

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1242817  
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: \_\_\_\_\_

1242817

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			
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)*

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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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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'	FNL	FSL	FWL	FEL
	SHL	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5057	201	1540
BHL	8521	91.38	357.87	4659.68	3910.72	-815.57	3906.97	10.10	1147	4109	786	4476
Miss Entry	4992	76.10	349.43	4645.99	388.62	-750.24	385.22	8.57	4669	587	796	4452
Top Perf	5128	85.65	354.59	4666.44	521.57	-768.35	518.08	5.81	4536	720	780	4469
Bottom Port	8502	90.74	357.65	4665.34	3891.75	-814.59	3888.00	8.02	1166	4090	787	4475

Survey Points		X	Y	Surface XY		X	Y	m				
NW Corner XY Coord		2092238	161040			2093858	155981	North Line slope	-0.0015189			
SW Corner XY Coord		2092321	155784					East Line slope	-0.0117871			
NE Corner XY Coord		2097505	161032					South Line slope	-0.0022875			
SE Corner XY Coord		2097567	155772					West Line slope	-0.0157915			

Measured Depth (ft)	Sub-Sea Incl. (deg)	Vertical Azim. (deg)	True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vert Section (ft)	DLS deg/100'	FNL	FSL	FWL	FEL
0	0.0	0	0	0	0	0	0	5057	201	1540	3707
794	0.82	282.38	793.97	1.22	-5.55	1.19	0.10	5055	202	1535	3712
886	0.64	290.97	885.97	1.54	-6.67	1.51	0.23	5055	202	1533	3713
976	0.43	280.03	975.96	1.78	-7.47	1.75	0.26	5055	202	1533	3714
1067	0.56	275.09	1066.96	1.88	-8.25	1.84	0.15	5055	202	1532	3715
1158	0.6	287.35	1157.95	2.06	-9.15	2.02	0.14	5054	203	1531	3716
1250	0.6	286.15	1249.95	2.34	-10.07	2.29	0.01	5054	203	1530	3717
1341	0.45	279.74	1340.94	2.53	-10.88	2.48	0.18	5054	203	1529	3717
1433	0.41	271.85	1432.94	2.60	-11.57	2.55	0.08	5054	203	1529	3718
1520	2.34	277.2	1519.91	2.84	-13.64	2.78	2.22	5054	203	1527	3720
1608	5.08	289.78	1607.72	4.38	-19.09	4.29	3.23	5052	205	1521	3726
1695	7.38	280.11	1694.20	6.67	-28.22	6.54	2.90	5050	207	1512	3735
1782	9.13	273.7	1780.30	8.09	-40.61	7.91	2.27	5049	209	1500	3747
1870	11.05	272	1866.94	8.84	-56.01	8.58	2.21	5048	209	1484	3762
1957	12.38	268.1	1952.12	8.82	-73.66	8.48	1.78	5048	209	1467	3780
2045	12.63	261.39	2038.04	7.07	-92.60	6.65	1.67	5050	207	1448	3799
2132	12.76	253.09	2122.92	2.85	-111.20	2.34	2.10	5054	203	1429	3818
2219	14.49	250.06	2207.47	-3.66	-130.63	-4.25	2.15	5060	197	1409	3837
2307	15.32	247.7	2292.51	-11.83	-151.73	-12.51	1.17	5069	188	1388	3858
2392	15.19	249.65	2374.51	-19.96	-172.56	-20.74	0.62	5077	180	1367	3879
2480	14.32	250.76	2459.61	-27.56	-193.65	-28.43	1.04	5084	173	1346	3901
2567	14.05	250.1	2543.96	-34.70	-213.73	-35.66	0.36	5092	165	1326	3921
2655	15.19	252.53	2629.11	-41.79	-234.78	-42.86	1.47	5099	158	1305	3942
2740	16.61	256.38	2710.86	-48.00	-257.21	-49.16	2.08	5105	152	1282	3964
2828	16.73	258.12	2795.16	-53.57	-281.83	-54.84	0.58	5111	146	1257	3989
2915	18.3	251.88	2878.13	-60.39	-307.06	-61.79	2.81	5117	139	1232	4014
3002	18.12	248.72	2960.78	-69.55	-332.65	-71.06	1.15	5127	130	1206	4040
3090	15.28	246.07	3045.06	-79.22	-356.01	-80.84	3.34	5136	120	1183	4063
3177	13.35	244.94	3129.35	-88.13	-375.59	-89.83	2.24	5145	112	1163	4083
3264	12.07	244.44	3214.22	-96.31	-392.89	-98.09	1.48	5153	103	1146	4101
3352	13.71	248.55	3300.00	-104.09	-410.90	-105.95	2.13	5161	95	1128	4119
3439	12.99	250.82	3384.65	-111.07	-429.73	-113.02	1.02	5168	88	1109	4138
3526	14.51	253.07	3469.15	-117.46	-449.39	-119.50	1.85	5175	82	1089	4157
3613	17.35	254.78	3552.80	-124.04	-472.34	-126.18	3.31	5181	75	1066	4180
3701	16.39	253.07	3637.02	-131.10	-496.88	-133.36	1.23	5188	68	1041	4205
3788	16.6	250.15	3720.44	-138.90	-520.31	-141.26	0.98	5196	60	1018	4228
3876	15.94	250.77	3804.91	-147.14	-543.55	-149.61	0.78	5205	52	994	4252
3919	14.27	248.54	3846.43	-151.03	-554.06	-153.54	4.11	5208	48	984	4262
3963	14.67	251.36	3889.03	-154.79	-564.38	-157.35	1.84	5212	44	973	4273
4007	14.82	259.65	3931.59	-157.59	-575.20	-160.19	4.80	5215	42	962	4284

High DLS	4051	14.28	275.88	3974.19	-158.04	-586.14	-160.70	9.31	5215	41	951	4295
please slow down	4094	13.83	295.39	4015.93	-155.30	-598.08	-158.08	11.03	5213	44	942	4304
RIH speed to	4138	14.77	311.88	4058.58	-149.35	-605.04	-162.10	9.02	5207	50	933	4313
no greater than	4182	16.91	323.04	4100.92	-140.55	-613.12	-143.93	8.85	5198	59	925	4321
16.5' per min and	4225	20.3	326.58	4141.67	-129.33	-621.00	-132.14	8.31	5187	70	917	4329
took up the	4269	23.72	331.58	4182.46	-115.17	-629.41	-118.02	8.89	5173	84	909	4337
weight line to see	4312	26.85	338.58	4221.34	-98.64	-637.39	-101.54	8.81	5156	100	901	4345
any dragging	4355	28.67	340.34	4260.28	-79.58	-644.89	-82.51	8.74	5137	119	894	4352
	4400	31.19	343.87	4298.41	-58.70	-651.61	-61.65	6.99	5116	140	888	4359
	4444	33.25	348.30	4335.63	-36.02	-657.62	-39.01	5.57	5094	163	882	4365
	4487	35.97	348.01	4371.02	-12.21	-663.63	-15.22	6.69	5070	187	877	4370
	4531	39.62	349.49	4406.02	13.94	-668.22	10.90	6.36	5044	213	872	4375
	4575	41.74	348.05	4439.63	41.77	-673.78	38.72	7.40	5016	241	867	4380
High DLS	4618	46.02	346.8	4470.62	70.84	-680.31	67.75	10.22	4987	270	861	4386
please slow down	4662	49.4	349.65	4500.22	102.60	-687.84	99.38	7.68	4955	301	854	4393
RIH speed to	4706	53.94	348.07	4527.51	136.17	-695.37	133.02	10.62	4921	335	847	4400
no greater than	4749	57.84	348.65	4551.62	171.04	-702.55	187.85	9.14	4887	370	840	4407
16.5' per min and	4792	61.28	348.92	4573.90	208.24	-709.93	205.02	7.82	4849	407	833	4414
took up the	4837	64.83	346.84	4593.91	245.55	-718.16	243.29	8.70	4811	445	826	4422
weight line to see	4880	67.66	345.97	4611.33	284.75	-727.41	261.45	7.06	4773	484	817	4431
any dragging	4924	70.83	347.07	4626.96	324.74	-736.99	321.40	7.79	4733	524	808	4440
	4968	74.29	348.33	4640.15	365.75	-745.93	382.38	8.32	4692	565	800	4448
	5011	77.54	350.3	4650.61	408.79	-753.65	403.91	8.77	4651	606	793	4455
	5055	81.3	352.16	4658.69	449.47	-760.24	446.01	9.49	4608	648	787	4461
	5099	84.54	353.0	4664.11	492.80	-766.54	489.92	8.35	4565	692	782	4466



	Measured Depth (ft)	Sub-Sea Incl. (deg)	Vertical Azim. (deg)	True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vert Section (ft)	DLS deg/100' (deg)	FNL	FSL	FWL	FEL
<b>Top of Tangent</b>	5143	88.22	354.95	4687.65	536.45	-769.60	532.35	4.56	4521	735	779	4470
<b>@ 5143'</b>	5186	86.71	355.29	4670.31	579.21	-773.45	575.69	1.39	4479	778	776	4473
	5230	87.2	355.36	4672.64	623.00	-777.04	619.47	1.12	4435	822	773	4476
	5274	87.83	355.35	4674.55	666.82	-780.60	663.27	1.43	4391	866	770	4479
<b>Set @</b>	<b>5317</b>	<b>88.46</b>	<b>355.64</b>	<b>4675.94</b>	<b>709.66</b>	<b>-783.97</b>	<b>706.10</b>	<b>1.61</b>	4348	908	767	4482
<b>Btm of Tangent</b>	<b>5356</b>	88.81	355.33	4676.87	748.53	-787.04	744.95	1.20	4309	947	765	4485
<b>@ 5337'</b>	5438	89.72	354.6	4677.92	830.20	-794.24	826.59	1.42	4228	1029	759	4491
	5529	88.88	357.14	4679.04	920.95	-800.79	917.31	2.94	4137	1120	754	4496
	5621	90.14	0.8	4679.82	1012.92	-802.44	1009.26	4.21	4045	1212	754	4497
	5739	89.86	2.93	4679.82	1130.85	-798.60	1127.21	1.82	3927	1330	759	4492
	5826	87.97	1.02	4681.47	1217.77	-795.60	1214.15	3.09	3840	1416	764	4488
	5914	87.97	0.74	4684.59	1305.71	-794.25	1302.09	0.32	3752	1504	766	4485
	6001	87.83	1.12	4687.77	1392.64	-792.84	1389.02	0.47	3665	1591	769	4483
	6087	89.93	359.49	4689.46	1478.61	-792.39	1475.00	3.09	3579	1677	771	4481
	6175	90.49	359.1	4689.13	1566.60	-793.47	1562.99	0.78	3491	1765	771	4482
	6262	92.1	358.24	4687.17	1653.55	-795.49	1649.93	2.10	3404	1852	771	4483
	6349	91.19	359.49	4684.67	1740.50	-797.21	1736.86	1.78	3317	1939	770	4483
	6437	88.6	359.81	4684.83	1828.49	-797.75	1824.85	2.97	3229	2027	771	4483
	6524	88.11	0.43	4687.33	1915.45	-797.56	1911.81	0.91	3142	2114	773	4482
	6612	89.93	359.79	4688.83	2003.43	-797.40	1999.80	2.19	3054	2202	774	4480
	6699	90.21	0.09	4688.73	2090.43	-797.49	2086.79	0.47	2967	2289	776	4479
	6786	94.76	358.69	4684.96	2177.32	-798.41	2173.68	5.47	2880	2376	776	4479
	6874	94.97	359.05	4677.49	2264.99	-800.14	2261.33	0.47	2793	2464	776	4480
	6961	91.19	359.25	4672.82	2351.84	-801.43	2348.18	4.35	2706	2551	776	4480
	7048	89.02	358.85	4672.66	2438.82	-802.87	2435.15	2.54	2619	2637	776	4481
	7136	91.75	0.45	4672.07	2526.81	-803.41	2523.13	3.60	2531	2725	777	4480
	7223	91.75	359.38	4669.41	2613.76	-803.54	2610.09	1.23	2444	2812	778	4479
	7310	89.37	358.19	4668.56	2700.73	-805.38	2697.05	3.06	2357	2899	777	4480
	7398	90.77	359.65	4668.45	2788.71	-807.04	2785.02	2.30	2269	2987	777	4481
	7485	90.28	1.16	4667.66	2875.70	-806.43	2872.01	1.82	2182	3074	779	4479
	7572	90.63	2.08	4666.97	2962.66	-803.97	2958.99	1.13	2095	3161	783	4476
	7660	88.6	3.77	4667.69	3070.51	-798.46	3066.86	2.45	1987	3269	790	4469
	7775	90.14	1.02	4668.74	3165.41	-794.49	3161.77	3.32	1892	3364	796	4464
	7870	91.05	359.41	4667.75	3260.40	-794.13	3256.76	1.95	1797	3459	797	4462
	7964	92.17	359.67	4665.11	3354.36	-794.88	3350.72	1.22	1703	3553	798	4462
	8059	93.36	358.58	4660.53	3449.23	-796.33	3445.59	1.70	1609	3648	798	4462
	8154	90.98	358.05	4656.93	3544.12	-799.12	3540.46	2.57	1514	3743	797	4464
	8249	90.07	357.62	4656.06	3639.05	-802.71	3635.37	1.06	1419	3838	795	4466
	8343	89.37	357.51	4656.52	3732.96	-806.71	3729.26	0.75	1325	3932	792	4469
	8438	88.6	356.93	4658.20	3827.83	-811.31	3824.11	1.01	1230	4026	789	4473
	8461	89.37	357.19	4658.61	3850.80	-812.49	3847.07	3.53	1207	4049	788	4474
	8521	91.3787	357.8683	4659.68	3910.72	-815.57	3906.97	10.10	1147	4109	786	4476

# ALLIED OIL & GAS SERVICES, LLC 065103

Federal Tax I.D. # 20-8651475

REMIT TO: P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:  
MEDICINE LOUKE

DATE <u>11-8-14</u>	SEC. <u>10</u>	TWP. <u>34S</u>	RANGE <u>8W</u>	CALLED OUT <u>0900</u>	ON LOCATION <u>1030</u>	JOB START <u>1930</u>	JOB FINISH <u>1945</u>
LEASE <u>PUSENBURY 3408</u>		WELL# <u>2-10-H</u>		LOCATION <u>160E TO CORN 80 S TO HWY 25</u>		COUNTY <u>HARDY</u>	STATE <u>KS</u>
OLD OR NEW (Circle one) <u>NEW</u>				To CORN 40 SE W1/4			

CONTRACTOR HWD 14 OWNER SANDRIDGE

TYPE OF JOB <u>SURFACE</u>	CEMENT
HOLE SIZE <u>12 1/4</u> T.D. <u>756</u>	AMOUNT ORDERED <u>460 sks A + 28 GEL + 28 CC + 1/4 appx FLO-SEAL</u>
CASING SIZE <u>9 5/8</u> DEPTH <u>759</u>	
TUBING SIZE DEPTH	
DRILL PIPE DEPTH	
TOOL DEPTH	
PRES. MAX MINIMUM	
MEAS. LINE SHOE JOINT	
CEMENT LEFT IN CSG. <u>46</u>	COMMON <u>460</u> @ <u>17.90</u> <u>8,234.00</u>
PERFS.	POZMIX @
DISPLACEMENT <u>55</u>	GEL <u>9 sk</u> @ <u>23.40</u> <u>210.60</u>
	CHLORIDE <u>11 sk</u> @ <u>64.00</u> <u>704.00</u>
	ASC @
	FLO SEAL <u>115</u> @ <u>2.97</u> <u>341.55</u>

EQUIPMENT	
PUMP TRUCK CEMENTER <u>COY PRICE</u>	
# <u>880/199</u> HELPER <u>ANDREW ENIGLES</u>	
BULK TRUCK	
# <u>702/643</u> DRIVER <u>ANTHONY HATTOM/KINDLE HOLLIMAN</u>	
BULK TRUCK	
# DRIVER	
HANDLING	
MILEAGE	

REMARKS: FLOATS DION'T HOLD PUT 800 PSI BACK ON LINE & SHUT IN LEAVING THE HEAD+MANIFOLD

3000 = 2847.04      TOTAL 9490.15

AFE Number: <u>DC14321</u> Well Name: <u>Pusenbury 3408 2-10H</u> Code: <u>830.360</u> Amount: <u>11,226.33</u> Co. Man: <u>Doug Langley</u> Co. Man Sig: <u>Doug Langley</u>	DEPTH OF JOB <u>756</u> PUMP TRUCK CHARGE <u>2,658.56</u> EXTRA FOOTAGE @ MILEAGE <u>40</u> @ <u>4.40</u> <u>176.00</u> MANIFOLD <u>1</u> @ <u>275.00</u> <u>275.00</u> MILEAGE <u>40</u> @ <u>7.70</u> <u>308.00</u> MANIFOLD <u>499.40</u> @ <u>2.48</u> <u>1233.55</u> Mileage <u>901.69</u> @ <u>2.60</u> <u>2344.39</u> Additional hours <u>4 hrs</u> @ <u>440.00</u> <u>1760.00</u> TOTAL <u>8155.44</u> 3000 = 2446.63
CHARGETR Notes: STREET _____ CITY _____ STATE _____ ZIP _____	PLUG & FLOAT EQUIPMENT TOP PLUG <u>1</u> @ <u>184.86</u> <u>184.86</u> @ @ @ @ TOTAL <u>184.86</u> 3000 = 55.45

To: Allied Oil & Gas Services, LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

SALES TAX (If Any) \_\_\_\_\_  
TOTAL CHARGE 17,830.45  
DISCOUNT 50% IF PAID IN 30 DAYS  
NET 12,481.31



# ALLIED OIL & GAS SERVICES, LLC 063876

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT: great Bend

DATE <u>11-18-14</u>	SEC. <u>10</u>	TWP. <u>34</u>	RANGE <u>8</u>	CALLED OUT	ON LOCATION <u>7:00 pm</u>	JOB START <u>4:00 am</u>	JOB FINISH <u>5:00 am</u>
LEASE <u>Dusenbury</u>		WELL # <u>3708 2-10H</u>		LOCATION <u>Anthony W to 80nd St to 40rd</u>		COUNTY <u>Loop</u>	STATE <u>KL</u>
OLD OR <input checked="" type="radio"/> NEW (Circle one)				<u>1/2 E</u>			

CONTRACTOR HVD #14 OWNER same

TYPE OF JOB intermediate

HOLE SIZE 8 3/4 T.D. 5445 CEMENT

CASING SIZE 7" 26H DEPTH 5399.05 AMOUNT ORDERED 240-2x 50/150 27-gel .41

TUBING SIZE DEPTH FI-160 .17 SA51 .14 DF 100-2x class

DRILL PIPE DEPTH A .87 FI-160 .27 CD-31 .14 DF

TOOL DEPTH

PRES. MAX 2000 MINIMUM 800 COMMON 100-2x @ 17.90 1790.00

MEAS. LINE SHOE JOINT 42.55 POZMIX @

CEMENT LEFT IN CSG. 42.55 GEL @

PERFS. CHLORIDE @

DISPLACEMENT H2O 205.15 BBI ASC @

**EQUIPMENT**

PUMP TRUCK CEMENTER Charles King

# 517 HELPER Ben Newell

BULK TRUCK DRIVER Candelario Montecroyol (TWS)

# 870-844 DRIVER same

BULK TRUCK DRIVER

AMOUNT ORDERED 240-2x 50/150 27-gel .41

FI-160 .17 SA51 .14 DF 100-2x class

A .87 FI-160 .27 CD-31 .14 DF

COMMON 100-2x @ 17.90 1790.00

POZMIX @

GEL @

CHLORIDE @

ASC @

DV1100 30 BBI @ 58.70 1761.00

50/150 Blend 240-2x @ 14.40 3456.00

SA-51 21 lb @ 17.55 368.55

CD-31 19 lb @ 10.30 195.70

FI-160 157 lb @ 18.90 2967.30

Materials Total 10,538.55

Disc 30% 3161.57

HANDLING 351.84 @ 2.48 872.56

MILEAGE 603.16 @ 2.60 1568.22

**REMARKS:**

Rig ran 5399.05 7" c/w Barbe Circ w/ Rig  
mud hook to head pump 30 BBI DV1100 mix  
240-2x 50/150 27-gel .41 FI-160 .17 SA51 .14 DF  
100-2x class A .87 FI-160 .27 CD-31 .14 DF  
shot down Release plug displace 205.15 BBI  
BBI H2O plug drill Chand float drill hold

DEPTH OF JOB 5399.05

PUMP TRUCK CHARGE 3099.25

EXTRA FOOTAGE @

MILEAGE 40 mi @ 7.70 308

MANIFOLD @ 275

LVM 40 mi @ 4.40 176

@

CHARGE TO: sand ridge energy

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

TOTAL 6299.03  
Disc 30% 1889.71

**PLUG & FLOAT EQUIPMENT**

Rubber plug 99.45

@

AFE Number: DCL4321 @

Well Name: Dusenbury 3708 2-10H

Code: 830-370 @

Amount: 11855 @

Co. Man: Doug Langley TOTAL 99.45

Co. Man Sig.: Doug Langley Disc 30% 29.83

Notes: \_\_\_\_\_

SALES TAX (if Any) \_\_\_\_\_

TOTAL CHARGES 16937.03

DISCOUNT 5081.11 (30/30/30) IF PAID IN 30 DAYS

11855.92

PRINTED NAME \_\_\_\_\_

SIGNATURE \_\_\_\_\_

*thank you!*

To: Allied Oil & Gas Services, LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	12/9/2014
Job End Date:	12/10/2014
State:	Kansas
County:	Harper
API Number:	15-077-22107-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Dusenbury 3408 2-10H
Longitude:	-98.17822388
Latitude:	37.09459830
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,689
Total Base Water Volume (gal):	2,143,974
Total Base Non Water Volume:	0



## Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Archer	Carrier/Base Fluid	Water	7732-18-5	100.00000	95.62130	None
Sand (Proppant)	Archer	Proppant	Silica Substrate	NA	100.00000	3.21110	None
C102	Bosque Disposal Systems, LLC	Oxidizer	Chlorine Dioxide	10049-04-4	15.00000	0.26543	
Hydrochloric Acid (15%)	Archer	Acidizing	Hydrochloric Acid	7647-01-0	15.00000	0.12056	None
			Methyl Alcohol	67-56-1	80.00000	0.00110	None
			thiourea-formaldehyde copolymer	68527-49-1	15.00000	0.00021	None
AIC	Archer	Liquid Acid Iron Control	Acetic Acid	64-19-7	50.00000	0.00245	None
			Citric Acid	77-92-9	30.00000	0.00147	None
Chemflush	Archer	Enviro-Friendly Chemical Flush	Hydrotreated Petroleum Distillate	64742-47-8	99.00000	0.00071	None
			Alcohol Ethoxylate Surfactants	NA	10.00000	0.00007	None



Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

Other Chemicals							
			Water	7732-18-5			0.04956
			Anionic Polymer	N/A			0.02478
			Aliphatic Hydrocarbon	64742-47-8			0.02478
			Water	7732-18-5			0.00797
			Polyol Ester	N/A			0.00413
			Oxyalkylated Alcohol	68002-97-1			0.00413
			Water	7732-18-5			0.00171
			Sodium Salt of Phosphate Ester	68131-72-6			0.00133
			Acrylic Polymer	28205-96-1			0.00133
			Polyglycol Ester	N/A			0.00083
			Alcohol Ethoxylate Surfactants	N/A			0.00021
			n-olefins	N/A			0.00011
			Tetrasodium Ethylenediaminetetraacetate	64-02-8			0.00008
			Propargyl Alcohol	107-19-7			0.00008
			Cinnamic Aldehyde	104-55-2			
			Acetic Acid	64-19-7			
			Water	7732-18-5			
			WATER	7732-18-5			
			Surfactant	N/A			
			METHANOL	67-56-1			
			Buffer	N/A			
			TRADE SECRET	N/A			
			ISOPROPANOL	67-63-0			

\* 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)

18)

Frac the MISSISSIPPI (Stage 1) as follows using the chemical concentrations below:

	Surfactant (gpt)	ClO <sub>2</sub> (ppm)	Scale Inhibitor (gpt)
Archer/Baker	0	2-3	0.1

NOTE: Pump FR as required to obtain minimum rate of 75 bpm. DO NOT EXCEED 0.75 gal/1000 concentration of FR without prior discussion with engineer.

STAGE 1								
Port @ 8,502'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	11556	275					3
Slickwater	100	7600	181	40/70	0.25	Genoa	1900	2
Slickwater	100	5000	119	40/70	0.50	Genoa	2500	1
Slickwater	100	4200	100					1
Slickwater	100	5067	121	40/70	0.75	Genoa	3800	1
Slickwater	100	4200	100					1
Slickwater	100	4400	105	40/70	1.00	Genoa	4400	1
Slickwater	100	9735	232					2.3
<b>TOTAL</b>		<b>52,507</b>	<b>1,250</b>				<b>12,600</b>	<b>13.2</b>

Frac the MISSISSIPPI (Stage 2) as follows:

Drop 2.500" ball. Reduce rate to 5-10bpm as +/- 79 bbls (50 bbls before ball seats).

STAGE 2								
Port @ 8,364'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	21033	501					5
Slickwater	100	17200	410	40/70	0.25	Genoa	4300	4
Slickwater	100	4200	100					1
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	3
Slickwater	100	4200	100					1
Slickwater	100	11600	276	40/70	0.75	Genoa	8700	3
Slickwater	100	4200	100					1
Slickwater	100	10100	240	40/70	1.00	Genoa	10100	2
Slickwater	100	9645	230					2.3
<b>TOTAL</b>		<b>94,528</b>	<b>2,251</b>				<b>28,900</b>	<b>23.2</b>

Frac the MISSISSIPPI (Stage 3) as follows:

Drop 2.563" ball. Reduce rate to 5-10bpm as +/- 77 bbls (50 bbls before ball seats).

STAGE 3								
Port @ 8,217'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	21344	508					5
Slickwater	100	17600	419	40/70	0.25	Genoa	4400	4
Slickwater	100	4200	100					1
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	3
Slickwater	100	4200	100					1
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	3
Slickwater	100	4200	100					1
Slickwater	100	10300	245	40/70	1.00	Genoa	10300	2
Slickwater	100	9549	227					2.3
<b>TOTAL</b>		<b>95,677</b>	<b>2,278</b>				<b>29,400</b>	<b>23.5</b>

Frac the MISSISSIPPI (Stage 4) as follows:

Drop 2.625" ball. Reduce rate to 5-10bpm as +/- 75 bbls (50 bbls before ball seats).

STAGE 4								
Port @ 8,075 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	20533	489					5
Slickwater	100	16800	400	40/70	0.25	Genoa	4200	4
Slickwater	100	4200	100					1
Slickwater	100	11200	267	40/70	0.50	Genoa	5600	3
Slickwater	100	4200	100					1
Slickwater	100	11200	267	40/70	0.75	Genoa	8400	3
Slickwater	100	4200	100					1
Slickwater	100	9800	233	40/70	1.00	Genoa	9800	2
Slickwater	100	9457	225					2.3
<b>TOTAL</b>		<b>92,340</b>	<b>2,199</b>				<b>28,000</b>	<b>22.7</b>

Frac the MISSISSIPPI (Stage 5) as follows:

Drop 2.688" ball. Reduce rate to 5-10bpm as +/- 72 bbls (50 bbls before ball seats).

STAGE 5								
Port @ 7,935 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	20178	480					5
Slickwater	100	16400	390	40/70	0.25	Genoa	4100	4
Slickwater	100	4200	100					1
Slickwater	100	11000	262	40/70	0.50	Genoa	5500	3
Slickwater	100	4200	100					1
Slickwater	100	10933	260	40/70	0.75	Genoa	8200	3
Slickwater	100	4200	100					1
Slickwater	100	9600	229	40/70	1.00	Genoa	9600	2
Slickwater	100	9366	223					2.2
<b>TOTAL</b>		<b>90,827</b>	<b>2,163</b>				<b>27,400</b>	<b>22.3</b>

Frac the MISSISSIPPI (Stage 6) as follows:

Drop 2.750" ball. Reduce rate to 5-10bpm as +/- 70 bbls (50 bbls before ball seats).

STAGE 6								
Port @ 7,795 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	20889	497					5
Slickwater	100	17200	410	40/70	0.25	Genoa	4300	4
Slickwater	100	4200	100					1
Slickwater	100	11400	271	40/70	0.50	Genoa	5700	3
Slickwater	100	4200	100					1
Slickwater	100	11467	273	40/70	0.75	Genoa	8600	3
Slickwater	100	4200	100					1
Slickwater	100	10000	238	40/70	1.00	Genoa	10000	2
Slickwater	100	9275	221					2.2
<b>TOTAL</b>		<b>93,580</b>	<b>2,228</b>				<b>28,600</b>	<b>23.0</b>



Frac the MISSISSIPPI (Stage 7) as follows:

Drop 2.813" ball. Reduce rate to 5-10bpm as +/- 68 bbls (50 bbls before ball seats).

STAGE 7								
Port @ 7,651'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	21200	505					5
Slickwater	100	17600	419	40/70	0.25	Genoa	4400	4
Slickwater	100	4200	100					1
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	3
Slickwater	100	4200	100					1
Slickwater	100	11600	276	40/70	0.75	Genoa	8700	3
Slickwater	100	4200	100					1
Slickwater	100	10200	243	40/70	1.00	Genoa	10200	2
Slickwater	100	9181	219					2.2
<b>TOTAL</b>		<b>94,731</b>	<b>2,255</b>				<b>29,100</b>	<b>23.3</b>

Frac the MISSISSIPPI (Stage 8) as follows:

Drop 2.875" ball. Reduce rate to 5-10bpm as +/- 66 bbls (50 bbls before ball seats).

STAGE 8								
Port @ 7,508'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	20889	497					5
Slickwater	100	17200	410	40/70	0.25	Genoa	4300	4
Slickwater	100	4200	100					1
Slickwater	100	11400	271	40/70	0.50	Genoa	5700	3
Slickwater	100	4200	100					1
Slickwater	100	11467	273	40/70	0.75	Genoa	8600	3
Slickwater	100	4200	100					1
Slickwater	100	10000	238	40/70	1.00	Genoa	10000	2
Slickwater	100	9088	216					2.2
<b>TOTAL</b>		<b>93,393</b>	<b>2,224</b>				<b>28,600</b>	<b>23.0</b>

Frac the MISSISSIPPI (Stage 9) as follows:

Drop 2.938" ball. Reduce rate to 5-10bpm as +/- 64 bbls (50 bbls before ball seats).

STAGE 9								
Port @ 7,361'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	21344	508					5
Slickwater	100	17600	419	40/70	0.25	Genoa	4400	4
Slickwater	100	4200	100					1
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	3
Slickwater	100	4200	100					1
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	3
Slickwater	100	4200	100					1
Slickwater	100	10300	245	40/70	1.00	Genoa	10300	2
Slickwater	100	8992	214					2.1
<b>TOTAL</b>		<b>95,120</b>	<b>2,265</b>				<b>29,400</b>	<b>23.4</b>

Frac the MISSISSIPPI (Stage 10) as follows:

Drop 3.000" ball. Reduce rate to 5-10bpm as +/- 61 bbls (50 bbls before ball seats).

STAGE 10								
Port @ 7,217 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	21033	501					5
Slickwater	100	17200	410	40/70	0.25	Genoa	4300	4
Slickwater	100	4200	100					1
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	3
Slickwater	100	4200	100					1
Slickwater	100	11600	276	40/70	0.75	Genoa	8700	3
Slickwater	100	4200	100					1
Slickwater	100	10100	240	40/70	1.00	Genoa	10100	2
Slickwater	100	8898	212					2.1
<b>TOTAL</b>		<b>93,782</b>	<b>2,233</b>				<b>28,900</b>	<b>23.0</b>

Frac the MISSISSIPPI (Stage 11) as follows:

Drop 3.063" ball. Reduce rate to 5-10bpm as +/- 59 bbls (50 bbls before ball seats).

STAGE 11								
Port @ 7,076 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	20678	492					5
Slickwater	100	16800	400	40/70	0.25	Genoa	4200	4
Slickwater	100	4200	100					1
Slickwater	100	11400	271	40/70	0.50	Genoa	5700	3
Slickwater	100	4200	100					1
Slickwater	100	11333	270	40/70	0.75	Genoa	8500	3
Slickwater	100	4200	100					1
Slickwater	100	9900	236	40/70	1.00	Genoa	9900	2
Slickwater	100	8806	210					2.1
<b>TOTAL</b>		<b>92,267</b>	<b>2,197</b>				<b>28,300</b>	<b>22.7</b>

Frac the MISSISSIPPI (Stage 12) as follows:

Drop 3.125" ball. Reduce rate to 5-10bpm as +/- 57 bbls (50 bbls before ball seats).

STAGE 12								
Port @ 6,933 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, min
15% HCl acid	20	750	18					1
Slickwater	100	20889	497					5
Slickwater	100	17200	410	40/70	0.25	Genoa	4300	4
Slickwater	100	4200	100					1
Slickwater	100	11400	271	40/70	0.50	Genoa	5700	3
Slickwater	100	4200	100					1
Slickwater	100	11467	273	40/70	0.75	Genoa	8600	3
Slickwater	100	4200	100					1
Slickwater	100	10000	238	40/70	1.00	Genoa	10000	2
Slickwater	100	8714	207					2.1
<b>TOTAL</b>		<b>93,019</b>	<b>2,215</b>				<b>28,600</b>	<b>22.9</b>

Frac the MISSISSIPPI (Stage 13) as follows:

Drop 3.188" ball. Reduce rate to 5-10bpm as +/- 55 bbls (50 bbls before ball seats).

STAGE 13								
Port @ 6,789 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	20989	500					5
Slickwater	100	17200	410	40/70	0.25	Genoa	4300	4
Slickwater	100	4200	100					1
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	3
Slickwater	100	4200	100					1
Slickwater	100	11467	273	40/70	0.75	Genoa	8600	3
Slickwater	100	4200	100					1
Slickwater	100	10100	240	40/70	1.00	Genoa	10100	2
Slickwater	100	8620	205					2.1
<b>TOTAL</b>		<b>93,325</b>	<b>2,222</b>				<b>28,800</b>	<b>22.9</b>

Frac the MISSISSIPPI (Stage 14) as follows:

Drop 3.250" ball. Reduce rate to 5-10bpm as +/- 52 bbls (50 bbls before ball seats).

STAGE 14								
Port @ 6,642 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	21244	506					5
Slickwater	100	17600	419	40/70	0.25	Genoa	4400	4
Slickwater	100	4200	100					1
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	3
Slickwater	100	4200	100					1
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	3
Slickwater	100	4200	100					1
Slickwater	100	10200	243	40/70	1.00	Genoa	10200	2
Slickwater	100	8524	203					2.0
<b>TOTAL</b>		<b>94,252</b>	<b>2,244</b>				<b>29,200</b>	<b>23.2</b>

Frac the MISSISSIPPI (Stage 15) as follows:

Drop 3.313" ball. Reduce rate to 5-10bpm as +/- 50 bbls (50 bbls before ball seats).

STAGE 15								
Port @ 6,503 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	20533	489					5
Slickwater	100	16800	400	40/70	0.25	Genoa	4200	4
Slickwater	100	4200	100					1
Slickwater	100	11200	267	40/70	0.50	Genoa	5600	3
Slickwater	100	4200	100					1
Slickwater	100	11200	267	40/70	0.75	Genoa	8400	3
Slickwater	100	4200	100					1
Slickwater	100	9800	233	40/70	1.00	Genoa	9800	2
Slickwater	100	8434	201					2.0
<b>TOTAL</b>		<b>91,317</b>	<b>2,174</b>				<b>28,000</b>	<b>22.5</b>



Frac the MISSISSIPPI (Stage 16) as follows:

Drop 3.375" ball. Reduce rate to 5-10bpm as +/- 48 bbls (50 bbls before ball seats).

STAGE 16								
Port @ 6,357'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	21311	507					5
Slickwater	100	17600	419	40/70	0.25	Genoa	4400	4
Slickwater	100	4200	100					1
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	3
Slickwater	100	4200	100					1
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	3
Slickwater	100	4200	100					1
Slickwater	100	10200	243	40/70	1.00	Genoa	10200	2
Slickwater	100	8338	199					2.0
<b>TOTAL</b>		<b>94,333</b>	<b>2,246</b>				<b>29,300</b>	<b>23.2</b>

Frac the MISSISSIPPI (Stage 17) as follows:

Drop 3.438" ball. Reduce rate to 5-10bpm as +/- 46 bbls (50 bbls before ball seats).

STAGE 17								
Port @ 6,211'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	21311	507					5
Slickwater	100	17600	419	40/70	0.25	Genoa	4400	4
Slickwater	100	4200	100					1
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	3
Slickwater	100	4200	100					1
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	3
Slickwater	100	4200	100					1
Slickwater	100	10200	243	40/70	1.00	Genoa	10200	2
Slickwater	100	8243	196					2.0
<b>TOTAL</b>		<b>94,238</b>	<b>2,244</b>				<b>29,300</b>	<b>23.2</b>

Frac the MISSISSIPPI (Stage 18) as follows:

Drop 3.500" ball. Reduce rate to 5-10bpm as +/- 44 bbls (50 bbls before ball seats).

STAGE 18								
Port @ 6,067'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	20533	489					5
Slickwater	100	16800	400	40/70	0.25	Genoa	4200	4
Slickwater	100	4200	100					1
Slickwater	100	11200	267	40/70	0.50	Genoa	5600	3
Slickwater	100	4200	100					1
Slickwater	100	11200	267	40/70	0.75	Genoa	8400	3
Slickwater	100	4200	100					1
Slickwater	100	9800	233	40/70	1.00	Genoa	9800	2
Slickwater	100	8150	194					1.9
<b>TOTAL</b>		<b>91,033</b>	<b>2,167</b>				<b>28,000</b>	<b>22.4</b>

Frac the MISSISSIPPI (Stage 19) as follows:

Drop 3.563" ball. Reduce rate to 5-10bpm as +/- 41 bbbls (50 bbbls before ball seats).

STAGE 19								
Port @ 5,925'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	21311	507					5
Slickwater	100	17600	419	40/70	0.25	Genoa	4400	4
Slickwater	100	4200	100					1
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	3
Slickwater	100	4200	100					1
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	3
Slickwater	100	4200	100					1
Slickwater	100	10200	243	40/70	1.00	Genoa	10200	2
Slickwater	100	8057	192					1.9
<b>TOTAL</b>		<b>94,052</b>	<b>2,239</b>				<b>29,300</b>	<b>23.1</b>

Frac the MISSISSIPPI (Stage 20) as follows:

Drop 3.625" ball. Reduce rate to 5-10bpm as +/- 70 bbbls (50 bbbls before ball seats).

STAGE 20								
Port @ 5,784'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	20678	492					5
Slickwater	100	16800	400	40/70	0.25	Genoa	4200	4
Slickwater	100	4200	100					1
Slickwater	100	11400	271	40/70	0.50	Genoa	5700	3
Slickwater	100	4200	100					1
Slickwater	100	11333	270	40/70	0.75	Genoa	8500	3
Slickwater	100	4200	100					1
Slickwater	100	9900	236	40/70	1.00	Genoa	9900	2
Slickwater	100	7965	190					1.9
<b>TOTAL</b>		<b>91,426</b>	<b>2,177</b>				<b>28,300</b>	<b>22.5</b>

Frac the MISSISSIPPI (Stage 21) as follows:

Drop 3.688" ball. Reduce rate to 5-10bpm as +/- 68 bbbls (50 bbbls before ball seats).

STAGE 21								
Port @ 5,637'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	21244	506					5
Slickwater	100	17600	419	40/70	0.25	Genoa	4400	4
Slickwater	100	4200	100					1
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	3
Slickwater	100	4200	100					1
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	3
Slickwater	100	4200	100					1
Slickwater	100	10200	243	40/70	1.00	Genoa	10200	2
Slickwater	100	7870	187					1.9
<b>TOTAL</b>		<b>93,598</b>	<b>2,229</b>				<b>29,200</b>	<b>23.0</b>

Frac the MISSISSIPPI (Stage 22) as follows:

Drop 3.750" ball. Reduce rate to 5-10bpm as +/- 66 bbls (50 bbls before ball seats).

STAGE 22								
Port @ 5,491 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					1
Slickwater	100	26056	620					6
Slickwater	100	22400	533	40/70	0.25	Genoa	5600	5
Slickwater	100	4200	100					1
Slickwater	100	15000	357	40/70	0.50	Genoa	7500	4
Slickwater	100	4200	100					1
Slickwater	100	15067	359	40/70	0.75	Genoa	11300	4
Slickwater	100	4200	100					1
Slickwater	100	13100	312	40/70	1.00	Genoa	13100	3
Slickwater	100	7775	185					1.9
<b>TOTAL</b>		<b>112,747</b>	<b>2,684</b>				<b>37,500</b>	<b>27.6</b>

SWI at lower frac valve. ND frac head and frac lines. NU frac lines to 4" wing valves on each side of 5K completion spool. Pressure test lines to 6000 psig. Max STP is 5000 psig. Frac Mississippi Lime Stage 23 down 7" x 4-1/2" annulus as follows:

STAGE 23							
Top perf @ 5,128 '							
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop, lbs	Time, min
15% HCl acid	20	1000	24				1
Slickwater	60	63000	1500				25
15% HCl acid	20	1000	24				1
Slickwater	60	63000	1500				25
<b>TOTAL</b>		<b>128,000</b>	<b>3,048</b>				<b>52.4</b>

**TOTAL FRAC JOB VOLUMES: 51,431 bbls 624,700 lbs, Prop**



Section 4  
34S 8W

Section 3  
34S 8W

1147' FNL

786' FWL

**BHL: 8521'**  
**-98.181701 37.105206**  
**Bottom Perf: 8502'**  
**-98.181696 37.105154**

Section 9  
34S 8W

Section 10  
34S 8W

Harper County

**Top Perf: 5128'**  
**-98.181268 37.095992**  
**Miss Entry: 4992'**  
**-98.181195 37.095632**

DUSENBURY 3408 2-10H HUNT 3408 1-15H

YETI SWD 3408 2-15

Section 16  
34S 8W

Section 15  
34S 8W

DUSENBURY 3408 1-10H YETI SWD 3408 1-15

HUNT 3408 2-15H

\*

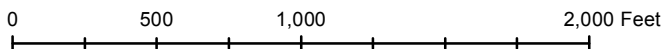
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HUNT 3408 3-15H



**Actual Bottom-Hole Location of Dusenbury 3408 2-10H**  
**T&R: 34S 8W**  
**Section: 3410, 786' FWL & 1147' FNL**  
**-98.181701 37.105206**

1 in = 666 ft



● Actual BH Location

\* SandRidge Wells

--- Perf

□ Sections

Draftsman:

Dory Deines

Draft Date: 2/17/2015

Drawing Name/Number:

Addendum\_Dusenbury 3408 2-10H.mxd

Coordinate System:

NAD 1927 State Plane  
Kansas South FIPS: 1502