

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

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

Gas DH EOR

OG GSW

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 EOR Conv. to SWD
 Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

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 Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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 Geologist Report / Mud Logs <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				

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

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Tapstone Energy, LLC
Well Name	KENNEDY 14-34-9 2H
Doc ID	1405471

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Conductor	26	20	94	106	Portland	72	NA
Surface	12.25	9.625	36	840	A	305	Lead - 2% Gypsum, 1% CaCl, 1.5% SMS, 0.25 lbs Polyflake; Tail - 0.75% CaCl
Intermediate	8.75	7	26	4995	A	200	Lead - 6% Gel, 6% Gypsum, 1% SMS, 6% SFA, 0.42 lbs Polyflake; Tail - 2% Gypsum, 1% SMS
Liner	6.125	4.50	11.60	9616	NA	0	NA

Tapstone Energy
Kennedy 14-34-9 2H
Harper County, KS
3/10/2018
Surface

Ticket # P-1704



COMPANY Tapstone Energy	PROJECT NUMBER P-1704	AFE/WORK ORDER	DATE 3/10/2018
CONTRACTOR Spinnaker Oil	Owner Same	LEGAL DESCRIPTION Sec: 23-T34S-R09W	API 0
LEASE & WELL # Kennedy 14-34-9 2H	COUNTY Harper County, KS	STATE OK	MILEAGE 290

From the Jct of St Hwy 2 & SW 120 Ave (~5.4 miles Northeast of Corwin KS), Travel ~5 miles South on SW 120 Ave to the Northeast corner of Sec 23, T23S-R09W. RIG - Power Rig #7

Pumping Services	<input checked="" type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Long String	<input type="checkbox"/> Plug Back						
	<input type="checkbox"/> Squeeze	<input type="checkbox"/> Acid	<input type="checkbox"/> PTA	<input type="checkbox"/> Other	() H2S					
	Casing Size 9 5/8	Casing Weight 36.00	Thread LTC	Tbng/DP Siz N/A	Thread N/A	Plug. Cont. Yes	Swage Yes	Top Plug Yes	Bottom Plug N/A	% Excess 150%
	Number and Type Units Pump Truck, 660 Bulk Truck						BHST - F 89	Casing Dept 800	Depth - TVD - FT 800	Hole Size - Inches 12 1/4
Remarks 9 5/8" Top Plug, head, 200 lbs Sugar, 8rd ADAPTER						BHCT - F 82	Tubing Dept	Depth - MD - FT 840	Mud Weight/Type - PPG	

Materials	Spacer	Qty - BBLS 30	Type H2O	Recipe: H2O	
	BBL OF LEAD	# of Sacks 170	Type Class A	Additives 170 Sacks Oilwell Standard Cement, 2% Gypsum, 1% Calcium Chloride, 1.5% SMS, 0.25 lbs Polyflake	
	H2O REQUIRED	Weight PPG 11.50	Yield Ft3/Sk 2.82		Water Gal/S 17.25
	BBL OF TAIL	# of Sacks 135	Type Class A		Additives 135 Sacks Oilwell Standard Cement, 0.75% Calcium Chloride
	H2O REQUIRED	Weight PPG 14.80	Yield Ft3/Sk 1.33	Water Gal/S 6.33	
	Displacement	Qty - BBLS 61.86 bbls	Type H2O	Procedure: H2O	

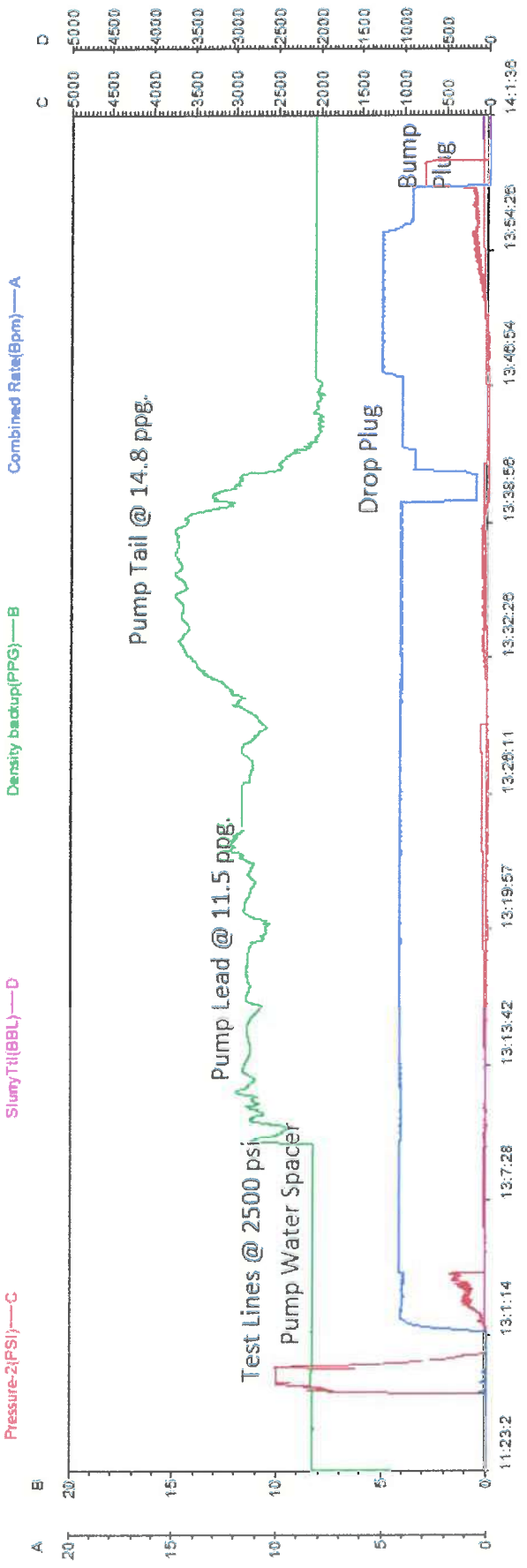
NOTES:

LEAD in FRONT pot and TAIL in BACK pot. There is **NO NEED** to fill out a Kansas Corporation Commission Cement Form

Sales Items	Casing Size 9 5/8	Casing Weight 36.00	Thread LTC
	Guide Shoe	Float Shoe	Float Collar Insert Float Valve
	Centralizers - Number	Size	Type
	Wall Cleaners - Number	Type	MSC (DV Tool) MSC Plug Set
	Limit Clamps	Thread lock	Other
	Remarks 200 lbs Sugar		

Customer Rep. Derrick Megley	Cell Phone	Office Phone	Fax	Date Called To Rig 3/10/18	Time Called To Rig 2130
Call Taken By				Date Crew Called 3/10/18	Time Crew Called 2130
Crew Called				Date To Be On Location 3/10/18	Time To Be On Location 0630

Date:03-11-2018 Well Name:KENNEDY 14-24-9 2H Location:HARPER COUNTY, KS Country:USA Operator:TAPSTONE ENERGY Supervisor:MILES HAGEE Type of Job:CEMENT
 9.625 SURFACE CASING Cont'd Address: Comment: Average Density:8.593 spg



Chart




JOB LOG

PROJECT NUMBER	TICKET DATE
P-1704	03/10/18

COMPANY Tapstone Energy	COUNTRY USA	STATE OK	COUNTY Harper County, KS
LEASE NAME Kennedy 14-34-9 2H	Well No.	EMPLOYEE NAME Miles Hagee	CUSTOMER REP Derrick Mcgley
FIELD	SEC / TWP / RNG Sec: 23-T34S-R09W	TICKET AMOUNT 10,120.49	
API/UWI #	JOB PURPOSE Surface	WELL TYPE	

Date	Time	Rate (BPM)	Volume (BBL)(GAL)	Press.(PSi)		Job Description / Remarks
				CSG.	Tbg	
03/10	21:30					CALL OUT TO BE ON LOCATION BY REQUESTE TIME OF 04:00 CDST SUNDAY MORNING.
03/10	23:15					CUSTOMER CALLED TO PUT JOB ON HOLD UNTIL FURTHER NOTICE.
03/11	00:55					CUSTOMER CALLED TO REQUEST CREW ON LOCATON @ 06:30 CDST SUNDAY MORNING.
03/11	04:15					HELD DEPART YARD SAFETY MEETING AS SOON AS BULK DRIVER ARRIVED BACK AT YARD. DISCUSSED ROUTE.
03/11	04:30					DEPARTED YARD TO TRAVEL TO LOCATION WITH EQUIPMENT AND MATERIALS.
03/11	07:30					SAFELY ARRIVED ON LOCATION WITH EQUIPMENT AND MATERIALS, NOTIFIED CUSTOMER CREW WAS ON LOCATION.
03/11	07:40					HELD PRE-SPOT IN/RIG UP SAFETY HUDDLE, DISCUSSED SAFETY PLACE TO SPOT IN PUMPING AND BULK TRUCKS.
03/11	07:45					SPOT IN PUMPING AND BULK EQUIPMENT AND LAYED OUT WATER LINE AND 1502 IRON TO BUILD STANDPIPE
03/11	08:30					WAIT FOR RIG TO POOH WITH DRILL PIPE, LAYDOWN COLLARS, AND RUN CASING.
03/11	13:30					CASING ON BOTTOM; CASERS RIGGED DOWN, PICK UP PLUG CONTAINER, STANDPIPE, AND CIRCULATING IRON.
03/11	13:35					LOAD 9-5/8 TOP PLUG WITNESSED BY CUSTOMER REP.
03/11	13:40					RIG UP PLUG CONTAINER AND CIRCULATING IRON,
03/11	13:45					HOLD PRE-JOB SAFETY MEETING; REVIEWED JOB PLAN AND ADDRESSED ALL SAFETY CONCERNS.

Supervisor Signature: 
 Print Name: Miles Hagee

Thank You For Using
 Spinnaker Oilfield Services



JOB LOG

PROJECT NUMBER	TICKET DATE
P-1704	03/10/18

COMPANY Tapstone Energy	COUNTRY USA	STATE OK	COUNTY Harper County, KS
LEASE NAME Kennedy 14-34-9 2H	Well No.	EMPLOYEE NAME Miles Hagee	CUSTOMER REP Derrick Mealey
FIELD	SEC / TWP / RNG Sec: 23-T34S-R09W	TICKET AMOUNT 10,120.49	
API/UWI #	JOB PURPOSE Surface	WELL TYPE	

Date	Time	Rate (BPM)	Volume (BBL)(GAL)	Press.(PSI)		Job Description / Remarks
				CSG.	Tbg	
03/11	13:50					PRIME PUMPS AND LINES AND TEST 1502 SPINNAKER LINES TO 2500 PSI.
03/11	13:55	4.0	30.0		120	PUMP FRESH WATER SPACER AHEAD.
03/11	14:05	4.0	85.4		4	MIX AND PUMP 170 SACKS OF LEAD CEMENT @ 11.4 PPG.
03/11	14:10	4.0	30.0		70	MIX AND PUP 135 SACKS OF TAIL CEMENT @ 14.8 PPG. TOP OF TAIL CEMENT; TOP OF TAIL CEMENT @ 330
03/11	14:30	4.0	32.0		70	CEMENT CIRCULATED TO SURFACE; 30 BBLS CIRCULATED TO HALF ROUND.
03/11	14:35	4.0				SHUT DOWN AND DROP 9-5/8 TOP PLUG.
03/11	14:40	3.0	10.0		1	WASH UP ON TOP OF PLUG FIRST 10 BBLS DISPLACEMENT.
03/11	14:45	5.0	20.0		5	PUMPS FRESH WATER DISPLACEMENT
03/11	14:50	3.5	50.0		135	SLOW RATE TO BUMP PLUG.
03/11	14:52	3.5	61.9		754	BUMP PLUG AND PRESSURE UP 500 PSI OVER FINAL CIRCULATING PRESSURE.
03/11	14:53		61.9		754	HOLD PRESSURE FOR FIVE MINUTES BEFORE RELEASING PRESSURE TO CHECK FLOATS.
03/11	14:55					RELEASED PRESSURE TO CHECK FLOATS, FLOATS HELD BBL FLOWED BACK.
03/11	14:00					HOLD PRE-RIG DOWN SAFETY MEETING AND ADDRESSED ALL SAFETY CONCENRNS AND RISKS.

Supervisor Signature: *Miles Hagee*

Print Name: Miles Hagee

**Thank You For Using
Spinner Oilfield Services**

Tapstone Energy
Kennedy 14-34-9 2H
Harper County, KS
3/14/2018
Intermediate

Ticket # P-1716



COMPANY Tapstone Energy		PROJECT NUMBER P-1716	AFEWK/WORK ORDER	DATE 3/14/2018
CONTRACTOR Spinnaker Oil		Owner Same	LEGAL DESCRIPTION Sec: 23-T34N-R09W	API
LEASE & WELL # Kennedy 14-34-9 2H		COUNTY Harper County, KS	STATE OK	MILEAGE 290
DIRECTIONS				

From the Jct of St Hwy 2 & SW 120 Ave (~5.4 miles Northeast of Corwin KS), Travel ~5 miles South on SW 120 Ave to the Northeast corner of Sec 23, T23S-R09W. RIG - Power Rig #7

Pumping Services	<input checked="" type="checkbox"/> Surface	<input checked="" type="checkbox"/> Intermediate	<input type="checkbox"/> Long String	<input type="checkbox"/> Plug Back					
	<input type="checkbox"/> Squeeze	<input type="checkbox"/> Acid	<input type="checkbox"/> PTA	<input type="checkbox"/> Other	() H2S				
	Casing Size	Casing Weight	Thread	Csng Grade	Plug. Cont.	Swage	Top Plug	Bottom Plug	% Excess
	7	26.00	LTC	P-110	Yes	Yes	Yes	N/A	40%
Number and Type Units Pump Truck, one ea 660 Bulk					BHST - F 131	Casing Depth 5006	Depth - TVD - FT 5006	Hole Size - inches 8 3/4	
Remarks 7" BOTH TOP & BOTTOM Plug, Head, manifold, adapter, circulating iron & swage, 2" lo Torc					BHCT - F 104	Tubing Depth	Depth - MD - FT 5006	Mud Weight/Type - PPG	

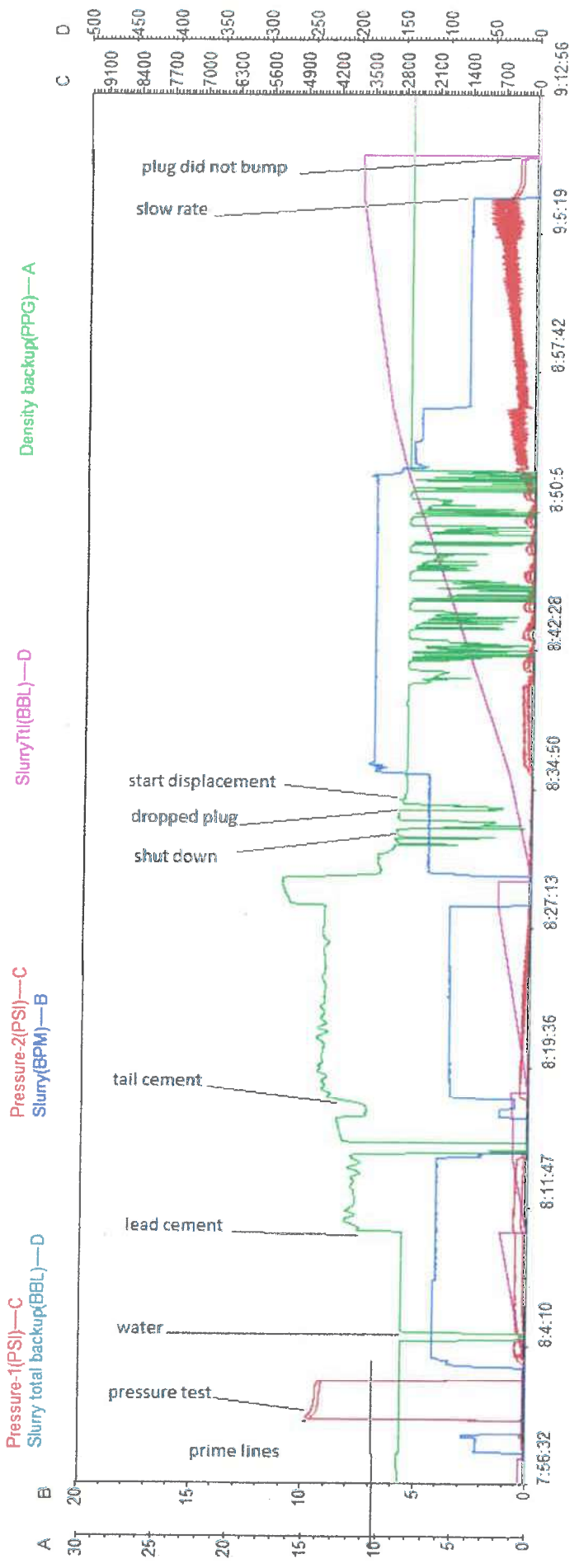
Materials	Qty - BBLS		Type	Recipe:	
	Spacer	30	H2O	30 BBLS Fresh Water	
	BBL OF LEAD	# of Sacks	Type	LEAD SLURRY	
	27.9	60	A:50:50	60 Sacks 50/50 Class A/POZ, 6% Gel, 6% Gypsum, 1% SMS, 6% SFA, 0.42 lbs Poly Flake	
	H2O REQUIRED	Weight PPG	Yield Ft3/Sk		Water Gal/S
	21.7	11.60	2.61		15.17
	BBL OF TAIL	# of Sacks	Type	TAIL SLURRY	
	41.6	140	Class A	140 Sacks Class A, 2% Gypsum, 1% SMS	
	H2O REQUIRED	Weight PPG	Yield Ft3/Sk		Water Gal/S
	29.3	13.60	1.67		8.79
Qty - BBLS		Type	Procedure		
Displacement	190	WBM	WBM		
Other	Quantity	Type	Additives		

Notes Lead is in the back pot and tail is in the front. There is **no need** to fill out a Kansas Corporation Commission form

Sales Items	Casing Size	7	Casing Weight	26.00	Thread
	Guide Shoe		Float Shoe		Float Collar
	Remarks	200 lbs Sugar			

Customer Rep. 0	Cell Phone	Office Phone	Fax	Date Called To Rig 3/14/18	Time Called To Rig 0900
Call Taken By				Date Crew Called 3/14/18	Time Crew Called 0900
Crew Called				Date To Be On Location 3/14/18	Time To Be On Location 0900

Date: 3/15/18 Well Name: KENNEDY 14 34 9 2H Location: KANSAS Country: USA Operator: JOHN T. TREVINO Supervisor: DIEGO LOPEZ Type of Job: INTERMEDIATE Contact Address: Comment:



Chart




JOB LOG

PROJECT NUMBER	TICKET DATE
P-1716	03/15/18

COMPANY	COUNTRY	STATE	COUNTY
Tapstone Energy	USA	OK	Harper County, KS
LEASE NAME	EMPLOYEE NAME	CUSTOMER REP	
Kennedy 14-34-9 2H			
FIELD	SEC / TWP / RNG	TICKET AMOUNT	
	Sec: 31-17N-5W	7,925.24	
API/UWI #	JOB PURPOSE	WELL TYPE	
	Intermediate		

Date	Time	Rate (BPM)	Volume (BBL)(GAL)	Press.(PSI)		Job Description / Remarks
				CSG.	Tbg	
20183/15/	00:00					REQUESTED ON LOC
3/15/2018	00:00					CREW ARRIVED @ LOC
3/15/2018	00:05					RIG RUNNING CASING
3/15/2018	00:15					PRE RIG UP SAFETY MEETING
3/15/2018	00:25					RIG UP EQUIPMENT
3/15/2018	01:00					RIG UP COMPLETE
3/15/2018	01:05					STANDBY ON RIG
3/15/2018	7:30					CASING ON BOTTOM
3/15/2018	7:45					RIG UP FLOOR
3/15/2018	7:50					PRE JOB SAFETY MEETING
3/15/2018	8:00	2.0	2.0	4000		PRIME LINES AND PRESS. TEST @ 4K PSI
3/15/2018	8:05	4.0	30.0	230		PUMPED 30 BBLs FRESH WATER
3/15/2018	8:10	4.0	28.0	200		PUMPED 60 SACKS, 28 BBLs CLASS A CMT @ 11.6 PPG

Supervisor Signature: 
 Print Name: JOHN T. TREVINO

Thank You For Using
 Spinnaker Oilfield Services



JOB LOG

PROJECT NUMBER	TICKET DATE
P-1716	03/15/18
STATE	COUNTY
OK	Harper County, KS
CUSTOMER REP	
TICKET AMOUNT	
7,925.24	
WELL TYPE	

COMPANY	COUNTRY
Tapstone Energy	USA
LEASE NAME Well No.	EMPLOYEE NAME
Kennedy 14-34-9 2H	
FIELD	SEC / TWP / RNG
	Sec: 31-17N-5W
API/UWI #	JOB PURPOSE
	Intermediate

Date	Time	Rate (BPM)	Volume (BBL)(GAL)	Press.(PSI)		Job Description / Remarks
				CSG.	Tbg	
3/15/2018	8:15	4.0	41.6		150	PUMPED 140 SACKS, 41.6 BBLs OF CLASS A CMT @ 13.6 PPG
3/15/2018	8:25					SHUT DOWN TO DROP PLUG
3/15/2018	8:27	6.0	187.0		500	DROPEd PLUG AND START DISPLACEMENT. GOOD RETURNS WHILE PUMPING JOB
3/15/2018	8:55	3.0	170.0		350	SLOW RATE TO BUMP PLUG
3/15/2018	9:03				900	PLUG DID NOT BUMP. PUMPED 2 BBLs OVER DISPLACEMENT
3/15/2018	9:05					CHECK FLOATS FLOATS HELD
3/15/2018	9:15					POST RIG DOWN SAFETY MEETING
3/15/2018	9:25					RIG DOWN EQUIPMENT
3/15/2018	10:10					RIG DOWN COMPLETE
3/15/2018	10:20					DEPARTURE SAFETY MEETING
3/15/2018	10:30					DEPART LOCATION

Supervisor Signature: 
 Print Name: JOHN T. TREVINO

Thank You For Using
 Spinnaker Oilfield Services

Client.....: Tapstone Energy
 Location.....: Harper County, KS
 Site.....: Kennedy 14-34-9
 Well.....: No. 2H

---- Depth reference -----
 Permanent datum.....: Mean Sea Level
 Depth reference.....: Well
 GL above permanent.....: 1285.00 usft
 KB above permanent.....: 1301.00 usft

---- Surface Location -----
 Northing (+N/S-).....: 150216.89 usft
 Easting (+E/W-).....: 2070249.87 usft

MD	Inc	Azimuth	TVD	Subsea	N/S	E/W	VS	DLS	X	Y	Latitude	Longitude	Comments
0	0	0	0	1301	0	0	0	0	0	2070250	150216.9	37.079	-98.259
908	0.3	113	908	393	-0.93	2.19	-1	0.03	2070252	150216	37.079	-98.259	
1005	0.4	109.4	1004.99	296.01	-1.14	2.74	-1.24	0.11	2070253	150215.8	37.079	-98.259	
1103	0.3	116.3	1102.99	198.01	-1.37	3.29	-1.48	0.11	2070253	150215.5	37.079	-98.259	
1200	0.2	185.5	1199.99	101.01	-1.65	3.51	-1.77	0.3	2070253	150215.2	37.079	-98.259	
1297	0.2	201.4	1296.99	4.01	-1.97	3.43	-2.09	0.06	2070253	150214.9	37.079	-98.259	
1480	0.3	161.1	1479.99	-178.99	-2.73	3.47	-2.84	0.11	2070253	150214.2	37.079	-98.259	
1572	0.5	143.1	1571.99	-270.99	-3.27	3.79	-3.4	0.25	2070254	150213.6	37.079	-98.259	
1664	0.7	135.9	1663.98	-362.98	-4	4.42	-4.15	0.23	2070254	150212.9	37.079	-98.259	
1755	0.6	131.3	1754.98	-453.98	-4.71	5.16	-4.89	0.12	2070255	150212.2	37.079	-98.259	
1847	0.6	134.9	1846.97	-545.97	-5.37	5.87	-5.57	0.04	2070256	150211.5	37.079	-98.259	
1939	0.6	137.2	1938.97	-637.97	-6.06	6.53	-6.29	0.03	2070256	150210.8	37.079	-98.259	
2030	0.6	145.9	2029.96	-728.96	-6.81	7.12	-7.05	0.1	2070257	150210.1	37.079	-98.259	
2122	0.6	145.4	2121.96	-820.96	-7.6	7.67	-7.87	0.01	2070258	150209.3	37.079	-98.259	
2213	0.6	142.3	2212.95	-911.95	-8.37	8.23	-8.65	0.04	2070258	150208.5	37.079	-98.259	
2408	0.3	67.7	2407.95	-1106.95	-8.99	9.33	-9.31	0.31	2070259	150207.9	37.079	-98.259	
2505	0.5	89.6	2504.94	-1203.94	-8.89	9.98	-9.23	0.26	2070260	150208	37.079	-98.259	
2603	0.8	67.1	2602.94	-1301.94	-8.62	11.04	-9	0.4	2070261	150208.3	37.079	-98.259	
2700	0.8	73.7	2699.93	-1398.93	-8.16	12.32	-8.59	0.09	2070262	150208.7	37.079	-98.259	
2798	0.7	61.4	2797.92	-1496.92	-7.69	13.5	-8.15	0.19	2070263	150209.2	37.079	-98.259	
2895	0.7	72.4	2894.91	-1593.91	-7.22	14.58	-7.73	0.14	2070264	150209.7	37.079	-98.259	
2992	0.6	50.2	2991.91	-1690.91	-6.72	15.54	-7.26	0.28	2070265	150210.2	37.079	-98.259	
3090	0.6	43.7	3089.9	-1788.9	-6.02	16.29	-6.58	0.07	2070266	150210.9	37.079	-98.259	
3186	0.7	59.2	3185.89	-1884.89	-5.36	17.14	-5.95	0.21	2070267	150211.5	37.079	-98.259	
3281	0.4	195.9	3280.89	-1979.89	-5.38	17.55	-5.99	1.08	2070267	150211.5	37.079	-98.259	
3376	0.3	43	3375.89	-2074.89	-5.51	17.62	-6.13	0.72	2070267	150211.4	37.079	-98.259	
3472	1.1	49.3	3471.88	-2170.88	-4.73	18.49	-5.37	0.84	2070268	150212.2	37.079	-98.259	
3566	1.2	41.8	3565.87	-2264.87	-3.41	19.83	-4.1	0.19	2070270	150213.5	37.079	-98.259	
3661	1	50.6	3660.85	-2359.85	-2.14	21.14	-2.88	0.27	2070271	150214.8	37.079	-98.259	
3757	1.2	13.1	3756.83	-2455.83	-0.63	22.01	-1.4	0.76	2070272	150216.3	37.079	-98.259	
3852	0.6	308.9	3851.82	-2550.82	0.65	21.85	-0.11	1.14	2070272	150217.5	37.079	-98.259	
3947	2.9	321.7	3946.77	-2645.77	2.85	19.98	2.15	2.44	2070270	150219.7	37.079	-98.259	
3978	6.9	335	3977.65	-2676.65	5.15	18.7	4.5	13.33	2070269	150222	37.079	-98.259	
4010	9.9	340.1	4009.31	-2708.31	9.48	16.95	8.89	9.65	2070267	150226.4	37.079	-98.259	
4042	11.8	339	4040.73	-2739.73	15.13	14.84	14.6	5.97	2070265	150232	37.079	-98.259	
4073	14.1	341.8	4070.94	-2769.94	21.67	12.53	21.22	7.69	2070262	150238.6	37.079	-98.259	
4105	18.1	342.5	4101.68	-2800.68	30.12	9.81	29.76	12.51	2070260	150247	37.079	-98.259	
4137	21.2	343.4	4131.81	-2830.81	40.41	6.67	40.15	9.73	2070257	150257.3	37.079	-98.259	
4169	24.6	341.8	4161.29	-2860.29	52.28	2.93	52.15	10.8	2070253	150269.2	37.079	-98.259	
4200	27.9	341.1	4189.09	-2888.09	65.28	-1.43	65.29	10.69	2070248	150282.2	37.079	-98.259	
4232	30	340.8	4217.09	-2916.09	79.92	-6.49	80.1	6.58	2070243	150296.8	37.079	-98.259	
4264	31.1	339.7	4244.64	-2943.64	95.23	-11.99	95.59	3.86	2070238	150312.1	37.079	-98.259	
4295	33.2	339.5	4270.89	-2969.89	110.69	-17.74	111.24	6.78	2070232	150327.6	37.079	-98.259	
4327	35.3	338.9	4297.34	-2996.34	127.52	-24.14	128.28	6.65	2070226	150344.4	37.079	-98.259	
4359	37.1	338.6	4323.16	-3022.16	145.13	-30.99	146.13	5.65	2070219	150362	37.079	-98.259	
4390	38.5	339.9	4347.65	-3046.65	162.9	-37.72	164.12	5.2	2070212	150379.8	37.079	-98.259	
4422	39	342.2	4372.61	-3071.61	181.84	-44.22	183.28	4.76	2070206	150398.7	37.079	-98.259	
4454	41.5	342.5	4397.03	-3096.03	201.54	-50.48	203.18	7.84	2070199	150418.4	37.08	-98.259	
4485	43.4	343.2	4419.91	-3118.91	221.54	-56.65	223.38	6.32	2070193	150438.4	37.08	-98.259	
4517	45.6	343.5	4442.73	-3141.73	243.02	-63.08	245.08	6.91	2070187	150459.9	37.08	-98.259	
4549	47.8	342	4464.67	-3163.67	265.26	-69.99	267.54	7.67	2070180	150482.2	37.08	-98.259	
4581	50	341.5	4485.71	-3184.71	288.16	-77.54	290.69	6.98	2070172	150505.1	37.08	-98.259	
4612	51.9	341.5	4505.24	-3204.24	310.99	-85.18	313.77	6.13	2070165	150527.9	37.08	-98.26	
4644	54	341.9	4524.52	-3223.52	335.24	-93.2	338.28	6.64	2070157	150552.1	37.08	-98.26	
4676	57.4	342.8	4542.55	-3241.55	360.42	-101.21	363.74	10.88	2070149	150577.3	37.08	-98.26	

4707	59.8	343.8	4558.7	-3257.7	385.77	-108.81	389.33	8.22	2070141	150602.7	37.08	-98.26
4739	63	345.4	4574.02	-3273.02	412.85	-116.26	416.66	10.92	2070134	150629.7	37.08	-98.26
4771	66.9	345.9	4587.56	-3286.56	440.93	-123.44	444.97	12.27	2070126	150657.8	37.08	-98.26
4802	70.4	345.8	4598.85	-3297.85	468.92	-130.5	473.19	11.29	2070119	150685.8	37.08	-98.26
4834	75.3	345.4	4608.28	-3307.28	498.53	-138.1	503.05	15.36	2070112	150715.4	37.08	-98.26
4866	80.3	345	4615.04	-3314.04	528.76	-146.09	533.54	15.67	2070104	150745.7	37.08	-98.26
4897	84.4	344.6	4619.17	-3318.17	558.4	-154.14	563.44	13.29	2070096	150775.3	37.08	-98.26
4930	87.3	344.8	4621.55	-3320.55	590.15	-162.83	595.47	8.81	2070087	150807	37.081	-98.26
4961	88.7	344.6	4622.64	-3321.64	620.03	-171	625.62	4.56	2070079	150836.9	37.081	-98.26
5070	91.3	341.7	4622.64	-3321.64	724.33	-202.59	730.96	3.57	2070047	150941.2	37.081	-98.26
5166	91.7	340.3	4620.12	-3319.12	815.07	-233.84	822.73	1.52	2070016	151032	37.081	-98.26
5262	92.1	340.8	4616.94	-3315.94	905.54	-265.78	914.26	0.67	2069984	151122.4	37.081	-98.26
5357	90.9	344.5	4614.45	-3313.45	996.17	-294.1	1005.82	4.09	2069956	151213.1	37.082	-98.26
5452	90.6	346.9	4613.21	-3312.21	1088.21	-317.56	1098.63	2.55	2069932	151305.1	37.082	-98.26
5547	91.3	349	4611.63	-3310.63	1181.1	-337.39	1192.15	2.33	2069912	151398	37.082	-98.26
5642	92.5	349.6	4608.48	-3307.48	1274.39	-355.02	1286	1.41	2069895	151491.3	37.082	-98.26
5738	92.9	349.2	4603.96	-3302.96	1368.65	-372.66	1380.82	0.59	2069877	151585.5	37.083	-98.26
5833	91.6	348.7	4600.23	-3299.23	1461.81	-390.85	1474.56	1.47	2069859	151678.7	37.083	-98.261
5928	89.9	346.5	4598.99	-3297.99	1554.58	-411.25	1567.98	2.93	2069839	151771.5	37.083	-98.261
6023	90.3	347.3	4598.82	-3297.82	1647.1	-432.78	1661.21	0.94	2069817	151864	37.083	-98.261
6118	90.9	347	4597.83	-3296.83	1739.72	-453.9	1754.5	0.71	2069796	151956.6	37.084	-98.261
6214	91.6	347.5	4595.73	-3294.73	1833.33	-475.09	1848.79	0.9	2069775	152050.2	37.084	-98.261
6308	91.5	348.9	4593.19	-3292.19	1925.31	-494.3	1941.39	1.49	2069756	152142.2	37.084	-98.261
6404	90	352.6	4591.93	-3290.93	2020.03	-509.73	2036.59	4.16	2069740	152236.9	37.085	-98.261
6498	92.3	355.8	4590.05	-3289.05	2113.51	-519.22	2130.35	4.19	2069731	152330.4	37.085	-98.261
6594	92	356.6	4586.44	-3285.44	2209.23	-525.58	2226.23	0.89	2069724	152426.1	37.085	-98.261
6688	91.7	357.6	4583.41	-3282.41	2303.06	-530.34	2320.17	1.11	2069720	152520	37.085	-98.261
6782	90.3	0.1	4581.77	-3280.77	2397.02	-532.22	2414.13	3.05	2069718	152613.9	37.086	-98.261
6878	88.4	358.7	4582.86	-3281.86	2493	-533.23	2510.09	2.46	2069717	152709.9	37.086	-98.261
6972	88.6	357.8	4585.32	-3284.32	2586.92	-536.1	2604.06	0.98	2069714	152803.8	37.086	-98.261
7068	89.3	357.7	4587.08	-3286.08	2682.83	-539.86	2700.04	0.74	2069710	152899.7	37.086	-98.261
7163	89.3	0.6	4588.24	-3287.24	2777.81	-541.27	2795	3.05	2069709	152994.7	37.087	-98.261
7258	88.2	359.1	4590.31	-3289.31	2872.78	-541.52	2889.93	1.96	2069708	153089.7	37.087	-98.261
7353	88.9	358.4	4592.72	-3291.72	2967.73	-543.59	2984.89	1.04	2069706	153184.6	37.087	-98.261
7447	88.7	357.6	4594.68	-3293.68	3061.65	-546.87	3078.87	0.88	2069703	153278.5	37.087	-98.261
7542	88.3	357.7	4597.17	-3296.17	3156.53	-550.77	3173.83	0.43	2069699	153373.4	37.088	-98.261
7638	89.8	358.4	4598.76	-3297.76	3252.46	-554.03	3269.82	1.72	2069696	153469.4	37.088	-98.261
7734	92.2	358.8	4597.09	-3296.09	3348.41	-556.38	3365.79	2.53	2069693	153565.3	37.088	-98.261
7828	91.7	358	4593.89	-3292.89	3442.32	-559	3459.73	1	2069691	153659.2	37.088	-98.261
7924	89	356.8	4593.3	-3292.3	3538.21	-563.36	3555.71	3.08	2069687	153755.1	37.089	-98.261
8020	89.2	357.1	4594.81	-3293.81	3634.06	-568.46	3651.69	0.38	2069681	153851	37.089	-98.261
8114	88.8	355.1	4596.45	-3295.45	3727.82	-574.85	3745.61	2.17	2069675	153944.7	37.089	-98.261
8209	88.8	357.4	4598.44	-3297.44	3822.59	-581.07	3840.54	2.42	2069669	154039.5	37.089	-98.261
8305	90.2	358.2	4599.28	-3298.28	3918.51	-584.75	3936.54	1.68	2069665	154135.4	37.09	-98.261
8399	91.4	2.8	4597.97	-3296.97	4012.48	-583.93	4030.41	5.06	2069666	154229.4	37.09	-98.261
8494	90.9	4.6	4596.06	-3295.06	4107.25	-577.8	4124.92	1.97	2069672	154324.1	37.09	-98.261
8590	88.9	2	4596.23	-3295.23	4203.08	-572.28	4220.49	3.42	2069678	154420	37.091	-98.261
8686	90.7	2.6	4596.56	-3295.56	4299	-568.42	4316.22	1.98	2069681	154515.9	37.091	-98.261
8782	91.1	1.7	4595.05	-3294.05	4394.92	-564.82	4411.95	1.03	2069685	154611.8	37.091	-98.261
8878	90.4	1.4	4593.8	-3292.8	4490.87	-562.23	4507.76	0.79	2069688	154707.8	37.091	-98.261
8973	89.7	1.6	4593.71	-3292.71	4585.84	-559.74	4602.58	0.77	2069690	154802.7	37.092	-98.261
9069	89.4	359.5	4594.47	-3293.47	4681.83	-558.82	4698.48	2.21	2069691	154898.7	37.092	-98.261
9163	89.3	357.5	4595.53	-3294.53	4775.79	-561.28	4792.46	2.13	2069689	154992.7	37.092	-98.261
9259	89.6	357.8	4596.46	-3295.46	4871.7	-565.22	4888.46	0.44	2069685	155088.6	37.092	-98.261
9354	91.1	358.2	4595.88	-3294.88	4966.64	-568.53	4983.45	1.63	2069681	155183.5	37.093	-98.261
9449	89.8	356.3	4595.13	-3294.13	5061.52	-573.09	5078.44	2.42	2069677	155278.4	37.093	-98.261
9546	87.6	356.9	4597.33	-3296.33	5158.32	-578.84	5175.38	2.35	2069671	155375.2	37.093	-98.261
9568	86.7	356.2	4598.42	-3297.42	5180.25	-580.16	5197.34	5.18	2069670	155397.1	37.093	-98.261
9619	86.7	356.2	4601.36	-3300.36	5231.05	-583.54	5248.23	0	2069666	155447.9	37.093	-98.261

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.
Vertical Section is from Slot and calculated along an Azimuth of 358.000° (Grid).

Coordinate System is NAD 1927 (NADCON CONUS) US State Plane 1927 (Exact solution), Kansas South 1502.
Grid Convergence at Surface is 0.148°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 9619.00ft.,
the Bottom Hole Displacement is 5263.50ft., in the Direction of 358.000° (Grid).

Last Survey: 9568' MD, 4598' TVD
PTB: 9619' MD, 4601' TVD



LEGEND

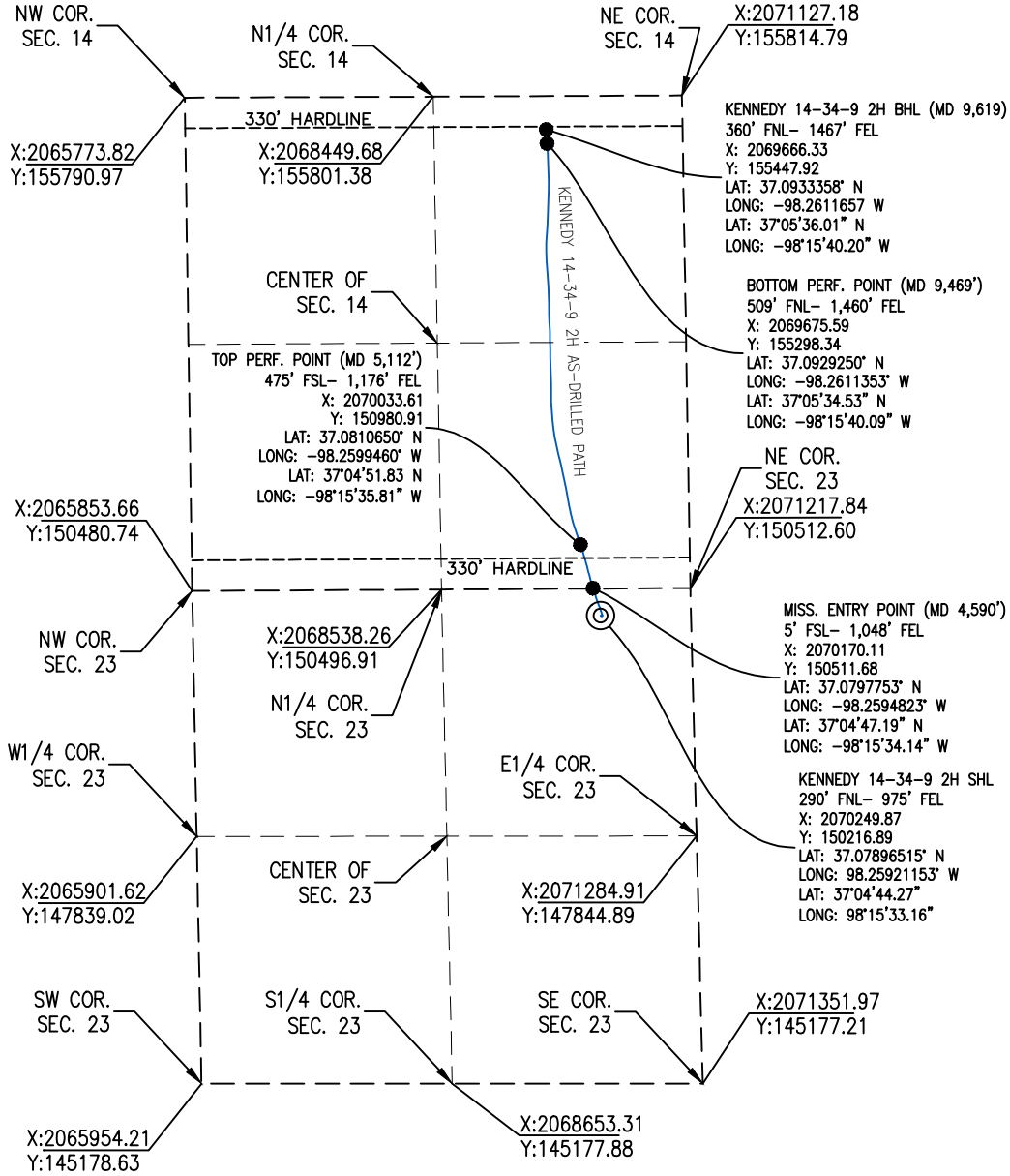
--- SECTION LINE
 - - - - - QUARTER LINE

HARPER COUNTY, KANSAS
 290' FNL- 975' FEL SECTION 23 TOWNSHIP 34S RANGE 09W 6TH P.M.



NOTE: ALL COORDINATES SHOWN IN
 NAD 27 UNLESS OTHERWISE NOTED.

BOTTOM HOLE INFORMATION PROVIDED
 BY OPERATOR LISTED AND CORNER
 COORDINATES ARE TAKEN FROM POINTS
 SURVEYED IN THE FIELD.



ELEVATION:
 1285' GR. AT STAKE

OPERATOR: TAPSTONE ENERGY **WELL NO:** 2H

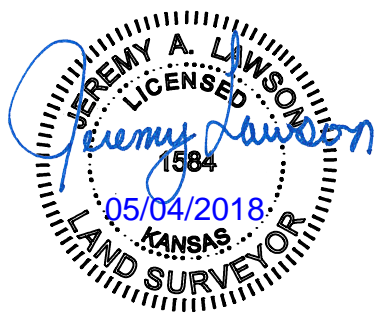
LEASE NAME: KENNEDY 14-34-9

TOPOGRAPHIC & VEGETATION: LOCATION FELL IN A FIELD

GOOD DRILL SITE: YES **REFERENCE STAKES OR ALTERNATE LOCATION STAKES SET:** NONE

BEST ACCESSIBILITY TO LOCATION: NORTH OR EAST LINE

DISTANCE & DIRECTION FROM HWY JCT OR TOWN: FROM THE JCT. OF STATE HWY. 2 & SW 120 AVE. (±5.4 MILES NORTHEAST OF CORWIN, KS), TRAVEL ±5.0 MILES SOUTH ON SW 120 AVE. TO THE NORTHEAST CORNER OF SECTION 23, T34S-R09W.



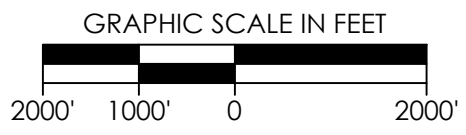
(THE FOLLOWING INFORMATION WAS GATHERED USING A GPS RECEIVER ACCURACY ±2.3 METERS)

GPS DATUM: NAD-27
LAT: 37.07896515° N
LONG: 98.25921153° W

STATE PLANE COORDINATES:
ZONE: KS-SOUTH NAD-27
X: 2070249.87
Y: 150216.89

DATE STAKED: 4/5/18

GENERAL NOTES:
 THE TIES AND FOOTAGES SHOWN ON THIS PLAT ARE FROM LINES OF OCCUPATION FROM A SURVEY MADE ON THE GROUND AND / OR BEARING AND DISTANCES FROM THE GENERAL LAND OFFICE PLAT OF THE AREA SHOWN AND MAY NOT BE THE ACTUAL PROPERTY CORNERS. THIS PLAT DOES NOT REPRESENT A TRUE BOUNDARY SURVEY. DRILL SITE CONDITION DETERMINATIONS WERE MADE BY TAPSTONE ENERGY REPRESENTATIVES.



REVISION		<p>"KENNEDY 14-34-9 2H" PART OF THE NE1/4 OF SECTION 23, T-34-S, R-09-W FINAL AS-DRILLED PLAT HARPER COUNTY, KANSAS</p>	
△	FINAL 5-4-18		
SCALE: 1" = 2000'		DRAWN BY: JWB SHEET NO.: 1 OF 1	
PLOT DATE: 05-04-2018			

Sorry this took a few days. These numbers are just for conductors on each location. We buy our portland cement in bulk loads. We mix to an 8 sack per cu. yd. strength mix.

Kennedy 14-34-9 2H, 9 yds., = 57.5 bbls

Patterson 13-34-9 1H, 8 yds., = 51 bbls.

Warner 11-34-9 1H, 7 yds., = 44 bbls.

No additives.

We appreciate your business. Have a good weekend.

Barry Smith
Koda Services
cell-(580)273-8256
Office-(580)254-5019