

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)</i> <i>(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	BOWLBY-MAUPIN 2
Doc ID	1581298

Tops

Name	Top	Datum
Anhydrite	1035	(+916)
Topeka	2778	(-827)
Heebner	3032	(-1081)
Toronto	3051	(-1100)
Lansing	3081	(-1130)
Base/KC	3340	(-1389)
Simpson Sand	3425	(-1474)
Arbuckle	3429	(-1478)
L.T.D.	3507	(-1556)



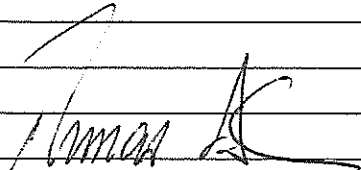
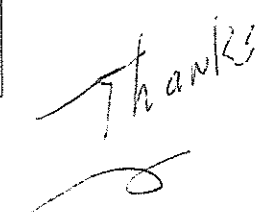
# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071  
Cell 785-324-1041

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

No. 2204

Date	3/11/2021	Sec.	10	Twp.	11	Range	15	County	Russell	State	Kansas	On Location		Finish	6:57pm		
Location								Paradise 1W To Y Left 1 1/2 1/2 W Ninto									
Lease	Bowlby - <del>Mapin</del> Mapin			Well No.	2			Owner									
Contractor	Discovery Drilling			Rig	4			To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.									
Type Job	Surface																
Hole Size	12 1/4			T.D.	222'			Charge To	J O Farmer								
Csg.	8 5/8			Depth	221.32			Street									
Tbg. Size				Depth				City State									
Tool				Depth				The above was done to satisfaction and supervision of owner agent or contractor.									
Cement Left in Csg.	15'			Shoe Joint	15'			Cement Amount Ordered 150 3/20 3%cc 2%gel									
Meas Line				Displace	13												
<b>EQUIPMENT</b>								Common 120									
Pumptrk	16	No.	Cementer	Tony			Poz. Mix			30							
Bulktrk	15	No.	Driver	Doug			Gel.			3							
Bulktrk	PU	No.	Driver	David			Calcium			6							
<b>JOB SERVICES &amp; REMARKS</b>								Hulls									
Remarks:	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									
Ran 8 5/8 casing est. circulation								Mileage									
and cemented with 150 SKS								<b>FLOAT EQUIPMENT</b>									
								Guide Shoe									
								Centralizer									
								Baskets									
								AFU Inserts									
								Float Shoe									
								Latch Down									
Cement Did Circulate								Pumptrk Charge Surface									
								Mileage 23									
X Signature 								Thanks 								Tax	
																Discount	
																Total Charge	

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Phone 785-483-1071  
Cell 785-324-1041

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

No. 2205

Date	Sec.	Twp.	Range	County	State	On Location	Finish
3/17/2021	10	11	15	Russell	Kansas		10:00pm
				Location Paradise 1w to Y Left 1/2 1/2 W N into			

Lease	Well No.	Owner
Bowling-Martin	2	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Contractor	Type Job	Hole Size	T.D.	Charge To
Discovery Drilling #4	Long string	7 1/4	3510'	JO Farmer

Csg.	Depth	Street
5 1/2	3510'	

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
29'	29'	175 com 10% salt 5% gal/socite

Meas Line	Displace	20 bbl KCL 500gal Mud clear
	85	

**EQUIPMENT**

Pumptrk	No.	Cement Helper	Tom	Tom	Common	175
Bulktrk	No.	Driver	Tom		Poz. Mix	
Bulktrk	No.	Driver	David		Gel.	
Bulktrk	No.	Driver	David		Calcium KCL	2 gal

**JOB SERVICES & REMARKS**

Remarks:	Hulls
Rat Hole 30 SKS	Salt 15
Mouse Hole 15 SKS	Flowseal
Centralizers Joint # 1-3-5-7-9-61	Kol-Seal 750#
Baskets Joint # 11, 60	Mud CLR 48 500 gal
D/V or Port Collar at 1040' Joint 60	CFL-117 or CD110 CAF 88
	Sand
	Handling 197
	Mileage

**FLOAT EQUIPMENT**

Ran 5 1/2 casing and est. circulation	Guide Shoe
Pumped 500gal mud clear followed by 10 bbl KCL	Centralizer 6
Cemented Rat & Mouse hole	Baskets 2
Then cemented casing with 130 SKS displaced first 10 bbl KCL	AFU Inserts 1 Port Collar
Li Pr Pressure @ 650#	Float Shoe 1
Landed plug @ 1800#	Latch Down 1

Pumptrk Charge	prod. string
Mileage	23

Signature	Tax
Don Weasley	Discount
	Total Charge

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071  
Cell 785-324-1041

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

No. 2191

Date	Sec.	Twp.	Range	County	State	On Location	Finish		
3-29-21				Russell	KS		1:15 PM		
Lease <u>Bowly by Maupin</u>				Location <u>Fairport N Luray Rd 1E Vinto</u>		Well No. <u>2</u>			
Contractor <u>Western Well</u>				Owner <u>To Quality Oilwell Cementing, Inc.</u>					
Type Job <u>Port Collar</u>				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 <u>7 7/8</u>		T.D.		Charge To <u>J.O. Farmer</u>					
Csg. <u>5 1/2</u>		Depth		Street					
Tbg. Size <u>7 7/8</u>		Depth		City		State			
Tool <u>Port Collar</u>		Depth <u>1040</u>		The above was done to satisfaction and supervision of owner agent or contractor.					
Cement Left in Csg.		Shoe Joint		Cement Amount Ordered <u>250 80/20 QMDC 1/2 #10</u>					
Meas Line		Displace <u>33L</u>		<u>2 gal</u>					
<b>EQUIPMENT</b>				Common <u>135 80/20 Q mbc</u>					
Pumptrk	No. <u>12</u>	Cement Helper <u>Mig</u>		Poz. Mix					
Bulktrk	No. <u>13</u>	Driver <u>David</u>	<u>Tom</u>	Gel. <u>8</u>					
Bulktrk	No. <u>14</u>	Driver <u>Tom</u>		Calcium					
<b>JOB SERVICES &amp; REMARKS</b>				Hulls					
Remarks: <u>KCK Ray Donkil</u>				Salt					
Rat Hole				Flowseal <u>50 #</u>					
Mouse Hole				Kol-Seal					
Centralizers				Mud CLR 48					
Baskets				CFL-117 or CD110 CAF 38					
D/V of Port Collar				Sand					
<u>Port Collar @ 1040 - Test to 800*</u>				Handling <u>2.50</u>					
<u>Spot 2 gal to port collar. Open</u>				Mileage					
<u>Tool &amp; Mix 1 gal &amp; Test</u>				<b>FLOAT EQUIPMENT</b>					
<u>Circulation: Mix 135 SK &amp;</u>				Guide Shoe					
<u>Cement Circulation 2 Displace 33L</u>				Centralizer					
<u>Close Tool. Test to 800*</u>				Baskets					
<u>Run 5 joints &amp; Wash Clean.</u>				AFU Inserts					
<u>USED 135 SK &amp; 8 gal</u>				Float Shoe					
				Latch Down					
				Pumptrk Charge <u>Port Collar Job</u>					
				Mileage <u>23</u>					
X Signature <u>Val</u>				Thanks				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:** Bowlby-Maupin #2  
**API:** 15-167-24104-0000  
**Location:** Russell County  
**License Number:**  
**Spud Date:** 03/11/2021  
**Surface Coordinates:** Section 10, Township 11 South, Range 15 West  
2,430' FNL & 1,180' FWL  
**Bottom Hole Coordinates:** Vertical well w/ minimal deviation, same as above  
**Ground Elevation (ft):** 1,943  
**Logged Interval (ft):** 2,750  
**Formation:** Topeka - Arbuckle  
**Type of Drilling Fluid:** Chemical (Andy's Mud)

**Region:** Kansas  
**Drilling Completed:** 03/16/2021  
**K.B. Elevation (ft):** 1,951  
**Total Depth (ft):** 3,510  
**To:** RTD

Printed by StripLog 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 Bowlby-Maupin #2 well was drilled by Discovery Drilling Rig #4 (Tool Pusher: Jason Alm).

The location for the Bowlby-Maupin #2 was discovered via 3D seismic survey. Rock samples were gathered and evaluated from 2,760' - 3,510'. Oil shows were encountered in the Topeka 30' zone, Lansing A,B,C,F,G,J zones, Simpson Sand, & Arbuckle. Structurally, the Lansing top was picked 1' high to the comparison well, Bowlby-Maupin #1 (John O. Farmer, Inc). Structure throughout the LKC remained consistent and the B/KC was picked 2' high. Thinning occurred within the Simpson Shale section and the Simpson Sand and Arbuckle were picked 7' & 8' high, to the comparison well, respectively. A bottom-hole test was conducted over the Topeka 30' zone, which yielded 100' muddy water. Additionally, the Lansing A-C zones were tested via bottom-hole test and 190' of total fluid (oil, mud, and water) was recovered. After evaluation of the open-hole logs, the decision was made to straddle test the Simpson Sand and top 21' of Arbuckle. This final DST recovered 40' gassy oil and 30' oil cut mud. Based on evaluation of all oil shows, drill stem test results, & electric logs, the decision was made to run 5-1/2" production casing on 3/17/21.

### ROCK TYPES

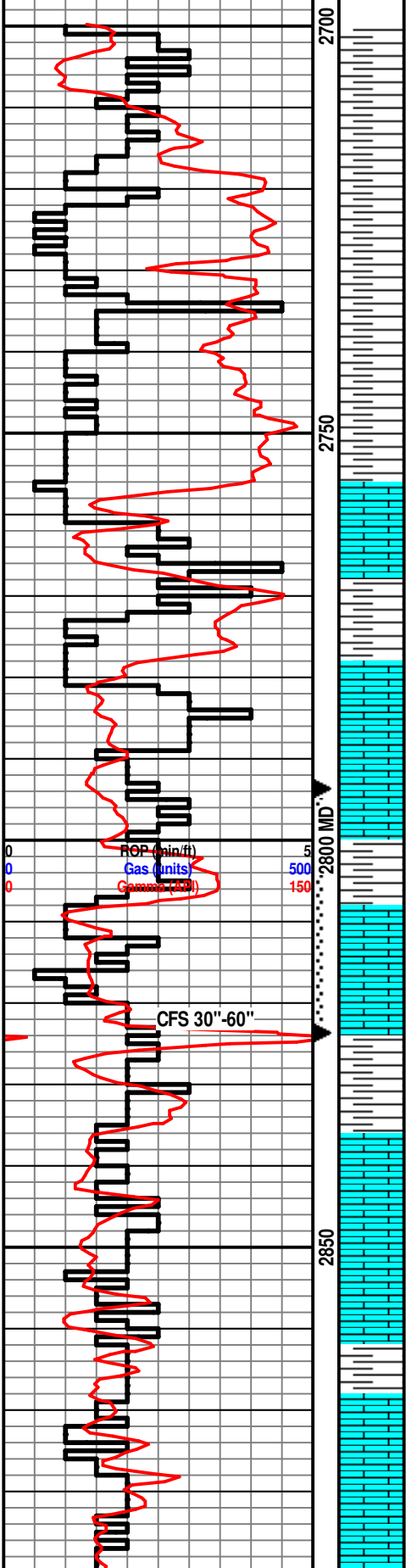
	Anhy		Clyst		Gyp		Mrlst		Shgy
	Bent		Coal		Igne		Salt		Slstst
	Brec		Congl		Lmst		Shale		Ss
	Cht		Dol		Meta		Shcol		Till

### OTHER SYMBOLS

<b>POROSITY</b>	<input type="checkbox"/> Vuggy	<b>ROUNDING</b>	<input type="checkbox"/> Spotted	<b>EVENT</b>
<input type="checkbox"/> Earthy		<input type="checkbox"/> Rounded	<input type="checkbox"/> Ques	<input type="checkbox"/> Rft
<input type="checkbox"/> Fenest	<b>SORTING</b>	<input type="checkbox"/> Subrnd	<input type="checkbox"/> Dead	<input type="checkbox"/> Sidewall
<input type="checkbox"/> Fracture	<input type="checkbox"/> Well	<input type="checkbox"/> Subang		
<input type="checkbox"/> Inter	<input type="checkbox"/> Moderate	<input type="checkbox"/> Angular	<b>INTERVAL</b>	
<input type="checkbox"/> Moldic	<input type="checkbox"/> Poor		<input type="checkbox"/> Core	
<input type="checkbox"/> Organic		<b>OIL SHOW</b>	<input type="checkbox"/> Dst	
<input type="checkbox"/> Pinpoint		<input type="checkbox"/> Even		

Curve Track 1	MD	Lithology	Oil Shows	Geological Descriptions	DST/Mud/Survey																								
ROP (min/ft) ——— Gas (units) - - - - - Gamma (API) ———																													
0 ROP (min/ft) 5 0 Gas (units) 500 0 Gamma (API) 150	2600			The open-hole logging was performed by Mr. Casey Patterson with Gemini Wireline, LLC (Hays, KS). Logs included: Compensated Density Neutron, Dual Induction, and Microresistivity.  Formation tops and datums from the open-hole logs include the following:	Mud Engineer: Kirk Werth  Tester: Spencer Staab																								
	2650			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Formation</th> <th>E-Log</th> <th>Datum</th> </tr> </thead> <tbody> <tr><td>Anhydrite</td><td>1035</td><td>916</td></tr> <tr><td>Topeka</td><td>2778</td><td>-827</td></tr> <tr><td>Heebner</td><td>3032</td><td>-1081</td></tr> <tr><td>Toronto</td><td>3051</td><td>-1100</td></tr> <tr><td>Lansing</td><td>3081</td><td>-1130</td></tr> <tr><td>B/KC</td><td>3340</td><td>-1389</td></tr> <tr><td>Simpson Sand</td><td>3425</td><td>-1474</td></tr> </tbody> </table>	Formation	E-Log	Datum	Anhydrite	1035	916	Topeka	2778	-827	Heebner	3032	-1081	Toronto	3051	-1100	Lansing	3081	-1130	B/KC	3340	-1389	Simpson Sand	3425	-1474	
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Arbuckle	3429	-1478
LTD	3507	-1556



Sh: drk gry

Sh: ala

Sh: lt gry-brn

Ls: tan-gry, fn-sub xln

Sh: lt-drk gry

**Topeka 2781' (-830)**

Ls: tan-gry, fn-sub xln, mostly DNS, chalky

Ls: tan-gry, fn-sub xln, DNS, chalky

Sh: lt gry

Ls: off wh-tan, fn xln, poor-fair int xln porosity, scat pp porosity, scat-fair oil stn, SSFO in cup, sl odor

Sh: drk gry, scat brn

Ls: tan-gry, fn xln, scat int xln porosity, scat foss

Ls: tan-lt gry, fn-sub xln, mostly DNS, scat chert

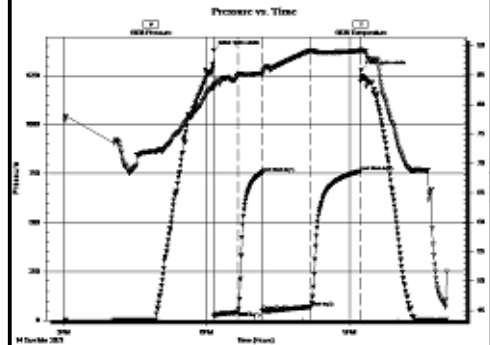
Sh: lt-drk gry

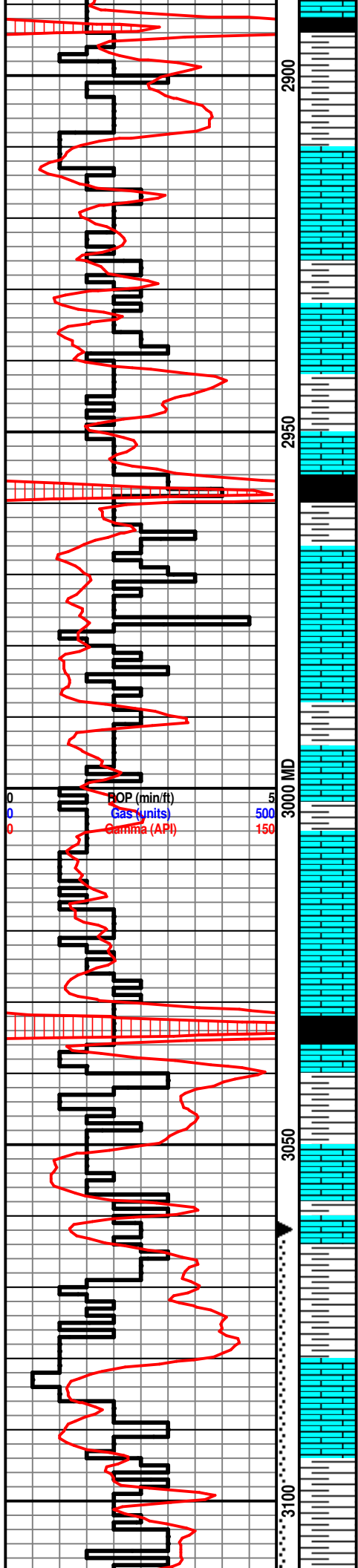
Ls: tan-lt gry, fn xln, mostly DNS, scat foss

Ls: tan-gry, fn-sub xln, DNS, scat chert

Wt: 8.5  
Vis: 54

DST #1 2,794-2,822' Topeka 30' Zone  
30"-30"-60"-60"  
IF: weak blow built to 5", no blow back  
FF: weak blow built to 3.25", no blow back  
100' MCW (35% M, 65% W)  
FP: 21-44, 50-69#  
SIP: 756-762#  
HP: 1,381-1,277#  
BHT: 89





Sh: drk gry-blk

Sh: lt-drk gry, brn

Ls: tan-lt gry, fn xln, scat int xln porosity, scat dead oil stn, scat chert

Sh: lt-drk gry, brn

Ls: off wh-tan, fn xln, scat foss, scat-fair int xln & pp porosity, scat oil stn, fair odor

Sh: lt-drk gry

Sh: drk gry-blk

Ls: off wh-tan, fn xln, scat int xln porosity, mostly barren, scat chalk

Ls: ala

Sh: lt-drk gry

Ls: off wh-tan, fn xln, scat foss, scat-fair int xln & pp porosity, fair oil stn, sl-fair odor, scat chalk

Ls: off wh-tan, fn xln, foss, scat int xln porosity, scat dead oil stn, chalky

**Heebner 3035' (-1084)**

Sh: blk, carb, fissile

Sh: lt-drk gry

**Toronto 3054' (-1103)**

Ls: off wh-tan, fn xln, scat fair int xln porosity, scat chert

Sh: lt-drk gry

Sh: lt-drk gry, scat brn

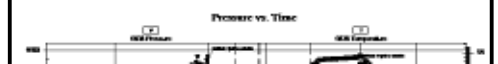
**Lansing 3086' (-1135)**

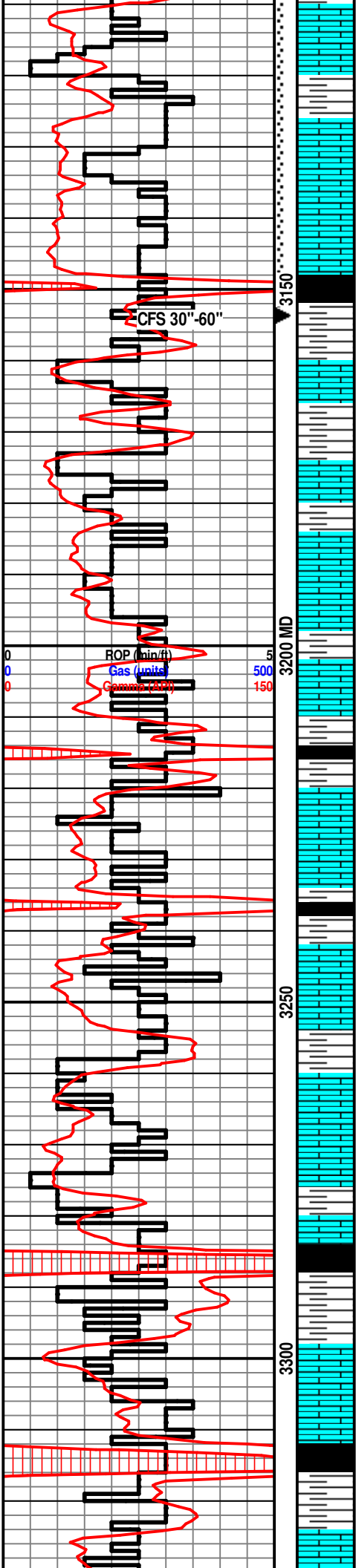
Ls: off wh-tan, fn xln, poor int xln porosity, scat pp porosity, scat lt brn stn, sl odor

Sh: lt-drk gry

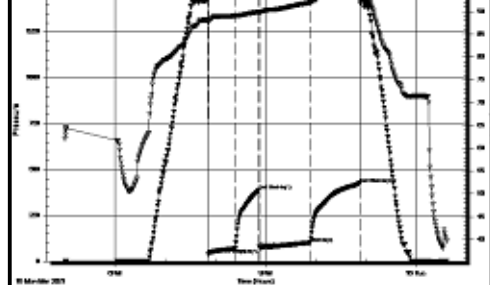
Wt: 8.6  
Vis: 49

DST #2 3,062-3,154' Lansing A-D  
30"-30"-60"-60"  
IF: weak blow built to 3", no blow back  
FF: weak blow built to 4", no blow back  
Rec: 64' G&OCM (5% G, 5% O, 90% M), 63'  
SW&OCGM (1% W, 2% O, 7% G, 90% M), 63' WCM  
(20% W, 80% M)  
FP: 40-70, 77-102#  
SIP: 388-426#  
HP: 1,467-1,426  
BHT: 94

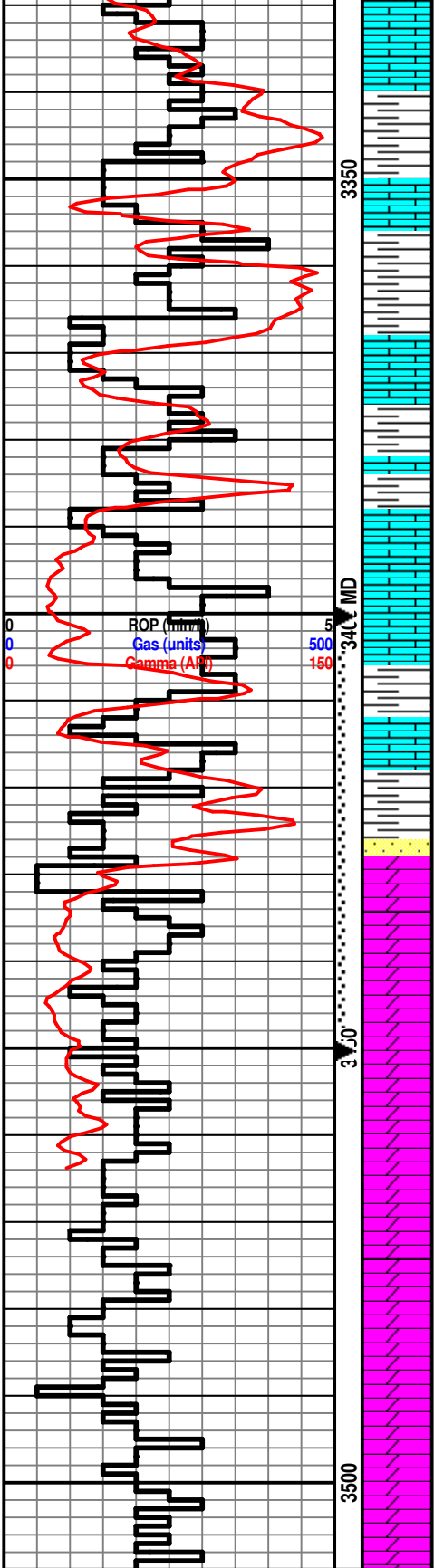




Ls: off wh-tan, foss, fair-good int xln porosity, scat ool, fair ool porosity, fair drk brn oil stn, SSFO, fair odor  
 Sh: lt-drk gry  
 Ls: off wh-tan, fn xln, ool, scat fair int xln & fair ool porosity, scat fair drk brn stn, SSFO, lt-fair odor  
 Ls: off wh-tan, fn xln, scat poor int xln porosity, NSFO  
 Sh: lt-drk gry  
 Ls: off wh-tan, fn xln, foss, mostly DNS  
 Sh: lt-drk gry  
 Ls: off wh-tan, fn xln, scat int xln & pp porosity, scat oil stn, sl odor, scat chert-off wh  
 Ls: off wh-tan, fn xln, scat foss, fair int xln & scat vuggy porosity, drk oil sat on few pcs, sl odor, chalky  
 Ls: tan-gry, fn-sub xln, DNS  
 Sh: drk gry-blk  
 Ls: off wh-tan, fn xln, scat fair int xln porosity, NSFO  
 Sh: lt-drk gry  
 Ls: off wh-tan, fn xln, poor int xln & scat vuggy porosity, scat dead oil stn, chalky  
 Sh: lt-drk gry  
 Ls: off wh-tan, fn xln, scat ool, pr dev ool porosity, fair int xln porosity, fair-good drk oil stn in few pcs, SSFO, sl-fair odor  
 Sh: drk gry-blk  
 Ls: off wh-tan, fn xln, poor-fair int xln porosity, scat brn oil stn, sl odor, chalky  
 Sh: lt-drk gry, brn



Wt: 9  
 Vis: 50



Ls: off wh-tan, fn xln, mostly DNS, NSFO

**B/KC 3345' (-1394)**

Sh: lt-drk gry

Sh: ala

Ls: tan-brn, fn-sub xln, DNS, scat chert-off, scat sh: drk gry

Ls: ala

Ls: tan-brn, fn-sub xln, DNS, scat chert-off wh, scat congl

Sh: gry-grn, waxy

Ls: tan-lt brn-yellow, trip chert

**Simpson Sand 3428' (-1477)**

Ss: qtz, fn grn, sub rnd, well sort, friable, fair-good int grn porosity, drk brn stn, SSFO, fair odor

**Arbuckle 3435' (-1484)**

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

Dolo: off wh-tan, fn xln, fair scat int xln porosity, fair-good oil sat, SSFO, fair odor

Dolo: off wh-tan, fn xln, fair int xln & scat vuggy porosity, sl oil stn, sl odor

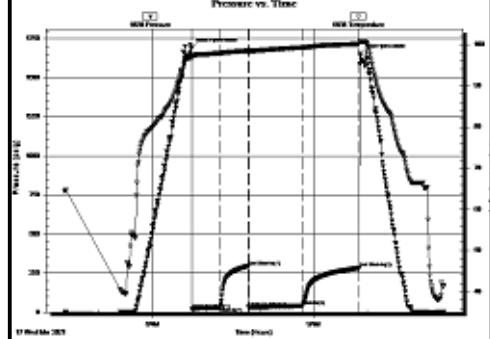
Dolo: off wh-tan-brn, fn xln, poor int xln porosity, chert-off wh

Dolo: off wh-tan-brn, fn-sub xln, mostly DNS, hvy chert-off wh

Dolo: ala

Dolo: off wh-buff, fn-sub xln, DNS, chert-off wh

DST #3 3,400-50' Simp Sd & Top 21' Arbuckle  
30"-30"-60"-60"  
IF: weak blow, built to 2", no blow back  
FF: weak blow, built to 1", no blow back  
Rec: 40' Gassy Oil (15% G, 85% O), 30' OCM (10% O, 90% M)  
FP: 19-31, 34-42#  
SIP: 296-284#  
HP: 1,693-1,653#  
BHT: 101



Survey @ TD - 1/2 degree



## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell KS 67665+0352

ATTN: Austin Klaus

### **Bowlby-Maupin #2**

#### **10-11s-15w Russell,KS**

Start Date: 2021.03.14 @ 15:02:00

End Date: 2021.03.14 @ 23:02:22

Job Ticket #: 66914                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2021.03.18 @ 10:45:31

John O Farmer Inc

10-11s-15w Russell,KS

Bowlby-Maupin #2

DST # 1

Topeka

2021.03.14



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

John O Farmer Inc  
PO Box 352  
Russell KS 67665+0352  
ATTN: Austin Klaus

**10-11s-15w Russell,KS**  
**Bowlby-Maupin #2**  
Job Ticket: 66914 **DST#: 1**  
Test Start: 2021.03.14 @ 15:02:00

## GENERAL INFORMATION:

Formation: **Topeka**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 18:08:47  
Time Test Ended: 23:02:22  
Interval: **2794.00 ft (KB) To 2822.00 ft (KB) (TVD)**  
Total Depth: 2822.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Spencer J Staab  
Unit No: 84  
Reference Elevations: 1951.00 ft (KB)  
1943.00 ft (CF)  
KB to GR/CF: 8.00 ft

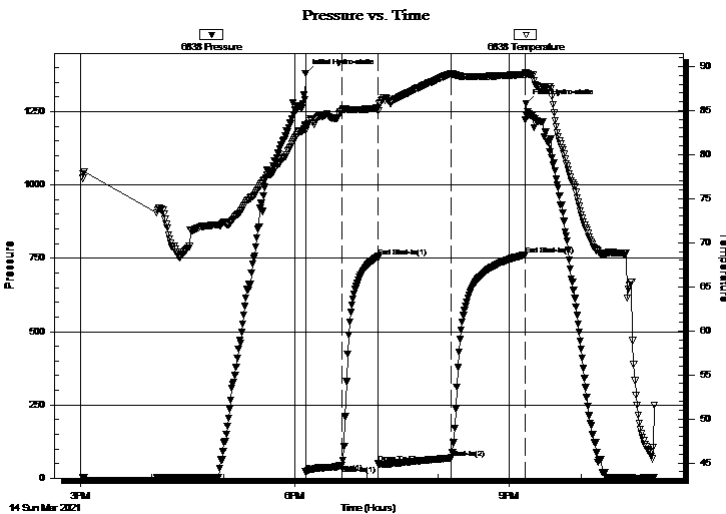
## Serial #: 6838

Inside

Press@RunDepth: 68.80 psig @ 2795.00 ft (KB) Capacity: psig  
Start Date: 2021.03.14 End Date: 2021.03.14 Last Calib.: 2021.03.14  
Start Time: 15:02:01 End Time: 23:02:22 Time On Btm: 2021.03.14 @ 18:08:42  
Time Off Btm: 2021.03.14 @ 21:14:07

TEST COMMENT: 30-IF-Built from surface to 5"  
30-ISI-No Return  
60-FF-Built from surface to 3 1/4"  
60-FSI-No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1381.15	83.34	Initial Hydro-static
1	21.01	82.77	Open To Flow (1)
31	44.13	84.98	Shut-In(1)
61	756.35	85.27	End Shut-In(1)
62	50.04	85.02	Open To Flow (2)
123	68.80	89.19	Shut-In(2)
185	762.29	89.14	End Shut-In(2)
186	1276.95	89.11	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
100.00	MW 35%M 65%W	1.14

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc  
 PO Box 352  
 Russell KS 67665+0352  
 ATTN: Austin Klaus

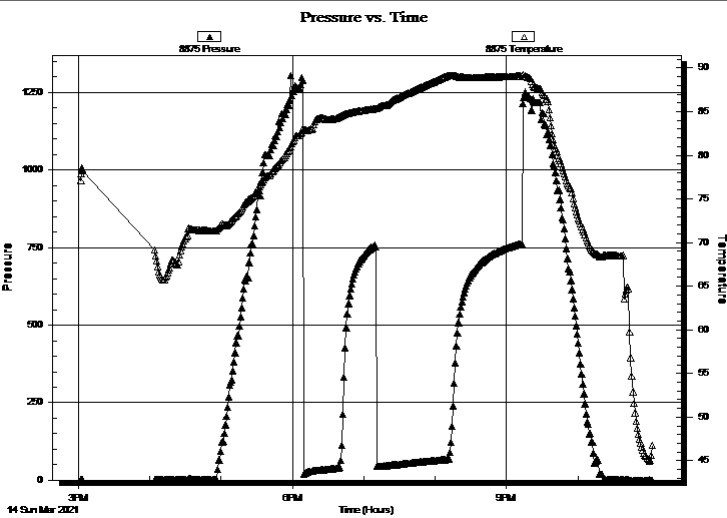
**10-11s-15w Russell,KS**  
**Bowlby-Maupin #2**  
 Job Ticket: 66914 **DST#: 1**  
 Test Start: 2021.03.14 @ 15:02:00

## GENERAL INFORMATION:

Formation: **Topeka**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:08:47  
 Time Test Ended: 23:02:22  
**Interval: 2794.00 ft (KB) To 2822.00 ft (KB) (TVD)**  
 Total Depth: 2822.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Spencer J Staab  
 Unit No: 84  
 Reference Elevations: 1951.00 ft (KB)  
 1943.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8875** **Outside**  
 Press@RunDepth: psig @ 2795.00 ft (KB) Capacity: psig  
 Start Date: 2021.03.14 End Date: 2021.03.14 Last Calib.: 2021.03.14  
 Start Time: 15:02:01 End Time: 23:03:02 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30-IF-Built from surface to 5"  
 30-ISI-No Return  
 60-FF-Built from surface to 3 1/4"  
 60-FSI-No Return



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
100.00	MW 35%M 65%W	1.14

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc  
PO Box 352  
Russell KS 67665+0352  
ATTN: Austin Klaus

**10-11s-15w Russell,KS**  
**Bowlby-Maupin #2**  
Job Ticket: 66914      **DST#: 1**  
Test Start: 2021.03.14 @ 15:02:00

## Tool Information

Drill Pipe:	Length: 2751.00 ft	Diameter: 3.82 inches	Volume: 39.00 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 77000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	2794.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	54.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2769.00	
Change Over Sub	1.00			2770.00	
Shut In Tool	5.00			2775.00	
Hydraulic tool	5.00		Fluid	2780.00	
Gap Sub	5.00			2785.00	
Packer	5.00			2790.00	26.00 Bottom Of Top Packer
Packer	4.00			2794.00	
Stubb	1.00			2795.00	
Recorder	0.00	6838	Inside	2795.00	
Recorder	0.00	8875	Outside	2795.00	
Perforations	24.00			2819.00	
Bullnose	3.00			2822.00	28.00 Bottom Packers & Anchor

**Total Tool Length: 54.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

John O Farmer Inc  
PO Box 352  
Russell KS 67665+0352  
ATTN: Austin Klaus

**10-11s-15w Russell,KS**  
**Bowlby-Maupin #2**  
Job Ticket: 66914      **DST#: 1**  
Test Start: 2021.03.14 @ 15:02:00

### Mud and Cushion Information

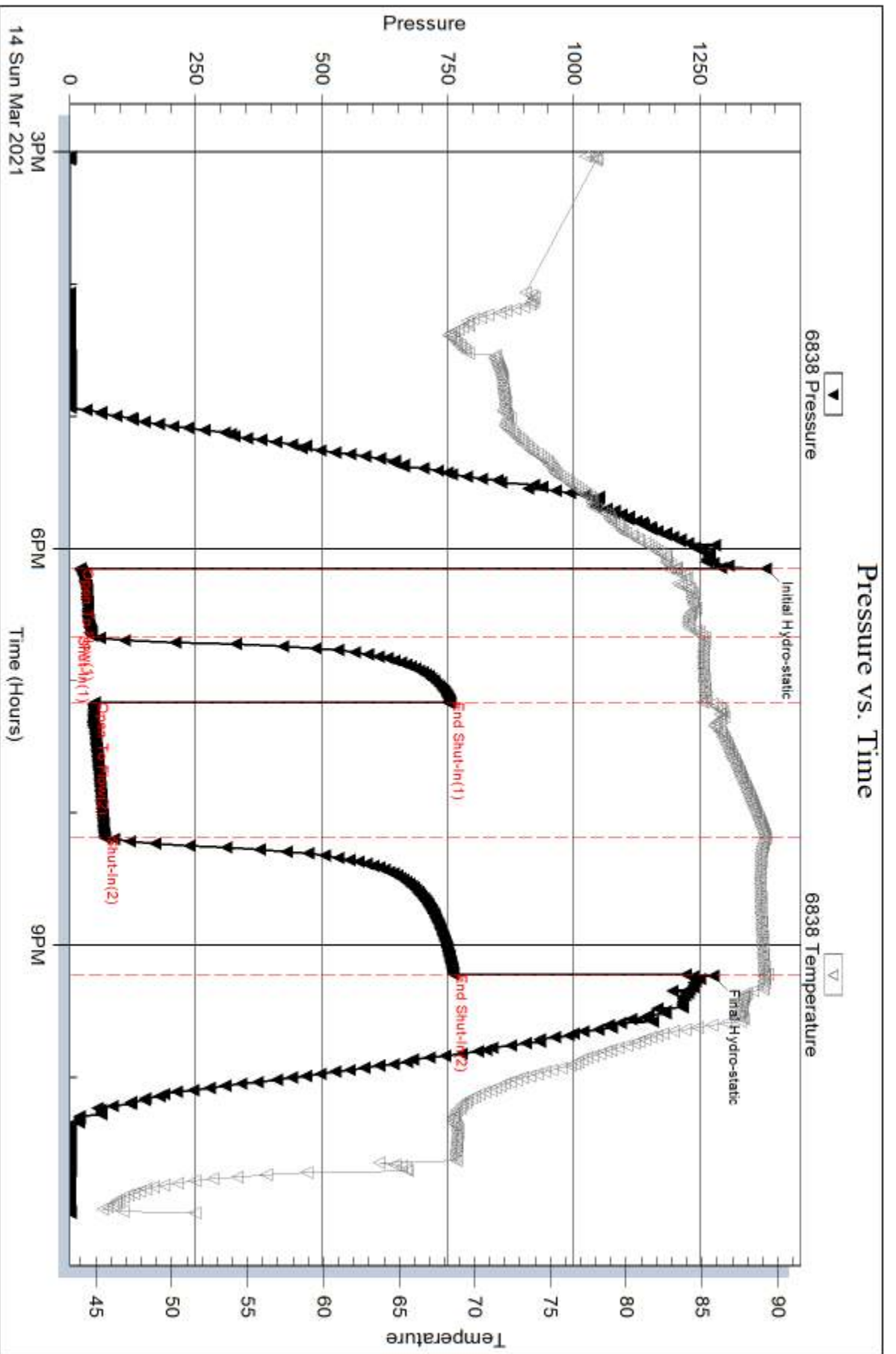
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 8.00 lb/gal	Cushion Length: ft	Water Salinity:	83000 ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1000.00 ppm			
Filter Cake: inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
100.00	MW 35%M 65%W	1.140

Total Length: 100.00 ft      Total Volume: 1.140 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: 1/2#LCM  
RW=.145@45F

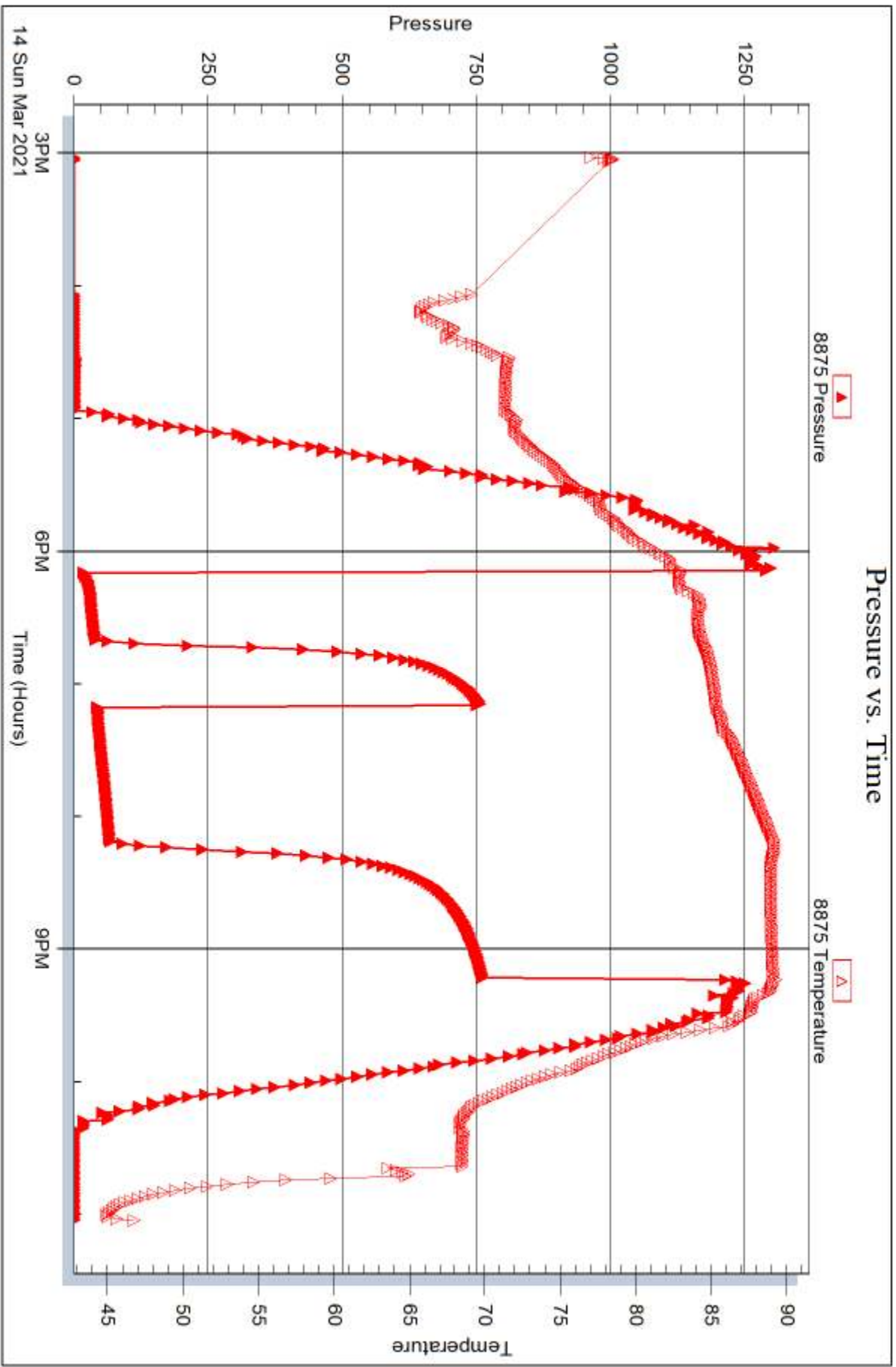


Serial #: 8875

Outside John O Farmer Inc

Bow Iby-Maupin #2

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell KS 67665+0352

ATTN: Austin Klaus

### **Bowlby-Maupin #2**

#### **10-11s-15w Russell,KS**

Start Date: 2021.03.15 @ 17:00:00

End Date: 2021.03.16 @ 00:37:07

Job Ticket #: 66915                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2021.03.18 @ 10:45:03

John O Farmer Inc  
10-11s-15w Russell,KS  
Bowlby-Maupin #2  
DST # 2  
LKC A - C  
2021.03.15



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

John O Farmer Inc  
PO Box 352  
Russell KS 67665+0352  
ATTN: Austin Klaus

**10-11s-15w Russell,KS**  
**Bowlby-Maupin #2**  
Job Ticket: 66915 **DST#: 2**  
Test Start: 2021.03.15 @ 17:00:00

## GENERAL INFORMATION:

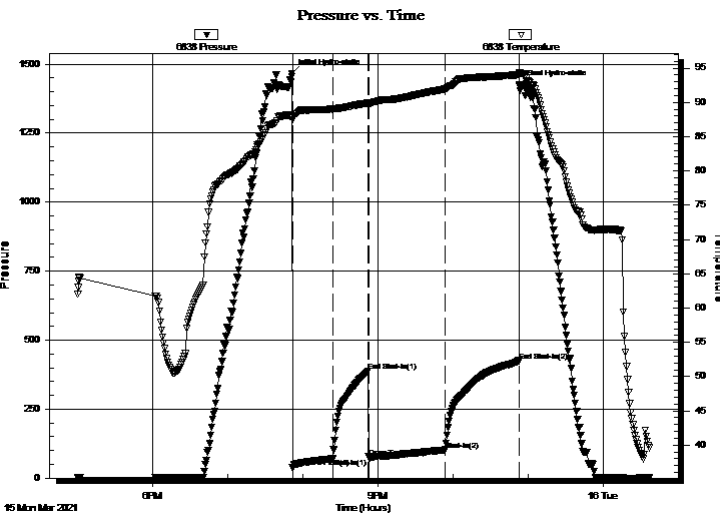
Formation: **LKC A - C**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 19:51:22  
Time Test Ended: 00:37:07  
Interval: **3062.00 ft (KB) To 3154.00 ft (KB) (TVD)**  
Total Depth: 3154.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition:  
Reference Elevations: 1951.00 ft (KB)  
1943.00 ft (CF)  
KB to GR/CF: 8.00 ft

## Serial #: 6838

Inside

Press@RunDepth: 102.46 psig @ 3065.00 ft (KB) Capacity: psig  
Start Date: 2021.03.15 End Date: 2021.03.16 Last Calib.: 2021.03.16  
Start Time: 17:00:01 End Time: 00:37:07 Time On Btm: 2021.03.15 @ 19:51:07  
Time Off Btm: 2021.03.15 @ 22:52:32

TEST COMMENT: 30-IF-8 mins to slide 8' Lost 10' Mud Bled off Blow Built to 3"  
30-ISI-No Return  
60-FF-Surface to 4"  
60-FSI-No Return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1466.76	87.84	Initial Hydro-static
1	39.66	87.48	Open To Flow (1)
33	70.38	89.04	Shut-In(1)
61	388.47	89.87	End Shut-In(1)
62	76.91	89.83	Open To Flow (2)
123	102.46	91.96	Shut-In(2)
182	425.68	94.05	End Shut-In(2)
182	1425.73	94.37	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
63.00	WCM 20%W 80%M	0.62
63.00	GVSWCM 7%G 1%W 2%O 90%M	0.89
64.00	GSOCM 5%G 5%O 90%M	0.91

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc  
PO Box 352  
Russell KS 67665+0352  
ATTN: Austin Klaus

**10-11s-15w Russell,KS**  
**Bowlby-Maupin #2**  
Job Ticket: 66915 **DST#: 2**  
Test Start: 2021.03.15 @ 17:00:00

## Tool Information

Drill Pipe:	Length: 3032.00 ft	Diameter: 3.82 inches	Volume: 42.98 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 77000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 8.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3062.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	92.00 ft			
Tool Length:	118.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3037.00	
Change Over Sub	1.00			3038.00	
Shut In Tool	5.00			3043.00	
Hydraulic tool	5.00		Fluid	3048.00	
Gap Sub	5.00			3053.00	
Packer	5.00			3058.00	26.00 Bottom Of Top Packer
Packer	4.00			3062.00	
Stubb	1.00			3063.00	
Perforations	1.00			3064.00	
Change Over Sub	1.00			3065.00	
Recorder	0.00	6838	Inside	3065.00	
Recorder	0.00	8875	Inside	3065.00	
Drill Pipe	63.00			3128.00	
Change Over Sub	1.00			3129.00	
Perforations	22.00			3151.00	
Bullnose	3.00			3154.00	92.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>118.00</b>				





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

John O Farmer Inc  
PO Box 352  
Russell KS 67665+0352  
ATTN: Austin Klaus

**10-11s-15w Russell,KS**  
**Bowlby-Maupin #2**  
Job Ticket: 66915      **DST#: 2**  
Test Start: 2021.03.15 @ 17:00:00

### 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:	61000 ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.78 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: inches			

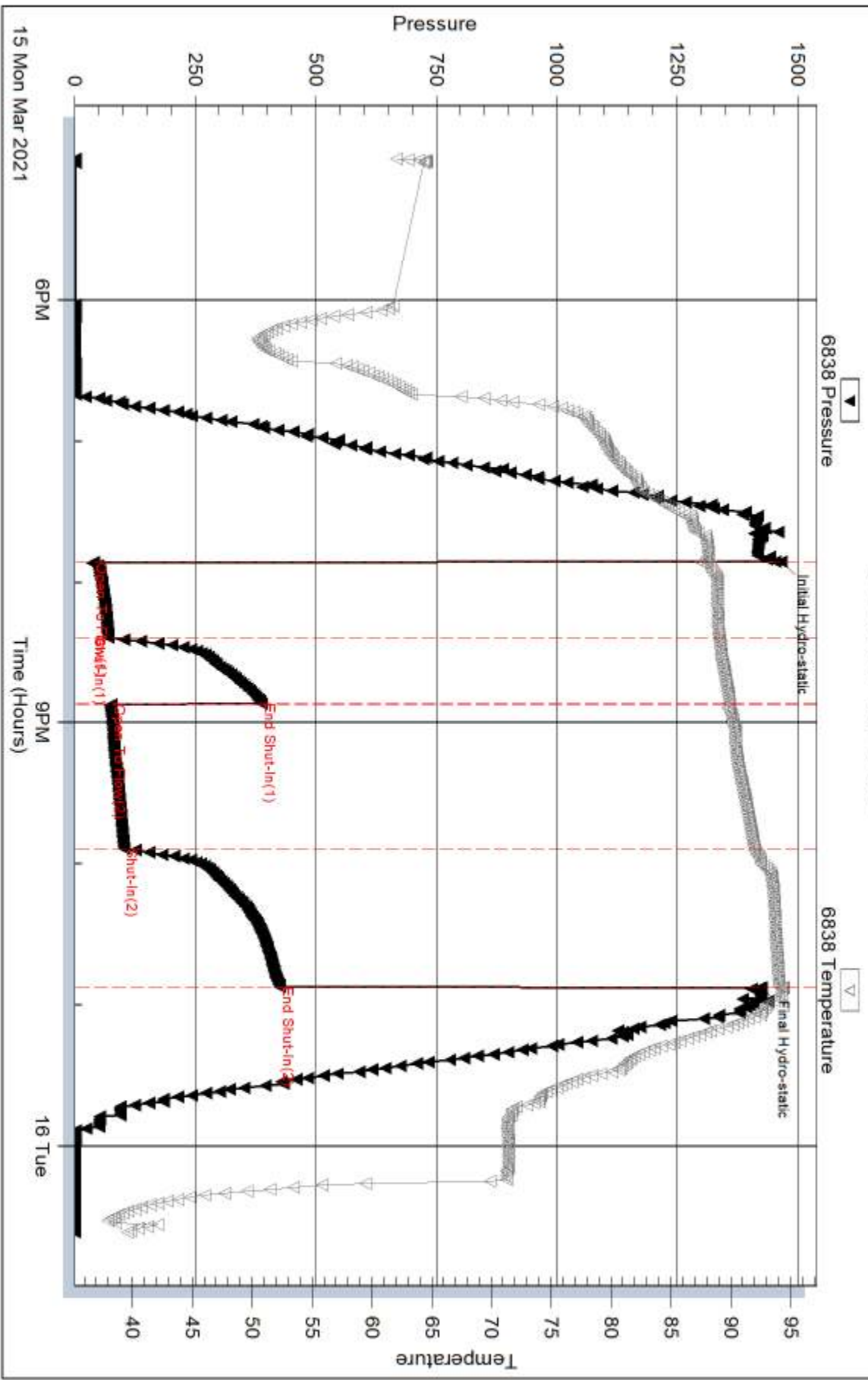
### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	WCM 20%W 80%M	0.615
63.00	GVSWCM 7%G 1%W 2%O 90%M	0.893
64.00	GSOCM 5%G 5%O 90%M	0.907

Total Length: 190.00 ft      Total Volume: 2.415 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: 1/2#LCM  
RW=.218 @ 40F

### Pressure vs. Time



Serial #: 8875

Inside

John O Farmer Inc

Bow Iby-Maupin #2

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 66915

Printed: 2021.03.18 @ 10:45:04



## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell KS 67665+0352

ATTN: Austin Klaus

### **Bowlby-Maupin #2**

#### **10-11s-15w Russell,KS**

Start Date: 2021.03.17 @ 04:22:00

End Date: 2021.03.17 @ 11:25:47

Job Ticket #: 66916                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2021.03.18 @ 10:44:30

John O Farmer Inc

10-11s-15w Russell,KS

Bowlby-Maupin #2

DST # 3

Sand - Arbuckle

2021.03.17



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

John O Farmer Inc  
PO Box 352  
Russell KS 67665+0352  
ATTN: Austin Klaus

**10-11s-15w Russell,KS**  
**Bowlby-Maupin #2**  
Job Ticket: 66916 **DST#: 3**  
Test Start: 2021.03.17 @ 04:22:00

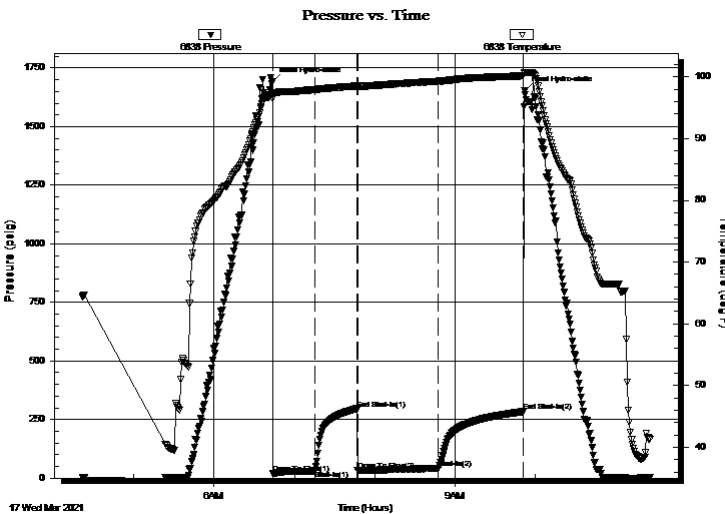
## GENERAL INFORMATION:

Formation: **Sand - Arbuckle**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 06:43:47  
Time Test Ended: 11:25:47  
Interval: **3400.00 ft (KB) To 3450.00 ft (KB) (TVD)**  
Total Depth: 3510.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Reference Elevations: 1951.00 ft (KB)  
1943.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 6838** **Inside**  
Press@RunDepth: 41.91 psig @ 3403.00 ft (KB) Capacity: psig  
Start Date: 2021.03.17 End Date: 2021.03.17 Last Calib.: 2021.03.17  
Start Time: 04:22:01 End Time: 11:25:47 Time On Btm: 2021.03.17 @ 06:43:42  
Time Off Btm: 2021.03.17 @ 09:52:02

TEST COMMENT: 30-IF-Surface to 2"  
30-ISI-No Return  
60-FF-Surface to 1"  
60-FSI-No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1692.72	97.28	Initial Hydro-static
1	18.58	96.46	Open To Flow (1)
32	31.06	97.93	Shut-In(1)
64	296.45	98.50	End Shut-In(1)
64	33.96	98.47	Open To Flow (2)
124	41.91	99.28	Shut-In(2)
188	284.27	100.20	End Shut-In(2)
189	1652.86	100.71	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	OCM 10%O 90%M	0.15
40.00	GO 15%G 85%O	0.57

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

John O Farmer Inc  
 PO Box 352  
 Russell KS 67665+0352  
 ATTN: Austin Klaus

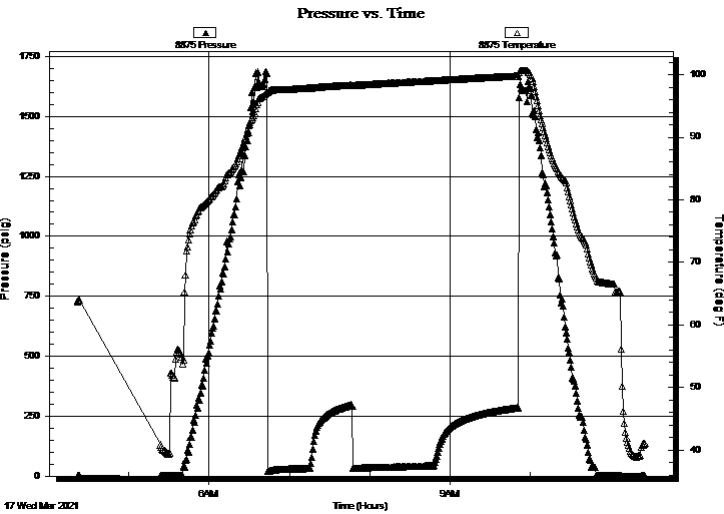
**10-11s-15w Russell, KS**  
**Bowlby-Maupin #2**  
 Job Ticket: 66916 **DST#: 3**  
 Test Start: 2021.03.17 @ 04:22:00

## GENERAL INFORMATION:

Formation: **Sand - Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 06:43:47  
 Time Test Ended: 11:25:47  
 Interval: **3400.00 ft (KB) To 3450.00 ft (KB) (TVD)**  
 Total Depth: 3510.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Spencer J Staab  
 Unit No: 84  
 Reference Elevations: 1951.00 ft (KB)  
 1943.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8875 Inside**  
 Press@RunDepth: psig @ 3403.00 ft (KB) Capacity: psig  
 Start Date: 2021.03.17 End Date: 2021.03.17 Last Calib.: 2021.03.17  
 Start Time: 04:22:01 End Time: 11:25:47 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 30-IF-Surface to 2"  
 30-ISI-No Return  
 60-FF-Surface to 1"  
 60-FSI-No Return



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	OCM 10%O 90%M	0.15
40.00	GO 15%G 85%O	0.57

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

John O Farmer Inc  
PO Box 352  
Russell KS 67665+0352  
  
ATTN: Austin Klaus

**10-11s-15w Russell, KS**  
**Bowlby-Maupin #2**  
Job Ticket: 66916      **DST#: 3**  
Test Start: 2021.03.17 @ 04:22:00

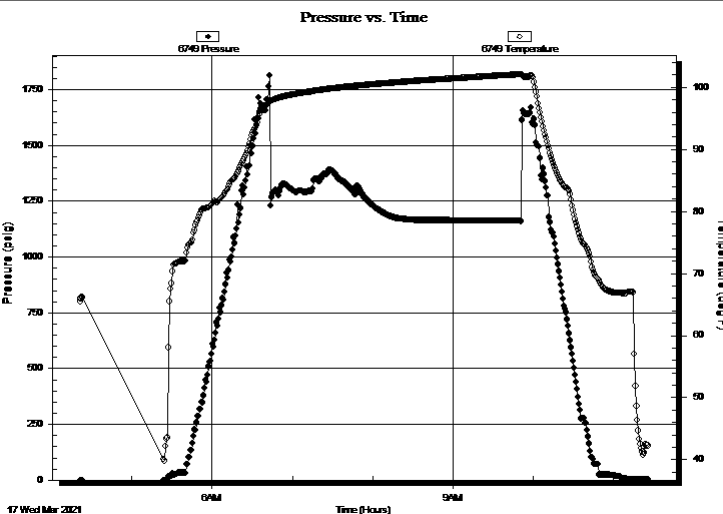
### GENERAL INFORMATION:

Formation: **Sand - Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 06:43:47  
 Time Test Ended: 11:25:47  
 Interval: **3400.00 ft (KB) To 3450.00 ft (KB) (TVD)**  
 Total Depth: 3510.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Spencer J Staab  
 Unit No: 84  
 Reference Elevations: 1951.00 ft (KB)  
 1943.00 ft (CF)  
 KB to GR/CF: 8.00 ft

### Serial #: 6749 Below (Straddle)

Press@RunDepth: psig @ 3472.00 ft (KB) Capacity: psig  
 Start Date: 2021.03.17 End Date: 2021.03.17 Last Calib.: 2021.03.17  
 Start Time: 04:22:01 End Time: 11:25:47 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 30-IF-Surface to 2"  
 30-ISI-No Return  
 60-FF-Surface to 1"  
 60-FSI-No Return



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
30.00	OCM 10%O 90%M	0.15
40.00	GO 15%G 85%O	0.57

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc  
PO Box 352  
Russell KS 67665+0352  
ATTN: Austin Klaus

**10-11s-15w Russell,KS**  
**Bowlby-Maupin #2**  
Job Ticket: 66916 **DST#: 3**  
Test Start: 2021.03.17 @ 04:22:00

## Tool Information

Drill Pipe:	Length: 3348.00 ft	Diameter: 3.82 inches	Volume: 47.46 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3400.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	110.00 ft			
Tool Length:	136.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3375.00	
Change Over Sub	1.00			3376.00	
Shut In Tool	5.00			3381.00	
Hydraulic tool	5.00		Fluid	3386.00	
Gap Sub	5.00			3391.00	
Packer	5.00			3396.00	26.00 Bottom Of Top Packer
Packer	4.00			3400.00	
Stubb	1.00			3401.00	
Perforations	1.00			3402.00	
Change Over Sub	1.00			3403.00	
Recorder	0.00	6838	Inside	3403.00	
Recorder	0.00	8875	Inside	3403.00	
Drill Pipe	32.00			3435.00	
Change Over Sub	1.00			3436.00	
Perforations	9.00			3445.00	
blank Off Sub	1.00			3446.00	
T. Str. Packer	4.00			3450.00	
stubb	1.00			3451.00	
Perforations	20.00			3471.00	
Change Over Sub	1.00			3472.00	
Recorder	0.00	6749	Below	3472.00	
Drill Pipe	32.00			3504.00	
Change Over Sub	1.00			3505.00	
Perforations	2.00			3507.00	
Bullnose	3.00			3510.00	110.00 Bottom Packers & Anchor

**Total Tool Length: 136.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer Inc  
PO Box 352  
Russell KS 67665+0352  
ATTN: Austin Klaus

**10-11s-15w Russell,KS**  
**Bowlby-Maupin #2**  
Job Ticket: 66916      **DST#: 3**  
Test Start: 2021.03.17 @ 04:22:00

## Mud and Cushion Information

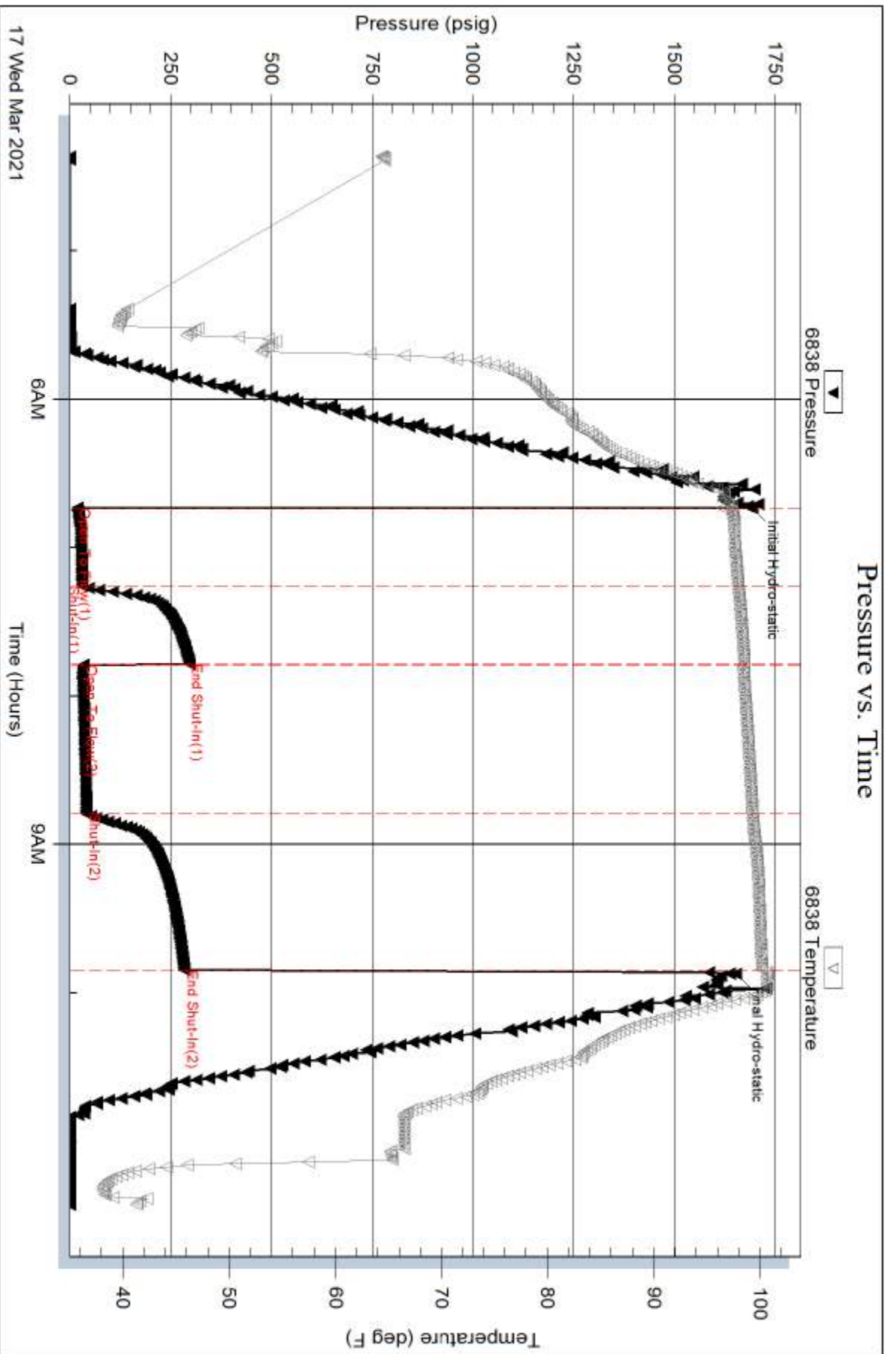
Mud Type: Gel Chem	Cushion Type:	Oil API: 26 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl	
Water Loss: 9.59 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 5000.00 ppm		
Filter Cake: inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	OCM 10%O 90%M	0.148
40.00	GO 15%G 85%O	0.567

Total Length: 70.00 ft      Total Volume: 0.715 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: 1/4#LCM



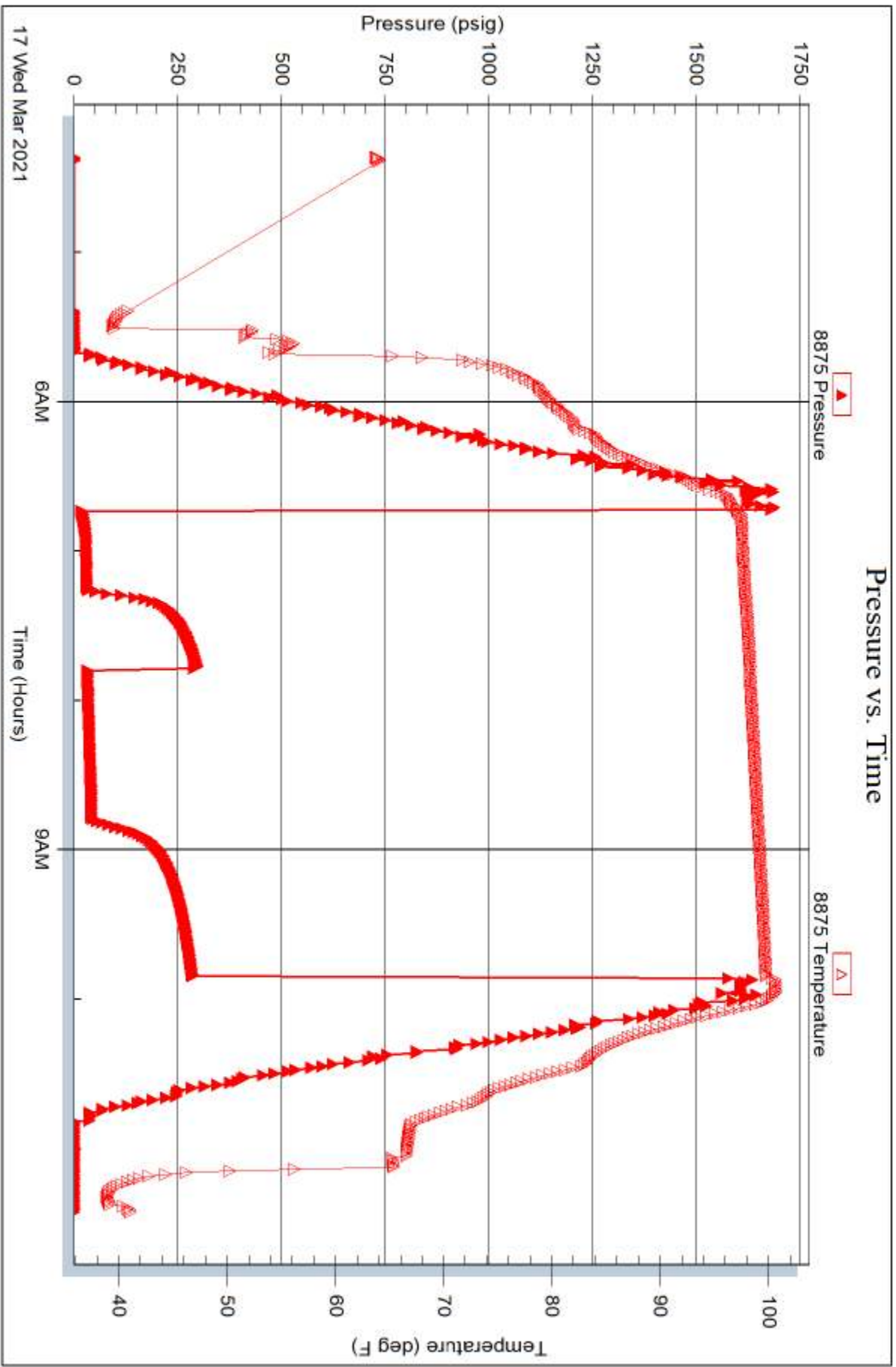
Serial #: 8875

Inside

John O Farmer Inc

Bow Iby-Maupin #2

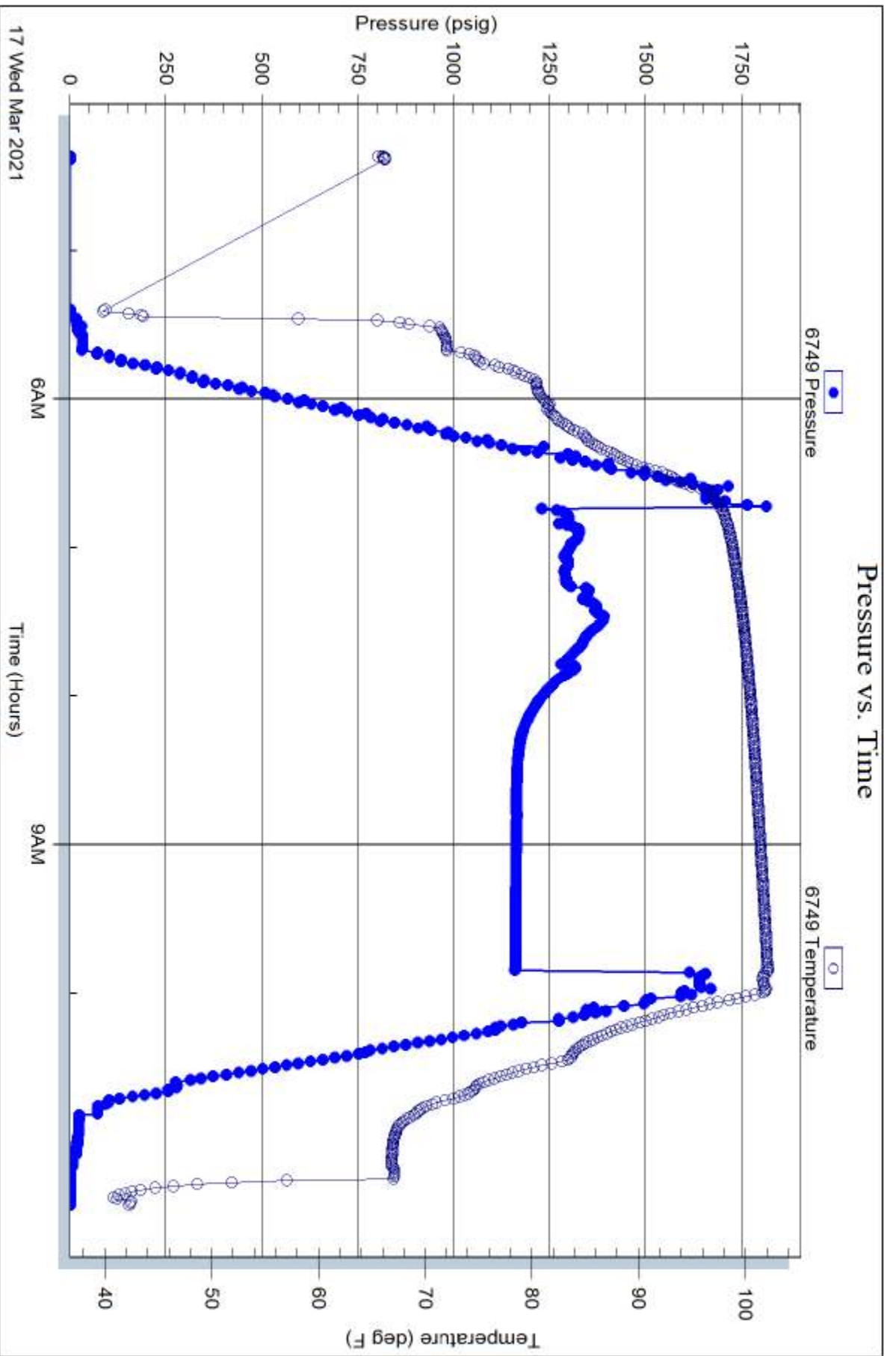
DST Test Number: 3

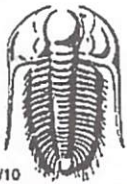


Trilobite Testing, Inc

Ref. No: 66916

Printed: 2021.03.18 @ 10:44:31





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 66914

Well Name & No. Bawly - Maupin #2 Test No. 1 Date 03/14/2021  
 Company John O. Farmer Inc Elevation 1951 KB 1943 GL  
 Address 370 W Wichita Ave PO BOX 352 Russell KS 67665-7035  
 Co. Rep / Geo. Austin Klaus Rig Discovery #4  
 Location: Sec. 10 Twp 11A Rge. 15w Co. Russell State Ks

Interval Tested 2794' - 2822' Zone Tested Topeka  
 Anchor Length 28' Drill Pipe Run 2751' Mud Wt. 8.5  
 Top Packer Depth 2789' Drill Collars Run 30' Vis 54  
 Bottom Packer Depth 2794' Wt. Pipe Run - WL 8  
 Total Depth 2822' Chlorides 1000 ppm System LCM 1/2#

Blow Description 17- Built from surface to 3"  
1SD - No Return  
17- Built from surface to 3 1/4"  
1SD - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>100'</u>	<u>MW</u>		<u>65</u>	<u>35</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 100' BHT 89° Gravity - API RW 145 @ 45 ° F Chlorides 88,000 ppm  
 (A) Initial Hydrostatic 1381  Test 1200 T-On Location 14:30  
 (B) First Initial Flow 21  Jars \_\_\_\_\_ T-Started 15:02  
 (C) First Final Flow 44  Safety Joint \_\_\_\_\_ T-Open 18:07  
 (D) Initial Shut-In 756  Circ Sub \_\_\_\_\_ T-Pulled 21:07  
 (E) Second Initial Flow 50  Hourly Standby \_\_\_\_\_ T-Out 23:01  
 (F) Second Final Flow 68  Mileage 7027 87.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 762  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1276  Straddle \_\_\_\_\_  EM Tool 350  
 Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 60  
 Final Shut-In 60  
 Sub Total 1287.50 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Spencer J. Staal Thanks!  
 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.

785-259-0056



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 66915

Well Name & No. Bowdly - Maupin #2 Test No. 2 Date 03/15/2021  
 Company John O. Farmer Inc. Elevation 1951 KB 1943 GL  
 Address 370 W Wichita Ave PO BOX 352 Russell Ks 67665-0352  
 Co. Rep / Geo. Austin Klaus Rig Discovery #4  
 Location: Sec. 10 Twp 11s Rge. 15w Co. Russell State Ks

Interval Tested 3062' - 3154' Zone Tested LHC 'a-c'  
 Anchor Length 92' Drill Pipe Run 3032' Mud Wt. 8.6  
 Top Packer Depth 3057' Drill Collars Run 30' Vis 49  
 Bottom Packer Depth 3062' Wt. Pipe Run - WL 8.8  
 Total Depth 3154' Chlorides 4000 ppm System LCM 1/2#

Blow Description 77- Took 8 mins to slide 8ft; Bled off blow; lost 10ft mud; Built 103"  
ISA - No Return  
77- Surface to 4"  
78D - No Return

Rec	Feet of	%gas	%oil	%water	%mud
63'	UCM		20	80	
63'	GVSWCOM	7	2	1	90
64'	JSOCM	5	5		90

Rec Total 190' BHT 94° Gravity - API RW .218 @ 40 °F Chlorides 61,000 ppm  
 Test 1200 T-On Location 15:10  
 Jars \_\_\_\_\_ T-Started 17:00  
 Safety Joint \_\_\_\_\_ T-Open 19:49  
 Circ Sub \_\_\_\_\_ T-Pulled 22:49  
 Hourly Standby \_\_\_\_\_ T-Out 00:35 03/16/2021  
 Mileage 70 RT 87.50 Comments had to short trip  
 Sampler \_\_\_\_\_  
 Straddle \_\_\_\_\_  EM Tool 350  
 Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Sub Total 0  
 Accessibility \_\_\_\_\_ Total 1287.50  
 Sub Total 1287.50 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Spencer J. Frank Thanks!  
 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.  
 785-259-0056



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 66916

Well Name & No. Bowlby - Maupin #2 Test No. 3 Date 03/17/2021  
 Company John O. Farmer Inc Elevation 1951 KB 1943 GL  
 Address 370 W. Wichita Ave PO BOX 352 Russell KS 67665-0352  
 Co. Rep / Geo. Austin Klaus Rig Discovery #4  
 Location: Sec. 10 Twp 11S Rge. 15W Co. Russell State KS

Interval Tested 3400' - 3450' 60% oil Zone Tested Sand + Carb  
 Anchor Length 50' Drill Pipe Run \_\_\_\_\_ Mud Wt. 9.0  
 Top Packer Depth 3400' Drill Collars Run 30 Vis 50  
 Bottom Packer Depth 3450' Wt. Pipe Run — WL 9.6  
 Total Depth 3510' Chlorides 5000 ppm System LCM 1/4 #

Blow Description 27 - Surface to 2"  
50 - No Return  
77 - Surface to 1"  
72 - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>30'</u>	<u>OCM</u>	<u>10</u>		<u>90</u>	
<u>40'</u>	<u>GO</u>	<u>15</u>	<u>85</u>		
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

Rec Total 70' BHT 100° Gravity 26° API RW — @ — °F Chlorides — ppm  
 (A) Initial Hydrostatic 1692  Test 1200 T-On Location 03:17  
 (B) First Initial Flow 18  Jars \_\_\_\_\_ T-Started 04:22  
 (C) First Final Flow 31  Safety Joint \_\_\_\_\_ T-Open 06:41  
 (D) Initial Shut-In 296  Circ Sub \_\_\_\_\_ T-Pulled 09:41  
 (E) Second Initial Flow 33  Hourly Standby \_\_\_\_\_ T-Out 11:23  
 (F) Second Final Flow 41  Mileage 70K7 87.50 Comments loaded after test  
 (G) Final Shut-In 284  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1652  Straddle 600  EM Tool 350

Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  Ruined Packer 320  
 Final Flow 60  Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Shut-In 60  Day Standby \_\_\_\_\_ Sub Total 320  
 Accessibility \_\_\_\_\_ Total 2207.50  
 Sub Total 1887.50 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ 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.

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