



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1232201
OIL & GAS CONSERVATION DIVISION

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 # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

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 #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ 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: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

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 III Approved by: _____ Date: _____

1232201

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> 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 <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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INVOICE

DATE	INVOICE #
8/8/2014	5002

BILL TO
SANDRIDGE ENERGY, INC. ATTN: PURCHASING MANAGER 123 ROBERT S. KERR AVENUE OKLAHOMA CITY, OK 73102

REMIT TO
EDGE SERVICES, INC. PO BOX 609 WOODWARD, OK 73802

COUNTY	STARTING D.	WORK ORDER	RIG NUMBER	LEASE NAME	Terms
HARPER, KS	8/7/2014	3926	ITWD	JAMES 3406 3-911	Due on rec...

Description

DRILLED 80' OF 30" CONDUCTOR HOLE
 DRILLED 6' OF 76" HOLE
 FURNISHED AND SET 6' X 6' TINHORN CELLAR
 FURNISHED 80' OF 20" CONDUCTOR PIPE
 FURNISHED WELDER AND MATERIALS
 FURNISHED 8 YARDS OF 10 SACK GROUT FOR CONDUCTOR HOLE
 TOTAL BID \$14,000.00

AFE Number: DE 14149
 Well Name: JAMES 3406 3-911
 Code: 850-010
 Amount: 14094.83
 Co. Man: Willie Fortune
 Co. Man Sig.: [Signature]
 Notes: _____

Sales Tax (6.15%)	\$94.83
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TOTAL	\$14,094.83
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SandRidge Energy
James #3406 3-9H
Harper County, KS.

1.0 Executive Summary

Allied Oil & Gas Services would like to thank you, for the award of the provision of cementing products and services on the well James #3406 3-9H Surface Casing.

A pre-job meeting was held to discuss job details, review the safety hazards, potential environmental impact and established emergency procedures.

Allied started the job testing lines to 2500 psi. After a successful test we began the job by pumping 10 bbls of preflush spacer. We then mixed and pumped the following cements:

46 Bbls (215 sacks) of 15.6 ppg Tail slurry
Class A Yield 1.20
2% CC
¼ # Floseal

The top plug was then released and displaced with 23.6 Bbls of fresh water. The plug bumped and pressured up to 2500 psi. Pressure was released and floats held.

All real time data is shown on the graph in the attachment section.

Allied Oil & Gas Services remains committed to provide operational excellence and superior product performance. All comments and suggestions are greatly appreciated and help us to continue to provide this level of service.

Again we want to thank you for the opportunity to perform these and your future cementing & acidizing service needs.

2.0 Job Summary



SandRidge Energy
James #3406 3-9H Intermediate
Harper County, KS.

1.0 Executive Summary

Allied Oil & Gas Services would like to thank you, for the award of the provision of cementing products and services on the well James #3406 3-9H Intermediate Casing.

A pre-job meeting was held to discuss job details, review the safety hazards, potential environmental impact and established emergency procedures.

Allied started the job testing lines to 2500 psi. After a successful test we began the job by pumping 30 bbls of preflush spacer. We then mixed and pumped the following cements:

60 Bbls (240 sacks) of 13.6 ppg Lead slurry:
50:50 Class A:Poz Blend - 1.4 Yield
2.0% Gel
0.4% FL-160
0.1% SA-51

22Bbls (100 sacks) of 15.6 ppg Tail slurry:
Class A - 1.18 Yield
0.8% FL-160
0.2% CD-31

The top plug was then released and displaced with 194 of fresh water. The plug bumped and pressured up to 1300 psi. Pressure was released and floats held.

All real time data is shown on the graph in the attachment section.

Allied Oil & Gas Services remains committed to provide operational excellence and superior product performance. All comments and suggestion are greatly appreciated, to help us to continue to provide this level of service.

Again we want to thank you for the opportunity to perform these and your future cementing & acidizing service needs

STAGE 1								
Port @ 9,622 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	80	11489	274					3
Slickwater	80	5600	133	40/70	0.25	Garnet	1400	2
Slickwater	80	4200	100					1
Slickwater	80	5400	129	40/70	0.50	Genoa	2700	2
Slickwater	80	4200	100					1
Slickwater	80	5467	130	40/70	0.75	Genoa	4100	2
Slickwater	80	4200	100					1
Slickwater	80	3400	81	40/70	1.00	Genoa	3400	1
Slickwater	80	2000	48	40/70	1.00	Garnet	2000	1
Slickwater	80	13294	317					4.0
TOTAL		60,000	1,429				13,600	18.5

STAGE 2								
Port @ 9,483 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	85	18633	444					5
Slickwater	85	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	85	4200	100					1
Slickwater	85	10800	257	40/70	0.50	Genoa	5400	3
Slickwater	85	4200	100					1
Slickwater	85	10800	257	40/70	0.75	Genoa	8100	3
Slickwater	85	4200	100					1
Slickwater	85	6800	162	40/70	1.00	Genoa	6800	2
Slickwater	85	4100	98	40/70	1.00	Garnet	4100	1
Slickwater	85	13203	314					3.7
TOTAL		88,487	2,107				27,100	25.5

STAGE 3								
Port @ 9,348 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	90	19089	454					5
Slickwater	90	11200	267	40/70	0.25	Garnet	2800	3
Slickwater	90	4200	100					1
Slickwater	90	11200	267	40/70	0.50	Genoa	5600	3
Slickwater	90	4200	100					1
Slickwater	90	11067	263	40/70	0.75	Genoa	8300	3
Slickwater	90	4200	100					1
Slickwater	90	7000	167	40/70	1.00	Genoa	7000	2
Slickwater	90	4200	100	40/70	1.00	Garnet	4200	1
Slickwater	90	13116	312					3.5
TOTAL		90,221	2,148				27,900	24.6

STAGE 4								
Port @ 9,206 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	95	19522	465					5
Slickwater	95	11600	276	40/70	0.25	Garnet	2900	3
Slickwater	95	4200	100					1
Slickwater	95	11400	271	40/70	0.50	Genoa	5700	3
Slickwater	95	4200	100					1
Slickwater	95	11467	273	40/70	0.75	Genoa	8600	3
Slickwater	95	4200	100					1
Slickwater	95	7200	171	40/70	1.00	Genoa	7200	2
Slickwater	95	4300	102	40/70	1.00	Garnet	4300	1
Slickwater	95	13023	310					3.3
TOTAL		91,862	2,187				28,700	23.7

STAGE 5								
Port @ 9,069 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	18678	445					4
Slickwater	100	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	100	4200	100					1
Slickwater	100	10800	257	40/70	0.50	Genoa	5400	3
Slickwater	100	4200	100					1
Slickwater	100	10933	260	40/70	0.75	Genoa	8200	3
Slickwater	100	4200	100					1
Slickwater	100	6800	162	40/70	1.00	Genoa	6800	2
Slickwater	100	4100	98	40/70	1.00	Garnet	4100	1
Slickwater	100	12934	308					3.1
TOTAL		88,395	2,105				27,200	21.8

STAGE 6								
Port @ 8,933 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	18067	430					4
Slickwater	100	10400	248	40/70	0.25	Garnet	2600	2
Slickwater	100	4200	100					1
Slickwater	100	10400	248	40/70	0.50	Genoa	5200	2
Slickwater	100	4200	100					1
Slickwater	100	10400	248	40/70	0.75	Genoa	7800	2
Slickwater	100	4200	100					1
Slickwater	100	6500	155	40/70	1.00	Genoa	6500	2
Slickwater	100	3900	93	40/70	1.00	Garnet	3900	1
Slickwater	100	12845	306					3.1
TOTAL		85,862	2,044				26,000	21.2

STAGE 7								
Port @ 8,800 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	19211	457					5
Slickwater	100	11200	267	40/70	0.25	Garnet	2800	3
Slickwater	100	4200	100					1
Slickwater	100	11200	267	40/70	0.50	Genoa	5600	3
Slickwater	100	4200	100					1
Slickwater	100	11333	270	40/70	0.75	Genoa	8500	3
Slickwater	100	4200	100					1
Slickwater	100	7100	169	40/70	1.00	Genoa	7100	2
Slickwater	100	4200	100	40/70	1.00	Garnet	4200	1
Slickwater	100	12759	304					3.0
TOTAL		90,353	2,151				28,200	22.2

STAGE 8								
Port @ 8,655 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	19211	457					5
Slickwater	100	11200	267	40/70	0.25	Garnet	2800	3
Slickwater	100	4200	100					1
Slickwater	100	11200	267	40/70	0.50	Genoa	5600	3
Slickwater	100	4200	100					1
Slickwater	100	11333	270	40/70	0.75	Genoa	8500	3
Slickwater	100	4200	100					1
Slickwater	100	7100	169	40/70	1.00	Genoa	7100	2
Slickwater	100	4200	100	40/70	1.00	Garnet	4200	1
Slickwater	100	12664	302					3.0
TOTAL		90,259	2,149				28,200	22.2

STAGE 9								
Port @ 8,519 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	18244	434					4
Slickwater	100	10400	248	40/70	0.25	Garnet	2600	2
Slickwater	100	4200	100					1
Slickwater	100	10600	252	40/70	0.50	Genoa	5300	3
Slickwater	100	4200	100					1
Slickwater	100	10533	251	40/70	0.75	Genoa	7900	3
Slickwater	100	4200	100					1
Slickwater	100	6600	157	40/70	1.00	Genoa	6600	2
Slickwater	100	4000	95	40/70	1.00	Garnet	4000	1
Slickwater	100	12576	299					3.0
TOTAL		86,304	2,055				26,400	21.3

STAGE 10								
Port @ 8,383 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	18678	445					4
Slickwater	100	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	100	4200	100					1
Slickwater	100	10800	257	40/70	0.50	Genoa	5400	3
Slickwater	100	4200	100					1
Slickwater	100	10933	260	40/70	0.75	Genoa	8200	3
Slickwater	100	4200	100					1
Slickwater	100	6800	162	40/70	1.00	Genoa	6800	2
Slickwater	100	4100	98	40/70	1.00	Garnet	4100	1
Slickwater	100	12487	297					3.0
TOTAL		87,948	2,094				27,200	21.7

STAGE 11								
Port @ 8,246 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	18522	441					4
Slickwater	100	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	100	4200	100					1
Slickwater	100	10800	257	40/70	0.50	Genoa	5400	3
Slickwater	100	4200	100					1
Slickwater	100	10667	254	40/70	0.75	Genoa	8000	3
Slickwater	100	4200	100					1
Slickwater	100	6700	160	40/70	1.00	Genoa	6700	2
Slickwater	100	4000	95	40/70	1.00	Garnet	4000	1
Slickwater	100	12398	295					3.0
TOTAL		87,237	2,077				26,800	21.5

STAGE 12								
Port @ 8,120 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	18456	439					4
Slickwater	100	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	100	4200	100					1
Slickwater	100	10600	252	40/70	0.50	Genoa	5300	3
Slickwater	100	4200	100					1
Slickwater	100	10667	254	40/70	0.75	Genoa	8000	3
Slickwater	100	4200	100					1
Slickwater	100	6700	160	40/70	1.00	Genoa	6700	2
Slickwater	100	4000	95	40/70	1.00	Garnet	4000	1
Slickwater	100	12316	293					2.9
TOTAL		86,888	2,069				26,700	21.4

STAGE 13								
Port @ 7,982 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	19211	457					5
Slickwater	100	11200	267	40/70	0.25	Garnet	2800	3
Slickwater	100	4200	100					1
Slickwater	100	11200	267	40/70	0.50	Genoa	5600	3
Slickwater	100	4200	100					1
Slickwater	100	11333	270	40/70	0.75	Genoa	8500	3
Slickwater	100	4200	100					1
Slickwater	100	7100	169	40/70	1.00	Genoa	7100	2
Slickwater	100	4200	100	40/70	1.00	Garnet	4200	1
Slickwater	100	12226	291					2.9
TOTAL		89,821	2,139				28,200	22.1

STAGE 14								
Port @ 7,844 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	18778	447					4
Slickwater	100	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	100	4200	100					1
Slickwater	100	11000	262	40/70	0.50	Genoa	5500	3
Slickwater	100	4200	100					1
Slickwater	100	10933	260	40/70	0.75	Genoa	8200	3
Slickwater	100	4200	100					1
Slickwater	100	6900	164	40/70	1.00	Genoa	6900	2
Slickwater	100	4100	98	40/70	1.00	Garnet	4100	1
Slickwater	100	12136	289					2.9
TOTAL		87,998	2,095				27,400	21.7

STAGE 15								
Port @ 7,708 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	18778	447					4
Slickwater	100	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	100	4200	100					1
Slickwater	100	11000	262	40/70	0.50	Genoa	5500	3
Slickwater	100	4200	100					1
Slickwater	100	10933	260	40/70	0.75	Genoa	8200	3
Slickwater	100	4200	100					1
Slickwater	100	6900	164	40/70	1.00	Genoa	6900	2
Slickwater	100	4100	98	40/70	1.00	Garnet	4100	1
Slickwater	100	12048	287					2.9
TOTAL		87,909	2,093				27,400	21.6

STAGE 16								
Port @ 7,565 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	19522	465					5
Slickwater	100	11600	276	40/70	0.25	Garnet	2900	3
Slickwater	100	4200	100					1
Slickwater	100	11400	271	40/70	0.50	Genoa	5700	3
Slickwater	100	4200	100					1
Slickwater	100	11467	273	40/70	0.75	Genoa	8600	3
Slickwater	100	4200	100					1
Slickwater	100	7200	171	40/70	1.00	Genoa	7200	2
Slickwater	100	4300	102	40/70	1.00	Garnet	4300	1
Slickwater	100	11955	285					2.8
TOTAL		90,794	2,162				28,700	22.3

STAGE 17								
Port @ 7,430 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	18522	441					4
Slickwater	100	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	100	4200	100					1
Slickwater	100	10800	257	40/70	0.50	Genoa	5400	3
Slickwater	100	4200	100					1
Slickwater	100	10667	254	40/70	0.75	Genoa	8000	3
Slickwater	100	4200	100					1
Slickwater	100	6700	160	40/70	1.00	Genoa	6700	2
Slickwater	100	4000	95	40/70	1.00	Garnet	4000	1
Slickwater	100	11867	283					2.8
TOTAL		86,706	2,064				26,800	21.4

STAGE 18								
Port @ 7,291 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	18678	445					4
Slickwater	100	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	100	4200	100					1
Slickwater	100	10800	257	40/70	0.50	Genoa	5400	3
Slickwater	100	4200	100					1
Slickwater	100	10933	260	40/70	0.75	Genoa	8200	3
Slickwater	100	4200	100					1
Slickwater	100	6800	162	40/70	1.00	Genoa	6800	2
Slickwater	100	4100	98	40/70	1.00	Garnet	4100	1
Slickwater	100	11776	280					2.8
TOTAL		87,238	2,077				27,200	21.5

STAGE 19								
Port @ 7,199 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	14367	342					3
Slickwater	100	7600	181	40/70	0.25	Garnet	1900	2
Slickwater	100	4200	100					1
Slickwater	100	7600	181	40/70	0.50	Genoa	3800	2
Slickwater	100	4200	100					1
Slickwater	100	7600	181	40/70	0.75	Genoa	5700	2
Slickwater	100	4200	100					1
Slickwater	100	4800	114	40/70	1.00	Genoa	4800	1
Slickwater	100	2900	69	40/70	1.00	Garnet	2900	1
Slickwater	100	11717	279					2.8
TOTAL		69,933	1,665				19,100	17.4

STAGE 20								
Port @ 7,010 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	34067	811					8
Slickwater	100	22400	533	40/70	0.25	Garnet	5600	5
Slickwater	100	4200	100					1
Slickwater	100	22400	533	40/70	0.50	Genoa	11200	5
Slickwater	100	4200	100					1
Slickwater	100	22400	533	40/70	0.75	Genoa	16800	5
Slickwater	100	4200	100					1
Slickwater	100	14000	333	40/70	1.00	Genoa	14000	3
Slickwater	100	8400	200	40/70	1.00	Garnet	8400	2
Slickwater	100	11594	276					2.8
TOTAL		148,610	3,538				56,000	36.1

STAGE 21								
Port @ 6,824 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	13878	330					3
Slickwater	100	7200	171	40/70	0.25	Garnet	1800	2
Slickwater	100	4200	100					1
Slickwater	100	7200	171	40/70	0.50	Genoa	3600	2
Slickwater	100	4200	100					1
Slickwater	100	7333	175	40/70	0.75	Genoa	5500	2
Slickwater	100	4200	100					1
Slickwater	100	4600	110	40/70	1.00	Genoa	4600	1
Slickwater	100	2700	64	40/70	1.00	Garnet	2700	1
Slickwater	100	11472	273					2.7
TOTAL		67,734	1,613				18,200	16.8

STAGE 22								
Port @ 6,732'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	14411	343					3
Slickwater	100	7600	181	40/70	0.25	Garnet	1900	2
Slickwater	100	4200	100					1
Slickwater	100	7600	181	40/70	0.50	Genoa	3800	2
Slickwater	100	4200	100					1
Slickwater	100	7733	184	40/70	0.75	Genoa	5800	2
Slickwater	100	4200	100					1
Slickwater	100	4800	114	40/70	1.00	Genoa	4800	1
Slickwater	100	2900	69	40/70	1.00	Garnet	2900	1
Slickwater	100	11413	272					2.7
TOTAL		69,807	1,662				19,200	17.3

STAGE 23								
Port @ 6,594'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	18456	439					4
Slickwater	100	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	100	4200	100					1
Slickwater	100	10600	252	40/70	0.50	Genoa	5300	3
Slickwater	100	4200	100					1
Slickwater	100	10667	254	40/70	0.75	Genoa	8000	3
Slickwater	100	4200	100					1
Slickwater	100	6700	160	40/70	1.00	Genoa	6700	2
Slickwater	100	4000	95	40/70	1.00	Garnet	4000	1
Slickwater	100	11323	270					2.7
TOTAL		85,895	2,045				26,700	21.2

STAGE 24								
Port @ 6,462'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	18633	444					4
Slickwater	100	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	100	4200	100					1
Slickwater	100	10800	257	40/70	0.50	Genoa	5400	3
Slickwater	100	4200	100					1
Slickwater	100	10800	257	40/70	0.75	Genoa	8100	3
Slickwater	100	4200	100					1
Slickwater	100	6800	162	40/70	1.00	Genoa	6800	2
Slickwater	100	4100	98	40/70	1.00	Garnet	4100	1
Slickwater	100	11237	268					2.7
TOTAL		86,520	2,060				27,100	21.3

STAGE 25								
Port @ 6,324 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	19133	456					5
Slickwater	100	11200	267	40/70	0.25	Garnet	2800	3
Slickwater	100	4200	100					1
Slickwater	100	11200	267	40/70	0.50	Genoa	5600	3
Slickwater	100	4200	100					1
Slickwater	100	11200	267	40/70	0.75	Genoa	8400	3
Slickwater	100	4200	100					1
Slickwater	100	7000	167	40/70	1.00	Genoa	7000	2
Slickwater	100	4200	100	40/70	1.00	Garnet	4200	1
Slickwater	100	11147	265					2.7
TOTAL		88,430	2,105				28,000	21.8

STAGE 26								
Port @ 6,189 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	18678	445					4
Slickwater	100	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	100	4200	100					1
Slickwater	100	10800	257	40/70	0.50	Genoa	5400	3
Slickwater	100	4200	100					1
Slickwater	100	10933	260	40/70	0.75	Genoa	8200	3
Slickwater	100	4200	100					1
Slickwater	100	6800	162	40/70	1.00	Genoa	6800	2
Slickwater	100	4100	98	40/70	1.00	Garnet	4100	1
Slickwater	100	11059	263					2.6
TOTAL		86,520	2,060				27,200	21.3

STAGE 27								
Port @ 6,050 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	18522	441					4
Slickwater	100	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	100	4200	100					1
Slickwater	100	10800	257	40/70	0.50	Genoa	5400	3
Slickwater	100	4200	100					1
Slickwater	100	10667	254	40/70	0.75	Genoa	8000	3
Slickwater	100	4200	100					1
Slickwater	100	6700	160	40/70	1.00	Genoa	6700	2
Slickwater	100	4000	95	40/70	1.00	Garnet	4000	1
Slickwater	100	10969	261					2.6
TOTAL		85,807	2,043				26,800	21.1

STAGE 28								
Port @ 5,920'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	18633	444					4
Slickwater	100	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	100	4200	100					1
Slickwater	100	10800	257	40/70	0.50	Genoa	5400	3
Slickwater	100	4200	100					1
Slickwater	100	10800	257	40/70	0.75	Genoa	8100	3
Slickwater	100	4200	100					1
Slickwater	100	6800	162	40/70	1.00	Genoa	6800	2
Slickwater	100	4100	98	40/70	1.00	Garnet	4100	1
Slickwater	100	10884	259					2.6
TOTAL		86,167	2,052				27,100	21.2

STAGE 29								
Port @ 5,775'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	19744	470					5
Slickwater	100	11600	276	40/70	0.25	Garnet	2900	3
Slickwater	100	4200	100					1
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	3
Slickwater	100	4200	100					1
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	3
Slickwater	100	4200	100					1
Slickwater	100	7300	174	40/70	1.00	Genoa	7300	2
Slickwater	100	4400	105	40/70	1.00	Garnet	4400	1
Slickwater	100	10790	257					2.6
TOTAL		90,517	2,155				29,200	22.3

STAGE 30								
Port @ 5,630'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	18778	447					4
Slickwater	100	10800	257	40/70	0.25	Garnet	2700	3
Slickwater	100	4200	100					1
Slickwater	100	11000	262	40/70	0.50	Genoa	5500	3
Slickwater	100	4200	100					1
Slickwater	100	10933	260	40/70	0.75	Genoa	8200	3
Slickwater	100	4200	100					1
Slickwater	100	6900	164	40/70	1.00	Genoa	6900	2
Slickwater	100	4100	98	40/70	1.00	Garnet	4100	1
Slickwater	100	10695	255					2.5
TOTAL		86,556	2,061				27,400	21.3

STAGE 31								
Port @ 5,494 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	19211	457					5
Slickwater	100	11200	267	40/70	0.25	Garnet	2800	3
Slickwater	100	4200	100					1
Slickwater	100	11200	267	40/70	0.50	Genoa	5600	3
Slickwater	100	4200	100					1
Slickwater	100	11333	270	40/70	0.75	Genoa	8500	3
Slickwater	100	4200	100					1
Slickwater	100	7100	169	40/70	1.00	Genoa	7100	2
Slickwater	100	4200	100	40/70	1.00	Garnet	4200	1
Slickwater	100	10607	253					2.5
TOTAL		88,201	2,100				28,200	21.7

STAGE 32								
Port @ 5,354 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	24644	587					6
Slickwater	100	15200	362	40/70	0.25	Garnet	3800	4
Slickwater	100	4200	100					1
Slickwater	100	15400	367	40/70	0.50	Genoa	7700	4
Slickwater	100	4200	100					1
Slickwater	100	15333	365	40/70	0.75	Genoa	11500	4
Slickwater	100	4200	100					1
Slickwater	100	9600	229	40/70	1.00	Genoa	9600	2
Slickwater	100	5800	138	40/70	1.00	Garnet	5800	1
Slickwater	100	10515	250					2.5
TOTAL		109,843	2,615				38,400	26.9

5D Survey Report

SandRidge Energy

Field Name: SandRidge Energy - Harper County, KS S NAD 27 US FT
Site Name: James 3406 3-9H
Well Name: James 3406 3-9H
Survey: Definitive Survey

18 November 2014



Weatherford[®]

James 3406 3-9H

Map Units : US ft Company Name : SandRidge Energy

Vertical Reference Datum (VRD) : Mean Sea Level

Projected Coordinate System : NAD27 / Kansas South

Comment :

Units : US ft North Reference : Grid Convergence Angle : 0.33

Position Northing : 161840.00 US ft Latitude : 37° 6' 35.75"
Eastings : 2154547.00 US ft Longitude : -97° 58' 12.19"

Site TVD Reference : GL
Elevation above Mean Sea Level: 1263.00 US ft
Comment :

Position (Offsets relative to Site Centre)
+N / -S : 0.00 US ft Northing : 161840.00 US ft Latitude : 37° 6' 35.75"
+E / -W : 0.00 US ft Eastings : 2154547.00 US ft Longitude : -97° 58' 12.19"

Slot TVD Reference : Ground Elevation
Elevation above Mean Sea Level : 1263.00 US ft
Comment :

Type : Main well
Rig Height *Drill Floor* : 18.00 US ft UWI :
Relative to Mean Sea Level: 1281.00 US ft Comment :
Closure Distance : 5205.09 US ft Closure Azimuth : 172.271°
Vertical Section (Position of Origin Relative to Site)
+N / -S : 0.00 US ft +E / -W : 0.00 US ft Az : 180.00°

Field Name
SandRidge Energy -
Harper County, KS S
NAD 27 US FT

Site Name
James 3406 3-9H

Slot Name
James 3406 3-9H

Well Name
James 3406 3-9H

5D Survey Report

Target Set

Name : James 3406 3-9H T2 Number of Targets : 1

Comment :

TargetName:

PBHL

Shape:

Cuboid

Position (Relative to Site centre)

Northing : 156674.00 US ft

Easting : 2155241.00US ft

Latitude : 37°5'44.63"

Longitude : -97°58'3.99"

+N / -S : -5166.00US ft

+E / -W : 694.00 US ft

TVD (Drill Floor) : 4513.00 US ft

SS : -3232.00 US ft

Orientation

Azimuth : 0.00°

Inclination : 0.00°

Dimensions

Length : 20.00 US ft

Breadth : 20.00 US ft

Height : 20.00 US ft

Survey Name : Definitive Survey

Date : 30/Jul/2014

Survey Tool :

Comment :

Company :

Magnetic Model

Model Name: BGGM

Date: 03/Jul/2014

Field Strength: 51613.4 nT

Dip: 65.24°

Survey Tool Ranges

Name

Start MD (usft)

End MD (us ft)

Source Survey

MWD

0.00

9641.00

WFT MWD Survey

Well path created using minimum curvature

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	-0.00	0.00	2
501.00	0.22	141.02	501.00	-0.75	0.61	0.75	0.04	First WFT/MWD Survey
933.00	0.30	135.24	932.99	-2.20	1.92	2.20	0.02	
1451.00	0.49	156.09	1450.98	-5.18	3.78	5.18	0.05	
1932.00	0.22	127.17	1931.97	-7.62	5.35	7.62	0.07	
2019.00	1.20	76.55	2018.97	-7.51	6.36	7.51	1.23	
2107.00	3.33	70.47	2106.89	-6.44	9.67	6.44	2.43	
2194.00	5.47	69.44	2193.63	-4.14	15.93	4.14	2.46	
2282.00	7.22	69.09	2281.09	-0.69	25.03	0.69	1.99	
2369.00	8.46	72.90	2367.27	3.14	36.25	-3.14	1.54	
2456.00	10.02	72.17	2453.14	7.34	49.57	-7.34	1.80	
2544.00	12.00	72.01	2539.52	12.51	65.57	-12.51	2.25	
2631.00	13.69	71.25	2624.34	18.61	83.92	-18.61	1.95	

5D Survey Report

Survey Points (Relative to Site centre, TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	V.S (US ft)	DLS (°/100 US ft)	Comment		
2718.00	14.70	72.45	2708.68	25.25	104.19	-25.25	1.21			
2805.00	15.57	71.94	2792.66	32.20	125.82	-32.20	1.01			
2893.00	17.04	72.11	2877.12	39.82	149.32	-39.82	1.67			
2980.00	17.09	72.49	2960.29	47.58	173.64	-47.58	0.14			
3068.00	16.55	71.52	3044.53	55.45	197.86	-55.44	0.69			
3155.00	15.07	70.99	3128.23	63.06	220.30	-63.06	1.71			
3243.00	15.99	70.61	3213.02	70.81	242.55	-70.81	1.05			
3330.00	17.47	70.77	3296.33	79.09	266.19	-79.09	1.70			
3417.00	16.06	69.16	3379.63	87.67	289.77	-87.67	1.71			
3504.00	16.23	69.61	3463.20	96.19	312.41	-96.19	0.24			
3590.00	18.64	68.79	3545.25	105.35	336.49	-105.35	2.82			
3675.00	22.06	68.94	3624.93	116.00	364.06	-116.00	4.02			
3719.00	22.21	69.28	3665.69	121.91	379.55	-121.91	0.45			
3763.00	19.73	67.84	3706.77	127.66	394.21	-127.66	5.76			
3806.00	19.05	67.08	3747.33	133.13	407.39	-133.13	1.69			
3850.00	19.90	70.06	3788.81	138.48	421.05	-138.48	2.97			
3894.00	20.71	79.92	3830.09	142.40	435.75	-142.39	7.98			
3937.00	23.20	88.31	3869.98	143.98	451.71	-143.97	9.30			
3981.00	26.16	96.51	3909.97	143.13	470.02	-143.13	10.27			
4025.00	29.27	103.85	3948.93	139.46	490.11	-139.45	10.48			
4068.00	32.26	109.25	3985.88	133.15	511.16	-133.15	9.46			
4112.00	33.80	117.70	4022.78	123.59	533.09	-123.58	11.03			
4156.00	35.42	124.23	4059.01	110.72	554.48	-110.72	9.19			
4199.00	36.08	132.24	4093.93	95.19	574.17	-95.19	10.98			
4243.00	37.78	138.72	4129.11	76.35	592.66	-76.34	9.65			
4287.00	38.78	145.01	4163.66	54.92	609.46	-54.91	9.14			
4330.00	40.25	151.91	4196.85	31.62	623.73	-31.61	10.76			
4374.00	42.59	157.39	4229.86	5.32	636.15	-5.32	9.80			
4418.00	45.09	163.21	4261.60	-23.35	646.39	23.36	10.78			
4462.00	44.74	165.38	4292.76	-53.26	654.80	53.26	3.57			
4505.00	45.37	169.17	4323.14	-82.94	661.49	82.94	6.41			
4549.00	47.67	169.39	4353.42	-114.30	667.43	114.31	5.24			
4592.00	52.06	173.20	4381.14	-146.79	672.37	146.79	12.25			
4636.00	55.94	175.05	4406.99	-182.19	675.99	182.19	9.45			
4680.00	60.39	176.11	4430.20	-219.45	678.87	219.45	10.32			
4724.00	63.16	175.79	4451.01	-258.12	681.61	258.12	6.33			
4767.00	66.47	176.01	4469.30	-296.92	684.39	296.93	7.71			
4811.00	69.05	176.46	4485.95	-337.56	687.06	337.57	5.94			
4855.00	72.96	176.79	4500.27	-379.08	689.51	379.09	8.91			
4898.00	75.79	178.13	4511.85	-420.45	691.34	420.45	7.23			
4942.00	80.37	178.61	4520.94	-463.47	692.56	463.48	10.46			

5D Survey Report

Survey Points (Relative to Site centre, TVD relative to Drill Floor)									
MB (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	V.S (US ft)	DLS (°/100 US ft)	DLS (°/100 US ft)	Comment
4985.00	82.93	178.75	4527.18	-506.00	693.54	506.01	5.96		
5029.00	84.68	178.97	4531.93	-549.73	694.41	549.74	4.01		
5116.00	85.53	179.12	4539.35	-636.40	695.86	636.41	0.99		
5391.00	89.79	177.43	4550.58	-910.97	704.13	910.98	1.67		
5478.00	89.79	179.26	4550.90	-997.93	706.64	997.94	2.10		
5566.00	90.91	181.22	4550.36	-1085.93	706.27	1085.93	2.57		
5653.00	90.49	179.54	4549.30	-1172.91	705.70	1172.92	1.99		
5741.00	89.51	179.77	4549.30	-1260.91	706.23	1260.92	1.14		
5834.00	90.14	181.46	4549.58	-1353.90	705.23	1353.91	1.94		
5927.00	89.37	181.22	4549.98	-1446.87	703.05	1446.88	0.87		
6019.00	88.39	181.21	4551.78	-1538.83	701.10	1538.84	1.07		
6113.00	89.37	181.16	4553.62	-1632.80	699.16	1632.80	1.04		
6205.00	90.00	181.15	4554.12	-1724.77	697.31	1724.78	0.68		
6298.00	91.26	180.61	4553.10	-1817.76	695.88	1817.76	1.47		
6391.00	89.09	180.07	4552.81	-1910.75	695.33	1910.76	2.40		
6484.00	89.93	179.27	4553.61	-2003.74	695.86	2003.75	1.25		
6576.00	90.07	179.48	4553.61	-2095.74	696.87	2095.74	0.27		
6668.00	90.14	178.92	4553.44	-2187.73	698.15	2187.73	0.61		
6759.00	89.93	179.91	4553.39	-2278.72	699.08	2278.73	1.11		
6850.00	87.77	180.85	4555.21	-2369.69	698.48	2369.70	2.59		
6941.00	89.72	180.54	4557.21	-2460.66	697.37	2460.67	2.17		
7033.00	90.98	180.44	4556.64	-2552.65	696.59	2552.66	1.37		
7124.00	93.28	179.57	4553.26	-2643.58	696.58	2643.59	2.70		
7212.00	93.43	179.34	4548.11	-2731.43	697.41	2731.44	0.31		
7299.00	90.07	179.17	4545.45	-2818.37	698.54	2818.38	3.87		
7386.00	89.79	178.62	4545.56	-2905.35	700.22	2905.36	0.71		
7474.00	90.07	179.65	4545.67	-2993.34	701.55	2993.35	1.21		
7561.00	89.93	178.64	4545.67	-3080.33	702.85	3080.34	1.17		
7649.00	90.35	180.45	4545.45	-3168.32	703.55	3168.33	2.11		
7736.00	88.95	179.29	4545.99	-3255.32	703.74	3255.32	2.09		
7823.00	90.63	179.09	4546.30	-3342.30	704.97	3342.31	1.94		
7910.00	89.09	178.77	4546.52	-3429.29	706.60	3429.29	1.81		
7998.00	90.70	177.99	4546.68	-3517.25	709.09	3517.26	2.03		
8085.00	91.26	178.63	4545.19	-3604.20	711.65	3604.20	0.98		
8172.00	92.10	180.84	4542.64	-3691.15	712.05	3691.16	2.72		
8260.00	91.75	181.95	4539.68	-3779.07	709.91	3779.08	1.32		
8347.00	93.91	181.19	4535.39	-3865.93	707.53	3865.94	2.63		
8434.00	95.04	180.73	4528.60	-3952.65	706.08	3952.66	1.40		
8522.00	93.29	181.85	4522.21	-4040.39	704.10	4040.40	2.36		
8609.00	92.37	183.82	4517.91	-4127.17	699.80	4127.18	2.50		
8696.00	88.95	183.71	4516.91	-4213.97	694.09	4213.97	3.93		

5D Survey Report

Survey Points (Relative to Site centre, TVD relative to Drill Floor)									
MD (US ft)	InC (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Comment	
8783.00	91.54	185.11	4516.54	-4300.70	687.40	4300.71	3.38		
8871.00	88.74	181.80	4516.32	-4388.52	682.10	4388.53	4.93		
8958.00	91.12	183.31	4516.43	-4475.42	678.22	4475.43	3.24		
9045.00	88.04	178.95	4517.07	-4562.37	676.51	4562.38	6.14		
9134.00	88.53	178.64	4519.73	-4651.31	678.38	4651.32	0.65		
9221.00	90.56	178.22	4520.42	-4738.27	680.76	4738.28	2.38		
9309.00	90.70	177.68	4519.45	-4826.21	683.91	4826.22	0.63		
9384.00	89.51	177.72	4519.32	-4901.15	686.92	4901.16	1.59		
9479.00	90.35	177.01	4519.43	-4996.05	691.29	4996.05	1.16		
9581.00	90.63	176.88	4518.56	-5097.90	696.72	5097.91	0.30	Last WFT/MWD Survey	
9641.00	90.63	176.88	4517.90	-5157.81	699.99	5157.81	0.00	Proj to TD	

BOLLMAN 3-4

* KATE 3406 1-4

Section 4
34S 6W
* *
GEORGE 3406 1-9H
* *
GEORGE 3406 2-4H

JAMES 3406 1-4H

JAMES 3406 3-9H

* * *
JAMES 3406 2-4H

Section 3
34S 6W

JAMES 3406 4-9H

*
Miss Entry: 4868'
-97.967973 37.108959

Top Perf: 5354'
-97.967885 37.107513

Harper County

Section 9
34S 6W

Section 10
34S 6W

Bottom Perf: 9622'
-97.967599 37.095985

BHL: 9641'
-97.967595 37.095963

607' FEL

415' FSL



Actual Bottom-Hole Location of James 3406 3-9H
T&R: 34S 6W
Section: 9, 607' FEL & 415' FSL
-97.967595 37.095963

1 in = 667 ft

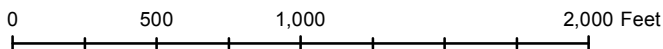


● Actual BH Location

* SandRidge Wells

--- Perf

□ Sections



Draftsman:

Dory Deines

Draft Date: 11/18/2014

Drawing Name/Number:

Addendum_James 3406 3-9H.mxd

Coordinate System:

NAD 1927 State Plane
Kansas South FIPS: 1502

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	9/30/2014
Job End Date:	10/1/2014
State:	Kansas
County:	Harper
API Number:	15-077-22075-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	James 3406 3-9H
Longitude:	-97.97005019
Latitude:	37.10992844
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,557
Total Base Water Volume (gal):	2,804,631
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	95.20048	None
Sand (Proppant)	Archer	Proppant					
			Silica Substrate	NA	100.00000	3.46789	None
C102	Bosque Disposal Systems, LLC	Oxidizer					
			Chlorine Dioxide	10049-04-4	15.00000	0.28528	
Hydrochloric Acid (15%)	Archer	Acidizing					
			Hydrochloric Acid	7647-01-0	15.00000	0.13703	None
			NONYL PHENOL, 4 MOL	104-40-5	10.00000	0.00455	None
			Methyl Alcohol	67-56-1	80.00000	0.00108	None
			thiourea-formaldehyde copolymer	68527-49-1	15.00000	0.00020	None
AIC	Archer	Liquid Acid Iron Control					
			Acetic Acid	64-19-7	50.00000	0.00240	None
			Citric Acid	77-92-9	30.00000	0.00144	None
Chemflush	Archer	Enviro-Friendly Chemical Flush					
			Hydrotreated Petroleum Distillate	64742-47-8	99.00000	0.00108	None

		Alcohol Ethoxylate Surfactants	NA	10.00000	0.00011	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		0.04049	
		WATER	7732-18-5		0.02728	
		Aliphatic Hydrocarbon	64742-47-8		0.02024	
		Anionic Polymer	N/A		0.02024	
		TRADE SECRET	N/A		0.01819	
		Water	7732-18-5		0.01136	
		ISOPROPANOL	67-63-0		0.00455	
		METHANOL	67-56-1		0.00455	
		Polyol Ester	N/A		0.00337	
		Oxyalkylated Alcohol	68002-97-1		0.00337	
		Sodium Salt of Phosphate Ester	68131-72-6		0.00189	
		Acrylic Polymer	28205-96-1		0.00189	
		Water	7732-18-5		0.00168	
		Polyglycol Ester	N/A		0.00067	
		Alcohol Ethoxylate Surfactants	N/A		0.00020	
		n-olefins	N/A		0.00011	
		Propargyl Alcohol	107-19-7		0.00008	
		Tetrasodium Ethylenediaminetetraacetate	64-02-8		0.00007	
		Cinnamic Aldehyde	104-55-2			
		Surfactant	N/A			
		Water	7732-18-5			
		Buffer	N/A			
		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)