



1258615



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

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)*

Date of first Production/Injection or Resumed Production/Injection:	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>			PRODUCTION INTERVAL: Top _____ Bottom _____	

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:
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## Bascom Farms 3408 1-433 Perforations & Shot Density

Stage Number	Date	Type	Top Depth	Top Depth (TVD)	Bottom Depth	Bottom Depth (TVD)	Zone	Shot Density	String Perforated	Fluid Type
34	07/25/15	Perforated	5,164	4,670	5,166	4,669.80	Miss Lime - Upper	5	Production Liner,	Fresh Water
34	07/25/15	Perforated	5,256	4,669	5,258	4,669.30	Miss Lime - Upper	5	Production Liner,	Fresh Water
34	07/25/15	Perforated	5,347	4,669	5,349	4,668.80	Miss Lime - Upper	5	Production Liner,	Fresh Water
34	07/25/15	Perforated	5,439	4,668	5,441	4,667.60	Miss Lime - Upper	5	Production Liner,	Fresh Water
34	07/25/15	Perforated	5,530	4,666	5,532	4,666.00	Miss Lime - Upper	5	Production Liner,	Fresh Water
33	07/24/15	Perforated	5,590	4,665	5,592	4,664.90	Miss Lime - Upper	5	Production Liner,	Fresh Water
33	07/24/15	Perforated	5,676	4,662	5,678	4,661.70	Miss Lime - Upper	5	Production Liner,	Fresh Water
33	07/24/15	Perforated	5,761	4,659	5,763	4,659.40	Miss Lime - Upper	5	Production Liner,	Fresh Water
33	07/24/15	Perforated	5,847	4,660	5,849	4,660.20	Miss Lime - Upper	5	Production Liner,	Fresh Water
33	07/24/15	Perforated	5,932	4,663	5,934	4,662.70	Miss Lime - Upper	5	Production Liner,	Fresh Water
32	07/24/15	Perforated	5,992	4,664	5,994	4,664.50	Miss Lime - Upper	5	Production Liner,	Fresh Water
32	07/24/15	Perforated	6,087	4,667	6,089	4,667.20	Miss Lime - Upper	5	Production Liner,	Fresh Water
32	07/24/15	Perforated	6,182	4,670	6,184	4,670.00	Miss Lime - Upper	5	Production Liner,	Fresh Water
32	07/24/15	Perforated	6,276	4,673	6,278	4,672.50	Miss Lime - Upper	5	Production Liner,	Fresh Water
32	07/24/15	Perforated	6,371	4,673	6,373	4,673.20	Miss Lime - Upper	5	Production Liner,	Fresh Water
31	07/24/15	Perforated	6,431	4,673	6,433	4,672.40	Miss Lime - Upper	5	Production Liner,	Fresh Water
31	07/24/15	Perforated	6,526	4,672	6,528	4,671.70	Miss Lime - Upper	5	Production Liner,	Fresh Water
31	07/24/15	Perforated	6,622	4,671	6,624	4,670.80	Miss Lime - Upper	5	Production Liner,	Fresh Water
31	07/24/15	Perforated	6,717	4,670	6,719	4,669.40	Miss Lime - Upper	5	Production Liner,	Fresh Water
31	07/24/15	Perforated	6,812	4,667	6,814	4,666.70	Miss Lime - Upper	5	Production Liner,	Fresh Water
30	07/24/15	Perforated	6,872	4,666	6,874	4,665.50	Miss Lime - Upper	5	Production Liner,	Fresh Water
30	07/24/15	Perforated	6,964	4,665	6,966	4,665.30	Miss Lime - Upper	5	Production Liner,	Fresh Water
30	07/24/15	Perforated	7,061	4,665	7,063	4,665.40	Miss Lime - Upper	5	Production Liner,	Fresh Water
30	07/24/15	Perforated	7,153	4,665	7,155	4,664.70	Miss Lime - Upper	5	Production Liner,	Fresh Water
30	07/24/15	Perforated	7,246	4,663	7,248	4,663.00	Miss Lime - Upper	5	Production Liner,	Fresh Water
29	07/24/15	Perforated	7,306	4,662	7,308	4,662.00	Miss Lime - Upper	5	Production Liner,	Fresh Water
29	07/24/15	Perforated	7,402	4,661	7,404	4,661.40	Miss Lime - Upper	5	Production Liner,	Fresh Water
29	07/24/15	Perforated	7,497	4,662	7,499	4,661.50	Miss Lime - Upper	5	Production Liner,	Fresh Water
29	07/24/15	Perforated	7,593	4,662	7,595	4,662.10	Miss Lime - Upper	5	Production Liner,	Fresh Water
29	07/24/15	Perforated	7,688	4,662	7,690	4,662.10	Miss Lime - Upper	5	Production Liner,	Fresh Water
28	07/24/15	Perforated	7,748	4,663	7,750	4,662.90	Miss Lime - Upper	5	Production Liner,	Fresh Water

## Bascom Farms 3408 1-433 Perforations & Shot Density

Stage Number	Date	Type	Top Depth	Top Depth (TVD)	Bottom Depth	Bottom Depth (TVD)	Zone	Shot Density	String Perforated	Fluid Type
28	07/24/15	Perforated	7,834	4,663	7,836	4,663.20	Miss Lime - Upper	5	Production Liner,	Fresh Water
28	07/24/15	Perforated	7,921	4,662	7,923	4,662.00	Miss Lime - Upper	5	Production Liner,	Fresh Water
28	07/24/15	Perforated	8,007	4,661	8,009	4,661.40	Miss Lime - Upper	5	Production Liner,	Fresh Water
28	07/24/15	Perforated	8,093	4,662	8,095	4,662.30	Miss Lime - Upper	5	Production Liner,	Fresh Water
27	07/24/15	Perforated	8,153	4,664	8,155	4,663.60	Miss Lime - Upper	5	Production Liner,	Fresh Water
27	07/24/15	Perforated	8,261	4,666	8,263	4,665.70	Miss Lime - Upper	5	Production Liner,	Fresh Water
27	07/24/15	Perforated	8,368	4,665	8,370	4,664.80	Miss Lime - Upper	5	Production Liner,	Fresh Water
27	07/24/15	Perforated	8,476	4,664	8,478	4,663.50	Miss Lime - Upper	5	Production Liner,	Fresh Water
27	07/24/15	Perforated	8,583	4,666	8,585	4,665.50	Miss Lime - Upper	5	Production Liner,	Fresh Water
26	07/24/15	Perforated	8,643	4,667	8,645	4,666.70	Miss Lime - Upper	5	Production Liner,	Fresh Water
26	07/24/15	Perforated	8,740	4,668	8,742	4,668.50	Miss Lime - Upper	5	Production Liner,	Fresh Water
26	07/24/15	Perforated	8,837	4,670	8,839	4,669.60	Miss Lime - Upper	5	Production Liner,	Fresh Water
26	07/24/15	Perforated	8,933	4,669	8,935	4,668.50	Miss Lime - Upper	5	Production Liner,	Fresh Water
26	07/24/15	Perforated	9,030	4,667	9,032	4,666.60	Miss Lime - Upper	5	Production Liner,	Fresh Water
25	07/23/15	Frac Sleeve	9,164	4,664	9,165	4,663.50	Miss Lime - Upper	1	Production Liner,	Fresh Water
24	07/23/15	Frac Sleeve	9,391	4,666	9,392	4,665.70	Miss Lime - Upper	1	Production Liner,	Fresh Water
23	07/23/15	Frac Sleeve	9,616	4,664	9,617	4,663.60	Miss Lime - Upper	1	Production Liner,	Fresh Water
22	07/23/15	Frac Sleeve	9,844	4,665	9,845	4,665.00	Miss Lime - Upper	1	Production Liner,	Fresh Water
21	07/23/15	Frac Sleeve	10,070	4,665	10,071	4,665.50	Miss Lime - Upper	1	Production Liner,	Fresh Water
20	07/23/15	Frac Sleeve	10,297	4,668	10,298	4,667.50	Miss Lime - Upper	1	Production Liner,	Fresh Water
19	07/23/15	Frac Sleeve	10,526	4,664	10,527	4,664.20	Miss Lime - Upper	1	Production Liner,	Fresh Water
18	07/23/15	Frac Sleeve	10,753	4,665	10,754	4,664.60	Miss Lime - Upper	1	Production Liner,	Fresh Water
17	07/23/15	Frac Sleeve	10,979	4,666	10,980	4,665.90	Miss Lime - Upper	1	Production Liner,	Fresh Water
16	07/23/15	Frac Sleeve	11,207	4,662	11,208	4,661.60	Miss Lime - Upper	1	Production Liner,	Fresh Water
15	07/23/15	Frac Sleeve	11,515	4,659	11,516	4,659.10	Miss Lime - Upper	1	Production Liner,	Fresh Water
14	07/23/15	Frac Sleeve	11,697	4,659	11,698	4,658.60	Miss Lime - Upper	1	Production Liner,	Fresh Water
13	07/23/15	Frac Sleeve	11,881	4,661	11,882	4,661.00	Miss Lime - Upper	1	Production Liner,	Fresh Water
12	07/23/15	Frac Sleeve	12,106	4,665	12,107	4,665.50	Miss Lime - Upper	1	Production Liner,	Fresh Water
11	07/23/15	Frac Sleeve	12,324	4,670	12,325	4,669.60	Miss Lime - Upper	1	Production Liner,	Fresh Water
10	07/23/15	Frac Sleeve	12,548	4,674	12,549	4,674.40	Miss Lime - Upper	1	Production Liner,	Fresh Water
9	07/23/15	Frac Sleeve	12,774	4,672	12,775	4,671.70	Miss Lime - Upper	1	Production Liner,	Fresh Water

### Bascom Farms 3408 1-433 Perforations & Shot Density

Stage Number	Date	Type	Top Depth	Top Depth (TVD)	Bottom Depth	Bottom Depth (TVD)	Zone	Shot Density	String Perforated	Fluid Type
8	07/23/15	Frac Sleeve	12,995	4,664	12,996	4,664.10	Miss Lime - Upper	1	Production Liner,	Fresh Water
7	07/23/15	Frac Sleeve	13,219	4,658	13,220	4,658.20	Miss Lime - Upper	1	Production Liner,	Fresh Water
6	07/23/15	Frac Sleeve	13,437	4,657	13,438	4,657.30	Miss Lime - Upper	1	Production Liner,	Fresh Water
5	07/22/15	Frac Sleeve	13,667	4,655	13,668	4,655.20	Miss Lime - Upper	1	Production Liner,	Fresh Water
4	07/22/15	Frac Sleeve	13,889	4,655	13,890	4,654.90	Miss Lime - Upper	1	Production Liner,	Fresh Water
3	07/22/15	Frac Sleeve	14,116	4,648	14,117	4,648.10	Miss Lime - Upper	1	Production Liner,	Fresh Water
2	07/22/15	Frac Sleeve	14,343	4,649	14,344	4,649.40	Miss Lime - Upper	1	Production Liner,	Fresh Water
1	07/22/15	P-Sleeve	14,526	4,654	14,527	4,654.20	Miss Lime - Upper	1	Production Liner,	Fresh Water

## SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
1800.0	0.00	0.00	1800.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
2190.5	7.81	233.17	2189.3	-15.9	-21.3	2.00	233.17	-15.4	Start 1639.5 hold at 2190.5 MD
3830.0	7.81	233.17	3813.6	-149.5	-199.6	0.00	0.00	-144.7	Start DLS 8.00 TFO 130.03
4640.8	60.00	0.00	4491.9	207.5	-249.1	8.00	130.03	213.4	Start 200.0 hold at 4640.8 MD
4840.8	60.00	0.00	4591.9	380.7	-249.1	0.00	0.00	386.6	Start Build 10.00
5141.8	90.10	0.00	4668.7	668.2	-249.1	10.00	0.00	674.0	Landing Point
14889.6	90.10	0.00	4651.810416.0	-249.0	0.00	143.49	00419.0		TD at 14889.6

WELL DETAILS: Bascom Farms 3408 1-4H33

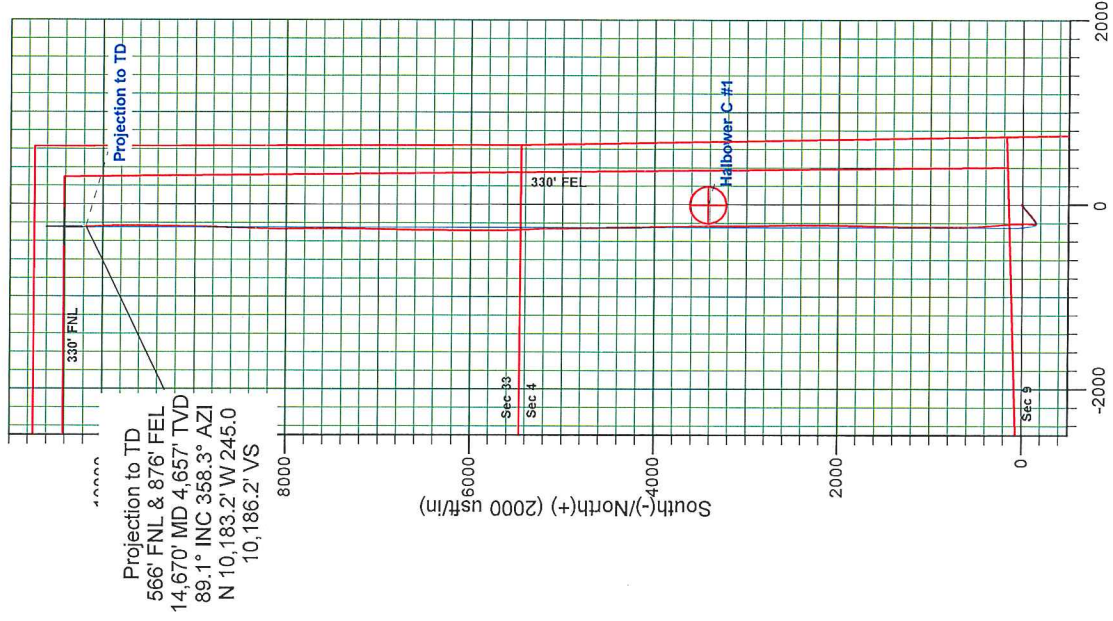
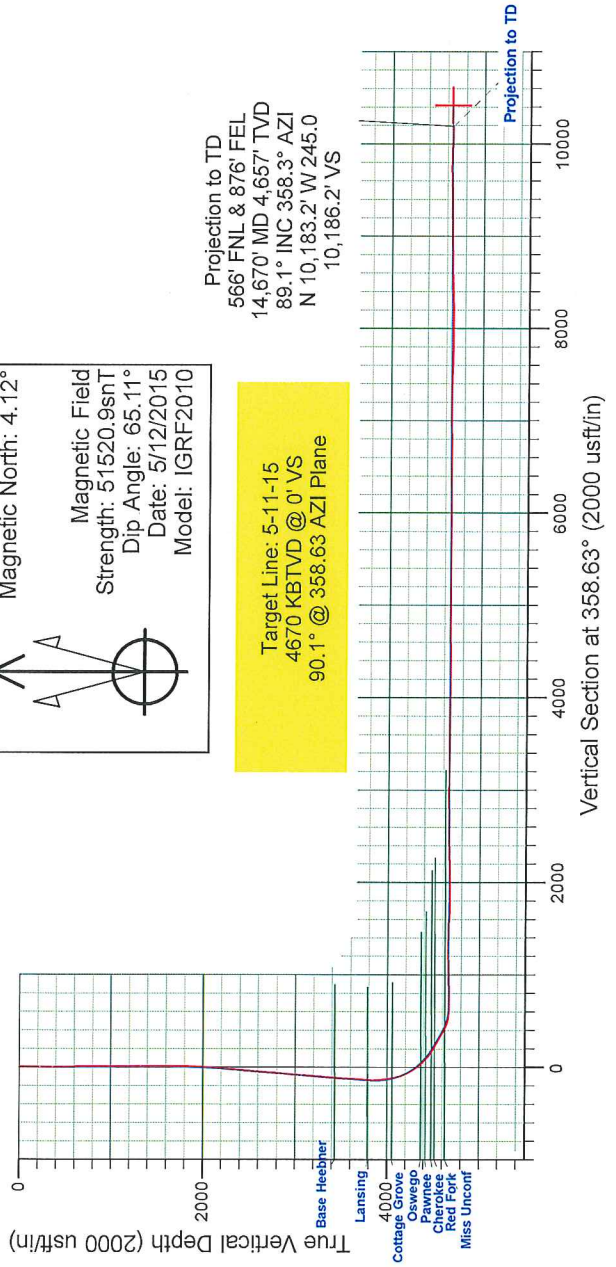
Ground Level:	1337.0
Northing	160866.00
Easting	2091500.00
Latitude	37° 6' 28.938 N
Longitude	98° 11' 10.508 W

Project: Harper County (NAD-27)

Site: Sec 09-T34S-R08W

Well: Bascom Farms 3408 1-4H33

Plan: Plan 051115 A0 (Bascom Farms 3408 1-4H33/Wellbore #1)



Company: Sandridge

Customer Rep Position

Directional Driller  
Scott Graham

MWD Operator  
Charlie Minyard

Well Name: Bascom Farms 3408 1-4H33

Legals: Sec: 9 Township: 34S Range:  
County/State: Harper KS  
Rig Name: Lariat 20

John Sartori

Bradley Jacks

## Bascom Farms 1-4H33 Surveys

Type	M Depth	Incl.	Azimuth	TVD	North	East	V Section	Dogleg	B Rate	T Rate	Clos Azi	Clos Dist
TieInPoint	0	0	0	0	0	0	0	0	0	0	0	0
Survey	804	1.1	30.8	803.95	6.63	3.95	6.53	0.14	0.14	3.83	30.79	7.72
Survey	1078	0.6	38.7	1077.92	10.01	6.2	9.86	0.19	0.18	2.88	31.77	11.77
Survey	1443	0.7	253.1	1442.91	10.85	5.26	10.72	0.34	0.03	39.89	25.86	12.06
Survey	1810	0.3	278.5	1809.9	10.34	2.16	10.29	0.12	0.11	6.92	11.8	10.56
Survey	1901	3.5	238.7	1900.83	8.93	-0.45	8.94	3.6	3.52	43.74	357.12	8.94
Survey	1993	6.3	232.4	1992.49	4.39	-6.85	4.55	3.09	3.04	6.85	302.65	8.14
Survey	2084	8.9	233.9	2082.68	-2.8	-16.5	-2.4	2.87	2.86	1.65	260.37	16.74
Survey	2175	8.2	233.8	2172.67	-10.79	-27.42	-10.13	0.77	0.77	0.11	248.52	29.47
Survey	2267	7.7	228.7	2263.78	-18.73	-37.34	-17.83	0.94	0.54	5.54	243.36	41.77
Survey	2358	7.3	228.1	2354	-26.61	-46.23	-25.5	0.45	0.44	0.66	240.08	53.34
Survey	2449	6.6	222.5	2444.33	-34.33	-54.07	-33.03	1.07	0.77	6.15	237.59	64.05
Survey	2540	6.9	227	2534.7	-41.91	-61.6	-40.43	0.67	0.33	4.95	235.77	74.51
Survey	2631	8.3	234.9	2624.9	-49.42	-70.97	-47.71	1.92	1.54	8.68	235.15	86.48
Survey	2722	7.9	230.5	2714.99	-57.17	-81.17	-55.21	0.81	0.44	4.84	234.84	99.28
Survey	2813	7.8	227.9	2805.14	-65.29	-90.58	-63.11	0.41	0.11	2.86	234.22	111.66
Survey	2905	7.8	227.1	2896.29	-73.73	-99.79	-71.32	0.12	0	0.87	233.54	124.07
Survey	2996	6.5	225.7	2986.58	-81.53	-108	-78.92	1.44	1.43	1.54	232.95	135.32
Survey	3087	7.6	232	3076.89	-88.83	-116.42	-86.02	1.48	1.21	6.92	232.66	146.44
Survey	3179	6.6	230.4	3168.18	-95.94	-125.29	-92.92	1.11	1.09	1.74	232.56	157.8
Survey	3270	8.6	230.8	3258.38	-103.57	-134.59	-100.32	2.2	2.2	0.44	232.42	169.83
Survey	3361	7.2	227	3348.51	-111.76	-144.04	-108.28	1.64	1.54	4.18	232.19	182.31
Survey	3452	7.2	240.4	3438.8	-118.47	-153.17	-114.77	1.84	0	14.73	232.28	193.64
Survey	3544	6.5	239.8	3530.14	-123.94	-162.68	-120.02	0.76	0.76	0.65	232.7	204.51
Survey	3635	7.4	232.6	3620.47	-130.09	-171.79	-125.95	1.37	0.99	7.91	232.86	215.49
Survey	3727	6.4	221.3	3711.81	-137.54	-179.88	-133.2	1.83	1.09	12.28	232.6	226.44
Survey	3818	7.1	245.7	3802.2	-143.67	-188.35	-139.13	3.22	0.77	26.81	232.66	236.89
Survey	3850	9.4	264.8	3833.87	-144.72	-192.76	-140.07	11.09	7.19	59.69	233.1	241.04
Survey	3880	11.4	279.3	3863.38	-144.47	-198.13	-139.69	10.93	6.67	48.33	233.9	245.21
Survey	3911	10.9	292.6	3893.8	-142.85	-203.86	-137.94	8.43	1.61	42.9	234.98	248.93
Survey	3941	9.1	305.7	3923.35	-140.37	-208.4	-135.35	9.63	6	43.67	236.04	251.27
Survey	3972	8.4	324.5	3953.99	-137.1	-211.71	-132	9.45	2.26	60.65	237.07	252.23
Survey	4002	8.5	344	3983.67	-133.18	-213.59	-128.04	9.51	0.33	65	238.06	251.71
Survey	4032	8.3	2.8	4013.36	-128.89	-214.1	-123.73	9.14	0.67	62.67	238.95	249.9
Survey	4063	9.6	11.8	4043.98	-124.12	-213.46	-118.98	6.15	4.19	29.03	239.82	246.92
Survey	4094	12.3	10.2	4074.41	-118.34	-212.35	-113.23	8.76	8.71	5.16	240.87	243.1
Survey	4124	15.4	8.9	4103.53	-111.26	-211.17	-106.18	10.38	10.33	4.33	242.22	238.69
Survey	4154	18.3	8.7	4132.24	-102.67	-209.84	-97.62	9.67	9.67	0.67	243.93	233.61
Survey	4184	21.5	7.6	4160.45	-92.56	-208.4	-87.55	10.74	10.67	3.67	246.05	228.03
Survey	4215	24.2	5.7	4189.01	-80.6	-207.02	-75.63	9.03	8.71	6.13	248.73	222.16
Survey	4245	26	3.9	4216.18	-67.92	-205.96	-62.98	6.52	6	6	251.75	216.87
Survey	4276	28.6	2.3	4243.72	-53.73	-205.2	-48.81	8.71	8.39	5.16	255.33	212.12
Survey	4306	31.4	1.2	4269.7	-38.74	-204.75	-33.83	9.51	9.33	3.67	259.29	208.38
Survey	4337	33.7	359.9	4295.83	-22.06	-204.59	-17.16	7.75	7.42	4.19	263.85	205.78
Survey	4367	36.1	359.6	4320.44	-4.9	-204.67	-0.01	8.02	8	1	268.63	204.73
Survey	4398	38.2	359	4345.14	13.82	-204.9	18.71	6.87	6.77	1.94	273.86	205.37
Survey	4428	40.9	359.6	4368.27	32.92	-205.13	37.81	9.09	9	2	279.12	207.75
Survey	4459	43.8	359.4	4391.18	53.8	-205.31	58.69	9.36	9.35	0.65	284.68	212.24
Survey	4489	47	358	4412.24	75.15	-205.81	80.05	11.17	10.67	4.67	290.06	219.1
Survey	4520	49.9	356.6	4432.8	98.32	-206.9	103.24	9.95	9.35	4.52	295.42	229.07
Survey	4550	53	355.2	4451.5	121.72	-208.59	126.67	10.96	10.33	4.67	300.27	241.51
Survey	4581	56	354.2	4469.5	146.85	-210.92	151.85	10.03	9.68	3.23	304.85	257.01
Survey	4642	61.5	355.7	4501.13	198.77	-215.49	203.87	9.26	9.02	2.46	312.69	293.16
Survey	4733	60.5	355.4	4545.25	278.12	-221.67	283.34	1.14	1.1	0.33	321.44	355.65
Survey	4824	59.1	354.6	4591.02	356.47	-228.52	361.83	1.72	1.54	0.88	327.34	423.43
Survey	4855	60.6	354.9	4606.59	383.16	-230.97	388.57	4.91	4.84	0.97	328.92	447.39
Survey	4885	63.8	355.4	4620.58	409.6	-233.21	415.06	10.77	10.67	1.67	330.34	471.34
Survey	4916	67.3	356	4633.41	437.73	-235.32	443.23	11.43	11.29	1.94	331.74	496.97
Survey	4947	71.3	356.3	4644.37	466.66	-237.27	472.2	12.93	12.9	0.97	333.05	523.52
Survey	4978	75.3	356.6	4653.27	496.29	-239.11	501.86	12.94	12.9	0.97	334.28	550.89
Survey	5009	79.4	357.2	4660.06	526.49	-240.74	532.1	13.36	13.23	1.94	335.43	578.92
Survey	5038	82.9	357.9	4664.52	555.11	-241.96	560.74	12.3	12.07	2.41	336.45	605.55
Survey	5068	85.8	359	4667.47	584.95	-242.77	590.59	10.33	9.67	3.67	337.46	633.33
Survey	5098	88.2	0.3	4669.04	614.91	-242.95	620.54	9.1	8	4.33	338.44	661.16
Survey	5128	89.6	0.6	4669.62	644.9	-242.72	650.52	4.77	4.67	1	339.38	689.06
Survey	5212	90.4	359.9	4669.62	728.9	-242.35	734.49	1.27	0.95	0.83	341.61	768.13
Survey	5307	90.3	359.2	4669.04	823.89	-243.1	829.47	0.74	0.11	0.74	343.56	859.01



## Bascom Farms 1-4H33 Surveys

Type	M Depth	Incl.	Azimuth	TVD	North	East	V Section	Dogleg	B Rate	T Rate	Clos Azi	Clos Dist
Survey	5399	90.8	359.7	4668.16	915.88	-243.98	921.45	0.77	0.54	0.54	345.08	947.82
Survey	5491	91	359.5	4666.71	1007.87	-244.62	1013.43	0.31	0.22	0.22	346.36	1037.13
Survey	5584	91.1	0	4665.01	1100.85	-245.03	1106.39	0.55	0.11	0.54	347.45	1127.79
Survey	5676	92.9	0.8	4661.8	1192.79	-244.39	1198.29	2.14	1.96	0.87	348.42	1217.57
Survey	5768	90.2	1.6	4659.31	1284.72	-242.46	1290.15	3.06	2.93	0.87	349.31	1307.4
Survey	5861	88.3	1.1	4660.53	1377.69	-240.27	1383.04	2.11	2.04	0.54	350.11	1398.48
Survey	5952	88.3	0.9	4663.22	1468.63	-238.68	1473.92	0.22	0	0.22	350.77	1487.9
Survey	6045	88.4	1.5	4665.9	1561.57	-236.74	1566.78	0.65	0.11	0.65	351.38	1579.41
Survey	6136	88.3	1.2	4668.52	1652.51	-234.59	1657.65	0.35	0.11	0.33	351.92	1669.08
Survey	6228	88.3	1.4	4671.25	1744.44	-232.51	1749.5	0.22	0	0.22	352.41	1759.87
Survey	6319	89.4	1.2	4673.08	1835.4	-230.44	1840.38	1.23	1.21	0.22	352.84	1849.81
Survey	6410	91	2	4672.76	1926.36	-227.9	1931.26	1.97	1.76	0.88	353.25	1939.79
Survey	6501	90.2	0.3	4671.81	2017.33	-226.08	2022.16	2.06	0.88	1.87	353.61	2029.96
Survey	6592	90.6	0.5	4671.17	2108.33	-225.44	2113.12	0.49	0.44	0.22	353.9	2120.35
Survey	6683	90.8	0.9	4670.06	2199.32	-224.33	2204.05	0.49	0.22	0.44	354.18	2210.73
Survey	6774	91.9	0.8	4667.92	2290.28	-222.98	2294.96	1.21	1.21	0.11	354.44	2301.11
Survey	6866	91	358.7	4665.59	2382.24	-223.38	2386.9	2.48	0.98	2.28	354.64	2392.69
Survey	6957	89.5	359	4665.19	2473.21	-225.21	2477.89	1.68	1.65	0.33	354.8	2483.44
Survey	7048	90.2	358.8	4665.43	2564.19	-226.95	2568.88	0.8	0.77	0.22	354.94	2574.21
Survey	7139	90.5	359	4664.87	2655.17	-228.7	2659.88	0.4	0.33	0.22	355.08	2665
Survey	7232	91.4	359.1	4663.33	2748.14	-230.24	2752.86	0.97	0.97	0.11	355.21	2757.77
Survey	7325	90.4	359.9	4661.87	2841.13	-231.05	2845.84	1.38	1.08	0.86	355.35	2850.51
Survey	7419	90.3	359.3	4661.3	2935.12	-231.71	2939.82	0.65	0.11	0.64	355.49	2944.25
Survey	7514	89.2	359.6	4661.71	3030.11	-232.62	3034.81	1.2	1.16	0.32	355.61	3039.03
Survey	7608	90.5	359.7	4661.96	3124.11	-233.2	3128.79	1.39	1.38	0.11	355.73	3132.8
Survey	7703	89.1	0.2	4662.29	3219.11	-233.28	3223.77	1.56	1.47	0.53	355.86	3227.55
Survey	7798	89.8	0.1	4663.2	3314.1	-233.03	3318.72	0.74	0.74	0.11	355.98	3322.28
Survey	7892	91.1	359.1	4662.46	3408.1	-233.69	3412.71	1.74	1.38	1.06	356.08	3416.1
Survey	7987	90.2	359.5	4661.38	3503.08	-234.85	3507.69	1.04	0.95	0.42	356.16	3510.94
Survey	8081	89	359.1	4662.04	3597.07	-236	3601.68	1.35	1.28	0.43	356.25	3604.8
Survey	8176	88.5	358.4	4664.11	3692.02	-238.07	3696.66	0.91	0.53	0.74	356.31	3699.69
Survey	8270	89.5	358.5	4665.75	3785.97	-240.61	3790.64	1.07	1.06	0.11	356.36	3793.61
Survey	8364	91.5	358.9	4664.93	3879.94	-242.74	3884.63	2.17	2.13	0.43	356.42	3887.53
Survey	8459	90.2	358.9	4663.52	3974.91	-244.57	3979.62	1.37	1.37	0	356.48	3982.43
Survey	8553	88.4	358.9	4664.67	4068.88	-246.37	4073.61	1.91	1.91	0	356.53	4076.33
Survey	8648	89.1	359.1	4666.74	4163.84	-248.03	4168.58	0.77	0.74	0.21	356.59	4171.22
Survey	8742	88.8	359.4	4668.47	4257.82	-249.26	4262.56	0.45	0.32	0.32	356.65	4265.11
Survey	8837	89.9	359.2	4669.54	4352.8	-250.42	4357.54	1.18	1.16	0.21	356.71	4360
Survey	8932	91.3	359.5	4668.55	4447.79	-251.5	4452.53	1.51	1.47	0.32	356.76	4454.89
Survey	9026	91	0	4666.66	4541.77	-251.91	4546.49	0.62	0.32	0.53	356.83	4548.75
Survey	9121	91.7	359.5	4664.42	4636.74	-252.32	4641.45	0.91	0.74	0.53	356.89	4643.6
Survey	9216	89.6	359.5	4663.35	4731.72	-253.15	4736.42	2.21	2.21	0	356.94	4738.49
Survey	9310	88.7	357.9	4664.74	4825.68	-255.28	4830.4	1.95	0.96	1.7	356.97	4832.43
Survey	9405	90.2	357.4	4665.66	4920.59	-259.18	4925.38	1.66	1.58	0.53	356.98	4927.41
Survey	9499	90.2	359.8	4665.33	5014.56	-261.47	5019.38	2.55	0	2.55	357.02	5021.37
Survey	9594	91.4	359.9	4664	5109.55	-261.72	5114.35	1.27	1.26	0.11	357.07	5116.25
Survey	9688	88.6	359.2	4664	5203.54	-262.46	5208.33	3.07	2.98	0.74	357.11	5210.15
Survey	9783	90	357.2	4665.16	5298.48	-265.44	5303.31	2.57	1.47	2.11	357.13	5305.12
Survey	9869	90.4	355.9	4664.86	5384.32	-270.62	5389.25	1.58	0.47	1.51	357.12	5391.12
Survey	9961	90	357.5	4664.54	5476.17	-275.91	5481.2	1.79	0.43	1.74	357.12	5483.12
Survey	10053	89.2	357.8	4665.18	5568.09	-279.68	5573.19	0.93	0.87	0.33	357.12	5575.11
Survey	10140	89.3	359.2	4666.32	5655.05	-281.96	5660.17	1.61	0.11	1.61	357.15	5662.07
Survey	10232	89.6	359.6	4667.2	5747.04	-282.92	5752.16	0.54	0.33	0.43	357.18	5754
Survey	10325	90.1	359.1	4667.45	5840.03	-283.98	5845.15	0.76	0.54	0.54	357.22	5846.93
Survey	10416	91	1	4666.57	5931.02	-283.9	5936.11	2.31	0.99	2.09	357.26	5937.81
Survey	10508	91.5	0.8	4664.56	6022.99	-282.46	6028.02	0.59	0.54	0.22	357.31	6029.61
Survey	10599	89.5	0.2	4663.77	6113.98	-281.66	6118.97	2.29	2.2	0.66	357.36	6120.46
Survey	10690	89.9	0.4	4664.25	6204.98	-281.18	6209.93	0.49	0.44	0.22	357.41	6211.35
Survey	10781	89.4	1.1	4664.8	6295.97	-279.99	6300.86	0.95	0.55	0.77	357.45	6302.19
Survey	10872	89.5	0.4	4665.68	6386.95	-278.8	6391.79	0.78	0.11	0.77	357.5	6393.03
Survey	10963	90.2	0	4665.92	6477.95	-278.48	6482.76	0.89	0.77	0.44	357.54	6483.93
Survey	11054	90.7	0.3	4665.2	6568.94	-278.24	6573.71	0.64	0.55	0.33	357.57	6574.83
Survey	11146	91.5	1.4	4663.44	6660.92	-276.88	6665.64	1.48	0.87	1.2	357.62	6666.67
Survey	11237	92.1	1.1	4660.58	6751.85	-274.9	6756.49	0.74	0.66	0.33	357.67	6757.44
Survey	11328	90.5	1.5	4658.52	6842.8	-272.83	6847.37	1.81	1.76	0.44	357.72	6848.24
Survey	11419	89.8	0.7	4658.28	6933.78	-271.08	6938.28	1.17	0.77	0.88	357.76	6939.08
Survey	11512	89.3	1	4659.01	7026.77	-269.71	7031.21	0.63	0.54	0.32	357.8	7031.94
Survey	11605	90.9	1	4658.85	7119.75	-268.09	7124.12	1.72	1.72	0	357.84	7124.8
Survey	11699	89.4	0.9	4658.6	7213.74	-266.53	7218.05	1.6	1.6	0.11	357.88	7218.66
Survey	11794	89.1	0.6	4659.85	7308.72	-265.29	7312.97	0.45	0.32	0.32	357.92	7313.53
Survey	11888	89.5	1	4661	7402.7	-263.98	7406.9	0.6	0.43	0.43	357.96	7407.41
Survey	11983	88.9	1.1	4662.32	7497.68	-262.24	7501.81	0.64	0.63	0.11	358	7502.26
Survey	12077	88.3	359.6	4664.62	7591.64	-261.66	7595.73	1.72	0.64	1.6	358.03	7596.15
Survey	12172	89	0	4666.86	7686.61	-261.99	7690.68	0.85	0.74	0.42	358.05	7691.07
Survey	12266	89.1	359	4668.42	7780.59	-262.81	7784.65	1.07	0.11	1.06	358.07	7785.03
Survey	12361	88.4	358.5	4670.49	7875.55	-264.88	7879.63	0.91	0.74	0.53	358.07	7880
Survey	12455	88.8	358.1	4672.79	7969.48	-267.67	7973.6	0.6	0.43	0.43	358.08	7973.97
Survey	12549	89.3	0.3	4674.35	8063.45	-268.98	8067.58	2.4	0.53	2.34	358.09	8067.94
Survey	12644	90.1	2.1	4674.85	8158.42	-266.99	8162.47	2.07	0.84	1.89	358.13	8162.79
Survey	12739	92.1	2.7	4673.03	8253.31	-263.01	8257.24	2.2	2.11	0.63	358.17	8257.5
Survey	12834	92.5	2.9	4669.21	8348.12	-258.38	8351.91	0.47	0.42	0.21	358.23	8352.12
Survey	12929	91.6	1.9	4665.81	8442.97	-254.4	8446.64	1.42	0.95	1.05	358.27	8446.8
Survey	13024	91.3	1	4663.41	8537.91	-252	8541.49	1	0.32	0.95	358.31	8541.63
Survey	13118	92.1	0.5	4660.62	8631.86	-250.77	8635.39	1	0.85	0.53	358.34	8635.5
Survey	13213	90.7	1.1	4658.3	8726.82	-249.44	8730.29	1.6	1.47	0.63	358.36	8730.38
Survey	13308	90.3	1.1	4657.47	8821.8	-247.62	8825.2	0.42	0.42	0	358.39	8825.27
Survey	13403	89.9	1.3	4657.31	8916.78	-245.63	8920.1	0.47	0.42	0.21	358.42	8920.16
Survey	13497	90.6	1.3	4656.9	9010.75	-243.5	9014	0.74	0.74	0	358.45	9014.04

## Bascom Farms 1-4H33 Surveys

Type	M Depth	Incl.	Azimuth	TVD	North	East	V Section	Dogleg	B Rate	T Rate	Clos Azi	Clos Dist
Survey	13592	90.4	2.1	4656.07	9105.71	-240.68	9108.86	0.87	0.21	0.84	358.49	9108.89
Survey	13687	91.1	2	4654.83	9200.64	-237.28	9203.68	0.74	0.74	0.11	358.52	9203.7
Survey	13781	89.3	0.7	4654.5	9294.61	-235.07	9297.57	2.36	1.91	1.38	358.55	9297.58
Survey	13876	90.1	1	4655	9389.6	-233.66	9392.5	0.9	0.84	0.32	358.57	9392.51
Survey	13970	91.9	0.6	4653.36	9483.57	-232.35	9486.41	1.96	1.91	0.43	358.6	9486.42
Survey	14065	92.4	0.2	4649.8	9578.5	-231.69	9581.3	0.67	0.53	0.42	358.61	9581.3
Survey	14159	90.3	359.3	4647.59	9672.47	-232.1	9675.25	2.43	2.23	0.96	358.63	9675.25
Survey	14254	89.2	359	4648	9767.46	-233.51	9770.25	1.2	1.16	0.32	358.63	9770.25
Survey	14349	89	358.5	4649.49	9862.43	-235.58	9865.24	0.57	0.21	0.53	358.63	9865.24
Survey	14444	88.2	358	4651.81	9957.36	-238.48	9960.22	0.99	0.84	0.53	358.63	9960.22
Survey	14538	88.5	358.6	4654.52	10051.28	-241.27	10054.18	0.71	0.32	0.64	358.62	10054.18
Survey	14615	89.1	358.3	4656.13	10128.23	-243.35	10131.15	0.87	0.78	0.39	358.62	10131.15
PrjCalcPnt	14670	89.1	358.3	4656.99	10183.2	-244.98	10186.15	0	0	0	358.62	10186.15



SandRidge Energy  
Bascom Farms 3408 1-4H33  
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 Bascom Farms 3408 1-4H33 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 3500 psi. After a successful test we began the job by pumping 10 bbls of preflush spacer. We then mixed and pumped the following cements:

80.72 bbl	245 Sacks of 13.2 ppg
Class A Slurry -	1.85 Yield
2% Calcium Chloride	
2% Gypsum	
2% NAMS	
.25 lb/sk Flocele	

32.06 bbl	150 Sacks of 15.6 ppg
Class A Slurry -	1.2 Yield
2% Calcium Chloride	
.25 lb/sk Flocele	

The top plug was then released and displaced with 57.5 Bbls of fresh water. The plug bumped and pressured up to 1000 psi. Pressure was released and floats held with .75 bbl back. 30 Bbl circulated to the pit.

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.





Slurry Details									
<b>SPACER</b>		Water Req gal/sk	0	Yield ft <sup>3</sup> /sk	0	# Sacks	0		
Fluid Composition									
Super spacer									
Total BBL	Average Dens PPG	Average Rate Bpm	Average Press PSI	Max Rate Bpm	Max Press PSI	Planned Dens PPG	Density Accuracy %	Start Time	End Time
31.3	8.9	5.94	275	9.47	358	0	0	3:53 PM	3:58 PM

<b>LEAD CEMENT</b>		Water Req gal/sk	6.75	Yield ft <sup>3</sup> /sk	1.4	# Sacks	170		
Fluid Composition									
Lead cement									
Total BBL	Average Dens PPG	Average Rate Bpm	Average Press PSI	Max Rate Bpm	Max Press PSI	Planned Dens PPG	Density Accuracy %	Start Time	End Time
42.5	13.4	280	6	0	6	0	0	3:58 PM	4:04 PM

<b>TAIL CEMENT</b>		Water Req gal/sk	5.16	Yield ft <sup>3</sup> /sk	1.19	# Sacks	100		
Fluid Composition									
Tail cement									
Total BBL	Average Dens PPG	Average Rate Bpm	Average Press PSI	Max Rate Bpm	Max Press PSI	Planned Dens PPG	Density Accuracy %	Start Time	End Time
22	15.5	6.64	211	11.96	325	0	0	4:11 PM	4:22 PM

<b>FW</b>		Water Req gal/sk	0	Yield ft <sup>3</sup> /sk	0	# Sacks	0		
Fluid Composition									
Displacment									
Total BBL	Average Dens PPG	Average Rate Bpm	Average Press PSI	Max Rate Bpm	Max Press PSI	Planned Dens PPG	Density Accuracy %	Start Time	End Time
189	0.11	4.53	350	9.59	773	0	100	4:28 PM	5:09 PM

Event Summary					
Activity Description (Job Marker)	Dens PPG	Press PSI	Rate bpm	Total bbl	Time
PRESSURE TEST	9.17	1919.00	0.00	6.30	3:51:20 PM
PUMP SPACER	9.06	6.00	0.00	0.00	3:58:30 PM
PUMP LEAD	14.38	281.00	4.38	8.00	4:08:00 PM
PUMP TAIL	13.54	194.00	6.00	0.00	4:16:06 PM
DISPLACEMENT	10.08	-6.00	1.40	0.00	4:25:42 PM
Paused 17:16:18	0.11	-11.00	0.00	197.80	5:16:17 PM

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/25/2015
Job End Date:	7/26/2015
State:	Kansas
County:	Harper
API Number:	15-077-22147-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Bascom Farms #1-4H33
Longitude:	-98.18624970
Latitude:	37.10803778
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,655
Total Base Water Volume (gal):	4,259,514
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	95.10375	None
40/70 Preferred Sand	CAF	Proppant, Scouring, Fill					
			Crystalline Silica (quartz)	14808-60-7	100.00000	4.56492	None
15% Uninhibited HCl Acid	CAF	Etching, Dissolving, Cleaning					
			Water	7732-18-5	85.00000	0.23462	None
			Hydrochloric Acid	7647-01-0	15.00000	0.04140	None
SI-2	CAF	Scale Inhibitor					
			Water	7732-18-5	50.00000	0.00567	None
			Hydrochloric Acid	7647-01-0	16.80000	0.00191	None
			Ethylene Glycol	107-21-1	12.70000	0.00144	None
			Methanol	67-56-1	3.60000	0.00041	None
FR-1	CAF	Friction Reducer					
			Petroleum Hydrotreated Light Distillate	64742-47-8	2.50000	0.00108	None
CIA-1	CAF	Acid Corrosion Inhibitor					
			Water	7732-18-5	24.00000	0.00011	None
			Methanol	67-56-1	9.00000	0.00004	None

			Tar Bases-quinoline derivs-benzyl chloride/quaternized	72480-70-7	8.40000	0.00004	None
			Ethylene Glycol	107-21-1	8.40000	0.00004	None
			Ethoxylated Nonylphenol	68412-54-4	8.40000	0.00004	None
			Isopropyl Alcohol	67-63-0	8.40000	0.00004	None
			2-Butoxyethanol	111-76-2	8.40000	0.00004	None
			Triethyl Phosphate	78-40-0	8.40000	0.00004	None
			Cinnamaldehyde	104-55-2	8.40000	0.00004	None
			N-Dimethylformamide	68-12-2	8.40000	0.00004	None
NE-1	CAF	Non-Emulsifier					
			Water	7732-18-5	54.50000	0.00007	None
			Water	7732-18-5	54.50000	0.00007	None
			Isopropanol	67-63-0	13.60000	0.00002	None
			Polyglycol Ethers	52624-57-4	13.60000	0.00002	None
			Methanol	67-56-1	9.00000	0.00001	None
			Glycol Ether EB	111-76-2	9.00000	0.00001	None
			Methanol	67-56-1	9.00000	0.00001	None
IC-3	CAF	Iron Control					
			Sodium Erythorbate	6381-77-7	100.00000	0.00009	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)