

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

CM (Coal Bed Methane)

Cathodic  Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

Deepening  Re-perf.  Conv. to EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

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

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

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

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

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

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

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

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	JEAN 'B' 1-8
Doc ID	1673351

All Electric Logs Run

DIL
DUCP
MEL
BHCS





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300  
Wichita, KS 67202

ATTN: Larry Nicholson

**Jean 'B' #1-8**

**8-1s-37w Cheyenne KS**

Start Date: 2022.09.11 @ 01:55:00

End Date: 2022.09.11 @ 09:55:21

Job Ticket #: 68993                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2022.09.16 @ 10:10:13



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**8-1s-37w Cheyenne KS**

250 N. Water STE 300  
Wichita, KS 67202

**Jean 'B' #1-8**

Job Ticket: 68993

**DST#: 1**

ATTN: Larry Nicholson

Test Start: 2022.09.11 @ 01:55:00

## GENERAL INFORMATION:

Formation: **LKC "A - D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:16:21

Time Test Ended: 09:55:21

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 67

**Interval: 4108.00 ft (KB) To 4214.00 ft (KB) (TVD)**

Reference Elevations: 3188.00 ft (KB)

Total Depth: 4214.00 ft (KB) (TVD)

3183.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6771**

**Inside**

Press@RunDepth: 27.47 psig @ 4109.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.09.11

End Date:

2022.09.11

Last Calib.:

2022.09.11

Start Time:

01:55:01

End Time:

09:55:21

Time On Btm:

2022.09.11 @ 05:16:06

Time Off Btm:

2022.09.11 @ 08:19:51

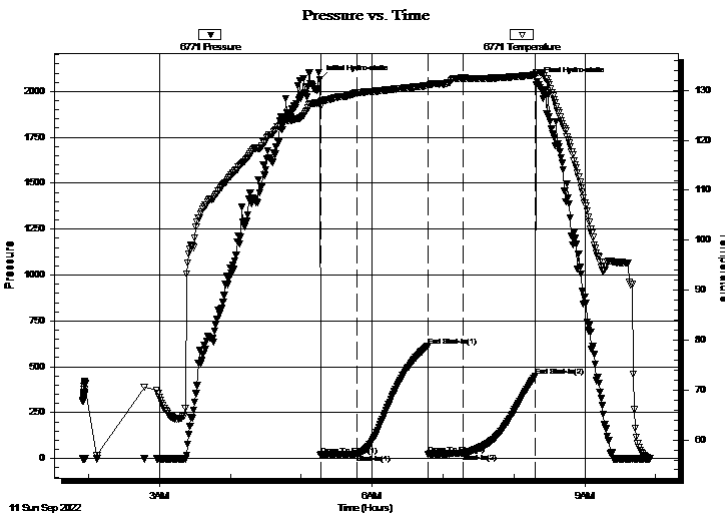
**TEST COMMENT:** 30 - IF: 1/4" Blow at open, built to and stayed at 3/4"

60 - IS: No blow

30 - FF: No blow

60 - FS: No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2065.11	127.59	Initial Hydro-static
1	18.61	126.70	Open To Flow (1)
31	23.16	129.48	Shut-In(1)
91	613.36	130.96	End Shut-In(1)
92	24.63	131.01	Open To Flow (2)
121	27.47	132.45	Shut-In(2)
182	450.00	133.05	End Shut-In(2)
184	2055.23	133.60	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud w /trace oil 100%m	0.10

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**8-1s-37w Cheyenne KS**

250 N. Water STE 300  
Wichita, KS 67202

**Jean 'B' #1-8**

Job Ticket: 68993

**DST#: 1**

ATTN: Larry Nicholson

Test Start: 2022.09.11 @ 01:55:00

## GENERAL INFORMATION:

Formation: **LKC "A - D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:16:21

Time Test Ended: 09:55:21

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 67

**Interval: 4108.00 ft (KB) To 4214.00 ft (KB) (TVD)**

Reference Elevations: 3188.00 ft (KB)

Total Depth: 4214.00 ft (KB) (TVD)

3183.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8367 Outside**

Press@RunDepth: psig @ 4109.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.09.11 End Date: 2022.09.11

Last Calib.: 2022.09.11

Start Time: 01:55:01 End Time: 09:55:06

Time On Btm:

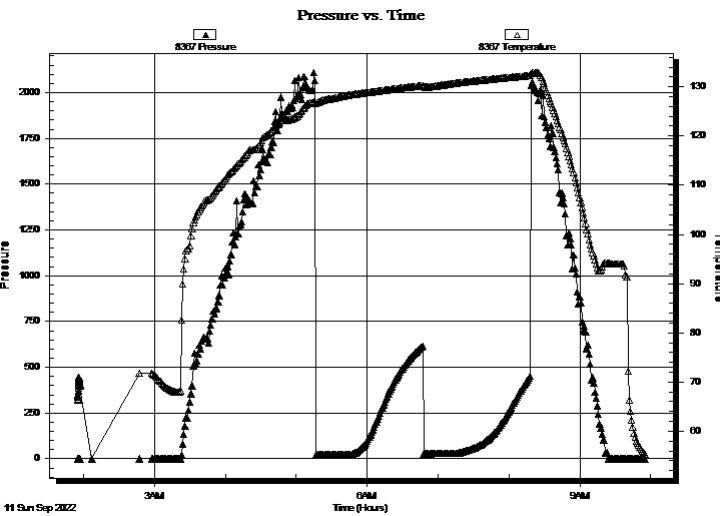
Time Off Btm:

**TEST COMMENT:** 30 - IF: 1/4" Blow at open, built to and stayed at 3/4"

60 - IS: No blow

30 - FF: No blow

60 - FS: No blow



## PRESSURE SUMMARY

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

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
20.00	Mud w /trace oil 100%m	0.10

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co., Inc.

**8-1s-37w Cheyenne KS**

250 N. Water STE 300  
Wichita, KS 67202

**Jean 'B' #1-8**

Job Ticket: 68993

**DST#: 1**

ATTN: Larry Nicholson

Test Start: 2022.09.11 @ 01:55:00

## Tool Information

Drill Pipe:	Length: 3923.00 ft	Diameter: 3.80 inches	Volume: 55.03 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 55.92 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4108.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	106.00 ft			
Tool Length:	139.00 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			4076.00	
Shut In Tool	5.00			4081.00	
Hydraulic tool	5.00			4086.00	
Jars	5.00			4091.00	
EM Tool	4.00			4095.00	
Safety Joint	3.00			4098.00	
Packer	5.00			4103.00	33.00 Bottom Of Top Packer
Packer	5.00			4108.00	
Stubb	1.00			4109.00	
Recorder	0.00	6771	Inside	4109.00	
Recorder	0.00	8367	Outside	4109.00	
Perforations	5.00			4114.00	
Blank Spacing	96.00			4210.00	
Perforations	1.00			4211.00	
Bullnose	3.00			4214.00	106.00 Bottom Packers & Anchor

**Total Tool Length: 139.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co., Inc.

**8-1s-37w Cheyenne KS**

250 N. Water STE 300  
Wichita, KS 67202

**Jean 'B' #1-8**

Job Ticket: 68993

**DST#: 1**

ATTN: Larry Nicholson

Test Start: 2022.09.11 @ 01:55:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Mud w /trace oil 100%m	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

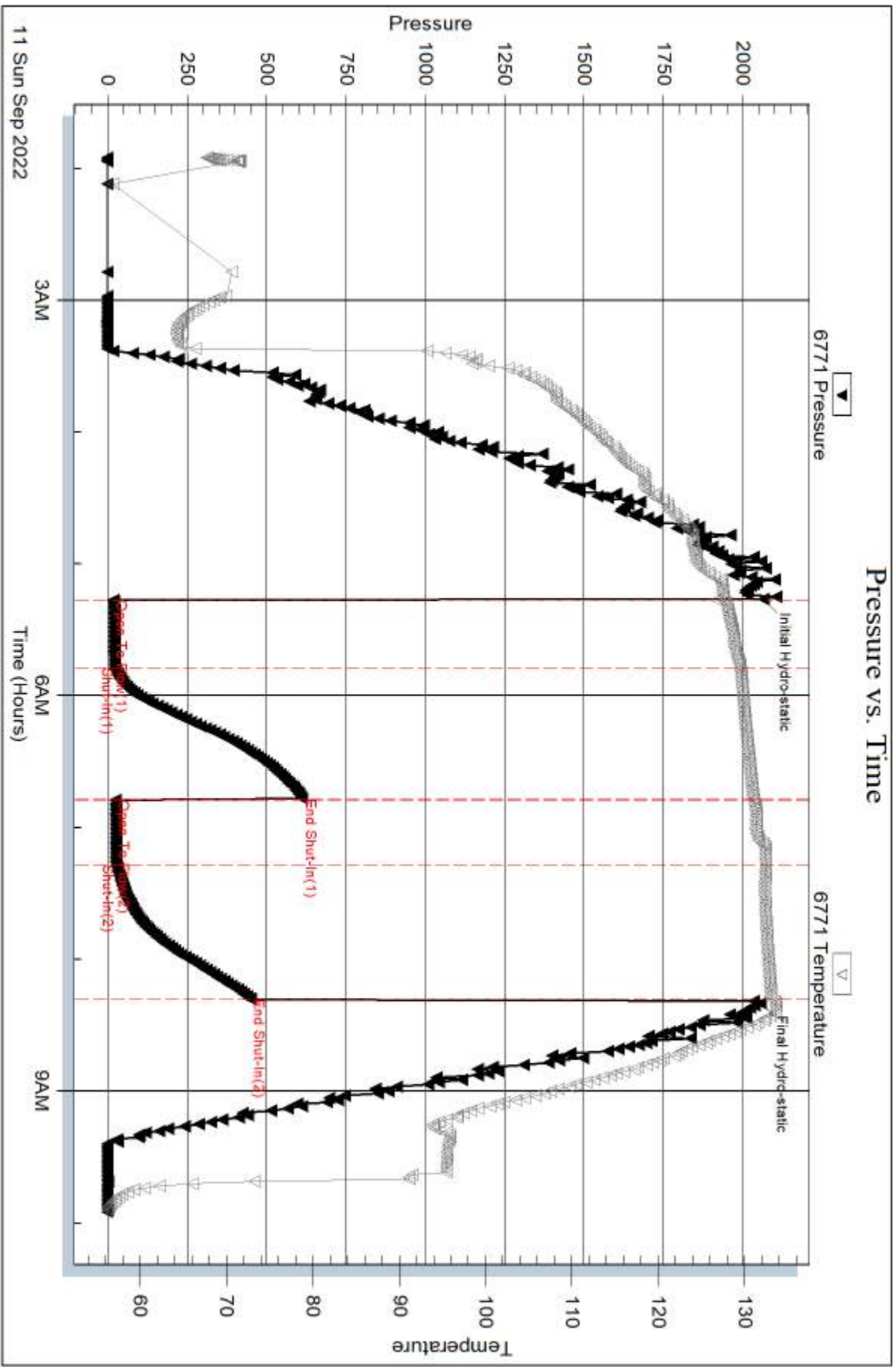
Num Gas Bombs: 0

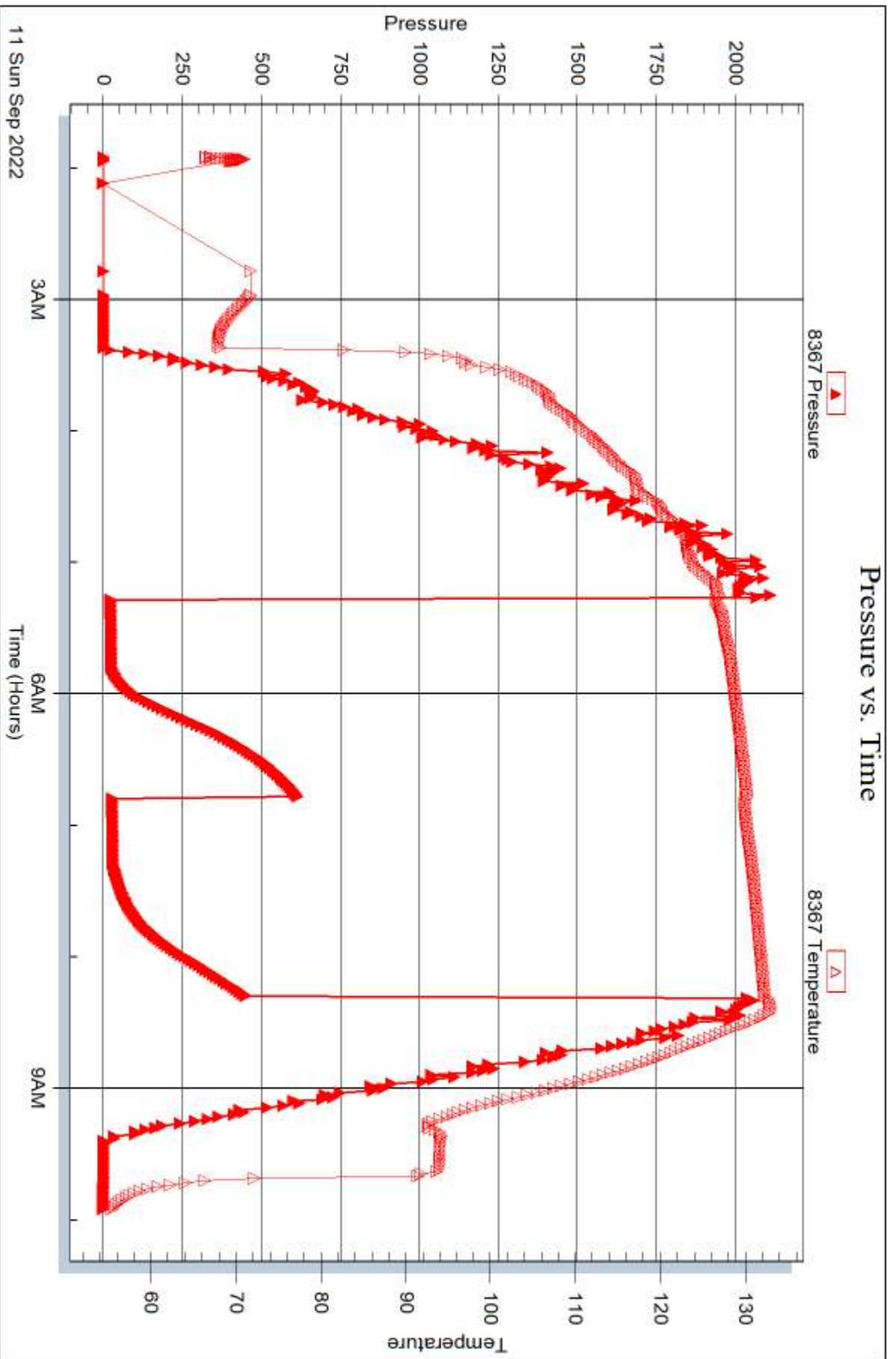
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300  
Wichita, KS 67202

ATTN: Larry Nicholson

**Jean 'B' #1-8**

**8-1s-37w Cheyenne KS**

Start Date: 2022.09.11 @ 21:17:00

End Date: 2022.09.12 @ 07:06:35

Job Ticket #: 68994                      DST #: 2

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2022.09.16 @ 10:09:38



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**8-1s-37w Cheyenne KS**

250 N. Water STE 300  
Wichita, KS 67202

**Jean 'B' #1-8**

Job Ticket: 68994

**DST#: 2**

ATTN: Larry Nicholson

Test Start: 2022.09.11 @ 21:17:00

## GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:29:51

Time Test Ended: 07:06:35

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 67

**Interval: 4212.00 ft (KB) To 4276.00 ft (KB) (TVD)**

Reference Elevations: 3188.00 ft (KB)

Total Depth: 4276.00 ft (KB) (TVD)

3183.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6771**

**Inside**

Press@RunDepth: 27.72 psig @ 4213.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.09.11

End Date:

2022.09.12

Last Calib.:

2022.09.12

Start Time: 21:17:01

End Time:

07:06:35

Time On Btm:

2022.09.12 @ 00:29:36

Time Off Btm:

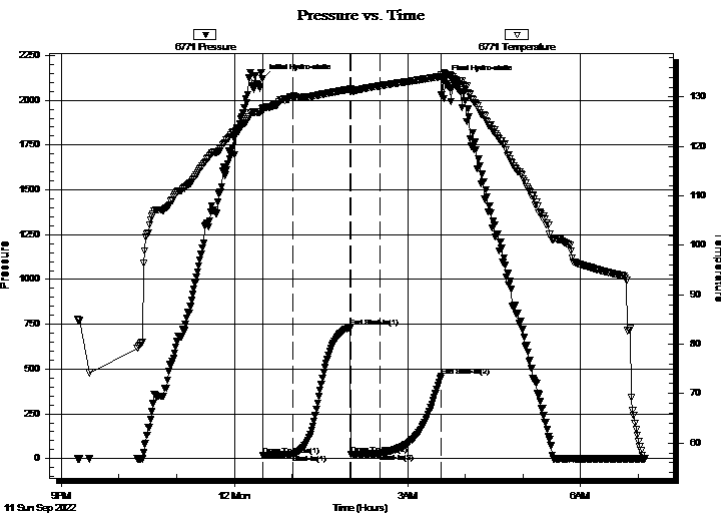
2022.09.12 @ 03:38:36

**TEST COMMENT:** 30 - IF: Blow built to 1/4" then died back to surface blow

60 - IS: No blow

30 - FF: No blow

60 - FS: No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2122.94	127.86	Initial Hydro-static
1	17.84	127.26	Open To Flow (1)
31	24.05	130.16	Shut-In(1)
91	732.56	131.61	End Shut-In(1)
92	25.68	131.38	Open To Flow (2)
122	27.72	132.28	Shut-In(2)
186	460.41	134.17	End Shut-In(2)
189	2117.83	134.66	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	OCM 90% m, 10% o	0.07

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**8-1s-37w Cheyenne KS**

250 N. Water STE 300  
Wichita, KS 67202

**Jean 'B' #1-8**

Job Ticket: 68994

**DST#: 2**

ATTN: Larry Nicholson

Test Start: 2022.09.11 @ 21:17:00

## GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:29:51

Time Test Ended: 07:06:35

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 67

**Interval: 4212.00 ft (KB) To 4276.00 ft (KB) (TVD)**

Reference Elevations: 3188.00 ft (KB)

Total Depth: 4276.00 ft (KB) (TVD)

3183.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8367 Outside**

Press@RunDepth: psig @ 4213.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.09.11

End Date:

2022.09.12

Last Calib.:

2022.09.12

Start Time: 21:17:01

End Time:

07:06:35

Time On Btm:

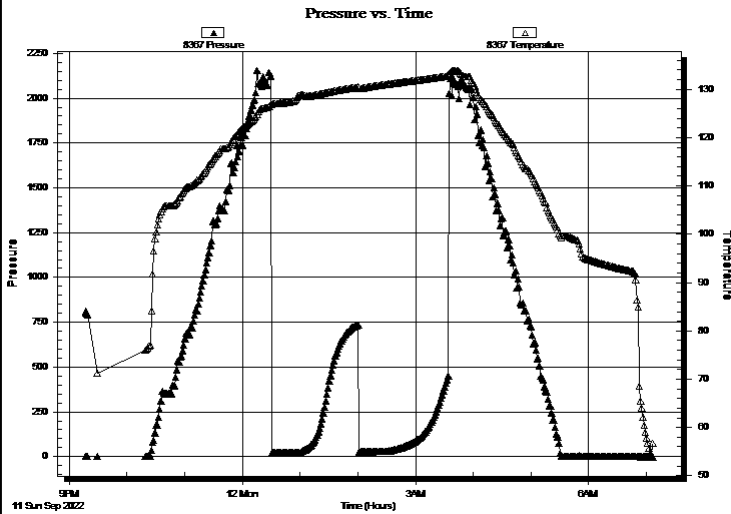
Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 1/4" then died back to surface blow

60 - IS: No blow

30 - FF: No blow

60 - FS: No blow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	OCM 90% m, 10% o	0.07

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co., Inc.

**8-1s-37w Cheyenne KS**

250 N. Water STE 300  
Wichita, KS 67202

**Jean 'B' #1-8**

Job Ticket: 68994

**DST#: 2**

ATTN: Larry Nicholson

Test Start: 2022.09.11 @ 21:17:00

## Tool Information

Drill Pipe:	Length: 4018.00 ft	Diameter: 3.80 inches	Volume: 56.36 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose:	90000.00 lb
			<u>Total Volume: 57.25 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4212.00 ft			Final	70000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	64.00 ft				
Tool Length:	97.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4180.00	
Shut In Tool	5.00			4185.00	
Hydraulic tool	5.00			4190.00	
Jars	5.00			4195.00	
EM Tool	4.00			4199.00	
Safety Joint	3.00			4202.00	
Packer	5.00			4207.00	33.00 Bottom Of Top Packer
Packer	5.00			4212.00	
Stubb	1.00			4213.00	
Recorder	0.00	6771	Inside	4213.00	
Recorder	0.00	8367	Outside	4213.00	
Perforations	25.00			4238.00	
Blank Spacing	33.00			4271.00	
Perforations	2.00			4273.00	
Bullnose	3.00			4276.00	64.00 Bottom Packers & Anchor

**Total Tool Length: 97.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co., Inc.

**8-1s-37w Cheyenne KS**

250 N. Water STE 300  
Wichita, KS 67202

**Jean 'B' #1-8**

Job Ticket: 68994

**DST#: 2**

ATTN: Larry Nicholson

Test Start: 2022.09.11 @ 21:17:00

### 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: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	OCM 90% <sub>m</sub> , 10% <sub>o</sub>	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

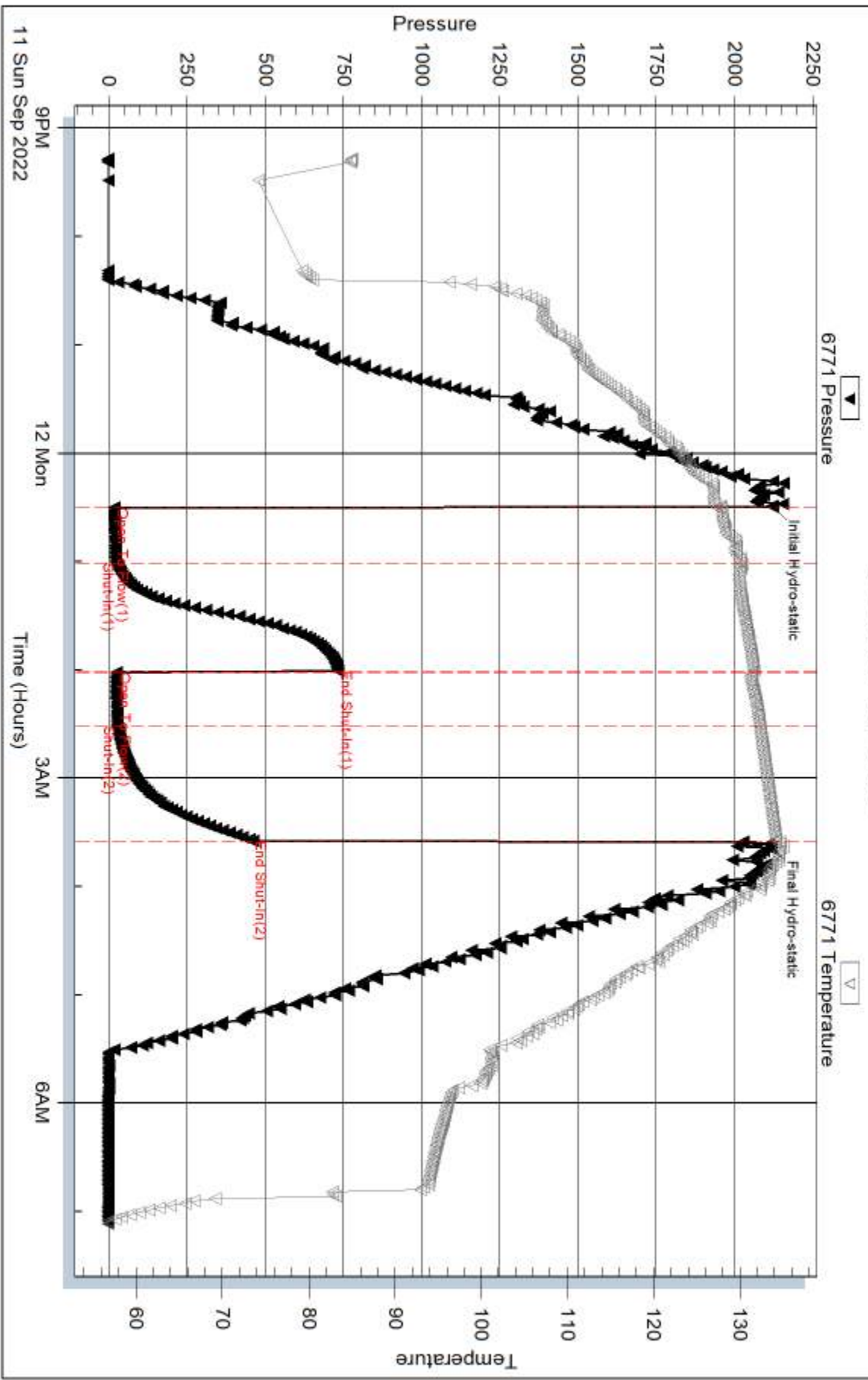
Laboratory Name:

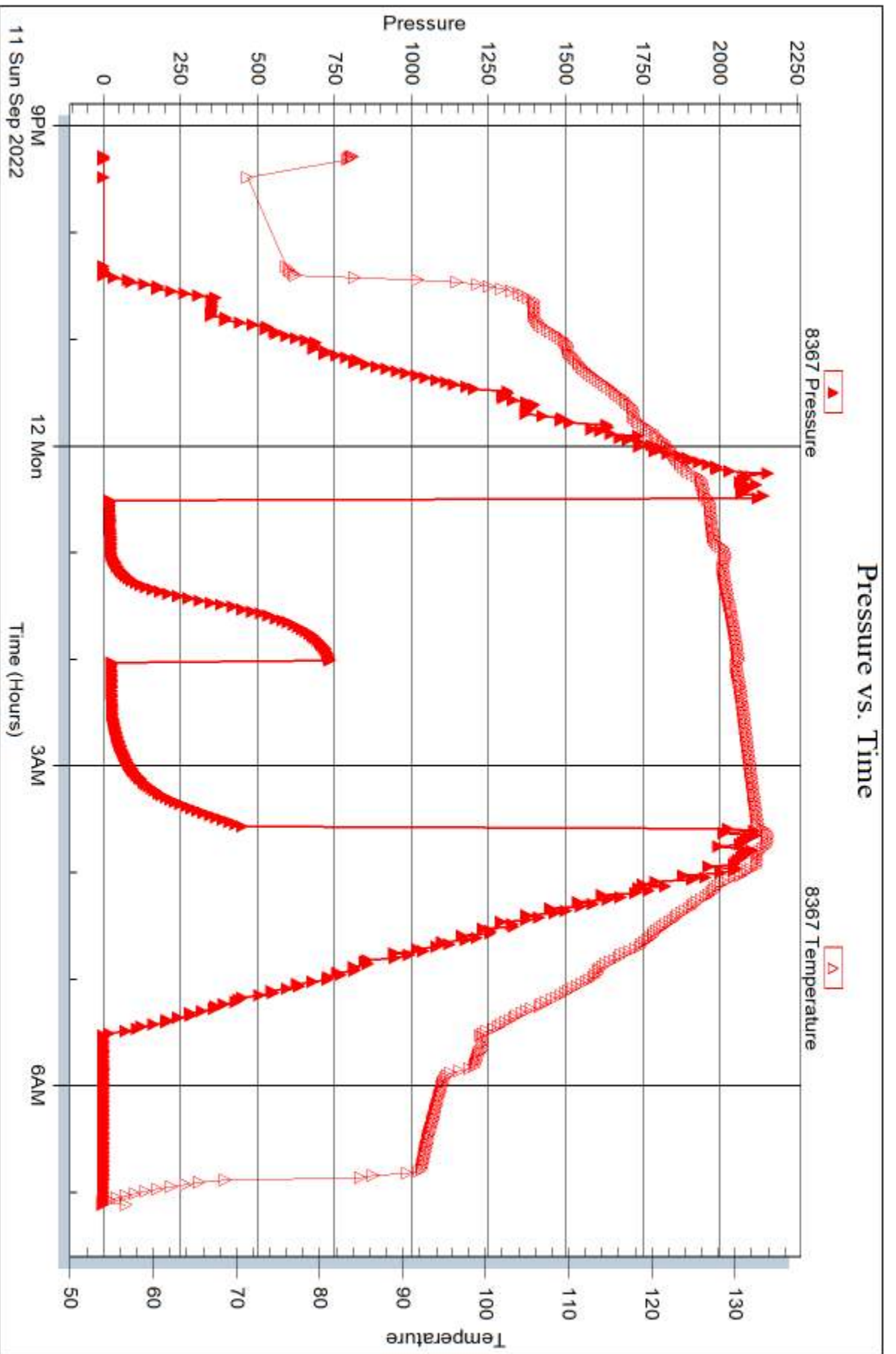
Laboratory Location:

Recovery Comments:



### Pressure vs. Time







## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300  
Wichita, KS 67202

ATTN: Larry Nicholson

**Jean 'B' #1-8**

**8-1s-37w Cheyenne KS**

Start Date: 2022.09.14 @ 10:30:00

End Date: 2022.09.14 @ 18:34:36

Job Ticket #: 68995                      DST #: 3

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2022.09.16 @ 10:07:25



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**8-1s-37w Cheyenne KS**

250 N. Water STE 300  
Wichita, KS 67202

**Jean 'B' #1-8**

Job Ticket: 68995

**DST#: 3**

ATTN: Larry Nicholson

Test Start: 2022.09.14 @ 10:30:00

## GENERAL INFORMATION:

Formation: **Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:45:06

Time Test Ended: 18:34:36

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 67

**Interval: 4519.00 ft (KB) To 4570.00 ft (KB) (TVD)**

Reference Elevations: 3188.00 ft (KB)

Total Depth: 4570.00 ft (KB) (TVD)

3183.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6771 Inside**

Press@RunDepth: 20.82 psig @ 4520.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.09.14

End Date: 2022.09.14

Last Calib.: 2022.09.14

Start Time: 10:30:01

End Time: 18:34:36

Time On Btm: 2022.09.14 @ 12:44:51

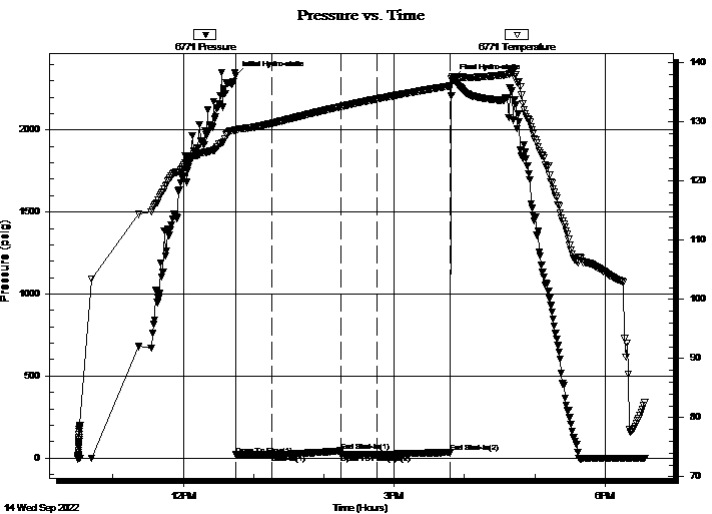
Time Off Btm: 2022.09.14 @ 15:50:06

**TEST COMMENT:** 30 - IF: Surface blow +, died back to very weak surface blow

60 - IS: No blow

30 - FF: No blow

60 - FS: No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2330.90	128.64	Initial Hydro-static
1	18.64	128.34	Open To Flow (1)
31	20.40	129.74	Shut-In(1)
90	43.47	132.57	End Shut-In(1)
91	20.28	132.58	Open To Flow (2)
121	20.82	133.85	Shut-In(2)
183	34.76	136.05	End Shut-In(2)
186	2314.76	137.58	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud 100%	0.01

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**8-1s-37w Cheyenne KS**

250 N. Water STE 300  
Wichita, KS 67202

**Jean 'B' #1-8**

Job Ticket: 68995

**DST#: 3**

ATTN: Larry Nicholson

Test Start: 2022.09.14 @ 10:30:00

## GENERAL INFORMATION:

Formation: **Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:45:06

Time Test Ended: 18:34:36

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 67

Interval: **4519.00 ft (KB) To 4570.00 ft (KB) (TVD)**

Reference Elevations: 3188.00 ft (KB)

Total Depth: 4570.00 ft (KB) (TVD)

3183.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8367 Outside**

Press@RunDepth: psig @ 4520.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.09.14

End Date: 2022.09.14

Last Calib.: 2022.09.14

Start Time: 10:30:01

End Time: 18:34:36

Time On Btm:

Time Off Btm:

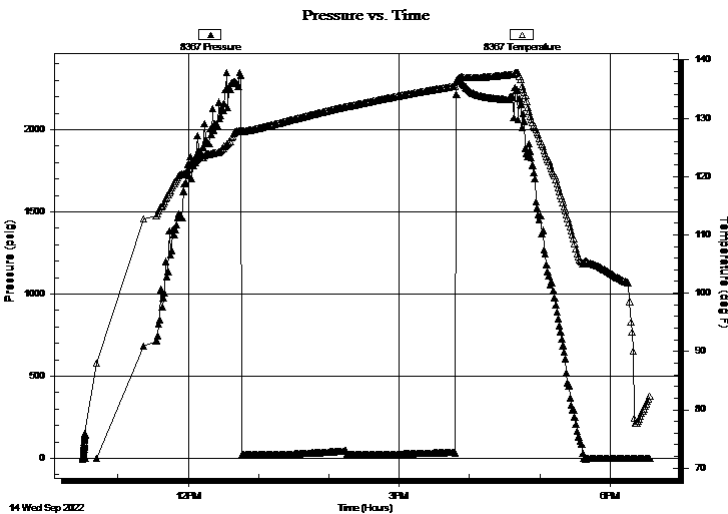
TEST COMMENT: 30 - IF: Surface blow +, died back to very weak surface blow

60 - ISI: No blow

30 - FF: No blow

60 - FSI: No blow

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud 100%	0.01

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co., Inc.

**8-1s-37w Cheyenne KS**

250 N. Water STE 300  
Wichita, KS 67202

**Jean 'B' #1-8**

Job Ticket: 68995

**DST#: 3**

ATTN: Larry Nicholson

Test Start: 2022.09.14 @ 10:30:00

## Tool Information

Drill Pipe:	Length: 4330.00 ft	Diameter: 3.80 inches	Volume: 60.74 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 61.63 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 75000.00 lb
Depth to Top Packer:	4519.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	84.00 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			4487.00	
Shut In Tool	5.00			4492.00	
Hydraulic tool	5.00			4497.00	
Jars	5.00			4502.00	
EM Tool	4.00			4506.00	
Safety Joint	3.00			4509.00	
Packer	5.00			4514.00	33.00 Bottom Of Top Packer
Packer	5.00			4519.00	
Stubb	1.00			4520.00	
Recorder	0.00	6771	Inside	4520.00	
Recorder	0.00	8367	Outside	4520.00	
Perforations	14.00			4534.00	
Blank Spacing	33.00			4567.00	
Bullnose	3.00			4570.00	51.00 Bottom Packers & Anchor

**Total Tool Length: 84.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co., Inc.

**8-1s-37w Cheyenne KS**

250 N. Water STE 300  
Wichita, KS 67202

**Jean 'B' #1-8**

Job Ticket: 68995

**DST#: 3**

ATTN: Larry Nicholson

Test Start: 2022.09.14 @ 10:30:00

### 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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud 100%	0.010

Total Length: 2.00 ft      Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

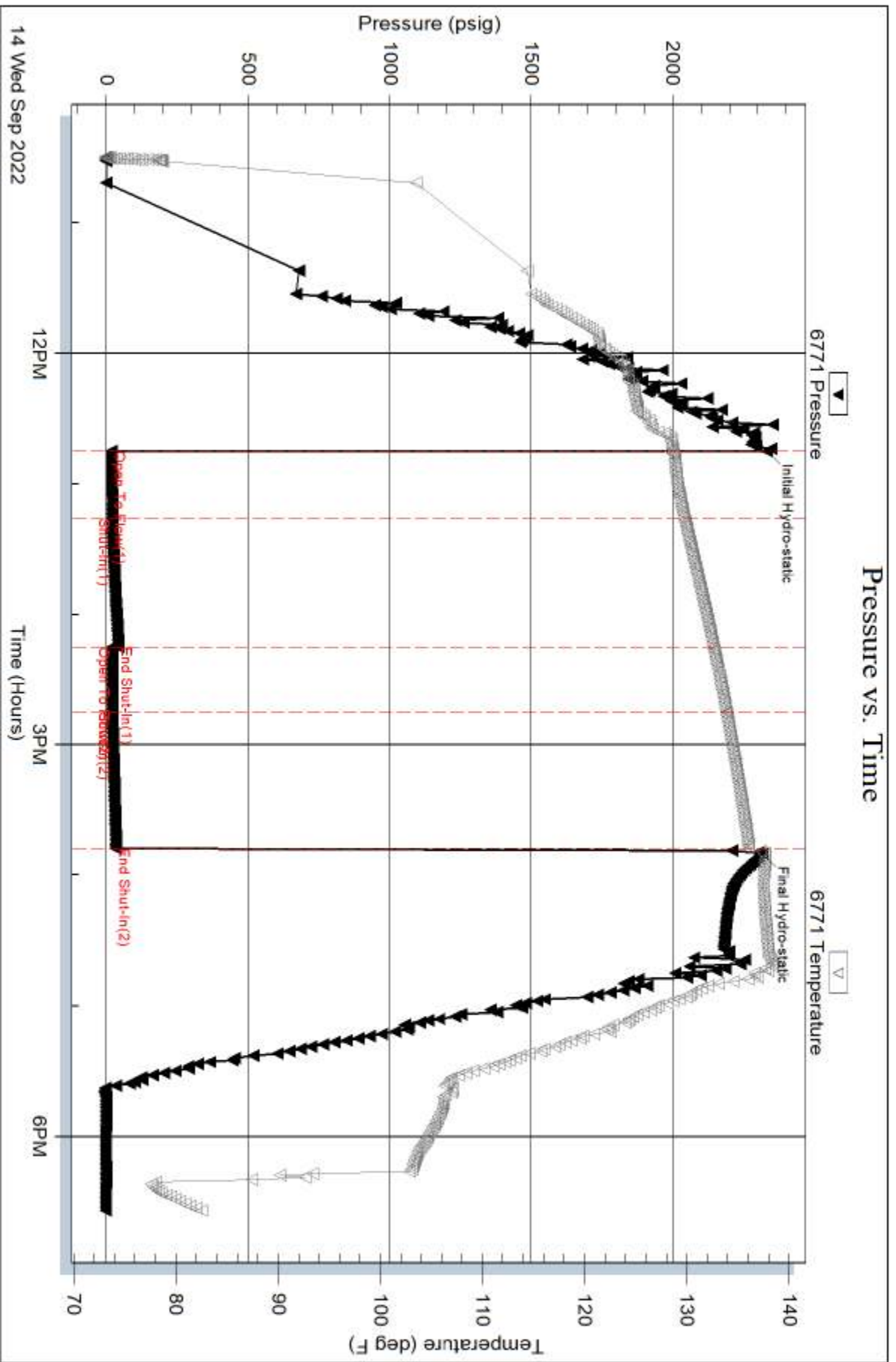
Serial #:

Laboratory Name:

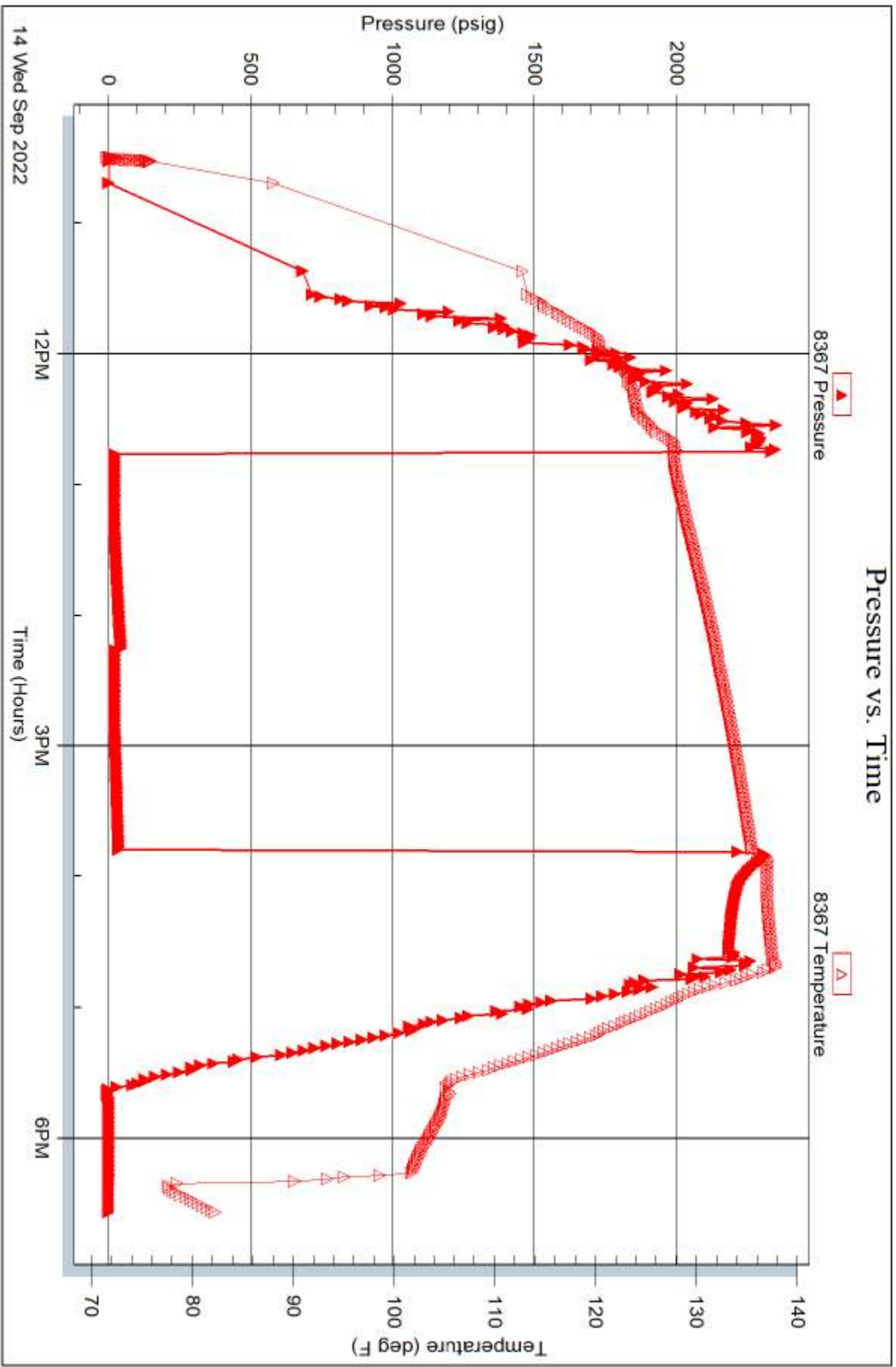
Laboratory Location:

Recovery Comments:

### Pressure vs. Time









# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 68993

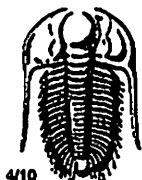
Well Name & No. Jean 'B' #1-8 Test No. 1 Date 9-11-22  
 Company Murfin Drilling Co. Inc Elevation 3188 KB 3183 GL  
 Address 250 N. Water STE 300 Wichita, KS 67202  
 Co. Rep / Geo. Larry Nicholson Rig Murfin #110  
 Location: Sec. 8 Twp 1S Rge. 37W Co. Cheyenne State KS

Interval Tested 4108 - 4214 Zone Tested Lans. "A-D"  
 Anchor Length 106 Drill Pipe Run 3923 Mud Wt. 9.1  
 Top Packer Depth 4103 Drill Collars Run 180 Vis 65  
 Bottom Packer Depth 4108 Wt. Pipe Run - WL 6.4  
 Total Depth 4214 Chlorides 1400 ppm System LCM 4  
 Blow Description IF: 1/4" Blow at open, built to and stayed at 3/4"  
ISI: ~~1/4" blow~~ No blow  
FF: No blow  
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mud w/trace oil</u>	<u>trace</u>	<u>0</u>	<u>100</u>	<u>0</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 133 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm  
 (A) Initial Hydrostatic 2065  Test 1950 T-On Location 23:15 9/10  
 (B) First Initial Flow 19  Jars 300 T-Started 1:55  
 (C) First Final Flow 23  Safety Joint \_\_\_\_\_ T-Open 5:16  
 (D) Initial Shut-In 613  Circ Sub \_\_\_\_\_ T-Pulled 8:18  
 (E) Second Initial Flow 25  Hourly Standby \_\_\_\_\_ T-Out 9:55 9/11  
 (F) Second Final Flow 27  Mileage 164RT 253.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 450  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2055  Straddle \_\_\_\_\_  EM Tool \_\_\_\_\_  
 Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 60  Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Shut-In 60  Day Standby \_\_\_\_\_ Sub Total 0  
 Sub Total 2503  Accessibility \_\_\_\_\_ Total 2503  
 Sub Total 2503 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative James Winkler  
 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. 68994

Well Name & No. Jean 'B' #1-8 Test No. 2 Date 9-11-22  
 Company Murfin Drilling Co, Inc Elevation 3188 KB 3183 GL  
 Address 250 N. Water STE 300 Wichita, KS 67202  
 Co. Rep / Geo. Larry Nicholson Rig Murfin #110  
 Location: Sec. 8 Twp 1S Rge. 37W Co. Cheyenne State KS

Interval Tested 4212-4276 Zone Tested Lans "G"  
 Anchor Length 64 Drill Pipe Run 4018 Mud Wt. 9.2  
 Top Packer Depth 4207 Drill Collars Run 180 Vis 62  
 Bottom Packer Depth 4212 Wt. Pipe Run - WL 6.4  
 Total Depth 4276 Chlorides 1400 ppm System LCM 4  
 Blow Description IF: Blow built to 14" then died back to surface blow  
FSI: No blow  
FF: No blow  
FST: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>0cm</u>	<u>10</u>		<u>90</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 15 BHT 134 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2123  Test 1950 T-On Location 20:00 9/11  
 (B) First Initial Flow 18  Jars 300 T-Started 21:17  
 (C) First Final Flow 24  Safety Joint T-Open 00:29  
 (D) Initial Shut-In 733  Circ Sub T-Pulled 3:34  
 (E) Second Initial Flow 26  Hourly Standby T-Out 7:00 9/12  
 (F) Second Final Flow 28  Mileage 164 RT 253.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 460  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2118  Straddle \_\_\_\_\_  EM Tool \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 2503.50  
 Sub Total 2503.50 MP/DST Disc't \_\_\_\_\_

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



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 68995

Well Name & No. Jean 'B' #1-8 Test No. 3 Date 9-14-22  
 Company Murfin Drilling Co. Inc Elevation 3188 KB 3183 GL  
 Address 250 N. Water STE 300 Wichita, KS 67202  
 Co. Rep / Geo. Larry Nicholson Rig Murfin #110  
 Location: Sec. 8 Twp 1s Rge. 37w Co. Cheyenne State KS

Interval Tested 4519-4570 Zone Tested Ft. Scott  
 Anchor Length 51 Drill Pipe Run 4330 Mud Wt. 9.4  
 Top Packer Depth 4514 Drill Collars Run 180 Vis 58  
 Bottom Packer Depth 4519 Wt. Pipe Run - WL 7.2  
 Total Depth 4570 Chlorides 1400 ppm System LCM 3  
 Blow Description IF: Surface blow +, died back to very weak surface blow  
ISI: No blow  
FF: No blow  
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 2 BHT 136 Gravity APTRW @ ° F Chlorides ppm  
 (A) Initial Hydrostatic 2331  Test 1950 T-On Location 9:35  
 (B) First Initial Flow 19  Jars 300 T-Started 10:30  
 (C) First Final Flow 20  Safety Joint T-Open 12:45  
 (D) Initial Shut-In 43  Circ Sub T-Pulled 15:47  
 (E) Second Initial Flow 20  Hourly Standby T-Out 18:35  
 (F) Second Final Flow 21  Mileage 164 RT 253.50 Comments tools loaded 9/15 @ 14:30  
 (G) Final Shut-In 35  Sampler  EM Tool  
 (H) Final Hydrostatic 2315  Straddle  Ruined Shale Packer  
 Shale Packer  Ruined Packer  
 Extra Packer  Extra Copies  
 Extra Recorder  Day Standby 2d 2.5h Sub Total 883.33  
 Accessibility Total 3386.83  
 Sub Total 2503.50 MP/DST Disc't

Approved By \_\_\_\_\_ Our Representative Jamae Wick  
 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.





**CEMENT TREATMENT REPORT**

Customer: Murfin Drilling	Well: Jean B 1-8	Ticket: WP 3327
City, State:	County: Cheyenne KS	Date: 9/5/2022
Field Rep: Ricky	S-T-R: 8-1S-37W	Service: Surface

Downhole Information	
Hole Size:	12 1/4 in
Hole Depth:	259 ft
Casing Size:	8 5/8 in
Casing Depth:	259.8 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	15.3 bbls

Calculated Slurry - Lead	
Blend:	H-325
Weight:	14.8 ppg
Water / Sx:	6.9 gal / sx
Yield:	1.41 ft <sup>3</sup> / sx
Annular Bbls / Ft.:	0.0735 bbls / ft.
Depth:	ft
Annular Volume:	0.0 bbls
Excess:	
Total Slurry:	75.3 bbls
Total Sacks:	300 sx

Calculated Slurry - Tail	
Blend:	
Weight:	ppg
Water / Sx:	gal / sx
Yield:	ft <sup>3</sup> / sx
Annular Bbls / Ft.:	bbls / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	0.0 bbls
Total Sacks:	0 sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
400P			-	-	ON LOCATION
410P				-	SAFETY MEETING
415P				-	RIG UP
445P				-	GET WELL INFO: 252.8' 8 5/8 23# PIPE (RACK VERIFIED) 7' LANDING JT, 259' TD
620P				-	CASING ON BOTTOM
630P				-	CIRCULATE WITH RIG PUMP
635P	5.0	140.0	5.0	5.0	H2O AHEAD
640P	5.7	400.0	75.3	80.3	CEMENT 14.8 PPG (MUD SCALE VERIFIED)
654P	3.8	280.0	15.3	95.6	DISPLACE H2O
700P				95.6	SHUT IN/PLUG DOWN
710P				95.6	WASH UP
720P					RIG DOWN
730P					LEFT LOCATION

CREW		UNIT	SUMMARY		
Cementer:	Jimmie	914	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Michael	230	4.8 bpm	273 psi	96 bbls
Bulk #1:	Tyler	180/250			
Bulk #2:					



**CEMENT TREATMENT REPORT**

<b>Customer:</b> Murfin Drilling Co	<b>Well:</b> Jean B # 1-8	<b>Ticket:</b> WP-3389
<b>City, State:</b> Binkelman NE	<b>County:</b> Cheyenne KS	<b>Date:</b> 9/16/2022
<b>Field Rep:</b> Ricky	<b>S-T-R:</b> 8-1S-37W	<b>Service:</b> PTA

Downhole Information	
Hole Size:	7 7/8 in
Hole Depth:	4571 ft
Casing Size:	8 5/8 in
Casing Depth:	ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	63.2 bbls

Calculated Slurry - Lead	
Blend:	H-Plug
Weight:	13.8 ppg
Water / Sx:	6.9 gal / sx
Yield:	1.42 ft <sup>3</sup> / sx
Annular Bbls / Ft.:	0.0406 bbs / ft.
Depth:	3175 ft
Annular Volume:	128.9 bbls
Excess:	
Total Slurry:	60.6 bbls
Total Sacks:	240 sx

Calculated Slurry - Tail	
Blend:	
Weight:	ppg
Water / Sx:	gal / sx
Yield:	ft <sup>3</sup> / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	0.0 bbls
Total Sacks:	0 sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
7:15a			-	-	Arrival
7:20a			-	-	Safety meeting
7:25a			-	-	Rig up
8:36a	5.1	170.0	5.0	5.0	H2O ahead
8:40a	5.2	420.0	12.6	17.6	Mixed 50 sks of H-plug @ 13.8 ppg @ 3175'
8:44a	4.0	230.0	10.0	27.6	Displaced H2O
8:47a				27.6	Displaced with rig for 2.5 minutes
8:52a				27.6	Pull pipe to 2100'
9:46a	5.0	130.0	5.0	32.6	H2O ahead
9:48a	4.8	290.0	25.2	57.8	Mixed 100 sks of H-plug @ 13.8 ppg @ 2100'
9:54a	5.0	210.0	21.1	78.9	Displaced H2O
9:59a					Pull pipe to 300'
10:50a	5.2	120.0	5.0		H2O ahead
10:53a	4.6	190.0	12.6		Mixed 50 sks of H-plug @ 13.8 ppg @ 300'
10:56a	3.0	100.0	1.5		Displaced H2O
11:01a					Pull pipe to 40'
11:50a	3.0	110.0	2.5		Mixed 10 sks of H-plug @ 13.8 ppg @ 40'
11:55a	3.0	110.0	7.5		Mixed 30 sks of H-plug @ 13.8 ppg @ Rat hole
12:00a					Plug down
12:02a					Wash up
12:10a					Rig down
12:30a					Depart location

CREW		UNIT	SUMMARY		
Cementer:	Jesse	78	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Michael	230	4.4 bpm	189 psi	108 bbls
Bulk #1:	Tyler	527-250			
Bulk #2:					

## DRILLING REPORT - LOG TOPS - JEAN B 1-8

MDCI Jean 'B' #1-8 660 FNL 2600 FEL Sec. 8-T1S-R37W 3188' KB
--

Formation	Sample top	Datum	Ref	Log Top	Datum	Ref
Anhydrite	3148	40	-2	3147	+41	-1
B/Anhydrite	3182	6	-1	3180	+8	+1
Topeka	3934	-746	-3	3929	-741	+2
Lansing	4144	-956	-1	4142	-954	+1
Stark	4364	-1176	-1	4358	-1170	+5
Mound City	4420	-1232	-4	4412	-1224	+4
Ft. SC	4538	-1350	+5	4540	-1352	+3
Oakley	4625	-1437	+6	4624	-1436	+7
RTD	4751	-1563				
LTD				4751		