



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1137980  
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: \_\_\_\_\_



1137980

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:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Brad 3508 3-12H
Doc ID	1137980

All Electric Logs Run

Resistivity
Porosity
Boresight
Mud Log
Prizm Log

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Brad 3508 3-12H
Doc ID	1137980

#### Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	9051-9250	4229 bbls water, 36 bbls acid, 75M lbs sd, 4439 TLTR	
5	8678-8963	4223 bbls water, 36 bbls acid, 75M lbs sd, 8639 TLTR	
5	8355-8608	4218 bbls water, 36 bbls acid, 75M lbs sd, 13065 TLTR	
5	7970-8239	4212 bbls water, 36 bbls acid, 75M lbsd sd, 17433 TLTR	
5	7589-7912	4206 bbls water, 36 bbls acid, 75M lbsd sd, 21799 TLTR	
5	7279-7530	4201 bbls water, 36 bbls acid, 75M lbsd sd, 26113 TLTR	
5	6873-7179	3442 bbls water, 36 bbls acid, 75M lbsd sd, 29540 TLTR	
5	6506-6758	4189 bbls water, 36 bbls acid, 75M lbsd sd, 33755 TLTR	
5	6303-6345	2364 bbls water, 36 bbls acid, 75M lbsd sd, 36086 TLTR	
5	5759-5803	2356 bbls water, 36 bbls acid, 75M lbsd sd, 38478 TLTR	

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

May 06, 2013

Tiffany Golay  
SandRidge Exploration and Production LLC  
123 ROBERT S. KERR AVE  
OKLAHOMA CITY, OK 73102-6406

Re: ACO1  
API 15-077-21922-01-00  
Brad 3508 3-12H  
NE/4 Sec.12-35S-08W  
Harper County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Tiffany Golay

# Mid-Continent Conductor, LLC

# Invoice

P.O. Box 1570  
Woodward, OK 73802

Phone: (580)254-5400

Fax: (580)254-3242

Date	Invoice #
4/8/2013	1818

<b>Bill To</b>
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
Parker	Net 45	4/8/2013	Brad 3508 3-12H, Harper Cnty, KS	Horizon 15

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 6' X 6' cellar hole						
6' X 6' Tinhorn	1	Furnished and set 6' X 6' tinhorn						
Mud and Water	1	Furnished mud and water						
Transport Truck - Conductor	1	Transport mud and water to location						
Grout & Trucking	10	Furnished grout and trucking to location						
Grout Pump	1	Furnished grout pump						
Transport Truck - Conductor	1	Transport truck and water to displace cement down center of conductor hole						
Fence Panels	4	Furnished safety netting around conductor holes						
Welder & Materials	1	Furnished welder and materials						
Dirt Removal	1	Furnished labor and equipment for dirt removal						
Cover Plate	1	Furnished cover plates						
Permits	1	Permits						
		AFE: _____ Well: <u>BRAD 3508 3-12H</u> Code: <u>850.070</u> AMT: <u>479340.00</u> Co Man: _____						
		<table border="1"> <tr> <td><b>Subtotal</b></td> <td>\$19,340.00</td> </tr> <tr> <td><b>Sales Tax (0.0%)</b></td> <td>\$0.00</td> </tr> <tr> <td><b>Total</b></td> <td><b>\$19,340.00</b></td> </tr> </table>	<b>Subtotal</b>	\$19,340.00	<b>Sales Tax (0.0%)</b>	\$0.00	<b>Total</b>	<b>\$19,340.00</b>
<b>Subtotal</b>	\$19,340.00							
<b>Sales Tax (0.0%)</b>	\$0.00							
<b>Total</b>	<b>\$19,340.00</b>							



**Service Order for i-District Job 968661**

<b>Customer Name:</b> SANDRIDGE ENERGY INC. - FOR ELECTRONIC INVOICING O		<b>Person Taking Call:</b>		<b>Location:</b> El Reno, OK WS		<b>Order Date:</b> 15-Apr-13 17:23		<b>Job Number:</b> 968661	
<b>Service Order Number:</b>		<b>Service Line:</b> Cementing El Reno		<b>Supervisor:</b>		<b>Legal Location:</b> SEC 12-35S-8W			
<b>Well Name and Number:</b> BRAD -3508-, 3-12H		<b>Pad/Platform:</b>		<b>Field:</b>		<b>County:</b> HARPER		<b>State/Prov:</b> KS	
<b>Well Master Number:</b> 0631458790		<b>API/UWI:</b> 15077219220100		<b>Rig Name:</b> HORIZON #15		<b>Well Age:</b>		<b>Sales Engineer:</b>	
<b>Job Type:</b> Cementing El Reno – Surface		<b>Time Well Ready:</b>		<b>Deviation:</b>		<b>Hole Size:</b>		<b>Well MD:</b> 800 ft	
<b>Well TVD:</b> 800 ft		<b>BHP:</b>		<b>BHST:</b> 89 °F		<b>BHCT:</b> 80 °F		<b>Treat Down:</b> Casing	
<b>Packer Type:</b>		<b>Packer Depth:</b>		<b>MIN/MAX DENSITIES:</b> LEAD: 11.9-12.9 PPG TAIL: 14.3-15.3 PPG		<b>HHP on Location:</b>		<b>Max Allowed Pressure:</b> 5000 psi	
<b>Max Allowed Ann Pressure:</b>				<b>Job Stage Description:</b> 9 5/8" SURFACE		<b>FTL Ticket/Quote Number :</b> C1YQ-00115			
<b>Casing/Tubing</b>						<b>Service Instructions:</b>			
<b>String Type</b>	<b>Depth</b>	<b>Size</b>	<b>Weight</b>	<b>Grade</b>	<b>Thread</b>	Provide equipment, materials, services and personnel to safely cement 9 5/8" surface casing per client specifications.  Pump 270 sks Lead Slurry @ 12.4 ppg, 170 sks Tail Slurry @ 14.8 ppg, drop top plug and displace per customer requirements.			
Casing	800 ft	9.625 in	36 lb/ft	J-55					
<b>Client Contact</b>									
<b>Name</b>	<b>Voice</b>	<b>Fax</b>	<b>Email</b>	<b>Title</b>	<b>Company</b>	<b>Notes</b>			
Israel	281-617-4654								
<b>Notes:</b> TOC: Surface -- volumes based on 12.25" OH + 15-% XS  Equipment: 9 5/8" HM and QC (8RD and BTC), top and bottom plugs (please bring wooden and rubber top plugs), air hoses, water hoses, mud hoses (contingency), washup hoses (contingency), D110, D047  Get the field ticket stamped if applicable.									
<b>Directions:</b> <b>From Medford Okla go west on hwy 11 16.5 miles turn north on hwy 132 to state line go north on hwy 179 1.7 miles turn west on SW-90-rd 4.5 miles turn south on SW-50 0.4 miles turn west on lease rd 0.3 miles into location</b>									

Materials			
Name	Description	Quantity	Density
LEAD SLURRY	270 SKS 35:65 Poz:C LEAD @ 12.4 PPG	96.66 bbl	12.40 lb/gal
TAIL SLURRY	170 SKS Class C TAIL @ 14.8 PPG	40.27 bbl	14.80 lb/gal

**Fluid Systems:**

LEAD SLURRY				
270 SKS 35:65 Poz:C LEAD @ 12.4 PPG				
<i>Sacks Of:</i>	Cement		<i>Total Blend/Cem:</i>	23,490.98 lb
<i>Sack Weight:</i>	87.00 lb		<i>Sacks Blend/Cem:</i>	270.01 sks
<i>Yield:</i>	2.01 ft3/sk		<i>Final Fluid Density:</i>	12.40 lb/gal
<i>Mix Water:</i>	11.12 ft3/sk		<i>Total Mix Water:</i>	85.00 m3
Code	Conc	Design	Total by design	Load out with excess
D903	61.000 lb/sk	WTSK	16,470.69 lb	16,470.69 lb
D035	26.000 lb/sk	WTSK	7,020.29 lb	7,020.29 lb
D020	6.000 %	BWOB	1,409.46 lb	1,409.46 lb
S001	2.000 %	BWOB	469.82 lb	469.82 lb
D130	0.125 lb/sk	WTSK	33.75 lb	33.75 lb

TAIL SLURRY				
170 SKS Class C TAIL @ 14.8 PPG				
<i>Sacks Of:</i>	Cement		<i>Total Blend/Cem:</i>	15,980.75 lb
<i>Sack Weight:</i>	94.00 lb		<i>Sacks Blend/Cem:</i>	170.01 sks
<i>Yield:</i>	1.33 ft3/sk		<i>Final Fluid Density:</i>	14.80 lb/gal
<i>Mix Water:</i>	6.35 ft3/sk		<i>Total Mix Water:</i>	30.58 m3
Code	Conc	Design	Total by design	Load out with excess
D903	94.000 lb/sk	WTSK	15,980.75 lb	15,980.75 lb
D130	0.125 lb/sk	WTSK	21.25 lb	21.25 lb





**Service Order for i-District Job 969402**

<b>Customer Name:</b> SANDRIDGE ENERGY INC. - FOR ELECTRONIC INVOICING O	<b>Person Taking Call:</b>	<b>Location:</b> El Reno, OK WS	<b>Order Date:</b> 16-Apr-13 15:22	<b>Job Number:</b> 969402		
<b>Service Order Number:</b>	<b>Service Line:</b> Cementing El Reno	<b>Supervisor:</b>	<b>Legal Location:</b>			
<b>Well Name and Number:</b> BRAD -3508-, 3-12H	<b>Pad/Platform:</b>	<b>Field:</b>	<b>County:</b> HARPER	<b>State/Prov:</b> KS		
<b>Well Master Number:</b> 0631458790	<b>API/UWI:</b> 15077219220100	<b>Rig Name:</b> HORIZON #15	<b>Well Age:</b>	<b>Sales Engineer:</b>		
<b>Job Type:</b> Cementing El Reno – Intermediate	<b>Time Well Ready:</b>	<b>Deviation:</b>	<b>Hole Size:</b>	<b>Well MD:</b>		
<b>Well TVD:</b>	<b>BHP:</b>	<b>BHST:</b>	<b>BHCT:</b>	<b>Treat Down:</b> Casing		
<b>Packer Type:</b>	<b>Packer Depth:</b>	<b>Well Head Connection:</b>	<b>HHP on Location:</b>	<b>Max Allowed Pressure:</b> 5000 psi		
<b>Max Allowed Ann Pressure:</b>		<b>Job Stage Description:</b> 7" Intermediate	<b>FTL Ticket/Quote Number :</b>			
<b>Expected on Location:</b> 26- Apr-13 23:00	<b>Ready to Pump:</b>	<b>Job Start Date:</b> 26-Apr-13 23:00	<b>Job End Date:</b> 27-Apr-13 11:00			
<b>Leave for Job:</b> 26-Apr-13 23:00		<b>Arrive from Job:</b> 27-Apr-13 11:00				
<b>Casing/Tubing</b>			<b>Service Instructions:</b>			
<b>String Type</b>	<b>Depth</b>	<b>Size</b>	<b>Weight</b>	<b>Grade</b>	Provide equipment, materials, services and personnel to safely cement 7" intermediate casing per customer specifications,	
Casing	5488 ft	7 in	26 lb/ft	P-110		
<b>Perforations</b>					Pump 30 bbl gel water, 250 sks 50:50 Poz:H Lead @ 13.6 ppg, 100 sks Class H Tail @ 15.6 ppg, drop top plug and displace per customer request.	
<b>Top</b>	<b>Bottom</b>	<b>SPF</b>	<b>No of Shots</b>	<b>Formation Name</b>		
<b>Total Interval:</b> 0		<b>Diameter:</b>				
<b>Coiled Tubing</b>						
<b>Size</b>	<b>Thickness</b>	<b>Length</b>	<b>String ID</b>	<b>Reel ID</b>		
<b>Client Contact</b>						
<b>Name</b>	<b>Voice</b>	<b>Fax</b>	<b>Email</b>	<b>Title</b>	<b>Company</b>	<b>Notes</b>
Israel	281-617-4654					
<b>Notes:</b>						
TOC: xxxx' -- volumes based on 8.75" OH + 40% XS						
Equipment: 7" HM and QC (8RD and BTC), top and bottom plugs, water hoses, mud hoses (contingency), air hoses, washup hoses, D110, D047, B306						
GET FIELD TICKET STAMPED.						
<b>Directions:</b>						
From Medford Okla go west on hwy 11 16.5 miles turn north on hwy 132 to state line go north on hwy 179 1.7 miles turn west on SW-90-rd 4.5 miles turn south on SW-50 0.4 miles turn west on lease rd 0.3 miles into location						

<b>Materials</b>				
<b>Name</b>	<b>Code</b>	<b>Description</b>	<b>Quantity</b>	<b>Density</b>
GEL WATER		30 BBL GELLED WATER	30.00 bbl	8.32 lb/gal
LEAD SLURRY		250 SKS 50:50 POZ:H @ 13.6 PPG	362.50 ft3	13.60 lb/gal
TAIL SLURRY		100 SKS CLASS H @ 15.6 PPG	119.00 ft3	15.60 lb/gal

**Fluid Systems:**

<b>GEL WATER</b>				
30 BBL GELLED WATER				
<i>Sacks Of:</i>		<i>Total Blend/Cem:</i>		
<i>Sack Weight:</i>		<i>Dry Blend Code:</i>		
<i>Yield:</i>		<i>Final Fluid Density:</i>	8.32	lb/gal
<i>Mix Water:</i>		<i>Base Fluid Den:</i>		
<i>Mix Fluid:</i>		<i>Volume:</i>	30.00	bbbl
<i>Mix Water Den:</i>		<i>Base Fluid Vol:</i>		
<i>Sacks Blend/Cem:</i>		<i>Acid Volume:</i>		
<i>Total Mix Water:</i>		<i>Acid Conc:</i>		
<i>Total Mix Fluid:</i>				
				Load out Excess
Code	Conc	Design	Total by design	Load out with excess
B306	0.200 gal/bbl	BVOWashVO	6.00 gal	6.00 gal

<b>LEAD SLURRY</b>				
250 SKS 50:50 POZ:H @ 13.6 PPG				
<i>Sacks Of:</i>	Cement		<i>Total Blend/Cem:</i>	21,000.00 lb
<i>Sack Weight:</i>	84.00	lb	<i>Dry Blend Code:</i>	
<i>Yield:</i>	1.45	ft3/sk	<i>Final Fluid Density:</i>	13.60 lb/gal
<i>Mix Water:</i>	6.87	gal/sk	<i>Base Fluid Den:</i>	
<i>Mix Fluid:</i>			<i>Volume:</i>	
<i>Mix Water Den:</i>			<i>Base Fluid Vol:</i>	
<i>Sacks Blend/Cem:</i>	250.00	sks	<i>Acid Volume:</i>	
<i>Total Mix Water:</i>	6.50	m3	<i>Acid Conc:</i>	
<i>Total Mix Fluid:</i>				
				Load out Excess
Code	Conc	Design	Total by design	Load out with excess
D909	47.000 lb/sk	WTSK	11,750.00 lb	11,750.00 lb
D035	37.000 lb/sk	WTSK	9,250.00 lb	9,250.00 lb
D020	4.000 %	BWOB	840.00 lb	840.00 lb
D112	0.600 %	BWOB	126.00 lb	126.00 lb
D065	0.100 %	BWOB	21.00 lb	21.00 lb
D042	2.000 lb/sk	WTSK	500.00 lb	500.00 lb

D079	0.200 %	BWOB	42.00 lb	42.00 lb
D013	0.180 %	BWOB	37.80 lb	37.80 lb

TAIL SLURRY				
100 SKS CLASS H @ 15.6 PPG				
Sacks Of:	Cement		Total Blend/Cem:	9,400.00 lb
Sack Weight:	94.00 lb		Dry Blend Code:	
Yield:	1.19 ft3/sk		Final Fluid Density:	15.60 lb/gal
Mix Water:	5.32 gal/sk		Base Fluid Den:	
Mix Fluid:			Volume:	
Mix Water Den:			Base Fluid Vol:	
Sacks Blend/Cem:	100.00 sks		Acid Volume:	
Total Mix Water:	2.01 m3		Acid Conc:	
Total Mix Fluid:				
				Load out Excess
Code	Conc	Design	Total by design	Load out with excess
D909	94.000 lb/sk	WTSK	9,400.00 lb	9,400.00 lb
D013	0.100 %	BWOC	9.40 lb	9.40 lb

Resources				
Personnel	Equipment 1	Equipment 2	Assignment	Note
Charles Jacobs			26-Apr-13 23:00 - 27-Apr-13 11:00	
James Flick	2TRA27543	2CPF29504	26-Apr-13 23:00 - 27-Apr-13 11:00	
Zachary Verser			26-Apr-13 23:00 - 27-Apr-13 11:00	
Justin Voegeli			26-Apr-13 23:00 - 27-Apr-13 11:00	

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	5084	204	3315	1980
BHL	9321	88.70	358.20	4792.93	4750.20	-26.27	4750.27	0.00	334	4954	3316	1976
Miss Entry	4986	68.70	1.00	4789.64	426.91	-17.16	427.01	8.15	4657	631	3301	1994
Top Perf	5682	90.20	1.42	4858.66	1113.83	0.83	1113.81	1.37	3970	1317	3322	1972
Bottom Perf	9250	88.48	358.25	4791.21	4679.26	-24.07	4679.32	1.35	404	4883	3318	1974

Survey Points		X	Y		X	Y	m
NW Corner XY Coord	2103336	132131					0.007749
SW Corner XY Coord	2103366	126840		Surface XY	2106680	127073	-0.0064333
NE Corner XY Coord	2108627	132172					0.0088763
SE Corner XY Coord	2108661	126887					-0.00567

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	5084	204	3315	1980
240	0.20	166.60	240.00	0	0	-0.41	0.08	5084	203	3315	1980
487	0.10	166.60	487.00	-1	0	-1.04	0.04	5085	203	3316	1980
757	0.30	166.60	757.00	-2	0	-1.96	0.07	5086	202	3316	1979
859	0.20	166.60	859.00	-2	1	-2.39	0.10	5086	201	3316	1979
1317	1.00	187.30	1316.97	-7	0	-7.13	0.18	5091	196	3316	1980
1789	0.70	168.90	1788.92	-14	0	-14.04	0.09	5098	190	3316	1980
2264	0.70	192.20	2263.88	-20	0	-19.73	0.06	5104	184	3315	1980
2741	0.60	183.70	2740.85	-25	-1	-25.06	0.03	5109	179	3315	1981
3215	0.80	152.80	3214.82	-30	1	-30.49	0.09	5114	173	3316	1979
3688	0.60	130.80	3687.78	-35	4	-35.07	0.07	5119	169	3319	1976
4069	0.40	133.10	4068.77	-37	7	-37.29	0.05	5121	166	3322	1973
4101	0.20	88.60	4100.77	-37	7	-37.37	0.92	5121	166	3322	1973
4132	1.60	338.50	4131.76	-37	7	-36.97	5.42	5121	167	3322	1973
4165	4.00	344.20	4164.72	-35	6	-35.43	7.31	5119	168	3321	1974
4197	6.60	350.60	4196.58	-32	6	-32.53	8.32	5116	171	3321	1974
4228	9.20	352.70	4227.29	-28	5	-28.31	8.44	5112	175	3320	1975
4260	11.70	350.40	4258.75	-23	4	-22.57	7.92	5106	181	3319	1976
4292	14.40	348.20	4289.92	-15	3	-15.47	8.58	5099	188	3318	1977
4323	17.60	348.00	4319.72	-7	1	-7.10	10.32	5091	196	3316	1979
4355	19.80	348.60	4350.03	3	-1	2.96	6.90	5081	207	3314	1981
4387	22.80	350.50	4379.84	14	-3	14.41	9.62	5070	218	3312	1983
4418	25.70	352.70	4408.10	27	-5	27.01	9.80	5057	231	3310	1985
4449	27.50	353.80	4435.82	41	-7	40.81	6.02	5043	244	3309	1986
4481	29.00	355.70	4464.01	56	-8	55.90	5.46	5028	260	3308	1987
4513	31.00	357.60	4491.72	72	-9	71.87	6.92	5012	275	3307	1988
4544	32.50	358.00	4518.08	88	-10	88.18	4.89	4996	292	3306	1989
4576	34.50	357.40	4544.76	106	-10	105.83	6.34	4978	309	3306	1989
4607	37.20	356.30	4569.89	124	-11	123.96	8.95	4960	328	3305	1990
4639	40.00	355.60	4594.89	144	-13	143.88	8.86	4940	347	3303	1992
4670	43.40	356.50	4618.04	164	-14	164.46	11.14	4919	368	3302	1993
4702	46.90	356.60	4640.60	187	-15	187.11	10.94	4897	391	3301	1994
4734	50.20	357.40	4661.78	211	-17	211.06	10.48	4873	415	3300	1995
4765	52.50	358.40	4681.14	235	-18	235.26	7.84	4849	439	3299	1996
4797	55.10	359.00	4700.04	261	-18	261.08	8.26	4823	465	3299	1996
4828	57.70	359.70	4717.19	287	-18	286.89	8.60	4797	491	3298	1996
4860	59.70	0.20	4733.82	314	-18	314.24	6.39	4770	518	3299	1996
4891	61.10	0.70	4749.13	341	-18	341.19	4.73	4743	545	3299	1996
4923	63.20	0.60	4764.08	369	-18	369.47	6.57	4714	573	3299	1995
4954	66.10	0.80	4777.35	397	-18	397.48	9.37	4686	601	3300	1995
4986	68.70	1.00	4789.64	427	-17	427.01	8.15	4657	631	3301	1994
5017	70.50	1.30	4800.45	456	-17	456.06	5.88	4628	660	3301	1993
5049	72.70	1.00	4810.55	486	-16	486.41	6.93	4597	690	3302	1993
5081	74.70	0.90	4819.53	517	-15	517.11	6.26	4567	721	3303	1992
5112	76.40	1.00	4827.27	547	-15	547.12	5.49	4537	751	3303	1991
5144	77.80	1.10	4834.41	578	-14	578.31	4.39	4506	782	3304	1990
5175	79.00	1.40	4840.64	609	-14	608.66	3.99	4475	812	3305	1990
5207	80.30	1.80	4846.39	640	-13	640.12	4.24	4444	844	3306	1989
5238	82.00	2.00	4851.16	671	-12	670.73	5.52	4413	874	3307	1987
5270	83.60	2.00	4855.17	702	-11	702.45	5.00	4381	906	3309	1986
5302	84.90	2.00	4858.38	734	-10	734.26	4.06	4350	938	3310	1985
5333	86.20	1.50	4860.78	765	-9	765.14	4.49	4319	969	3311	1984
5365	87.90	1.30	4862.43	797	-8	797.08	5.35	4287	1001	3312	1983
5396	88.60	1.40	4863.38	828	-7	828.05	2.28	4256	1032	3313	1982
5428	89.60	1.30	4863.88	860	-6	860.04	3.14	4224	1064	3314	1981
5460	90.50	1.50	4863.85	892	-6	892.02	2.88	4192	1096	3315	1980
5492	91.40	1.60	4863.32	924	-5	924.00	2.83	4160	1128	3316	1979
5523	92.40	1.90	4862.29	955	-4	954.96	3.37	4129	1159	3317	1977
5555	92.10	1.90	4861.04	987	-3	986.91	0.94	4097	1191	3318	1976
5587	91.50	1.70	4860.03	1019	-2	1018.87	1.98	4065	1222	3319	1975
5619	90.20	1.40	4858.67	1111	1	1110.81	1.45	3973	1314	3322	1972
5679	90.20	1.60	4858.56	1142	2	1141.79	0.65	3942	1345	3323	1971
5710	89.20	2.00	4858.73	1174	3	1173.77	3.37	3910	1377	3325	1970
5742	89.10	2.30	4859.19	1205	4	1204.73	1.02	3879	1408	3326	1968
5773	88.90	1.90	4859.74	1237	5	1236.70	1.40	3847	1440	3327	1967



# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/11/2013
Job End Date:	5/21/2013
State:	Kansas
County:	Harper
API Number:	15-077-21922-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Brad 3508 3-12H
Longitude:	-98.13460000
Latitude:	37.01500000
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,792
Total Base Water Volume (gal):	1,566,936
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
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.							
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant, Acid, Iron Control Agent, Propping Agent					
			Water (Including Mix Water Supplied by Client)*	NA		94.96818	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant, Acid, Iron Control Agent, Propping Agent					
			Crystalline silica	14808-60-7	95.80569	4.82077	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant, Acid, Iron Control Agent, Propping Agent					
			Hydrogen chloride	7647-01-0	3.13379	0.15769	



HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Distillates (petroleum), hydrotreated light	64742-47-8	0.30404	0.01530	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Acrylamide/ammonium acrylate copolymer	26100-47-0	0.23165	0.01166	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Ammonium chloride	12125-02-9	0.14478	0.00729	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Polyethylene glycol monohexyl ether	31726-34-8	0.10516	0.00529	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Sorbitan monooleate	1338-43-8	0.02896	0.00146	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Ethoxylated oleic acid	9004-96-0	0.02896	0.00146	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Trisodium ortho phosphate	7601-54-9	0.02511	0.00126	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					

			Sodium erythorbate	6381-77-7	0.02381	0.00120	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Methanol	67-56-1	0.01265	0.00064	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Glutaraldehyde	111-30-8	0.01076	0.00054	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Fatty acids, tall-oil	61790-12-3	0.00921	0.00046	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Sorbitol Tetraoleate	61723-83-9	0.00869	0.00044	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Thiourea, polymer with formaldehyde and 1-phenylethanone	68527-49-1	0.00758	0.00038	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Sodium sulfocyanate	540-72-7	0.00753	0.00038	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			2-Propenoic acid, ammonium salt	10604-69-0	0.00709	0.00036	

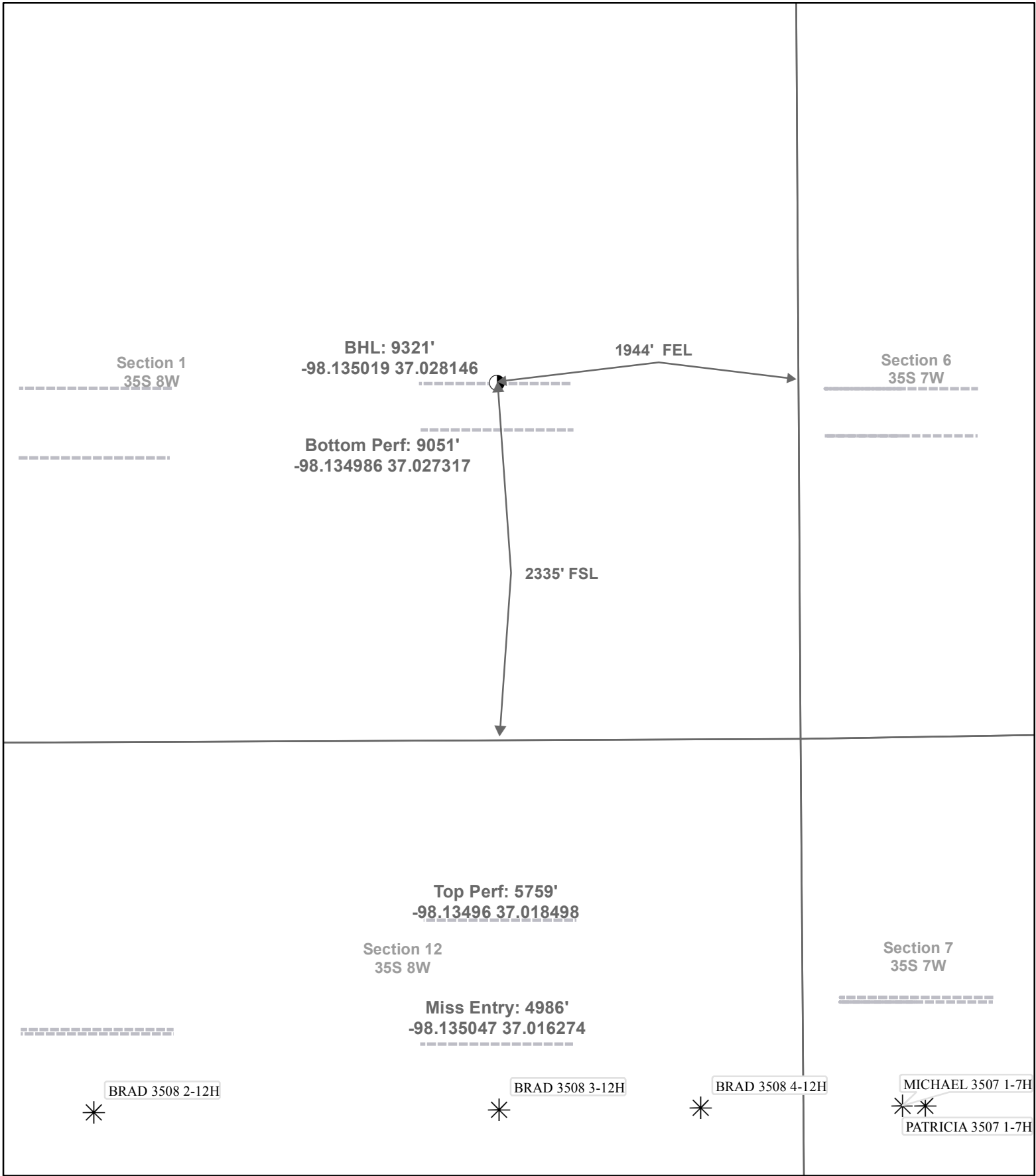
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Ethane-1,2-diol	107-21-1	0.00715	0.00036	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alcohols, C10-C16, ethoxylated	68002-97-1	0.00579	0.00029	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Dicoco dimethyl quaternary ammonium chloride	61789-77-3	0.00461	0.00023	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alcohols, C12-C14, ethoxylated	68439-50-9	0.00434	0.00022	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alcohols, C12-C16, ethoxylated	68551-12-2	0.00434	0.00022	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			C14 alpha olefin ethoxylate	84133-50-6	0.00434	0.00022	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alcohols, C14-15, ethoxylated (7EO)	68951-67-7	0.00353	0.00018	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Prop-2-yn-1-ol	107-19-7	0.00235	0.00012	

HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alkyl(c12-16) dimethylbenzyl ammonium chloride	68424-85-1	0.00192	0.00010	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alkenes, C>10 a-	64743-02-8	0.00157	0.00008	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			2-propenamid	79-06-1	0.00130	0.00007	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Propan-2-ol	67-63-0	0.00092	0.00005	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Potassium hydroxide	1310-58-3	0.00021	0.00001	
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Biocide, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Ethanol	64-17-5	0.00023	0.00001	

\* 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)



**Actual Bottom-Hole Location of Brad 3508 3-12H  
Harper County, Kansas**

**T&R: 35S 8W**  
**Section: 1, 1944' FEL & 2335' FSL**  
**Long/Lat: -98.135019 37.028146**

**1 in = 833 ft**

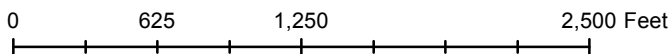


● Actual BH Location

\* SandRidge Wells

--- Perf

□ Sections



Draftsman:

Aaron Birk

Draft Date: 7/24/2013

Drawing Name/Number:

Addendum\_Brad 3508 3-12H.mxd

Coordinate System:

NAD 1927 State Plane  
Kansas South FIPS: 1502

## Remarks

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Tiffany Golay  
07/15/013 09:45  
am

Well was completed using an open hole packer system. Conductor  
weight= 106.5 lbs/ft