

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](mailto: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	Farmer, John O., Inc.
Well Name	DENTON 1
Doc ID	1421752

All Electric Logs Run

Borehole Compensated Sonic Log
Micro Resistivity Log
Dual Induction Log
Dual Comp Porosity Log





# Discovery Drilling

P.O. Box 763 • Hays, KS 67601 • OFFICE (785) 623-2920 • CELLULAR (785) 635-1511

## DRILLER'S LOG

Operator: John O. Farmer, Inc. Lic# 5135 Contractor: Discovery Drilling Co., Inc. LIC#31548  
370 West Wichita Avenue - P.O. Box 352 PO Box 763  
Russell, KS 67665 + 2635 Hays, KS 67601

Lease: Denton # 1 Location: 500 FNL - 2345 fel  
SW/NW/NW/NE  
Section 13/ 17S/ 11W  
Lyon County, KS

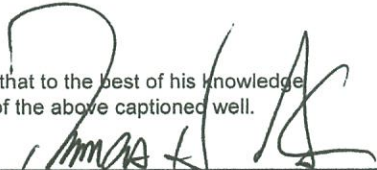
Loggers Total Depth: 2951' API#15- 111-20,538-00-00  
Rotary Total Depth: 2950' Elevation: 1252 GL - 1260 KB  
Commenced: 5/22/2018 Completed: 5/28/2018  
Casing: 8 5/8" @ 225'W/150sks Status: D & A  
KCC Contact: Mike Heffern  
Plugging Info: (1st Plug @ 2950'W/35sks)(2nd Plug @ 2800'W/35sks)  
(3rd Plug @ 2300'W/35sks)(4th Plug @ 1400'W/35sks)  
(5th Plug @ 200'W/35sks)(6th Plug @ 60'W/20sks)  
(Total 225sks 60/40Poz 4%Gel-1/4# FS/sk-By Quality  
Oilwell Cementing-Completed @ 3:15PM 5/28/2018)  
30 sks. in rat hole, (no mouse hole)

### DEPTHS & FORMATIONS (All from KB)

Surface, Sand & Shale	<u>0'</u>	Viola	<u>2763'</u>
Shale-Sand & Lime	<u>536'</u>	Simpson	<u>2875'</u>
Shale	<u>752'</u>	Arbuckle	<u>2929'</u>
Lime & Shale	<u>1166'</u>	RTD	<u>2950'</u>
Mississippian	<u>2171'</u>		
Kinderhook	<u>2586'</u>		
Hunton	<u>2711'</u>		

STATE OF KANSAS )  
) ss  
COUNTY OF ELLIS )


Thomas H. Alm of Discovery Drilling states that to the best of his knowledge the above and foregoing is a true and correct log of the above captioned well.

  
Thomas H. Alm

Subscribed and sworn to before me on 5-31-18

My Commission expires: 6-28-18

(Place stamp or seal below)

  
Notary Public



# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 773

Date	Sec.	Twp.	Range	County	State	On Location	Finish
5-23-18	13	17	11	Lyon	Ks		2:45 AM
Lease				Location			
Denton				Council Grove - 15 E to Allen, 55 to			
Contractor			Well No.	Owner			
Discovery #2			1	290 Rd, 1 1/2 E, 5/1 into			
Type Job			To Quality Oilwell Cementing, Inc.				
Surface			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	T.D.		Charge To				
12 1/4"	223'		John O. Farmer				
Csg.	Depth		Street				
8 5/8"	223'						
Tbg. Size	Depth		City				
			State				
Tool	Depth		The above was done to satisfaction and supervision of owner agent or contractor.				
Cement Left in Csg.	Shoe Joint		Cement Amount Ordered				
15'	15'		150 Corn 3% CC 2% Gel				
Meas Line	Displace						
	13 1/4 BLS						
EQUIPMENT				Common			
Pumptrk	No.	Cementer	150				
16		Helper					
		Glenn					
Bulktrk	No.	Driver	Poz. Mix				
21		Jack					
		Driver	Gel. 3				
Bulktrk	No.	Driver	Calcium 6				
pu.		Rick					
JOB SERVICES & REMARKS				Hulls			
Remarks: Cement did Circulate				Salt			
Rat Hole				Flowseal			
Mouse Hole				Kol-Seal			
Centralizers				Mud CLR 48			
Baskets				CFL-117 or CD110 CAF 38			
D/V or Port Collar				Sand			
				Handling 159			
				Mileage			
				FLOAT EQUIPMENT			
				Guide Shoe			
				Centralizer			
				Baskets			
				AFU Inserts			
				Float Shoe			
				Latch Down			
				Pumptrk Charge			
				Surface			
				Mileage 80			
				Tax			
				Discount			
				Total Charge			
Signature							

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 779

Date	5-28-18	Sec.	13	Twp.	17	Range	11	County	Lyon	State	Ks	On Location		Finish	3:15 PM
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Lease Denton Well No. 1 Location 290 Rd 1 1/2 E 5/8 Owner John O. Farmer

Contractor Discoury #2 To Quality Oilwell Cementing, Inc.  
Type Job Plug 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 7 7/8" T.D. 2950' Charge To John O. Farmer

Csg. Depth Street

Tbg. Size 4 1/2" D.P. Depth City State

Tool Depth The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. Shoe Joint Cement Amount Ordered 225 sk 60/100 40% G.C. 1/4 #10

Meas Line Displace Hzo/min

EQUIPMENT			Common
Pumptrk	<u>16</u> No.	Cementer Helper <u>David</u>	Poz. Mix
Bulktrk	<u>14</u> No.	Driver <u>Douglas</u>	Gel
Bulktrk	<u>P.U.</u> No.	Driver <u>Rick</u>	Calcium

JOB SERVICES & REMARKS		Hulls
Remarks:	<u>3-5 sk</u>	Salt
Rat Hole	<u>2950'</u>	Flowseal
Mouse Hole	<u>2800' - 35 sk</u>	Kol-Seal
Centralizers	<u>2300' - 35 sk</u>	Mud CLR 48
Baskets	<u>1400' - 35 sk</u>	CFL-117 or CD110 CAF 38
DV or Port Collar	<u>200' - 35 sk</u>	Sand
	<u>60' - 20 sk w/plug</u>	Handling
	<u>Cement did circulate</u>	Mileage

FLOAT EQUIPMENT	
30 sks, in rat hole (no mouse hole)	Guide Shoe
	Centralizer
	Baskets <u>dry hole plug</u>
	AFU Inserts
	Float Shoe
	Latch Down

Pumptrk Charge  
Mileage

Signature [Signature]

Tax  
Discount  
Total Charge



# AUSTIN B. KLAUS



**Cell 785.650.3629**  
**Work 785.483.3145**  
**Ext 225**

**PO BOX 352**  
**Russell, KS 67665**  
**austin.klaus@johnofarmer.com**

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

**Well Name:** Denton #1  
**Location:** Lyon County  
**License Number:** API #15-111-20538-00-00  
**Spud Date:** 5/22/2018  
**Surface Coordinates:** Section 13, Township 17 South, Range 11 East  
500' FNL & 2,345' FEL  
**Bottom Hole Coordinates:** Vertical well w/ minimal deviation, same as above  
**Ground Elevation (ft):** 1,252'      **K.B. Elevation (ft):** 1,260'  
**Logged Interval (ft):** 2,100      **To:** RTD      **Total Depth (ft):** 2,950  
**Formation:** Miss-Arbuckle  
**Type of Drilling Fluid:** Chemical (Mud Co.)

**Region:** Kansas

**Drilling Completed:** 5/27/2018

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

## OPERATOR

**Company:** John O. Farmer, Inc.  
**Address:** 370 W. Wichita Ave.  
Russell, KS 67665

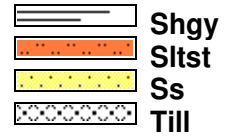
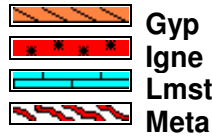
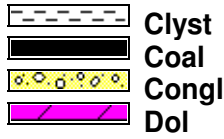
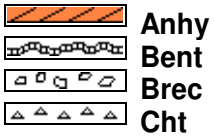
## Comments

The Denton #1 well was drilled by Discovery Drilling Rig #2 (Tool Pusher: Terry Wickham).

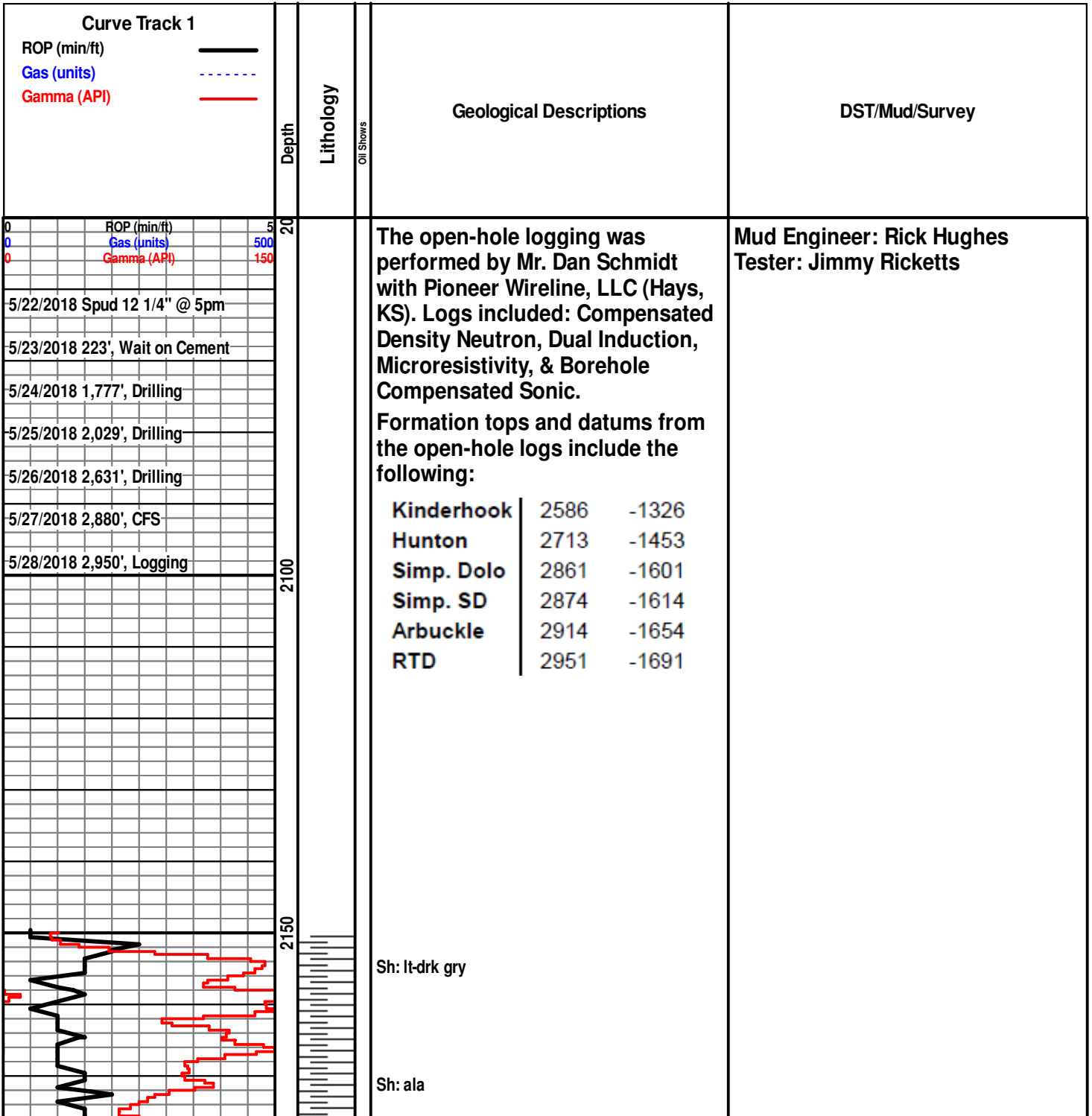
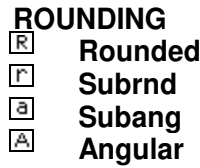
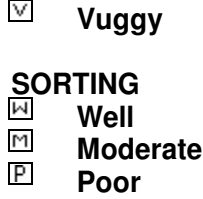
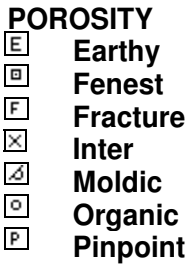
The location for the Denton #1 was discovered via 3D seismic. Rock samples were gathered and evaluated from 2,150' - 2,950'. Oil shows were encountered in the Hunton & Simpson Sand. Structurally, the Hunton top was picked 3' high to the comparison well, Hagins #1 (Shell - 1975). Structural thickening occurred below the Hunton and the Simpson Sand top was picked 8' low to the comparison well. After evaluation of all oil shows, DST results, and electric logs, it was decided that the Denton #1 be plugged and abandon on 5/28/2018.



**ROCK TYPES**



**OTHER SYMBOLS**



# Mississippian 2187' (-927)

Ls: off wh-buff, fn xln, mostly DNS, barren

Ls: ala

Sh: drk gry

Ls: tan-buff, fn xln, fair int part porosity, barren, scat chalk

Ls: ala

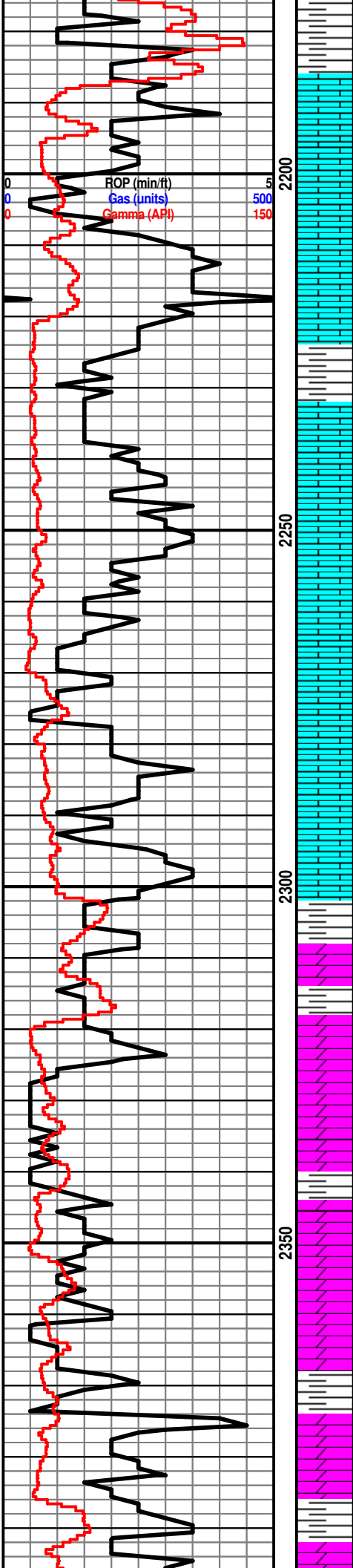
Dolo: tan-off wh, fn xln, scat int part porosity, scat sh: drk gry

Dolo: tan-gry, fn-sub xln, DNS, barren, scat foss

Dolo: ala

Sh: lt-drk gry

Dolo: tan-brn, fn xln, poor int xln porosity, scat chert-off wh



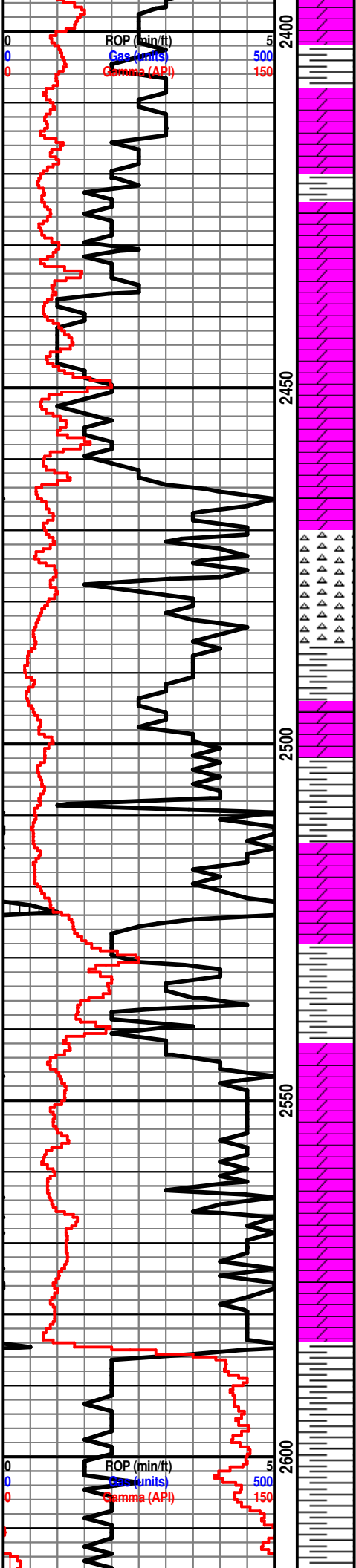
ROP (min/ft)  
Gas (units)  
Gamma (API)

2200  
500  
150

2250

2300

2350



Sh: lt-drk gry

Sh: ala

Dolo: tan-gry, fn xln, mostly DNS, scat chert-off wh

Dolo: ala

Chert: off wh-lt gry, DNS, sh: drk gry-blk

Sh: lt-drk gry-brn

Sh: lt-drk gry-brn

Dolo: tan-gry, fn xln, fair int part porosity, scat sh: drk gry

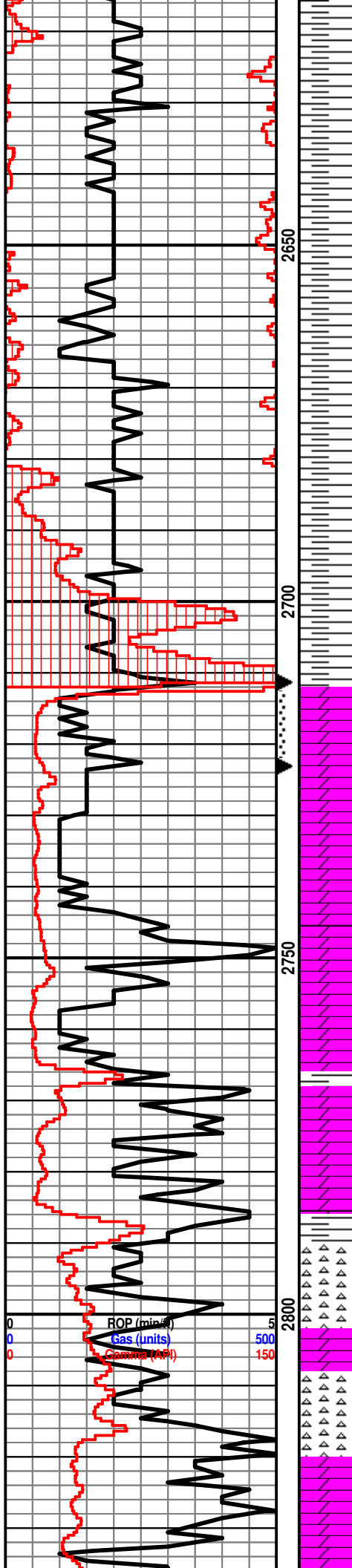
Dolo: ala

Dolo: tan-gry, fn xln, mostly DNS, scat sh: drk gry

**Kinderhook 2585' (-1325)**

Sh: drk gry-blk

Sh: lt gry



Sh: lt gry, scat soft

Sh: ala

Sh: lt-drk gry, scat soft

**Hunton 2710' (-1450)**

Dolo: off wh, fn xln, fair-good frac porosity, fair hvy try oil stn, SSFO, sl odor, scat chert-off wh

Dolo: off wh, fn xln, fair-good int xln & int part porosity, mostly barren

Dolo: ala

Dolo: off wh, fn-md xln, fair-good int xln porosity, barren

Dolo: lt gry, fn xln, fair-good int xln porosity, scat chert-off wh

Dolo: lt gry, fn-md xln, fair-good int xln porosity, scat chert-off wh

Chert: off wh-lt gry, DNS

Chert: ala

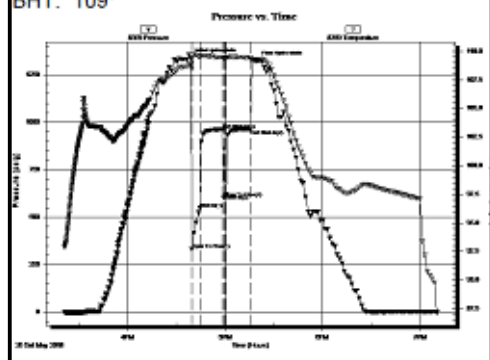
Dolo: tan-gry, fn-sub xln, DNS, barren, scat chert-off wh

**DST #1 2.711-2.723' Hunton**

5"-15"-1"-15"  
 IF: BOB immediately, no blow back on shut in  
 FF: BOB immediately, no blow back on shut in  
 Rec: 840' Water  
 180' Heavy Mud Cut Water (26% M, 74% W)

1,020' Total Fluid Recovery

FP: 331-548, 604-621#  
 SIP: 961-961#  
 HP: 1,337-1,323#  
 BHT: 109°

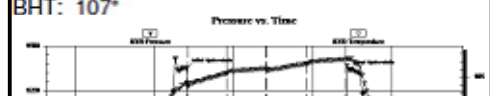


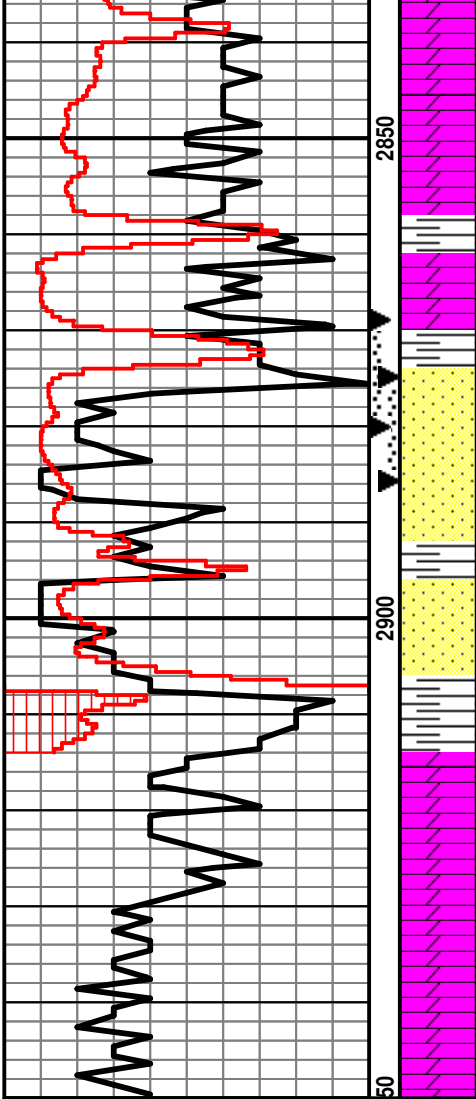
**DST #2 2.872-2.880' Top 10' of Simpson Sand**

30"-30"-30"-30"  
 IF: weak blow built to 1"  
 FF: weak blow built to 1"  
 Rec: 10' Clean Oil  
 20' Oil Cut Mud (11% O, 89% M)

30' Total Fluid Recovery

FP: 12-18, 20-25#  
 SIP: 1,005-1,001#  
 HP: 1,378-1,368#  
 BHT: 107°





Dolo: ala

Dolo: tan-gry, fn-sub xln, DNS, barren

**Simpson Dolo 2854' (-1594)**

Dolo: off wh, fn-md xln, fair int xln porosity, fair-good oil sat, FSFO, fair-good odor

**Simpson Sand 2870' (-1610)**

Ss: qtz, off wh, fn grn, fair rnd - ang, fairly well sorted, poor-fair int grn porosity, good oil sat, GSFO, good odor

Ss: qtz, off wh, friable, fn-md grn, fairly well rnd, fair-poor sorting, fair int grn porosity, good oil sat, GSFO, good odor,

Sh: drk gry-blk

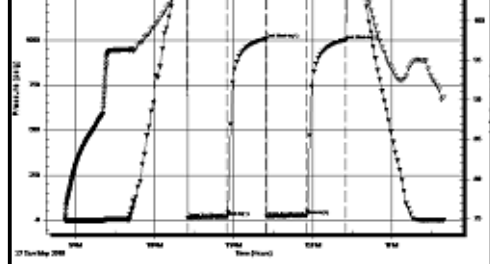
Ss: qtz, off wh, fn-md grn, fairly well rnd, fair-poor sorting, fair-good int grn porosity, poor oil sat, SSFO, fair odor

Ss: qtz, wh, fn grn, friable, well rnd, fair-poor sorting, fair int grn porosity, barren, scat sh: grn

**Arbuckle 2924' (-1664)**

Dolo: tan-gry, fn-sub xln, DNS, scat chert-off wh

Dolo: ala



**DST #3 2.875-2.886' Simpson Sand**

20"-30"-30"-30"

IF: BOB in 13 minutes, no blow back on shut in

FF: BOB in 15 minutes, no blow back on shut it

Rec: 1' Clean Oil

110' Mud Cut Water (15% M, 85% W)

275' Water (Chl. 20K)

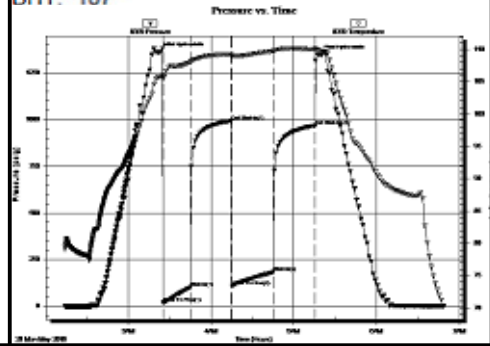
386' Total Fluid Recovery

FP: 19-102, 108-182#

SIP: 991-967#

HP: 1,359-1,347#

BHT: 107°





## DRILL STEM TEST REPORT

Prepared For: **John O. Farmer, Inc**

370 West Wichita Ave  
Russell, KS 67665-2635

ATTN: John Farmer/Austin K

### **Denton #1**

### **13-17S-11E Lyon,KS**

Start Date: 2018.05.26 @ 15:21:00

End Date: 2018.05.26 @ 19:11:50

Job Ticket #: 63395                      DST #: 1

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

Printed: 2018.05.29 @ 10:48:09

John O. Farmer, Inc  
13-17S-11E Lyon,KS  
Denton #1  
DST # 1  
Hunton  
2018.05.26



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O. Farmer, Inc

**13-17S-11E Lyon, KS**

370 West Wichita Ave  
Russell, KS 67665-2635

**Denton #1**

Job Ticket: 63395

**DST#: 1**

ATTN: John Farmer/Austin K

Test Start: 2018.05.26 @ 15:21:00

## GENERAL INFORMATION:

Formation: **Hunton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:39:20

Time Test Ended: 19:11:50

Test Type: Conventional Bottom Hole (Initial)

Tester: Jimmy Ricketts

Unit No: 80

**Interval: 2711.00 ft (KB) To 2723.00 ft (KB) (TVD)**

Reference Elevations: 1260.00 ft (KB)

Total Depth: 2723.00 ft (KB) (TVD)

1252.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8369 Outside**

Press@RunDepth: 620.62 psig @ 2712.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.05.26

End Date:

2018.05.26

Last Calib.:

2018.05.26

Start Time: 15:21:01

End Time:

19:11:50

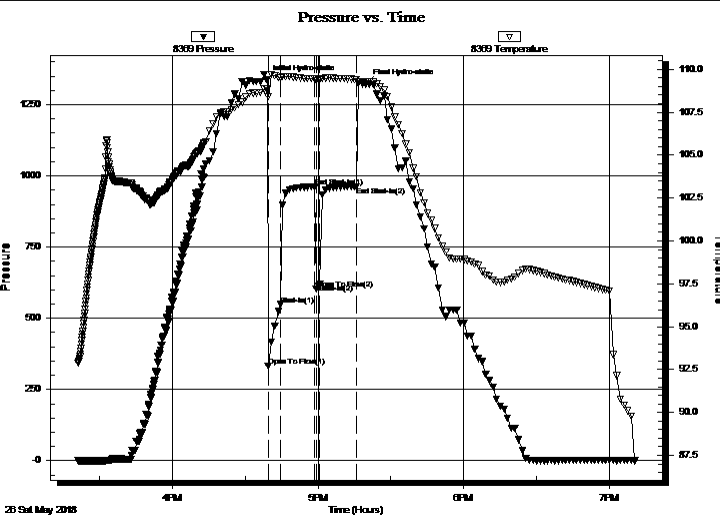
Time On Btm:

2018.05.26 @ 16:38:40

Time Off Btm:

2018.05.26 @ 17:19:50

TEST COMMENT: IF - Strong blow throughout initial flow period.  
FF - Strong blow throughout final flow period.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1337.13	108.84	Initial Hydro-static
1	331.21	108.42	Open To Flow (1)
6	548.42	109.49	Shut-In(1)
20	960.55	109.45	End Shut-In(1)
21	603.86	109.33	Open To Flow (2)
22	620.62	109.41	Shut-In(2)
38	961.08	109.41	End Shut-In(2)
42	1322.51	109.25	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
180.00	Heavy mud cut w ater 26% M & 74% W	1.27
840.00	Water 100% W	11.30

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O. Farmer, Inc

**13-17S-11E Lyon,KS**

370 West Wichita Ave  
Russell, KS 67665-2635

**Denton #1**

Job Ticket: 63395

**DST#: 1**

ATTN: John Farmer/Austin K

Test Start: 2018.05.26 @ 15:21:00

## Tool Information

Drill Pipe:	Length: 2472.00 ft	Diameter: 3.80 inches	Volume: 34.68 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 249.00 ft	Diameter: 2.70 inches	Volume: 1.76 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	53000.00 lb
			<u>Total Volume:</u> 36.44 bbl	Tool Chased	1.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	43000.00 lb
Depth to Top Packer:	2711.00 ft			Final	47000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	12.00 ft				
Tool Length:	32.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2692.00	
Shut In Tool	5.00			2697.00	
Hydraulic tool	5.00			2702.00	
Packer	4.00			2706.00	20.00 Bottom Of Top Packer
Packer	5.00			2711.00	
Stubb	1.00			2712.00	
Recorder	0.00	8369	Outside	2712.00	
Recorder	0.00	8846	Inside	2712.00	
Perforations	6.00			2718.00	
Bullnose	5.00			2723.00	12.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>32.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O. Farmer, Inc

**13-17S-11E Lyon,KS**

370 West Wichita Ave  
Russell, KS 67665-2635

**Denton #1**

Job Ticket: 63395

**DST#: 1**

ATTN: John Farmer/Austin K

Test Start: 2018.05.26 @ 15:21:00

## 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:

16000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 950.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	Heavy mud cut w ater 26% M & 74% W	1.275
840.00	Water 100% W	11.304

Total Length: 1020.00 ft      Total Volume: 12.579 bbl

Num Fluid Samples: 0

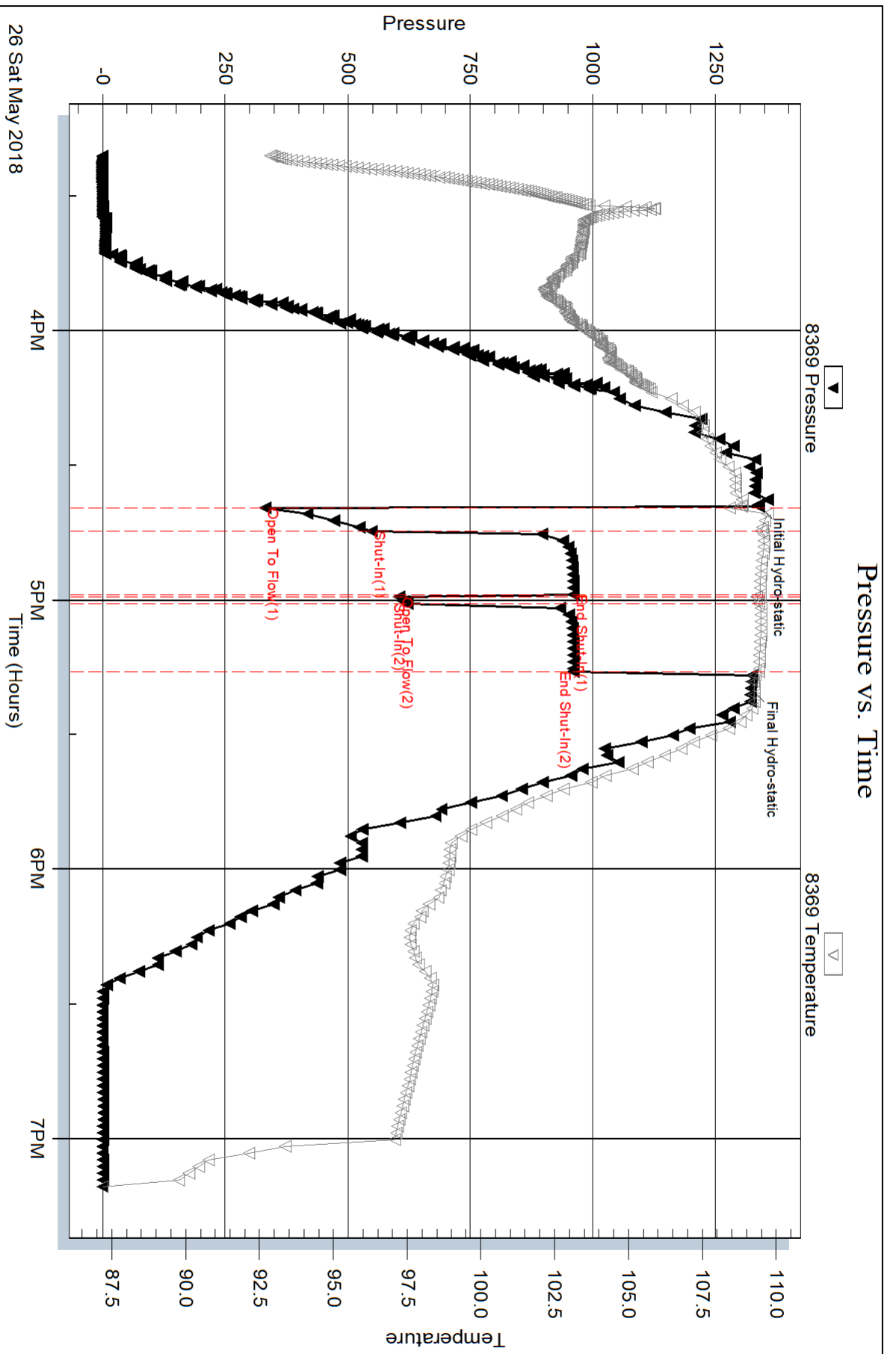
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



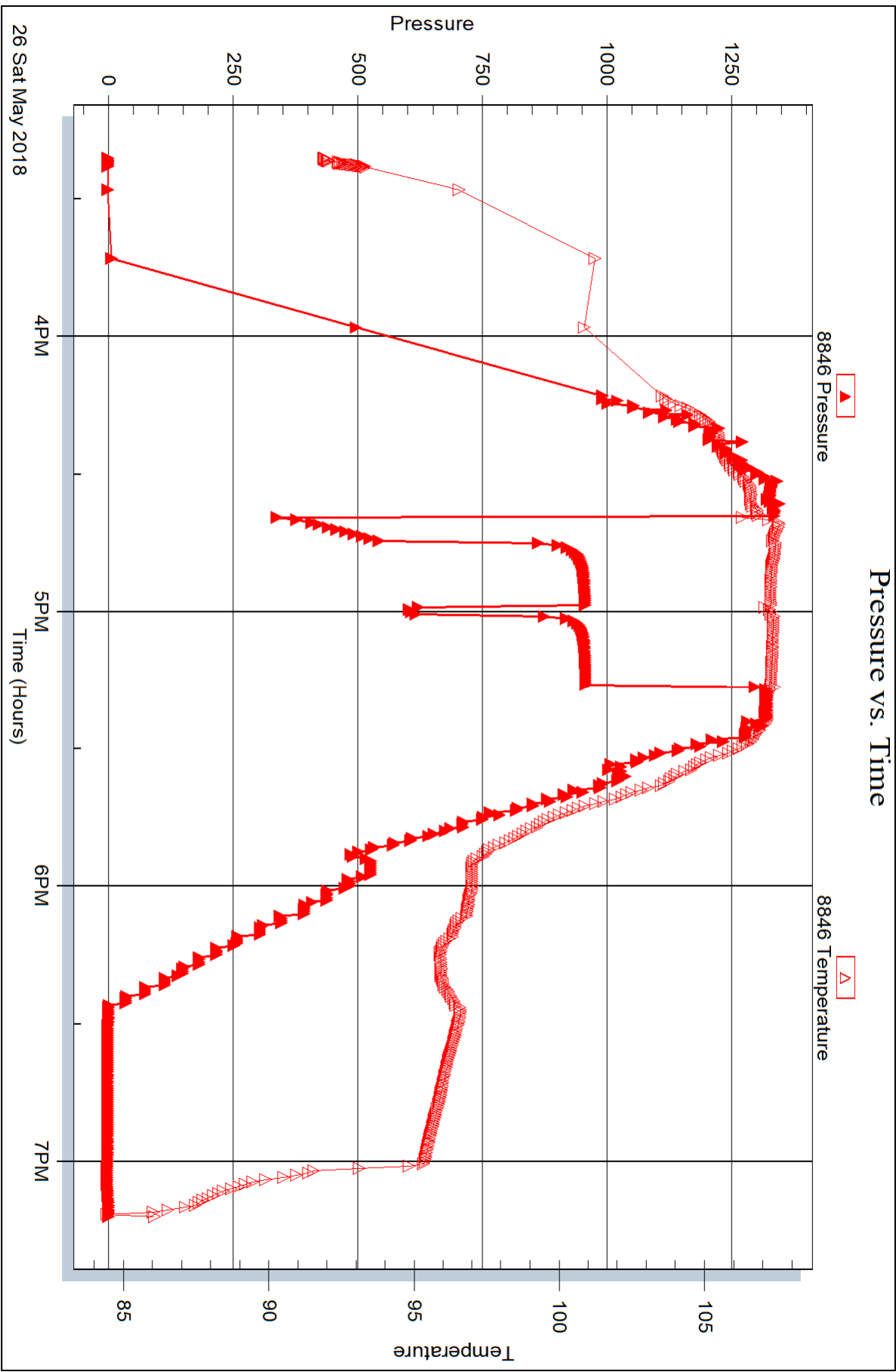
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Inside

John O. Farmer, Inc

Denton #1

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 63395

Printed: 2018.05.29 @ 10:48:10



## DRILL STEM TEST REPORT

Prepared For: **John O. Farmer, Inc**

370 West Wichita Ave  
Russell, KS 67665-2635

ATTN: John Farmer/Austin K

### **Denton #1**

### **13-17S-11E Lyon,KS**

Start Date: 2018.05.27 @ 08:52:00

End Date: 2018.05.27 @ 13:39:39

Job Ticket #: 63396                      DST #: 2

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

Printed: 2018.05.29 @ 10:47:44

John O. Farmer, Inc  
13-17S-11E Lyon,KS  
Denton #1  
DST # 2  
Simpson Sand  
2018.05.27



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

John O. Farmer, Inc  
370 West Wichita Ave  
Russell, KS 67665-2635  
ATTN: John Farmer/Austin K

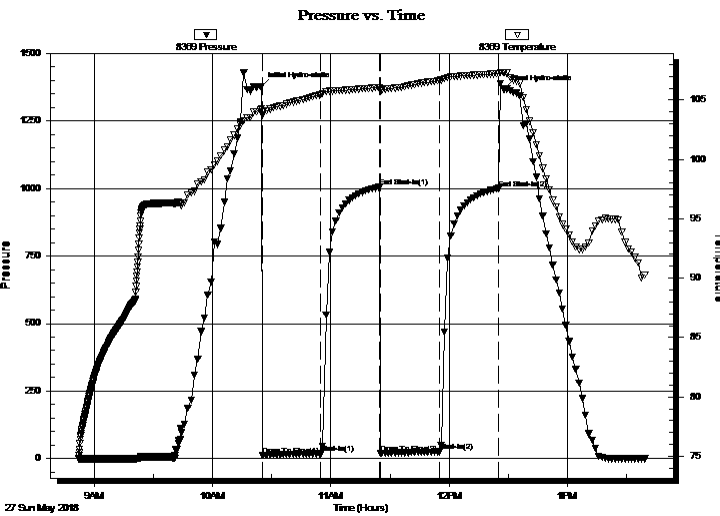
**13-17S-11E Lyon, KS**  
**Denton #1**  
Job Ticket: 63396 **DST#: 2**  
Test Start: 2018.05.27 @ 08:52:00

## GENERAL INFORMATION:

Formation: **Simpson Sand**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 10:25:20  
Time Test Ended: 13:39:39  
Interval: **2872.00 ft (KB) To 2880.00 ft (KB) (TVD)**  
Total Depth: 2880.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Jimmy Ricketts  
Unit No: 80  
Reference Elevations: 1260.00 ft (KB)  
1252.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 8369 Outside**  
Press@RunDepth: 25.30 psig @ 2873.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2018.05.27 End Date: 2018.05.27 Last Calib.: 2018.05.27  
Start Time: 08:52:01 End Time: 13:39:40 Time On Btm: 2018.05.27 @ 10:24:40  
Time Off Btm: 2018.05.27 @ 12:27:50

TEST COMMENT: IF - Weak blow building to 1"  
FF - Weak blow building to 1"



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1378.31	104.24	Initial Hydro-static
1	12.47	103.73	Open To Flow (1)
31	18.27	105.44	Shut-In(1)
60	1004.63	106.06	End Shut-In(1)
61	19.57	105.76	Open To Flow (2)
91	25.30	106.64	Shut-In(2)
121	1000.52	107.21	End Shut-In(2)
124	1368.18	107.28	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	Clean oil 100% O	0.07
20.00	Oil cut mud 11% O & 89% M	0.14

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O. Farmer, Inc

**13-17S-11E Lyon,KS**

370 West Wichita Ave  
Russell, KS 67665-2635

**Denton #1**

Job Ticket: 63396

**DST#: 2**

ATTN: John Farmer/Austin K

Test Start: 2018.05.27 @ 08:52:00

## Tool Information

Drill Pipe:	Length: 2629.00 ft	Diameter: 3.80 inches	Volume: 36.88 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 249.00 ft	Diameter: 2.70 inches	Volume: 1.76 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	47000.00 lb
			<u>Total Volume: 38.64 bbl</u>	Tool Chased	1.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	2872.00 ft			Final	45000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	8.00 ft				
Tool Length:	28.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2853.00	
Shut In Tool	5.00			2858.00	
Hydraulic tool	5.00			2863.00	
Packer	4.00			2867.00	20.00 Bottom Of Top Packer
Packer	5.00			2872.00	
Stubb	1.00			2873.00	
Recorder	0.00	8369	Outside	2873.00	
Recorder	0.00	8846	Inside	2873.00	
Perforations	5.00			2878.00	
Bullnose	2.00			2880.00	8.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>28.00</b>				





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O. Farmer, Inc

**13-17S-11E Lyon,KS**

370 West Wichita Ave  
Russell, KS 67665-2635

**Denton #1**

Job Ticket: 63396

**DST#: 2**

ATTN: John Farmer/Austin K

Test Start: 2018.05.27 @ 08:52:00

## 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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 950.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Clean oil 100% O	0.071
20.00	Oil cut mud 11% O & 89% M	0.142

Total Length: 30.00 ft      Total Volume: 0.213 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

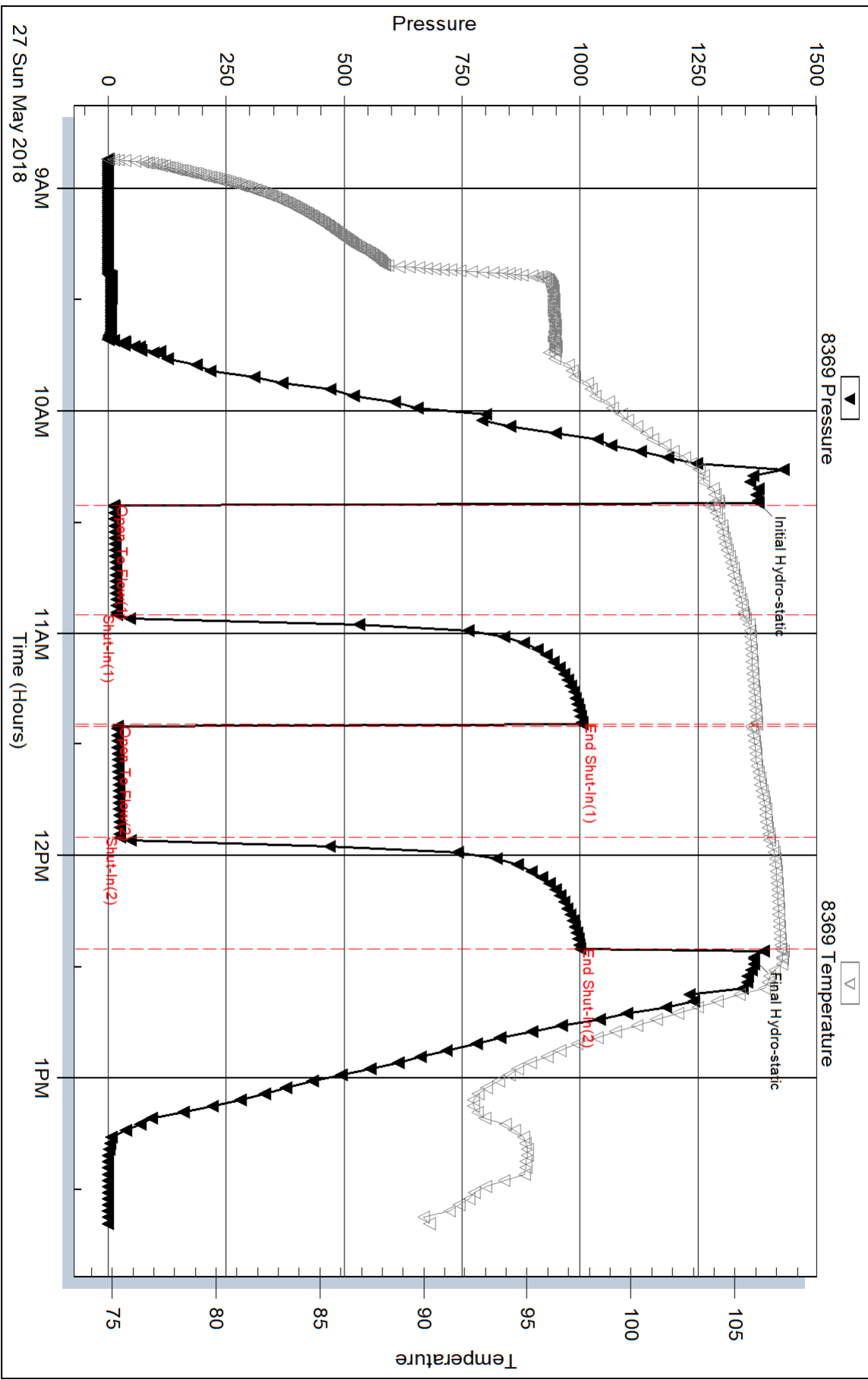
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



Serial #: 8846

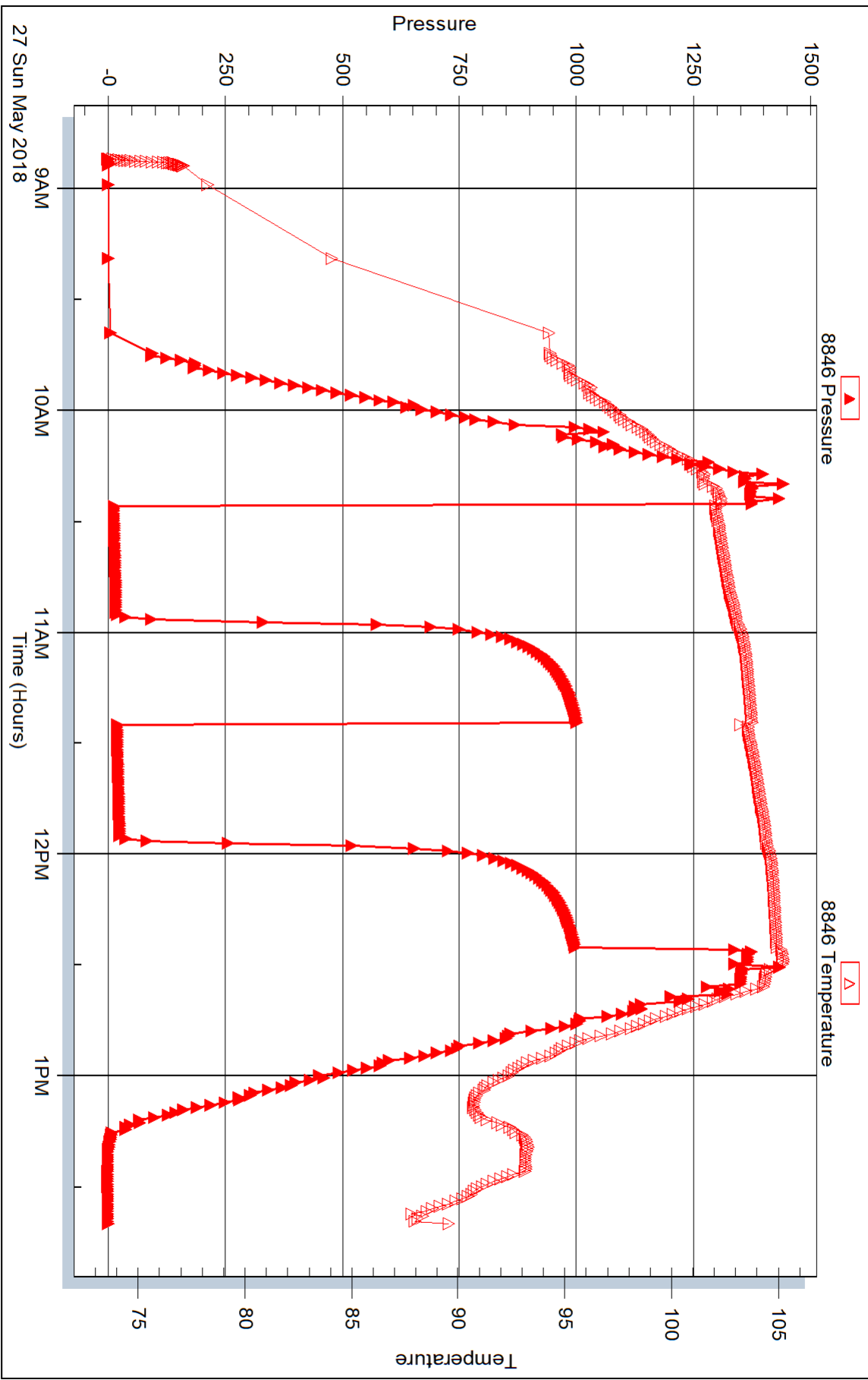
Inside

John O. Farmer, Inc

Denton #1

DST Test Number: 2

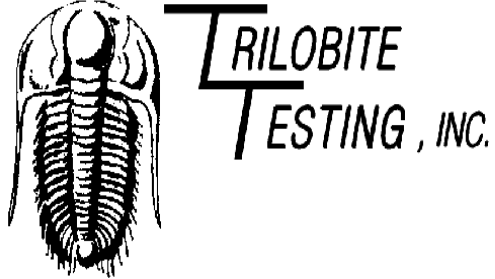
### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 63396

Printed: 2018.05.29 @ 10:47:45



## DRILL STEM TEST REPORT

Prepared For: **John O. Farmer, Inc**

370 West Wichita Ave  
Russell, KS 67665-2635

ATTN: John Farmer/Austin K

### **Denton #1**

### **13-17S-11E Lyon,KS**

Start Date: 2018.05.28 @ 02:14:01

End Date: 2018.05.28 @ 06:50:00

Job Ticket #: 63397                      DST #: 3

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

Printed: 2018.05.29 @ 10:47:26



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

John O. Farmer, Inc  
370 West Wichita Ave  
Russell, KS 67665-2635  
ATTN: John Farmer/Austin K

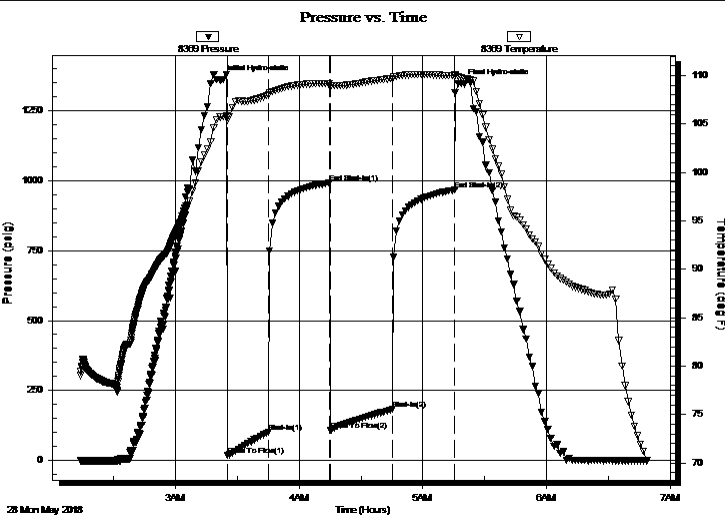
**13-17S-11E Lyon, KS**  
**Denton #1**  
Job Ticket: 63397 **DST#: 3**  
Test Start: 2018.05.28 @ 02:14:01

## GENERAL INFORMATION:

Formation: **Simpson Sand**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 03:25:20  
Time Test Ended: 06:50:00  
Interval: **2875.00 ft (KB) To 2886.00 ft (KB) (TVD)**  
Total Depth: 2950.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Straddle (Initial)  
Tester: Jimmy Ricketts  
Unit No: 80  
Reference Elevations: 1260.00 ft (KB)  
152.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 8369 Outside**  
Press@RunDepth: 182.50 psig @ 2876.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2018.05.28 End Date: 2018.05.28 Last Calib.: 2018.05.28  
Start Time: 02:14:01 End Time: 06:50:00 Time On Btm: 2018.05.28 @ 03:22:00  
Time Off Btm: 2018.05.28 @ 05:18:50

TEST COMMENT: IF - Weak blow building to strong blow 13 minutes  
FF - Weak blow building to strong blow 15 minutes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1359.25	105.74	Initial Hydro-static
4	19.31	105.40	Open To Flow (1)
23	101.82	107.99	Shut-In(1)
53	991.49	109.20	End Shut-In(1)
54	107.63	108.78	Open To Flow (2)
84	182.50	109.72	Shut-In(2)
114	966.54	109.96	End Shut-In(2)
117	1345.81	109.79	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
275.00	Salt w ater 100% W	2.13
110.00	Mud cut w ater 85% W & 15% M	1.54
1.00	Clean oil 100% O	0.01

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O. Farmer, Inc

**13-17S-11E Lyon,KS**

370 West Wichita Ave  
Russell, KS 67665-2635

**Denton #1**

Job Ticket: 63397

**DST#: 3**

ATTN: John Farmer/Austin K

Test Start: 2018.05.28 @ 02:14:01

## Tool Information

Drill Pipe:	Length: 2628.00 ft	Diameter: 3.80 inches	Volume: 36.86 bbl	Tool Weight: 2600.00 lb
Heavy Wt. Pipe:	Length: 249.00 ft	Diameter: 2.70 inches	Volume: 1.76 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 38.62 bbl</u>	Tool Chased 1.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	2875.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	2886.00 ft			
Interval between Packers:	11.00 ft			
Tool Length:	95.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2856.00	
Shut In Tool	5.00			2861.00	
Hydraulic tool	5.00			2866.00	
Packer	4.00			2870.00	20.00 Bottom Of Top Packer
Packer	5.00			2875.00	
Stubb	1.00			2876.00	
Recorder	0.00	8369	Outside	2876.00	
Recorder	0.00	8846	Inside	2876.00	
Perforations	5.00			2881.00	
Blank Off Sub	1.00			2882.00	
T.C.	4.00			2886.00	11.00 Tool Interval
Packer	0.00			2886.00	
Stubb	1.00			2887.00	
Recorder	0.00	8679	Below	2887.00	
Perforations	20.00			2907.00	
Change Over Sub	0.50			2907.50	
Blank Spacing	31.00			2938.50	
Change Over Sub	0.50			2939.00	
Perforations	6.00			2945.00	
Bullnose	5.00			2950.00	64.00 Bottom Packers & Anchor

**Total Tool Length: 95.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O. Farmer, Inc

**13-17S-11E Lyon,KS**

370 West Wichita Ave  
Russell, KS 67665-2635

**Denton #1**

Job Ticket: 63397

**DST#: 3**

ATTN: John Farmer/Austin K

Test Start: 2018.05.28 @ 02:14:01

## 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:

20000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1700.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
275.00	Salt water 100% W	2.128
110.00	Mud cut water 85% W & 15% M	1.543
1.00	Clean oil 100% O	0.014

Total Length: 386.00 ft      Total Volume: 3.685 bbl

Num Fluid Samples: 0

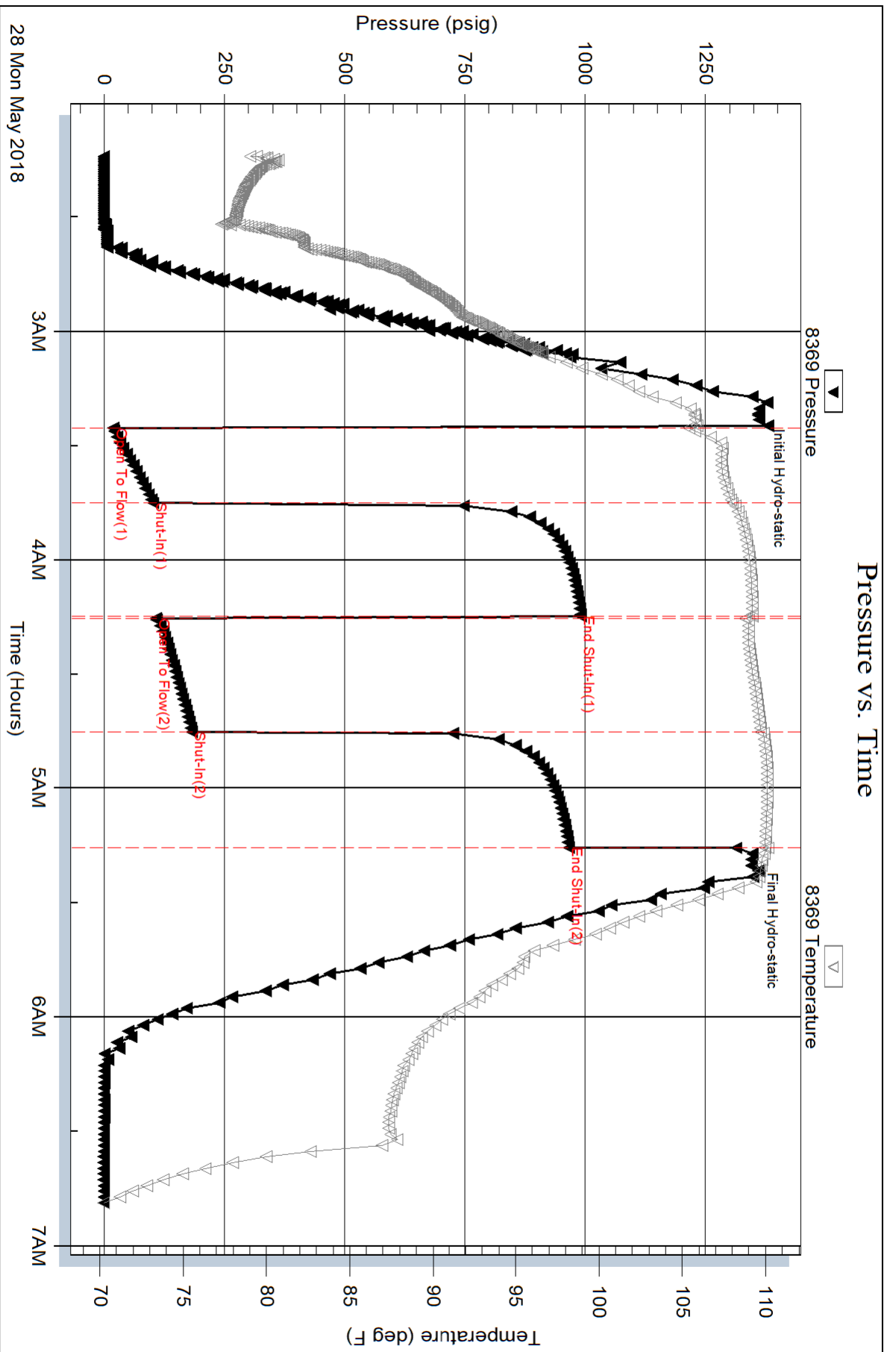
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



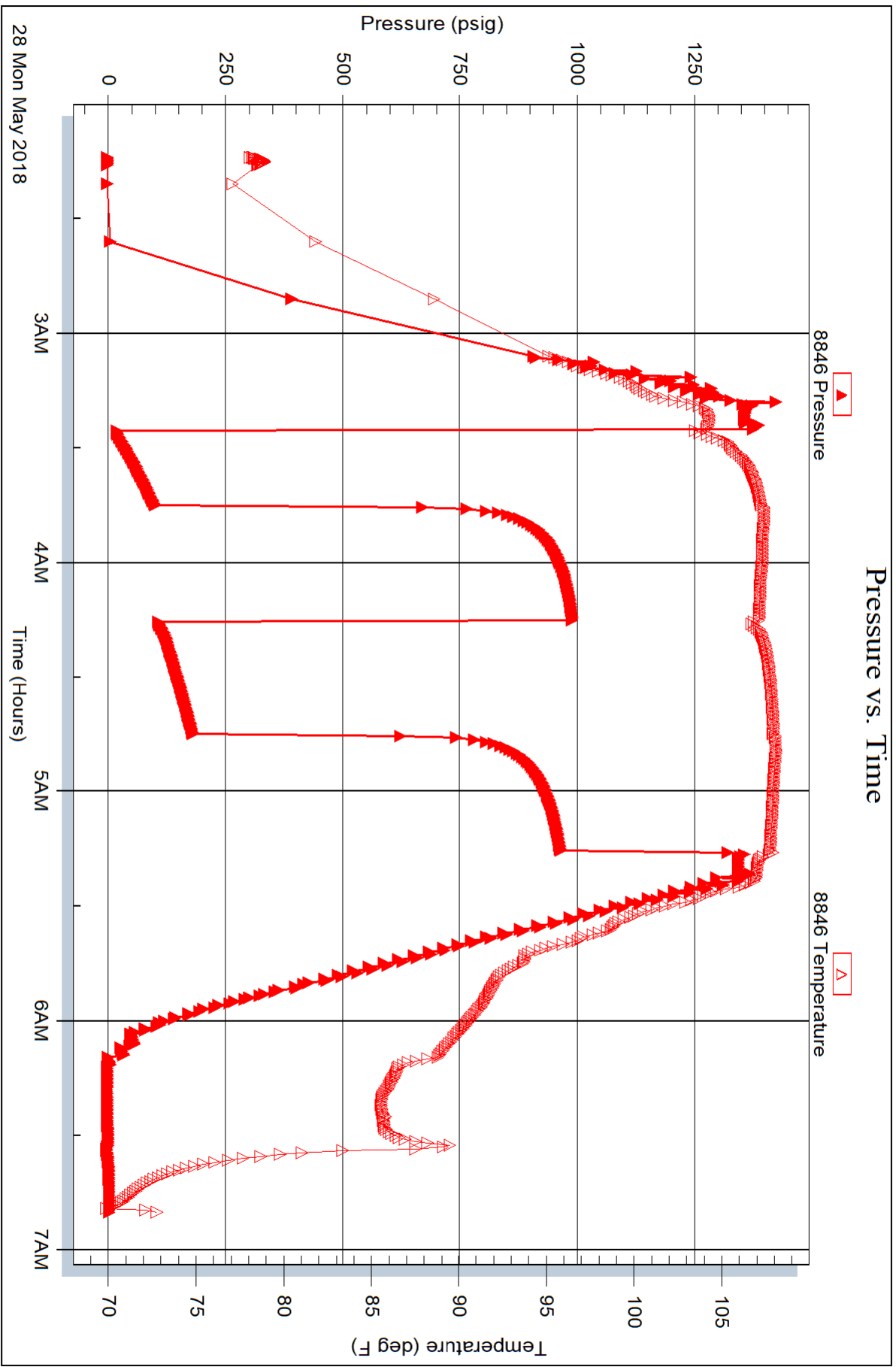
Serial #: 8846

Inside

John O. Farmer, Inc

Denton #1

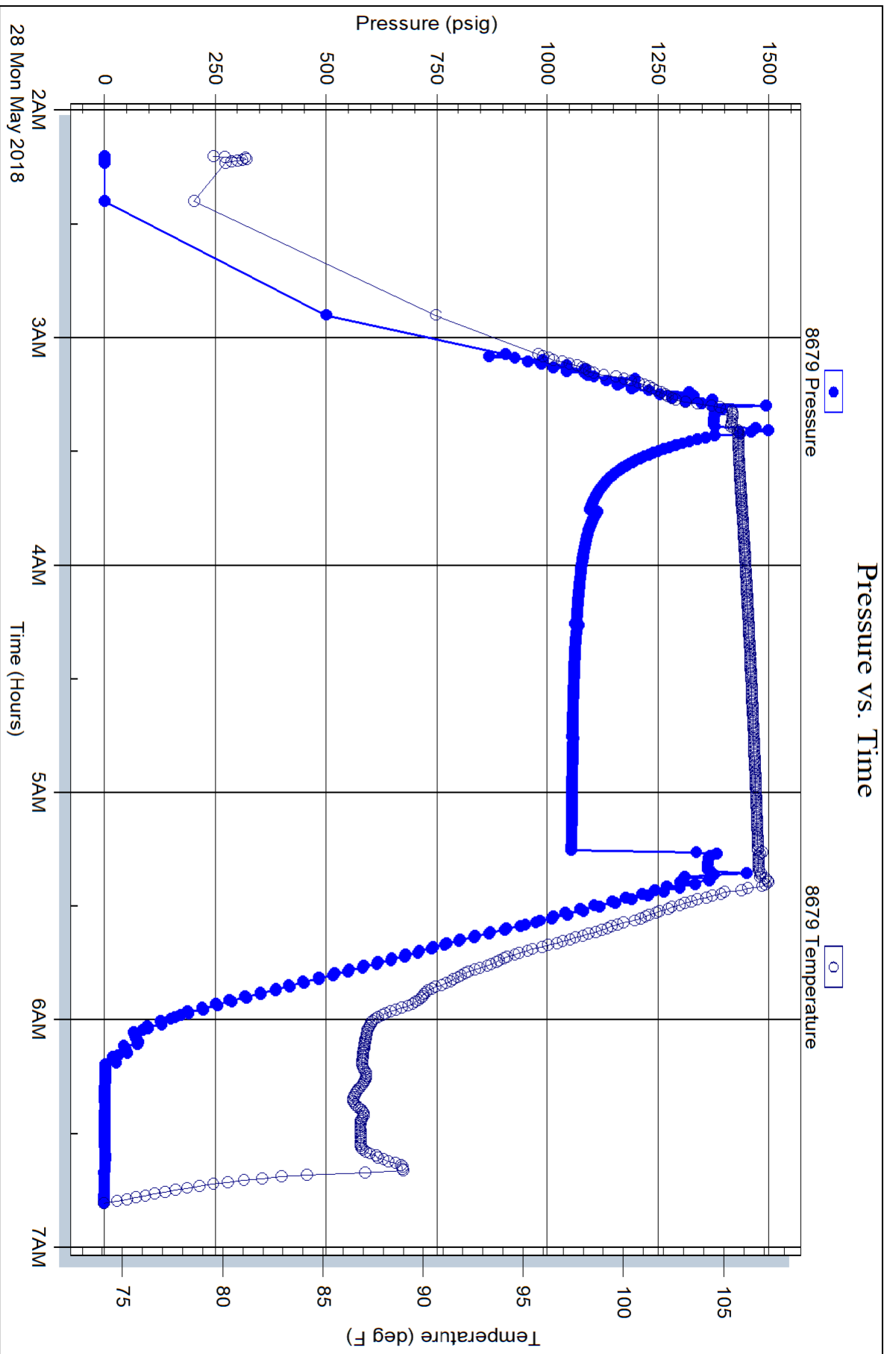
DST Test Number: 3



Triobite Testing, Inc

Ref. No: 63397

Printed: 2018.05.29 @ 10:47:28





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63395

Well Name & No. Denton #1 Test No. 1 Date 5-26-18  
 Company John O. Farmer, Inc Elevation 1260 KB 1252 GL  
 Address 370 West Wichita Avenue, Russell, KS, 67665-2635  
 Co. Rep / Geo. John Farmer/Austin Klays Rig Discover Drilling #2  
 Location: Sec. 13 Twp 17S Rge. 11 E Co. Lyon State KS.

Interval Tested 2711 - 2723 Zone Tested Hunton  
 Anchor Length 12' Drill Pipe Run 2472 Mud Wt. 9.3  
 Top Packer Depth 2706 Drill Collars Run 0 Vis 51  
 Bottom Packer Depth 2711 Wt. Pipe Run ~~247~~ 249 WL 8.4  
 Total Depth 2723 Chlorides 950 ppm System LCM  
 Blow Description IF - Strong blow throughout IFP  
FF - Strong blow throughout Final flow period

Rec	Feet of	%gas	%oil	%water	%mud
<u>180</u>	<u>Heavy mud cut water</u>			<u>74</u>	<u>26</u>
<u>840</u>	<u>Water</u>			<u>100</u>	

Rec Total 1020 BHT 109 Gravity \_\_\_\_\_ API RW 324 @ 90.1 °F Chlorides 16000 ppm  
 (A) Initial Hydrostatic 1337  Test 1050 T-On Location 1430  
 (B) First Initial Flow 331  Jars \_\_\_\_\_ T-Started 1521  
 (C) First Final Flow 548  Safety Joint \_\_\_\_\_ T-Open 1640  
 (D) Initial Shut-In 961  Circ Sub \_\_\_\_\_ T-Pulled 1716  
 (E) Second Initial Flow 604  Hourly Standby \_\_\_\_\_ T-Out 1900  
 (F) Second Final Flow 621  Mileage 210 RT220 Comments \_\_\_\_\_  
 (G) Final Shut-In 961  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1323  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer 250  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 4  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 15  Day Standby \_\_\_\_\_ Total 1510  
 Final Flow 3  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 15 Sub Total 1510

Approved By \_\_\_\_\_ Our Representative Jimmy Dickels  
 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. 63396

Well Name & No. Denton #1 Test No. 2 Date 5-27-18  
 Company John O. Farmer, Inc. Elevation 1260 KB 1252 GL  
 Address 370 West Wichita, Avenue, Russell, KS. 67665-2635  
 Co. Rep / Geo. John Farmer / Austin Klaus Rig Discovery Drilling #2  
 Location: Sec. 13 Twp 17S Rge. 11E Co. Lyon State KS

Interval Tested 2872-2880 Zone Tested Simpson Sand  
 Anchor Length 8' Drill Pipe Run 2629 Mud Wt. 9.1  
 Top Packer Depth 2867 Drill Collars Run 0 Vis 60  
 Bottom Packer Depth 2872 Wt. Pipe Run 249 WL 8.4  
 Total Depth 2880 Chlorides 950 ppm System LCM  
 Blow Description IF-Weak blow building to 1 inch IFP  
FF-Weak blow building to 1 inch FFP

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>clean oil</u>		<u>100%</u>		
<u>20</u>	<u>oil cut mud</u>		<u>11%</u>		<u>89%</u>

Rec Total 30 BHT 107 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1378</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>0830</u>
(B) First Initial Flow <u>12</u>	<input type="checkbox"/> Jars _____	T-Started <u>0852</u>
(C) First Final Flow <u>18</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>1025</u>
(D) Initial Shut-In <u>1005</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>1225</u>
(E) Second Initial Flow <u>20</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>1330</u>
(F) Second Final Flow <u>25</u>	<input checked="" type="checkbox"/> Mileage <u>34 RT 34</u>	Comments _____
(G) Final Shut-In <u>1001</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1368</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby _____	Total <u>1334</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1334</u>	

Approved By \_\_\_\_\_ Our Representative Jimmy Ankele  
 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. **63397**

Well Name & No. Denton #1 Test No. 3 Date 5-28-18  
 Company John O. Farmer, Inc Elevation 1260 KB 1252 GL  
 Address 370 West Wichita Ave., Russell, Ks. 67665-2635  
 Co. Rep / Geo. John Farmer / Austin Klaus Rig Discovery Drilling #2  
 Location: Sec. 13 Twp 17 S Rge. 11 E Co. Lyon State Ks.

Interval Tested 2875-2886 Zone Tested Simpson Sand  
 Anchor Length 11' Drill Pipe Run 2659 Mud Wt. 9.3  
 Top Packer Depth 2870 mid 2875 Drill Collars Run 0 Vis 52  
 Bottom Packer Depth 2886 Wt. Pipe Run 249 WL 8.8  
 Total Depth 2950 Chlorides 1700 ppm System LCM

Blow Description IF- weak blow building to strong blow 13 mins. into IFP  
FF- weak blow building to strong blow 15 mins into FFP

Rec	Feet of	%gas	%oil	%water	%mud
<u>275</u>	<u>Salt water</u>			<u>100</u>	
<u>110</u>	<u>Mud cut water</u>			<u>85</u>	<u>15</u>
<u>1</u>	<u>clean oil</u>				

Rec Total 386 BHT 110 Gravity \_\_\_\_\_ API RW .309 @ 75.1° F Chlorides 20006 ppm  
 (A) Initial Hydrostatic 1359  Test 1050 T-On Location 2330  
 (B) First Initial Flow 19  Jars \_\_\_\_\_ T-Started 0212 + 0214  
 (C) First Final Flow 102  Safety Joint \_\_\_\_\_ T-Open 0325  
 (D) Initial Shut-In 991  Circ Sub \_\_\_\_\_ T-Pulled 0515  
 (E) Second Initial Flow 108  Hourly Standby \_\_\_\_\_ T-Out 0700  
 (F) Second Final Flow 182  Mileage 314 RT34 Comments \_\_\_\_\_  
 (G) Final Shut-In 967  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1347  Straddle 250  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 20  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 30  Day Standby \_\_\_\_\_ Total 1614  
 Final Flow 30  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 30 Sub Total 1614

Approved By [Signature] Our Representative [Signature]

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