

**Notice:** Fill out COMPLETELY and return to Conservation Division at the address below within 60 days from plugging date.

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

**WELL PLUGGING RECORD**  
K.A.R. 82-3-117

Form CP-4  
March 2009

Type or Print on this Form  
Form must be Signed  
All blanks must be Filled

OPERATOR: License #: \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Address 1: \_\_\_\_\_  
 Address 2: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_  
 Contact Person: \_\_\_\_\_  
 Phone: ( \_\_\_\_\_ ) \_\_\_\_\_  
 Type of Well: (Check one)  Oil Well  Gas Well  OG  D&A  Cathodic  
 Water Supply Well  Other: \_\_\_\_\_  SWD Permit #: \_\_\_\_\_  
 ENHR Permit #: \_\_\_\_\_  Gas Storage Permit #: \_\_\_\_\_  
 Is ACO-1 filed?  Yes  No If not, is well log attached?  Yes  No  
 Producing Formation(s): List All (If needed attach another sheet)  
 \_\_\_\_\_ Depth to Top: \_\_\_\_\_ Bottom: \_\_\_\_\_ T.D. \_\_\_\_\_  
 \_\_\_\_\_ Depth to Top: \_\_\_\_\_ Bottom: \_\_\_\_\_ T.D. \_\_\_\_\_  
 \_\_\_\_\_ Depth to Top: \_\_\_\_\_ Bottom: \_\_\_\_\_ T.D. \_\_\_\_\_

API No. 15 - \_\_\_\_\_  
 Spot Description: \_\_\_\_\_  
 \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
 \_\_\_\_\_ Feet from  North /  South Line of Section  
 \_\_\_\_\_ Feet from  East /  West Line of Section  
 Footages Calculated from Nearest Outside Section Corner:  
 NE  NW  SE  SW  
 County: \_\_\_\_\_  
 Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_  
 Date Well Completed: \_\_\_\_\_  
 The plugging proposal was approved on: \_\_\_\_\_ (Date)  
 by: \_\_\_\_\_ (KCC District Agent's Name)  
 Plugging Commenced: \_\_\_\_\_  
 Plugging Completed: \_\_\_\_\_

Show depth and thickness of all water, oil and gas formations.

Oil, Gas or Water Records		Casing Record (Surface, Conductor & Production)			
Formation	Content	Casing	Size	Setting Depth	Pulled Out

Describe in detail the manner in which the well is plugged, indicating where the mud fluid was placed and the method or methods used in introducing it into the hole. If cement or other plugs were used, state the character of same depth placed from (bottom), to (top) for each plug set.

Plugging Contractor License #: \_\_\_\_\_ Name: \_\_\_\_\_  
 Address 1: \_\_\_\_\_ Address 2: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_  
 Phone: ( \_\_\_\_\_ ) \_\_\_\_\_  
 Name of Party Responsible for Plugging Fees: \_\_\_\_\_  
 State of \_\_\_\_\_ County, \_\_\_\_\_, ss.  
 \_\_\_\_\_  Employee of Operator or  Operator on above-described well,  
 (Print Name)

being first duly sworn on oath, says: That I have knowledge of the facts statements, and matters herein contained, and the log of the above-described well is as filed, and the same are true and correct, so help me God.

Submitted Electronically



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N Water Ste 300  
Wichita, KS 67202

ATTN: Robert Hendrix

### **Hester #4-7**

#### **7-1S-39W Cheyenne,KS**

Start Date: 2023.08.21 @ 01:15:00

End Date: 2023.08.21 @ 09:07:00

Job Ticket #: 70437                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.08.25 @ 12:12:00



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Company Inc

**7-1S-39W Cheyenne,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Hester #4-7**

Job Ticket: 70437

**DST#: 1**

ATTN: Robert Hendrix

Test Start: 2023.08.21 @ 01:15:00

## GENERAL INFORMATION:

Formation: **LKC A - D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:20:30

Time Test Ended: 09:07:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Nathan Aneas

Unit No: 71

**Interval: 4348.00 ft (KB) To 4462.00 ft (KB) (TVD)**

Reference Elevations: 3412.00 ft (KB)

Total Depth: 4462.00 ft (KB) (TVD)

3407.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8353**

**Inside**

Press@RunDepth: 365.62 psig @ 4349.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2023.08.21

End Date: 2023.08.21

Last Calib.: 2023.08.21

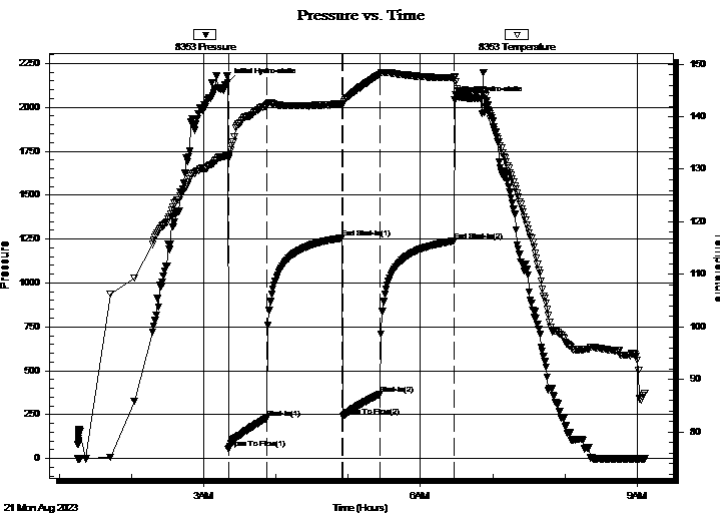
Start Time: 01:15:01

End Time: 09:07:00

Time On Btm: 2023.08.21 @ 03:19:45

Time Off Btm: 2023.08.21 @ 06:28:15

**TEST COMMENT:** 30:IF- Fair surface blow , built to BOB in 10 min, final is 28 1/4"  
60:IS- No blow back  
30:FF- Fair surface blow , built to BOB in 10 min, final is 23 1/2"  
60:FS- No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2140.56	132.58	Initial Hydro-static
1	57.38	132.23	Open To Flow (1)
33	229.08	142.21	Shut-In(1)
95	1255.86	142.44	End Shut-In(1)
96	241.29	142.36	Open To Flow (2)
127	365.62	148.06	Shut-In(2)
188	1239.26	147.36	End Shut-In(2)
189	2040.39	147.52	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
179.00	SOGMCW 62%W 35%M 2%G 1%O	0.88
598.00	SGOWCM 89%M 7%W 2%O 2%G	8.39

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Company Inc

**7-1S-39W Cheyenne,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Hester #4-7**

Job Ticket: 70437

**DST#: 1**

ATTN: Robert Hendrix

Test Start: 2023.08.21 @ 01:15:00

## Tool Information

Drill Pipe:	Length: 4170.00 ft	Diameter: 3.80 inches	Volume: 58.49 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 179.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 59.37 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4348.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	114.00 ft			
Tool Length:	147.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Change Over Sub	1.00			4316.00	
Shut In Tool	5.00			4321.00	
Hydraulic tool	5.00			4326.00	
EM Tool	4.00			4330.00	
Jars	5.00			4335.00	
Safety Joint	3.00			4338.00	
Packer	5.00			4343.00	33.00 Bottom Of Top Packer
Packer	5.00			4348.00	
Stubb	1.00			4349.00	
Recorder	0.00	8353	Inside	4349.00	
Recorder	0.00	8676	Outside	4349.00	
Perforations	14.00			4363.00	
Change Over Sub	1.00			4364.00	
Blank Spacing	94.00			4458.00	
Change Over Sub	1.00			4459.00	
Bullnose	3.00			4462.00	114.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>147.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Company Inc

**7-1S-39W Cheyenne,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Hester #4-7**

Job Ticket: 70437

**DST#: 1**

ATTN: Robert Hendrix

Test Start: 2023.08.21 @ 01:15:00

### 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: 7.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
179.00	SOGMCW 62%W 35%M 2%G 1%O	0.880
598.00	SGOWCM 89%M 7%W 2%O 2%G	8.388

Total Length: 777.00 ft

Total Volume: 9.268 bbl

Num Fluid Samples: 0

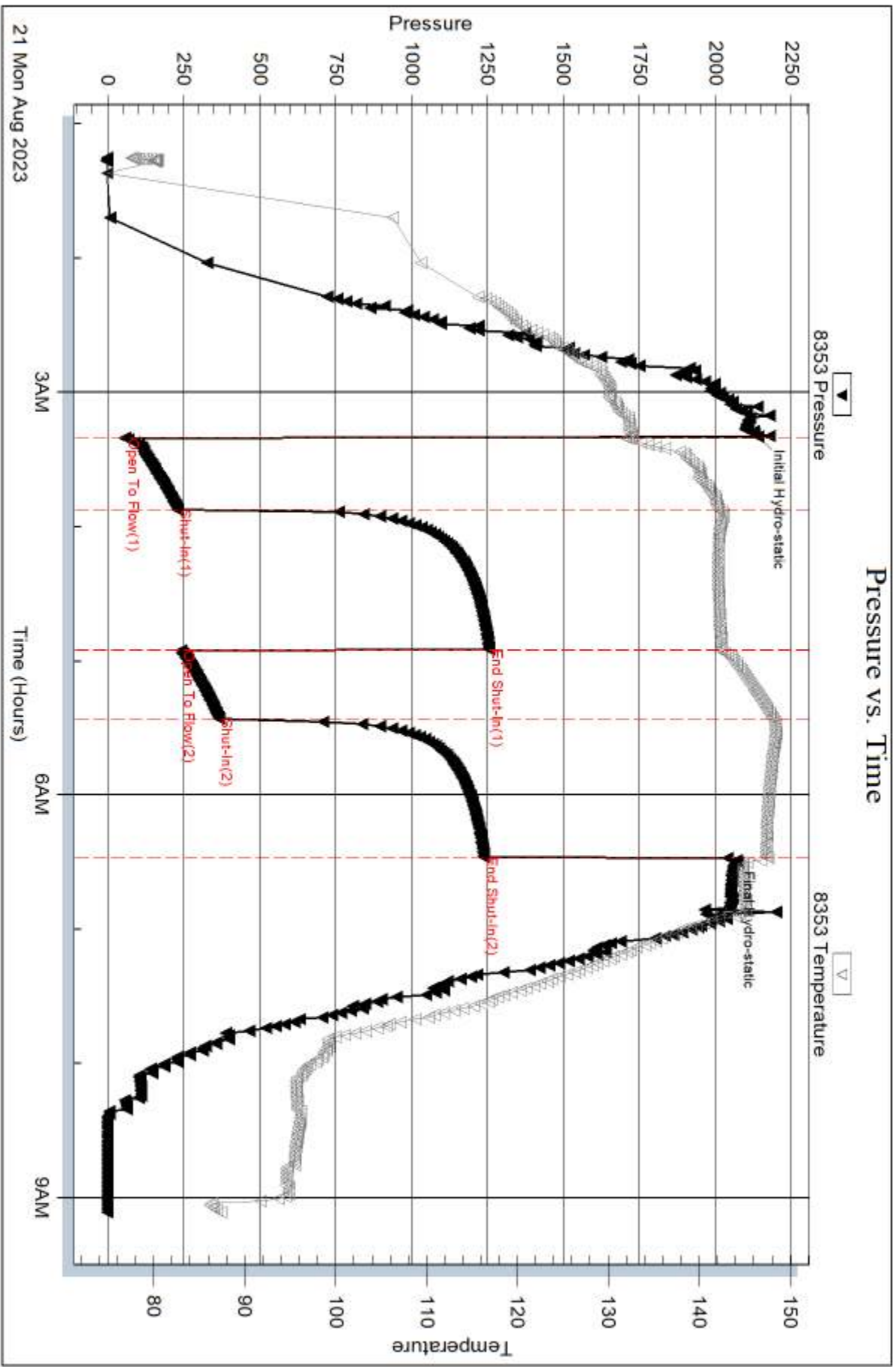
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

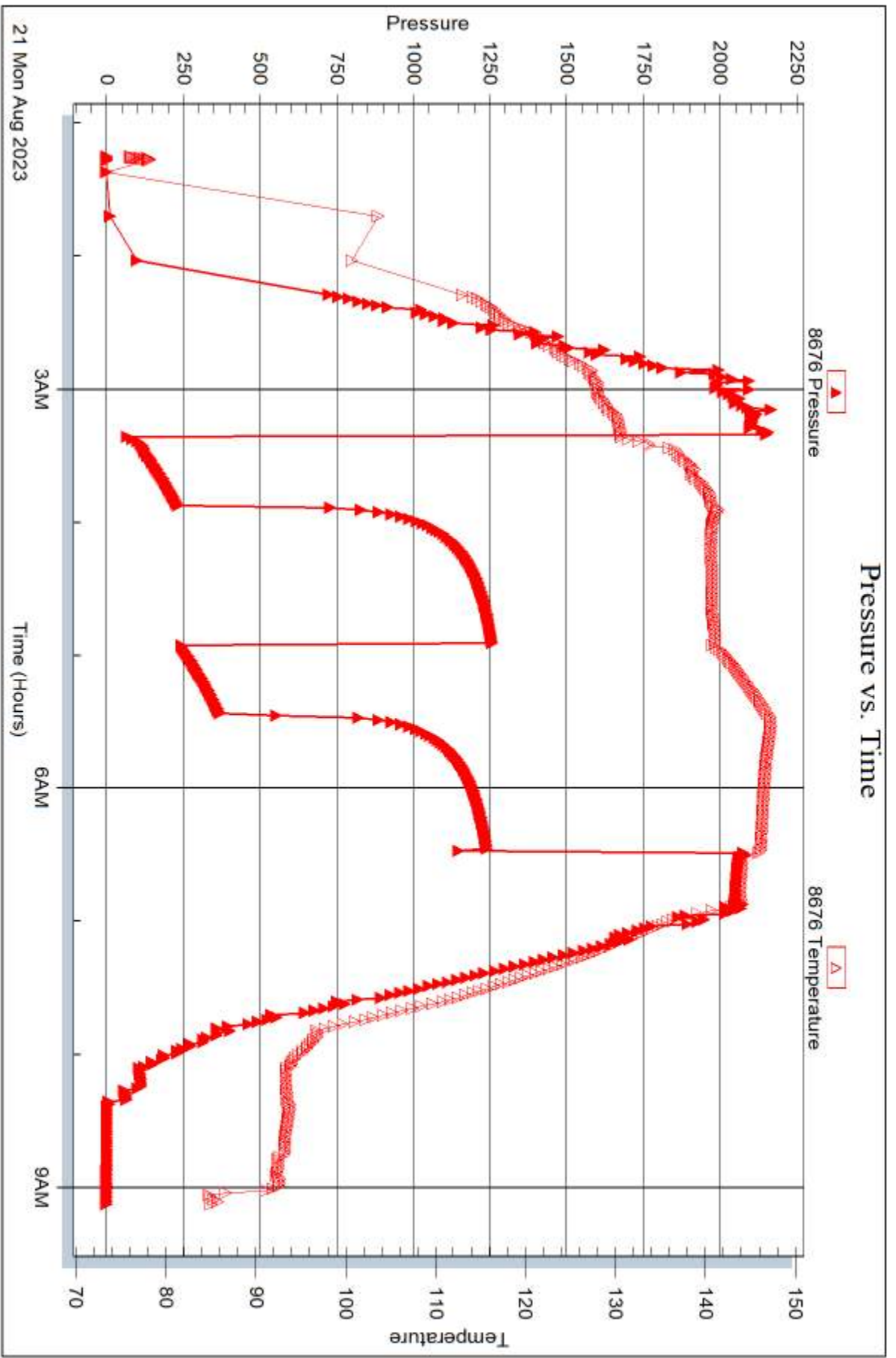


Serial #: 8676

Outside Marfin Drilling Company Inc

Hester #4-7

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 70437

Printed: 2023.08.25 @ 12:12:01





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N Water Ste 300  
Wichita, KS 67202

ATTN: Robert Hendrix

### **Hester #4-7**

#### **7-1S-39W Cheyenne,KS**

Start Date: 2023.08.21 @ 22:09:00

End Date: 2023.08.22 @ 05:59:45

Job Ticket #: 70438                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.08.25 @ 12:10:45

Murfin Drilling Company Inc  
7-1S-39W Cheyenne,KS  
Hester #4-7  
DST # 2  
LKC D-G  
2023.08.21



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Company Inc

**7-1S-39W Cheyenne,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Hester #4-7**

Job Ticket: 70438

**DST#: 2**

ATTN: Robert Hendrix

Test Start: 2023.08.21 @ 22:09:00

## GENERAL INFORMATION:

Formation: **LKC D'-G**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 00:05:15  
 Tester: Nathan Aneas  
 Time Test Ended: 05:59:45  
 Unit No: 71  
 Interval: **4466.00 ft (KB) To 4520.00 ft (KB) (TVD)**  
 Reference Elevations: 3412.00 ft (KB)  
 Total Depth: 4520.00 ft (KB) (TVD)  
 3407.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 5.00 ft

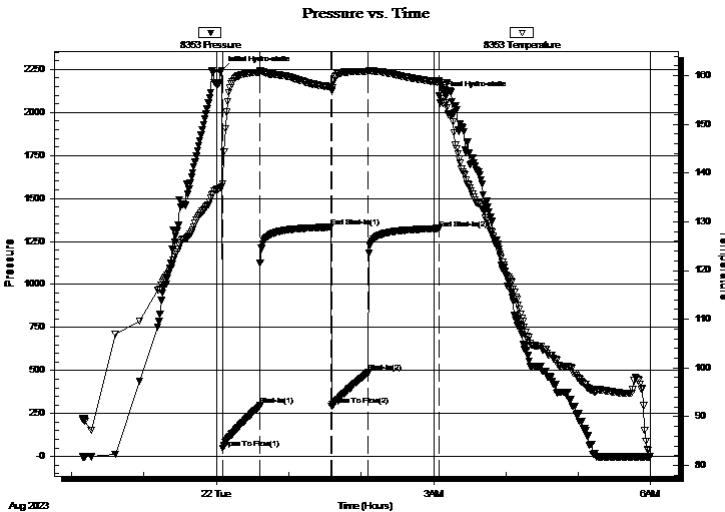
## Serial #: 8353

Inside

Press@RunDepth: 489.06 psig @ 4467.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2023.08.21 End Date: 2023.08.22 Last Calib.: 2023.08.22  
 Start Time: 22:09:01 End Time: 05:59:45 Time On Btm: 2023.08.22 @ 00:04:15  
 Time Off Btm: 2023.08.22 @ 03:04:45

**TEST COMMENT:** 30:IF- Fair surface blow , BOB in 7 min, final is 41 1/4"  
 60:IS- No blow back for 55 min, final weak surface  
 30:FF- Fair surface blow , BOB in 8 min, final is 36 1/2"  
 60:FS- No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2243.97	137.12	Initial Hydro-static
1	46.83	137.84	Open To Flow (1)
32	296.30	160.68	Shut-In(1)
91	1333.79	157.62	End Shut-In(1)
92	295.48	156.81	Open To Flow (2)
122	489.06	160.82	Shut-In(2)
180	1325.55	158.65	End Shut-In(2)
181	2099.30	158.90	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
179.00	SOMCW 93%W 5%M 2%O	0.88
882.00	SGOMCW 65%W 17%M 15%O 3%G	12.37

\* 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 Company Inc

**7-1S-39W Cheyenne,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Hester #4-7**

Job Ticket: 70438

**DST#: 2**

ATTN: Robert Hendrix

Test Start: 2023.08.21 @ 22:09:00

## Tool Information

Drill Pipe:	Length: 4263.00 ft	Diameter: 3.80 inches	Volume: 59.80 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 179.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: 60.68 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4466.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	54.00 ft			
Tool Length:	87.00 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			4434.00	
Shut In Tool	5.00			4439.00	
Hydraulic tool	5.00			4444.00	
EM Tool	4.00			4448.00	
Jars	5.00			4453.00	
Safety Joint	3.00			4456.00	
Packer	5.00			4461.00	33.00 Bottom Of Top Packer
Packer	5.00			4466.00	
Stubb	1.00			4467.00	
Recorder	0.00	8353	Inside	4467.00	
Recorder	0.00	8676	Outside	4467.00	
Perforations	16.00			4483.00	
Change Over Sub	1.00			4484.00	
Blank Spacing	32.00			4516.00	
Change Over Sub	1.00			4517.00	
Bullnose	3.00			4520.00	54.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>87.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Company Inc

**7-1S-39W Cheyenne,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Hester #4-7**

Job Ticket: 70438

**DST#: 2**

ATTN: Robert Hendrix

Test Start: 2023.08.21 @ 22:09:00

### 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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
179.00	SOMCW 93%W 5%M 2%O	0.880
882.00	SGOMCW 65%W 17%M 15%O 3%G	12.372

Total Length: 1061.00 ft      Total Volume: 13.252 bbl

Num Fluid Samples: 0

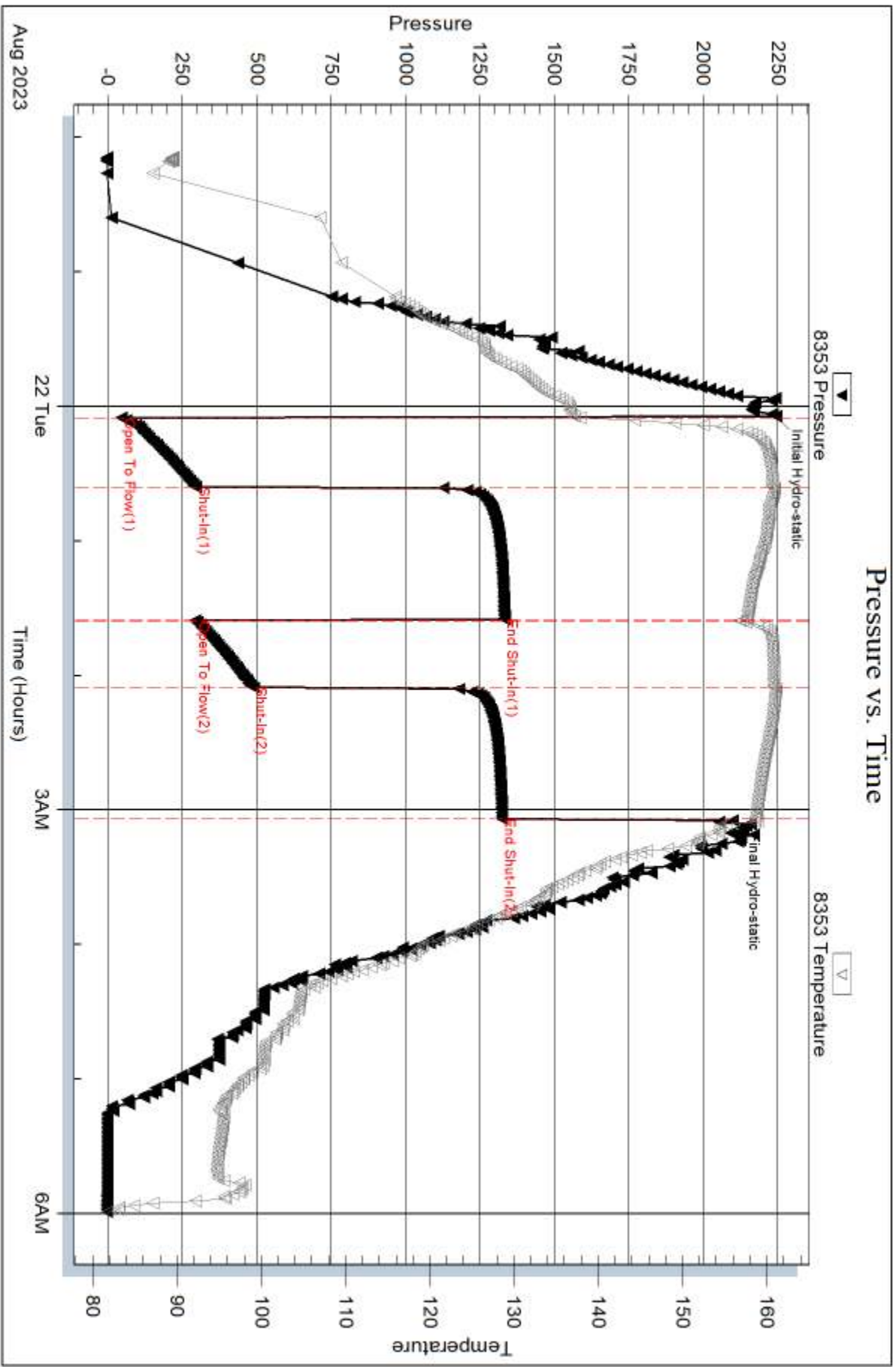
Num Gas Bombs: 0

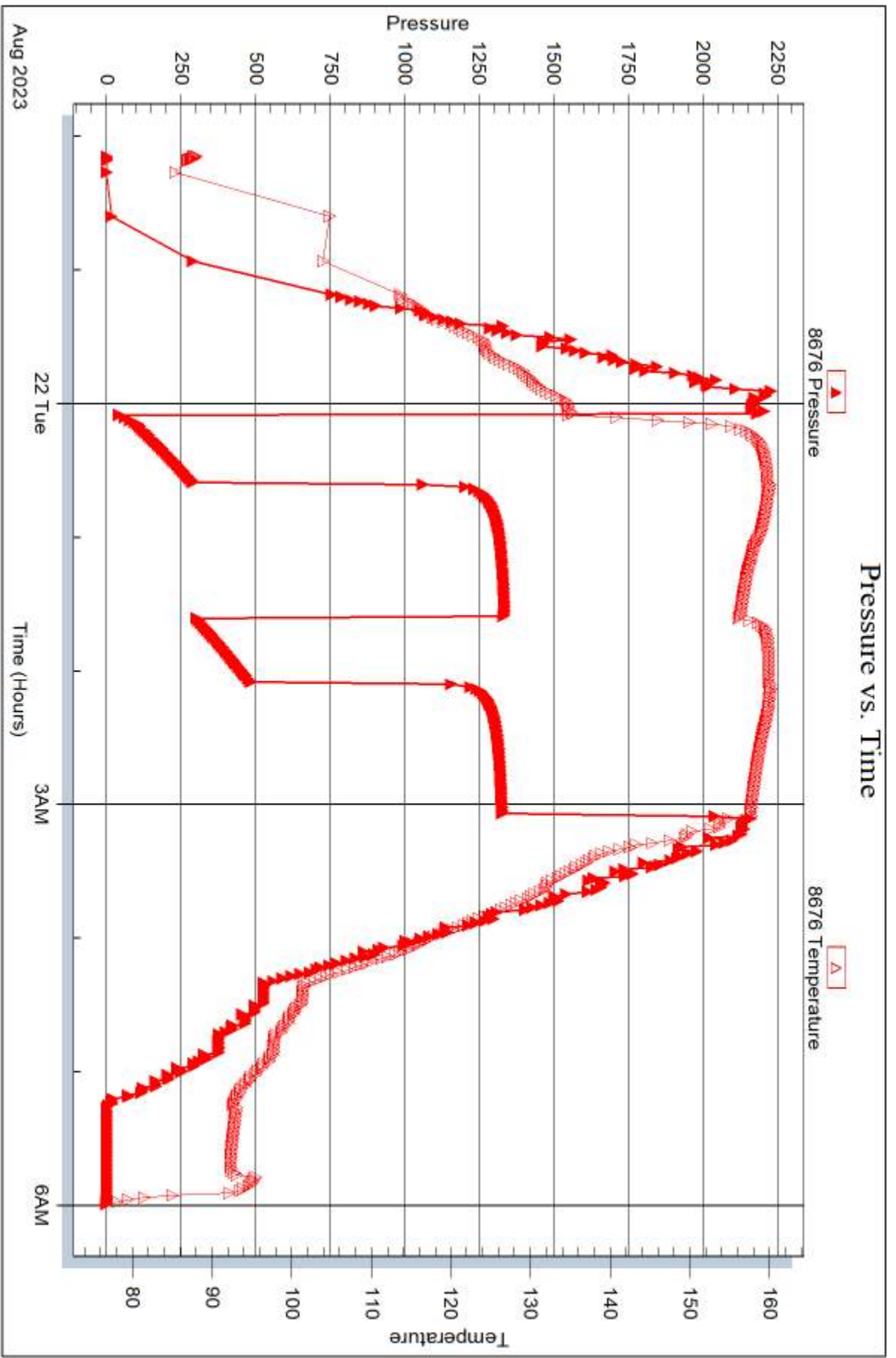
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N Water Ste 300  
Wichita, KS 67202

ATTN: Robert Hendrix

### **Hester #4-7**

#### **7-1S-39W Cheyenne,KS**

Start Date: 2023.08.23 @ 05:15:00

End Date: 2023.08.23 @ 12:38:15

Job Ticket #: 70439                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.08.25 @ 12:09:07





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Company Inc

**7-1S-39W Cheyenne,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Hester #4-7**

Job Ticket: 70439

**DST#: 3**

ATTN: Robert Hendrix

Test Start: 2023.08.23 @ 05:15:00

## GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:20:00

Time Test Ended: 12:38:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Nathan Aneas

Unit No: 71

**Interval: 4518.00 ft (KB) To 4603.00 ft (KB) (TVD)**

Reference Elevations: 3412.00 ft (KB)

Total Depth: 4603.00 ft (KB) (TVD)

3407.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8353**

**Inside**

Press@RunDepth: 22.43 psig @ 4519.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2023.08.23

End Date:

2023.08.23

Last Calib.: 1899.12.30

Start Time: 05:15:01

End Time:

12:38:15

Time On Btm: 2023.08.23 @ 07:19:15

Time Off Btm: 2023.08.23 @ 10:20:15

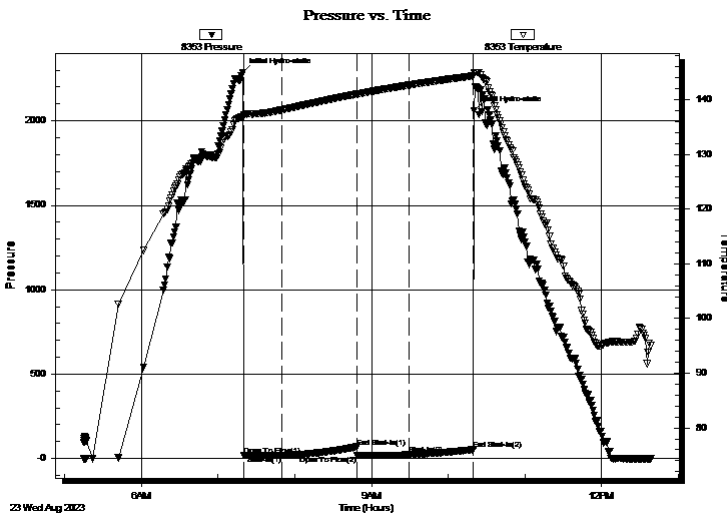
**TEST COMMENT:** 30:IF- Weak surface blow , built to 3/4" in 10 min, final stayed 3/4"

60:IS- No blow back

30:FF- No blow

60:FS- No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2286.91	136.92	Initial Hydro-static
1	20.16	137.01	Open To Flow (1)
31	20.14	138.14	Shut-In(1)
89	69.00	141.01	End Shut-In(1)
90	19.10	141.01	Open To Flow (2)
130	22.43	142.65	Shut-In(2)
181	52.75	144.34	End Shut-In(2)
181	2059.76	144.96	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100%M	0.02

\* 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 Company Inc

**7-1S-39W Cheyenne,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Hester #4-7**

Job Ticket: 70439

**DST#: 3**

ATTN: Robert Hendrix

Test Start: 2023.08.23 @ 05:15:00

## Tool Information

Drill Pipe:	Length: 4327.00 ft	Diameter: 3.80 inches	Volume: 60.70 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 179.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: 61.58 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4518.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	85.00 ft			
Tool Length:	118.00 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			4486.00	
Shut In Tool	5.00			4491.00	
Hydraulic tool	5.00			4496.00	
EM Tool	4.00			4500.00	
Jars	5.00			4505.00	
Safety Joint	3.00			4508.00	
Packer	5.00			4513.00	33.00 Bottom Of Top Packer
Packer	5.00			4518.00	
Stubb	1.00			4519.00	
Recorder	0.00	8353	Inside	4519.00	
Recorder	0.00	8676	Outside	4519.00	
Perforations	16.00			4535.00	
Change Over Sub	1.00			4536.00	
Blank Spacing	63.00			4599.00	
Change Over Sub	1.00			4600.00	
Bullnose	3.00			4603.00	85.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>118.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Company Inc

**7-1S-39W Cheyenne,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Hester #4-7**

Job Ticket: 70439

**DST#: 3**

ATTN: Robert Hendrix

Test Start: 2023.08.23 @ 05:15:00

### 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: 68.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100%M	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

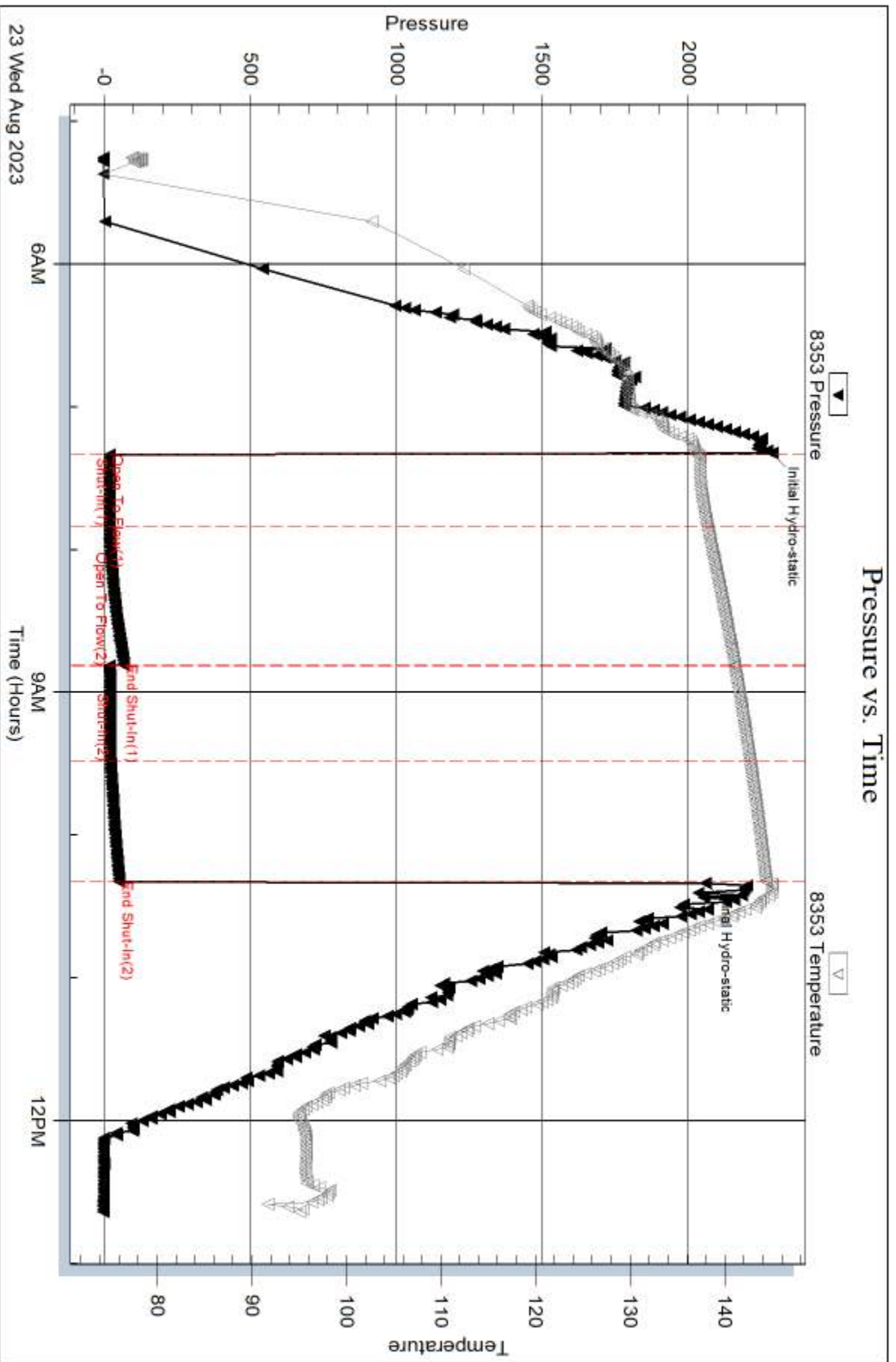
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

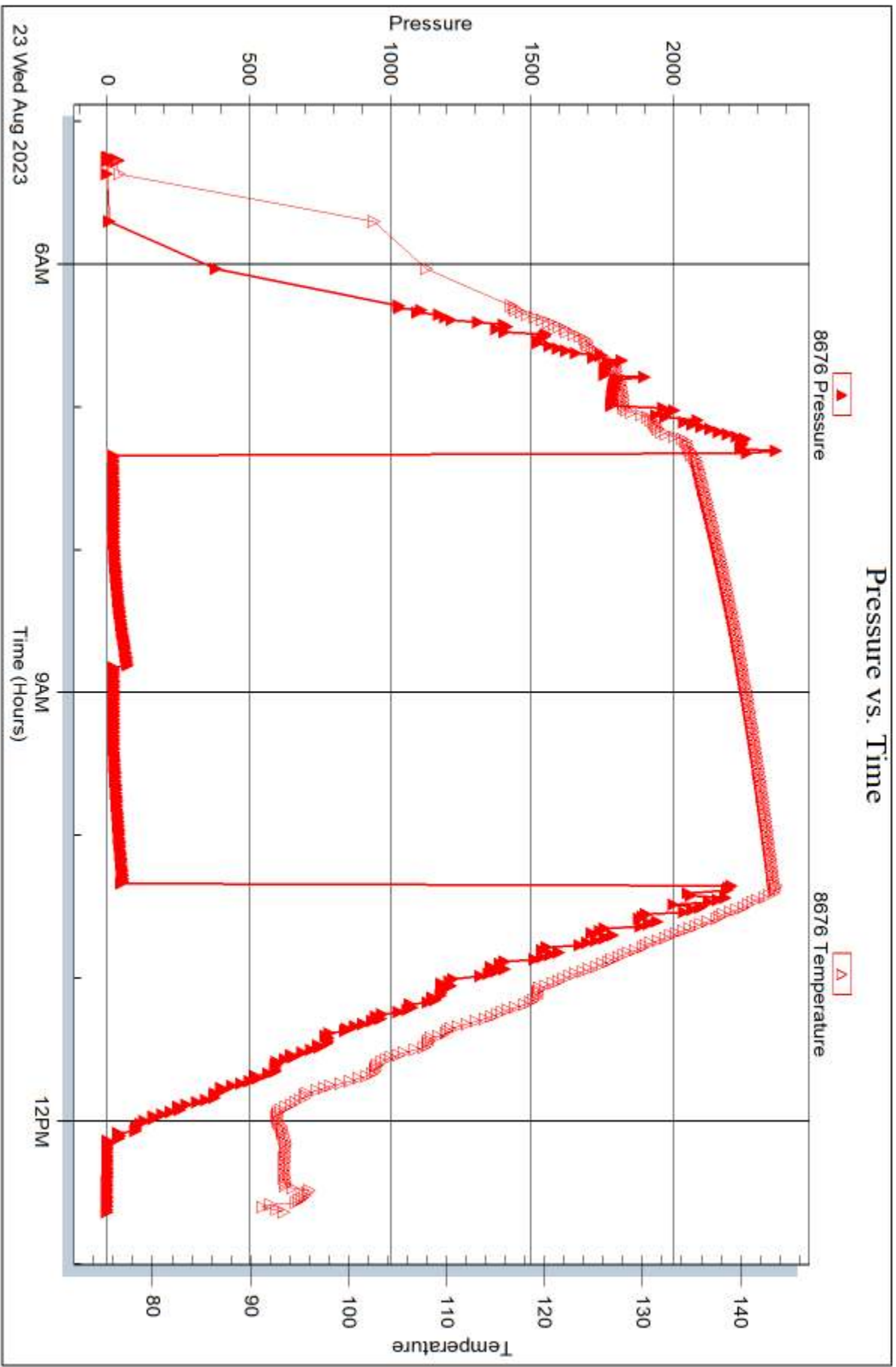


Serial #: 8676

Outside Murfin Drilling Company Inc

Hester #4-7

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 70439

Printed: 2023.08.25 @ 12:09:08



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N Water Ste 300  
Wichita, KS 67202

ATTN: Robert Hendrix

### **Hester #4-7**

#### **7-1S-39W Cheyenne,KS**

Start Date: 2023.08.24 @ 20:12:00

End Date: 2023.08.25 @ 03:15:00

Job Ticket #: 8/25                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.08.25 @ 12:07:47



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Company Inc

**7-1S-39W Cheyenne, KS**

250 N Water Ste 300  
Wichita, KS 67202

**Hester #4-7**

Job Ticket: 8/25

**DST#: 4**

ATTN: Robert Hendrix

Test Start: 2023.08.24 @ 20:12:00

## GENERAL INFORMATION:

Formation: **Ft. Scott- Celia**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:17:30

Time Test Ended: 03:15:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Nathan Aneas

Unit No: 71

**Interval: 4768.00 ft (KB) To 4924.00 ft (KB) (TVD)**

Reference Elevations: 3412.00 ft (KB)

Total Depth: 4924.00 ft (KB) (TVD)

3407.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8353**

**Inside**

Press@RunDepth: 34.10 psig @ 4769.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2023.08.24

End Date:

2023.08.25

Last Calib.:

2023.08.25

Start Time: 20:12:01

End Time:

03:15:00

Time On Btm:

2023.08.24 @ 22:16:30

Time Off Btm:

2023.08.25 @ 01:20:30

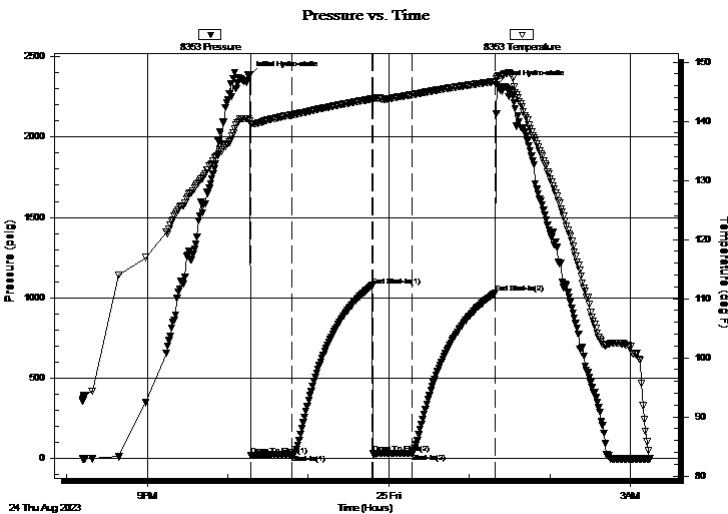
**TEST COMMENT:** 30:IF- Weak surface blow , built to 1/2" in 10 min, final is 1/2"

60:IS- No blow back

30:FF- No blow

60:FS- No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2383.75	140.00	Initial Hydro-static
1	21.42	139.63	Open To Flow (1)
32	27.23	141.06	Shut-In(1)
92	1076.27	143.78	End Shut-In(1)
92	30.03	143.78	Open To Flow (2)
121	34.10	144.48	Shut-In(2)
183	1029.63	146.74	End Shut-In(2)
184	2326.23	147.52	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud (Trace oil in tool) 100%M	0.02

\* 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 Company Inc

**7-1S-39W Cheyenne,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Hester #4-7**

Job Ticket: 8/25

**DST#: 4**

ATTN: Robert Hendrix

Test Start: 2023.08.24 @ 20:12:00

## Tool Information

Drill Pipe:	Length: 4580.00 ft	Diameter: 3.80 inches	Volume: 64.25 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 179.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 65.13 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4768.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	156.00 ft			
Tool Length:	189.00 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			4736.00	
Shut In Tool	5.00			4741.00	
Hydraulic tool	5.00			4746.00	
EM Tool	4.00			4750.00	
Jars	5.00			4755.00	
Safety Joint	3.00			4758.00	
Packer	5.00			4763.00	33.00 Bottom Of Top Packer
Packer	5.00			4768.00	
Stubb	1.00			4769.00	
Recorder	0.00	8353	Inside	4769.00	
Recorder	0.00	8676	Outside	4769.00	
Perforations	24.00			4793.00	
Change Over Sub	1.00			4794.00	
Blank Spacing	126.00			4920.00	
Change Over Sub	1.00			4921.00	
Bullnose	3.00			4924.00	156.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>189.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Company Inc

**7-1S-39W Cheyenne,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Hester #4-7**

Job Ticket: 8/25

**DST#: 4**

ATTN: Robert Hendrix

Test Start: 2023.08.24 @ 20:12:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud (Trace oil in tool) 100%M	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8353

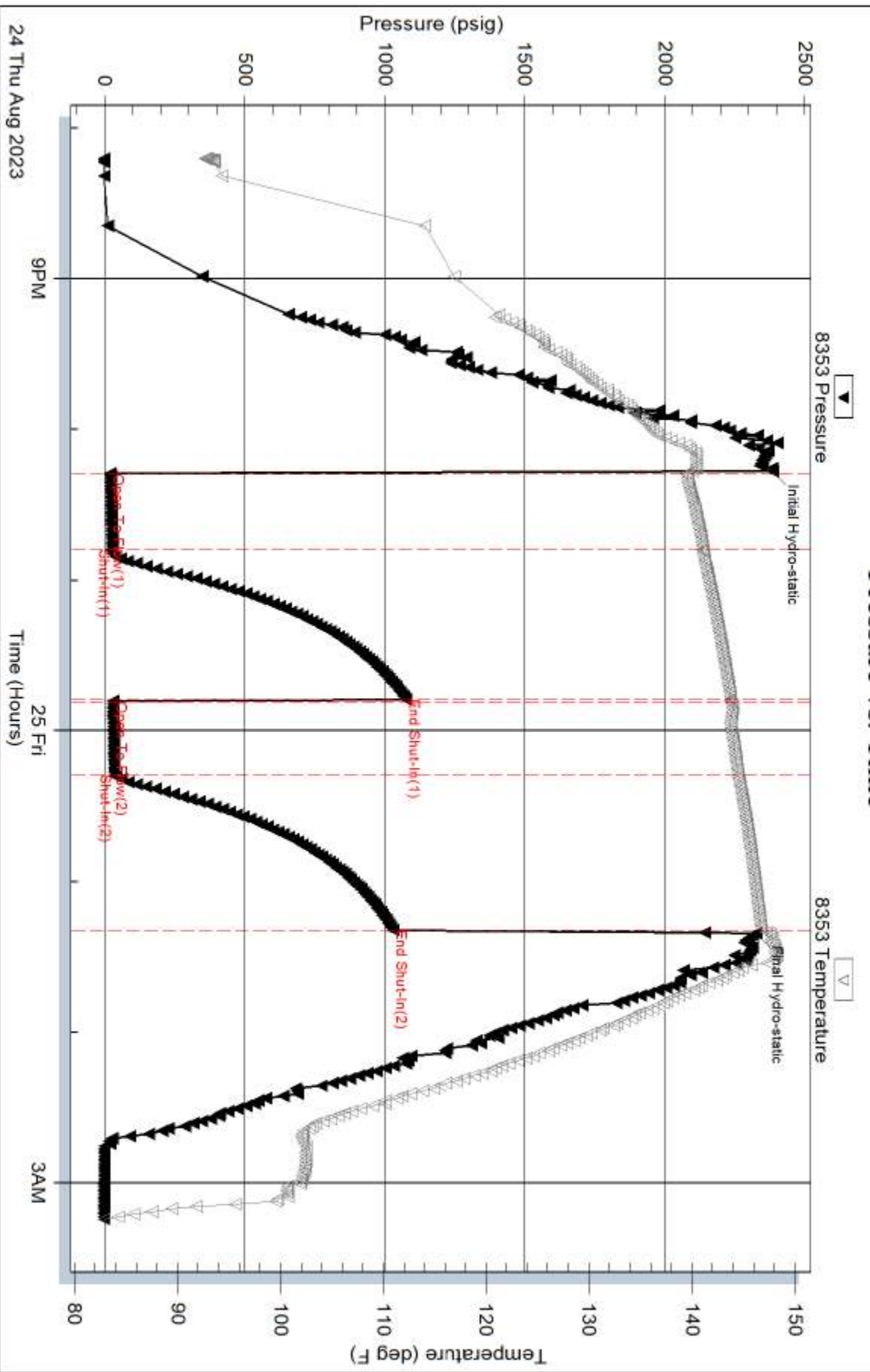
Inside

Murfin Drilling Company Inc

Hester #4-7

DST Test Number: 4

### Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 8/25

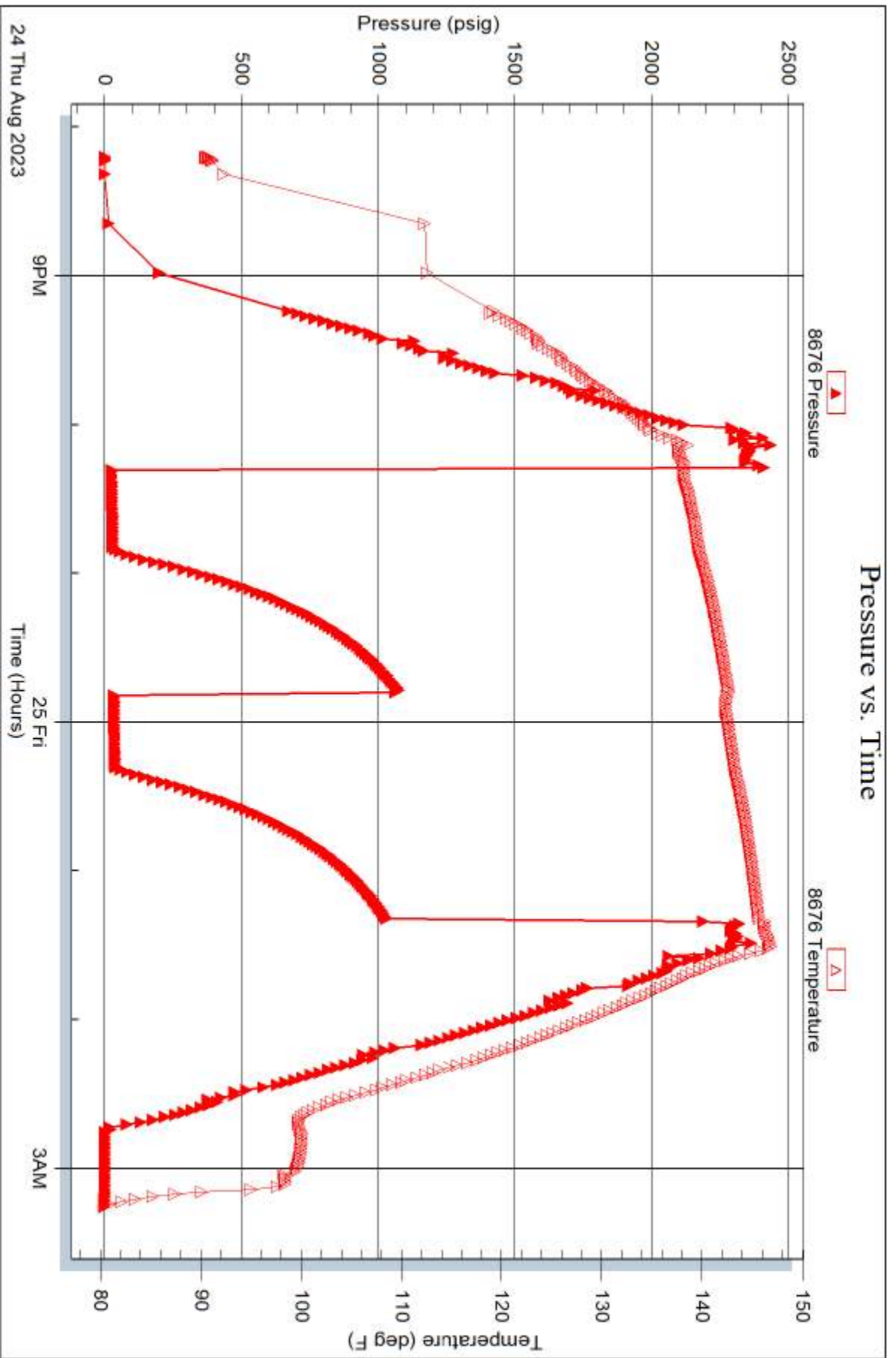
Printed: 2023.08.25 @ 12:07:48

Serial #: 8676

Outside Marfin Drilling Company Inc

Hester #4-7

DST Test Number: 4





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 70437

Well Name & No. Hester #47 Test No. 1 Date 08/20/23  
 Company Murfin Drilling Company Inc Elevation 3412 KB 3407 GL  
 Address 250 N Water Ste 300 Wichita, KS 67202  
 Co. Rep / Geo Robert Hendrix Rig Murfin #3  
 Location: Sec. 7 Twp 1S Rge. 39W Co. Chayenne State KS

Interval Tested 4348-4462 Zone Tested LKC A-D  
 Anchor Length 114' Drill Pipe Run 4170 Mud Wt. 8.9  
 Top Packer Depth 4343 Drill Collars Run 179 Vis 65  
 Bottom Packer Depth 4348 Wt. Pipe Run \_\_\_\_\_ WL 7.2  
 Total Depth 4462 Chlorides 900 ppm System LCM 4#

Blow Description FF-Fair surface blow, built to BOB in 10min, Final is 28 1/4"

ISI- No blow back

FF-Fair surface blow, built to BOB in 10min, Final is 23 1/2"

ISI- No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>179</u>	<u>SOGMCW</u>	<u>2</u>	<u>1</u>	<u>62</u>	<u>35</u>
<u>598</u>	<u>SGOWCM</u>	<u>2</u>	<u>2</u>	<u>7</u>	<u>89</u>
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____

Rec Total 777 BHT 147' Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

Initial Hydrostatic 2141  Test 1950  Ruined Shale Packer \_\_\_\_\_  
 Initial Flow 57 to 229  Jars 300  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 1256  Circ Sub \_\_\_\_\_  Hotel \_\_\_\_\_  
 Final Flow 241 to 366  Hourly Standby \_\_\_\_\_  EM Tool Successful \_\_\_\_\_  
 Final Shut-In 1239  Mileage 176 RT  Accessibility \_\_\_\_\_  
 Final Hydrostatic ~~2040~~ 2040  Sampler \_\_\_\_\_  Gas Sample \_\_\_\_\_  
 T- On Location 23:39  Straddle \_\_\_\_\_  Sub Total 0  
 Initial Flow 30 T-Started 01:15  Shale Packer \_\_\_\_\_  Total 2433.75  
 Initial Shut-In 60 T-Open 03:20  Extra Packer \_\_\_\_\_  Tool Loaded \_\_\_\_\_ @ \_\_\_\_\_  
 Final Flow 30 T-Pulled 06:30  Extra Recorder \_\_\_\_\_  MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 60 T-Out 09:07  Day Standby \_\_\_\_\_

Comments \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 70438

Well Name & No. Hester #4-7 Test No. 2 Date 02/21/23  
 Company Murfin Drilling Company Inc Elevation 3412 KB 3407 GL  
 Address 250 N Water Ste 300 Wichita, KS 67202  
 Co. Rep / Geo Robert Hendrick Rig Murfin #3  
 Location: Sec. 7 Twp 1S Rge. 39W Co. Cheyenne State KS

Interval Tested 4466-4520 Zone Tested LKC D'-G  
 Anchor Length 54' Drill Pipe Run 4263 Mud Wt. 8.9  
 Top Packer Depth 4461 Drill Collars Run 179 Vis 50  
 Bottom Packer Depth 4466 Wt. Pipe Run \_\_\_\_\_ WL 7.2  
 Total Depth 4520 Chlorides 700 ppm System LCM 4#

Blow Description: FF - Fair surface blow, BOB in 7 min, Final is 41 1/4"  
ISF - No blow back for 55 min, Final work surface  
FF - Fair surface blow, BOB in 8 min, Final 36 1/2"  
ISF - No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>179</u>	<u>SOMCOW</u>	<u>2</u>	<u>93</u>	<u>5</u>	
<u>882</u>	<u>SOMCOW</u>	<u>3</u>	<u>15</u>	<u>65</u>	<u>17</u>
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____

Rec Total 1061 BHT 158° Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm  
 Initial Hydrostatic 2244  Test 1950  Ruined Shale Packer \_\_\_\_\_  
 Initial Flow 47 to 296  Jars 300  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 1334  Circ Sub \_\_\_\_\_  Hotel \_\_\_\_\_  
 Final Flow 295 to 489  Hourly Standby \_\_\_\_\_  EM Tool Successful \_\_\_\_\_  
 Final Shut-In 1326  Mileage 176 RT 59.50  Accessibility \_\_\_\_\_  
 Final Hydrostatic 2099  Sampler \_\_\_\_\_  Gas Sample \_\_\_\_\_  
 T-On Location 21:55  Straddle \_\_\_\_\_  Sub Total 0  
 Initial Flow 30 T-Started 22:09  Shale Packer \_\_\_\_\_  Total 2309.50  
 Initial Shut-In 60 T-Open 00:05  Extra Packer \_\_\_\_\_  Tool Loaded \_\_\_\_\_ @ \_\_\_\_\_  
 Final Flow 30 T-Pulled 03:11  Extra Recorder \_\_\_\_\_  MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 60 T-Out 06:01  Day Standby \_\_\_\_\_

Comments \_\_\_\_\_  
 Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 70439

Well Name & No. Hester #4-7 Test No. 3 Date 08/22/23  
 Company Murfin Drilling Company Inc Elevation 3412 KB 3407 GL  
 Address 250 N Water Ste 300 Wichita, KS 67202  
 Co. Rep / Geo Robert Hendrix Rig Murfin #3  
 Location: Sec. 7 Twp 1S Rge. 39W Co. Cheyenne State KS

Interval Tested 4518-4603 Zone Tested LKC H-5  
 Anchor Length 85' Drill Pipe Run 4327 Mud Wt. 9.0  
 Top Packer Depth 4513 Drill Collars Run 179 Vis 68  
 Bottom Packer Depth 4518 Wt. Pipe Run \_\_\_\_\_ WL 7.2  
 Total Depth 4603 Chlorides 1200 ppm System LCM 4#

Blow Description FF-Weak surface blow, built to 3/4" in 10 min, Final stayed 3/4"

FF- No blow back

FF- No blow

FF- No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>			<u>100</u>	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Rec Total 5' BHT 144' Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ \*F Chlorides \_\_\_\_\_ ppm  
 Initial Hydrostatic 2287  Test 1950  Ruined Shale Packer \_\_\_\_\_  
 Initial Flow 20 to 20  Jars 300  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 69  Circ Sub \_\_\_\_\_  Hotel \_\_\_\_\_  
 Final Flow 19 to 22  Hourly Standby \_\_\_\_\_  EM Tool Successful -350  
 Final Shut-In 53  Mileage 176 RT 59.50  Accessibility \_\_\_\_\_  
 Final Hydrostatic 2060  Sampler \_\_\_\_\_  Gas Sample \_\_\_\_\_  
 T- On Location 17:55/04:30  Straddle \_\_\_\_\_  Sub Total -350  
 Initial Flow 30 T-Started 05:15  Shale Packer \_\_\_\_\_  Total 1959.50  
 Initial Shut-In 60 T-Open 07:20  Extra Packer \_\_\_\_\_  Tool Loaded @ \_\_\_\_\_  
 Final Flow 30 T-Pulled 10:20  Extra Recorder \_\_\_\_\_  MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 60 T-Out 12:38  Day Standby \_\_\_\_\_

Comments Torque converter went out on rig - Left rig at 18:10 to wait for them to repair. Arrived back to rig at 04:30.

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 70440

Well Name & No. Hester #4-7 Test No. 4 Date 08/24/23  
 Company Murfin Drilling Company Inc Elevation 3412 KB 3407 GL  
 Address 850 N Water Ste 300 Wichita, KS 67202  
 Co. Rep / Geo Robert Hendrix Rig Murfin #3  
 Location: Sec. 7 Twp 1S Rge. 39W Co. Cheyenne State KS

Interval Tested 4768-4984 Zone Tested Ft. Scott - Celia  
 Anchor Length 186' Drill Pipe Run 4580 Mud Wt. 9.3  
 Top Packer Depth 4763 Drill Collars Run 179 Vis 6.3  
 Bottom Packer Depth 4768 Wt. Pipe Run \_\_\_\_\_ WL 7.2  
 Total Depth 4984 Chlorides 1200 ppm System LCM 6#

Blow Description Weak surface blow, built to 1/2" in 10 min, Final is 1/2"

ISI - No blow back  
FI - No blow  
ESI - No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>5'</u>	<u>Mud (trace oil in tool)</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 _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

Rec Total 5' BHT 146 Gravity - API RW - @ - °F Chlorides - ppm  
 Initial Hydrostatic 2384  Test 1950  Ruined Shale Packer \_\_\_\_\_  
 Initial Flow 21 to 27  Jars 300  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 1076  Circ Sub \_\_\_\_\_  Hotel \_\_\_\_\_  
 Final Flow 30 to 34  Hourly Standby \_\_\_\_\_  EM Tool Successful -350  
 Final Shut-In 1030  Mileage 176 RT  Accessibility \_\_\_\_\_  
 Final Hydrostatic 2326 154 + 29.75  Sampler \_\_\_\_\_  Gas Sample \_\_\_\_\_  
 T- On Location 19:00  Straddle \_\_\_\_\_  Sub Total 1008.33 - 350  
 Initial Flow 30 T-Started 20:12  Shale Packer \_\_\_\_\_  Total 2083.75 + 1008.33  
 Initial Shut-In 60 T-Open 22:17  Extra Packer \_\_\_\_\_  Tool Loaded 04/25 @ 04:40  
 Final Flow 30 T-Pulled 01:20  Extra Recorder \_\_\_\_\_  MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 60 T-Out 03:16  Day Standby 2d 6.25h

Comments \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]

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# Robert D. Hendrix

## Petroleum Geologist

### GEOLOGIST'S REPORT

#### DRILLING TIME AND SAMPLE LOG

COMPANY **Murfin Drilling Company Inc.**

LEASE **Hester #4-7**

FIELD **Sarah Ann**

LOCATION **900'Int & 450'Int**

SEC **7 TWP 1S RGE 39W**

COUNTY **Cheyenne STATE Kansas**

CONTRACTOR **Murfin Drilling Company Inc. R#1#3**

SPUD **8/14/2023 COMP 8/26/2023**

R/D **5175 LTD 5175**

MUD UP **3801 TYPE MUD Chemical**

SAMPLES SAVED FROM **4080 TO 5175**

DRILLING TIME KEPT FROM **4080 TO 5175**

SAMPLES EXAMINED FROM **4080 TO 5175**

GEOLOGICAL SUPERVISION FROM **5175**

GEOLOGIST ON WELL **Robert D. Hendrix**

FORMATION TOPS

ELECTRIC LOG

SAMPLE

Antydrite 4175 (-763)

Oread 4303 (-891)

Lansing 4380 (-968)

Stark Shale 4605 (-1193)

Mound City 4664 (-1252)

Ft Scott 4794 (-1382)

Mississippian 4883 (-1471)

ELEVATIONS

KB **3412**

DF

GL **3407**

Measurements Are All From **Kelly Bustin**

CASING

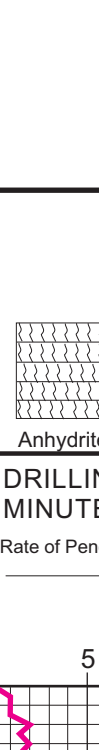
CONDUCTOR SURFACE **8-5/8" @ 302'**

PRODUCTION

ELECTRICAL SURVEYS

Due to negative results on all Drill Stem Tests over zones with shows and of interest along with negative results indicated on Electric Logs, The decision was made to plug this test.

HSI plugged hole (11:00AM - 2:00PM 08/26/23), as follows using H325 50sxs @ 3450', 100sxs @ 2500', 50sxs @ 350, 10sxs @ 40', 30sxs RH and 15sxs MH. Orders by KCC Jenn Hawthorne.



### LEGEND

	Antydrite
	Sandstone
	Limestone
	Shale
	Carb Sh
	Cherty LS
	Chert
	Dolomite

DEPTH	LITHOLOGY	SAMPLE DESCRIPTION	REMARKS
3400	Antydrite		<b>Anhydrite 3420 (-8)</b>
3450	Antydrite		<b>Base Anhydrite 3453 (-41)</b>
3500	Shale	Shale: red, gray, silty	Geologist on location 4080' at 2:15 pm 8/19/2023 Bit change at 4080' PDC to tri-cone button. strap .001' long to board NOTE: Lost circulation when circulating on bottom after trip, recovered it after mixing and running 1 tank.
4100	Limestone	Limestone: tan, m-xln, oolitic, granular, fossiliferous, no vis por, ns	
4150	Shale	Shale: red, gray, green	
4200	Limestone	Limestone: white to lt gray, m-xln, v-oolitic, fossiliferous, no vis por, 5% sample black spotty stain, nfo, no odor	<b>Topeka 4171 (-759)</b>
4250	Limestone	Limestone: white, f-xln, sl chalky, oolitic, fossiliferous, no vis por, 5% sample black spotty stain, gilsonite, nfo, no odor	<b>Deer Creek 4201 (-789)</b>
4300	Limestone	Limestone: white to tan, f-xln, sl chalky, dense, sl-fossiliferous, no vis por, ns	<b>Lecompton 4251 (-839)</b>
4350	Limestone	Limestone: lt gray, f-mxln, sl chalky, sl amt pyrite, v-fossiliferous, pr interxn por, 10% sample black spotty to sat stain, nfo, no odor	
4400	Limestone	Limestone: lt gray, v-f-xln, sl chalky, dense, no vis por	8:00am, 8/20/2023 <b>Oread 4302 (-890)</b> wt 8.9, vis. 65, lcm 4# Morgan Mud Inc. Cade Lines
4450	Shale	Shale: lt gray, red, brown, silty, sandy	
4500	Shale	Shale: mostly red, gray, green, silty v-sandy	
4550	Shale	Shale: red, gray, green, silty	
4600	Limestone	Limestone: tan to gray, f-xln, sl chalky, dense, fossiliferous, no vis por, 1% sample dark spotted stain, nfo, no odor	<b>Lansing 4380 (-968)</b>
4650	Limestone	Limestone: gray, v-f-xln, dense, hard, pyritic, no vis por	<b>DST #1</b> 4348-4462 30-60-30-60 1st open: bob 10min 2nd open: bob 10min no returns Rec: 179' sogmcw 1/2/35/62 598' sgomcw 2/2/7/89 hydro: 2141-2040 psi lf: 57-229 psi ff: 241-366 psi sip: 1256-1239 psi bht: 147F
4700	Limestone	Limestone: tan to white, f-xln, oolitic, fossiliferous, no vis por, 1% sample dark sat to streaky stain, nfo, no odor	8:00am, 8/21/2023 wt 8.9, vis. 50, lcm 4# Morgan Mud Inc. Cade Lines
4750	Limestone	Limestone: tan to white, f-xln, oolitic, fossiliferous, no vis por, 1% sample dark sat to streaky stain, nfo, no odor	<b>DST #2</b> 4466-4520 30-60-30-60 1st shut in: wk surface blow at 55 min 2nd open: bob 8 min 2nd shut in: no returns Rec: 179' somcw 2/5/93 882' sgomcw 3/15/17/65 hydro: 2244-2099 psi lf: 47-296 psi ff: 295-489 psi sip: 1334-1326 psi bht:158F
4800	Limestone	Limestone: white to tan, f-xln, sl chalky, sl cherty (gray), oolitic, fossiliferous, fr amt pyrite, 10% sample pr pp to interxn por, dark sat stain, prof, faint odor	8:00am, 8/22/2023 wt 9.0, vis. 68, lcm 4# Morgan Mud Inc. Cade Lines
4850	Limestone	Limestone: tan, v-f-xln, dense, sl cherty (brown, gray), sl amt pyrite, sl fossiliferous, no vis por	<b>DST #3</b> 4518-4603 30-60-30-60 1st open: wk surface blow built to 34' 2nd open: no blow no returns Rec: 5' mud hydro: 2287-2060 psi lf: 20-20 psi ff: 19-22 psi sip: 69-53 psi bht:144F
4900	Limestone	Limestone: tan to white, f-xln, oolitic in part, sl fossiliferous, fr amt pyrite, 20% sample no vis por, gd dark sat stain, slfo more on break, no odor	<b>Stark Shale 4604 (-1192)</b>
4950	Limestone	Limestone: gray to white, f-xln, sl cherty, dense, fossiliferous, sl amt pyrite, no vis por	8:00am, 8/23/2023 wt 9.2, vis. 71, lcm 4# Morgan Mud Inc. Dave Lines NOTE: During trip out of hole for DST #3 the rig lost torque converter at approx 4:30 pm 8/22/2023 repair work completed at 2:14 am 8/23/2023.
5000	Limestone	Limestone: tan to white, f-xln, oolitic, dense, fossiliferous, no vis por, ns	<b>Mound City 4664 (-1252)</b>
5050	Limestone	Limestone: gray, green, red, silty	
5100	Limestone	Limestone: lt gray to tan, f-xln, chalky, dense, v-fossiliferous, no vis por	
5150	Limestone	Limestone: tan, m-xln, sl chalky, oolitic, fossiliferous, no vis por, 2 pieces dark sat stain, nfo, no odor	
5200	Limestone	Limestone: gray, green, red, silty	
5250	Limestone	Limestone: white to tan, f-mxln, chalky, oolitic, fossiliferous, no vis por, ns	
5300	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
5350	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
5400	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
5450	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
5500	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
5550	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
5600	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
5650	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
5700	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
5750	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
5800	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
5850	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
5900	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
5950	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6000	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6050	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6100	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6150	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6200	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6250	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6300	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6350	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6400	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6450	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6500	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6550	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6600	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6650	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6700	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6750	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6800	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6850	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6900	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
6950	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7000	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7050	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7100	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7150	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7200	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7250	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7300	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7350	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7400	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7450	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7500	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7550	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7600	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7650	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7700	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7750	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7800	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7850	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7900	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
7950	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8000	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8050	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8100	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8150	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8200	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8250	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8300	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8350	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8400	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8450	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8500	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8550	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8600	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8650	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8700	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8750	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8800	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8850	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8900	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
8950	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9000	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9050	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9100	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9150	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9200	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9250	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9300	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9350	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9400	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9450	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9500	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9550	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9600	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9650	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9700	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9750	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9800	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9850	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9900	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
9950	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10000	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10050	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10100	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10150	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10200	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10250	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10300	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10350	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10400	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10450	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10500	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10550	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10600	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10650	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10700	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10750	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10800	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10850	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10900	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
10950	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11000	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11050	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11100	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11150	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11200	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11250	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11300	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11350	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11400	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11450	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11500	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11550	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11600	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11650	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11700	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11750	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11800	Limestone	Limestone: white to tan, f-xln, dense, sl-fossiliferous, no vis por	
11850	Limestone		







CEMENT TREATMENT REPORT					
Customer:	Murfin Drilling	Well:	Hester #4-7	Ticket:	WP 4654
City, State:	Benkelman NE	County:	Cheyenne KS	Date:	8/26/2023
Field Rep:	Jay	S-T-R:	7-1S-39W	Service:	PTA

Downhole Information		Calculated Slurry - Lead		Calculated Slurry - Tail	
Hole Size:	7 7/8 in	Blend:	H-Plug A	Blend:	
Hole Depth:	5175 ft	Weight:	13.8 ppg	Weight:	ppg
Casing Size:	in	Water / Sx:	6.9 gal / sx	Water / Sx:	gal / sx
Casing Depth:	ft	Yield:	1.42 ft <sup>3</sup> / sx	Yield:	ft <sup>3</sup> / sx
Tubing / Liner:	in	Annular Bbls / Ft.:	0.0406 bbs / ft.	Annular Bbls / Ft.:	bbs / ft.
Depth:	ft	Depth:	3450 ft	Depth:	ft
Tool / Packer:		Annular Volume:	140.1 bbls	Annular Volume:	0 bbls
Tool Depth:	ft	Excess:		Excess:	
Displacement:	bbls	Total Slurry:	64.4 bbls	Total Slurry:	0.0 bbls
		Total Sacks:	255 sx	Total Sacks:	0 sx

TIME	RATE	PSI	BBLs	TOTAL BBLs	REMARKS
9:35 AM			-	-	Arrived on location
9:45 AM				-	Safety meeting
9:55 AM				-	Rigged up
10:50 AM	3.0	200.0	5.0	5.0	Water ahead
10:53 AM	3.5	225.0	12.6	17.6	Mixed 50 sacks H-Plug A cement 13.8 ppg @ 3450'
10:58 AM	2.0	100.0	5.0	22.6	Begin water displacement
11:02 AM				22.6	Begin mud displacement with rig pump for 2:45 minutes
11:32 AM	3.5	150.0	5.0	27.6	Water ahead
11:35 AM	3.2	150.0	25.2	52.8	Mixed 100 sacks H-Plug A cement 13.8 ppg @ 2500'
11:43 AM	2.0	100.0	5.0	57.8	Begin water displacement
11:47 AM					Begin mud displacement with rig pump for 2:00 minutes
12:48 PM	3.0	100.0	5.0		Water ahead
12:51 PM	3.0	100.0	12.6		Mixed 50 sacks H-Plug A cement 13.8 ppg @ 350'
12:56 PM	2.0	50.0	0.7		Begin water displacement
1:41 PM	2.0	50.0	2.5		Mixed 10 sacks H-Plug A cement @ 13.8 ppg with wooden plug for top 40'
1:47 PM	2.0	50.0	3.7		Mixed 15 sacks H-Plug A cement @ 13.8 ppg for mousehole plug
1:52 PM	2.0	50.0	7.5		Mixed 30 sacks H-Plug A cement @ 13.8 ppg for rathole plug
1:55 PM					Plug down
1:57 PM					Washed up and rigged down
2:30 PM					Left location

CREW		UNIT	SUMMARY		
Cementer:	John	947	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Jose T	208	2.6 bpm	110 psi	90 bbls
Bulk #1:	Robert	205			
Bulk #2:					

## DRILLING REPORT - LOG TOPS - HESTER 4-7

MDCI Hester #4-7 900'FNL 450'FWL Sec. 7-T1S-R40W KB: 3412
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Formation	Sample top	Datum	Ref	Log Top	Datum	Ref
SC	3420	-8	-4	3416	-4	Flat
B SC	3453	-41	-4	3452	-40	-3
TOPEKA	4171	-759	+5	4175	-763	+1
DEER CR	4201	-789	+3	4208	-796	-4
LECOMP	4251	-839	+2	4253	-841	Flat
OREAD	4302	-890	+1	4303	-891	Flat
LANS	4380	-968	-2	4380	-968	-2
LANS B	4431	-1019	-3	4432	-1020	-4
LANS D	4448	-1036	-3	4449	-1037	-4
LANS G	4500	-1088	-3	4500	-1088	-3
LANS H	4535	-1123	-3	4534	-1122	-2
LANS J	4578	-1166	-2	4576	-1164	Flat
STARK	4604	-1192	-4	4605	-1193	-5
LANS K	4632	-1220	-4	4634	-1222	-6
LANS L	4655	-1243	-7	4657	-1245	-9
MOUND CITY	4664	-1252	-7	4663	-1251	-6
LENAPAH	4674	-1262	-7	4674	-1262	-7
MARM	4700	-1288	-7	4698	-1286	-5
MARM C	4768	-1356	-15	4759	-1347	-6
FT SC	4794	-1382	-3	4789	-1377	+2
L FT SC	4831	-1419	-5	4832	-1420	-6
Breezy Hill	4868	-1456	-10	4865	-1453	-7
OAKLEY	4883	-1471	-7	4882	-1470	-6
CELIA	4886	-1474	-6	4886	-1474	-6
MISSISSIPPIAN	5140	-1728	-20	5146	-1734	-26
RTD	5175					
LTD					5175	