

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1243548
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: _____

1243548

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

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

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

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

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
 Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
 Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

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

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

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

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

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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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MWD SURVEYS

Customer: Tapstone Energy
 Well: Roger 19-33-7 #2H
 Field/Block: Mississippi Lime
 Co./Parish: Harper Co.
 State: Kansas

PGS Job #: LKS6115814
 MWD Operator: Ronny Golightly
 Directional Driller: Jarod Gooch
 Date of First Survey: December 5, 2014
 Date of Last Survey: December 16, 2014



Total Correction: 4.10 East Grid

Vertical Section Plane: 2.07 Nominal Dip Angle: 65.17 Magnetic Field Strength: .516

Measured Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	Coordinates		Closure		DLS	MTR YLD	Temp (°F)	Vib/Shk Color	Date	Time	Flow Rate	
					+N / -S	+E / -W	Dist.	Angle								
Survey's are tied into: MWD													Date Received:			
Company: Professional Directional																
0	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
1	831	0.1	225.2	831.00	-0.53	-0.51	-0.51	0.73	225.20	0.01	0.00	73 °F	Green	12/05/14	2:50	620 (gpm)
2	863	0.3	125.3	863.00	-0.60	-0.58	-0.47	0.74	218.83	1.04	0.00	75 °F	Green	12/05/14	3:01	620 (gpm)
3	895	0.2	337.7	895.00	-0.59	-0.58	-0.42	0.71	216.03	1.50	0.00	79 °F	Green	12/05/14	3:20	620 (gpm)
4	926	0.7	301.1	926.00	-0.45	-0.43	-0.60	0.74	234.57	1.78	0.00	82 °F	Green	12/05/14	4:10	620 (gpm)
5	958	1.0	330.1	957.99	-0.12	-0.08	-0.91	0.91	264.66	1.61	0.00	84 °F	Green	12/05/14	6:00	620 (gpm)
6	989	1.5	345.6	988.99	0.50	0.54	-1.14	1.27	295.38	1.93	0.00	86 °F	Green	12/05/14	6:29	620 (gpm)
7	1,021	2.2	2.1	1020.97	1.52	1.56	-1.23	1.99	321.89	2.73	0.00	88 °F	Green	12/05/14	6:55	560 (gpm)
8	1,052	2.5	11.9	1051.94	2.78	2.82	-1.06	3.01	339.31	1.61	0.00	90 °F	Green	12/05/14	7:28	560 (gpm)
9	1,084	3.3	16.7	1083.90	4.36	4.38	-0.66	4.43	351.49	2.61	0.00	93 °F	Green	12/05/14	8:00	560 (gpm)
10	1,115	3.5	23.7	1114.85	6.10	6.10	-0.02	6.10	359.82	1.49	0.00	93 °F	Green	12/05/14	8:15	560 (gpm)
11	1,147	4.4	30.4	1146.77	8.09	8.06	0.99	8.12	7.04	3.16	0.00	93 °F	Green	12/05/14	10:27	560 (gpm)
12	1,179	5.2	32.0	1178.66	10.43	10.35	2.38	10.62	12.98	2.53	0.00	97 °F	Green	12/05/14	11:00	560 (gpm)
13	1,210	5.6	35.1	1209.52	12.91	12.78	4.00	13.39	17.38	1.60	0.00	97 °F	Green	12/05/14	11:30	560 (gpm)
14	1,242	6.3	43.0	1241.35	15.55	15.34	6.09	16.50	21.67	3.36	0.00	99 °F	Green	12/05/14	11:46	560 (gpm)
15	1,273	6.6	48.7	1272.15	18.06	17.76	8.59	19.73	25.82	2.28	0.00	100 °F	Green	12/05/14	12:15	560 (gpm)
16	1,305	6.8	50.2	1303.94	20.58	20.18	11.43	23.19	29.52	0.83	0.00	100 °F	Green	12/05/14	12:40	560 (gpm)
17	1,337	6.9	53.2	1335.71	23.05	22.55	14.42	26.77	32.61	1.16	0.00	104 °F	Green	12/05/14	13:06	560 (gpm)
18	1,368	6.7	52.7	1366.49	25.37	24.76	17.35	30.23	35.03	0.67	0.00	109 °F	Green	12/05/14	14:23	560 (gpm)
19	1,463	6.0	52.6	1460.91	32.04	31.13	25.71	40.37	39.55	0.74	0.00	113 °F	Green	12/05/14	15:29	560 (gpm)
20	1,558	3.7	47.8	1555.56	37.34	36.21	31.92	48.27	41.40	2.46	0.00	117 °F	Green	12/05/14	17:04	560 (gpm)
21	1,652	2.6	46.9	1649.42	40.97	39.70	35.73	53.41	41.98	1.17	0.00	117 °F	Green	12/05/14	18:00	560 (gpm)
22	1,745	4.0	60.2	1742.26	44.18	42.76	40.08	58.60	43.15	1.71	0.00	115 °F	Green	12/05/14	20:00	560 (gpm)
23	1,838	3.0	70.6	1835.09	46.78	45.18	45.19	63.90	45.01	1.27	0.00	117 °F	Green	12/05/14	21:11	560 (gpm)
24	1,932	3.0	68.0	1928.96	48.68	46.91	49.79	68.41	46.70	0.14	0.00	118 °F	Green	12/05/14	22:07	560 (gpm)
25	2,026	0.9	76.4	2022.90	49.89	48.01	52.79	71.36	47.72	2.25	0.00	122 °F	Green	12/05/14	23:17	560 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
Well: Roger 19-33-7 #2H
Field/Block: Mississippi Lime
Co./Parish: Harper Co.
State: Kansas

PGS Job #: LKS6115814
MWD Operator: Ronny Golightly
Directional Driller: Jarod Gooch
Date of First Survey: December 5, 2014
Date of Last Survey: December 16, 2014



Total Correction: 4.10 East Grid

Vertical Section Plane: 2.07 Nominal Dip Angle: 65.17 Magnetic Field Strength: .516

Measured Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	Coordinates		Closure			DLS	MTR YLD	Temp (°F)	Vib/Shk	Date	Time	Flow Rate
					+N / -S	+E / -W	Dist.	Angle	Color							
26	2,120	0.6	60.6	2116.89	50.34	48.42	53.94	72.49	48.08	0.38	0.00	122 °F	Green	12/06/14	0:15	560 (gpm)
27	2,213	0.3	69.8	2209.89	50.69	48.75	54.59	73.19	48.24	0.33	0.00	122 °F	Green	12/06/14	1:07	560 (gpm)
28	2,307	0.3	47.3	2303.89	50.95	49.00	55.00	73.66	48.30	0.12	0.00	122 °F	Green	12/06/14	2:06	560 (gpm)
29	2,402	0.1	1.7	2398.89	51.21	49.25	55.19	73.97	48.25	0.25	0.00	122 °F	Green	12/06/14	2:51	560 (gpm)
30	2,498	0.6	34.8	2494.88	51.72	49.75	55.48	74.52	48.12	0.54	0.00	122 °F	Green	12/06/14	3:43	560 (gpm)
31	2,593	0.3	62.7	2589.88	52.26	50.27	55.98	75.24	48.08	0.38	0.00	122 °F	Green	12/06/14	4:36	560 (gpm)
32	2,687	0.3	13.9	2683.88	52.62	50.62	56.26	75.68	48.02	0.26	0.00	122 °F	Green	12/06/14	5:27	560 (gpm)
33	2,781	0.3	40.3	2777.88	53.06	51.05	56.48	76.13	47.89	0.15	0.00	106 °F	Green	12/06/14	11:27	560 (gpm)
34	2,873	0.7	24.4	2869.88	53.76	51.74	56.87	76.88	47.70	0.46	0.00	111 °F	Green	12/06/14	12:36	560 (gpm)
35	2,968	0.6	358.9	2964.87	54.80	52.77	57.10	77.75	47.25	0.32	0.00	77 °F	Green	12/06/14	14:30	560 (gpm)
36	3,061	0.1	34.5	3057.87	55.35	53.32	57.13	78.15	46.97	0.56	0.00	77 °F	Green	12/06/14	15:00	558 (gpm)
37	3,155	0.7	28.6	3151.87	55.94	53.90	57.45	78.78	46.83	0.64	0.00	81 °F	Green	12/06/14	15:49	558 (gpm)
38	3,249	0.6	344.4	3245.86	56.92	54.87	57.60	79.55	46.39	0.53	0.00	90 °F	Green	12/06/14	16:44	558 (gpm)
39	3,343	1.0	342.6	3339.85	58.16	56.13	57.22	80.15	45.55	0.43	0.00	100 °F	Green	12/06/14	17:48	558 (gpm)
40	3,439	1.0	346.4	3435.84	59.76	57.74	56.77	80.98	44.51	0.07	0.00	104 °F	Green	12/06/14	19:10	558 (gpm)
41	3,532	0.9	343.8	3528.82	61.23	59.23	56.38	81.77	43.58	0.12	0.00	104 °F	Green	12/06/14	20:08	558 (gpm)
42	3,626	0.8	340.2	3622.81	62.54	60.56	55.95	82.45	42.73	0.12	0.00	106 °F	Green	12/06/14	20:47	558 (gpm)
43	3,720	1.1	302.8	3716.80	63.61	61.67	54.97	82.61	41.71	0.72	0.00	108 °F	Green	12/06/14	21:35	558 (gpm)
44	3,783	1.2	301.3	3779.79	64.24	62.34	53.90	82.41	40.85	0.17	0.00	108 °F	Green	12/06/14	22:10	558 (gpm)
45	3,814	1.2	302.8	3810.78	64.57	62.68	53.35	82.31	40.40	0.10	0.00	109 °F	Green	12/06/14	23:01	558 (gpm)
46	3,846	1.7	330.1	3842.77	65.14	63.27	52.83	82.43	39.86	2.62	0.00	108 °F	Green	12/07/14	0:07	558 (gpm)
47	3,878	3.7	353.7	3874.73	66.57	64.71	52.48	83.32	39.04	7.02	7.70	111 °F	Green	12/07/14	1:04	558 (gpm)
48	3,910	6.3	4.4	3906.61	69.34	67.49	52.50	85.50	37.88	8.60	8.60	115 °F	Green	12/07/14	2:03	558 (gpm)
49	3,942	9.5	4.7	3938.30	73.74	71.87	52.85	89.21	36.33	10.00	10.00	115 °F	Green	12/07/14	2:41	558 (gpm)
50	3,973	12.8	359.5	3968.71	79.72	77.86	53.03	94.20	34.26	11.12	11.12	118 °F	Green	12/07/14	3:22	558 (gpm)
51	4,004	15.8	355.0	3998.75	87.34	85.50	52.63	100.40	31.62	10.31	10.31	120 °F	Yellow	12/07/14	4:26	558 (gpm)
52	4,034	18.5	354.4	4027.41	96.12	94.31	51.81	107.60	28.78	9.02	9.60	124 °F	Yellow	12/07/14	5:37	558 (gpm)
53	4,066	20.8	355.4	4057.55	106.79	105.02	50.86	116.69	25.84	7.26	8.20	126 °F	Yellow	12/07/14	7:14	558 (gpm)

MWD SURVEYS

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Total Correction: 4.10 East Grid

Vertical Section Plane: 2.07 Nominal Dip Angle: 65.17 Magnetic Field Strength: .516

Measured Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	Coordinates		Closure			DLS	MTR YLD	Temp (°F)	Vib/Shk	Date	Time	Flow Rate
					+N / -S	+E / -W	Dist.	Angle	Color							
54	4,097	22.8	356.7	4086.33	118.24	116.51	50.07	126.81	23.26	6.64	10.00	126 °F	Green	12/07/14	9:08	558 (gpm)
55	4,129	26.1	358.5	4115.46	131.44	129.74	49.53	138.87	20.90	10.57	14.70	129 °F	Yellow	12/07/14	10:21	558 (gpm)
56	4,160	29.9	359.6	4142.82	145.97	144.29	49.30	152.48	18.86	12.37	13.60	131 °F	Yellow	12/07/14	11:28	558 (gpm)
57	4,192	32.3	0.6	4170.22	162.49	160.81	49.33	168.21	17.05	7.67	10.60	133 °F	Yellow	12/07/14	12:33	558 (gpm)
58	4,223	33.2	1.5	4196.30	179.26	177.58	49.64	184.39	15.62	3.30	7.86	133 °F	Yellow	12/07/14	13:28	558 (gpm)
59	4,254	35.0	2.7	4221.96	196.64	194.95	50.28	201.33	14.46	6.20	13.70	133 °F	Yellow	12/07/14	14:01	558 (gpm)
60	4,285	36.8	3.9	4247.07	214.81	213.09	51.33	219.19	13.54	6.23	9.60	135 °F	Green	12/07/14	15:08	558 (gpm)
61	4,317	38.7	3.7	4272.38	234.39	232.64	52.63	238.52	12.75	5.95	9.50	135 °F	Yellow	12/07/14	16:01	558 (gpm)
62	4,348	40.8	3.8	4296.21	254.20	252.42	53.93	258.12	12.06	6.78	6.70	136 °F	Green	12/07/14	17:04	558 (gpm)
63	4,380	42.5	4.1	4320.12	275.46	273.63	55.39	279.18	11.44	5.35	8.56	138 °F	Green	12/07/14	18:54	558 (gpm)
64	4,411	45.3	4.0	4342.45	296.94	295.07	56.91	300.51	10.92	9.04	13.10	138 °F	Yellow	12/07/14	20:13	558 (gpm)
65	4,443	47.5	5.2	4364.52	320.09	318.17	58.77	323.55	10.47	7.39	13.10	138 °F	Green	12/07/14	21:25	558 (gpm)
66	4,474	50.3	5.2	4384.90	343.41	341.43	60.89	346.82	10.11	9.03	10.30	140 °F	Green	12/07/14	22:31	558 (gpm)
67	4,506	52.0	4.4	4404.97	368.30	366.26	62.97	371.64	9.76	5.66	13.90	138 °F	Green	12/07/14	23:59	558 (gpm)
68	4,537	53.5	4.5	4423.73	392.95	390.87	64.89	396.22	9.43	4.85	10.70	138 °F	Green	12/08/14	0:57	558 (gpm)
69	4,568	55.8	4.3	4441.67	418.22	416.07	66.83	421.41	9.12	7.44	10.80	138 °F	Green	12/08/14	1:57	558 (gpm)
70	4,599	57.4	3.3	4458.73	444.08	441.90	68.54	447.18	8.82	5.82	12.80	138 °F	Green	12/08/14	3:11	558 (gpm)
71	4,630	59.2	2.8	4475.02	470.45	468.23	69.94	473.43	8.50	5.97	10.80	140 °F	Green	12/08/14	4:15	558 (gpm)
72	4,661	61.5	1.8	4490.36	497.39	495.15	71.02	500.22	8.16	7.93	10.20	140 °F	Green	12/08/14	5:09	558 (gpm)
73	4,692	62.8	1.4	4504.84	524.80	522.55	71.79	527.46	7.82	4.35	11.20	140 °F	Green	12/08/14	5:45	558 (gpm)
74	4,723	64.2	1.5	4518.67	552.54	550.28	72.49	555.04	7.50	4.53	0.00	140 °F	Green	12/08/14	6:16	558 (gpm)
75	4,755	64.5	1.5	4532.52	581.39	579.12	73.24	583.73	7.21	0.94	0.00	140 °F	Green	12/08/14	7:05	558 (gpm)
76	4,786	64.2	1.5	4545.94	609.33	607.05	73.97	611.54	6.95	0.97	0.00	138 °F	Green	12/08/14	7:47	558 (gpm)
77	4,818	64.0	1.6	4559.92	638.11	635.83	74.75	640.21	6.71	0.69	0.00	140 °F	Green	12/08/14	8:38	558 (gpm)
78	4,849	63.9	1.6	4573.53	665.96	663.67	75.53	667.95	6.49	0.32	0.00	140 °F	Green	12/08/14	9:12	558 (gpm)
79	4,881	63.7	1.9	4587.66	694.68	692.37	76.41	696.57	6.30	1.05	0.00	140 °F	Green	12/08/14	10:33	558 (gpm)
80	4,912	63.6	2.2	4601.42	722.45	720.13	77.40	724.28	6.13	0.93	0.00	140 °F	Green	12/08/14	11:40	558 (gpm)
81	4,931	63.8	1.8	4609.84	739.49	737.15	78.00	741.27	6.04	2.16	0.00	140 °F	Yellow	12/08/14	12:00	558 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
 Well: Roger 19-33-7 #2H
 Field/Block: Mississippi Lime
 Co./Parish: Harper Co.
 State: Kansas

PGS Job #: LKS6115814
 MWD Operator: Ronny Golightly
 Directional Driller: Jarod Gooch
 Date of First Survey: December 5, 2014
 Date of Last Survey: December 16, 2014



Total Correction: 4.10 East Grid

Vertical Section Plane: 2.07 Nominal Dip Angle: 65.17 Magnetic Field Strength: .516

Measured Depth	Inc.	Az.	T.V.D.	Ver. Sect.	Coordinates		Closure			DLS	MTR YLD	Temp (°F)	Vib/Shk	Date	Time	Flow Rate
					+N / -S	+E / -W	Dist.	Angle	Color							
82	4,943	65.4	1.5	4614.99	750.33	747.99	78.31	752.07	5.98	13.52	13.50	140 °F	Yellow	12/08/14	13:04	558 (gpm)
83	4,974	67.9	1.4	4627.27	778.78	776.44	79.03	780.45	5.81	8.07	8.07	142 °F	Yellow	12/08/14	14:27	558 (gpm)
84	5,005	71.0	1.3	4638.15	807.81	805.45	79.71	809.39	5.65	10.00	10.00	142 °F	Green	12/08/14	15:13	558 (gpm)
85	5,037	74.2	0.5	4647.72	838.33	835.98	80.19	839.82	5.48	10.28	10.20	142 °F	Green	12/08/14	16:24	558 (gpm)
86	5,069	78.6	0.1	4655.24	869.41	867.07	80.35	870.79	5.29	13.80	13.80	138 °F	Green	12/08/14	17:25	558 (gpm)
87	5,185	90.8	0.1	4665.94	984.63	982.36	80.55	985.66	4.69	10.52	0.00	149 °F	Green	12/10/14	16:53	245 (gpm)
88	5,216	92.8	0.1	4664.96	1,015.59	1,013.34	80.61	1,016.54	4.55	6.45	0.00	149 °F	Green	12/10/14	17:52	245 (gpm)
89	5,248	94.6	0.3	4662.90	1,047.51	1,045.28	80.72	1,048.39	4.42	5.66	0.00	151 °F	Green	12/10/14	18:50	245 (gpm)
90	5,286	92.3	1.5	4660.61	1,085.43	1,083.20	81.31	1,086.25	4.29	6.82	0.00	121 °F	Green	12/12/14	23:07	245 (gpm)
91	5,318	92.2	1.5	4659.36	1,117.40	1,115.16	82.15	1,118.18	4.21	0.31	0.00	122 °F	Green	12/13/14	3:06	245 (gpm)
92	5,343	92.0	1.5	4658.44	1,142.38	1,140.14	82.80	1,143.14	4.15	0.80	0.00	136 °F	Yellow	12/13/14	14:00	245 (gpm)
93	5,374	90.9	1.0	4657.66	1,173.37	1,171.12	83.48	1,174.09	4.08	3.90	0.00	136 °F	Yellow	12/13/14	15:30	245 (gpm)
94	5,405	90.0	1.2	4657.41	1,204.37	1,202.11	84.08	1,205.05	4.00	2.97	0.00	138 °F	Yellow	12/13/14	17:21	245 (gpm)
95	5,437	89.9	1.5	4657.44	1,236.36	1,234.10	84.83	1,237.02	3.93	0.99	0.00	140 °F	Yellow	12/13/14	18:52	245 (gpm)
96	5,469	90.2	1.5	4657.41	1,268.36	1,266.09	85.67	1,268.99	3.87	0.94	0.00	140 °F	Yellow	12/13/14	20:53	245 (gpm)
97	5,500	90.8	1.5	4657.14	1,299.36	1,297.08	86.48	1,299.96	3.81	1.94	0.00	142 °F	Yellow	12/13/14	22:42	245 (gpm)
98	5,532	91.3	1.7	4656.55	1,331.35	1,329.06	87.37	1,331.93	3.76	1.68	0.00	144 °F	Yellow	12/14/14	0:10	245 (gpm)
99	5,563	91.5	1.9	4655.80	1,362.34	1,360.04	88.35	1,362.90	3.72	0.91	0.00	145 °F	Yellow	12/14/14	2:12	245 (gpm)
100	5,595	91.8	2.3	4654.88	1,394.33	1,392.00	89.52	1,394.88	3.68	1.56	0.00	147 °F	Yellow	12/14/14	4:00	245 (gpm)
101	5,626	91.9	2.1	4653.88	1,425.31	1,422.96	90.71	1,425.85	3.65	0.72	0.00	147 °F	Yellow	12/14/14	5:28	245 (gpm)
102	5,658	92.3	2.5	4652.70	1,457.29	1,454.92	91.99	1,457.82	3.62	1.77	0.00	149 °F	Yellow	12/14/14	7:12	245 (gpm)
103	5,690	92.0	2.1	4651.50	1,489.27	1,486.87	93.27	1,489.79	3.59	1.56	0.00	149 °F	Yellow	12/14/14	9:17	245 (gpm)
104	5,722	91.8	2.3	4650.44	1,521.25	1,518.83	94.50	1,521.76	3.56	0.88	0.00	151 °F	Pink	12/14/14	10:42	245 (gpm)
105	5,753	92.2	2.5	4649.36	1,552.23	1,549.78	95.80	1,552.74	3.54	1.44	0.00	151 °F	Pink	12/14/14	12:32	245 (gpm)
106	5,785	91.9	2.1	4648.21	1,584.21	1,581.73	97.08	1,584.71	3.51	1.56	0.00	153 °F	Yellow	12/14/14	13:55	245 (gpm)
107	5,816	91.8	2.3	4647.21	1,615.19	1,612.70	98.27	1,615.69	3.49	0.72	0.00	151 °F	Yellow	12/14/14	18:23	245 (gpm)
108	5,848	91.0	2.2	4646.43	1,647.18	1,644.66	99.53	1,647.67	3.46	2.52	0.00	153 °F	Yellow	12/14/14	16:55	245 (gpm)
109	5,879	91.2	2.2	4645.84	1,678.18	1,675.63	100.72	1,678.66	3.44	0.65	0.00	153 °F	Yellow	12/14/14	18:37	245 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
 Well: Roger 19-33-7 #2H
 Field/Block: Mississippi Lime
 Co./Parish: Harper Co.
 State: Kansas

PGS Job #: LKS6115814
 MWD Operator: Ronny Golightly
 Directional Driller: Jarod Gooch
 Date of First Survey: December 5, 2014
 Date of Last Survey: December 16, 2014



Total Correction: 4.10 East Grid

Vertical Section Plane: 2.07 Nominal Dip Angle: 65.17 Magnetic Field Strength: .516

Measured Depth	Inc.	Az.	T.V.D.	Ver. Sect.	Coordinates		Closure			DLS	MTR YLD	Temp (°F)	Vib/Shk	Date	Time	Flow Rate
					+N / -S	+E / -W	Dist.	Angle	Color							
110	5,911	91.7	2.1	4645.03	1,710.17	1,707.60	101.92	1,710.64	3.42	1.59	0.00	118 °F	Yellow	12/15/14	3:59	191 (gpm)
111	5,943	91.7	1.6	4644.08	1,742.15	1,739.57	102.95	1,742.61	3.39	1.56	0.00	124 °F	Yellow	12/15/14	5:14	245 (gpm)
112	5,974	91.6	2.2	4643.19	1,773.14	1,770.54	103.98	1,773.59	3.36	1.96	0.00	129 °F	Yellow	12/15/14	6:29	245 (gpm)
113	6,006	91.6	2.1	4642.29	1,805.13	1,802.50	105.18	1,805.57	3.34	0.31	0.00	131 °F	Yellow	12/15/14	7:14	245 (gpm)
114	6,037	91.7	2.3	4641.40	1,836.11	1,833.47	106.37	1,836.55	3.32	0.72	0.00	133 °F	Yellow	12/15/14	8:11	245 (gpm)
115	6,069	92.0	2.9	4640.37	1,868.10	1,865.42	107.82	1,868.53	3.31	2.10	0.00	135 °F	Pink	12/15/14	9:31	245 (gpm)
116	6,101	91.5	2.4	4639.39	1,900.08	1,897.37	109.30	1,900.51	3.30	2.21	0.00	136 °F	Pink	12/15/14	10:42	245 (gpm)
117	6,132	90.3	2.0	4638.90	1,931.07	1,928.34	110.49	1,931.50	3.28	4.08	0.00	136 °F	Pink	12/15/14	12:20	245 (gpm)
118	6,162	89.1	1.5	4639.06	1,961.07	1,958.33	111.40	1,961.49	3.26	4.33	0.00	138 °F	Pink	12/15/14	13:20	245 (gpm)
119	6,192	89.1	1.2	4639.53	1,991.07	1,988.31	112.11	1,991.47	3.23	1.00	0.00	138 °F	Yellow	12/15/14	14:31	245 (gpm)
120	6,222	89.5	0.4	4639.90	2,021.06	2,018.31	112.53	2,021.44	3.19	2.98	0.00	138 °F	Yellow	12/15/14	15:40	245 (gpm)
121	6,253	89.9	0.4	4640.06	2,052.04	2,049.31	112.74	2,052.41	3.15	1.29	0.00	140 °F	Yellow	12/15/14	16:50	245 (gpm)
122	6,283	90.9	0.1	4639.85	2,082.03	2,079.31	112.87	2,082.37	3.11	3.48	0.00	140 °F	Yellow	12/15/14	17:51	245 (gpm)
123	6,313	90.9	359.5	4639.38	2,112.00	2,109.30	112.77	2,112.32	3.06	2.00	0.00	142 °F	Yellow	12/15/14	19:15	245 (gpm)
124	6,344	90.6	359.4	4638.97	2,142.96	2,140.30	112.47	2,143.25	3.01	1.02	0.00	144 °F	Yellow	12/15/14	20:44	245 (gpm)
125	6,374	90.0	359.3	4638.82	2,172.93	2,170.30	112.13	2,173.19	2.96	2.03	0.00	144 °F	Yellow	12/15/14	22:04	245 (gpm)
126	6,405	90.8	358.9	4638.60	2,203.89	2,201.29	111.65	2,204.12	2.90	2.89	0.00	144 °F	Pink	12/15/14	23:18	245 (gpm)
127	6,434	91.7	358.7	4637.97	2,232.83	2,230.28	111.04	2,233.04	2.85	3.18	0.00	145 °F	Pink	12/16/14	0:22	245 (gpm)
128	6,465	91.8	358.9	4637.02	2,263.77	2,261.26	110.39	2,263.95	2.79	0.72	0.00	144 °F	Yellow	12/16/14	4:44	245 (gpm)
129	6,495	92.1	358.6	4636.00	2,293.70	2,291.23	109.74	2,293.86	2.74	1.41	0.00	145 °F	Yellow	12/16/14	6:20	245 (gpm)
130	6,525	92.5	359.0	4634.79	2,323.63	2,321.20	109.11	2,323.76	2.69	1.88	0.00	147 °F	Yellow	12/16/14	7:30	245 (gpm)
131	6,556	91.8	359.2	4633.63	2,354.56	2,352.18	108.62	2,354.68	2.64	2.35	0.00	147 °F	Yellow	12/16/14	8:22	245 (gpm)
132	6,586	91.2	358.9	4632.85	2,384.51	2,382.16	108.12	2,384.61	2.60	2.24	0.00	149 °F	Pink	12/16/14	9:20	245 (gpm)
133	6,617	90.5	359.2	4632.39	2,415.46	2,413.15	107.61	2,415.55	2.55	2.46	0.00	147 °F	Pink	12/16/14	10:56	245 (gpm)
134	6,646	91.0	359.6	4632.01	2,444.43	2,442.15	107.31	2,444.50	2.52	2.21	0.00	153 °F	Yellow	12/16/14	23:25	245 (gpm)
135	6,677	91.7	0.2	4631.28	2,475.40	2,473.14	107.25	2,475.46	2.48	2.97	0.00	154 °F	Yellow	12/17/14	0:07	245 (gpm)
136	6,707	91.7	0.5	4630.39	2,505.37	2,503.13	107.44	2,505.43	2.46	1.00	0.00	154 °F	Green	12/17/14	4:51	245 (gpm)
137	6,737	91.5	0.3	4629.55	2,535.35	2,533.11	107.64	2,535.40	2.43	0.94	0.00	154 °F	Yellow	12/17/14	6:00	245 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
Well: Roger 19-33-7 #2H
Field/Block: Mississippi Lime
Co./Parish: Harper Co.
State: Kansas

PGS Job #: LKS6115814
MWD Operator: Ronny Golightly
Directional Driller: Jarod Gooch
Date of First Survey: December 5, 2014
Date of Last Survey: December 16, 2014



Total Correction: 4.10 East Grid

Vertical Section Plane: 2.07 Nominal Dip Angle: 65.17 Magnetic Field Strength: .516

Measured Depth	Inc.	Az.	T.V.D.	Ver. Sect.	Coordinates		Closure			DLS	MTR YLD	Temp (°F)	Vib/Shk	Date	Time	Flow Rate
					+N / -S	+E / -W	Dist.	Angle	Color							
138	6,767	91.3	0.3	4628.82	2,565.32	2,563.10	107.80	2,565.37	2.41	0.67	0.00	154 °F	Pink	12/17/14	7:36	245 (gpm)
139	6,798	91.1	0.7	4628.17	2,596.31	2,594.10	108.07	2,596.35	2.39	1.44	0.00	156 °F	Yellow	12/17/14	8:15	245 (gpm)
140	6,829	91.1	1.0	4627.57	2,627.29	2,625.09	108.53	2,627.33	2.37	0.97	0.00	158 °F	Yellow	12/17/14	8:44	245 (gpm)
141	6,859	90.9	0.9	4627.05	2,657.28	2,655.08	109.03	2,657.32	2.35	0.75	0.00	156 °F	Yellow	12/17/14	9:41	245 (gpm)
142	6,889	91.0	1.2	4626.55	2,687.27	2,685.07	109.58	2,687.30	2.34	1.05	0.00	156 °F	Yellow	12/17/14	10:19	245 (gpm)
143	6,920	91.1	1.8	4625.98	2,718.27	2,716.05	110.39	2,718.29	2.33	1.96	0.00	158 °F	Yellow	12/17/14	10:58	245 (gpm)
144	6,950	90.9	1.9	4625.46	2,748.26	2,746.03	111.36	2,748.29	2.32	0.75	0.00	160 °F	Yellow	12/17/14	12:00	245 (gpm)
145	6,980	90.4	1.7	4625.12	2,778.26	2,776.02	112.30	2,778.29	2.32	1.80	0.00	160 °F	Yellow	12/17/14	12:30	245 (gpm)
146	7,011	90.1	1.7	4624.98	2,809.26	2,807.00	113.22	2,809.28	2.31	0.97	0.00	158 °F	Yellow	12/17/14	13:29	245 (gpm)
147	7,041	90.2	1.7	4624.91	2,839.26	2,836.99	114.11	2,839.28	2.30	0.33	0.00	158 °F	Yellow	12/17/14	14:13	245 (gpm)
148	7,072	91.3	2.0	4624.50	2,870.26	2,867.97	115.11	2,870.28	2.30	3.68	0.00	158 °F	Yellow	12/17/14	15:04	245 (gpm)
149	7,102	91.9	1.9	4623.66	2,900.24	2,897.94	116.13	2,900.27	2.29	2.03	0.00	160 °F	Yellow	12/17/14	15:32	245 (gpm)
150	7,132	91.9	1.8	4622.67	2,930.23	2,927.91	117.10	2,930.25	2.29	0.33	0.00	160 °F	Yellow	12/17/14	16:15	245 (gpm)
151	7,162	91.9	2.0	4621.67	2,960.21	2,957.87	118.09	2,960.23	2.29	0.67	0.00	160 °F	Yellow	12/17/14	16:51	245 (gpm)
152	7,192	91.8	2.1	4620.70	2,990.19	2,987.84	119.17	2,990.22	2.28	0.47	0.00	162 °F	Yellow	12/17/14	17:22	245 (gpm)
153	7,223	91.7	2.2	4619.76	3,021.18	3,018.80	120.33	3,021.20	2.28	0.46	0.00	160 °F	Yellow	12/17/14	18:11	245 (gpm)
154	7,253	91.2	2.4	4619.00	3,051.17	3,048.77	121.53	3,051.19	2.28	1.79	0.00	162 °F	Yellow	12/17/14	18:45	245 (gpm)
155	7,284	90.7	2.4	4618.48	3,082.17	3,079.74	122.83	3,082.19	2.28	1.61	0.00	162 °F	Yellow	12/17/14	19:18	245 (gpm)
156	7,314	90.5	2.5	4618.17	3,112.16	3,109.71	124.11	3,112.18	2.29	0.75	0.00	162 °F	Yellow	12/17/14	19:56	245 (gpm)
157	7,344	90.1	2.3	4618.01	3,142.16	3,139.68	125.37	3,142.18	2.29	1.49	0.00	162 °F	Yellow	12/17/14	20:34	245 (gpm)
158	7,374	89.8	2.4	4618.04	3,172.16	3,169.66	126.60	3,172.18	2.29	1.05	0.00	162 °F	Yellow	12/17/14	21:27	245 (gpm)
159	7,405	90.0	2.3	4618.09	3,203.16	3,200.63	127.87	3,203.18	2.29	0.72	0.00	162 °F	Yellow	12/17/14	22:17	245 (gpm)
160	7,435	90.9	2.5	4617.86	3,233.16	3,230.60	129.13	3,233.18	2.29	3.07	0.00	162 °F	Yellow	12/17/14	22:53	245 (gpm)
161	7,465	91.2	2.7	4617.31	3,263.15	3,260.57	130.49	3,263.18	2.29	1.20	0.00	162 °F	Yellow	12/17/14	23:25	245 (gpm)
162	7,495	91.0	2.7	4616.73	3,293.15	3,290.53	131.90	3,293.17	2.30	0.67	0.00	162 °F	Yellow	12/18/14	0:05	245 (gpm)
163	7,525	90.8	2.8	4616.26	3,323.14	3,320.49	133.34	3,323.17	2.30	0.75	0.00	163 °F	Yellow	12/18/14	0:45	245 (gpm)
164	7,555	90.6	2.9	4615.89	3,353.13	3,350.45	134.83	3,353.16	2.30	0.75	0.00	163 °F	Yellow	12/18/14	1:22	245 (gpm)
165	7,585	90.2	3.0	4615.68	3,383.13	3,380.41	136.37	3,383.16	2.31	1.37	0.00	163 °F	Yellow	12/18/14	2:03	245 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
Well: Roger 19-33-7 #2H
Field/Block: Mississippi Lime
Co./Parish: Harper Co.
State: Kansas

PGS Job #: LKS6115814
MWD Operator: Ronny Golightly
Directional Driller: Jarod Gooch
Date of First Survey: December 5, 2014
Date of Last Survey: December 16, 2014



Total Correction: 4.10 East Grid

Vertical Section Plane: 2.07 Nominal Dip Angle: 65.17 Magnetic Field Strength: .516

Measured Depth	Inc.	Az.	T.V.D.	Ver. Sect.	Coordinates		Closure			DLS	MTR YLD	Temp (°F)	Vib/Shk Color	Date	Time	Flow Rate
					+N / -S	+E / -W	Dist.	Angle								
166	7,616	90.0	3.0	4615.63	3,414.13	3,411.37	138.00	3,414.16	2.32	0.65	0.00	162 °F	Yellow	12/18/14	2:58	245 (gpm)
167	7,646	90.4	3.0	4615.53	3,444.12	3,441.33	139.57	3,444.16	2.32	1.33	0.00	162 °F	Yellow	12/18/14	3:46	245 (gpm)
168	7,676	91.2	2.8	4615.11	3,474.12	3,471.28	141.08	3,474.15	2.33	2.75	0.00	163 °F	Yellow	12/18/14	4:31	245 (gpm)
169	7,706	91.3	2.3	4614.45	3,504.11	3,501.25	142.42	3,504.14	2.33	1.70	0.00	163 °F	Yellow	12/18/14	5:05	245 (gpm)
170	7,736	91.2	2.4	4613.80	3,534.10	3,531.22	143.65	3,534.14	2.33	0.47	0.00	163 °F	Yellow	12/18/14	5:38	245 (gpm)
171	7,766	91.2	2.7	4613.17	3,564.09	3,561.18	144.98	3,564.13	2.33	1.00	0.00	163 °F	Yellow	12/18/14	6:24	245 (gpm)
172	7,796	91.1	2.7	4612.57	3,594.08	3,591.14	146.40	3,594.12	2.33	0.33	0.00	163 °F	Yellow	12/18/14	6:58	245 (gpm)
173	7,826	91.2	3.0	4611.97	3,624.08	3,621.10	147.89	3,624.12	2.34	1.05	0.00	163 °F	Yellow	12/18/14	7:32	245 (gpm)
174	7,857	90.9	3.0	4611.40	3,655.07	3,652.05	149.51	3,655.11	2.34	0.97	0.00	163 °F	Yellow	12/18/14	8:36	245 (gpm)
175	7,887	90.8	2.3	4610.95	3,685.06	3,682.01	150.90	3,685.10	2.35	2.36	0.00	163 °F	Yellow	12/18/14	9:08	245 (gpm)
176	7,917	90.8	1.7	4610.53	3,715.06	3,711.99	151.94	3,715.10	2.34	2.00	0.00	163 °F	Yellow	12/18/14	9:45	245 (gpm)
177	7,947	90.7	1.9	4610.14	3,745.05	3,741.97	152.89	3,745.10	2.34	0.75	0.00	165 °F	Yellow	12/18/14	10:30	245 (gpm)
178	7,978	90.5	1.9	4609.82	3,776.05	3,772.96	153.91	3,776.09	2.34	0.65	0.00	165 °F	Yellow	12/18/14	11:00	245 (gpm)
179	8,010	90.5	2.2	4609.54	3,808.05	3,804.93	155.06	3,808.09	2.33	0.94	0.00	165 °F	Yellow	12/18/14	11:35	245 (gpm)
180	8,042	90.2	2.1	4609.34	3,840.05	3,836.91	156.26	3,840.09	2.33	0.99	0.00	165 °F	Yellow	12/18/14	12:19	245 (gpm)
181	8,074	90.0	2.3	4609.29	3,872.05	3,868.89	157.49	3,872.09	2.33	0.88	0.00	165 °F	Yellow	12/18/14	12:54	245 (gpm)
182	8,105	89.8	2.5	4609.34	3,903.05	3,899.86	158.78	3,903.09	2.33	0.91	0.00	163 °F	Yellow	12/18/14	13:57	245 (gpm)
183	8,137	90.2	2.3	4609.34	3,935.05	3,931.83	160.12	3,935.09	2.33	1.40	0.00	165 °F	Yellow	12/18/14	14:55	245 (gpm)
184	8,168	90.2	1.6	4609.23	3,966.05	3,962.81	161.18	3,966.09	2.33	2.26	0.00	165 °F	Yellow	12/18/14	15:48	245 (gpm)
185	8,200	90.6	1.3	4609.01	3,998.05	3,994.80	161.99	3,998.09	2.32	1.56	0.00	165 °F	Yellow	12/18/14	16:36	245 (gpm)
186	8,232	91.5	1.5	4608.42	4,030.04	4,026.79	162.77	4,030.08	2.31	2.88	0.00	165 °F	Yellow	12/18/14	15:15	245 (gpm)
187	8,263	92.0	1.8	4607.48	4,061.02	4,057.76	163.66	4,061.06	2.31	1.88	0.00	167 °F	Yellow	12/18/14	17:51	245 (gpm)
188	8,295	91.9	1.8	4606.39	4,093.00	4,089.73	164.67	4,093.04	2.31	0.31	0.00	167 °F	Yellow	12/18/14	18:22	245 (gpm)
189	8,327	91.6	1.8	4605.41	4,124.99	4,121.69	165.67	4,125.02	2.30	0.94	0.00	167 °F	Yellow	12/18/14	18:58	245 (gpm)
190	8,358	91.6	2.0	4604.54	4,155.98	4,152.67	166.70	4,156.01	2.30	0.64	0.00	167 °F	Yellow	12/18/14	19:26	245 (gpm)
191	8,390	91.3	1.9	4603.73	4,187.97	4,184.64	167.79	4,188.00	2.30	0.99	0.00	167 °F	Yellow	12/18/14	19:56	245 (gpm)
192	8,422	90.9	1.8	4603.12	4,219.96	4,216.61	168.82	4,219.99	2.29	1.29	0.00	169 °F	Yellow	12/18/14	20:32	245 (gpm)
193	8,453	90.5	1.6	4602.74	4,250.96	4,247.60	169.74	4,250.99	2.29	1.44	0.00	167 °F	Yellow	12/18/14	21:09	245 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
 Well: Roger 19-33-7 #2H
 Field/Block: Mississippi Lime
 Co./Parish: Harper Co.
 State: Kansas

PGS Job #: LKS6115814
 MWD Operator: Ronny Golightly
 Directional Driller: Jarod Gooch
 Date of First Survey: December 5, 2014
 Date of Last Survey: December 16, 2014



Total Correction: 4.10 East Grid

Vertical Section Plane: 2.07 Nominal Dip Angle: 65.17 Magnetic Field Strength: .516

Measured Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	Coordinates		Closure			DLS	MTR YLD	Temp (°F)	Vib/Shk	Date	Time	Flow Rate
					+N / -S	+E / -W	Dist.	Angle	Color							
194	8,485	90.3	1.8	4602.52	4,282.96	4,279.58	170.69	4,282.99	2.28	0.88	0.00	167 °F	Yellow	12/18/14	22:01	245 (gpm)
195	8,517	91.0	2.2	4602.15	4,314.95	4,311.56	171.81	4,314.98	2.28	2.52	0.00	167 °F	Yellow	12/18/14	22:42	245 (gpm)
196	8,548	91.2	1.9	4601.56	4,345.95	4,342.54	172.92	4,345.98	2.28	1.16	0.00	167 °F	Yellow	12/18/14	23:13	245 (gpm)
197	8,580	91.1	1.9	4600.92	4,377.94	4,374.51	173.98	4,377.97	2.28	0.31	0.00	169 °F	Yellow	12/18/14	23:49	245 (gpm)
198	8,611	90.8	2.0	4600.40	4,408.94	4,405.49	175.03	4,408.96	2.28	1.02	0.00	169 °F	Yellow	12/19/14	0:21	245 (gpm)
199	8,643	90.5	2.0	4600.04	4,440.93	4,437.47	176.15	4,440.96	2.27	0.94	0.00	169 °F	Yellow	12/19/14	0:57	245 (gpm)
200	8,674	90.2	1.8	4599.85	4,471.93	4,468.45	177.18	4,471.96	2.27	1.16	0.00	167 °F	Yellow	12/19/14	1:51	245 (gpm)
201	8,706	90.6	1.5	4599.63	4,503.93	4,500.44	178.10	4,503.96	2.27	1.56	0.00	169 °F	Yellow	12/19/14	2:29	245 (gpm)
202	8,737	90.9	1.4	4599.22	4,534.93	4,531.42	178.88	4,534.95	2.26	1.02	0.00	169 °F	Yellow	12/19/14	3:07	245 (gpm)
203	8,769	90.6	1.1	4598.80	4,566.92	4,563.41	179.58	4,566.94	2.25	1.33	0.00	169 °F	Yellow	12/19/14	3:45	245 (gpm)
204	8,801	90.2	1.0	4598.58	4,598.92	4,595.41	180.17	4,598.94	2.25	1.29	0.00	169 °F	Yellow	12/19/14	5:16	245 (gpm)
205	8,832	90.0	1.1	4598.52	4,629.91	4,626.40	180.73	4,629.93	2.24	0.72	0.00	169 °F	Yellow	12/19/14	5:57	245 (gpm)
206	8,864	90.6	1.1	4598.36	4,661.91	4,658.39	181.35	4,661.92	2.23	1.88	0.00	169 °F	Yellow	12/19/14	7:00	245 (gpm)
207	8,895	90.9	0.8	4597.95	4,692.90	4,689.39	181.86	4,692.91	2.22	1.37	0.00	169 °F	Yellow	12/19/14	7:46	245 (gpm)
208	8,927	91.4	0.7	4597.31	4,724.88	4,721.38	182.28	4,724.90	2.21	1.59	0.00	169 °F	Yellow	12/19/14	8:20	245 (gpm)
209	8,958	91.0	0.6	4596.66	4,755.87	4,752.37	182.63	4,755.88	2.20	1.33	0.00	169 °F	Yellow	12/19/14	8:53	245 (gpm)
210	8,990	90.9	0.6	4596.13	4,787.85	4,784.36	182.97	4,787.86	2.19	0.31	0.00	169 °F	Yellow	12/19/14	9:37	245 (gpm)
211	9,021	90.7	0.8	4595.70	4,818.84	4,815.36	183.35	4,818.85	2.18	0.91	0.00	171 °F	Yellow	12/19/14	10:11	245 (gpm)
212	9,053	90.5	0.8	4595.36	4,850.83	4,847.35	183.79	4,850.84	2.17	0.63	0.00	171 °F	Yellow	12/19/14	10:43	245 (gpm)
213	9,084	90.3	1.0	4595.15	4,881.82	4,878.35	184.28	4,881.83	2.16	0.91	0.00	169 °F	Pink	12/19/14	12:22	245 (gpm)
214	9,116	90.5	1.6	4594.92	4,913.82	4,910.34	185.01	4,913.82	2.16	1.98	0.00	171 °F	Yellow	12/19/14	13:02	245 (gpm)
215	9,148	90.9	1.8	4594.53	4,945.81	4,942.32	185.96	4,945.82	2.15	1.40	0.00	171 °F	Yellow	12/19/14	13:44	245 (gpm)
216	9,180	90.8	2.0	4594.06	4,977.81	4,974.30	187.02	4,977.82	2.15	0.70	0.00	171 °F	Yellow	12/19/14	14:23	245 (gpm)
217	9,211	90.7	2.3	4593.65	5,008.81	5,005.28	188.18	5,008.81	2.15	1.02	0.00	171 °F	Yellow	12/19/14	15:07	245 (gpm)
218	9,243	90.9	2.7	4593.20	5,040.80	5,037.24	189.57	5,040.81	2.16	1.40	0.00	171 °F	Yellow	12/19/14	15:41	245 (gpm)
219	9,275	91.1	2.9	4592.65	5,072.80	5,069.20	191.14	5,072.80	2.16	0.88	0.00	171 °F	Yellow	12/19/14	16:25	245 (gpm)
220	9,306	91.0	3.0	4592.08	5,103.79	5,100.15	192.73	5,103.79	2.16	0.46	0.00	171 °F	Yellow	12/19/14	17:15	245 (gpm)
221	9,326	90.9	3.0	4591.75	5,123.78	5,120.12	193.78	5,123.79	2.17	0.50	0.00	163 °F	Yellow	12/19/14	17:40	245 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
 Well: Roger 19-33-7 #2H
 Field/Block: Mississippi Lime
 Co./Parish: Harper Co.
 State: Kansas

PGS Job #: LKS6115814
 MWD Operator: Ronny Golightly
 Directional Driller: Jarod Gooch
 Date of First Survey: December 5, 2014
 Date of Last Survey: December 16, 2014



Total Correction: 4.10 East Grid

Vertical Section Plane: 2.07 Nominal Dip Angle: 65.17 Magnetic Field Strength: .516

	<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>
TD	9,384	90.7	3.0	4590.94	5,181.77	5,178.04	196.81	5,181.78	2.18	0.36						

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<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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<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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<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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<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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<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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<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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<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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<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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<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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<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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Customer: Tapstone Energy
 Well: Roger 19-33-7 #2H
 Field/Block: Mississippi Lime
 Co./Parish: Harper Co.
 State: Kansas

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 MWD Operator: Ronny Golightly
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TOPOGRAPHIC LAND SURVEYORS

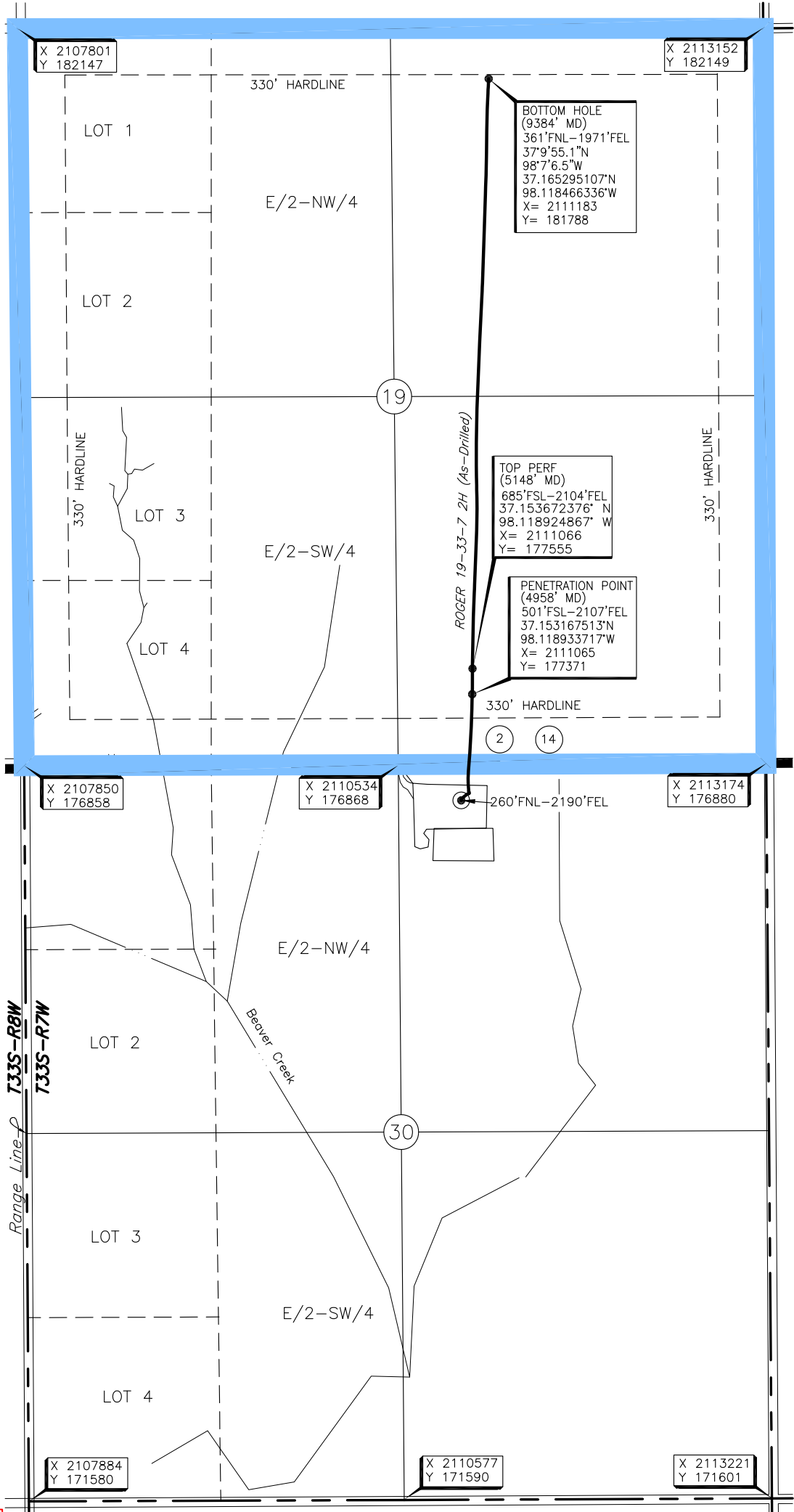
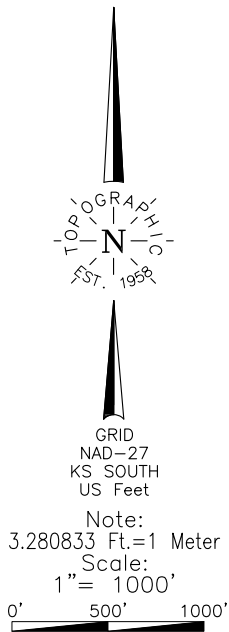
6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219

Certificate of Authorization No. LS-99, Exp. Dec. 31, 2015

HARPER

County, Kansas

260'FNL - 2190'FEL Section 30 Township 33S Range 7W P.M.



Operator: TAPSTONE ENERGY
 Lease Name: ROGER 19-33-7
 Topography & Vegetation Location fell on level pad, 89' North of wellhead
 Well No.: 2H
 ELEVATION: 1386' Gr. at Level Pad

Good Drill Site? YES
 Reference Stakes or Alternate Location None
 Stakes Set None

Best Accessibility to Location From North on lease road
 Distance & Direction From Anthony, KS, go west on State Highway 14 for ± 5.5 miles to the NW Corner of Section 30, T33S - R7W.

A boundary survey of the said section(s) shown hereon was not performed per the request of the operator shown hereon.

This information was gathered with a GPS receiver with ±1 foot Horiz./Vert. accuracy.

DATUM: NAD-27
 LAT: 37°09'03.9"N
 LONG: 98°07'09.2"W
 LAT: 37.151076304°N
 LONG: 98.119214266°W
 STATE PLANE
 COORDINATES: (US Feet)
 ZONE: KS SOUTH
 X: 2110986
 Y: 176610

Invoice # 238197 Date of Drawing: Dec. 23, 2014
230464 Date Staked: Sep. 14, 2014

FINAL AS-DRILLED PLAT

AS-DRILLED INFORMATION
 FURNISHED BY TAPSTONE ENERGY

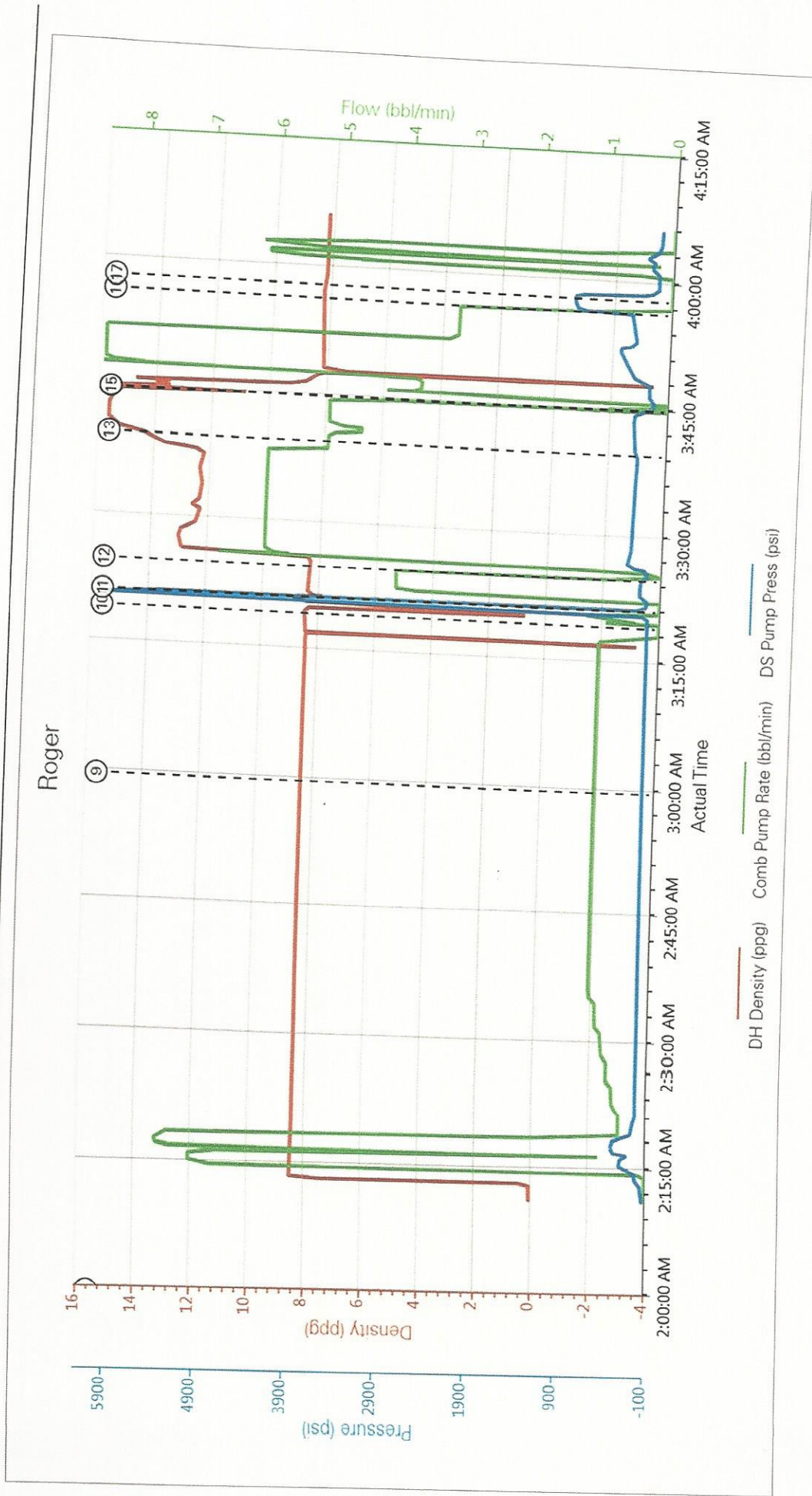
1.5 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Downhole Density (ppg)	Combined Pump Rate (bbbl/min)	Driv-Side Pump Pressure (psi)	Comments
Event	1	Call Out	Call Out	12/3/2014	17:30:00	USER				Andrew Chambers,Scott Applebee,Larry Kirkland,Martin Esparza on location time1:00 pm
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	12/3/2014	18:00:00	USER				Discussed safe driving
Event	3	Depart Location	Depart Location	12/3/2014	18:15:00	USER				Andrew Chambers,Scott Applebee,Larry Kirkland,Martin Esparza
Event	4	Arrive At Loc	Arrive At Loc	12/3/2014	23:00:00	USER				Met with customer rep went over where to spot equipment,Muster area,s,red zones,and calculations
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	12/3/2014	23:30:00	USER				Identified,red zones,trip hazards,muster area,s,over head hazards,and pressurized pumping area,s
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	12/4/2014	01:00:00	USER				Discussed,red zones,trip hazards,muster area,s,over head hazards,and pressurized pumping area,s
Event	7	Rig-Up Equipment	Rig up equipment	12/4/2014	01:15:00	USER				Rigged up ground
Event	8	Rig-Up Completed	Rig-Up Completed	12/4/2014	02:00:00	USER				Rig up completed safely
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	12/4/2014	03:00:00	USER	8.41	0.90	17.00	Discussed,red zones,trip hazards,muster area,s,over head hazards,and pressurized pumping area,s

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Driv-Side Pump Pressure (psi)	Comments
Event	10	Test Lines	Test Lines	12/4/2014	03:19:29	COM7	8.48	0.00	17.00	Tested lines to 3000 PSI test successful
Event	11	Pump Spacer 1	Pump Spacer 1	12/4/2014	03:21:25	COM7	8.45	0.00	52.00	Pumped 10 bbl fresh water spacer
Event	12	Pump Lead Cement	Pump Lead Cement	12/4/2014	03:25:08	COM7	12.34	0.00	50.00	87 bbl of Extendamem(12.4lb/gal,2 .13cu.ft/sk,11.87gal/sk)
Event	13	Pump Tail Cement	Pump Tail Cement	12/4/2014	03:39:56	COM7	15.6	5.10	239.00	Pumped 33 bbl of Swiftcem(15.6lb/gal,1.2 1cu.ft/sk,5.43gak/sk)
Event	14	Drop Top Plug	Drop Top Plug	12/4/2014	03:45:16	COM7	13.56	0.00	43.00	Halliburton top plug left cementing head
Event	15	Pump Displacement	Pump Displacement	12/4/2014	03:45:19	COM7	13.66	0.00	41.00	Pumped 58 bbl fresh water displacement
Event	16	Bump Plug	Bump Plug	12/4/2014	03:56:50	COM7	8.25	0.00	915.00	Bumped plug at calculated displacement
Event	17	Other	check floats	12/4/2014	03:58:21	USER	8.25	0.00	928.00	Floats held .5 bbl bled back,30 bbl cement returns to surface
Event	18	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	12/4/2014	05:00:00	USER				Discussed,red zones,trip hazards,muster area,s,over head hazards,and pressurized pumping area,s
Event	19	Rig-Down Equipment	Rig-Down Equipment	12/4/2014	05:30:00	USER				Rigged down ground
Event	20	Rig-Down Completed	Rig-Down Completed	12/4/2014	06:15:00	USER				Rig down completed safely
Event	21	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	12/4/2014	06:30:00	USER				Discussed safe driving
Event	22	Depart Location	Depart Location	12/4/2014	07:00:00	USER				Andrew Chambers,Scott Applebee,Larry Kirkland,Martin Esparza

2.0 Custom Graphs

2.1 Custom Graph



The Road to Excellence Starts with Safety

Sold To #: 372073	Ship To #: 3595844	Quote #: 0021966646	Sales Order #: 0901885294
Customer: TAPSTONE ENERGY LLC		Customer Rep: Dale James	
Well Name: ROGER 19-33-7	Well #: 2H	API/UWI #: 15-077-22096-01	
Field:	City (SAP): ANTHONY	County/Parish: HARPER	State: KANSAS
Legal Description: NE NW NW NE-30-33S-7W-260FNL-2190FEL			
Contractor: NOMAC		Rig/Platform Name/Num: NOMAC 245	
Job BOM: 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX25353		Srvc Supervisor: Andrew Chambers	
Job			

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	800ft 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	800		
Casing	3	9.625	8.921	36	LTC	J-55	0	800		

Tools and Accessories									
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make	
Guide Shoe	9.625			800	Top Plug	9.625		HES	
Float Shoe	9.625				Bottom Plug	9.625		HES	
Float Collar	9.625				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	Conc			

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			5	
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	Lead Cement	EXTENDACEM (TM) SYSTEM	230	sack	12.4	2.13		6	11.86

0.25 lbm		POLY-E-FLAKE (101216940)							
3 %		CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft³/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	Tail Cement	SWIFTCEM (TM) SYSTEM	150	sack	15.6	1.21		5	5.39
2 %		CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
0.1250 lbm		POLY-E-FLAKE (101216940)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft³/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	Displacement	Displacement	57.6	bbl	8.33			8	
Cement Left In Pipe	Amount	42 ft			Reason			Shoe Joint	
Mix Water:	pH ##	Mix Water Chloride: ## ppm			Mix Water Temperature: ## °F °C				
Cement Temperature:	## °F °C	Plug Displaced by: ## lb/gal kg/m3 XXXX			Disp. Temperature: ## °F °C				
Plug Bumped?	Yes/No	Bump Pressure: ##### psi MPa			Floats Held? Yes/No				
Cement Returns:	## bbl m3	Returns Density: ## lb/gal kg/m3			Returns Temperature: ## °F °C				
Comment									

HALLIBURTON

iCem[®] Service

TAPSTONE ENERGY LLC

For:

Date: Tuesday, December 09, 2014

2H

Case 1

Sincerely,

Aaron Malmgren (Service Supervisor)

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1.0 Job Design

2.0 Temperature Modeling

3.0 Real-Time Job Summary

3.1 Stage Summary - Liquid Volume, Density, & Design Shutdown

3.2 Stage Summary - Pump Pressure & ECD

3.3 Stage Summary - Pump Rate & Nitrogen Rate

3.4 Shutdown Summary

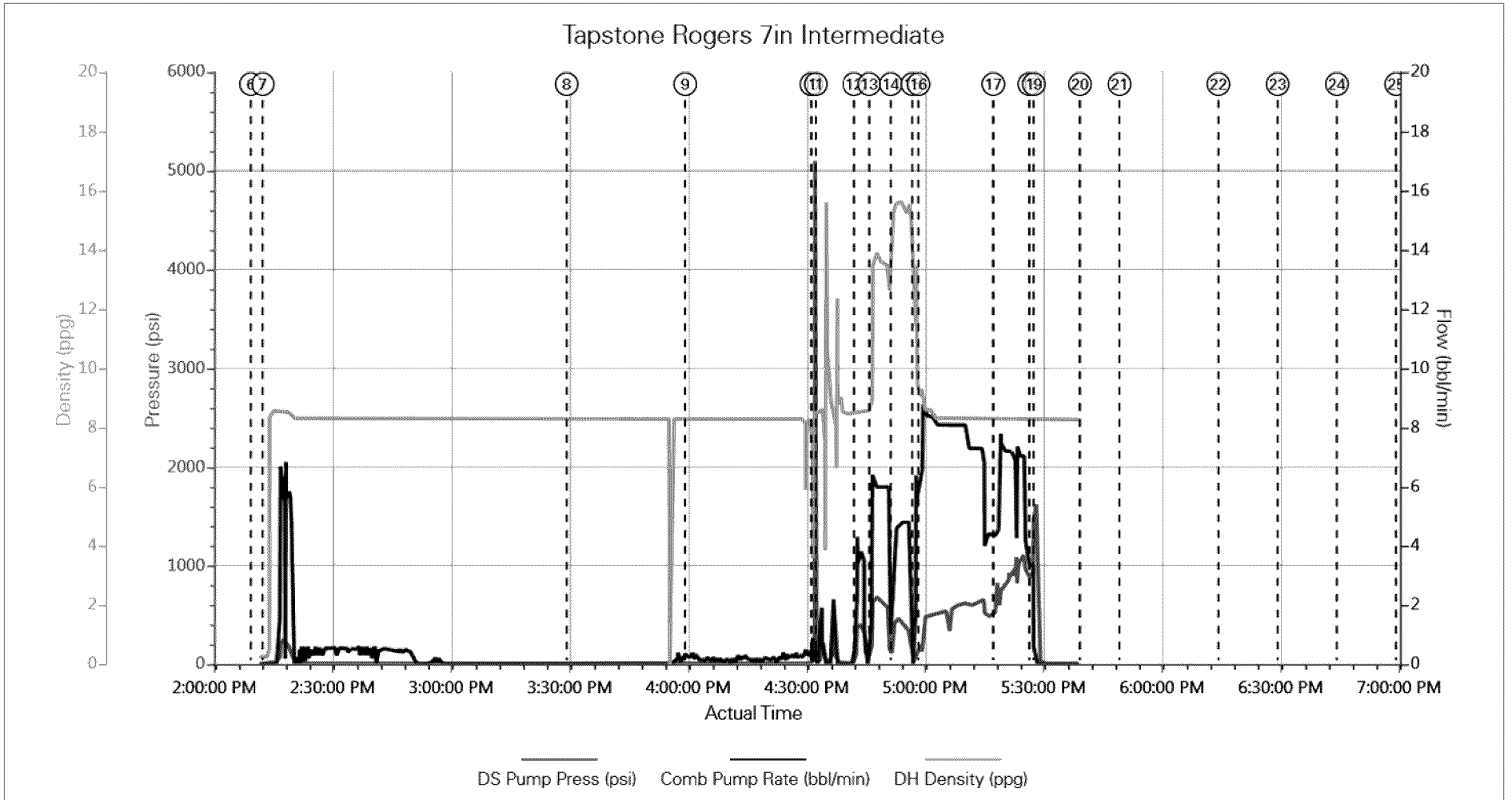
3.5 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Driv-Side Pump Pressure (psi)	Combined Pump Rate (bbl/min)	Downhole Density (ppg)	Comments
Event	1	Call Out	Call Out	12/9/2014	09:30:00	USER				called out to be on location @ 1430
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	12/9/2014	10:15:00	USER				discussed routes and stops while in route to location would be meeting bulk equipment on location
Event	3	Arrive At Loc	Arrive At Loc	12/9/2014	13:30:00	USER				rig had 700' of casing left to go before getting on bottom met with customer and tested water
Event	4	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	12/9/2014	13:45:00	USER				discussed potential hazards associated with job tasks decided who would do what job
Event	5	Rig-Up Equipment	Rig-Up Equipment	12/9/2014	13:50:00	USER				rigging up iron and water hoses
Event	6	Rig-Up Completed	Rig-Up Completed	12/9/2014	14:10:00	USER				all iron and hoses hooked up casing crew finishing with casing
Event	7	Start Job	Start Job	12/9/2014	14:13:06	COM8	6.00	0.00	0.26	Primed up pumping equipment
Event	8	Casing on Bottom	Casing on Bottom	12/9/2014	15:30:00	USER	13.00	0.10	8.30	casing crew rigging down hooking up CI on rig floor stabbed cement head so rig could circulate
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	12/9/2014	16:00:00	USER	13.00	0.30	8.29	went over max rates and pressures for cement job
Event	10	Pressure Test	Pressure Test	12/9/2014	16:31:53	USER	5025.00	0.00	8.59	test lines to 5000 reset kickouts for 1500 psi
Event	11	Drop Bottom Plug	Drop Bottom Plug	12/9/2014	16:33:02	USER	8.00	1.30	8.58	stuffed bottom plug in plug container and put pin in loaded top plug
Event	12	Pump Spacer	Pump Spacer	12/9/2014	16:42:47	USER	435.00	3.40	8.61	10 bbls mud flush

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Driv-Side Pump Pressure (psi)	Combined Pump Rate (bbl/min)	Downhole Density (ppg)	Comments
Event	13	Pump Lead Cement	Pump Lead Cement	12/9/2014	16:46:39	USER	673.00	6.00	13.83	140 sacks Mixed @ 13.6 ppg
Event	14	Pump Tail Cement	Pump Tail Cement	12/9/2014	16:52:07	USER	455.00	4.60	15.42	90 Sacks mixed @ 15.6ppg
Event	15	Drop Top Plug	Drop Top Plug	12/9/2014	16:57:35	USER	138.00	6.20	12.67	released top plug from pump container
Event	16	Pump Displacement	Pump Displacement	12/9/2014	16:59:08	USER	280.00	8.80	8.69	pumped 194 bbls fresh water displacement
Event	17	Comment	Rupture bottom plug	12/9/2014	17:18:04	USER	632.00	4.20	8.31	ruptured bottom plug spacer began entering formation out the shoe
Event	18	Bump Plug	Bump Plug	12/9/2014	17:27:10	USER	1051.00	3.30	8.31	bumped plug took 500 of circulating pressure
Event	19	Check Floats	Check Floats	12/9/2014	17:28:19	USER	1623.00	0.00	8.30	floats held got back 2 bbls fresh water
Event	20	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	12/9/2014	17:40:00	USER				discussed potential hazards associated with rig down tasks worked as a team to safely rig down all iron and hoses
Event	21	Rig-Down Equipment	Rig-Down Equipment	12/9/2014	17:50:00	USER				rigging down
Event	22	Rig-Down Completed	Rig-Down Completed	12/9/2014	18:15:00	USER				all iron and hoses properly secured back onto HES equipment
Event	23	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	12/9/2014	18:30:00	USER				discussed routes and stops while in route back to HES field camps
Event	24	Crew Leave Location	Crew Leave Location	12/9/2014	18:45:00	USER				crews pulling off location
Event	25	End Job	End Job	12/9/2014	19:00:00	USER				all job activities completed thanks for calling halliburton

4.0 Custom Graphs

4.1 Custom Graph



5.1 One-Minutes Real-Time Data Listing
