

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1247505  
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: \_\_\_\_\_

1247505

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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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> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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# MWD SURVEYS

Customer: Tapstone Energy  
Well: Thomas 17-34-7 #1H  
Field/Block: Mississippi Lime  
Co./Parish: Harper County  
State: Kansas

PGS Job #: LKS6117015  
MWD Operator: Cody Sargent  
Directional Driller: Jared Gooch  
Date of First Survey: February 9, 2015  
Date of Last Survey: February 20, 2015



Total Correction: 4.05 East Grid

Vertical Section Plane: 358.83 Nominal Dip Angle: 65.11 Magnetic Field Strength: .515

Measured Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	Coordinates		Closure			MTR YLD	Temp (°F)	Vib/Shk			
					+N/-S	+E/-W	Dist.	Angle	DLS			Color	Date	Time	Flow Rate
<b>Survey's are tied into:</b> Assume Vertical at Casing Shoe at MD 813'										<b>Date Received:</b>					
<b>Company:</b>															
<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>					
1	826.00	0.10	333.50	826.00	0.65	0.65	-0.32	0.72	333.50	0.01	0.00	81.5	02/09/15	6:30	250 (gpm)
2	921.00	0.50	302.70	921.00	0.96	0.94	-0.71	1.18	323.13	0.44	0.00	84	02/09/15	7:15	250 (gpm)
3	1,015.00	0.80	287.30	1014.99	1.39	1.36	-1.68	2.16	309.00	0.37	0.00	88	02/09/15	7:44	250 (gpm)
4	1,110.00	0.90	296.20	1109.98	1.95	1.89	-2.98	3.53	302.32	0.17	0.00	88	02/09/15	8:14	300 (gpm)
5	1,205.00	0.90	304.50	1204.97	2.73	2.64	-4.27	5.02	301.74	0.14	0.00	90	02/09/15	8:44	300 (gpm)
6	1,299.00	0.70	320.00	1298.96	3.60	3.50	-5.24	6.30	303.70	0.31	0.00	93	02/09/15	9:10	300 (gpm)
7	1,394.00	0.50	340.40	1393.96	4.45	4.33	-5.76	7.20	306.96	0.30	0.00	97	02/09/15	9:48	300 (gpm)
8	1,489.00	1.00	344.50	1488.95	5.64	5.52	-6.12	8.24	312.07	0.53	0.00	99	02/09/15	10:27	300 (gpm)
9	1,583.00	0.80	348.50	1582.94	7.09	6.95	-6.47	9.50	317.08	0.22	0.00	99	02/09/15	11:03	300 (gpm)
10	1,678.00	0.90	233.10	1677.93	7.30	7.16	-7.20	10.15	314.85	1.51	0.00	104	02/09/15	11:58	300 (gpm)
11	1,774.00	0.80	218.70	1773.92	6.35	6.18	-8.22	10.28	306.95	0.24	0.00	106	02/09/15	12:45	300 (gpm)
12	1,867.00	0.90	221.00	1866.91	5.31	5.12	-9.10	10.44	299.37	0.11	0.00	110	02/09/15	13:42	590 (gpm)
13	1,961.00	0.80	215.80	1960.90	4.24	4.03	-9.97	10.76	292.02	0.13	0.00	113	02/09/15	14:35	590 (gpm)
14	2,056.00	0.60	212.00	2055.89	3.29	3.07	-10.62	11.06	286.14	0.22	0.00	108	02/09/15	15:52	590 (gpm)
15	2,150.00	0.90	181.90	2149.88	2.14	1.92	-10.91	11.07	279.98	0.52	0.00	108	02/09/15	17:00	370 (gpm)
16	2,243.00	0.90	178.70	2242.87	0.68	0.46	-10.91	10.92	272.40	0.05	0.00	110	02/09/15	18:00	370 (gpm)
17	2,337.00	0.80	167.90	2336.86	-0.70	-0.92	-10.76	10.80	265.11	0.20	0.00	115	02/09/15	19:02	370 (gpm)
18	2,432.00	1.00	163.40	2431.85	-2.15	-2.36	-10.38	10.65	257.17	0.22	0.00	117	02/09/15	19:52	370 (gpm)
19	2,526.00	1.30	158.20	2525.83	-3.94	-4.14	-9.75	10.60	247.00	0.34	0.00	119	02/09/15	20:33	370 (gpm)
20	2,621.00	1.20	150.80	2620.81	-5.83	-6.01	-8.87	10.71	235.88	0.20	0.00	122	02/09/15	21:16	370 (gpm)
21	2,716.00	1.30	150.90	2715.79	-7.66	-7.82	-7.86	11.09	225.15	0.11	0.00	122	02/09/15	22:24	370 (gpm)
22	2,810.00	1.50	153.80	2809.76	-9.71	-9.86	-6.80	11.97	214.60	0.23	0.00	122	02/09/15	23:29	370 (gpm)
23	2,905.00	1.60	165.60	2904.72	-12.13	-12.26	-5.92	13.61	205.78	0.35	0.00	126	02/10/15	0:23	370 (gpm)
24	2,998.00	1.60	159.30	2997.69	-14.62	-14.73	-5.14	15.60	199.23	0.19	0.00	126	02/10/15	1:05	370 (gpm)
25	3,091.00	0.60	143.80	3090.67	-16.24	-16.34	-4.39	16.91	195.04	1.11	0.00	128	02/10/15	1:51	370 (gpm)
26	3,185.00	0.40	130.30	3184.67	-16.86	-16.94	-3.85	17.38	192.80	0.25	0.00	131	02/10/15	3:09	370 (gpm)
27	3,278.00	0.60	130.70	3277.66	-17.40	-17.47	-3.23	17.77	190.48	0.22	0.00	90.5	02/10/15	4:05	370 (gpm)

# MWD SURVEYS

Customer: Tapstone Energy  
Well: Thomas 17-34-7 #1H  
Field/Block: Mississippi Lime  
Co./Parish: Harper County  
State: Kansas

PGS Job #: LKS6117015  
MWD Operator: Cody Sargent  
Directional Driller: Jared Gooch  
Date of First Survey: February 9, 2015  
Date of Last Survey: February 20, 2015



Total Correction: 4.05 East Grid

Vertical Section Plane: 358.83 Nominal Dip Angle: 65.11 Magnetic Field Strength: .515

Measured Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	Coordinates		Closure			MTR YLD	Temp (°F)	Vib/Shk Color	Date	Time	Flow Rate
					+N / -S	+E / -W	Dist.	Angle	DLS						
28	3,373.00	0.80	101.10	3372.66	-17.88	-17.92	-2.20	18.06	187.01	0.43	0.00	92.5	02/10/15	4:49	370 (gpm)
29	3,468.00	0.90	66.60	3467.65	-17.73	-17.76	-0.87	17.78	182.80	0.54	0.00	97	02/10/15	5:29	370 (gpm)
30	3,562.00	0.70	51.60	3561.64	-17.11	-17.11	0.26	17.11	179.14	0.31	0.00	101	02/10/15	6:18	600 (gpm)
31	3,656.00	0.80	17.60	3655.63	-16.14	-16.12	0.91	16.15	176.78	0.48	0.00	104	02/10/15	6:59	600 (gpm)
32	3,749.00	1.20	358.60	3748.61	-14.55	-14.53	1.08	14.57	175.75	0.55	0.00	108	02/10/15	7:53	600 (gpm)
33	3,843.00	1.50	347.40	3842.59	-12.36	-12.35	0.79	12.37	176.35	0.42	0.00	113	02/10/15	8:52	600 (gpm)
34	3,938.00	1.40	347.80	3937.56	-10.00	-10.00	0.27	10.00	178.45	0.11	0.00	117	02/10/15	9:56	470 (gpm)
35	3,970.00	1.80	354.10	3969.55	-9.12	-9.12	0.14	9.12	179.15	1.36	0.00	113	02/10/15	10:14	470 (gpm)
36	4,001.00	4.60	1.50	4000.49	-7.39	-7.39	0.12	7.39	179.08	9.11	13.40	115	02/10/15	11:11	520 (gpm)
37	4,032.00	8.10	4.30	4031.30	-3.97	-3.97	0.31	3.98	175.47	11.33	11.30	117	02/10/15	11:41	520 (gpm)
38	4,063.00	10.90	2.10	4061.87	1.13	1.14	0.59	1.28	27.19	9.11	9.11	117	02/10/15	12:13	520 (gpm)
39	4,094.00	13.20	0.80	4092.19	7.59	7.61	0.74	7.65	5.57	7.47	11.50	117	02/10/15	13:33	520 (gpm)
40	4,125.00	14.90	1.00	4122.26	15.11	15.13	0.86	15.16	3.26	5.49	8.50	113	02/10/15	14:25	520 (gpm)
41	4,156.00	16.90	2.30	4152.07	23.59	23.62	1.11	23.65	2.70	6.55	8.50	117	02/10/15	16:08	520 (gpm)
42	4,188.00	19.40	2.00	4182.48	33.55	33.58	1.48	33.62	2.53	7.82	10.80	119	02/10/15	17:11	520 (gpm)
43	4,218.00	22.60	1.40	4210.48	44.28	44.33	1.80	44.36	2.32	10.69	13.30	122	02/10/15	18:24	520 (gpm)
44	4,250.00	26.60	1.00	4239.57	57.59	57.64	2.07	57.68	2.06	12.51	16.00	124	02/10/15	19:49	520 (gpm)
45	4,281.00	29.80	0.70	4266.89	72.23	72.29	2.29	72.32	1.81	10.33	16.00	124	02/10/15	20:49	520 (gpm)
46	4,312.00	32.00	0.60	4293.48	88.14	88.21	2.47	88.24	1.60	7.10	12.20	126	02/10/15	22:06	520 (gpm)
47	4,343.00	34.30	359.40	4319.44	105.08	105.16	2.46	105.18	1.34	7.72	15.90	128	02/10/15	23:12	520 (gpm)
48	4,375.00	36.40	358.40	4345.54	123.60	123.67	2.10	123.68	0.98	6.81	12.10	128	02/11/15	0:24	520 (gpm)
49	4,406.00	38.60	357.90	4370.13	142.47	142.53	1.49	142.53	0.60	7.16	14.70	128	02/11/15	1:25	520 (gpm)
50	4,437.00	40.90	357.30	4393.96	162.28	162.33	0.66	162.33	0.23	7.52	12.90	128	02/11/15	2:12	520 (gpm)
51	4,468.00	42.20	356.40	4417.16	182.83	182.86	-0.47	182.86	359.85	4.61	11.90	128	02/11/15	3:24	520 (gpm)
52	4,499.00	43.60	357.50	4439.87	203.92	203.93	-1.59	203.94	359.55	5.12	11.30	131	02/11/15	4:45	520 (gpm)
53	4,530.00	45.20	359.20	4462.02	225.61	225.61	-2.21	225.62	359.44	6.43	13.20	129	02/11/15	6:06	520 (gpm)
54	4,561.00	47.50	1.30	4483.42	248.03	248.03	-2.10	248.04	359.51	8.89	16.20	131	02/11/15	7:21	520 (gpm)
55	4,592.00	49.60	0.20	4503.94	271.25	271.27	-1.80	271.27	359.62	7.28	17.30	131	02/11/15	8:31	520 (gpm)
56	4,624.00	51.80	1.10	4524.20	295.99	296.03	-1.52	296.03	359.71	7.21	16.50	128	02/11/15	11:13	520 (gpm)
57	4,656.00	53.70	1.30	4543.57	321.44	321.49	-0.99	321.49	359.82	5.96	13.60	128	02/11/15	12:13	520 (gpm)

# MWD SURVEYS

Customer: Tapstone Energy  
Well: Thomas 17-34-7 #1H  
Field/Block: Mississippi Lime  
Co./Parish: Harper County  
State: Kansas

PGS Job #: LKS6117015  
MWD Operator: Cody Sargent  
Directional Driller: Jared Gooch  
Date of First Survey: February 9, 2015  
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Total Correction: 4.05 East Grid

Vertical Section Plane: 358.83 Nominal Dip Angle: 65.11 Magnetic Field Strength: .515

	Measured		Coordinates				Closure		Vib/Shk							
	Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N / -S	+E / -W	Dist.	Angle	DLS	MTR YLD	Temp (°F)	Color	Date	Time	Flow Rate
58	4,687.00	55.20	0.90	4561.60	346.65	346.71	-0.50	346.71	359.92	4.95	12.80	131		02/11/15	13:44	520 (gpm)
59	4,718.00	57.30	0.40	4578.82	372.41	372.48	-0.21	372.48	359.97	6.91	13.38	131		02/11/15	15:01	520 (gpm)
60	4,749.00	59.50	358.40	4595.06	398.80	398.88	-0.49	398.88	359.93	8.97	17.30	133		02/11/15	16:04	520 (gpm)
61	4,781.00	61.70	358.10	4610.77	426.68	426.74	-1.35	426.74	359.82	6.92	13.80	135		02/11/15	17:10	520 (gpm)
62	4,813.00	63.40	358.10	4625.52	455.07	455.12	-2.29	455.13	359.71	5.31	0.00	128		02/11/15	21:20	520 (gpm)
63	4,828.00	63.80	358.10	4632.19	468.51	468.55	-2.73	468.56	359.67	2.67	0.00	128		02/11/15	21:41	520 (gpm)
64	4,844.00	64.20	358.10	4639.20	482.89	482.92	-3.21	482.93	359.62	2.50	0.00	131		02/11/15	22:12	520 (gpm)
65	4,870.00	64.70	359.00	4650.42	506.35	506.37	-3.80	506.39	359.57	3.67	0.00	122		02/12/15	16:01	520 (gpm)
66	4,901.00	65.70	359.10	4663.42	534.49	534.51	-4.27	534.53	359.54	3.24	0.00	117		02/12/15	16:08	520 (gpm)
67	4,933.00	66.40	358.80	4676.41	563.73	563.75	-4.81	563.77	359.51	2.35	0.00	115		02/12/15	16:16	520 (gpm)
68	4,964.00	66.40	358.40	4688.82	592.14	592.15	-5.50	592.17	359.47	1.18	0.00	115		02/12/15	16:20	520 (gpm)
69	4,995.00	66.50	357.70	4701.21	620.55	620.55	-6.47	620.58	359.40	2.09	0.00	119		02/12/15	17:33	520 (gpm)
70	5,026.00	66.30	357.00	4713.62	648.95	648.93	-7.78	648.97	359.31	2.17	0.00	126		02/12/15	18:16	520 (gpm)
71	5,058.00	65.90	356.20	4726.58	678.18	678.13	-9.51	678.20	359.20	2.61	0.00	128		02/12/15	19:21	520 (gpm)
72	5,090.00	68.10	356.10	4739.08	707.61	707.52	-11.49	707.61	359.07	6.88	12.90	131		02/12/15	21:04	520 (gpm)
73	5,121.00	71.10	356.40	4749.89	736.63	736.51	-13.39	736.63	358.96	9.72	17.70	133		02/12/15	22:17	520 (gpm)
74	5,152.00	73.70	355.90	4759.26	766.14	765.99	-15.38	766.14	358.85	8.53	16.50	133		02/12/15	23:36	520 (gpm)
75	5,183.00	76.40	354.80	4767.26	796.03	795.84	-17.81	796.04	358.72	9.36	13.10	137		02/13/15	0:51	520 (gpm)
76	5,215.00	79.30	355.40	4773.99	827.25	827.00	-20.48	827.26	358.58	9.25	22.70	140		02/13/15	2:23	520 (gpm)
77	5,247.00	82.20	355.40	4779.14	858.77	858.48	-23.01	858.79	358.46	9.06	17.00	144		02/13/15	3:45	520 (gpm)
78	5,321.00	85.20	358.10	4787.26	932.26	931.90	-27.17	932.30	358.33	5.44	0.00	131		02/14/15	17:40	235 (gpm)
79	5,336.00	85.20	358.10	4788.51	947.21	946.84	-27.67	947.24	358.33	0.00	0.00	131		02/14/15	18:32	235 (gpm)
80	5,366.00	85.00	357.90	4791.08	977.09	976.71	-28.71	977.13	358.32	0.94	0.00	131		02/14/15	20:25	235 (gpm)
81	5,396.00	86.20	358.50	4793.38	1,007.00	1,006.61	-29.65	1,007.05	358.31	4.47	5.60	133		02/14/15	22:01	235 (gpm)
82	5,426.00	86.60	358.10	4795.26	1,036.94	1,036.54	-30.54	1,036.99	358.31	1.88	2.60	133		02/15/15	0:45	235 (gpm)
83	5,456.00	87.90	358.20	4796.70	1,066.91	1,066.49	-31.51	1,066.95	358.31	4.35	5.40	133		02/15/15	2:36	235 (gpm)
84	5,486.00	89.40	357.80	4797.41	1,096.89	1,096.46	-32.55	1,096.94	358.30	5.17	5.17	137		02/15/15	3:31	235 (gpm)
85	5,517.00	90.10	358.20	4797.54	1,127.89	1,127.44	-33.64	1,127.94	358.29	2.60	3.80	135		02/15/15	4:50	235 (gpm)
86	5,548.00	90.90	358.40	4797.27	1,158.89	1,158.42	-34.56	1,158.94	358.29	2.66	7.40	135		02/15/15	6:37	235 (gpm)
87	5,578.00	92.00	358.90	4796.51	1,188.88	1,188.40	-35.26	1,188.93	358.30	4.03	3.80	140		02/15/15	7:31	235 (gpm)

# MWD SURVEYS

Customer: Tapstone Energy  
Well: Thomas 17-34-7 #1H  
Field/Block: Mississippi Lime  
Co./Parish: Harper County  
State: Kansas

PGS Job #: LKS6117015  
MWD Operator: Cody Sargent  
Directional Driller: Jared Gooch  
Date of First Survey: February 9, 2015  
Date of Last Survey: February 20, 2015



Total Correction: 4.05 East Grid

Vertical Section Plane: 358.83 Nominal Dip Angle: 65.11 Magnetic Field Strength: .515

	Measured		Coordinates				Closure			Vib/Shk						
	Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N / -S	+E / -W	Dist.	Angle	DLS	MTR YLD	Temp (°F)	Color	Date	Time	Flow Rate
88	5,608.00	92.90	359.30	4795.23	1,218.85	1,218.37	-35.73	1,218.90	358.32	3.28	3.28	140		02/15/15	8:18	235 (gpm)
89	5,638.00	92.90	359.10	4793.71	1,248.81	1,248.33	-36.15	1,248.86	358.34	0.67	0.00	140		02/15/15	9:02	235 (gpm)
90	5,668.00	92.80	359.40	4792.22	1,278.77	1,278.29	-36.54	1,278.81	358.36	1.05	0.00	140		02/15/15	10:01	235 (gpm)
91	5,699.00	92.90	359.60	4790.68	1,309.73	1,309.25	-36.81	1,309.77	358.39	0.72	0.00	140		02/15/15	10:51	235 (gpm)
92	5,729.00	92.80	0.50	4789.19	1,339.69	1,339.22	-36.79	1,339.72	358.43	3.01	0.00	142		02/15/15	11:36	235 (gpm)
93	5,759.00	92.60	0.60	4787.77	1,369.64	1,369.18	-36.50	1,369.67	358.47	0.75	0.00	142		02/15/15	12:19	235 (gpm)
94	5,789.00	91.40	0.20	4786.73	1,399.61	1,399.16	-36.29	1,399.63	358.51	4.22	0.00	142		02/15/15	13:05	235 (gpm)
95	5,819.00	91.80	0.30	4785.89	1,429.59	1,429.15	-36.16	1,429.61	358.55	1.37	0.00	144		02/15/15	13:44	235 (gpm)
96	5,849.00	91.40	0.40	4785.05	1,459.57	1,459.14	-35.98	1,459.58	358.59	1.37	0.00	144		02/15/15	14:34	235 (gpm)
97	5,880.00	91.00	0.90	4784.40	1,490.54	1,490.13	-35.63	1,490.55	358.63	2.07	0.00	142		02/15/15	15:21	235 (gpm)
98	5,909.00	91.60	1.10	4783.74	1,519.52	1,519.12	-35.12	1,519.52	358.68	2.18	0.00	144		02/15/15	16:16	235 (gpm)
99	5,940.00	91.10	0.80	4783.01	1,550.49	1,550.10	-34.61	1,550.49	358.72	1.88	0.00	144		02/15/15	17:18	235 (gpm)
100	5,970.00	90.90	0.90	4782.49	1,580.46	1,580.09	-34.16	1,580.46	358.76	0.75	0.00	142		02/15/15	18:17	235 (gpm)
101	6,000.00	91.10	1.00	4781.97	1,610.44	1,610.09	-33.66	1,610.44	358.80	0.75	0.00	144		02/15/15	19:07	235 (gpm)
102	6,030.00	91.50	1.20	4781.29	1,640.41	1,640.07	-33.09	1,640.41	358.84	1.49	0.00	144		02/15/15	20:05	235 (gpm)
103	6,060.00	91.80	1.60	4780.42	1,670.36	1,670.05	-32.35	1,670.36	358.89	1.67	0.00	146		02/16/15	1:12	235 (gpm)
104	6,090.00	91.40	1.70	4779.59	1,700.32	1,700.03	-31.49	1,700.32	358.94	1.37	0.00	146		02/16/15	1:55	235 (gpm)
105	6,120.00	91.60	1.80	4778.80	1,730.27	1,730.00	-30.58	1,730.27	358.99	0.75	0.00	146		02/16/15	3:02	235 (gpm)
106	6,151.00	91.30	1.60	4778.02	1,761.22	1,760.98	-29.66	1,761.23	359.04	1.16	0.00	142		02/16/15	4:07	235 (gpm)
107	6,181.00	91.10	1.30	4777.39	1,791.18	1,790.96	-28.90	1,791.20	359.08	1.20	0.00	144		02/16/15	5:32	235 (gpm)
108	6,212.00	91.20	0.50	4776.76	1,822.15	1,821.95	-28.41	1,822.17	359.11	2.60	0.00	144		02/16/15	6:53	235 (gpm)
109	6,242.00	92.30	0.00	4775.85	1,852.13	1,851.94	-28.28	1,852.15	359.13	4.03	0.00	146		02/16/15	7:57	235 (gpm)
110	6,271.00	93.00	359.90	4774.51	1,881.09	1,880.91	-28.30	1,881.12	359.14	2.44	0.00	146		02/16/15	9:20	235 (gpm)
111	6,302.00	92.30	359.00	4773.07	1,912.06	1,911.87	-28.60	1,912.09	359.14	3.68	0.00	149		02/16/15	10:43	235 (gpm)
112	6,332.00	91.10	359.10	4772.18	1,942.04	1,941.85	-29.10	1,942.07	359.14	4.01	0.00	149		02/16/15	19:45	235 (gpm)
113	6,362.00	90.50	359.10	4771.77	1,972.04	1,971.85	-29.57	1,972.07	359.14	2.00	0.00	146		02/16/15	21:10	235 (gpm)
114	6,392.00	90.50	358.30	4771.50	2,002.04	2,001.84	-30.25	2,002.07	359.13	2.67	0.00	146		02/16/15	21:49	235 (gpm)
115	6,422.00	90.50	358.50	4771.24	2,032.04	2,031.82	-31.09	2,032.06	359.12	0.67	0.00	146		02/16/15	22:33	235 (gpm)
116	6,452.00	90.50	358.20	4770.98	2,062.03	2,061.81	-31.95	2,062.06	359.11	1.00	0.00	149		02/16/15	23:22	235 (gpm)
117	6,482.00	90.50	358.40	4770.72	2,092.03	2,091.80	-32.84	2,092.05	359.10	0.67	0.00	149		02/17/15	0:09	235 (gpm)

# MWD SURVEYS

Customer: Tapstone Energy  
Well: Thomas 17-34-7 #1H  
Field/Block: Mississippi Lime  
Co./Parish: Harper County  
State: Kansas

PGS Job #: LKS6117015  
MWD Operator: Cody Sargent  
Directional Driller: Jared Gooch  
Date of First Survey: February 9, 2015  
Date of Last Survey: February 20, 2015



Total Correction: 4.05 East Grid

Vertical Section Plane: 358.83 Nominal Dip Angle: 65.11 Magnetic Field Strength: .515

	Measured		Coordinates				Closure			Vib/Shk						
	Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N / -S	+E / -W	Dist.	Angle	DLS	MTR YLD	Temp (°F)	Color	Date	Time	Flow Rate
118	6,513.00	90.50	358.50	4770.45	2,123.03	2,122.78	-33.68	2,123.05	359.09	0.32	0.00	149		02/17/15	2:07	235 (gpm)
119	6,544.00	90.50	358.00	4770.18	2,154.03	2,153.77	-34.63	2,154.05	359.08	1.61	0.00	151		02/17/15	3:02	235 (gpm)
120	6,574.00	90.40	357.70	4769.94	2,184.02	2,183.75	-35.75	2,184.04	359.06	1.05	0.00	151		02/17/15	3:52	235 (gpm)
121	6,605.00	90.60	357.90	4769.67	2,215.01	2,214.72	-36.94	2,215.03	359.04	0.91	0.00	153		02/17/15	4:21	235 (gpm)
122	6,665.00	91.10	358.20	4768.78	2,275.00	2,274.68	-38.98	2,275.01	359.02	0.97	0.00	155		02/17/15	5:18	235 (gpm)
123	6,727.00	91.40	358.00	4767.43	2,336.98	2,336.63	-41.04	2,336.99	358.99	0.58	0.00	155		02/17/15	6:57	235 (gpm)
124	6,788.00	90.70	357.70	4766.31	2,397.96	2,397.58	-43.33	2,397.97	358.96	1.25	0.00	155		02/17/15	8:20	235 (gpm)
125	6,848.00	90.00	357.70	4765.94	2,457.95	2,457.53	-45.74	2,457.95	358.93	1.17	0.00	158		02/17/15	9:45	235 (gpm)
126	6,910.00	90.60	358.20	4765.62	2,519.94	2,519.49	-47.95	2,519.94	358.91	1.26	0.00	158		02/17/15	11:13	235 (gpm)
127	6,970.00	90.10	358.20	4765.25	2,579.94	2,579.46	-49.84	2,579.94	358.89	0.83	0.00	158		02/17/15	12:29	235 (gpm)
128	7,031.00	89.70	358.80	4765.36	2,640.93	2,640.43	-51.43	2,640.94	358.88	1.18	0.00	160		02/17/15	13:49	235 (gpm)
129	7,091.00	90.00	359.20	4765.52	2,700.93	2,700.43	-52.48	2,700.94	358.89	0.83	0.00	160		02/17/15	15:18	235 (gpm)
130	7,152.00	89.80	359.30	4765.62	2,761.93	2,761.42	-53.28	2,761.93	358.89	0.37	0.00	160		02/17/15	16:59	235 (gpm)
131	7,216.00	90.20	359.70	4765.62	2,825.93	2,825.42	-53.84	2,825.93	358.91	0.88	0.00	162		02/17/15	18:24	235 (gpm)
132	7,279.00	91.10	0.00	4764.91	2,888.91	2,888.41	-54.00	2,888.92	358.93	1.51	0.00	162		02/17/15	19:37	235 (gpm)
133	7,342.00	91.80	0.90	4763.31	2,951.87	2,951.39	-53.51	2,951.87	358.96	1.81	0.00	162		02/17/15	20:38	235 (gpm)
134	7,406.00	91.30	0.70	4761.58	3,015.80	3,015.36	-52.62	3,015.82	359.00	0.84	0.00	164		02/17/15	21:32	235 (gpm)
135	7,469.00	89.70	359.00	4761.03	3,078.79	3,078.35	-52.78	3,078.80	359.02	3.71	0.00	164		02/17/15	22:35	235 (gpm)
136	7,533.00	89.40	358.00	4761.54	3,142.78	3,142.33	-54.46	3,142.80	359.01	1.63	0.00	164		02/17/15	23:34	235 (gpm)
137	7,595.00	89.80	358.80	4761.97	3,204.78	3,204.30	-56.19	3,204.79	359.00	1.44	0.00	167		02/18/15	0:33	235 (gpm)
138	7,658.00	90.70	359.40	4761.69	3,267.78	3,267.29	-57.18	3,267.79	359.00	1.72	0.00	164		02/18/15	1:49	235 (gpm)
139	7,721.00	91.00	359.30	4760.76	3,330.77	3,330.28	-57.89	3,330.78	359.00	0.50	0.00	164		02/18/15	3:23	235 (gpm)
140	7,784.00	90.70	358.40	4759.82	3,393.76	3,393.26	-59.16	3,393.78	359.00	1.51	0.00	164		02/18/15	4:49	235 (gpm)
141	7,847.00	89.80	357.80	4759.55	3,456.75	3,456.22	-61.24	3,456.77	358.98	1.72	0.00	164		02/18/15	6:20	235 (gpm)
142	7,910.00	89.90	358.90	4759.71	3,519.75	3,519.20	-63.06	3,519.76	358.97	1.75	0.00	167		02/18/15	7:45	235 (gpm)
143	7,973.00	89.60	358.20	4759.99	3,582.75	3,582.18	-64.65	3,582.76	358.97	1.21	0.00	167		02/18/15	9:00	235 (gpm)
144	8,036.00	90.10	358.10	4760.15	3,645.74	3,645.14	-66.69	3,645.75	358.95	0.81	0.00	162		02/18/15	10:29	235 (gpm)
145	8,099.00	90.30	358.80	4759.93	3,708.74	3,708.12	-68.39	3,708.75	358.94	1.16	0.00	167		02/18/15	12:41	235 (gpm)
146	8,162.00	89.80	358.50	4759.88	3,771.74	3,771.10	-69.87	3,771.75	358.94	0.93	0.00	164		02/19/15	0:39	235 (gpm)
147	8,225.00	89.30	359.20	4760.37	3,834.74	3,834.09	-71.14	3,834.75	358.94	1.37	0.00	142		02/19/15	2:17	235 (gpm)



# MWD SURVEYS

Customer: Tapstone Energy  
Well: Thomas 17-34-7 #1H  
Field/Block: Mississippi Lime  
Co./Parish: Harper County  
State: Kansas

PGS Job #: LKS6117015  
MWD Operator: Cody Sargent  
Directional Driller: Jared Gooch  
Date of First Survey: February 9, 2015  
Date of Last Survey: February 20, 2015



Total Correction: 4.05 East Grid

Vertical Section Plane: 358.83 Nominal Dip Angle: 65.11 Magnetic Field Strength: .515

	<i>Measured</i>		<i>Coordinates</i>					<i>Closure</i>			<i>Vib/Shk</i>					
	<i>Depth</i>	<i>Inc.</i>	<i>Azm.</i>	<i>T.V.D.</i>	<i>Ver. Sect.</i>	<i>+N / -S</i>	<i>+E / -W</i>	<i>Dist.</i>	<i>Angle</i>	<i>DLS</i>	<i>MTR YLD</i>	<i>Temp (°F)</i>	<i>Color</i>	<i>Date</i>	<i>Time</i>	<i>Flow Rate</i>
148	8,287.00	90.90	359.90	4760.27	3,896.73	3,896.08	-71.63	3,896.74	358.95	2.82	0.00	142		02/19/15	4:11	235 (gpm)
149	8,349.00	91.70	0.30	4758.86	3,958.70	3,958.06	-71.52	3,958.71	358.96	1.44	0.00	144		02/19/15	5:18	235 (gpm)
150	8,412.00	91.80	0.40	4756.94	4,021.65	4,021.03	-71.13	4,021.66	358.99	0.22	0.00	146		02/19/15	6:54	235 (gpm)
151	8,475.00	91.50	0.70	4755.12	4,084.59	4,084.00	-70.53	4,084.61	359.01	0.67	0.00	149		02/19/15	8:30	235 (gpm)
152	8,538.00	93.10	0.70	4752.59	4,147.51	4,146.95	-69.76	4,147.53	359.04	2.54	0.00	151		02/19/15	10:11	235 (gpm)
153	8,602.00	93.30	359.50	4749.02	4,211.39	4,210.85	-69.65	4,211.42	359.05	1.90	0.00	153		02/19/15	12:21	235 (gpm)
154	8,665.00	91.80	359.70	4746.22	4,274.32	4,273.78	-70.09	4,274.36	359.06	2.40	0.00	153		02/19/15	14:27	235 (gpm)
155	8,728.00	90.40	359.40	4745.01	4,337.30	4,336.77	-70.58	4,337.34	359.07	2.27	0.00	158		02/19/15	16:14	235 (gpm)
156	8,791.00	89.60	358.80	4745.01	4,400.30	4,399.76	-71.57	4,400.34	359.07	1.59	0.00	160		02/19/15	18:33	235 (gpm)
157	8,854.00	90.60	358.10	4744.90	4,463.30	4,462.73	-73.28	4,463.33	359.06	1.94	0.00	160		02/19/15	20:56	235 (gpm)
158	8,918.00	91.30	358.60	4743.84	4,527.29	4,526.70	-75.12	4,527.32	359.05	1.34	0.00	162		02/19/15	22:27	235 (gpm)
159	8,982.00	90.60	357.50	4742.78	4,591.27	4,590.65	-77.30	4,591.30	359.04	2.04	0.00	162		02/20/15	0:36	235 (gpm)
160	9,045.00	90.70	356.30	4742.06	4,654.23	4,653.55	-80.70	4,654.25	359.01	1.91	0.00	158		02/20/15	2:53	235 (gpm)
161	9,064.00	91.20	356.90	4741.75	4,673.21	4,672.52	-81.83	4,673.23	359.00	4.11	0.00	160		02/20/15	3:47	235 (gpm)
PBHL	9,115.00	91.20	356.90	4740.68	4,724.17	4,723.43	-84.59	4,724.19	358.97	0.00						

# MWD SURVEYS

Customer: Tapstone Energy  
 Well: Thomas 17-34-7 #1H  
 Field/Block: Mississippi Lime  
 Co./Parish: Harper County  
 State: Kansas

PGS Job #: LKS6117015  
 MWD Operator: Cody Sargent  
 Directional Driller: Jared Gooch  
 Date of First Survey: February 9, 2015  
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Total Correction: 4.05 East Grid

Vertical Section Plane: 358.83 Nominal Dip Angle: 65.11 Magnetic Field Strength: .515

<i>Measured</i>		<i>Coordinates</i>					<i>Closure</i>		<i>Vib/Shk</i>						
<i>Depth</i>	<i>Inc.</i>	<i>Azm.</i>	<i>T.V.D.</i>	<i>Ver. Sect.</i>	<i>+N / -S</i>	<i>+E / -W</i>	<i>Dist.</i>	<i>Angle</i>	<i>DLS</i>	<i>MTR YLD</i>	<i>Temp (°F)</i>	<i>Color</i>	<i>Date</i>	<i>Time</i>	<i>Flow Rate</i>

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 State: Kansas

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 MWD Operator: Cody Sargent  
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Customer: Tapstone Energy  
 Well: Thomas 17-34-7 #1H  
 Field/Block: Mississippi Lime  
 Co./Parish: Harper County  
 State: Kansas

PGS Job #: LKS6117015  
 MWD Operator: Cody Sargent  
 Directional Driller: Jared Gooch  
 Date of First Survey: February 9, 2015  
 Date of Last Survey: February 20, 2015



Total Correction: 4.05 East Grid

Vertical Section Plane: 358.83 Nominal Dip Angle: 65.11 Magnetic Field Strength: .515

<i>Measured</i>		<i>Coordinates</i>				<i>Closure</i>		<i>Vib/Shk</i>							
<i>Depth</i>	<i>Inc.</i>	<i>Azm.</i>	<i>T.V.D.</i>	<i>Ver. Sect.</i>	<i>+N / -S</i>	<i>+E / -W</i>	<i>Dist.</i>	<i>Angle</i>	<i>DLS</i>	<i>MTR YLD</i>	<i>Temp (°F)</i>	<i>Color</i>	<i>Date</i>	<i>Time</i>	<i>Flow Rate</i>

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Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N / -S	+E / -W	Dist.	Angle	DLS	MTR YLD	Temp (°F)	Color	Date	Time	Flow Rate

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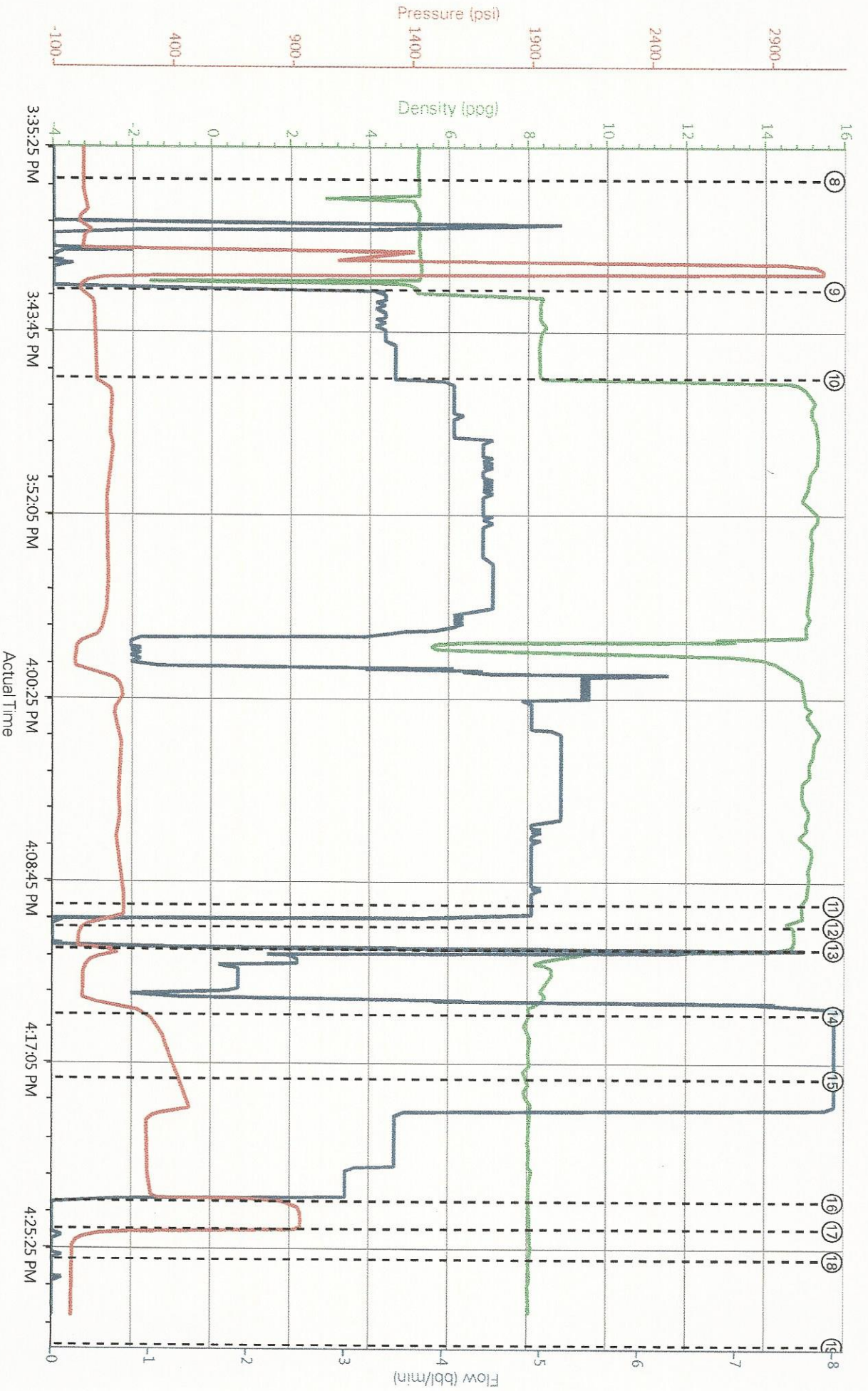


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					<i>+N / -S</i>	<i>+E / -W</i>	<i>Dist.</i>	<i>Angle</i>				<i>Color</i>	<i>Date</i>	<i>Time</i>	<i>Flow Rate</i>





DH Density (ppg)    Comb Pump Rate (bbbl/min)    PS Pump Press (psi)

- ③ Arrive At Loc n/a/n/a/n/a
- ④ Pre-Rig Up Safety Meeting n/a/n/a/n/a
- ⑤ Rig-Up Equipment n/a/n/a/n/a
- ⑥ Rig-Up Completed -2:52:0:17
- ⑦ Safety Meeting - Pre Job -3:1:0:22
- ⑧ Pump Spacer 1 5:19:3:4:27
- ⑨ Shutdown 14:94:4:9:195
- ⑩ Pump Displacement 9:1
- ⑪ Test Lines 5:22:0:25
- ⑫ Pump Cement 14:07:4:1:90
- ⑬ Drop Top Plug 14:71:0:14
- ⑭ Cement Returns to Sur

1.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	2/8/2015	09:30:00	USER				requested on loc at 15:00
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/8/2015	11:30:00	USER				stay on route and in convoy
Event	3	Arrive At Loc	Arrive At Loc	2/8/2015	13:00:00	USER				arrive on location wait for third party truck to be unloaded before spotting equipment
Event	4	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	2/8/2015	13:45:00	USER				use 2 spotters, watch line of fire, pinch points
Event	5	Rig-Up Equipment	Rig-Up Equipment	2/8/2015	13:55:00	USER				
Event	6	Rig-Up Completed	Rig-Up Completed	2/8/2015	15:00:00	USER				
Event	7	Safety Meeting - Pre Job	Safety Meeting - Pre Job	2/8/2015	15:20:00	USER				stay clear of red zone, don't cross over pressurized iron,
Event	8	Test Lines	Test Lines	2/8/2015	15:37:00	USER	8.34	0.00	3000.00	test lines 500 psi low and 3000 psi high
Event	9	Pump Spacer 1	Pump Spacer 1	2/8/2015	15:42:00	COM7	8.34	3.40	27.00	pump 10 bbls water spacer ahead...good returns
Event	10	Pump Cement	Pump Cement	2/8/2015	15:46:00	COM7	15.00	4.10	90.00	pump 114 bbls (490 sks) at 15#...good returns
Event	11	Shutdown	Shutdown	2/8/2015	16:10:00	USER	15.00	0.00	0.00	
Event	12	Drop Top Plug	Drop Top Plug	2/8/2015	16:11:00	COM7				drop top plug
Event	13	Pump Displacement	Pump Displacement	2/8/2015	16:12:00	COM7	8.34	8.00	178.00	pump 60 bbls water displacement...good returns

Event	14	Cement Returns to Surface	Cement Returns to Surface	2/8/2015	16:15:00	USER	8.34	8.00	310.00	circulated 43 bbls cement to surface...good returns
Event	15	Slow Rate	Slow Rate	2/8/2015	16:18:00	USER	8.34	3.00	431.00	slow rate to 3 bbls min to land plug...good returns
Event	16	Bump Plug	Bump Plug	2/8/2015	16:23:28	COM7	8.34	0.00	940.00	land plug from 310-940 psi
Event	17	Check Floats	Check Floats	2/8/2015	16:24:42	USER	8.34	0.00	0.00	floats holding .5 bbls back
Event	18	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/8/2015	16:26:05	USER				watch hand and foot placement, use proper lifting
Event	19	Rig-Down Equipment	Rig-Down Equipment	2/8/2015	16:30:00	USER				
Event	20	Rig-Down Completed	Rig-Down Completed	2/8/2015	17:10:00	USER				
Event	21	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/8/2015	17:20:00	USER				stay on route, journey management
Event	22	Depart Location	Depart Location	2/8/2015	17:30:00	USER				

The Road to Excellence Starts with Safety

Sold To #: 372073	Ship To #: 3643291	Quote #: 0021993568	Sales Order #: 0902088060
Customer: TAPSTONE ENERGY LLC		Customer Rep: Buck Fogle	
Well Name: THOMAS 17-34-7	Well #: 1H	API/UWI #: 15-077-22127-01	
Field: COOPER CREEK	City (SAP): ANTHONY	County/Parish: HARPER	State: KANSAS
Legal Description: S2 S2 SW SE-17-34S-7W-200FSL-1980FEL			
Contractor: NOMAC		Rig/Platform Name/Num: NOMAC 245	
Job BOM: 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX25353		Srvc Supervisor: John Marinis	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type		BHST	80 degF
Job depth MD	816ft		Job Depth TVD
Water Depth			Wk Ht Above Floor
Perforation Depth (MD)	From		To

Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Open Hole Section			12.25				0	816	0	0
Casing	3	9.625	8.921	36	LTC	J-55	0	816	0	0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625	1		816	Top Plug	9.625	1	HES
Float Shoe	9.625				Bottom Plug	9.625		HES
Float Collar	9.625	1			SSR plug set	9.625		HES
Insert Float	9.625				Plug Container	9.625		HES
Stage Tool	9.625				Centralizers	9.625		HES

Miscellaneous Materials

Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty

Fluid Data

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Water Spacer	Water Spacer	10	bbl	8.33			4		
Stage/Plug #: 2										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
2	Primary Cement	SWIFTCEM (TM) SYSTEM	490	sack	15	1.319		5	6.25	
	94 lbm	CMT - STANDARD - CLASS A REG OR TYPE I, BULK (100003684)								

2 %		CALCIUM CHLORIDE, PELLETT, 50 LB (101509387)							
0.1250 lbm		POLY-E-FLAKE (101216940)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	Displacement	Displacement	60.0	bbl	8.33				
Cement Left In Pipe		Amount	45 ft		Reason			Shoe Joint	
Comment									



# HALLIBURTON

iCem<sup>®</sup> Service

## **HALLIBURTON ENERGY INSTITUTE**

**For:**

Date: Saturday, February 14, 2015

**TAPSTONE THOMAS 17-34-71H**

TAPSTONE THOMAS 17-34-71H

Job Date: Friday, February 13, 2015

Sincerely,

**RON YOUNGBLOOD**

## Legal Notice

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    TAPSTONE THOMAS 17-34-71H-Custom Results.png.....  
Custom Graphs.....  
    Custom Graph.....

## 1.0 Real-Time Job Summary

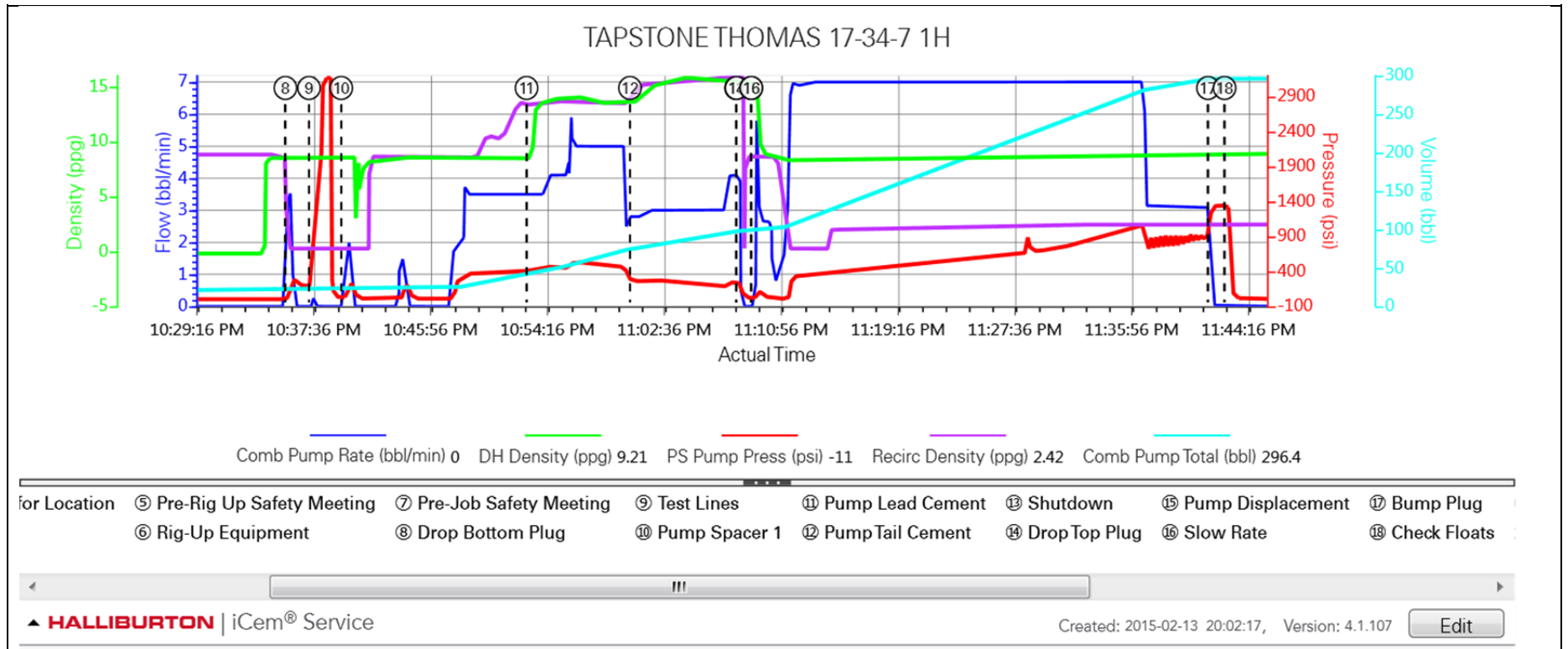
### 1.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate <i>(bbl/min)</i>	DH Density <i>(ppg)</i>	PS Pump Press <i>(psi)</i>	Recirc Density <i>(ppg)</i>	Comb Pump Total <i>(bbl)</i>	Comments
Event	1	Call Out	Call Out	2/13/2015	13:30:00	USER						
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/13/2015	16:00:00	USER						travel in convoy use journey mgt
Event	3	Depart Home for Location	Depart Home for Location	2/13/2015	16:30:00	USER						
Event	4	Arrive At Loc	Arrive At Loc	2/13/2015	19:00:00	USER						requested on loc @ 1930 meet with company rep
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	2/13/2015	19:30:00	USER						discussed pinch points
Event	6	Rig-Up Equipment	Rig-Up Equipment	2/13/2015	20:00:00	USER						rig up cement equipment wait on crew to finish running casing
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	2/13/2015	21:45:00	USER	0.00	-0.09	7.00	8.82	21.0	discussed job procedures and HSE safety standards
Event	8	Drop Bottom Plug	Drop Bottom Plug	2/13/2015	22:35:47	USER	3.50	8.46	52.00	0.27	21.8	plug left head
Event	9	Test Lines	Test Lines	2/13/2015	22:37:28	COM5	0.00	8.57	195.00	0.27	22.7	good test
Event	10	Pump Spacer 1	Pump Spacer 1	2/13/2015	22:39:46	COM5	0.80	8.62	23.00	0.27	22.7	pump 10 bbls mud flush III @ 2 bpm @ 300 psi
Event	11	Pump Lead Cement	Pump Lead Cement	2/13/2015	22:52:59	COM5	3.50	8.46	411.00	13.39	42.7	pump 36 bbls lead scaled @ 13.6 ppg @ 5 bpm
Event	12	Pump Tail Cement	Pump Tail Cement	2/13/2015	23:00:22	COM5	2.80	13.60	266.00	14.49	75.1	pump 19 bbl tail cement scaled @ 15.6 ppg @ 4 bpm
Event	13	Shutdown	Shutdown	2/13/2015	23:07:56	USER	4.10	15.49	238.00	15.92	98.5	
Event	14	Drop Top Plug	Drop Top Plug	2/13/2015	23:07:58	USER	2.60	15.53	215.00	15.92	98.7	plug left head

Event	15	Pump Displacement	Pump Displacement	2/13/2015	23:09:00	COM5	0.00	15.46	16.00	8.66	98.7	pump 199 bbls water displacement @ 7 bpm
Event	16	Slow Rate	Slow Rate	2/13/2015	23:09:01	USER	0.00	15.47	16.00	8.66	98.7	@ 180 bbls gone slow rate to 3 bpm
Event	17	Bump Plug	Bump Plug	2/13/2015	23:41:35	COM5	0.10	8.92	1306.00	2.46	296.4	bump @ 860 psi went up to 1344 psi
Event	18	Check Floats	Check Floats	2/13/2015	23:42:46	USER	0.00	8.84	1333.00	2.46	296.4	floats held 1 bbl back
Event	19	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/14/2015	00:01:00	USER	0.00	8.93	-1.00	2.44	296.4	discussed suspended loads
Event	20	Rig-Down Equipment	Rig-Down Equipment	2/14/2015	00:10:00	USER	0.00	8.98	-2.00	2.44	296.4	
Event	21	Safety Meeting - Departing Location	Safety Meeting - Departing Location	2/14/2015	00:40:00	USER	0.00	9.25	-12.00	2.42	296.4	inform on call coordinator job is complete
Event	22	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	2/14/2015	00:50:00	USER						

2.0 Attachments

2.1 TAPSTONE THOMAS 17-34-71H-Custom Results.png



3.0 Custom Graphs

3.1 Custom Graph

