Confidentiality Requested:
☐ Yes ☑ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1237829

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 # 3208
Name: K & N Petroleum, Inc.
Address 1: 1105 WALNUT
Address 2:
City: GREAT BEND State: KS Zip: 67530 + __ __ __ __
Contact Person: Ed Nemnich
Phone: (620) 793-6005
CONTRACTOR: License # 33350
Name: Southwind Drilling, Inc.
Wellsite Geologist: Kurt Talbott
Purchaser: NCRA

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 #:

11/20/2014	11/27/2014	1/02/2015
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-009-26059-00-00
Spot Description:
NW SE NE NE Sec. 36 Twp. 20 S. R. 12 ☐ East ☑ West
714 Feet from ☑ North / ☐ South Line of Section
456 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☑ NE ☐ NW ☐ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Barton
Lease Name: Norman Klepper Well #: 1
Field Name: N/A
Producing Formation: Arbuckle/KC
Elevation: Ground: 1811 Kelly Bushing: 1819
Total Vertical Depth: 3474 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 367 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from: 367
feet depth to: 0 w/ 350 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 78000 ppm Fluid volume: 600 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: Eagle River Energy Corporation
Lease Name: Wirtz License #: 31070
Quarter NE Sec. 33 Twp. 19 S. R. 12 ☐ East ☑ West
County: Barton Permit #: 15-009-04768-00-01

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:** NAOMI JAMES **Date:** 02/17/2015

1237829

Operator Name: K & N Petroleum, Inc. Lease Name: Norman Klepper Well #: 1

Sec. 36 Twp. 20 S. R. 12 ☐ East ☑ West County: Barton

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 (Attach Additional Sheets)	☑ Yes	☐ No	☑ Log	Formation (Top), Depth and Datum ☐ Sample
Samples Sent to Geological Survey	☑ Yes	☐ No	Name: Attached	Top: Attached Datum: Attached
Cores Taken	☐ Yes	☑ No		
Electric Log Run	☑ Yes	☐ No		

List All E. Logs Run: Attached

CASING RECORD ☑ New ☐ 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
Surface	12.25	8.625	23	367	60/40 Poz	350	3% CC, 2% gel
Production	7.875	5.5	14	3475	60/40 Poz	25	2% gel
Production	7.875	5.5	14	3475	60/40 Poz	200	2% gel, 12% salt, 4% C47A, 3/4% C41P,

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ 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 *(Amount and Kind of Material Used)*	Depth
Attached	Attached	Attached	Attached

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run:
	2.375	3325		☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR.	Producing Method:
1/2/2015	☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	15	0	15		

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)* ☐ Other *(Specify)*	Kansas City

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	K & N Petroleum, Inc.
Well Name	Norman Klepper 1
Doc ID	1237829

All Electric Logs Run

CNL/CDL
DIL
MEL
Sonic

Form	ACO1 - Well Completion
Operator	K & N Petroleum, Inc.
Well Name	Norman Klepper 1
Doc ID	1237829

Tops

Name	Top	Datum
Anhydrite	578	+1241
Base Anhydrite	600	+1219
Heebner	3006	-1187
Toronto	3022	-1203
Douglas	3038	-1219
Brown Lime	3140	-1321
Lansing	3152	-1333
Base KC	3382	-1563
Arbuckle	3400	-1581
Total Depth	3474	-1655

Form	ACO1 - Well Completion
Operator	K & N Petroleum, Inc.
Well Name	Norman Klepper 1
Doc ID	1237829

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	3418-22	500 gal Mod 202	3418-22
4	3400-04	250 gal 28%	
4	3371-76	250 gal 28%	
4	3314-20	250 gal 28%	
4	3154-58	250 gal 28%	
	BP @ 3395	Bridge Plug	3395

Acid & Cement

TREATMENT REPORT

Acid Stage No. _____

Date 11/21/2014 District _____ F.O. No. 42281

Company K&N PETROLUEM

Well Name & No. NORMAN KLEPPER #1

Location _____ Field _____

County BARTON State KS

Casing: Size 8 5/8 Type & Wt. _____ Set at _____ ft.

Formation: _____ Perf. _____ to _____

Formation: _____ Perf. _____ to _____

Formation: _____ Perf. _____ to _____

Liner: Size _____ Type & Wt. _____ Top at _____ ft. Bottom at _____ ft.

Cemented: _____ Perforated from _____ ft. to _____ ft.

Tubing: Size & Wt. _____ Swung at _____ ft.

Perforated from _____ ft. to _____ ft.

Open Hole Size _____ T.D. _____ ft. P.B. to _____ ft.

Type Treatment:	Amt.		Type Fluid	Sand Size	Pounds of Sand
Bkdown		Bbl./Gal.			
		Bbl./Gal.			
		Bbl./Gal.			
		Bbl./Gal.			
Flush		Bbl./Gal.			

Treated from _____ ft. to _____ ft. No. ft. 0

from _____ ft. to _____ ft. No. ft. 0

from _____ ft. to _____ ft. No. ft. 0

Actual Volume of Oil / Water to Load Hole: _____ Bbl./Gal.

Pump Trucks. No. Used: Std. 318 Sp. _____ Twin _____

Auxiliary Equipment 327

Personnel BRANDON JOE AND SCOTT

Auxiliary Tools _____

Plugging or Sealing Materials: Type _____

_____ Gals. _____ lb.

Company Representative ED Treater BRANDON

TIME	PRESSURES		Total Fluid Pumped	REMARKS
a.m./p.m.	Tubing	Casing		
4:30				ON LOCATION
				HOLE-367'
				PIPE-357'
				LJ-10'
				DISP-22 BBL
				MIX 350 SKS 60/40 2% GEL 3% CAL CHLORIDE 6BPM 400#
				DISPLACE W/ 22 BBL WATER
				CIRCULATED CEMENT TO SURFACE
				THANKS
				BRANDON

Acid & Cement

TREATMENT REPORT

Acid Stage No. _____

Date 11/27/2014 District _____ F.O. No. 42285

Company K&N PETROLEUM

Well Name & No. NORMAN KLEPPER#1

Location _____ Field _____

County BARTON State KS

Casing: Size 5 1/2 Type & Wt. _____ Set at _____ ft.

Formation: _____ Perf. _____ to _____

Formation: _____ Perf. _____ to _____

Formation: _____ Perf. _____ to _____

Liner: Size _____ Type & Wt. _____ Top at _____ ft. Bottom at _____ ft.

Cemented: _____ Perforated from _____ ft. to _____ ft.

Tubing: Size & Wt. _____ Swung at _____ ft.

Perforated from _____ ft. to _____ ft.

Open Hole Size _____ T.D. _____ ft. P.B. to _____ ft.

Type Treatment:	Amt.		Type Fluid	Sand Size	Pounds of Sand
Bkdown		Bbl./Gal.			
		Bbl./Gal.			
		Bbl./Gal.			
		Bbl./Gal.			
Flush		Bbl./Gal.			

Treated from _____ ft. to _____ ft. No. ft. 0

from _____ ft. to _____ ft. No. ft. 0

from _____ ft. to _____ ft. No. ft. 0

Actual Volume of Oil / Water to Load Hole: _____ Bbl./Gal.

Pump Trucks. No. Used: Std. 318 Sp. _____ Twin _____

Auxiliary Equipment 360-310

Personnel BRANDON NATHAN JOE AND SCOTT

Auxiliary Tools _____

Plugging or Sealing Materials: Type _____

_____ Gals. _____ lb.

Company Representative ED Treater BRANDON

TIME a.m./p.m.	PRESSURES Tubing	PRESSURES Casing	Total Fluid Pumped	REMARKS
8:30				ON LOCATION
				HOLE-3476'
				PIPE-3472'
				BAFFLE-3457'
				DISPLACEMENT-84.35
				BASKET-2,4
				CENTRILIZER-1,3,6,8,11
				BREAK CIRCULATION AND CIRCULATE FOR 1 HR W/ MUD PUMP
				PUMP MUD FLUSH
				PLUG RAT HOLE W/ 30 SKS 60/40 2%
				PUMP 25 SKS 60/40 2% AND 200 SKS 60/40 2% GEL 12% SALT 3/4% C-47A
				3/4% C41P AND 5# PER SK GILSONITE
				DISPLACED PLUG 6BPM 800#. PLUG LANDED AT 1200# AND PRESSURED UP
4:45				TO 1500# AND RELEASE. PLUG HELD.
				THANKS
				BRANDON

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **K&N Petroleum**

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

Norman Klepper #1

36-20s-12w Barton,KS

Start Date: 2014.11.25 @ 06:40:00

End Date: 2014.11.25 @ 12:14:30

Job Ticket #: 60297 DST #: 1

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.11.28 @ 15:35:03

DRILL STEM TEST REPORT

K&N Petroleum

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

36-20s-12w Barton,KS

Norman Klepper #1

Job Ticket: 60297 **DST#: 1**

Test Start: 2014.11.25 @ 06:40:00

GENERAL INFORMATION:

Formation: **LKC A-F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:11:30
Time Test Ended: 12:14:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Ellis
Unit No: S2

Interval: 3147.00 ft (KB) To 3240.00 ft (KB) (TVD)
Total Depth: 3240.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

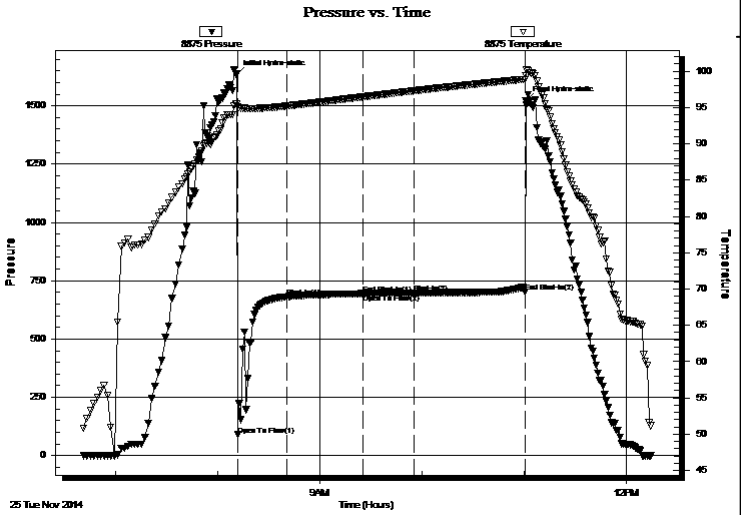
Reference Elevations: 1819.00 ft (KB)
1811.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8875 **Outside**

Press@RunDepth: 698.00 psig @ 3235.11 ft (KB)
Start Date: 2014.11.25 End Date: 2014.11.25
Start Time: 06:41:00 End Time: 12:14:30

Capacity: 5000.00 psig
Last Calib.: 2014.11.25
Time On Btm: 2014.11.25 @ 08:11:00
Time Off Btm: 2014.11.25 @ 11:01:00

TEST COMMENT: IFP 30 min. Good blow built to 9"
ISI 45 min. No blow back.
FFP 30 min. Dead very w eak blow died.
FSI60 min.No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1635.87	95.48	Initial Hydro-static
1	89.24	95.07	Open To Flow (1)
30	681.53	95.20	Shut-In(1)
74	694.91	96.45	End Shut-In(1)
75	694.89	96.46	Open To Flow (2)
105	698.00	97.29	Shut-In(2)
170	702.78	98.88	End Shut-In(2)
170	1523.70	99.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	Mud 100%	0.70

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

K&N Petroleum

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

36-20s-12w Barton,KS

Norman Klepper #1

Job Ticket: 60297 **DST#: 1**

Test Start: 2014.11.25 @ 06:40:00

GENERAL INFORMATION:

Formation: **LKC A-F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:11:30
Time Test Ended: 12:14:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Ellis
Unit No: S2

Interval: 3147.00 ft (KB) To 3240.00 ft (KB) (TVD)
Total Depth: 3240.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

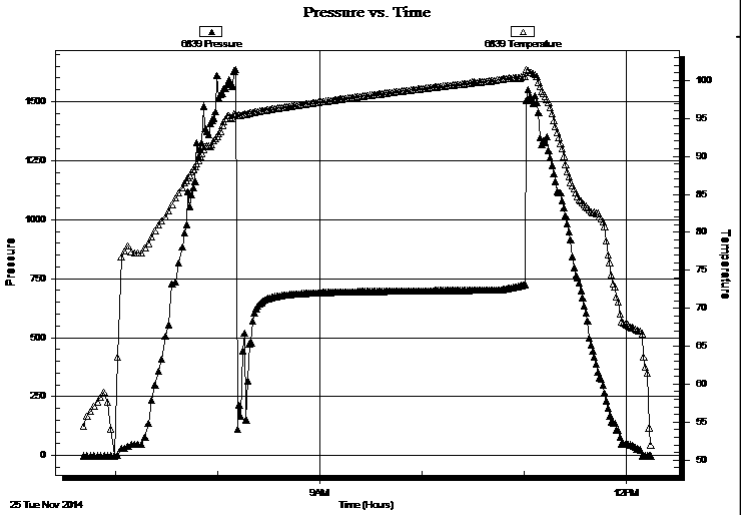
Reference Elevations: 1819.00 ft (KB)
1811.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6839 **Inside**

Press@RunDepth: psig @ 3235.11 ft (KB)
Start Date: 2014.11.25 End Date: 2014.11.25
Start Time: 06:41:00 End Time: 12:14:30

Capacity: 5000.00 psig
Last Calib.: 2014.11.25
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP 30 min. Good blow built to 9"
ISI 45 min. No blow back.
FFP 30 min. Dead very w eak blow died.
FSI60 min.No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
50.00	Mud 100%	0.70

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

K&N Petroleum

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

36-20s-12w Barton,KS

Norman Klepper #1

Job Ticket: 60297 **DST#: 1**

Test Start: 2014.11.25 @ 06:40:00

Tool Information

Drill Pipe:	Length:	3138.00 ft	Diameter:	3.80 inches	Volume:	44.02 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		55000.00 lb
					Total Volume:	44.02 bbl	Tool Chased		1.00 ft
Drill Pipe Above KB:		11.00 ft					String Weight:	Initial	48000.00 lb
Depth to Top Packer:		3147.00 ft						Final	48000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		93.11 ft							
Tool Length:		113.11 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3132.00		
Hydraulic tool	5.00			3137.00		
Top Packer	5.00			3142.00		
Packer	5.00			3147.00	20.00	Bottom Of Top Packer
Anchor	6.00			3153.00		
Change Over Sub	0.75			3153.75		
Drill Pipe	62.61			3216.36		
Change Over Sub	0.75			3217.11		
Anchor	18.00			3235.11		
Recorder	0.00	6839	Inside	3235.11		
Recorder	0.00	8875	Outside	3235.11		
Bull Plug	5.00			3240.11	93.11	Anchor Tool
Total Tool Length:	**113.11**					

DRILL STEM TEST REPORT

FLUID SUMMARY

K&N Petroleum

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

36-20s-12w Barton,KS

Norman Klepper #1

Job Ticket: 60297 **DST#: 1**

Test Start: 2014.11.25 @ 06:40:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	63.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.18 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

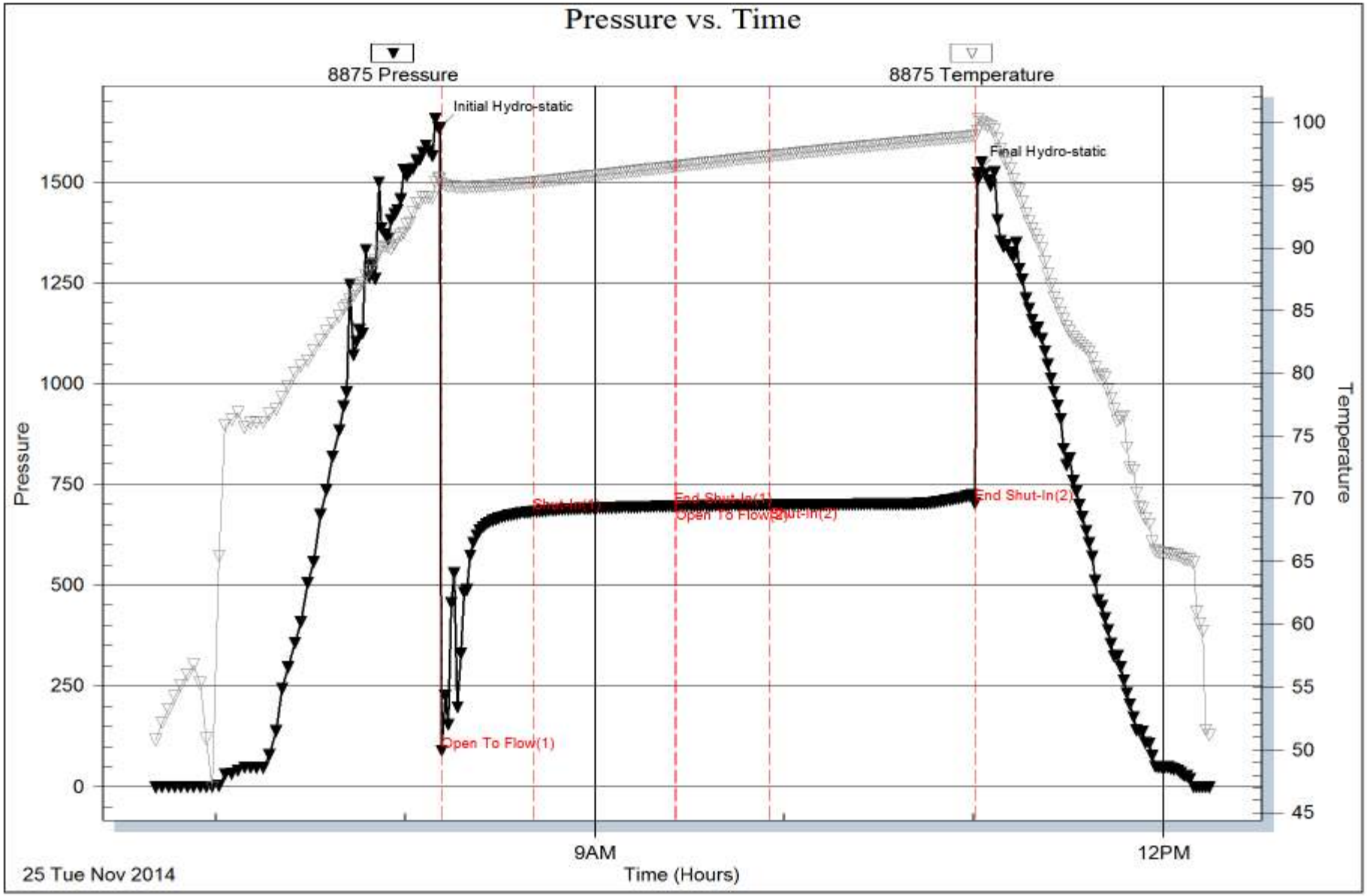
Recovery Table

Length ft	Description	Volume bbl
50.00	Mud 100%	0.701

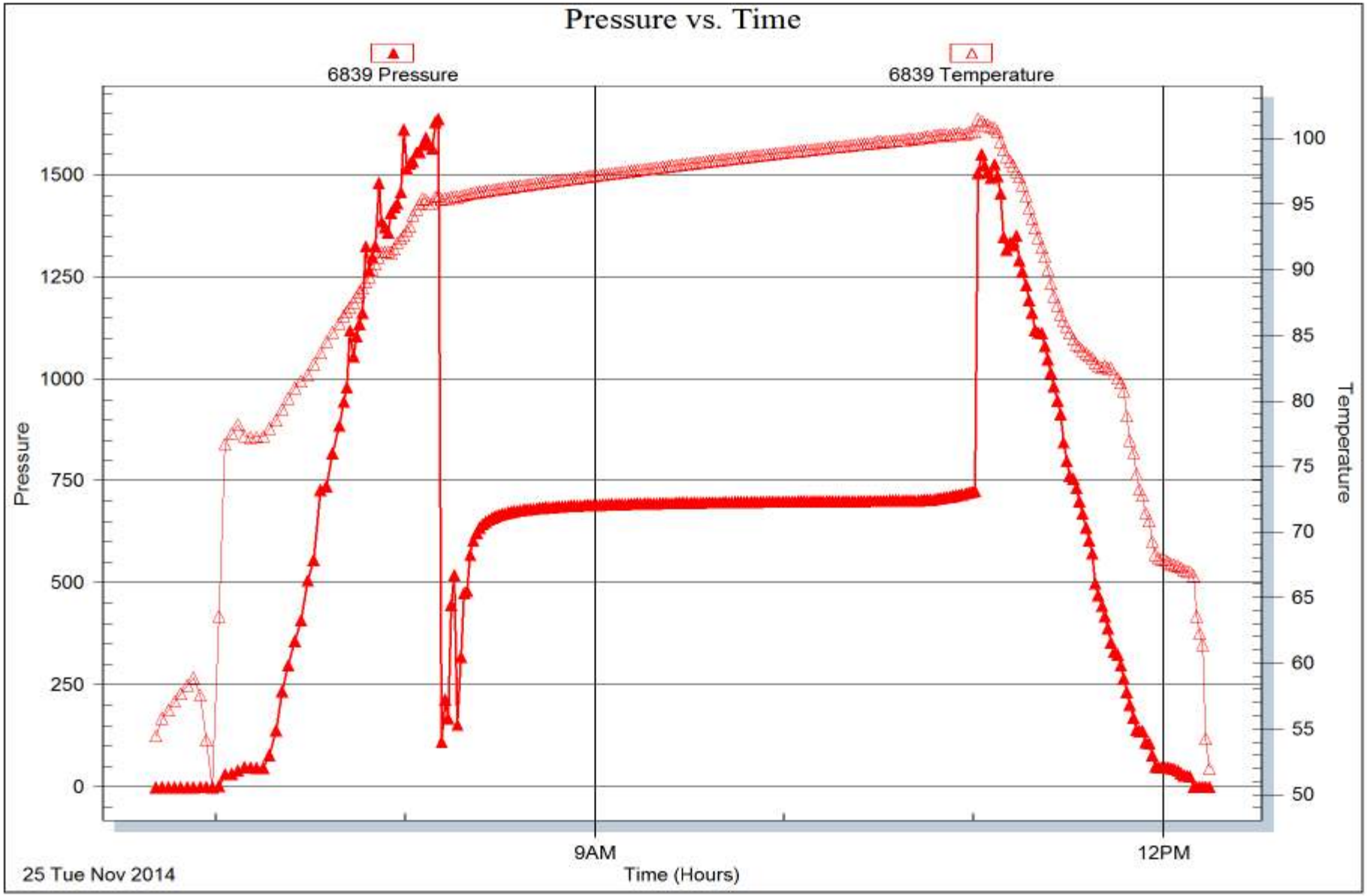
Total Length: 50.00 ft Total Volume: 0.701 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8875 **Outside** K&N Petroleum Norman Klepper #1 DST Test Number: 1



Serial #: 6839 **Inside** K&N Petroleum Norman Klepper #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 60297 Printed: 2014.11.28 @ 15:35:04

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **K&N Petroleum**

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

Norman Klepper #1

36-20s-12w Barton,KS

Start Date: 2014.11.26 @ 05:08:00
End Date: 2014.11.26 @ 11:04:30
Job Ticket #: 60298 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.11.28 @ 15:33:49

DRILL STEM TEST REPORT

K&N Petroleum

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

36-20s-12w Barton,KS

Norman Klepper #1

Job Ticket: 60298 **DST#: 2**

Test Start: 2014.11.26 @ 05:08:00

GENERAL INFORMATION:

Formation: **Lower LKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:28:00
Time Test Ended: 11:04:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Ellis
Unit No: S21

Interval: 3293.00 ft (KB) To 3388.00 ft (KB) (TVD)
Total Depth: 3388.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

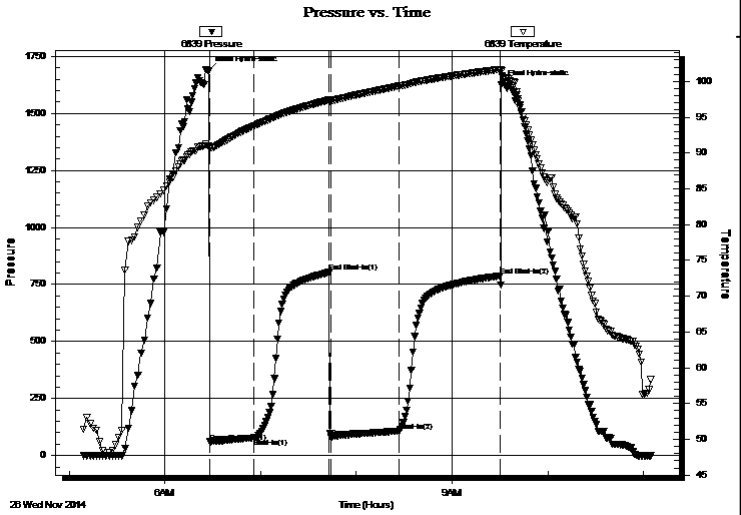
Reference Elevations: 1819.00 ft (KB)
1811.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6839 **Inside**

Press@RunDepth: 107.76 psig @ 3383.11 ft (KB)
Start Date: 2014.11.26 End Date: 2014.11.26
Start Time: 05:09:00 End Time: 11:04:30

Capacity: 5000.00 psig
Last Calib.: 2014.11.26
Time On Btm: 2014.11.26 @ 06:27:30
Time Off Btm: 2014.11.26 @ 09:31:00

TEST COMMENT: IFP 30 min. Fair blow , BOB in 9 min.
ISI 45 min. No blow back
FFP 45 min.BOB in 5 min.
FSI 60 min. No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1686.13	91.02	Initial Hydro-static
1	60.09	90.63	Open To Flow (1)
28	77.92	93.76	Shut-In(1)
76	802.95	97.41	End Shut-In(1)
77	80.48	97.30	Open To Flow (2)
120	107.76	99.35	Shut-In(2)
183	787.93	101.69	End Shut-In(2)
184	1625.22	101.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
140.00	VGOCM Gas 50% Oil 20% Mud 30%	1.96
0.00	252' GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

K&N Petroleum

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

36-20s-12w Barton,KS

Norman Klepper #1

Job Ticket: 60298 **DST#: 2**

Test Start: 2014.11.26 @ 05:08:00

GENERAL INFORMATION:

Formation: **Lower LKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:28:00
Time Test Ended: 11:04:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Ellis
Unit No: S21

Interval: 3293.00 ft (KB) To 3388.00 ft (KB) (TVD)
Total Depth: 3388.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

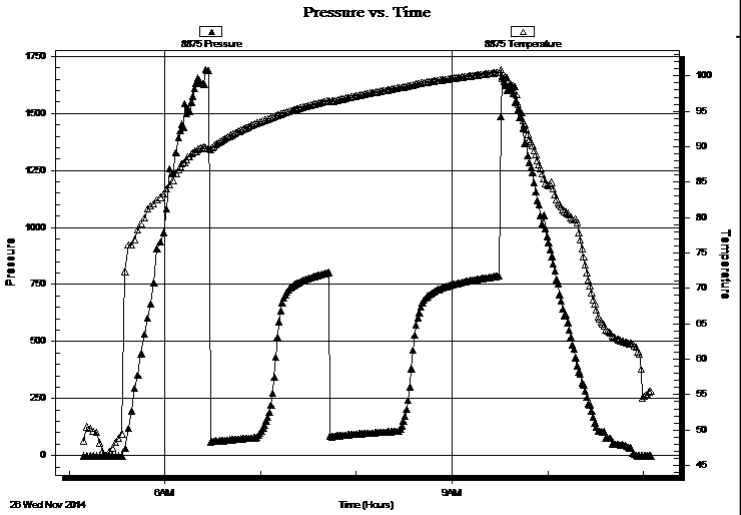
Reference Elevations: 1819.00 ft (KB)
1811.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8875 **Outside**

Press@RunDepth: psig @ 3383.11 ft (KB)
Start Date: 2014.11.26 End Date: 2014.11.26
Start Time: 05:09:00 End Time: 11:04:30

Capacity: psig
Last Calib.: 1899.12.30
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP 30 min. Fair blow , BOB in 9 min.
ISI 45 min. No blow back
FFP 45 min.BOB in 5 min.
FSI 60 min. No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
140.00	VGOCM Gas 50% Oil 20% Mud 30%	1.96
0.00	252' GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

K&N Petroleum

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

36-20s-12w Barton,KS

Norman Klepper #1

Job Ticket: 60298 **DST#: 2**

Test Start: 2014.11.26 @ 05:08:00

Tool Information

Drill Pipe:	Length:	3288.00 ft	Diameter:	3.80 inches	Volume:	46.12 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		50000.00 lb
					Total Volume:	46.12 bbl	Tool Chased		48000.00 ft
Drill Pipe Above KB:		15.00 ft					String Weight:	Initial	48000.00 lb
Depth to Top Packer:		3293.00 ft						Final	0.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		95.11 ft							
Tool Length:		115.11 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3278.00		
Hydraulic tool	5.00			3283.00		
Top Packer	5.00			3288.00		
Packer	5.00			3293.00	20.00	Bottom Of Top Packer
Anchor	6.00			3299.00		
Change Over Sub	0.75			3299.75		
Drill Pipe	62.61			3362.36		
Change Over Sub	0.75			3363.11		
Anchor	20.00			3383.11		
Recorder	0.00	6839	Inside	3383.11		
Recorder	0.00	8875	Outside	3383.11		
Bull Plug	5.00			3388.11	95.11	Anchor Tool
Total Tool Length:	**115.11**					

DRILL STEM TEST REPORT

FLUID SUMMARY

K&N Petroleum

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

36-20s-12w Barton,KS

Norman Klepper #1

Job Ticket: 60298 **DST#: 2**

Test Start: 2014.11.26 @ 05:08:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

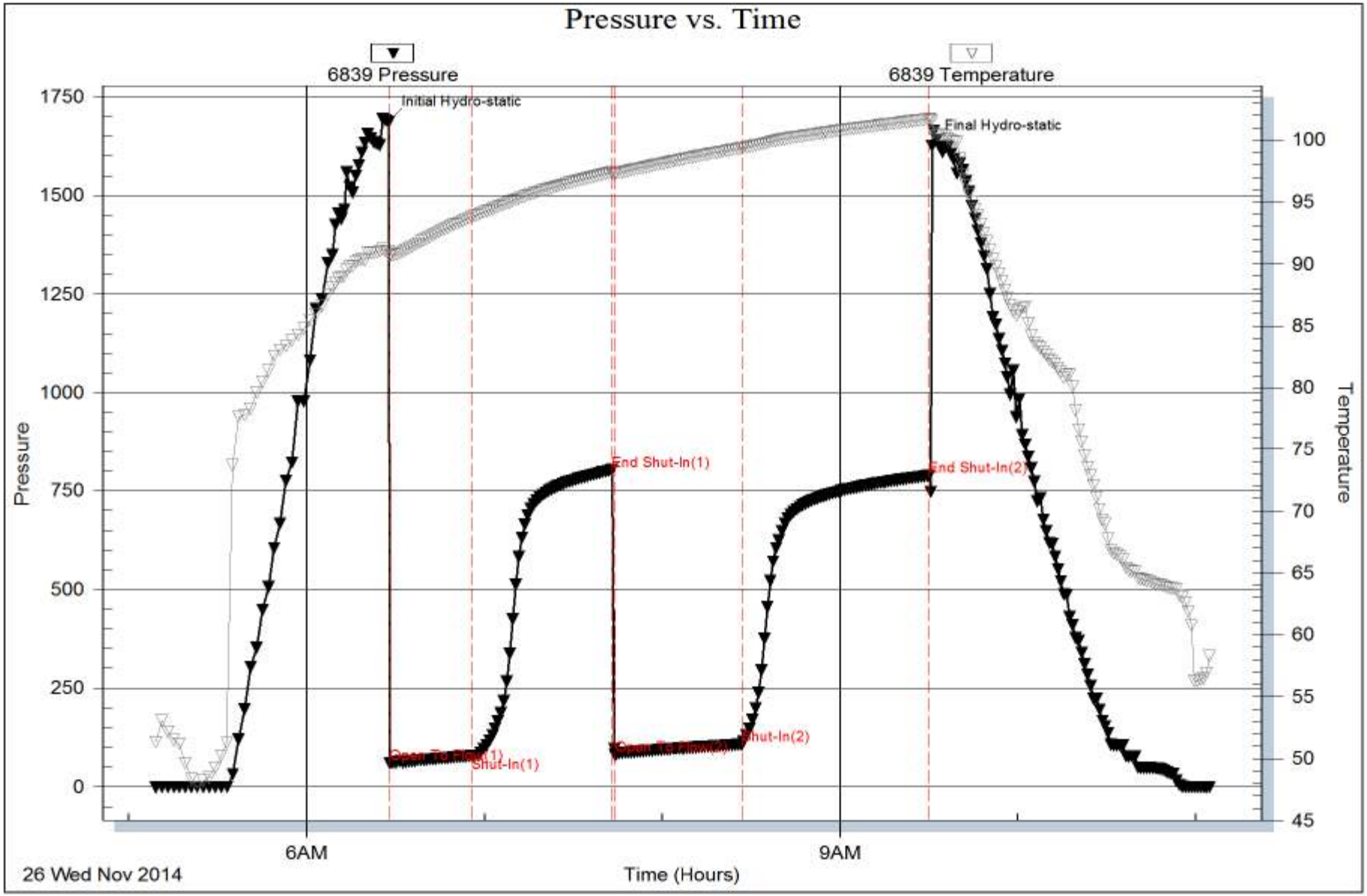
Recovery Table

Length ft	Description	Volume bbl
140.00	VGOCM Gas 50% Oil 20% Mud 30%	1.964
0.00	252' GIP	0.000

Total Length: 140.00 ft Total Volume: 1.964 bbl

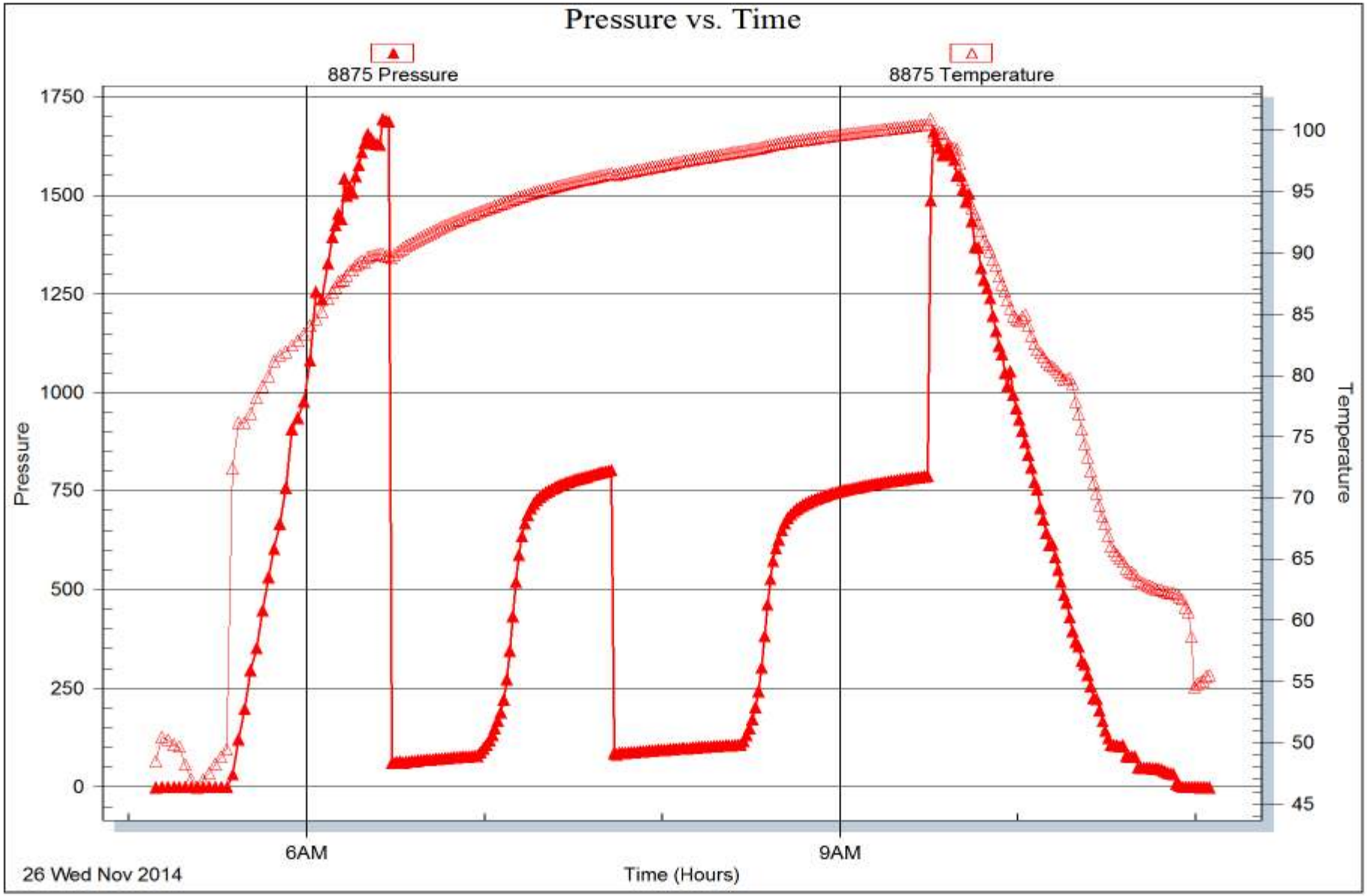
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6839 **Inside** K&N Petroleum Norman Klepper #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 60298 Printed: 2014.11.28 @ 15:33:50

Serial #: 8875 **Outside** K&N Petroleum Norman Klepper #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 60298 Printed: 2014.11.28 @ 15:33:50

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **K&N Petroleum**

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

Norman Klepper #1

36-20s-12w Barton,KS

Start Date: 2014.11.26 @ 18:55:00
End Date: 2014.11.27 @ 00:59:00
Job Ticket #: 60299 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.11.28 @ 15:27:40

DRILL STEM TEST REPORT

K&N Petroleum

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

36-20s-12w Barton,KS

Norman Klepper #1

Job Ticket: 60299 **DST#: 3**

Test Start: 2014.11.26 @ 18:55:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:15:30
Time Test Ended: 00:59:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Ellis
Unit No: S2

Interval: 3367.00 ft (KB) To 3422.00 ft (KB) (TVD)
Total Depth: 3422.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

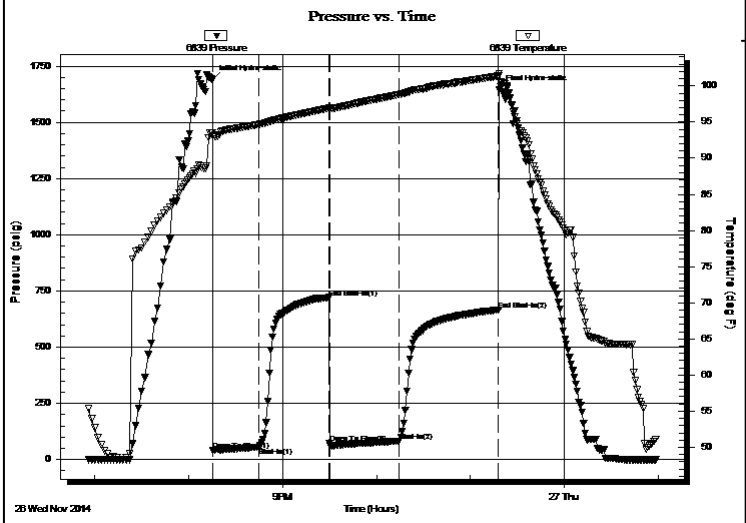
Reference Elevations: 1819.00 ft (KB)
1811.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6839 **Inside**

Press@RunDepth: 82.91 psig @ 3417.49 ft (KB)
Start Date: 2014.11.26 End Date: 2014.11.27
Start Time: 18:56:00 End Time: 00:59:00

Capacity: 5000.00 psig
Last Calib.: 2014.11.27
Time On Btm: 2014.11.26 @ 20:15:00
Time Off Btm: 2014.11.26 @ 23:18:30

TEST COMMENT: IFP 30 min BOB in 10 min.
ISI 45 min. No blow back
FFP 45 min BOB in 7 min.
FSI 60 min .Yes Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1690.31	93.52	Initial Hydro-static
1	40.00	93.16	Open To Flow (1)
30	55.94	94.67	Shut-In(1)
75	720.96	96.94	End Shut-In(1)
76	72.70	96.75	Open To Flow (2)
120	82.91	98.81	Shut-In(2)
183	666.38	101.37	End Shut-In(2)
184	1646.81	101.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Clean Gassy Oil 100%	0.28
121.00	GOCM Oil 10% Gas 20% Mud 70%	1.70
0.00	2714 GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

K&N Petroleum

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

36-20s-12w Barton,KS

Norman Klepper #1

Job Ticket: 60299 **DST#: 3**

Test Start: 2014.11.26 @ 18:55:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:15:30
Time Test Ended: 00:59:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Ellis
Unit No: S2

Interval: 3367.00 ft (KB) To 3422.00 ft (KB) (TVD)
Total Depth: 3422.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

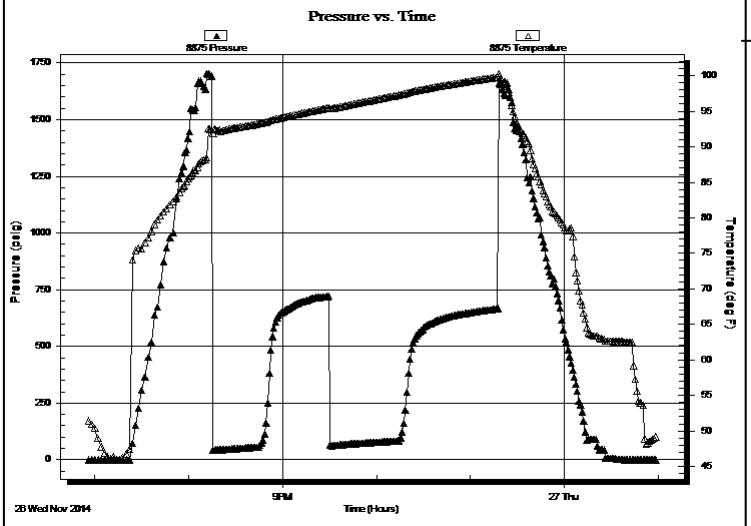
Reference Elevations: 1819.00 ft (KB)
1811.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8875 **Outside**

Press@RunDepth: psig @ 3417.49 ft (KB)
Start Date: 2014.11.26 End Date: 2014.11.27
Start Time: 18:56:00 End Time: 00:59:00

Capacity: 5000.00 psig
Last Calib.: 2014.11.27
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP 30 min BOB in 10 min.
ISI 45 min. No blow back
FFP 45 min BOB in 7 min.
FSI 60 min .Yes Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Clean Gassy Oil 100%	0.28
121.00	GOCM Oil 10% Gas 20% Mud 70%	1.70
0.00	2714 GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

K&N Petroleum

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

36-20s-12w Barton,KS

Norman Klepper #1

Job Ticket: 60299 **DST#: 3**

Test Start: 2014.11.26 @ 18:55:00

Tool Information

Drill Pipe:	Length:	3355.00 ft	Diameter:	3.80 inches	Volume:	47.06 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
					Total Volume:	47.06 bbl	

Drill Pipe Above KB:	8.00 ft
Depth to Top Packer:	3367.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	55.49 ft
Tool Length:	75.49 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2000.00 lb
Weight set on Packer:		20000.00 lb
Weight to Pull Loose:		55000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	50000.00 lb
	Final	50000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3352.00		
Hydraulic tool	5.00			3357.00		
Top Packer	5.00			3362.00		
Packer	5.00			3367.00	20.00	Bottom Of Top Packer
Anchor	6.00			3373.00		
Change Over Sub	0.75			3373.75		
Drill Pipe	31.99			3405.74		
Change Over Sub	0.75			3406.49		
Anchor	11.00			3417.49		
Recorder	0.00	6839	Inside	3417.49		
Recorder	0.00	8875	Outside	3417.49		
Bull Plug	5.00			3422.49	55.49	Anchor Tool
Total Tool Length:	**75.49**					

DRILL STEM TEST REPORT

FLUID SUMMARY

K&N Petroleum

1105 Walnut
Great Bend KS 67530

ATTN: Kurt Talbolt

36-20s-12w Barton,KS

Norman Klepper #1

Job Ticket: 60299 **DST#: 3**

Test Start: 2014.11.26 @ 18:55:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

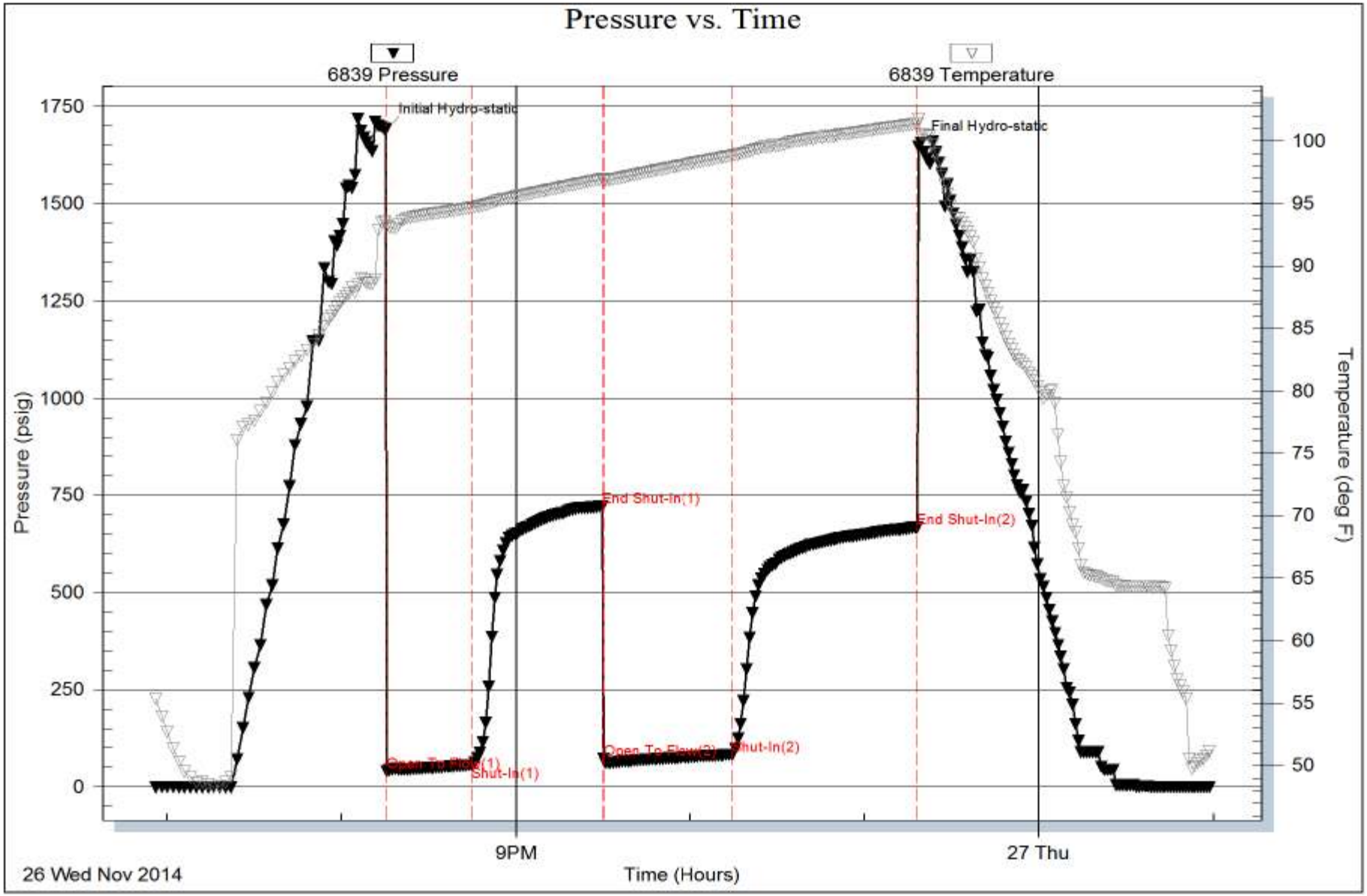
Recovery Table

Length ft	Description	Volume bbl
20.00	Clean Gassy Oil 100%	0.281
121.00	GOCM Oil 10% Gas 20% Mud 70%	1.697
0.00	2714 GIP	0.000

Total Length: 141.00 ft Total Volume: 1.978 bbl

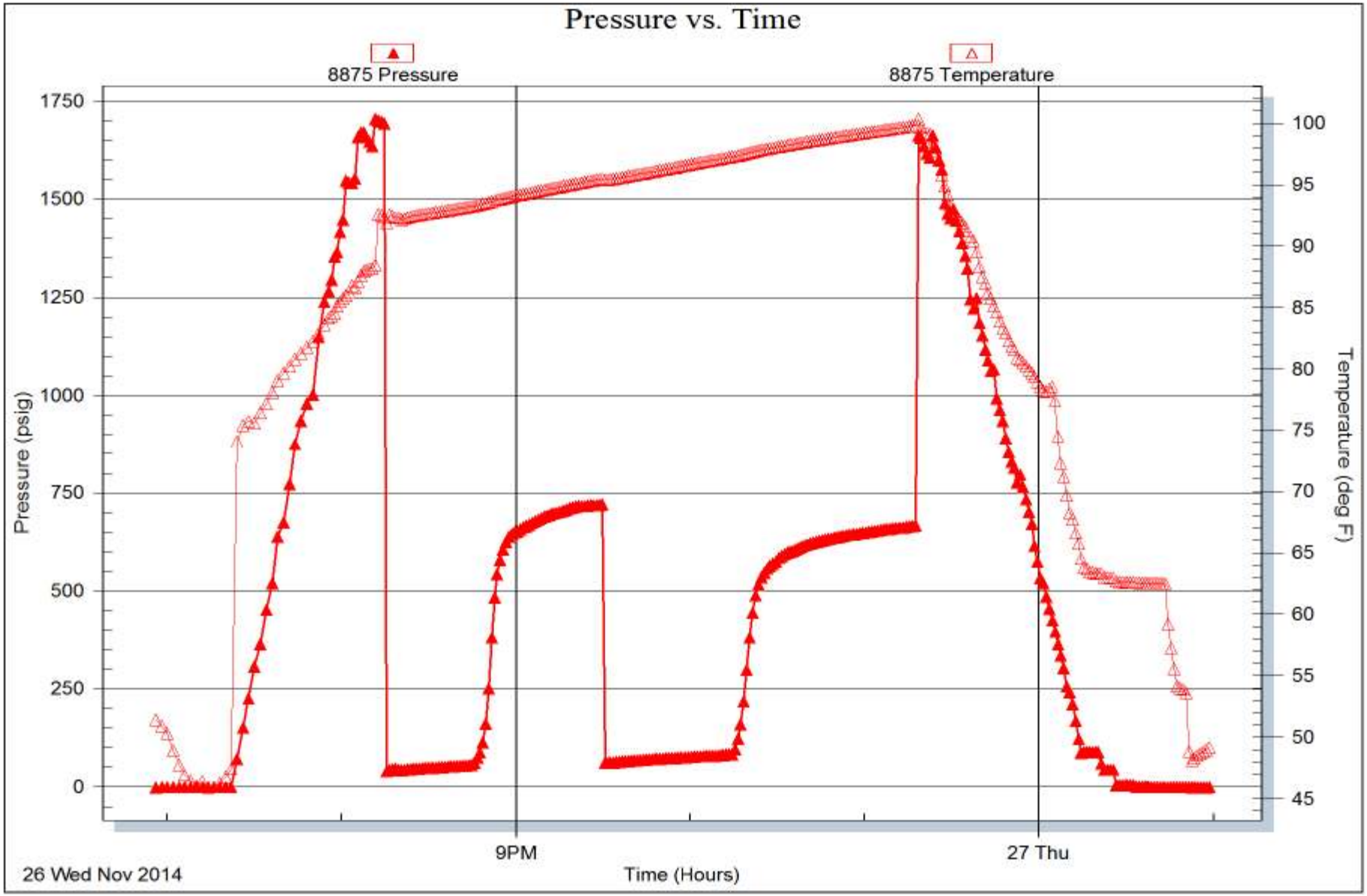
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6839 **Inside** K&N Petroleum Norman Klepper #1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 60299 Printed: 2014.11.28 @ 15:27:41

Serial #: 8875 **Outside** K&N Petroleum Norman Klepper #1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 60299 Printed: 2014.11.28 @ 15:27:41

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 60297

Well Name & No. Norman Klepper #1 Test No. 1 Date 11-25-14

Company K&N Petroleum Elevation 1811 KB 1819 GL

Address 1105 Walnut Great Bend KS 67530

Co. Rep / Geo. Kurt talbolt Rig Southwind Rig #6

Location: Sec. 36 Twp. 20s Rge. 12w Co. Barton State KS

Interval Tested 3147-3240 Zone Tested Lansing A-F

Anchor Length 93 Drill Pipe Run 3138 Mud Wt. 8.9

Top Packer Depth 3142 Drill Collars Run 0 Vis 63

Bottom Packer Depth 3147 Wt. Pipe Run 48,000 WL 7.2

Total Depth 3240 Chlorides 4000 ppm System LCM 1

Blow Description Initial open-~~strong~~ good building blow built to ~~BOB in~~ 9 inches.
Initial shut-in - No blow back.
Final Flow - Dead, very weak blow died off.
Final Shut-in - No blow back.

Rec 50	Feet of mud	%gas	%oil	%water	100	%mud
Rec	Feet of	%gas	%oil	%water		%mud
Rec	Feet of	%gas	%oil	%water		%mud
Rec	Feet of	%gas	%oil	%water		%mud
Rec	Feet of	%gas	%oil	%water		%mud

Rec Total 50 BHT Gravity API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1635	☐ Test 1150	T-On Location 5:00am	
(B) First Initial Flow 89	☐ Jars	T-Started 6:40am	
(C) First Final Flow 601	☐ Safety Joint	T-Open 8:10am	
(D) Initial Shut-In ~~644~~ 694	☐ Circ Sub	T-Pulled 11:10am	
(E) Second Initial Flow ~~688~~ 694	☐ Hourly Standby	T-Out 12:25	
(F) Second Final Flow ~~702~~ 699	☑ Mileage 40 62	Comments	
(G) Final Shut-In 702	☐ Sampler		
(H) Final Hydrostatic 1523	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 30	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0	
Final Flow ~~30~~ 60	☐ Day Standby	Total 1212.00	
Final Shut-In 60	☐ Accessibility	MP/DST Disc't	
	Sub Total 1212		

Approved By Our Representative Dustin Ellis

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 60298

Well Name & No. Norman Klepper #1 Test No. 2 Date 11-26-14

Company K+N Petroleum Elevation 1861 KB 1869 GL

Address 1105 Walnut Great Bend KS 67530

Co. Rep / Geo. Kurt Talbolt Rig South wind Drilling Rig 6

Location: Sec. 36 Twp. 20s Rge. 12w Co. Barton State KS

Interval Tested 3293 - 3388 Zone Tested Lower LKC

Anchor Length 95 Drill Pipe Run 32.88 Mud Wt. 9.4

Top Packer Depth 3288 Drill Collars Run 0 Vis 49

Bottom Packer Depth 3293 Wt. Pipe Run 48,000 WL 9

Total Depth 3388 Chlorides 6000 ppm System LCM 1

Blow Description initial open - Fair blow blew off BOB in 9 min,
initial shut in - No blow back
Final Flow - BOB in 5 min.
Final shut in - No blow back.

Rec 140 Feet of Gassy oil cut mud 50 %gas 20 %oil %water 30 %mud

Rec ____ Feet of ____ %gas %oil %water %mud

Rec ____ Feet of ____ %gas %oil %water %mud

Rec ____ Feet of ____ %gas %oil %water %mud

Rec ____ Feet of ____ %gas %oil %water %mud

Rec Total 140 BHT ____ Gravity ____ API RW ____ @ ____ °F Chlorides ____ ppm

(A) Initial Hydrostatic 1680	☐ Test 1150	T-On Location 430 am
(B) First Initial Flow 60	☐ Jars	T-Started 508 am
(C) First Final Flow 77	☐ Safety Joint	T-Open 627 am
(D) Initial Shut-In 882	☐ Circ Sub	T-Pulled 927 am
(E) Second Initial Flow 80	☐ Hourly Standby	T-Out
(F) Second Final Flow 107	☐ Mileage 40 62	Comments 252 gas in pipe
(G) Final Shut-In 787	☐ Sampler	
(H) Final Hydrostatic 1625	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 30	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0
Final Flow 45	☐ Day Standby	Total 1212
Final Shut-In 60	☐ Accessibility	MP/DST Disc't
	Sub Total 1212	

Approved By ____ Our Representative Dustin Ellis

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 60299

Well Name & No. Norman Klepper #1 Test No. 3 Date 11-26-14

Company K+N Petroleum Elevation 1811 KB 1819 GL

Address 1105 Walnut Great Bend KS 67530

Co. Rep / Geo. Kurt talbott Rig Southwind Rig #6

Location: Sec. 36 Twp. 20s Rge. 12w Co. Barton State KS

Interval Tested 3367-3422 Zone Tested Arbuckle

Anchor Length 55 Drill Pipe Run 3355 Mud Wt. 9.4

Top Packer Depth 3362 Drill Collars Run 0 Vis 49

Bottom Packer Depth 3367 Wt. Pipe Run 50,000 WL 8

Total Depth 3422 Chlorides 6000 ppm System LCM 1

Blow Description Initial open BOB 10 min
Initial shut-in - No blow back.
Final Flow - BOB in 7 min.
Final Shut-in - Yes blow back

Rec 20	Feet of Clean gassy oil	%gas	%oil	%water	%mud
Rec 121	Feet of Gassy oil cut mud 20	%gas 20	%oil	%water 70	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total ____ BHT ____ Gravity ____ API RW ____ @ ____ °F Chlorides ____ ppm

(A) Initial Hydrostatic 1690	☐ Test 1150	T-On Location 6:20pm	
(B) First Initial Flow 40	☐ Jars	T-Started 6:55pm	*
(C) First Final Flow 55	☐ Safety Joint	T-Open 9:44	
(D) Initial Shut-In 720	☐ Circ Sub	T-Pulled 11:14pm	
(E) Second Initial Flow 72	☐ Hourly Standby	T-Out 2:14 gas in pipe	
(F) Second Final Flow 82	☐ Mileage 40 62	Comments	
(G) Final Shut-In 666	☐ Sampler		
(H) Final Hydrostatic 1646	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 30	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0	
Final Flow 45	☐ Day Standby	Total 1212	
Final Shut-In 60	☐ Accessibility	MP/DST Disc't	
	Sub Total 1212		

Approved By ____ Our Representative Dustin Ellis