Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1222577

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: wand ledbetter
Phone: (405) 429-5500
CONTRACTOR: License # 34464
Name: Lariat Services, Inc. dba Chaparral Supply, Hondo Heavy Haul
Wellsite Geologist: Hanna Thornberg
Purchaser: Gas = Atlas Oil = CVR

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 #:

5/16/2014	6/24/2014	7/30/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-191-22742-01-00
Spot Description:
NE - NW - NW - NE Sec. 29 Twp. 34 S. R. 4 ☐ East ☑ West
200 Feet from ☑ North / ☐ South Line of Section
2140 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: Nulik 3404 Well #: 2-29H
Field Name:
Producing Formation: Mississippi
Elevation: Ground: 1228 Kelly Bushing: 1249
Total Vertical Depth: 9214 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 548 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: 17770 ppm Fluid volume: 1440 bbls
Dewatering method used: Evaporated
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: 09/10/2014
☑ **Confidential Release Date:** 09/09/2016
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 09/12/2014

[redacted] 1222577

Operator Name: SandRidge Exploration and Production LLC Lease Name: Nulik 3404 Well #: 2-29H

Sec. 29 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 (Attach Additional Sheets)	☐ Yes	☑ No
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
Spectral Density Dual Spaced Neutron

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

Name	Top	Datum
Base Heebner	3056	-1796
Lansing	3381	-2117
Cottage Grove	3745	-2477
Oswego	4113	-2836
Cherokee	4255	-2966
Verdigris	4296	-3001
Miss Unconformity	4534	-3173

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	80	grout	10	see report
Surface	12.25	9.625	36	548	Class A:65/35 POZ Blend	300	see report
Intermediate	8.75	7	26	5252	Class A: 50/50 POZ Blend	340	see report

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
5	4898-9155 (see attachment)	Kiel Slickwater Frac (see report)	4898-9155

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run:
	4.5	9214		☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR.	Producing Method:
8/3/2014	☑ Flowing ☐ Pumping ☐ Gas Lift ☑ Other *(Explain)* ESP

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	1023	1589	5238		

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:
☐ Vented ☑ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)* ☐ Other *(Specify)*	4898-9155

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Nulik 3404 2-29H
Doc ID	1222577

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	80	grout	10	see report
Surface	12.25	9.625	36	548	Class A:65/35 POZ Blend	300	see report
Intermediate	8.75	7	26	5252	Class A: 50/50 POZ Blend	340	see report

EDGE SERVICES
580-254-3216
Woodward, OK

INVOICE

DATE	INVOICE #
5/21/2014	4797

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
SUMNER, KS	5/16/2014	3646	LARIAT 20	NULICK 3404 2-29H	Due on rec...

Description
DRILLED 60' OF 30" CONDUCTOR HOLE DRILLED 6' OF 76" HOLE FURNISHED AND SET 6' X 6' TINHORN CELLAR FURNISHED 60' OF 20" CONDUCTOR PIPE FURNISHED MUD, WATER, AND TRUCKING FURNISHED WELDER AND MATERIALS FURNISHED 6 YARDS OF 10 SACK GROUT FOR CONDUCTOR HOLE FURNISHED 4 YARDS OF 10 SACK GROUT FOR MOUSE HOLE FURNISHED GROUT PUMP DRILL MOUSE HOLE FURNISHED 80' OF 16" CONDUCTOR PIPE TOTAL BID $17,000.00

Sales Tax (6.65%)	$151.75
TOTAL	$17,151.75

ALLIED
OIL & GAS SERVICES, LLC

SandRidge Energy
Nulik #3404 2-29 H
Sumner 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 Nulik #3404 2-29 H 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 2000 psi. After a successful test we began the job by pumping 10 bbls of preflush spacer. We then mixed and pumped the following cements:

50 Bbls (150 sacks) of 12.7 ppg Lead slurry:
65:35 Class A:Poz Blend - 1.87 Yield
6.0% Gel
2.0%cc
¼# Floseal

32Bbls (150 sacks) of 15.6 ppg Tail slurry:
Class A - 1.20 Yield
2.0%cc
¼# Floseal

The top plug was then released and displaced with 39 Bbls of fresh water. The plug bumped and pressured up to 1200 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.

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 Nulik #3404 2-29H 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 3000 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

21Bbls (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 199.75 of fresh water. The plug bumped and pressured up to 800 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.

Sandridge

Location	Kansas	Slot	Nulik 3404 2-29H
Field	Sec 29 - 34S - 04W	Well	Nulik 3404 2-29H
Installation	Sumner County	Wellbore	Nulik 3404 2-29H (PWB)

Installation Data

Name	Latitude	Longitude	Northing	Easting
Sumner County	N37 4 2.08	W97 47 1.30	146661.00	2209013.00

Coordinate System: Kansas State Planes, Southern Zone

Slot Data

Name	North [ft]	East [ft]	Latitude	Longitude	Northing	Easting
Nulik 3404 2-29H	-142.69 N	3170.56 E	N37 4 0.42	W97 46 22.19	146518.30	2212183.70

Elevation Data

Slot - Mean Sea Level [ft]	Mean Sea Level - Mudline/Ground level [ft]	Slot - Mudline/Ground level [ft]
1249.00	-1228.00	21.00

WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
KOP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00
Target KOP w/ 2° BRN	1750.00	0.00	-51.22	1750.00	0.00	0.00	0.00	-0.00
Target Hold Section	2187.00	8.74	-51.22	2185.31	20.84	-25.93	2.00	-19.12
Target Build w/ 8° BRN	3806.70	8.74	308.78	3786.20	174.98	-217.79	0.00	-160.56
Target 275' Tangent	4975.14	88.00	180.00	4564.93	-513.14	-307.94	8.00	531.95
Target Build w/ 8° BRN	5250.14	88.00	180.00	4574.53	-787.97	-307.94	0.00	806.20
Target Landing Point	5279.51	90.35	180.00	4574.95	-817.34	-307.94	8.00	835.51
T.D. & Target PBHL Nuli	9223.45	90.35	180.00	4550.80	-4761.20	-308.00	0.00	4771.15

TARGET DATA

MD	Inc	Azi	TVD	North	East	Name	Position
1750.00	0.00	-51.22	1750.00	0.00	-0.00	KOP w/ 2° BRN	2212183.70 East : 146518.30 North
2187.00	8.74	-51.22	2185.31	20.84	-25.93	Hold Section	2212157.77 East : 146539.14 North
3806.70	8.74	308.78	3786.20	174.98	-217.79	Build w/ 8° BRN	2211965.90 East : 146693.29 North
9223.45	90.35	180.00	4550.80	-4761.20	-308.00	PBHL Nulik 3404 2-29H	2211875.69 East : 141756.89 North
4975.14	88.00	180.00	4564.93	-513.14	-307.94	275' Tangent	2211875.75 East : 146005.14 North
5250.14	88.00	180.00	4574.53	-787.97	-307.94	Build w/ 8° BRN	2211875.75 East : 145730.30 North
5279.51	90.35	180.00	4574.95	-817.34	-307.94	Landing Point	2211875.75 East : 145700.93 North

Target Line: 05-08-14
TGT: 4580' KBTVD @ 0' VS
90.35° @ 183.7 AZI Plane

N
GRID
T M
W E

8-May-2014
IGRF Model [1900.0-2015.0] Dip 65.16 deg Field 51646.3 nT
Magnetic North is 4.19 deg East of True North
GRID North is 0.44 deg East of True North
To correct azimuth from True to GRID subtract 0.44 deg
To correct azimuth from Magnetic to GRID add 3.75 deg

Created by admin
Date plotted 7-Jul-2014
Plot reference is Nulik 3404 2-29H (PWB)
Ref wellpath is Nulik 3404 2-29H (PWP#1)
Coordinates are in feet reference Nulik 3404 2-29H
True Vertical Depths are reference Nulik 3404 2-29H
Measured Depths are reference Slot
Plot North is aligned to GRID North

DrillRight TECHNOLOGY INC

SandRidge ENERGY

East (feet) ->
Scale 1 inch = 1000 ft

-1000 -500 -0 500

Surface Location
Sec 29-34S-04W
200 FNL & 2140 FEL

1000 500 0 -500 -1000 -1500 -2000 -2500 -3000 -3500 -4000 -4500 -5000 -5500

<- North(feet) Scale 1 inch = 1000 ft

<- True Vertical Depth (feet) Scale 1 inch = 1000 ft

1500 2000 2500 3000 3500 4000 4500 5000

Projection to TD
345 FSL & 2429 FEL
MD 9214 TVD 4551.93
S 4746.42 W 317.29
VS 4757.02

Sec 29 - 34S - 04W

-1000 -500 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000

Vertical Section (feet) ->

Azimuth 183.70 with reference 0.00 N, 0.00 E from Nulik 3404 2-29H
Scale 1 inch = 1000 ft

DrillRight TECHNOLOGY, INC.

Survey Report

DRT Job # : DR1406124

Company: Sandridge
Well Name: Nulik 2-29H
Legals: Sec: 29 Township: 34S Range: 04W
County/State: Sumner KS
Rig Name: Lariat 20

Customer Rep	Position

Directional Driller	MWD Operator
Mike Foster	
Scott Graham	
Phillip Bryant	
Robert Phililips	

Nulik 3404 2-29H Surveys

Type	M Depth	Incl.	Azimuth	TVD	North	East	V Section	Dogleg	B Rate	T Rate	Clos Azi	Clos Dist
TieInPoint	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Survey	613.00	0.60	251.60	612.99	-1.01	-3.05	1.20	0.10	0.10	17.68	251.68	3.21
Survey	897.00	0.70	212.90	896.97	-2.94	-5.40	3.28	0.16	0.04	13.63	241.43	6.15
Survey	1182.00	0.90	224.60	1181.94	-6.00	-7.92	6.50	0.09	0.07	4.11	232.85	9.94
Survey	1465.00	1.00	52.50	1464.93	-6.08	-7.52	6.55	0.67	0.04	60.81	231.04	9.67
Survey	1649.00	1.70	44.80	1648.88	-3.17	-4.32	3.44	0.39	0.38	4.18	233.73	5.36
Survey	1741.00	1.00	15.80	1740.85	-1.43	-3.14	1.63	1.04	0.76	31.52	245.51	3.45
Survey	1832.00	2.50	302.60	1831.81	0.40	-4.60	-0.10	2.65	1.65	80.44	274.97	4.62
Survey	1924.00	4.60	310.30	1923.63	3.87	-9.10	-3.27	2.34	2.28	8.37	293.04	9.89
Survey	2014.00	6.20	308.50	2013.23	9.23	-15.66	-8.20	1.79	1.78	2.00	300.52	18.18
Survey	2106.00	8.70	308.40	2104.45	16.65	-25.00	-15.00	2.72	2.72	0.11	303.66	30.04
Survey	2198.00	8.30	306.50	2195.44	24.92	-35.79	-22.56	0.53	0.43	2.07	304.85	43.61
Survey	2290.00	8.00	313.00	2286.51	33.23	-45.81	-30.20	1.05	0.33	7.07	305.96	56.59
Survey	2380.00	9.30	316.90	2375.49	42.81	-55.36	-39.15	1.58	1.44	4.33	307.71	69.98
Survey	2472.00	8.50	313.40	2466.38	52.91	-65.38	-48.58	1.05	0.87	3.80	308.98	84.11
Survey	2563.00	8.20	310.50	2556.41	61.75	-75.20	-56.77	0.57	0.33	3.19	309.39	97.30
Survey	2655.00	7.60	304.40	2647.54	69.45	-85.21	-63.81	1.12	0.65	6.63	309.18	109.93
Survey	2746.00	8.60	305.00	2737.63	76.75	-95.75	-70.41	1.10	1.10	0.66	308.71	122.71
Survey	2837.00	8.60	307.40	2827.61	84.79	-106.73	-77.73	0.39	0.00	2.64	308.46	136.31
Survey	2932.00	8.50	305.10	2921.55	93.14	-118.12	-85.32	0.37	0.11	2.42	308.26	150.42
Survey	3027.00	8.00	307.10	3015.57	101.17	-129.13	-92.63	0.61	0.53	2.11	308.08	164.04
Survey	3121.00	8.40	311.10	3108.61	109.63	-139.52	-100.40	0.74	0.43	4.26	308.16	177.44
Survey	3216.00	7.70	306.50	3202.67	117.98	-149.87	-108.06	1.00	0.74	4.84	308.21	190.74
Survey	3311.00	8.20	310.00	3296.76	126.12	-160.17	-115.52	0.73	0.53	3.68	308.22	203.86
Survey	3405.00	8.10	309.50	3389.81	134.64	-170.42	-123.36	0.13	0.11	0.53	308.31	217.19
Survey	3500.00	9.20	317.00	3483.73	144.45	-180.76	-132.48	1.66	1.16	7.89	308.63	231.39
Survey	3594.00	8.10	313.30	3576.66	154.49	-190.71	-141.86	1.31	1.17	3.94	309.01	245.43
Survey	3689.00	7.90	310.80	3670.74	163.35	-200.52	-150.07	0.42	0.21	2.63	309.17	258.63
Survey	3784.00	8.40	306.80	3764.78	171.77	-211.02	-157.79	0.80	0.53	4.21	309.15	272.09
Survey	3814.00	8.70	298.00	3794.45	174.15	-214.78	-159.93	4.47	1.00	29.33	309.04	276.51
Survey	3845.00	9.30	285.00	3825.07	175.90	-219.27	-161.38	6.82	1.94	41.94	308.74	281.11
Survey	3877.00	9.80	270.00	3856.63	176.57	-224.49	-161.72	7.91	1.56	46.88	308.19	285.61
Survey	3909.00	10.10	256.60	3888.15	175.92	-229.94	-160.71	7.28	0.94	41.87	307.42	289.52
Survey	3940.00	10.80	243.40	3918.64	173.99	-235.19	-158.45	8.03	2.26	42.58	306.49	292.55
Survey	3971.00	12.30	233.10	3949.01	170.71	-240.43	-154.84	8.21	4.84	33.23	305.38	294.87
Survey	4003.00	14.20	222.60	3980.17	165.77	-245.81	-149.56	9.56	5.94	32.81	304.00	296.48
Survey	4035.00	15.60	214.90	4011.09	159.35	-250.93	-142.82	7.57	4.38	24.06	302.42	297.25
Survey	4066.00	16.30	205.60	4040.90	152.01	-255.20	-135.22	8.54	2.26	30.00	300.78	297.04
Survey	4098.00	17.80	199.10	4071.50	143.33	-258.74	-126.33	7.57	4.69	20.31	298.98	295.79
Survey	4129.00	19.80	194.90	4100.84	133.78	-261.64	-116.62	7.79	6.45	13.55	297.08	293.86
Survey	4161.00	22.00	192.10	4130.74	122.68	-264.29	-105.37	7.55	6.87	8.75	294.90	291.38

DrillRight TECHNOLOGY, INC.

Survey Report

DRT Job # :

Nulik 3404 2-29H Surveys

Type	M Depth	Incl.	Azimuth	TVD	North	East	V Section	Dogleg	B Rate	T Rate	Clos Azi	Clos Dist
Survey	4192.00	24.50	189.90	4159.22	110.67	-266.61	-93.23	8.54	8.06	7.10	292.54	288.67
Survey	4225.00	27.10	189.30	4188.93	96.51	-269.00	-78.95	7.92	7.88	1.82	289.74	285.79
Survey	4257.00	29.80	188.80	4217.06	81.45	-271.40	-63.77	8.47	8.44	1.56	286.71	283.36
Survey	4288.00	32.90	187.90	4243.53	65.50	-273.74	-47.70	10.11	10.00	2.90	283.46	281.47
Survey	4320.00	36.10	187.10	4269.90	47.53	-276.10	-29.61	10.10	10.00	2.50	279.77	280.16
Survey	4351.00	38.40	185.80	4294.57	28.89	-278.20	-10.88	7.84	7.42	4.19	275.93	279.70
Survey	4383.00	40.10	185.40	4319.35	8.74	-280.18	9.36	5.37	5.31	1.25	271.79	280.32
Survey	4414.00	42.50	186.10	4342.64	-11.62	-282.23	29.81	7.88	7.74	2.26	267.64	282.47
Survey	4446.00	45.50	186.10	4365.66	-33.72	-284.59	52.01	9.37	9.37	0.00	263.24	286.58
Survey	4478.00	48.60	186.30	4387.46	-57.00	-287.12	75.41	9.70	9.69	0.63	258.77	292.72
Survey	4509.00	51.30	185.90	4407.40	-80.60	-289.64	99.12	8.77	8.71	1.29	254.45	300.65
Survey	4541.00	54.90	185.90	4426.61	-106.05	-292.27	124.69	11.25	11.25	0.00	250.06	310.92
Survey	4572.00	57.80	185.60	4443.79	-131.72	-294.85	150.47	9.39	9.35	0.97	245.93	322.93
Survey	4604.00	60.00	184.40	4460.32	-159.01	-297.23	177.86	7.59	6.87	3.75	241.85	337.09
Survey	4635.00	61.40	182.90	4475.49	-185.99	-298.95	204.89	6.18	4.52	4.84	238.11	352.08
Survey	4667.00	64.00	182.60	4490.17	-214.39	-300.31	233.32	8.17	8.13	0.94	234.48	368.98
Survey	4698.00	66.80	183.30	4503.07	-242.54	-301.76	261.51	9.26	9.03	2.26	231.21	387.15
Survey	4730.00	69.20	182.90	4515.06	-272.16	-303.36	291.17	7.59	7.50	1.25	228.10	407.55
Survey	4761.00	71.40	182.60	4525.51	-301.31	-304.76	320.35	7.16	7.10	0.97	225.33	428.56
Survey	4793.00	73.50	182.80	4535.16	-331.79	-306.20	350.86	6.59	6.56	0.62	222.70	451.49
Survey	4825.00	76.10	182.10	4543.55	-362.64	-307.52	381.73	8.39	8.12	2.19	220.30	475.47
Survey	4856.00	78.40	181.10	4550.39	-392.86	-308.36	411.94	8.06	7.42	3.23	218.13	499.42
Survey	4887.00	80.80	180.80	4555.99	-423.34	-308.87	442.39	7.80	7.74	0.97	216.11	524.04
Survey	4919.00	83.30	180.90	4560.42	-455.03	-309.34	474.04	7.82	7.81	0.31	214.21	550.22
Survey	4951.00	85.80	181.10	4563.45	-486.87	-309.90	505.85	7.84	7.81	0.63	212.48	577.13
Survey	4983.00	87.10	181.60	4565.44	-518.80	-310.65	537.77	4.35	4.06	1.56	210.91	604.70
Survey	5015.00	87.30	181.80	4567.00	-550.75	-311.60	569.71	0.88	0.63	0.63	209.50	632.79
Survey	5047.00	87.10	181.30	4568.56	-582.70	-312.46	601.65	1.68	0.63	1.56	208.20	661.19
Survey	5078.00	88.10	182.10	4569.86	-613.66	-313.38	632.60	4.13	3.23	2.58	207.05	689.05
Survey	5110.00	88.70	182.10	4570.75	-645.62	-314.55	664.57	1.88	1.88	0.00	205.98	718.17
Survey	5141.00	89.50	182.30	4571.24	-676.59	-315.74	695.56	2.66	2.58	0.65	205.02	746.64
Survey	5173.00	90.40	182.60	4571.26	-708.56	-317.11	727.55	2.96	2.81	0.94	204.11	776.28
Survey	5204.00	91.20	183.10	4570.83	-739.52	-318.65	758.54	3.04	2.58	1.61	203.31	805.25
Survey	5234.00	91.50	183.10	4570.12	-769.47	-320.27	788.53	1.00	1.00	0.00	202.60	833.46
Survey	5304.00	92.60	182.40	4567.62	-839.34	-323.63	858.48	1.86	1.57	1.00	201.09	899.57
Survey	5399.00	91.30	182.40	4564.39	-934.20	-327.61	953.39	1.37	1.37	0.00	199.33	989.98
Survey	5495.00	89.00	179.60	4564.14	-1030.17	-329.29	1049.27	3.77	2.40	2.92	197.73	1081.52
Survey	5564.00	89.50	178.60	4565.04	-1099.15	-328.21	1118.04	1.62	0.72	1.45	196.63	1147.11
Survey	5655.00	88.20	176.60	4566.87	-1190.05	-324.40	1208.50	2.62	1.43	2.20	195.25	1233.47
Survey	5747.00	86.70	176.90	4570.96	-1281.81	-319.19	1299.74	1.66	1.63	0.33	193.98	1320.95
Survey	5839.00	91.20	178.40	4572.65	-1373.69	-315.42	1391.18	5.16	4.89	1.63	192.93	1409.44
Survey	5930.00	87.20	178.30	4573.92	-1464.62	-312.80	1481.75	4.40	4.40	0.11	192.06	1497.65
Survey	6021.00	88.60	179.30	4577.25	-1555.54	-310.90	1572.36	1.89	1.54	1.10	191.30	1586.30
Survey	6113.00	89.00	178.90	4579.18	-1647.51	-309.46	1664.05	0.61	0.43	0.43	190.64	1676.32
Survey	6205.00	90.40	180.90	4579.66	-1739.50	-309.29	1755.83	2.65	1.52	2.17	190.08	1766.78
Survey	6296.00	91.00	183.40	4578.55	-1830.42	-312.70	1846.78	2.83	0.66	2.75	189.69	1856.94
Survey	6387.00	90.20	182.60	4577.60	-1921.29	-317.46	1937.77	1.24	0.88	0.88	189.38	1947.34
Survey	6479.00	91.70	182.60	4576.07	-2013.18	-321.63	2029.74	1.63	1.63	0.00	189.08	2038.71

DrillRight TECHNOLOGY, INC.

Survey Report

DRT Job # :

Nulik 3404 2-29H Surveys

Type	M Depth	Incl.	Azimuth	TVD	North	East	V Section	Dogleg	B Rate	T Rate	Clos Azi	Clos Dist
Survey	6569.00	92.50	180.40	4572.77	-2103.08	-323.98	2119.60	2.60	0.89	2.44	188.76	2127.89
Survey	6661.00	91.80	179.60	4569.32	-2195.01	-323.98	2211.34	1.15	0.76	0.87	188.40	2218.79
Survey	6752.00	89.80	179.30	4568.05	-2285.99	-323.11	2302.08	2.22	2.20	0.33	188.05	2308.71
Survey	6844.00	89.70	178.80	4568.45	-2377.98	-321.58	2393.78	0.55	0.11	0.54	187.70	2399.63
Survey	6938.00	91.00	177.60	4567.88	-2471.93	-318.63	2487.34	1.88	1.38	1.28	187.34	2492.38
Survey	7033.00	90.80	178.10	4566.38	-2566.85	-315.06	2581.83	0.57	0.21	0.53	187.00	2586.11
Survey	7127.00	91.10	177.40	4564.82	-2660.76	-311.37	2675.31	0.81	0.32	0.74	186.67	2678.92
Survey	7222.00	91.30	177.90	4562.83	-2755.66	-307.48	2769.76	0.57	0.21	0.53	186.37	2772.76
Survey	7316.00	91.50	178.10	4560.53	-2849.57	-304.20	2863.26	0.30	0.21	0.21	186.09	2865.76
Survey	7410.00	89.80	178.40	4559.46	-2943.52	-301.33	2956.83	1.84	1.81	0.32	185.85	2958.90
Survey	7504.00	90.70	178.60	4559.05	-3037.48	-298.87	3050.44	0.98	0.96	0.21	185.62	3052.15
Survey	7598.00	89.80	178.40	4558.64	-3131.45	-296.41	3144.05	0.98	0.96	0.21	185.41	3145.45
Survey	7692.00	89.00	177.90	4559.62	-3225.39	-293.38	3237.60	1.00	0.85	0.53	185.20	3238.71
Survey	7786.00	90.30	177.40	4560.19	-3319.31	-289.53	3331.08	1.48	1.38	0.53	184.99	3331.91
Survey	7881.00	90.30	178.30	4559.70	-3414.24	-285.96	3425.58	0.95	0.00	0.95	184.79	3426.19
Survey	7975.00	89.40	179.40	4559.94	-3508.22	-284.08	3519.24	1.51	0.96	1.17	184.63	3519.70
Survey	8069.00	88.90	181.10	4561.34	-3602.20	-284.49	3613.05	1.88	0.53	1.81	184.52	3613.42
Survey	8165.00	90.10	181.30	4562.18	-3698.17	-286.50	3708.95	1.27	1.25	0.21	184.43	3709.25
Survey	8259.00	90.30	181.80	4561.85	-3792.14	-289.04	3802.89	0.57	0.21	0.53	184.36	3803.14
Survey	8354.00	90.20	181.60	4561.44	-3887.10	-291.86	3897.83	0.24	0.11	0.21	184.29	3898.04
Survey	8449.00	91.90	181.10	4559.70	-3982.05	-294.10	3992.73	1.87	1.79	0.53	184.22	3992.90
Survey	8543.00	92.80	181.40	4555.84	-4075.95	-296.15	4086.57	1.01	0.96	0.32	184.16	4086.69
Survey	8638.00	91.90	181.90	4551.95	-4170.83	-298.88	4181.42	1.08	0.95	0.53	184.10	4181.53
Survey	8733.00	92.20	181.30	4548.55	-4265.73	-301.53	4276.30	0.71	0.32	0.63	184.04	4276.37
Survey	8828.00	89.60	181.80	4547.06	-4360.68	-304.10	4371.21	2.79	2.74	0.53	183.99	4371.27
Survey	8923.00	89.30	181.60	4547.97	-4455.63	-306.92	4466.15	0.38	0.32	0.21	183.94	4466.19
Survey	9017.00	89.30	181.30	4549.12	-4549.59	-309.30	4560.07	0.32	0.00	0.32	183.89	4560.09
Survey	9111.00	89.00	182.40	4550.51	-4643.53	-312.33	4654.01	1.21	0.32	1.17	183.85	4654.02
Survey	9167.00	89.30	182.90	4551.34	-4699.46	-314.92	4709.99	1.04	0.54	0.89	183.83	4710.00
PrjCalcPnt	9214	89.3	182.9	4551.91	-4746.40	-317.30	4756.98	0	0	0	183.82	4756.99

Nulik 3404 2-29H

Perforations

Date	Top (ftKB)	Btm (ftKB)	Zone
7/9/2014	4,898.0	4,900.0	Miss Lime, Original Hole
7/9/2014	4,948.0	4,950.0	Miss Lime, Original Hole
7/9/2014	5,028.0	5,030.0	Miss Lime, Original Hole
7/9/2014	5,098.0	5,100.0	Miss Lime, Original Hole
7/19/2014	5,338.0	5,340.0	Miss Lime, Original Hole
7/19/2014	5,398.0	5,400.0	Miss Lime, Original Hole
7/19/2014	5,458.0	5,460.0	Miss Lime, Original Hole
7/19/2014	5,533.0	5,535.0	Miss Lime, Original Hole
7/19/2014	5,613.0	5,615.0	Miss Lime, Original Hole
7/19/2014	5,668.0	5,670.0	Miss Lime, Original Hole
7/19/2014	5,748.0	5,750.0	Miss Lime, Original Hole
7/19/2014	5,838.0	5,840.0	Miss Lime, Original Hole
7/19/2014	5,898.0	5,900.0	Miss Lime, Original Hole
7/19/2014	5,955.0	5,957.0	Miss Lime, Original Hole
7/19/2014	6,038.0	6,040.0	Miss Lime, Original Hole
7/19/2014	6,105.0	6,107.0	Miss Lime, Original Hole
7/19/2014	6,158.0	6,160.0	Miss Lime, Original Hole
7/19/2014	6,253.0	6,255.0	Miss Lime, Original Hole
7/19/2014	6,328.0	6,330.0	Miss Lime, Original Hole
7/19/2014	6,400.0	6,402.0	Miss Lime, Original Hole
7/19/2014	6,416.0	6,418.0	Miss Lime, Original Hole
7/19/2014	6,573.0	6,575.0	Miss Lime, Original Hole
7/19/2014	6,623.0	6,625.0	Miss Lime, Original Hole
7/19/2014	6,673.0	6,675.0	Miss Lime, Original Hole
7/18/2014	6,743.0	6,745.0	Miss Lime, Original Hole
7/18/2014	6,803.0	6,805.0	Miss Lime, Original Hole
7/18/2014	6,873.0	6,875.0	Miss Lime, Original Hole
7/18/2014	6,948.0	6,950.0	Miss Lime, Original Hole
7/18/2014	6,990.0	6,992.0	Miss Lime, Original Hole
7/18/2014	7,078.0	7,080.0	Miss Lime, Original Hole
7/18/2014	7,176.0	7,178.0	Miss Lime, Original Hole
7/18/2014	7,253.0	7,255.0	Miss Lime, Original Hole
7/18/2014	7,313.0	7,315.0	Miss Lime, Original Hole
7/18/2014	7,398.0	7,400.0	Miss Lime, Original Hole
7/18/2014	7,473.0	7,475.0	Miss Lime, Original Hole
7/18/2014	7,516.0	7,518.0	Miss Lime, Original Hole
7/18/2014	7,573.0	7,575.0	Miss Lime, Original Hole
7/18/2014	7,633.0	7,635.0	Miss Lime, Original Hole
7/18/2014	7,688.0	7,690.0	Miss Lime, Original Hole
7/18/2014	7,743.0	7,745.0	Miss Lime, Original Hole
7/18/2014	7,743.0	7,745.0	Miss Lime, Original Hole
7/18/2014	7,838.0	7,840.0	Miss Lime, Original Hole
7/18/2014	7,898.0	7,900.0	Miss Lime, Original Hole
7/18/2014	7,966.0	7,968.0	Miss Lime, Original Hole
7/18/2014	8,368.0	8,370.0	Miss Lime, Original Hole
7/18/2014	8,478.0	8,480.0	Miss Lime, Original Hole
7/18/2014	8,613.0	8,615.0	Miss Lime, Original Hole
7/18/2014	8,702.0	8,704.0	Miss Lime, Original Hole
7/18/2014	8,778.0	8,780.0	Miss Lime, Original Hole
7/18/2014	8,848.0	8,850.0	Miss Lime, Original Hole
7/18/2014	8,898.0	8,900.0	Miss Lime, Original Hole
7/18/2014	8,970.0	8,972.0	Miss Lime, Original Hole
7/18/2014	9,068.0	9,070.0	Miss Lime, Original Hole
7/18/2014	9,153.0	9,155.0	Miss Lime, Original Hole

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/15/2014
Job End Date:	7/15/2014
State:	Kansas
County:	Sumner
API Number:	15-191-22742-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Nulik 3404 #2-29H
Longitude:	-97.77283100
Latitude:	37.06678400
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,552
Total Base Water Volume (gal):	2,577,078
Total Base Non Water Volume:	0

Hydraulic Fracturing Fluid Composition:

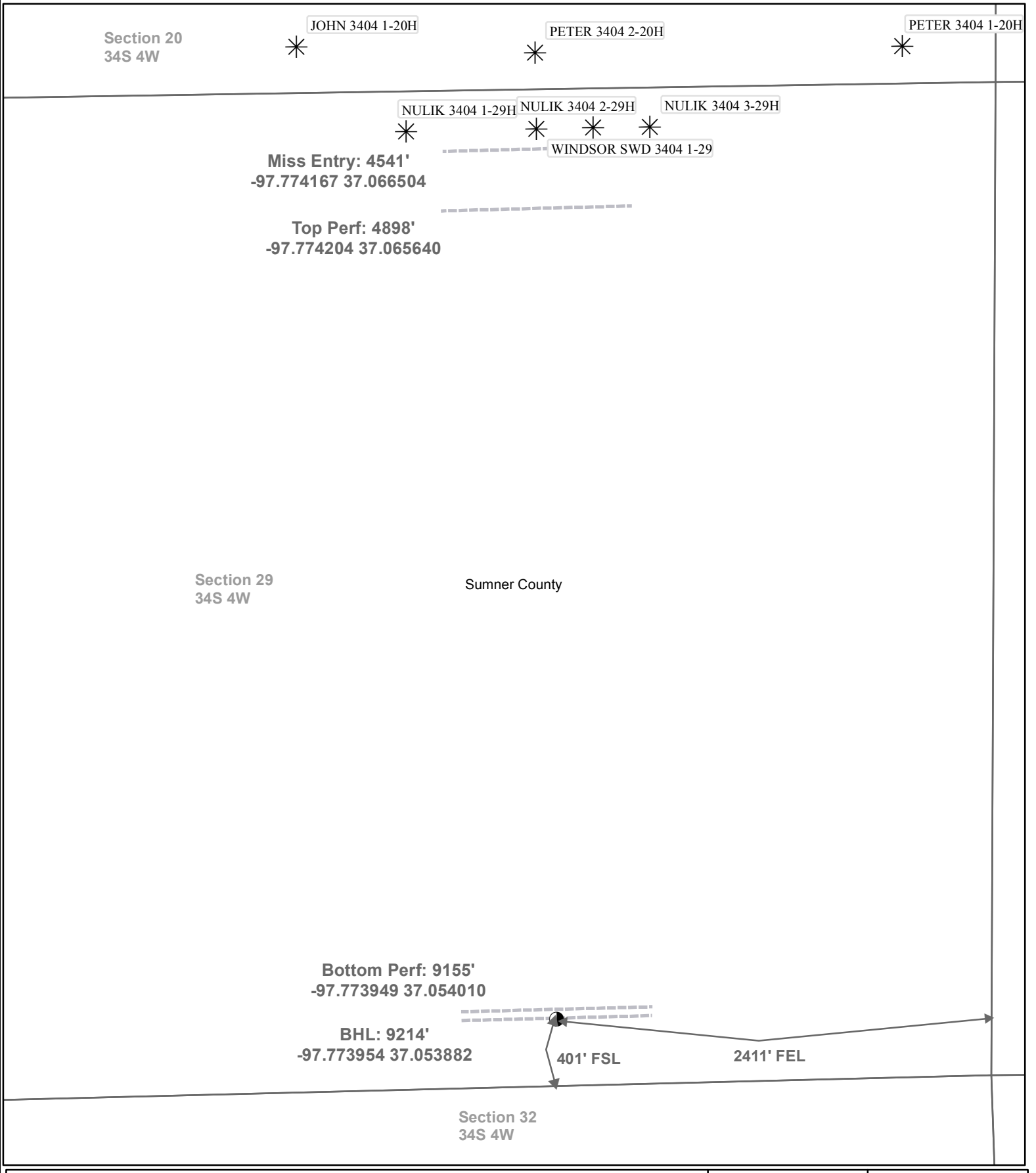
Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Well Operator	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	95.77780	None
40/70 Premium Preferred Sand	Cimarron Acid	Proppant, Scouring, Fill					
			Crystalline Silica (quartz)	14808-60-7	100.00000	2.83178	None
15% Unihibited HCl Acid	Cimarron Acid	Etching, Dissolving, Cleaning					
			Water	7732-18-5	85.00000	0.64524	None
			Hydrochloric Acid	7647-01-0	15.00000	0.11387	None
			Water	7732-18-5	24.00000	0.00015	None
			Methanol	67-56-1	9.00000	0.00006	None
			Isopropyl Alchohol	67-63-0	8.40000	0.00005	None
			2-Butoxyethanol	111-76-2	8.40000	0.00005	None
			Cinnamaldehyde	104-55-2	8.40000	0.00005	None
			Triethyl Phosphate	78-40-0	8.40000	0.00005	None
			Ethoxylated Nonylphenol	68412-54-4	8.40000	0.00005	None
			Ethylene Glycol	107-21-1	8.40000	0.00005	None
			N-Dimethyformamide	68-12-2	8.40000	0.00005	None
			Tar Bases-quinoline derivs-benzyl chloride/quaternized	72480-70-7	8.40000	0.00005	None

40/70 Resin Coated Sand	Cimarron Acid	Proppant, Scouring, Fill					
			Crystalline Silica (quartz)	14808-60-7	97.00000	0.48410	None
Iron Control, Sodium Erythorbate	Cimarron Acid	Iron Control					
			Water	7732-18-5	55.50000	0.02544	None
			Methanol	67-56-1	12.70000	0.00584	None
			Poly(ethlene Oxide)	25322-68-3	9.10000	0.00417	None
			Nonylphenal Polyethylene Glycol Ether	127087-87-0	9.10000	0.00417	None
			Dinanylphenyl Polyoxyethylene	201602-88-2	9.10000	0.00417	None
			Isopropanol	67-63-0	4.60000	0.00209	None
			Sodium Erythorbate	6381-77-7	100.00000	0.00025	None
			Water	7732-18-5	54.50000	0.00019	None
			Polyglycol Ethers	52624-57-4	13.60000	0.00005	None
			Isopropanol	67-63-0	13.60000	0.00005	None
			Methanol	67-56-1	9.00000	0.00003	None
			Glycol Ether EB	111-76-2	9.00000	0.00003	None
FR-986, Cationic Friction Reducer	Cimarron Acid	Friction Reducer					
			Water	7732-18-5	50.00000	0.00511	None
			Petroleum Hydrotreated Light Distillate	64742-47-8	2.50000	0.00187	None
			Hydrochloric Acid	7647-01-0	16.80000	0.00172	None
			Phosphoric Acid	7664-38-2	16.80000	0.00172	None
			Ethylene Glycol	107-21-1	12.70000	0.00130	None
			Methanol	67-56-1	3.60000	0.00037	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.

* 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)



SANDRIDGE
THE POWER OF US

Actual BH Location

SandRidge Wells

Perf

Sections

Actual Bottom-Hole Location of Nulik 3404 2-29H
T&R: 34S 4W
Section: 29, 2411' FEL & 401' FSL
-97.773954 37.053882

1 in = 667 ft

0 500 1,000 2,000 Feet

N

Draftsman: Dory Deines	Draft Date: 9/10/2014
Drawing Name/Number: Addendum_Nulik 3404 2-29H.mxd	
Coordinate System: NAD 1927 State Plane Kansas South FIPS: 1502	