



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1238852

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: _____



1238852

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

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

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

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

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

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

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

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

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

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

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

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Thomas, John R. dba Vamco Operations
Well Name	Sanford Trust 3
Doc ID	1238852

Tops

Name	Top	Datum
Anhydrite	890	+1035
Heebner	3090	-1165
Brown Lime	3163	-1238
Lansing	3170	-1245
B/KC	3375	-1450
Arbuckle	3420	-1495
RTD	3476	-1551
LTD	3475	-1550

QUALITY WELL SERVICE, INC.

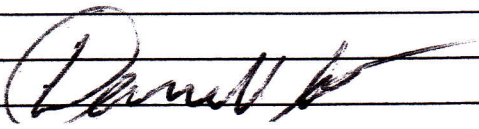
623

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

Office 620-727-3410
Fax 620-672-3663

Rich's Cell 620-727-3409
Brady's Cell 620-727-6964

Date	Sec.	Twp.	Range	County	State	On Location	Finish
092714	23	17s	14w	Barton	KS	2:30AM	7:30AM
Lease Sanford Trust		Well No. 3		Location Hoishton P, 4w, 1N, 1E, 1/2N, w/into			
Contractor Southwind #8				Owner Vamco			
Type Job Surface				To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed			
Hole Size 12 1/4		T.D. 766		Charge To Vamco			
Csg. 8 5/8 24"		Depth 766		Street			
Tbg. Size		Depth		City State			
Tool		Depth		City State			
Cement Left in Csg. 40'		Shoe Joint 39.76		The above was done to satisfaction and supervision of owner agent or contractor			
Meas Line		Displace BBls Fresh		Cement Amount Ordered 375sx class A + 2% gel + 3% c			
EQUIPMENT				1/4 C.F			
Pumptrk 8	No. Mike B			Common 325			
Bulktrk 7	No. Dustin C			Poz. Mix			
Bulktrk	No.			Gel. 7			
Pickup	No. David F.			Calcium 13			
JOB SERVICES & REMARKS				Hulls			
Rat Hole				Salt			
Mouse Hole				Flowseal			
Centralizers				Kol-Seal 93.75			
Baskets				Mud CLR 48			
D/V or Port Collar				CFL-117 or CD110 CAF 38			
Pipe on Btm, Break Line, Pump Space, mix 375sx A 2% cement, Stop. Release Plug, Start Disp. of Fresh H ₂ O, Wash up on Plug, See steady increase in PSI, Slow Rate, Bring Plug at 46 BBls total Disp, Shut in, Cement Dil 6 inc.				Sand			
				Handling 395			
				Mileage 15			
FLOAT EQUIPMENT							
				Guide Shoe			
				Centralizer			
				Baskets			
				AFU Inserts - 1-8 5/8" Baffle Plate			
				Float Shoe			
				Latch Down - 1-8 5/8" wooden cup Plug			
				Service Supervisor			
				LMV 15			
				Pumptrk Charge Surface			
				Mileage 15 X 2			
X Signature 				Tax			
				Discount			
				Total Charge			

Date 10.3.14 District Russell Ticket No. 55512
 Company Venoco Operations Rig Southwind Drilling
 Lease Santof Well No. #3
 County Barton State KC
 Location Hwy 2518 R4 Jul Field _____
1 e 7 1/2 n 1/2 W 10 10

CEMENT DATA:
 Spacer Type: _____
 Amt. 175 Skys Yield 136 ft³/sk Density _____ PPG

CASING DATA: Conductor PTA Squeeze Misc
 Surface Intermediate Production Liner
 Size 5 1/2 Type CS Weight 115.5 Collar _____
Ran 84 Jk 5 1/2 115.5 @ 3460'
7 1/2 hole in @ 3460'

LEAD: Pump Time 45m. hrs. Type _____
 Excess _____
 Amt. _____ Skys Yield _____ ft³/sk Density _____ PPG

Casing Depths: Top 0' Bottom 3460'
57-16.48'
900 Float Equipment

TAIL: Pump Time _____ hrs. Type _____
 Excess _____
 Amt. _____ Skys Yield _____ ft³/sk Density _____ PPG
 WATER: Lead _____ gals/sk Tail _____ gals/sk Total _____ Bbls.

Pump Trucks Used #417 - Denny S
 Bulk Equip. #410 - Tyler W

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size _____ T.D. _____ ft. P.B. to _____ ft.

Float Equip: Manufacturer Washburn
 Shoe: Type Float Depth 3460
 Float: Type _____ Depth _____
 Centralizers: Quantity 6 Plugs Top _____ Btm. _____

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. _____ Lin. ft./Bbl. 4388
 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. _____

Stage Collars _____
 Special Equip. BASKET
 Disp. Fluid Type H2O Amt. 81.95 Bbls. Weight 834 PPG
 Mud Type _____ Weight _____ PPG

COMPANY REPRESENTATIVE _____

CEMENTER Tony Plummer

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
1:50						On location - Safety meeting set up truck. For mixing
1:13						Ran 84 Jk 5 1/2 115.5 @ 3460' 7 1/2 Hole @ 3460'
12:30						Run Float Equipment. 1x float shoe 1x latch Assy, 6x centralizer, 1x DP
1:15		220			6	Bore circulation with rig - Dropped Ball - Circulated 1 HR.
3:00			12		3	mixed 12 mud / 1 1/2 @ 5 gal -
3:15			4		3	mixed 30 sk - RATTLE @ 4 1/2 min
			2.00		3	mixed 20 sk - MUSEHOLE @ 2.64 min
3:45			20		3	mixed 150 sk ASCA Blend + 5 gal per sk @ 20 min.
4:15			81.95		4	Released 5 1/2 Latch Down Plug @ 81.95 # 1100 psi.
						Load 5 1/2 @ # 1100 psi cement
4:30			# 1500 psi			Released back to rig / SH + low
						Job Complete @ 1500 psi
5:00			5		3	Washed Truck

ALLIED OIL & GAS SERVICES, LLC 055512

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Russell, KS

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
12/3/14	23	11	14				
LEASE	WELL #	LOCATION		COUNTY	STATE		
Southern	3	Hwy 291 & K4 Jct		Shannon	KS		
OLD OR NEW (Circle one)		1 lease 1 1/2 in 1/2 in 1/2 in					

CONTRACTOR Southern Drilling
 TYPE OF JOB Drilling
 HOLE SIZE 7 1/2 T.D. _____
 CASING SIZE 5 1/2 DEPTH 3460
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT 14.48'
 CEMENT LEFT IN CSG. 16.40'
 PERFS. _____
 DISPLACEMENT 71.95 @ 420"

OWNER _____

CEMENT AMOUNT ORDERED 175sk

COMMON 175sk @ 23.50 \$ 4112.50
 POZMIX @ _____
 GEL @ _____
 CHLORIDE @ _____
 ASC @ _____

EQUIPMENT

PUMP TRUCK CEMENTER Don Pharo
 # 417 HELPER Danny Sinner
 BULK TRUCK _____
 # 410 DRIVER Tyler 2nd
 BULK TRUCK _____
 # _____ DRIVER _____

C-37 @ 42lb @ 11.00 \$ 462.00
 C-44 @ 42lb @ 23.50 \$ 977.00
 C-00 Flake @ 42lb @ 2.97 \$ 124.74
 HANDLING 175sk @ 2.49 \$ 434.00
 MILEAGE 165 @ 2.75 \$ 453.75

REMARKS:

TOTAL \$ 7439.45

SERVICE

DEPTH OF JOB 3460
 PUMP TRUCK CHARGE @ 2765.75
 EXTRA FOOTAGE @ _____
 MILEAGE 40m @ 7.7 \$ 308.00
 MANIFOLD light 32m @ 4.4 \$ 88.00
 1x Casing Swivel @ _____ \$ 200.00
 1x Plug Container @ 275.00 \$ 275.00

TOTAL \$ 3636.75

PLUG & FLOAT EQUIPMENT

1x 5 1/2 Auto Float Str @ _____ \$ 545.00
 1x 5 1/2 Auto Com Mfg @ _____ \$ 660.00
 6x 5 1/2 Com 1 20 @ 57.0 \$ 342.00
 1x 5 1/2 BACKL @ _____ \$ 375.00

TOTAL \$ 1942.00

SALES TAX (If Any) _____

TOTAL CHARGES \$ 13,502.18

DISCOUNT \$ 3,375.00 IF PAID IN 30 DAYS

CHARGE TO: Vanco Operations
 STREET _____
 CITY _____ STATE _____ ZIP _____

To: Allied Oil & Gas Services, LLC.
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME _____

SIGNATURE _____



DRILL STEM TEST REPORT

Prepared For: **Vamco Operations**

265 Avenue K
Chase, KS 67524+9440

ATTN: Eli Felts

Sanford Trust #3

23-17s-12w Barton,KS

Start Date: 2014.09.30 @ 19:37:00

End Date: 2014.10.01 @ 03:01:00

Job Ticket #: 61902 DST #: 1

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

Printed: 2014.10.03 @ 15:53:32



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Vamco Operations
 265 Avenue K
 Chase, KS 67524+9440
 ATTN: Eli Felts

23-17s-12w Barton, KS
Sanford Trust #3
 Job Ticket: 61902 **DST#: 1**
 Test Start: 2014.09.30 @ 19:37:00

GENERAL INFORMATION:

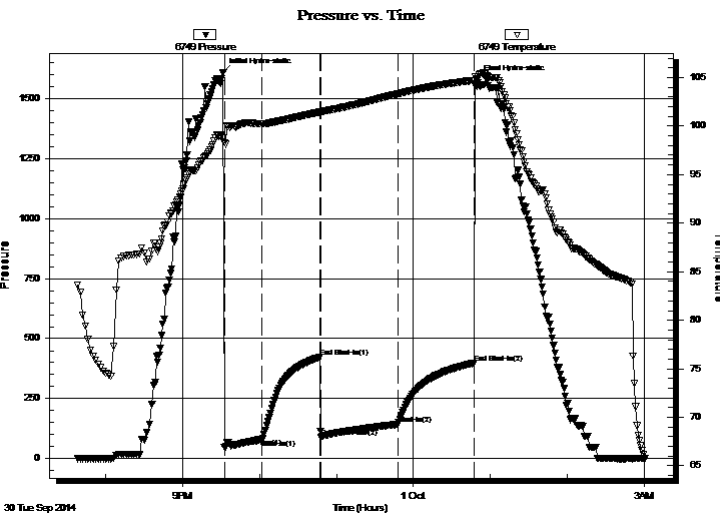
Formation: **LKC H**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:32:30
 Time Test Ended: 03:01:00
 Interval: **3285.00 ft (KB) To 3311.00 ft (KB) (TVD)**
 Total Depth: 3311.00 ft (KB) (TVD)
 Hole Diameter: 7.80 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ken Swinney
 Unit No: S1
 Reference Elevations: 1925.00 ft (KB)
 1916.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 6749

Inside

Press@RunDepth: 143.38 psig @ 3307.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.09.30 End Date: 2014.10.01 Last Calib.: 2014.10.01
 Start Time: 19:38:00 End Time: 03:01:00 Time On Btm: 2014.09.30 @ 21:31:30
 Time Off Btm: 2014.10.01 @ 00:50:00

TEST COMMENT: 1ST Open 30 Minutes/Good blow/Blow built to bottom of bucket in 4 minutes 15 seconds
 1ST Shut In 45 Minutes/Blow back built to 1 1/2 inch
 2ND Open 60 Minutes/Good blow/Blow built to bottom of bucket in 5 minutes 45 seconds
 2ND Shut In 60 Minutes/Blow back built to bottom of bucket in 31 minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1609.34	98.83	Initial Hydro-static
1	46.08	98.32	Open To Flow (1)
31	81.72	100.23	Shut-In(1)
76	422.93	101.45	End Shut-In(1)
77	89.93	101.45	Shut To Flow (2)
137	143.38	103.32	Shut-In(2)
196	398.95	104.72	End Shut-In(2)
199	1580.84	104.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1515 feet of gas in pipe	0.00
97.00	VGOCM Mud 20% Oil 30% Gas 50%	1.36
62.00	VGMCEO Mud 5% Emulsified Oil 20% Gas 0.87%	0.87
62.00	VGMWCO Mud 5% Water 10% Oil 35% Gas 0.870%	0.870%
62.00	MW Mud 20% Water 80%	0.87

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Vamco Operations
 265 Avenue K
 Chase, KS 67524+9440
 ATTN: Eli Felts

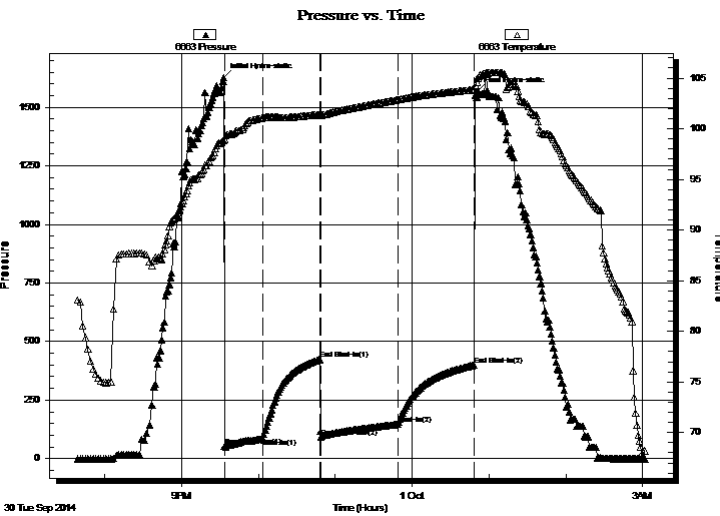
23-17s-12w Barton, KS
Sanford Trust #3
 Job Ticket: 61902 **DST#: 1**
 Test Start: 2014.09.30 @ 19:37:00

GENERAL INFORMATION:

Formation: **LKC H**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:32:30
 Time Test Ended: 03:01:00
 Interval: **3285.00 ft (KB) To 3311.00 ft (KB) (TVD)**
 Total Depth: 3311.00 ft (KB) (TVD)
 Hole Diameter: 7.80 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ken Swinney
 Unit No: S1
 Reference Elevations: 1925.00 ft (KB)
 1916.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 6663 Outside
 Press@RunDepth: 400.01 psig @ 3308.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.09.30 End Date: 2014.10.01 Last Calib.: 2014.10.01
 Start Time: 19:39:00 End Time: 03:02:00 Time On Btm: 2014.09.30 @ 21:33:00
 Time Off Btm: 2014.10.01 @ 00:51:00

TEST COMMENT: 1ST Open 30 Minutes/Good blow/Blow built to bottom of bucket in 4 minutes 15 seconds
 1ST Shut In 45 Minutes/Blow back built to 1 1/2 inch
 2ND Open 60 Minutes/Good blow/Blow built to bottom of bucket in 5 minutes 45 seconds
 2ND Shut In 60 Minutes/Blow back built to bottom of bucket in 31 minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1627.29	98.86	Initial Hydro-static
1	53.66	98.98	Open To Flow (1)
31	87.23	101.10	Shut-In(1)
75	423.80	101.43	End Shut-In(1)
76	93.18	101.35	Open To Flow (2)
136	147.11	102.87	Shut-In(2)
196	400.01	103.86	End Shut-In(2)
198	1568.24	104.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1515 feet of gas in pipe	0.00
97.00	VGOCM Mud 20% Oil 30% Gas 50%	1.36
62.00	VGMCEO Mud 5% Emulsified Oil 20% Gas 0.87%	0.87%
62.00	VGMWCO Mud 5% Water 10% Oil 35% Gas 0.870%	0.870%
62.00	MW Mud 20% Water 80%	0.87

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Vamco Operations
265 Avenue K
Chase, KS 67524+9440
ATTN: Eli Felts

23-17s-12w Barton,KS
Sanford Trust #3
Job Ticket: 61902 **DST#: 1**
Test Start: 2014.09.30 @ 19:37:00

Tool Information

Drill Pipe:	Length: 3289.00 ft	Diameter: 3.80 inches	Volume: 46.14 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:	60000.00 lb
			<u>Total Volume: 46.14 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	38000.00 lb
Depth to Top Packer:	3285.00 ft			Final	40000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	26.00 ft				
Tool Length:	53.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut-In Tool	5.00			3263.00	
Hydraulic tool	5.00			3268.00	
Jars	5.00			3273.00	
Safety Joint	2.00			3275.00	
Top Packer	5.00			3280.00	
Packer	5.00			3285.00	27.00 Bottom Of Top Packer
Anchor	21.00			3306.00	
Recorder	1.00	6749	Inside	3307.00	
Recorder	1.00	6663	Outside	3308.00	
Bullnose	3.00			3311.00	26.00 Anchor Tool
Total Tool Length:	53.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Vamco Operations

23-17s-12w Barton,KS

265 Avenue K
Chase, KS 67524+9440

Sanford Trust #3

Job Ticket: 61902

DST#: 1

ATTN: Eli Felts

Test Start: 2014.09.30 @ 19:37:00

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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.17 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	1515 feet of gas in pipe	0.000
97.00	VGOCM Mud 20% Oil 30% Gas 50%	1.361
62.00	VGMCEO Mud 5% Emulsified Oil 20% Gas 75'	0.870
62.00	VGMWCO Mud 5% Water 10% Oil 35% Gas 5'	0.870
62.00	MW Mud 20% Water 80%	0.870

Total Length: 283.00 ft

Total Volume: 3.971 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6749

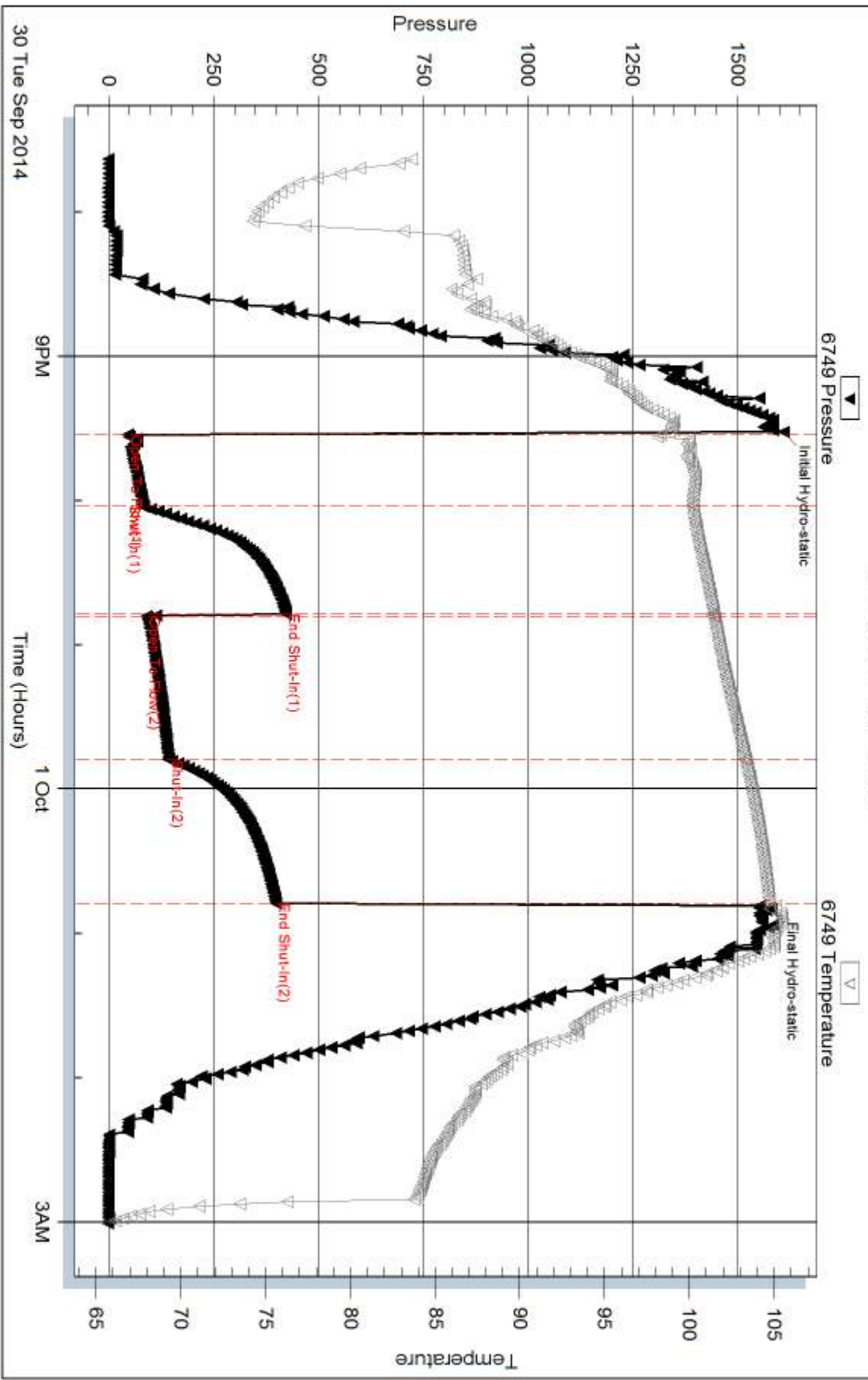
Inside

Varco Operations

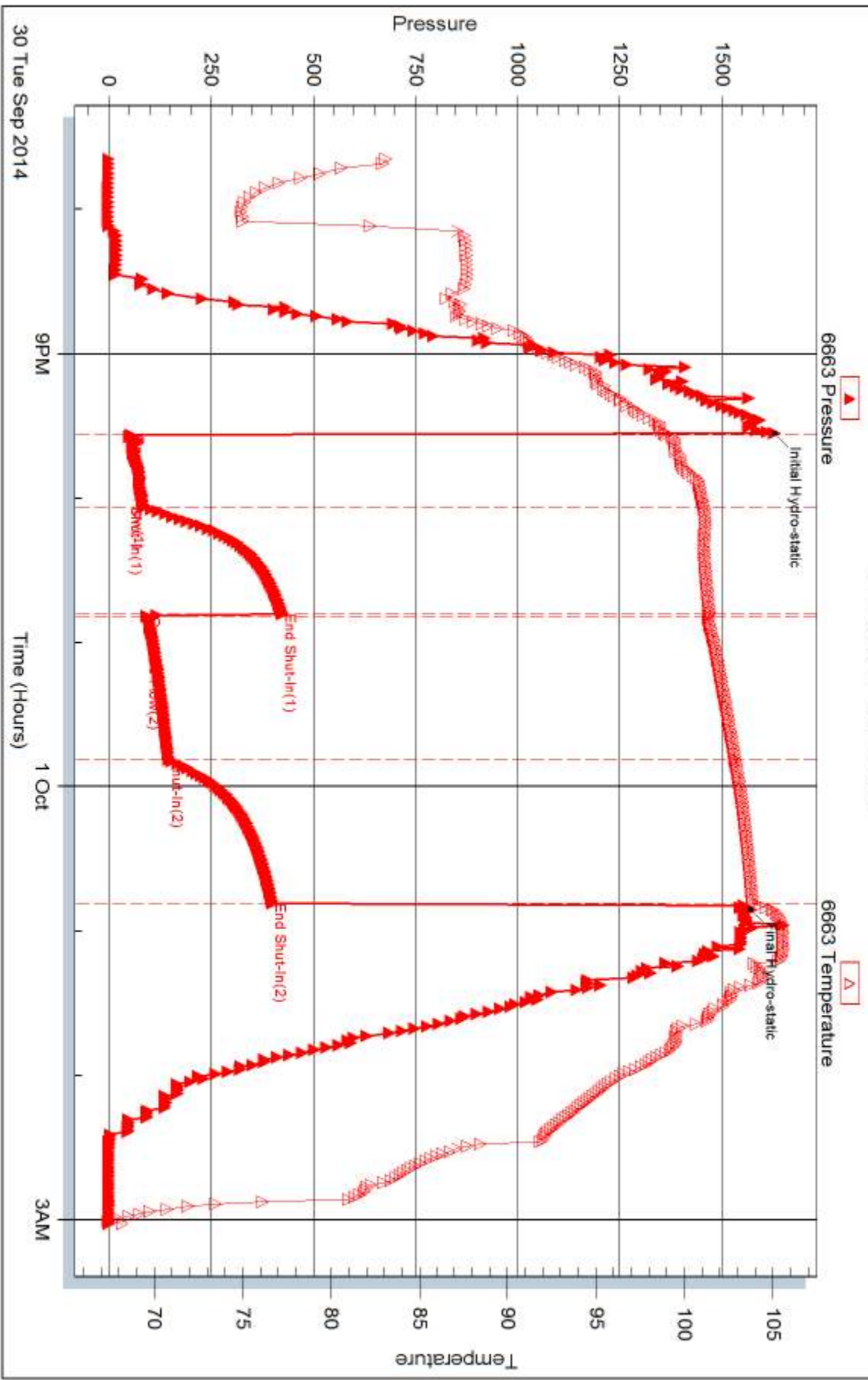
Sanford Trust #3

DST Test Number: 1

Pressure vs. Time



Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Vamco Operations**

265 Avenue K
Chase, KS 67524+9440

ATTN: Eli Felts

Sanford Trust #3

23-17s-12w Barton,KS

Start Date: 2014.09.30 @ 18:11:00

End Date: 2014.10.01 @ 01:03:00

Job Ticket #: 61903 DST #: 2

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

Printed: 2014.10.03 @ 15:37:10



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Vamco Operations
 265 Avenue K
 Chase, KS 67524+9440
 ATTN: Eli Felts

23-17s-12w Barton,KS

Sanford Trust #3

Job Ticket: 61903 **DST#: 2**

Test Start: 2014.09.30 @ 18:11:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:49:30
 Time Test Ended: 01:03:00
 Interval: **3374.00 ft (KB) To 3430.00 ft (KB) (TVD)**
 Total Depth: 3430.00 ft (KB) (TVD)
 Hole Diameter: 7.80 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ken Swinney
 Unit No: S1
 Reference Elevations: 1925.00 ft (KB)
 1916.00 ft (CF)
 KB to GR/CF: 9.00 ft

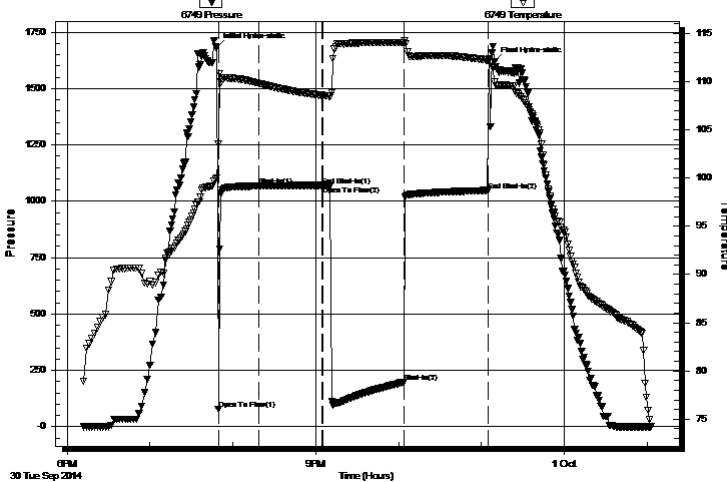
Serial #: 6749

Inside

Press@RunDepth: 198.79 psig @ 3425.82 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.09.30 End Date: 2014.10.01 Last Calib.: 2014.10.02
 Start Time: 18:12:00 End Time: 01:03:00 Time On Btm: 2014.09.30 @ 19:48:30
 Time Off Btm: 2014.09.30 @ 23:09:30

TEST COMMENT: 1ST Open 30 Minutes/Weak blow /Blow built to 8 inches in 7 minutes then died to 5 1/2 inches
 1ST Shut In 45 Minutes/No blow back
 2ND Open 60 Minutes/No blow /Flush tool/Surging blow built to bottom of bucket in 10 minutes
 2ND Shut In 60 Minutes/No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1682.28	100.01	Initial Hydro-static
1	77.76	103.54	Open To Flow (1)
31	1067.89	109.80	Shut-In(1)
76	1070.81	108.57	End Shut-In(1)
77	1070.81	108.56	Open To Flow (2)
136	198.79	114.02	Shut-In(2)
196	1048.15	112.22	End Shut-In(2)
201	1618.09	109.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
176.00	Oil cut Mud/Oil 5% Mud 95%	2.47
124.00	Muddy Water/Mud 5% Water 95%	1.74
62.00	Mud with show of oil/Mud 100%	0.87

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Vamco Operations
 265 Avenue K
 Chase, KS 67524+9440
 ATTN: Eli Felts

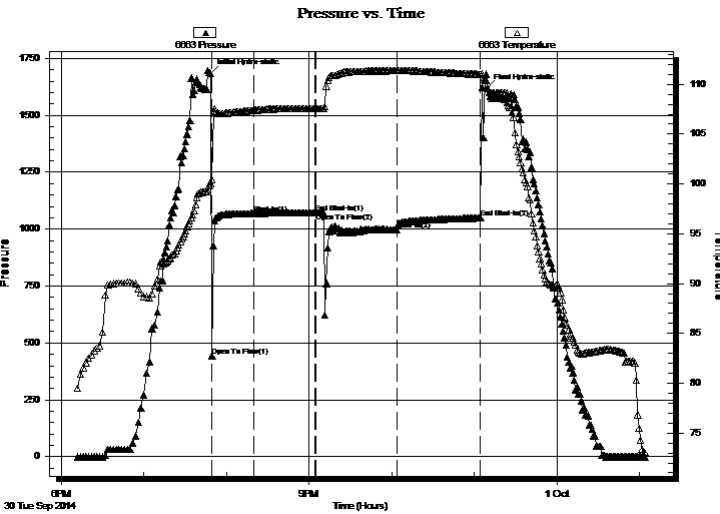
23-17s-12w Barton, KS
Sanford Trust #3
 Job Ticket: 61903 **DST#: 2**
 Test Start: 2014.09.30 @ 18:11:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:49:30
 Time Test Ended: 01:03:00
 Interval: **3374.00 ft (KB) To 3430.00 ft (KB) (TVD)**
 Total Depth: 3430.00 ft (KB) (TVD)
 Hole Diameter: 7.80 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ken Swinney
 Unit No: S1
 Reference Elevations: 1925.00 ft (KB)
 1916.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 6663 Outside
 Press@RunDepth: 1049.11 psig @ 3426.82 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.09.30 End Date: 2014.10.01 Last Calib.: 2014.10.02
 Start Time: 18:12:00 End Time: 01:03:30 Time On Btm: 2014.09.30 @ 19:48:30
 Time Off Btm: 2014.09.30 @ 23:09:30

TEST COMMENT: 1ST Open 30 Minutes/Weak blow /Blow built to 8 inches in 7 minutes then died to 5 1/2 inches
 1ST Shut In 45 Minutes/No blow back
 2ND Open 60 Minutes/No blow /Flush tool/Surging blow built to bottom of bucket in 10 minutes
 2ND Shut In 60 Minutes/No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1684.58	100.07	Initial Hydro-static
1	442.30	100.47	Open To Flow (1)
31	1069.08	107.39	Shut-In(1)
76	1071.82	107.57	End Shut-In(1)
77	1071.83	107.57	Open To Flow (2)
135	997.25	111.37	Shut-In(2)
196	1049.11	110.99	End Shut-In(2)
201	1619.25	109.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
176.00	Oil cut Mud/Oil 5% Mud 95%	2.47
124.00	Muddy Water/Mud 5% Water 95%	1.74
62.00	Mud with show of oil/Mud 100%	0.87

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Vamco Operations
265 Avenue K
Chase, KS 67524+9440
ATTN: Eli Felts

23-17s-12w Barton,KS
Sanford Trust #3
Job Ticket: 61903 **DST#: 2**
Test Start: 2014.09.30 @ 18:11:00

Tool Information

Drill Pipe:	Length: 3351.00 ft	Diameter: 3.80 inches	Volume: 47.01 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: 80000.00 lb
			<u>Total Volume: 47.01 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3374.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.82 ft			
Tool Length:	83.82 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Ruined packer

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut-In Tool	5.00			3351.00	
Hydraulic tool	5.00			3356.00	
Jars	6.00			3362.00	
Safety Joint	2.00			3364.00	
Top Packer	5.00			3369.00	
Packer	5.00			3374.00	28.00 Bottom Of Top Packer
Anchor	3.00			3377.00	
Change Over Sub	0.75			3377.75	
Drill Pipe	31.32			3409.07	
Change Over Sub	0.75			3409.82	
Anchor	15.00			3424.82	
Recorder	1.00	6749	Inside	3425.82	
Recorder	1.00	6663	Outside	3426.82	
Bullnose	3.00			3429.82	55.82 Anchor Tool

Total Tool Length: 83.82



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Vamco Operations

23-17s-12w Barton,KS

265 Avenue K
Chase, KS 67524+9440

Sanford Trust #3

Job Ticket: 61903

DST#: 2

ATTN: Eii Felts

Test Start: 2014.09.30 @ 18:11:00

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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
176.00	Oil cut Mud/Oil 5% Mud 95%	2.469
124.00	Muddy Water/Mud 5% Water 95%	1.739
62.00	Mud with show of oil/Mud 100%	0.870

Total Length: 362.00 ft

Total Volume: 5.078 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

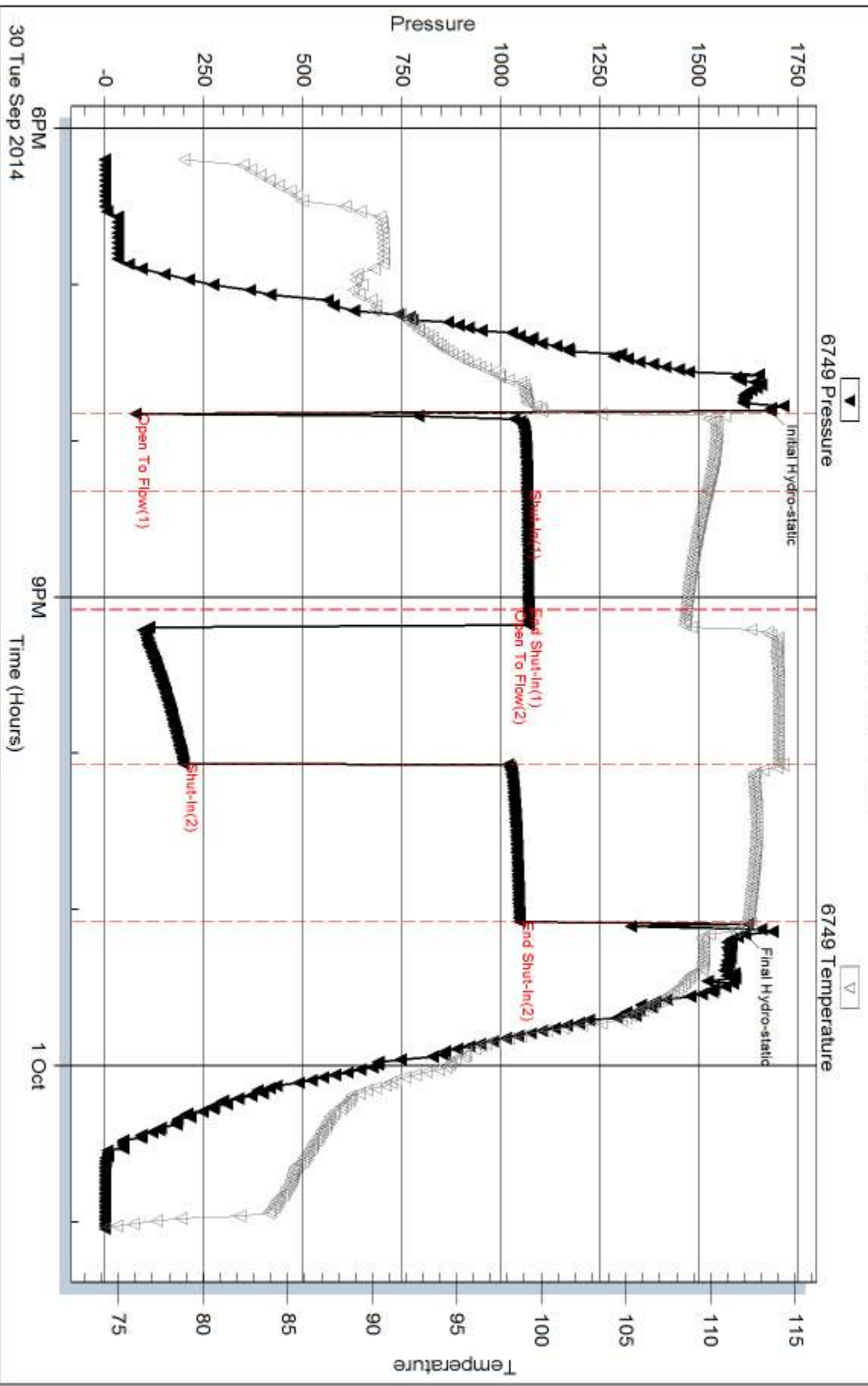
Serial #:

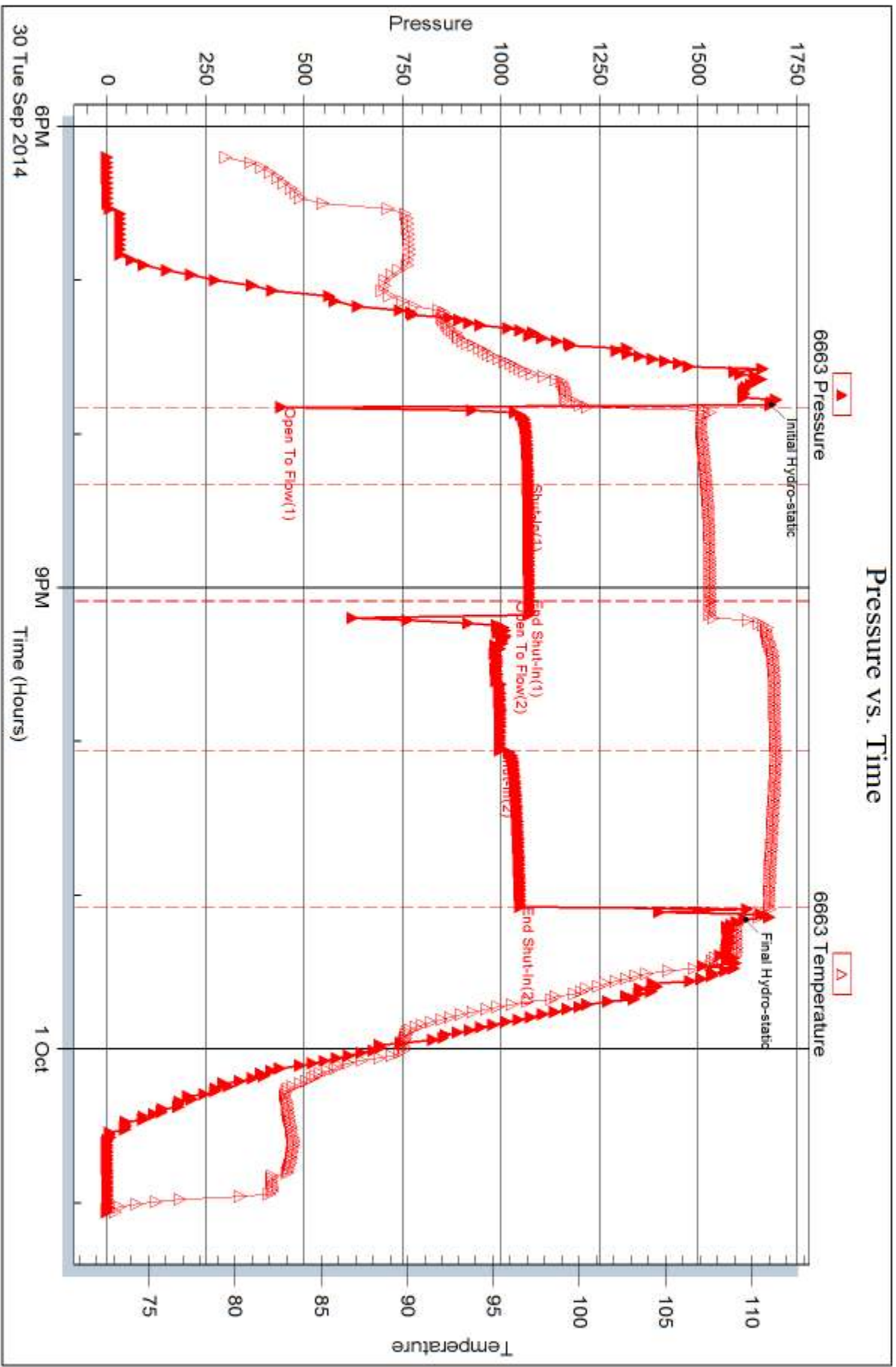
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Vamco Operations**

265 Avenue K
Chase, KS 67524+9440

ATTN: Eli Felts

Sanford Trust #3

23-17s-12w Barton,KS

Start Date: 2014.10.02 @ 15:13:00

End Date: 2014.10.02 @ 21:39:00

Job Ticket #: 61904 DST #: 3

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

Printed: 2014.10.03 @ 15:35:46

Vamco Operations
23-17s-12w Barton,KS
Sanford Trust #3
DST # 3
LKC B-G
2014.10.02



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Vamco Operations
 265 Avenue K
 Chase, KS 67524+9440
 ATTN: Eli Felts

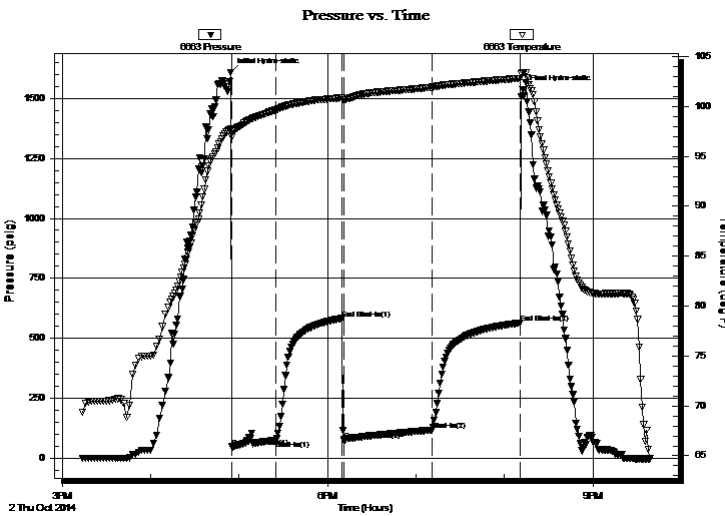
23-17s-12w Barton, KS
Sanford Trust #3
 Job Ticket: 61904 **DST#: 3**
 Test Start: 2014.10.02 @ 15:13:00

GENERAL INFORMATION:

Formation: **LKC B-G**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:55:00
 Time Test Ended: 21:39:00
 Interval: **3184.00 ft (KB) To 3250.00 ft (KB) (TVD)**
 Total Depth: 3475.00 ft (KB) (TVD)
 Hole Diameter: 7.80 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Initial)
 Tester: Ken Swinney
 Unit No: S1
 Reference Elevations: 1925.00 ft (KB)
 1916.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 6663 Inside
 Press@RunDepth: 118.86 psig @ 3244.03 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.10.02 End Date: 2014.10.02 Last Calib.: 2014.10.02
 Start Time: 15:14:00 End Time: 21:39:00 Time On Btm: 2014.10.02 @ 16:54:30
 Time Off Btm: 2014.10.02 @ 20:12:30

TEST COMMENT: 1ST Open 30 Mintues/Good blow /Blow built to bottom of bucket in 14 minutes 30 seconds
 1ST Shut In 45 Minutes/Blow back built to 1/4 inch
 2ND Open 60 Minutes/Good blow /Blow built to bottom of bucket in 6 minutes
 2ND Shut In 60 Minutes/Blow back built to 2 inches



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1608.00	97.79	Initial Hydro-static
1	48.71	96.91	Open To Flow (1)
31	75.18	99.65	Shut-In(1)
75	583.00	100.86	End Shut-In(1)
77	75.60	100.69	Open To Flow (2)
137	118.86	101.92	Shut-In(2)
196	564.16	102.80	End Shut-In(2)
198	1535.77	103.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	GOCM Oil 15% Gas 40% Mud 45%	0.63
62.00	GOCM Gas 5% Oil 15% Mud 80%	0.87
62.00	Mud w ith show of oil/Mud 100%	0.87
0.00	449 feet of gas in pipe	0.00

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Vamco Operations
 265 Avenue K
 Chase, KS 67524+9440
 ATTN: Eli Felts

23-17s-12w Barton, KS
Sanford Trust #3
 Job Ticket: 61904 **DST#: 3**
 Test Start: 2014.10.02 @ 15:13:00

GENERAL INFORMATION:

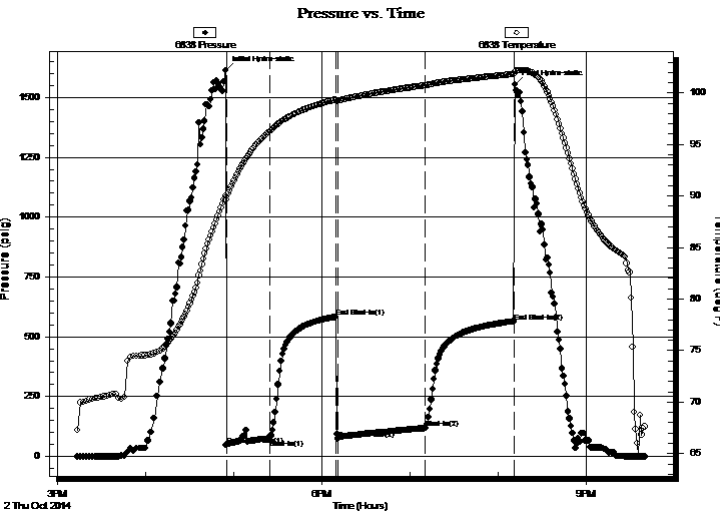
Formation: **LKC B-G**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:55:00
 Time Test Ended: 21:39:00
 Interval: **3184.00 ft (KB) To 3250.00 ft (KB) (TVD)**
 Total Depth: 3475.00 ft (KB) (TVD)
 Hole Diameter: 7.80 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Initial)
 Tester: Ken Swinney
 Unit No: S1
 Reference Elevations: 1925.00 ft (KB)
 1916.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 6838

Inside

Press@RunDepth: 562.92 psig @ 3244.03 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.10.02 End Date: 2014.10.02 Last Calib.: 2014.10.02
 Start Time: 15:14:00 End Time: 21:39:30 Time On Btm: 2014.10.02 @ 16:54:30
 Time Off Btm: 2014.10.02 @ 20:11:30

TEST COMMENT: 1ST Open 30 Mintues/Good blow /Blow built to bottom of bucket in 14 minutes 30 seconds
 1ST Shut In 45 Minutes/Blow back built to 1/4 inch
 2ND Open 60 Minutes/Good blow /Blow built to bottom of bucket in 6 minutes
 2ND Shut In 60 Minutes/Blow back built to 2 inches



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1613.08	90.02	Initial Hydro-static
1	47.25	89.64	Open To Flow (1)
30	73.36	96.25	Shut-In(1)
75	582.06	99.33	End Shut-In(1)
77	73.48	99.23	Open To Flow (2)
136	116.64	100.72	Shut-In(2)
196	562.92	101.79	End Shut-In(2)
197	1555.27	102.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	GOCM Oil 15% Gas 40% Mud 45%	0.63
62.00	GOCM Gas 5% Oil 15% Mud 80%	0.87
62.00	Mud w ith show of oil/Mud 100%	0.87
0.00	449 feet of gas in pipe	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Vamco Operations
265 Avenue K
Chase, KS 67524+9440
ATTN: Eli Felts

23-17s-12w Barton,KS
Sanford Trust #3
Job Ticket: 61904 **DST#: 3**
Test Start: 2014.10.02 @ 15:13:00

Tool Information

Drill Pipe:	Length: 3168.00 ft	Diameter: 3.80 inches	Volume: 44.44 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: 46000.00 lb
			<u>Total Volume: 44.44 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.75 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3184.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	3474.83 ft			
Interval between Packers:	290.83 ft			
Tool Length:	315.58 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			3164.25	
Hydraulic tool	5.00			3169.25	
Jars	6.00			3175.25	
Safety Joint	2.00			3177.25	
Top Packer	5.00			3182.25	
Packer	1.75			3184.00	24.75 Bottom Of Top Packer
Anchor	5.00			3189.00	
Change Over Sub	0.66			3189.66	
Drill Pipe	31.58			3221.24	
Change Over Sub	0.79			3222.03	
Anchor	22.00			3244.03	
Recorder	0.00	6663	Inside	3244.03	
Recorder	0.00	6838	Inside	3244.03	
Blank Off Sub	0.66			3244.69	
Travel Collar	1.74			3246.43	
Packer (Interval Side)	1.68			3248.11	
Packer (Tail side)	1.55			3249.66	
Change Over Sub	0.66			3250.32	
Drill Pipe	220.86			3471.18	
Change Over Sub	0.65			3471.83	
Recorder	0.00	6749	Below	3471.83	
Bullnose	3.00			3474.83	290.83 Anchor Tool

Total Tool Length: 315.58



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Vamco Operations
265 Avenue K
Chase, KS 67524+9440
ATTN: Eii Felts

23-17s-12w Barton,KS
Sanford Trust #3
Job Ticket: 61904 **DST#: 3**
Test Start: 2014.10.02 @ 15:13:00

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: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.58 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	GOCM Oil 15% Gas 40% Mud 45%	0.631
62.00	GOCM Gas 5% Oil 15% Mud 80%	0.870
62.00	Mud with show of oil/Mud 100%	0.870
0.00	449 feet of gas in pipe	0.000

Total Length: 169.00 ft Total Volume: 2.371 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

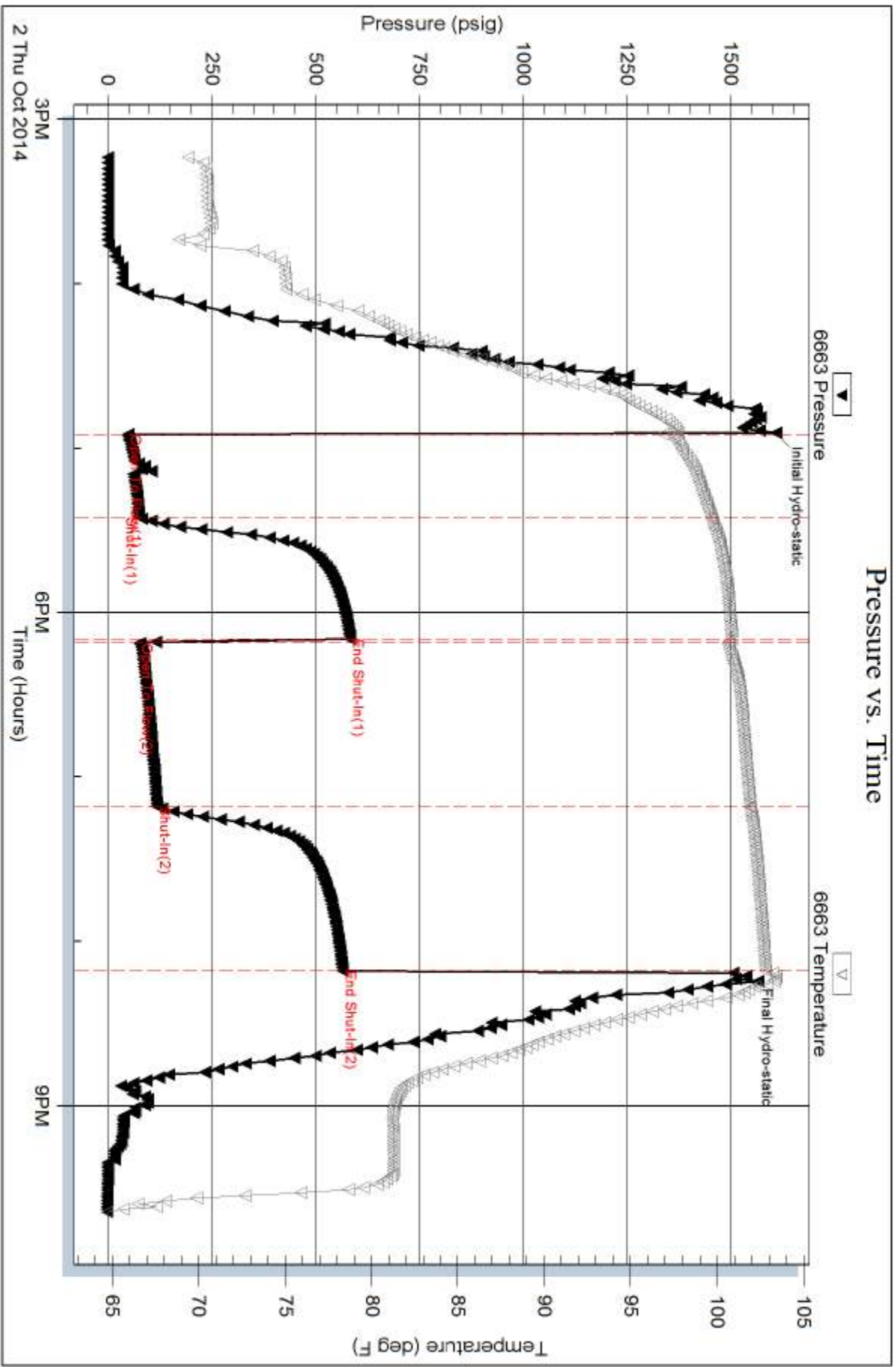
Serial #: 6663

Inside

Varco Operations

Sanford Trust #3

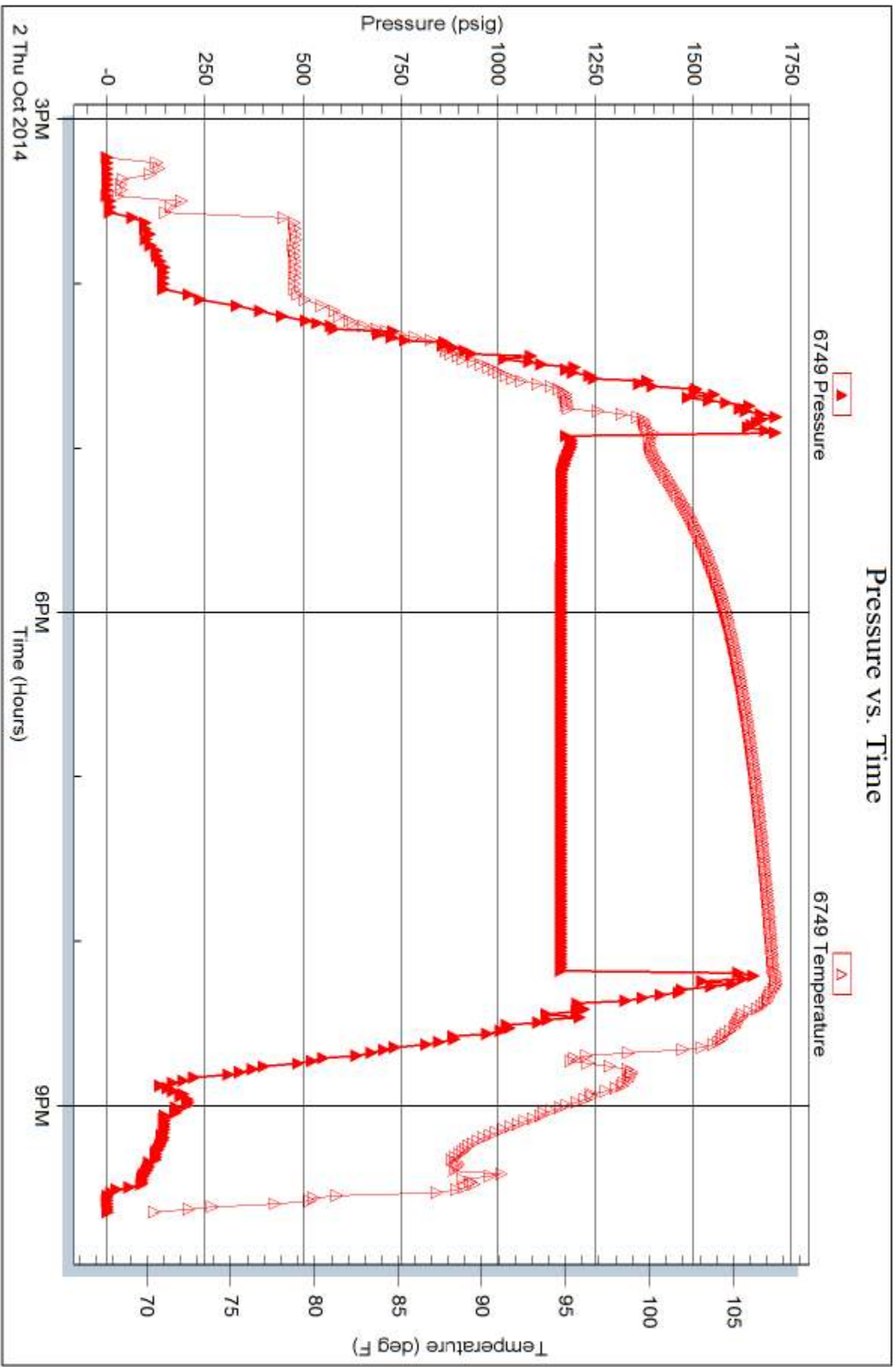
DST Test Number: 3



Triobite Testing, Inc

Ref. No: 61904

Printed: 2014, 10, 03 @ 15:35:48



Serial #: 6838

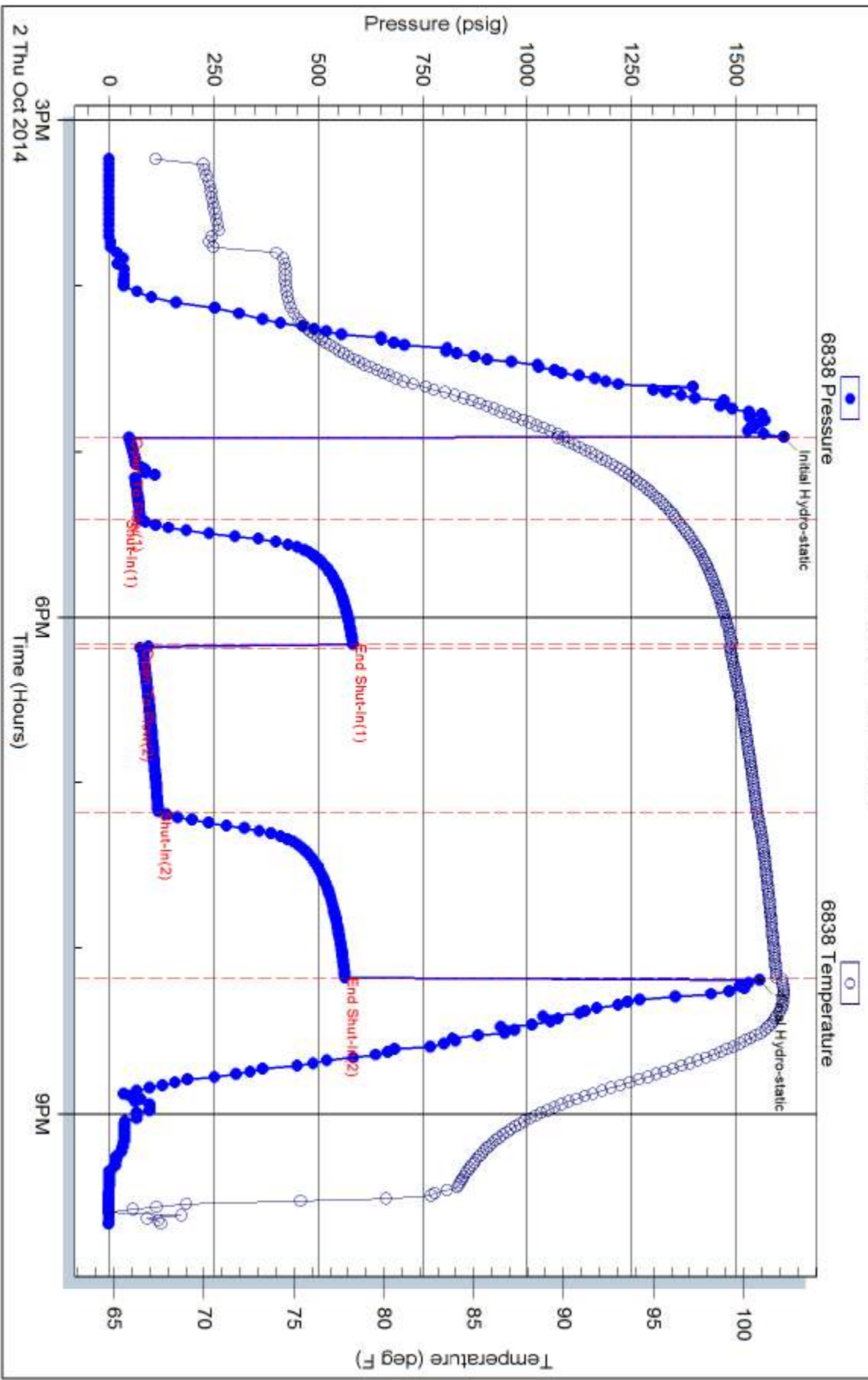
Inside

Varco Operations

Sanford Trust #3

DST Test Number: 3

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 61904

Printed: 2014, 10:03 @ 15:35:48



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61902

Well Name & No. Sanford Trust #3 Test No. 1 Date 30 Sept. 14
 Company Vanco Operations Elevation 1925 KB 1916 GL
 Address 265 Avenue K Chase Kansas 67524-9440
 Co. Rep / Geo. EI. Felts Rig Southwind Rig #5
 Location: Sec. 23 Twp. 17S Rge. 12W Co. Barton State KS

Interval Tested 3285-3311 Zone Tested Lansing/Kansas G4 zone H
 Anchor Length 26 Drill Pipe Run 3289 Mud Wt. 8.9
 Top Packer Depth 3280 Drill Collars Run 0 Vis 53
 Bottom Packer Depth 3285 Wt. Pipe Run 0 WL 8.2
 Total Depth 3311 Chlorides 2000 ppm System LCM 4/11

Blow Description Good blow/ Blow built to bottom of bucket in 4 minutes 15 seconds
Blow back built to 1 1/2 inch
Good blow/ Blow built to bottom of bucket in 5 minutes 45 seconds
Blow back built to bottom of bucket in 31 minutes

Rec	Feet of	%gas	%oil	%water	%mud
<u>97</u>	<u>mud cut oily gas</u>	<u>50</u>	<u>30</u>	<u>20</u>	<u>0</u>
<u>62</u>	<u>mud cut Emulsified oily gas</u>	<u>75</u>	<u>20</u>	<u>5</u>	<u>0</u>
<u>62</u>	<u>mud + water cut oily gas</u>	<u>50</u>	<u>35</u>	<u>10</u>	<u>5</u>
<u>62</u>	<u>Muddy Water</u>	<u>0</u>	<u>0</u>	<u>80</u>	<u>20</u>
<u>1515</u>	<u>Gas in pipe</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Rec Total _____ BHT 105 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1609 Test 1150 T-On Location 5:00 pm
 (B) First Initial Flow 46 Jars 250 T-Started 7:37 pm
 (C) First Final Flow 81 Safety Joint 75 T-Open 9:31 pm
 (D) Initial Shut-In 422 Circ Sub _____ T-Pulled 12:46 am
 (E) Second Initial Flow 89 Hourly Standby _____ T-Out 3:00 am
 (F) Second Final Flow 143 Mileage 32 49.60 Comments Head broke
 (G) Final Shut-In 398 Sampler _____ loose and affected
 (H) Final Hydrostatic 1580 Straddle _____ 1st shut + 2nd open
 Ruined Shale Packer _____
 Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1524.60 MP/DST Disc't _____

Approved By EI. Felts Our Representative [Signature]

TriLOBITE TESTING Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61903

Well Name & No. Sanford Trust #3 Test No. 2 Date 1 OCT 14
 Company Vamco Operations Elevation 1925 KB 1915 GL
 Address 265 Avenue K Chase Kansas 67524-9440
 Co. Rep / Geo. El. Felts Rig Southwind Rig #8
 Location: Sec. 23 Twp. 17S Rge. 12W Co. Barton State KS

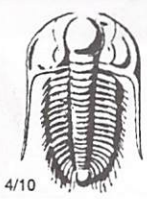
Interval Tested 3374-3430 Zone Tested Asbuckle
 Anchor Length 56 Drill Pipe Run 3351 Mud Wt. 8.7
 Top Packer Depth 3369 Drill Collars Run 0 Vis 53
 Bottom Packer Depth 3374 Wt. Pipe Run 0 WL 9.2
 Total Depth 3430 Chlorides 5000 ppm System LCM 4.2#
 Blow Description Weak blow/Blow built to 4 inches in 7 minutes then died to 5 1/2 inches
No blow back
No blow at open/Flush tool/Surging blow built to bottom of bucket in 10 minutes
No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>176</u>	<u>Oil cut Mud</u>	<u>5</u>	<u>95</u>	<u>5</u>	<u>95</u>
<u>124</u>	<u>Muddy Water</u>		<u>95</u>	<u>5</u>	<u>5</u>
<u>62</u>	<u>Mud with show of oil</u>			<u>100</u>	<u>100</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 362 BHT 112 Gravity _____ API RW .28 @ 60 ° F Chlorides 24,000 ppm

(A) Initial Hydrostatic 1682 Test 1150 T-On Location 4:30 pm
 (B) First Initial Flow 77 Jars 250 T-Started 6:11 pm
 (C) First Final Flow 1067 Safety Joint 75 T-Open 8:49 pm
 (D) Initial Shut-In 1070 Circ Sub _____ T-Pulled 11:04 pm
 (E) Second Initial Flow 1070 Hourly Standby _____ T-Out 1:03 am
 (F) Second Final Flow 198 Mileage 32 49.60 Comments _____
 (G) Final Shut-In 1048 Sampler _____
 (H) Final Hydrostatic 1618 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer 320
 Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 45 Extra Recorder _____ Sub Total 320
 Final Flow 60 Day Standby _____ Total 1844.60
 Final Shut-In 60 Accessibility _____ MP/DST Disc't _____
 Sub Total 1524.60

Approved By [Signature] Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of equipment, or its statements of opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61904

Well Name & No. Sanford Trust #3 Test No. 3 Date 7 OCT 14
 Company Vamco Operations Elevation 1925 KB 1915 GL
 Address 265 Avenue K Chase Kansas 67524+9440
 Co. Rep / Geo. Eli Felts Rig Southwind Rig #8
 Location: Sec. 23 Twp. 17S Rge. 12W Co. Barton State K5

Interval Tested 3184-3250 Zone Tested Lansing/Kansas City zones B-G
 Anchor Length 66 Drill Pipe Run 3168 Mud Wt. 8.9
 Top Packer Depth 3179 Drill Collars Run 0 Vis 52
 Bottom Packer Depth 3184 Wt. Pipe Run 0 WL 9.6
 Total Depth 3475 Chlorides 5000 ppm System LCM 1/2 #
 Blow Description Good blow/Blow built to bottom of bucket in 14 minutes 30 seconds
Blowback built to 1/2 inch
Good blow/Blow built to bottom of bucket in 6 minutes
Blowback built to 2 inches

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>Oil cut Gassy mud</u>	<u>40</u>	<u>15</u>	<u>45</u>	<u>0</u>
<u>62</u>	<u>Gas cut oily mud</u>	<u>5</u>	<u>15</u>	<u>80</u>	<u>0</u>
<u>62</u>	<u>mud with slow of oil</u>			<u>100</u>	<u>0</u>
<u>449</u>	<u>Gas in pipe</u>	<u>100</u>			

Rec Total _____ BHT 102 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1608 Test 1150 T-On Location 2:45
 (B) First Initial Flow 48 Jars 250 T-Started 3:13
 (C) First Final Flow 75 Safety Joint 75 T-Open 4:54
 (D) Initial Shut-In 583 Circ Sub _____ T-Pulled 8:09
 (E) Second Initial Flow 75 Hourly Standby _____ T-Out 9:39
 (F) Second Final Flow 118 Mileage 37 49.60 Comments _____
 (G) Final Shut-In 564 Sampler _____
 (H) Final Hydrostatic 1535 Straddle 600 Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer 250 Extra Copies _____
 Extra Recorder 200 Sub Total _____
 Day Standby _____ Total _____
 Accessibility _____ MP/DST Disc't _____
 Sub Total _____

Approved By [Signature] Our Representative [Signature]

TriLOBITE TESTING Inc. shall not be liable for damaged or any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



Scale 1:240 (5"=100') Imperial Measured Depth Log

Well Name: Sanford Trust # 3
API: 15-009-26026-00-00
Location: NE-SW-SE-NE of Section 23-17s-14w - Barton County, KS
License Number: KCC Licence#: 30886
Spud Date: 09/26/2014
Region: Mid-Continent
Surface Coordinates: 2210' FNL & 790 FFL of Section 23-17s-14w
Bottom Hole Coordinates: Same as Surface Coordinates
Ground Elevation (ft): 1916' K.B. Elevation (ft): 1925'
Logged Interval (ft): 2800' To: 3476' Total Depth (ft): 3476'
Formation: Arbuckle Dolomite @ Total Depth
Type of Drilling Fluid: Andy's Mud Company (Chemical Drispac)
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: John R. Thomas d/b/a VAMCO Operations
Address: 265 Avenue K Chase, KS 67524

GEOLOGIST

Name: Eli J. Felts & Jeffrey Burk, Consulting Petroleum Geologists
Company: PETERRA Energy Services
Address: 110 South Main, Suite #510 Wichita, KS 67202
Phone: (316) 269-2015

DRILL STEM TEST REPORT
Vamco Operations
23-17s-12w Barton, KS
Sanford Trust #3
Job Ticket: 61902 DST# 1
Test Start: 2014.09.30 @ 19:37:00
GENERAL INFORMATION:
Formation: LKC H
Deviated: No Whipstock
Time Tool Opened: 21:32:30
Time Test Ended: 03:01:00
Interval: 3285.00 ft (KB) To 3311.00 ft (KB) (TVD)
Total Depth: 3311.00 ft (KB) (TVD)
Hole Diameter: 7.90 inches/Hole Condition: Fair
TEST COMMENT: 1ST Open 30 Minutes/Good blow/Blow built to bottom of bucket in 4 minutes 15 seconds
1ST Shut in 45 Minutes/Blow back built to 1 1/2 inch
2ND Open 30 Minutes/Good blow/Blow built to bottom of bucket in 5 minutes 45 seconds
2ND Shut in 60 Minutes/Blow back built to bottom of bucket in 31 minutes

Pressure Summary Table: Time (Min.), Pressure (psig), Temp (deg F), Annotation
Recovery Table: Length (ft), Description, Volume (bbl)
Gas Rates Table: Core (inches), Pressure (psig), Gas Rate (cc/ft)

Triobite Testing, Inc Ref. No: 61902 Printed: 2014.10.03 @ 16:53:32

DRILL STEM TEST REPORT
Vamco Operations
23-17s-12w Barton, KS
Sanford Trust #3
Job Ticket: 61903 DST# 2
Test Start: 2014.09.30 @ 19:11:00
GENERAL INFORMATION:
Formation: Arbuckle
Deviated: No Whipstock
Time Tool Opened: 15:40:30
Time Test Ended: 01:03:00
Interval: 3374.00 ft (KB) To 3430.00 ft (KB) (TVD)
Total Depth: 3430.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches/Hole Condition: Fair
TEST COMMENT: 1ST Open 30 Minutes/Weak flow/Blow built to 6 inches in 7 minutes; then died to 5.17 inches
1ST Shut in 45 Minutes/No blow back
2ND Open 60 Minutes/No blow/Flush tool/Surging blow built to bottom of bucket in 10 minutes
2ND Shut in 60 Minutes/No blow back

Pressure Summary Table: Time (Min.), Pressure (psig), Temp (deg F), Annotation
Recovery Table: Length (ft), Description, Volume (bbl)
Gas Rates Table: Core (inches), Pressure (psig), Gas Rate (cc/ft)

Triobite Testing, Inc Ref. No: 61903 Printed: 2014.10.03 @ 16:37:10

DRILL STEM TEST REPORT
Vamco Operations
23-17s-12w Barton, KS
Sanford Trust #3
Job Ticket: 61904 DST# 3
Test Start: 2014.10.02 @ 15:13:00
GENERAL INFORMATION:
Formation: LKC B/G
Deviated: No Whipstock
Time Tool Opened: 21:39:00
Time Test Ended: 21:39:00
Interval: 3184.00 ft (KB) To 3250.00 ft (KB) (TVD)
Total Depth: 3475.00 ft (KB) (TVD)
Hole Diameter: 7.90 inches/Hole Condition: Fair
TEST COMMENT: 1ST Open 30 Minutes/Good blow/Blow built to bottom of bucket in 14 minutes 30 seconds
1ST Shut in 45 Minutes/Blow back built to 1/4 inch
2ND Open 60 Minutes/Good blow/Blow built to bottom of bucket in 6 minutes
2ND Shut in 60 Minutes-blow back built to 2 inches

Pressure Summary Table: Time (Min.), Pressure (psig), Temp (deg F), Annotation
Recovery Table: Length (ft), Description, Volume (bbl)
Gas Rates Table: Core (inches), Pressure (psig), Gas Rate (cc/ft)

Triobite Testing, Inc Ref. No: 61904 Printed: 2014.10.03 @ 15:35:45

ROCK TYPES

Legend for Rock Types: Bent, Brec, Cht, Cyst, Coal, Congl, Dol, Gyp, Igne, Lmst, Mrlst, Salt, Shale, Shgl, Shgt, Sstst, Ss, Till

OTHER SYMBOLS

Legend for Other Symbols: Porosity (E, F, G, H, I, J, K), Oil Show (Even, Spotted, Ques, Dead, Gas show, New symbol), Interval (Core, Dst), Rounding (Moderate, Poor, Subround, Subang, Angular), Event (Pipesymbol, Rft, Sidewall), Sorting (Well)

Well Log Plot: Curve Track 1 (ROP, Gas), Depth, Porosity, Lithology, Geological Descriptions, TG, C1-C5. Includes zones like King Hill, Queen Hill, Heebner, Brown Lime, Lansing/KC, Arbuckle, and BKC.