



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1217340
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: _____

1217340

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

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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Professional Directional Wellpath Report



Company: TAPSTONE ENERGY	Local Co-ordinate Reference: Well No. 16-2H
Project: Barber County, KS	TVD Reference: WELL @ 1333.00usft (RKB: 16' + GL: 1317')
Site: Schupbach 3510 No. 16-2H	MD Reference: WELL @ 1333.00usft (RKB: 16' + GL: 1317')
Well: No. 16-2H	North Reference: Grid
Wellbore: Original Hole	Survey Calculation Method: Minimum Curvature
Design: Original Hole	Database: Well_Planner1

Project Barber County, KS	
Map System: US State Plane 1927 (Exact solution)	System Datum: Mean Sea Level
Geo Datum: NAD 1927 (NADCON CONUS)	
Map Zone: Kansas South 1502	

Site Schupbach 3510 No. 16-2H		
Site Position:	Northing: 120,992.00 usft	Latitude: 36° 59' 56.118 N
From: Map	Easting: 2,024,029.00 usft	Longitude: 98° 25' 3.815 W
Position Uncertainty: 3.30 usft	Slot Radius: 13-3/16 "	Grid Convergence: 0.05 °

Well No. 16-2H		
Well Position	Northing: 120,992.00 usft	Latitude: 36° 59' 56.118 N
+N/-S 0.00 usft	Easting: 2,024,029.00 usft	Longitude: 98° 25' 3.815 W
+E/-W 0.00 usft	Wellhead Elevation: usft	Ground Level: 1,317.00 usft
Position Uncertainty 1.10 usft		

Wellbore Original Hole					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/8/2014	4.57	65.03	51,541

Design Original Hole				
Audit Notes:				
Version: 1.0	Phase: ACTUAL	Tie On Depth: 0.00		
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.40

Survey Program Date 8/5/2014				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
860.00	10,870.00	Pro MWD (Original Hole)	MWD	MWD - Standard



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Well:	No. 16-2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Well_Planner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	120,992.00	2,024,029.00	0.00	
860.00	0.30	166.40	860.00	-2.19	0.53	-2.19	0.03	120,989.81	2,024,029.53	166.40	
1,049.00	0.10	137.10	1,048.99	-2.79	0.76	-2.80	0.12	120,989.21	2,024,029.76	-167.05	
1,238.00	0.10	144.10	1,237.99	-3.04	0.97	-3.05	0.01	120,988.96	2,024,029.97	93.50	
1,427.00	0.20	137.50	1,426.99	-3.42	1.29	-3.43	0.05	120,988.58	2,024,030.29	-13.11	
1,617.00	0.30	176.80	1,616.99	-4.16	1.54	-4.18	0.10	120,987.84	2,024,030.54	80.40	
1,806.00	0.50	186.20	1,805.99	-5.48	1.48	-5.49	0.11	120,986.52	2,024,030.48	22.90	
1,995.00	0.60	208.10	1,994.98	-7.17	0.92	-7.18	0.12	120,984.83	2,024,029.92	75.78	
2,185.00	0.70	195.20	2,184.97	-9.17	0.15	-9.17	0.09	120,982.83	2,024,029.15	-62.22	
2,375.00	0.60	173.00	2,374.95	-11.27	-0.03	-11.27	0.14	120,980.73	2,024,028.97	-122.51	
2,564.00	0.60	172.80	2,563.94	-13.24	0.21	-13.24	0.00	120,978.76	2,024,029.21	-90.10	
2,754.00	0.60	170.20	2,753.93	-15.21	0.50	-15.21	0.01	120,976.79	2,024,029.50	-91.30	
2,943.00	0.60	163.00	2,942.92	-17.13	0.96	-17.14	0.04	120,974.87	2,024,029.96	-93.60	
3,133.00	0.70	152.90	3,132.91	-19.11	1.78	-19.13	0.08	120,972.89	2,024,030.78	-54.01	
3,322.00	1.00	144.50	3,321.89	-21.48	3.27	-21.51	0.17	120,970.52	2,024,032.27	-26.79	
3,512.00	0.60	166.10	3,511.87	-23.80	4.47	-23.84	0.26	120,968.20	2,024,033.47	153.45	
3,639.00	0.60	149.40	3,638.87	-25.02	4.97	-25.07	0.14	120,966.98	2,024,033.97	-98.35	
3,702.00	0.60	140.80	3,701.86	-25.55	5.34	-25.61	0.14	120,966.45	2,024,034.34	-94.30	
3,766.00	0.50	130.50	3,765.86	-26.00	5.77	-26.05	0.22	120,966.00	2,024,034.77	-140.40	
3,829.00	0.60	124.10	3,828.86	-26.36	6.25	-26.42	0.19	120,965.64	2,024,035.25	-34.79	
3,892.00	0.50	132.90	3,891.85	-26.73	6.72	-26.80	0.21	120,965.27	2,024,035.72	144.16	
3,955.00	0.60	143.50	3,954.85	-27.18	7.12	-27.26	0.23	120,964.82	2,024,036.12	50.88	
4,019.00	0.50	145.00	4,018.85	-27.68	7.48	-27.76	0.16	120,964.32	2,024,036.48	172.56	
4,050.00	0.20	50.70	4,049.85	-27.76	7.60	-27.84	1.78	120,964.24	2,024,036.60	-158.83	
4,082.00	0.80	7.50	4,081.85	-27.50	7.67	-27.58	2.09	120,964.50	2,024,036.67	-55.02	
4,113.00	1.70	354.60	4,112.84	-26.83	7.66	-26.91	3.02	120,965.17	2,024,036.66	-23.88	
4,145.00	2.60	352.50	4,144.82	-25.64	7.52	-25.71	2.82	120,966.36	2,024,036.52	-6.05	



Professional Directional
Wellpath Report



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Project:	Barber County, KS	TVD Reference:	WELL @ 1333.00usft (RKB: 16' + GL: 1317')
Site:	Schupbach 3510 No. 16-2H	MD Reference:	WELL @ 1333.00usft (RKB: 16' + GL: 1317')
Well:	No. 16-2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Well_Planner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)	
4,176.00	3.30	353.60	4,175.77	-24.05	7.33	-24.13	2.27	120,967.95	2,024,036.33	5.17	
4,208.00	5.90	5.70	4,207.67	-21.50	7.39	-21.58	8.63	120,970.50	2,024,036.39	26.57	
4,239.00	9.90	11.00	4,238.37	-17.30	8.05	-17.38	13.10	120,974.70	2,024,037.05	12.96	
4,270.00	14.10	10.70	4,268.68	-10.97	9.26	-11.06	13.55	120,981.03	2,024,038.26	-1.00	
4,302.00	17.90	9.30	4,299.44	-2.28	10.78	-2.39	11.94	120,989.72	2,024,039.78	-6.47	
4,334.00	21.00	7.80	4,329.61	8.25	12.36	8.12	9.81	121,000.25	2,024,041.36	-9.86	
4,365.00	24.20	7.20	4,358.23	20.06	13.91	19.92	10.35	121,012.06	2,024,042.91	-4.40	
4,397.00	27.40	6.70	4,387.03	33.89	15.59	33.72	10.02	121,025.89	2,024,044.59	-4.12	
4,428.00	30.60	6.00	4,414.14	48.82	17.25	48.64	10.38	121,040.82	2,024,046.25	-6.36	
4,460.00	33.40	5.80	4,441.28	65.69	18.99	65.49	8.76	121,057.69	2,024,047.99	-2.25	
4,491.00	35.90	4.20	4,466.78	83.25	20.52	83.03	8.58	121,075.25	2,024,049.52	-20.66	
4,523.00	37.90	2.30	4,492.37	102.43	21.60	102.19	7.19	121,094.43	2,024,050.60	-30.46	
4,555.00	40.60	1.50	4,517.14	122.66	22.26	122.42	8.58	121,114.66	2,024,051.26	-10.93	
4,587.00	43.20	0.90	4,540.96	144.02	22.71	143.78	8.22	121,136.02	2,024,051.71	-8.99	
4,618.00	45.10	0.40	4,563.20	165.61	22.95	165.36	6.23	121,157.61	2,024,051.95	-10.57	
4,649.00	46.30	0.00	4,584.85	187.80	23.03	187.55	3.98	121,179.80	2,024,052.03	-13.56	
4,681.00	47.70	359.20	4,606.68	211.20	22.86	210.95	4.74	121,203.20	2,024,051.86	-22.95	
4,712.00	49.70	358.10	4,627.14	234.48	22.31	234.24	6.98	121,226.48	2,024,051.31	-22.81	
4,744.00	52.50	358.20	4,647.23	259.37	21.51	259.13	8.75	121,251.37	2,024,050.51	1.62	
4,776.00	55.00	359.20	4,666.15	285.17	20.93	284.93	8.21	121,277.17	2,024,049.93	18.18	
4,807.00	57.20	0.10	4,683.44	310.89	20.77	310.66	7.49	121,302.89	2,024,049.77	19.01	
4,839.00	59.70	0.60	4,700.18	338.16	20.94	337.92	7.93	121,330.16	2,024,049.94	9.80	
4,871.00	62.00	0.20	4,715.77	366.11	21.13	365.87	7.27	121,358.11	2,024,050.13	-8.73	
4,902.00	63.10	0.00	4,730.06	393.62	21.18	393.37	3.59	121,385.62	2,024,050.18	-9.21	
4,934.00	63.80	359.70	4,744.36	422.24	21.11	422.00	2.34	121,414.24	2,024,050.11	-21.04	
4,965.00	64.20	359.30	4,757.95	450.10	20.86	449.86	1.73	121,442.10	2,024,049.86	-42.04	
4,997.00	64.90	358.90	4,771.70	478.99	20.41	478.75	2.46	121,470.99	2,024,049.41	-27.38	



Professional Directional Wellpath Report



Company:	TAPSTONE ENERGY	Local Co-ordinate Reference:	Well No. 16-2H
Project:	Barber County, KS	TVD Reference:	WELL @ 1333.00usft (RKB: 16' + GL: 1317')
Site:	Schupbach 3510 No. 16-2H	MD Reference:	WELL @ 1333.00usft (RKB: 16' + GL: 1317')
Well:	No. 16-2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Well_Planner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)	
5,028.00	65.30	358.80	4,784.75	507.11	19.84	506.87	1.32	121,499.11	2,024,048.84	-12.80	
5,060.00	65.10	358.40	4,798.18	536.15	19.14	535.92	1.30	121,528.15	2,024,048.14	-118.93	
5,091.00	65.40	358.10	4,811.15	564.29	18.28	564.06	1.31	121,556.29	2,024,047.28	-42.31	
5,122.00	66.80	357.90	4,823.71	592.61	17.29	592.40	4.55	121,584.61	2,024,046.29	-7.48	
5,153.00	69.00	358.30	4,835.38	621.31	16.33	621.11	7.20	121,613.31	2,024,045.33	9.64	
5,184.00	72.10	359.00	4,845.70	650.53	15.65	650.33	10.22	121,642.53	2,024,044.65	12.14	
5,216.00	74.30	0.20	4,854.95	681.16	15.44	680.96	7.76	121,673.16	2,024,044.44	27.75	
5,247.00	76.20	0.90	4,862.84	711.14	15.72	710.94	6.51	121,703.14	2,024,044.72	19.70	
5,279.00	77.90	1.00	4,870.01	742.32	16.24	742.11	5.32	121,734.32	2,024,045.24	3.29	
5,311.00	80.80	0.50	4,875.92	773.76	16.65	773.55	9.19	121,765.76	2,024,045.65	-9.66	
5,342.00	83.90	359.90	4,880.05	804.48	16.76	804.26	10.18	121,796.48	2,024,045.76	-10.90	
5,426.00	89.60	357.80	4,884.81	888.29	15.07	888.08	7.23	121,880.29	2,024,044.07	-20.26	
5,489.00	89.80	358.00	4,885.14	951.25	12.76	951.06	0.45	121,943.25	2,024,041.76	45.00	
5,552.00	91.50	358.00	4,884.43	1,014.20	10.57	1,014.04	2.70	122,006.20	2,024,039.57	0.00	
5,615.00	91.30	358.00	4,882.89	1,077.15	8.37	1,077.00	0.32	122,069.15	2,024,037.37	180.00	
5,678.00	90.60	357.70	4,881.84	1,140.09	6.00	1,139.97	1.21	122,132.09	2,024,035.00	-156.80	
5,742.00	90.20	357.00	4,881.39	1,204.02	3.05	1,203.92	1.26	122,196.02	2,024,032.05	-119.74	
5,805.00	91.30	357.40	4,880.57	1,266.94	-0.03	1,266.87	1.86	122,258.94	2,024,028.97	19.98	
5,868.00	90.30	357.50	4,879.69	1,329.87	-2.83	1,329.83	1.60	122,321.87	2,024,026.17	174.29	
5,931.00	90.40	357.00	4,879.31	1,392.80	-5.86	1,392.78	0.81	122,384.80	2,024,023.14	-78.69	
5,994.00	90.40	356.80	4,878.87	1,455.70	-9.26	1,455.72	0.32	122,447.70	2,024,019.74	-90.00	
6,057.00	90.20	356.50	4,878.54	1,518.59	-12.95	1,518.65	0.57	122,510.59	2,024,016.05	-123.69	
6,120.00	90.10	357.00	4,878.37	1,581.49	-16.52	1,581.58	0.81	122,573.49	2,024,012.48	101.31	
6,183.00	91.40	356.90	4,877.55	1,644.40	-19.87	1,644.51	2.07	122,636.40	2,024,009.13	-4.40	
6,246.00	90.90	357.80	4,876.28	1,707.32	-22.78	1,707.46	1.63	122,699.32	2,024,006.22	119.05	
6,309.00	91.30	357.90	4,875.07	1,770.26	-25.14	1,770.43	0.65	122,762.26	2,024,003.86	14.03	
6,372.00	90.70	358.10	4,873.97	1,833.21	-27.34	1,833.40	1.00	122,825.21	2,024,001.66	161.57	



Professional Directional
Wellpath Report



Company:	TAPSTONE ENERGY	Local Co-ordinate Reference:	Well No. 16-2H
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Well:	No. 16-2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Well_Planner1

Survey												
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)		
6,435.00	89.40	358.70	4,873.92	1,896.19	-29.10	1,896.39	2.27	122,888.19	2,023,999.90	155.22		
6,498.00	89.00	358.80	4,874.80	1,959.16	-30.48	1,959.38	0.65	122,951.16	2,023,998.52	165.97		
6,561.00	89.90	358.50	4,875.40	2,022.14	-31.96	2,022.37	1.51	123,014.14	2,023,997.04	-18.44		
6,625.00	90.70	358.50	4,875.07	2,086.12	-33.64	2,086.36	1.25	123,078.12	2,023,995.36	0.00		
6,688.00	89.20	358.20	4,875.12	2,149.09	-35.45	2,149.35	2.43	123,141.09	2,023,993.55	-168.69		
6,720.00	88.00	358.50	4,875.90	2,181.07	-36.37	2,181.33	3.87	123,173.07	2,023,992.63	165.97		
6,751.00	87.90	358.50	4,877.01	2,212.04	-37.18	2,212.31	0.32	123,204.04	2,023,991.82	180.00		
6,783.00	87.40	358.50	4,878.33	2,244.00	-38.02	2,244.28	1.56	123,236.00	2,023,990.98	180.00		
6,814.00	87.40	358.60	4,879.73	2,274.96	-38.80	2,275.24	0.32	123,266.96	2,023,990.20	90.00		
6,846.00	89.10	359.30	4,880.71	2,306.94	-39.39	2,307.22	5.74	123,298.94	2,023,989.61	22.38		
6,877.00	90.40	359.30	4,880.84	2,337.93	-39.77	2,338.22	4.19	123,329.93	2,023,989.23	0.00		
6,909.00	90.80	358.20	4,880.51	2,369.92	-40.46	2,370.22	3.66	123,361.92	2,023,988.54	-70.01		
6,940.00	91.30	359.30	4,879.94	2,400.91	-41.14	2,401.21	3.90	123,392.91	2,023,987.86	65.54		
6,972.00	92.30	358.80	4,878.94	2,432.89	-41.67	2,433.19	3.49	123,424.89	2,023,987.33	-26.55		
7,003.00	92.50	358.80	4,877.64	2,463.86	-42.32	2,464.16	0.65	123,455.86	2,023,986.68	0.00		
7,035.00	91.80	359.50	4,876.44	2,495.83	-42.79	2,496.14	3.09	123,487.83	2,023,986.21	135.01		
7,066.00	90.60	358.00	4,875.79	2,526.81	-43.47	2,527.13	6.20	123,518.81	2,023,985.53	-128.65		
7,098.00	90.70	358.60	4,875.42	2,558.80	-44.42	2,559.12	1.90	123,550.80	2,023,984.58	80.53		
7,129.00	91.20	358.10	4,874.91	2,589.78	-45.31	2,590.11	2.28	123,581.78	2,023,983.69	-44.99		
7,160.00	91.30	358.10	4,874.23	2,620.76	-46.34	2,621.10	0.32	123,612.76	2,023,982.66	0.00		
7,199.00	91.30	358.80	4,873.35	2,659.73	-47.39	2,660.08	1.79	123,651.73	2,023,981.61	89.99		
7,224.00	91.30	358.60	4,872.78	2,684.72	-47.96	2,685.07	0.80	123,676.72	2,023,981.04	-90.00		
7,254.00	91.00	358.30	4,872.18	2,714.70	-48.77	2,715.06	1.41	123,706.70	2,023,980.23	-135.00		
7,284.00	91.20	358.90	4,871.60	2,744.69	-49.51	2,745.05	2.11	123,736.69	2,023,979.49	71.56		
7,314.00	91.20	359.80	4,870.98	2,774.68	-49.85	2,775.05	3.00	123,766.68	2,023,979.15	89.99		
7,344.00	91.70	0.00	4,870.22	2,804.67	-49.90	2,805.04	1.79	123,796.67	2,023,979.10	21.79		
7,375.00	92.30	359.90	4,869.13	2,835.65	-49.92	2,836.02	1.96	123,827.65	2,023,979.08	-9.45		



Professional Directional Wellpath Report



Company:	TAPSTONE ENERGY	Local Co-ordinate Reference:	Well No. 16-2H
Project:	Barber County, KS	TVD Reference:	WELL @ 1333.00usft (RKB: 16' + GL: 1317')
Site:	Schupbach 3510 No. 16-2H	MD Reference:	WELL @ 1333.00usft (RKB: 16' + GL: 1317')
Well:	No. 16-2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Well_Planner1

Survey												
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)		
7,405.00	92.70	359.40	4,867.83	2,865.62	-50.11	2,865.99	2.13	123,857.62	2,023,978.89	-51.30		
7,436.00	92.20	359.90	4,866.50	2,896.59	-50.30	2,896.96	2.28	123,888.59	2,023,978.70	135.02		
7,466.00	92.30	0.20	4,865.32	2,926.57	-50.27	2,926.93	1.05	123,918.57	2,023,978.73	71.55		
7,496.00	92.70	0.00	4,864.01	2,956.54	-50.22	2,956.90	1.49	123,948.54	2,023,978.78	-26.54		
7,527.00	92.60	0.50	4,862.58	2,987.50	-50.08	2,987.87	1.64	123,979.50	2,023,978.92	101.31		
7,557.00	91.90	0.10	4,861.40	3,017.48	-49.93	3,017.84	2.69	124,009.48	2,023,979.07	-150.27		
7,587.00	91.00	0.70	4,860.64	3,047.47	-49.72	3,047.82	3.61	124,039.47	2,023,979.28	146.31		
7,617.00	91.10	0.40	4,860.09	3,077.46	-49.43	3,077.81	1.05	124,069.46	2,023,979.57	-71.56		
7,648.00	91.20	0.00	4,859.47	3,108.46	-49.32	3,108.80	1.33	124,100.46	2,023,979.68	-75.96		
7,678.00	91.30	0.60	4,858.82	3,138.45	-49.16	3,138.79	2.03	124,130.45	2,023,979.84	80.53		
7,709.00	91.60	0.50	4,858.03	3,169.44	-48.87	3,169.78	1.02	124,161.44	2,023,980.13	-18.43		
7,739.00	91.70	0.00	4,857.17	3,199.43	-48.74	3,199.76	1.70	124,191.43	2,023,980.26	-78.68		
7,769.00	91.60	0.00	4,856.31	3,229.41	-48.74	3,229.75	0.33	124,221.41	2,023,980.26	180.00		
7,799.00	90.60	0.50	4,855.73	3,259.41	-48.60	3,259.74	3.73	124,251.41	2,023,980.40	153.43		
7,829.00	90.00	0.90	4,855.57	3,289.40	-48.24	3,289.73	2.40	124,281.40	2,023,980.76	146.31		
7,859.00	90.10	0.00	4,855.55	3,319.40	-48.00	3,319.72	3.02	124,311.40	2,023,981.00	-83.66		
7,889.00	90.60	0.10	4,855.36	3,349.40	-47.98	3,349.72	1.70	124,341.40	2,023,981.02	11.31		
7,919.00	90.80	359.30	4,855.00	3,379.40	-48.13	3,379.72	2.75	124,371.40	2,023,980.87	-75.96		
7,950.00	90.80	359.10	4,854.56	3,410.39	-48.57	3,410.71	0.65	124,402.39	2,023,980.43	-90.00		
7,980.00	90.60	359.70	4,854.20	3,440.39	-48.88	3,440.71	2.11	124,432.39	2,023,980.12	108.43		
8,010.00	90.80	359.00	4,853.83	3,470.38	-49.22	3,470.71	2.43	124,462.38	2,023,979.78	-74.05		
8,041.00	90.90	359.30	4,853.37	3,501.38	-49.68	3,501.71	1.02	124,493.38	2,023,979.32	71.56		
8,102.00	91.50	359.40	4,852.09	3,562.36	-50.37	3,562.69	1.00	124,554.36	2,023,978.63	9.46		
8,162.00	91.20	359.50	4,850.68	3,622.34	-50.95	3,622.68	0.53	124,614.34	2,023,978.05	161.57		
8,191.00	91.20	359.00	4,850.07	3,651.33	-51.33	3,651.67	1.72	124,643.33	2,023,977.67	-89.99		
8,222.00	91.50	358.60	4,849.34	3,682.32	-51.98	3,682.66	1.61	124,674.32	2,023,977.02	-53.12		
8,252.00	90.80	359.20	4,848.74	3,712.30	-52.55	3,712.65	3.07	124,704.30	2,023,976.45	139.40		



Professional Directional Wellpath Report



Company:	TAPSTONE ENERGY	Local Co-ordinate Reference:	Well No. 16-2H
Project:	Barber County, KS	TVD Reference:	WELL @ 1333.00usft (RKB: 16' + GL: 1317')
Site:	Schubach 3510 No. 16-2H	MD Reference:	WELL @ 1333.00usft (RKB: 16' + GL: 1317')
Well:	No. 16-2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Well_Planner1

Survey												
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)		
8,283.00	90.40	359.60	4,848.42	3,743.30	-52.88	3,743.65	1.82	124,735.30	2,023,976.12	135.00		
8,313.00	89.90	359.50	4,848.34	3,773.30	-53.11	3,773.65	1.70	124,765.30	2,023,975.89	-168.69		
8,343.00	89.40	359.50	4,848.52	3,803.30	-53.37	3,803.65	1.67	124,795.30	2,023,975.63	180.00		
8,404.00	88.80	359.40	4,849.48	3,864.29	-53.96	3,864.64	1.00	124,856.29	2,023,975.04	-170.54		
8,464.00	89.30	359.80	4,850.47	3,924.28	-54.38	3,924.63	1.07	124,916.28	2,023,974.62	38.66		
8,524.00	89.80	0.40	4,850.94	3,984.27	-54.27	3,984.62	1.30	124,976.27	2,023,974.73	50.20		
8,584.00	89.10	0.90	4,851.52	4,044.27	-53.59	4,044.61	1.43	125,036.27	2,023,975.41	144.47		
8,615.00	88.70	1.40	4,852.12	4,075.26	-52.97	4,075.59	2.07	125,067.26	2,023,976.03	128.67		
8,645.00	89.20	1.20	4,852.67	4,105.24	-52.29	4,105.57	1.80	125,097.24	2,023,976.71	-21.80		
8,675.00	90.80	1.90	4,852.67	4,135.23	-51.48	4,135.54	5.82	125,127.23	2,023,977.52	23.63		
8,705.00	92.60	2.00	4,851.78	4,165.20	-50.46	4,165.50	6.01	125,157.20	2,023,978.54	3.18		
8,735.00	92.60	1.80	4,850.41	4,195.15	-49.47	4,195.44	0.67	125,187.15	2,023,979.53	-90.00		
8,765.00	91.50	1.10	4,849.34	4,225.12	-48.71	4,225.40	4.35	125,217.12	2,023,980.29	-147.53		
8,795.00	90.70	0.60	4,848.77	4,255.11	-48.26	4,255.38	3.14	125,247.11	2,023,980.74	-147.99		
8,825.00	90.60	0.60	4,848.43	4,285.11	-47.95	4,285.38	0.33	125,277.11	2,023,981.05	180.00		
8,856.00	90.70	0.80	4,848.07	4,316.10	-47.57	4,316.37	0.72	125,308.10	2,023,981.43	63.43		
8,885.00	91.10	1.00	4,847.62	4,345.10	-47.11	4,345.35	1.54	125,337.10	2,023,981.89	26.56		
8,915.00	90.90	0.60	4,847.09	4,375.09	-46.69	4,375.34	1.49	125,367.09	2,023,982.31	-116.56		
8,945.00	90.80	0.70	4,846.65	4,405.08	-46.35	4,405.33	0.47	125,397.08	2,023,982.65	135.00		
8,977.00	91.00	0.20	4,846.15	4,437.08	-46.10	4,437.32	1.68	125,429.08	2,023,982.90	-68.19		
9,008.00	91.70	0.10	4,845.42	4,468.07	-46.02	4,468.31	2.28	125,460.07	2,023,982.98	-8.13		
9,040.00	91.50	0.00	4,844.52	4,500.06	-45.99	4,500.29	0.70	125,492.06	2,023,983.01	-153.44		
9,071.00	91.10	359.60	4,843.82	4,531.05	-46.10	4,531.28	1.82	125,523.05	2,023,982.90	-135.00		
9,135.00	91.30	359.50	4,842.48	4,595.03	-46.60	4,595.27	0.35	125,587.03	2,023,982.40	-26.56		
9,197.00	91.80	359.30	4,840.80	4,657.01	-47.25	4,657.25	0.87	125,649.01	2,023,981.75	-21.79		
9,261.00	91.70	359.40	4,838.85	4,720.97	-47.98	4,721.22	0.22	125,712.97	2,023,981.02	135.01		
9,324.00	91.90	359.40	4,836.87	4,783.94	-48.64	4,784.19	0.32	125,775.94	2,023,980.36	0.00		



Professional Directional Wellpath Report



Company: TAPSTONE ENERGY	Local Co-ordinate Reference: Well No. 16-2H
Project: Barber County, KS	TVD Reference: WELL @ 1333.00usft (RKB: 16' + GL: 1317')
Site: Schupbach 3510 No. 16-2H	MD Reference: WELL @ 1333.00usft (RKB: 16' + GL: 1317')
Well: No. 16-2H	North Reference: Grid
Wellbore: Original Hole	Survey Calculation Method: Minimum Curvature
Design: Original Hole	Database: Well_Planner1

Survey												
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)		
9,387.00	92.30	358.40	4,834.56	4,846.88	-49.85	4,847.14	1.71	125,838.88	2,023,979.15	-68.17		
9,449.00	92.60	358.30	4,831.91	4,908.80	-51.63	4,909.07	0.51	125,900.80	2,023,977.37	-18.42		
9,481.00	91.50	357.70	4,830.77	4,940.76	-52.75	4,941.04	3.92	125,932.76	2,023,976.25	-151.39		
9,512.00	91.40	358.10	4,829.98	4,971.73	-53.88	4,972.02	1.33	125,963.73	2,023,975.12	104.04		
9,575.00	91.50	358.70	4,828.39	5,034.69	-55.64	5,034.99	0.97	126,026.69	2,023,973.36	80.53		
9,638.00	90.90	358.20	4,827.07	5,097.65	-57.35	5,097.97	1.24	126,089.65	2,023,971.65	-140.20		
9,701.00	91.30	357.80	4,825.86	5,160.60	-59.54	5,160.94	0.90	126,152.60	2,023,969.46	-44.99		
9,764.00	90.10	357.70	4,825.09	5,223.54	-62.02	5,223.91	1.91	126,215.54	2,023,966.98	-175.24		
9,827.00	88.80	358.70	4,825.69	5,286.51	-64.00	5,286.89	2.60	126,278.51	2,023,965.00	142.44		
9,890.00	89.90	358.80	4,826.41	5,349.49	-65.37	5,349.88	1.75	126,341.49	2,023,963.63	5.19		
9,953.00	89.30	358.00	4,826.85	5,412.46	-67.13	5,412.87	1.59	126,404.46	2,023,961.87	-126.87		
10,016.00	90.00	357.80	4,827.23	5,475.42	-69.44	5,475.84	1.16	126,467.42	2,023,959.56	-15.95		
10,079.00	90.40	357.10	4,827.01	5,538.35	-72.24	5,538.81	1.28	126,530.35	2,023,956.76	-60.25		
10,142.00	90.40	356.40	4,826.57	5,601.25	-75.81	5,601.74	1.11	126,593.25	2,023,953.19	-90.00		
10,217.00	89.80	356.40	4,826.44	5,676.10	-80.52	5,676.63	0.80	126,668.10	2,023,948.48	180.00		
10,249.00	90.20	357.00	4,826.44	5,708.05	-82.36	5,708.60	2.25	126,700.05	2,023,946.64	56.31		
10,280.00	90.50	357.20	4,826.25	5,739.01	-83.93	5,739.57	1.16	126,731.01	2,023,945.07	33.69		
10,312.00	90.60	357.60	4,825.95	5,770.97	-85.38	5,771.55	1.29	126,762.97	2,023,943.62	75.96		
10,343.00	90.50	357.80	4,825.65	5,801.95	-86.63	5,802.54	0.72	126,793.95	2,023,942.37	116.57		
10,374.00	90.90	358.20	4,825.27	5,832.93	-87.71	5,833.52	1.82	126,824.93	2,023,941.29	45.00		
10,406.00	91.20	358.20	4,824.68	5,864.90	-88.71	5,865.51	0.94	126,856.90	2,023,940.29	0.00		
10,437.00	91.50	358.00	4,823.95	5,895.88	-89.74	5,896.50	1.16	126,887.88	2,023,939.26	-33.68		
10,468.00	91.60	358.20	4,823.11	5,926.85	-90.77	5,927.48	0.72	126,918.85	2,023,938.23	63.42		
10,532.00	90.60	358.70	4,821.89	5,990.81	-92.50	5,991.45	1.75	126,982.81	2,023,936.50	153.43		
10,594.00	89.70	0.10	4,821.72	6,052.81	-93.15	6,053.45	2.68	127,044.81	2,023,935.85	122.73		
10,657.00	89.50	0.30	4,822.16	6,115.81	-92.93	6,116.44	0.45	127,107.81	2,023,936.07	135.00		
10,720.00	89.10	0.20	4,822.93	6,178.80	-92.65	6,179.43	0.65	127,170.80	2,023,936.35	-165.97		



Professional Directional
Wellpath Report



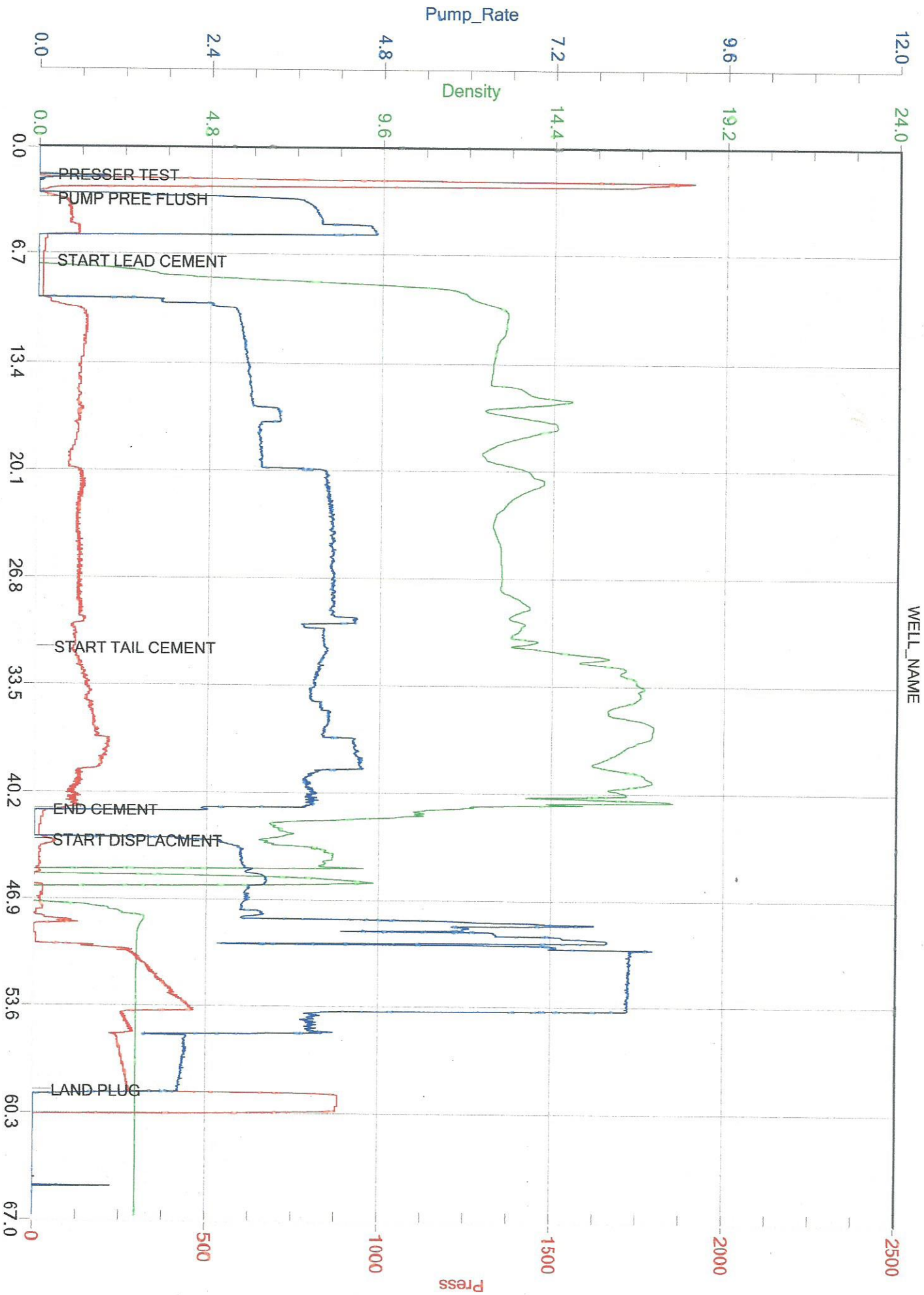
Company:	TAPSTONE ENERGY	Local Co-ordinate Reference:	Well No. 16-2H
Project:	Barber County, KS	TVD Reference:	WELL @ 1333.00usft (RKB: 16' + GL: 1317')
Site:	Schupbach 3510 No. 16-2H	MD Reference:	WELL @ 1333.00usft (RKB: 16' + GL: 1317')
Well:	No. 16-2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Well_Planner1

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)
10,752.00	89.50	0.70	4,823.32	6,210.80	-92.40	6,211.42	2.00	127,202.80	2,023,936.60	51.34
10,783.00	89.40	1.00	4,823.62	6,241.79	-91.94	6,242.41	1.02	127,233.79	2,023,937.06	108.44
10,815.00	88.80	0.70	4,824.12	6,273.78	-91.47	6,274.40	2.10	127,265.78	2,023,937.53	-153.44
Last Survey: 10815' MD 4824.12' TVD										
10,870.00	88.80	0.70	4,825.28	6,328.77	-90.80	6,329.37	0.00	127,320.77	2,023,938.20	0.00
TD Projected To MD: 10870' - No. 16-2H TD/PBHL										

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,815.00	4,824.12	6,273.78	-91.47	Last Survey: 10815' MD 4824.12' TVD
10,870.00	4,825.28	6,328.77	-90.80	TD Projected To MD: 10870'

Checked By: _____ Approved By: _____ Date: _____

TAPSTONE
WELL_NAME



Date 7-17-14 District MadLodge KS Ticket No. 62842
 Company Tapstone Rig Namac 14
 Lease Schaphbach Well No. 3510 16211
 County Barber State KS
 Location vic Kisma KS Field _____

CEMENT DATA: Fresh H₂O 10BBL
 Spacer Type: _____
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG _____

CASING DATA: Conductor PTA Squeeze Misc
 Surface Intermediate Production Liner
 Size 9 5/8 Type _____ Weight 36 Collar _____

LEAD: Pump Time _____ hrs. Type 65:35:6% Gel + 2% act
1/4 # Flossal Excess _____
 Amt. 255 Sks Yield 1.87 ft³/sk Density 12.7 PPG _____
 TAIL: Pump Time _____ hrs. Type Class A + 2% act
1/4 # Flossal Excess _____
 Amt. 150 Sks Yield 1.2 ft³/sk Density 15.6 PPG _____
 WATER: Lead 10.05 gals/sk Tail 5.27 gals/sk Total _____ Bbls.

Casing Depths: Top _____ Bottom 816

Pump Trucks Used 548/545
 Bulk Equip. 702/643

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size 12 1/4 T.D. 809 ft. P.B. to _____ ft.

Float Equip: Manufacturer _____
 Shoe: Type _____ Depth _____
 Float: Type _____ Depth _____
 Centralizers: Quantity _____ Plugs Top _____ Btm. _____
 Stage Collars _____
 Special Equip. _____
 Disp. Fluid Type _____ Amt. _____ Bbls. Weight _____ PPG _____
 Mud Type _____ Weight _____ PPG _____

CAPACITY FACTORS:

Casing: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Open Holes: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

COMPANY REPRESENTATIVE _____

CEMENTER Jason Thimisch

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
7:30 AM						On loc safety meeting Run casing
12:45 PM	2000		1/4 BBL	1/4		contin safety meeting, Rig up safety meeting Press Test
12:47 PM	150		10 BBL	4 1/2		Pump Preflush
12:52 PM	200		85 BBL	4 1/2		Mix Pump 1d cement Slurry TOC surface
1:18 PM	200		32 BBL	4		Mix Pump TL cement Slurry TOC 297'
1:27 PM						shut down Release Plug
1:30 PM	400			8		Start Displacement
	450		30 BBL	8		
	500		40 BBL	8		
	400		45 BBL	3 1/2		Slow rate
	350		52 BBL	2		Slow rate to Bump
1:45 PM	850		58 1/2 BBL	0		Bump Plug
						45 BBL cement Circulated

FINAL DISP. PRESS: _____ PSI BUMP PLUG TO 250 PSI BLEEDBACK 1/2 BBLs. THANK YOU

ALLIED OIL & GAS SERVICES, LLC 062842

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Medicine Lodge KS

DATE <u>7-17-14</u>	SEC <u>16</u>	TWP. <u>35</u>	RANGE <u>10</u>	CALLED OUT <u>4:30 AM</u>	ON LOCATION <u>7:30 AM</u>	JOB START <u>12:45 PM</u>	JOB FINISH <u>1:45 PM</u>
LEASE <u>Schupbach</u>	WELL # <u>3510 162H</u>	LOCATION <u>Kiowa KS, East on Blacktop to</u>	OLD OR NEW (Circle one)		<u>Blueston Rd, South 1/2 mi. East + North into</u>	COUNTY <u>Barber</u>	STATE <u>KS</u>

CONTRACTOR <u>Nomac #14</u>	OWNER <u>Tapstone Energy</u>
TYPE OF JOB <u>Surface</u>	
HOLE SIZE <u>12 1/4</u>	T.D. <u>809</u>
CASING SIZE <u>8 3/8</u>	DEPTH <u>816</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX <u>850</u>	MINIMUM
MEAS. LINE	SHOE JOINT <u>41</u>
CEMENT LEFT IN CSG. <u>41</u>	
PERFS.	
DISPLACEMENT <u>BBLs Fresh 11.0</u>	

EQUIPMENT

PUMP TRUCK # <u>548/545</u>	CEMENTER <u>Jason Thimesch</u>
BULK TRUCK # <u>702/</u>	HELPER <u>Justin Bower</u>
BULK TRUCK #	DRIVER <u>James Bowen</u>
BULK TRUCK #	DRIVER <u>130309</u>

REMARKS: DC1400 8

Schupbach 3510
Nomac 14

850.36

11,574

Shupper scope

CHARGE TO: TapStone Energy

STREET _____

CITY _____ STATE _____ ZIP _____

CEMENT	AMOUNT ORDERED	<u>255sr Class A: Poz 65: 35% + 16%</u>
		<u>Gel + 2% rec + 1/4 # Floreal, 150sr Class A + 2% rec</u>
		<u>3/4 # Floreal</u>

COMMON <u>Class A 150sr</u>	@ <u>17.90</u>	<u>2685.00</u>
POZMIX	@	
GEL	@	
CHLORIDE <u>10sr</u>	@ <u>64.00</u>	<u>640.00</u>
ASC	@	
<u>Allied Light Weight Cement</u>	@	
<u>Type 1 Class A 255sr</u>	@ <u>16.50</u>	<u>4207.50</u>
<u>Floreal 102 lbs</u>	@ <u>2.97</u>	<u>302.94</u>
	@	
	@	
	@	
	@	
HANDLING MILEAGE	@	
		TOTAL <u>7835.44</u>

SERVICE

DEPTH OF JOB <u>816</u>	
PUMP TRUCK CHARGE	<u>2058.50</u>
EXTRA FOOTAGE <u>LV 25sr</u>	@ <u>4.40</u> <u>110.00</u>
MILEAGE <u>25sr</u>	@ <u>7.70</u> <u>192.50</u>
MANIFOLD <u>1 Hand</u>	@ <u>275.00</u>
<u>Handling 448.31 cuft</u>	@ <u>2.48</u> <u>1111.80</u>
<u>Drayage 480.54 ton</u>	@ <u>2.60</u> <u>1249.40</u>
<u>Circulating iron 4 Day</u>	@ <u>450.00</u> <u>1800.00</u>
	TOTAL <u>6797.20</u>

PLUG & FLOAT EQUIPMENT

958

<u>AFU Sure Seal Float Collar</u>	@	<u>535.00</u>
<u>Saw Tooth Guide shoe</u>	@	<u>553.00</u>
<u>Centralizers 7</u>	@ <u>90.00</u>	<u>630.00</u>
<u>Tap Rubber Plug</u>	@	<u>184.86</u>
	@	

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or



CEMENTING LOG

STAGE NO. _____

Date 7-23-14 District Andover, KS Ticket No. 62845
 Company Topline Rig None 14
 Lease Schubert Well No. 350 14-24
 County Butcher State KS
 Location V. K. 24 Field 16-35-10

CEMENT DATA:

Spacer Type: ASF 20 BRL
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG _____

CASING DATA: Conductor PTA Squeeze Misc
 Surface Intermediate Production Liner
 Size 7 Type _____ Weight 26 Collar _____

LEAD: Pump Time _____ hrs. Type 50:50:2% GtH
4% FL-160+ 1% C-51 Excess _____
 Amt. 140 Sks Yield 1.4 ft³/sk Density 13.6 PPG _____
 TAIL: Pump Time _____ hrs. Type Class A 1.8% FL-160+
2% CD-31 Excess _____
 Amt. 90 Sks Yield 1.18 ft³/sk Density 15.6 PPG _____
 WATER: Lead 6.75 gals/sk Tail 5.17 gals/sk Total _____ Bbls.

Casing Depths: Top _____ Bottom 5324

Pump Trucks Used 541/545
 Bulk Equip. 561/553

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size 8 3/4 T.D. 5371 ft. P.B. to _____ ft.

Floater Equip: Manufacturer _____

CAPACITY FACTORS:

Casing: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Open Holes: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

Shoe: Type _____ Depth _____
 Floater: Type _____ Depth _____
 Centralizers: Quantity _____ Plugs Top _____ Btm. _____
 Stage Collars _____
 Special Equip. _____
 Disp. Fluid Type _____ Amt. _____ Bbls. Weight _____ PPG _____
 Mud Type _____ Weight _____ PPG _____

COMPANY REPRESENTATIVE _____

CEMENTER Jason Thomsch

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	AM/PM	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	
<u>2:30 AM</u>						<u>On loc. safety meeting, spot in. Safety meeting.</u>
<u>11:00 AM</u>		<u>5000</u>		<u>4 BBL</u>	<u>24</u>	<u>Rig up, safety meeting, Running Casing</u>
<u>11:15 AM</u>		<u>400</u>		<u>20 BBL</u>	<u>4 1/2</u>	<u>Fire Lock on head</u>
<u>11:20 AM</u>		<u>500</u>		<u>35 BBL</u>	<u>4 1/2</u>	<u>Pump Spacer TOS 2741</u>
<u>11:29 AM</u>		<u>350</u>		<u>19 BBL</u>	<u>4</u>	<u>Mix Pump Release slurry TOS 3487</u>
<u>11:34 AM</u>						<u>Mix Pump TL cement slurry TOS 4793</u>
<u>11:34 AM</u>						<u>shutdown Release Plug</u>
<u>11:39 AM</u>		<u>500</u>			<u>8</u>	<u>Start Displacement</u>
		<u>600</u>		<u>70 BBL</u>	<u>8</u>	
		<u>700</u>		<u>110 BBL</u>	<u>8</u>	
		<u>900</u>		<u>130 BBL</u>	<u>7</u>	
		<u>1000</u>		<u>150 BBL</u>	<u>8 1/2</u>	
		<u>900</u>		<u>170 BBL</u>	<u>5</u>	
		<u>800</u>		<u>180 BBL</u>	<u>3</u>	<u>Slow to Pump</u>
		<u>900</u>		<u>190 BBL</u>	<u>3</u>	
<u>12:15 PM</u>		<u>1400</u>		<u>192 BBL</u>	<u>0</u>	<u>Pump Plug</u>
						<u>Release</u>
						<u>Flt hold</u>

FINAL DISP. PRESS: 900 PSI BUMP PLUG TO 1400 PSI BLEEDBACK 1 BBLs. THANK YOU

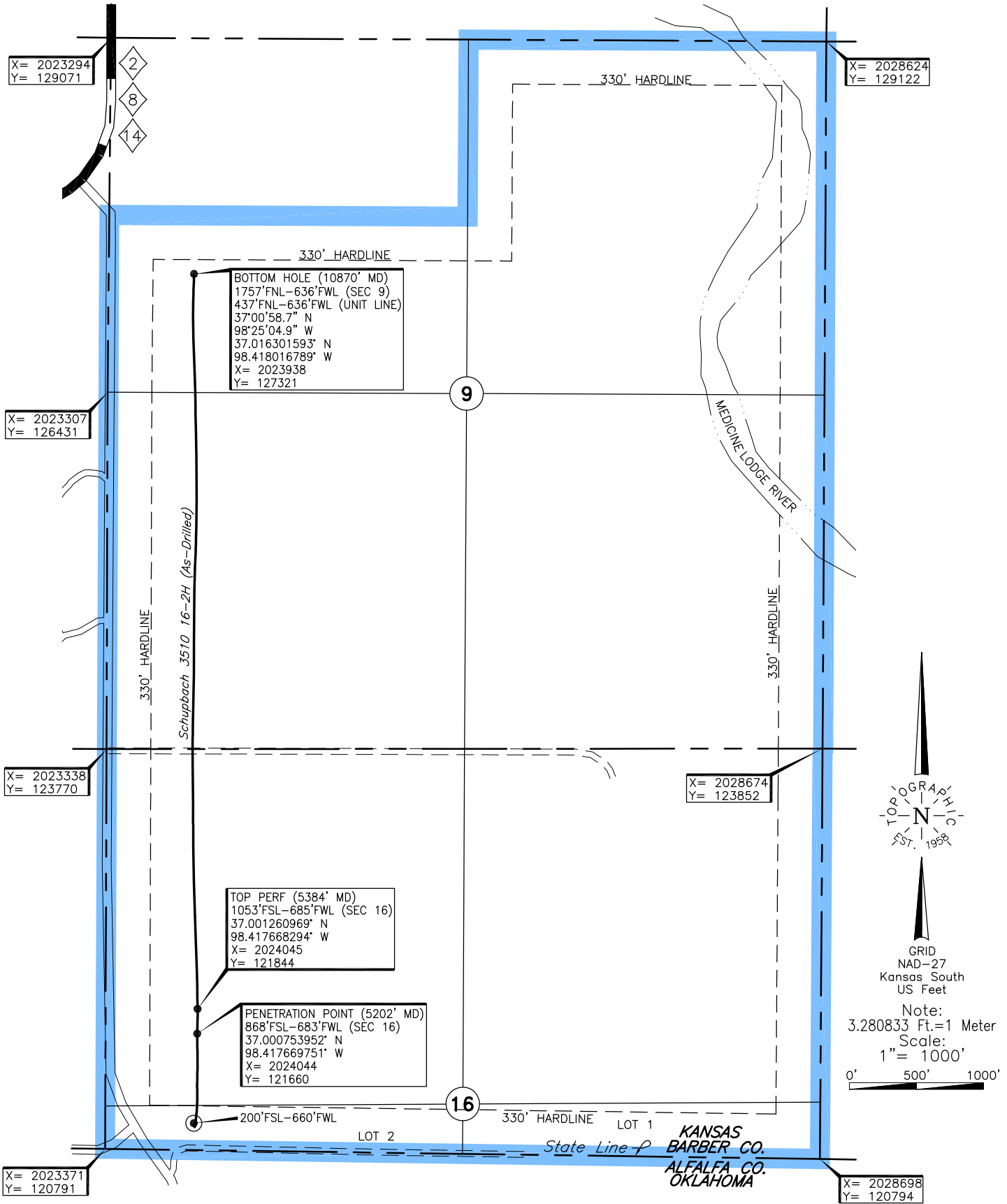
MILLER PRINTERS, INC. - Great Bend, KS

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

BARBER County, Kansas

200'FSL-660'FWL Section 16 Township 35S Range 10W P.M.



Operator: TAPSTONE ENERGY

Lease Name: SCHUPBACH 3510

Well No.: 16-2H

ELEVATION:
1317' Gr. at Stake

Topography & Vegetation Loc. fell in sloping wheat field ±125' North of drain running E-W

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

Best Accessibility to Location From South off county road

Distance & Direction from Hwy Jct or Town From Kiowa, KS., go ±3.5 mi. East on Tri City road, then go ±1.4 mi. South on county road to SW corner of Section 16-T35S-R10W

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

DATUM: NAD-27
 LAT: 36°59'56.1"N
 LONG: 98°25'03.8"W
 LAT: 36.998920059°N
 LONG: 98.417724950°W
 STATE PLANE COORDINATES: (US Feet)
 ZONE: KS SOUTH
 X: 2024029
 Y: 120992

228831 Date of Drawing: Aug. 13, 2014
 Invoice # 220487 Date Staked: Apr. 30, 2014 JP

FINAL AS-DRILLED PLAT

AS-DRILLED INFORMATION
 FURNISHED BY TAPSTONE ENERGY