3151
	4258	39.10	170.06	4221.75	-148.1	22.3	148.94	8.47	-63	5334	2194	3147
	4289	41.39	169.78	4245.41	-167.8	25.8	168.80	7.41	-43	5315	2198	3144
	4321	44.18	169.85	4268.89	-189.2	29.6	190.35	8.72	-22	5293	2202	3140
	4352	46.74	170.44	4290.63	-210.9	33.4	212.27	8.37	0	5271	2206	3136
	4384	49.25	170.27	4312.04	-234.4	37.4	235.87	7.85	23	5248	2210	3132
	4416	52.32	170.89	4332.27	-258.8	41.4	260.48	9.71	48	5223	2214	3128
	4447	55.19	170.95	4350.60	-283.5	45.4	285.33	9.26	73	5198	2218	3124
	4479	57.80	170.88	4368.26	-309.9	49.6	311.84	8.16	99	5172	2222	3119
	4510	60.58	170.16	4384.14	-336.1	54.0	338.27	9.19	126	5146	2226	3115
	4542	62.84	170.36	4399.30	-363.9	58.7	366.23	7.08	154	5118	2231	3110
	4574	65.41	171.07	4413.27	-392.3	63.4	394.83	8.28	182	5089	2236	3105
	4605	67.50	171.10	4425.65	-420.4	67.8	423.08	6.74	210	5061	2240	3100
	4637	69.82	170.40	4437.29	-449.8	72.6	452.69	7.53	240	5032	2245	3095
	4669	72.53	169.96	4447.62	-479.6	77.8	482.73	8.57	270	5002	2250	3090
	4700	74.80	169.47	4456.34	-508.9	83.1	512.22	7.48	299	4972	2256	3085
	4732	77.04	168.92	4464.12	-539.4	88.9	542.94	7.20	330	4942	2262	3079
Top of Tangent	4764	78.98	168.89	4470.77	-570.1	94.9	573.90	6.06	361	4911	2268	3072
@ 4859'	4795	80.63	168.81	4476.26	-600.1	100.8	604.08	5.33	391	4881	2274	3066
	4859	84.66	169.73	4484.45	-662.4	112.6	666.91	6.46	453	4818	2286	3054
	4906	85.78	169.16	4488.36	-708.4	121.2	713.30	2.67	500	4772	2294	3045
	4953	86.49	168.98	4491.53	-754.5	130.1	759.71	1.56	546	4725	2303	3036
Btm of Tangent	5000	87.37	169.11	4494.05	-800.6	139.0	806.15	1.89	592	4679	2312	3027
@ 5080'	5048	88.06	168.59	4495.96	-847.6	148.3	853.58	1.80	639	4632	2322	3018
	5095	88.74	168.18	4497.27	-893.6	157.7	899.99	1.69	686	4586	2331	3008
	5143	89.48	168.30	4498.02	-940.6	167.5	947.38	1.56	733	4538	2341	2998
	5168	90.03	167.97	4498.13	-965.1	172.7	972.06	2.57	757	4514	2346	2993
	5244	90.92	168.57	4497.50	-1039.5	188.1	1047.11	1.41	832	4439	2362	2977
	5307	90.22	169.95	4496.87	-1101.4	199.9	1109.48	2.46	894	4377	2374	2965
	5371	90.28	172.36	4496.59	-1164.6	209.7	1173.10	3.77	958	4313	2384	2955
	5434	89.44	174.52	4496.75	-1227.2	216.9	1235.95	3.68	1021	4251	2391	2947
	5529	87.66	176.39	4499.15	-1321.9	224.4	1330.86	2.72	1116	4156	2399	2939
	5624	86.70	177.38	4503.82	-1416.6	229.6	1425.74	1.45	1210	4061	2404	2933
	5719	86.89	178.00	4509.13	-1511.4	233.4	1520.59	0.68	1305	3966	2408	2929
	5813	88.86	179.88	4512.62	-1605.3	235.1	1614.48	2.90	1399	3872	2410	2927
	5908	88.92	179.87	4514.46	-1700.3	235.3	1709.37	0.06	1494	3777	2410	2926
	6003	89.82	179.78	4515.51	-1795.3	235.6	1804.27	0.95	1589	3682	2411	2925
	6098	90.93	179.33	4514.88	-1890.3	236.4	1899.19	1.26	1684	3587	2411	2924

Measured Depth (ft)	Sub-Sea Incl. (deg)	Vertical Azim. (ft)	True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vert Section (ft)	DLS deg/100' (deg)	FNL	FSL	FWL	FEL
6192	90.86	179.53	4513.42	-1984.3	237.3	1993.12	0.23	1778	3493	2413	2923
6287	91.85	179.96	4511.17	-2079.2	237.7	2088.01	1.14	1873	3398	2413	2922
6382	91.14	180.61	4508.69	-2174.2	237.3	2182.85	1.01	1968	3303	2413	2922
6476	90.22	180.08	4507.57	-2268.2	236.7	2276.71	1.13	2062	3209	2412	2922
6571	89.14	181.07	4508.11	-2363.2	235.7	2371.56	1.54	2157	3114	2412	2922
6666	87.44	181.43	4510.94	-2458.1	233.7	2466.29	1.83	2252	3019	2410	2924
6751	88.27	180.98	4514.12	-2543.0	231.9	2551.04	1.11	2337	2935	2408	2925
6846	89.26	179.93	4516.17	-2638.0	231.1	2645.87	1.52	2432	2840	2407	2925
6909	90.34	180.61	4516.39	-2701.0	230.8	2708.79	2.03	2495	2777	2407	2925
6972	90.86	180.31	4515.73	-2764.0	230.3	2771.69	0.95	2558	2714	2407	2925
7067	88.09	178.86	4516.60	-2859.0	231.0	2866.60	3.29	2653	2619	2408	2924
7120	88.95	178.73	4517.97	-2911.9	232.1	2919.57	1.64	2706	2566	2409	2923
7193	90.34	178.60	4518.42	-2984.9	233.8	2992.54	1.91	2779	2493	2411	2921
7257	91.57	178.61	4517.35	-3048.9	235.4	3056.52	1.92	2843	2429	2412	2919
7352	91.45	179.58	4514.85	-3143.8	236.9	3151.44	1.03	2938	2334	2414	2917
7446	91.42	180.53	4512.50	-3237.8	236.8	3245.30	1.01	3032	2240	2414	2916
7541	91.60	180.44	4509.99	-3332.8	236.0	3340.13	0.21	3127	2145	2414	2917
7636	90.74	180.34	4508.05	-3427.7	235.3	3434.97	0.91	3222	2050	2413	2917
7731	91.17	179.47	4506.47	-3522.7	235.5	3529.86	1.02	3317	1955	2413	2916
7826	91.57	179.52	4504.20	-3617.7	236.3	3624.77	0.42	3412	1860	2414	2915
7889	90.28	179.80	4503.18	-3680.7	236.7	3687.71	2.10	3475	1797	2415	2914
7921	89.94	179.97	4503.12	-3712.7	236.8	3719.67	1.19	3507	1765	2415	2914
8015	90.46	179.89	4502.79	-3806.7	236.9	3813.58	0.56	3601	1671	2415	2913
8110	88.27	179.44	4503.84	-3901.7	237.4	3908.49	2.35	3696	1576	2416	2912
8205	87.38	179.58	4507.45	-3996.6	238.3	4003.35	0.95	3791	1481	2417	2911
8299	89.91	179.44	4509.67	-4090.6	239.1	4097.25	2.70	3885	1387	2418	2910
8394	89.29	179.97	4510.34	-4185.6	239.5	4192.16	0.86	3980	1292	2419	2909
8489	89.85	180.06	4511.05	-4280.6	239.5	4287.06	0.60	4075	1197	2419	2908
8584	90.52	180.21	4510.74	-4375.6	239.3	4381.94	0.72	4170	1102	2419	2908
8679	90.40	179.63	4509.98	-4470.6	239.4	4476.84	0.62	4265	1007	2419	2907
8773	89.78	179.61	4509.83	-4565	240	4570.77	0.66	4359	913	2420	2906
8868	89.82	179.66	4510.16	-4660	241	4665.69	0.07	4454	818	2420	2905
8963	90.15	179.83	4510.19	-4755	241	4760.61	0.39	4549	723	2421	2904
9058	90.25	181.04	4509.86	-4850	240	4855.47	1.28	4644	628	2420	2904
9153	90.49	180.87	4509.24	-4945	239	4950.28	0.31	4739	533	2419	2905
9247	90.59	180.81	4508.36	-5039	237	5044.10	0.12	4833	439	2418	2906
9312	90.65	181.52	4507.65	-5103	236	5108.95	1.10	4897	374	2417	2907
9353	90.65	181.52	4507.19	-5144	235	5149.84	0.00	4938	333	2416	2908



SANDRIDGE
THE POWER OF US

Actual BH Location

SandRidge Wells

Perf

Sections

Actual Bottom-Hole Location of Subera 3404 1-17H
T&R: 34S 4W
Section: 17, 2416' FWL & 333' FSL
-97.775130 37.082950

1 in = 667 ft

0 500 1,000 2,000 Feet

N

Draftsman: Dory Deines	Draft Date: 8/19/2014
Drawing Name/Number: Addendum_Subera 3404 1-17H.mxd	
Coordinate System: NAD 1927 State Plane Kansas South FIPS: 1502	