



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water STE 300  
Wichita KS 67202+1216

ATTN: Saman Sharifaie

**Geyer #6-35**

**3-10s-24w Graham,KS**

Start Date: 2019.09.20 @ 14:15:00

End Date: 2019.09.20 @ 22:52:02

Job Ticket #: 65994                      DST #: 1

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

Printed: 2019.09.24 @ 14:31:02



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Murfin Drilling Co Inc  
250 N Water STE 300  
Wichita KS 67202+1216  
ATTN: Saman Sharifaie

**3-10s-24w Graham,KS**

**Geyer #6-35**

Job Ticket: 65994

**DST#: 1**

Test Start: 2019.09.20 @ 14:15:00

### GENERAL INFORMATION:

Formation: **Tor-LKC 'A'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:28:32

Time Test Ended: 22:52:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Spencer J Staab

Unit No: 84

**Interval: 3665.00 ft (KB) To 3720.00 ft (KB) (TVD)**

Total Depth: 3720.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2356.00 ft (KB)

2351.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8374**

**Inside**

Press@RunDepth: 100.71 psig @ 3668.00 ft (KB)

Start Date: 2019.09.20

End Date:

2019.09.20

Start Time: 14:15:01

End Time:

22:52:02

Capacity: psig

Last Calib.:

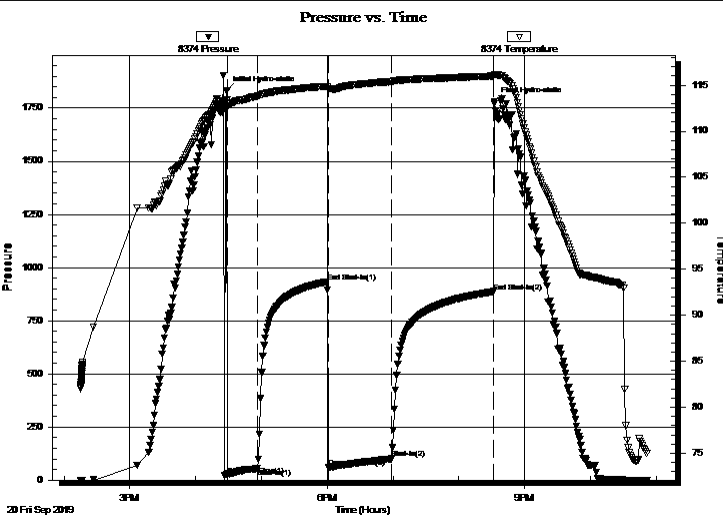
2019.09.20

Time On Btm: 2019.09.20 @ 16:28:17

Time Off Btm: 2019.09.20 @ 20:32:32

TEST COMMENT: 30-IF-Weak; Built to 4"  
60-ISI-No Return  
60-FF-Weak; Built to 3&3/4"  
90-FSI-No Return

### PRESSURE SUMMARY



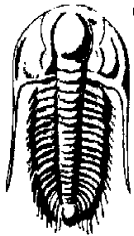
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1830.33	113.47	Initial Hydro-static
1	24.37	112.63	Open To Flow (1)
29	54.94	113.83	Shut-In(1)
92	933.25	114.85	End Shut-In(1)
93	59.54	114.62	Open To Flow (2)
150	100.71	115.39	Shut-In(2)
244	886.84	116.01	End Shut-In(2)
245	1779.64	116.13	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
60.00	SOCWM 7%O 40%W 53%M	0.30
80.00	OCM 20%O 80%M	0.39
10.00	MCO 10%M 90%O	0.05

### Gas Rates

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



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Murfin Drilling Co Inc  
 250 N Water STE 300  
 Wichita KS 67202+1216  
 ATTN: Saman Sharifaie

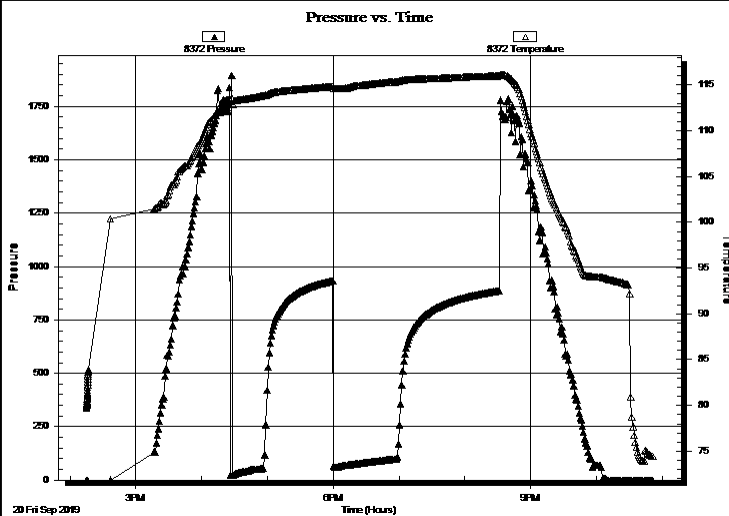
**3-10s-24w Graham,KS**  
**Geyer #6-35**  
 Job Ticket: 65994 **DST#: 1**  
 Test Start: 2019.09.20 @ 14:15:00

**GENERAL INFORMATION:**

Formation: **Tor-LKC 'A'**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 16:28:32  
 Time Test Ended: 22:52:02  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Spencer J Staab  
 Unit No: 84  
 Interval: **3665.00 ft (KB) To 3720.00 ft (KB) (TVD)**  
 Reference Elevations: 2356.00 ft (KB)  
 Total Depth: 3720.00 ft (KB) (TVD)  
 2351.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 5.00 ft

**Serial #: 8372** Inside  
 Press@RunDepth: psig @ 3668.00 ft (KB) Capacity: psig  
 Start Date: 2019.09.20 End Date: 2019.09.20 Last Calib.: 2019.09.20  
 Start Time: 14:15:01 End Time: 22:52:02 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 30-IF-Weak; Built to 4"  
 60-ISI-No Return  
 60-FF-Weak; Built to 3&3/4"  
 90-FSI-No Return



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
60.00	SOCWM 7%O 40%W 53%M	0.30
80.00	OCM 20%O 80%M	0.39
10.00	MCO 10%M 90%O	0.05

**Gas Rates**

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co Inc

**3-10s-24w Graham,KS**

250 N Water STE 300  
Wichita KS 67202+1216

**Geyer #6-35**

Job Ticket: 65994

**DST#: 1**

ATTN: Saman Sharifaie

Test Start: 2019.09.20 @ 14:15:00

### Tool Information

Drill Pipe:	Length: 3474.00 ft	Diameter: 3.82 inches	Volume: 49.25 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3665.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	84.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

### Tool Description

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

Change Over Sub	1.00			3637.00	
Shut In Tool	5.00			3642.00	
Hydraulic tool	5.00			3647.00	
Jars	5.00			3652.00	
Safety Joint	3.00			3655.00	
Packer	5.00			3660.00	29.00 Bottom Of Top Packer
Packer	5.00			3665.00	
Stubb	1.00			3666.00	
Perforations	1.00			3667.00	
Change Over Sub	1.00			3668.00	
Recorder	0.00	8374	Inside	3668.00	
Recorder	0.00	8372	Inside	3668.00	
Drill Pipe	32.00			3700.00	
Change Over Sub	1.00			3701.00	
Perforations	15.00			3716.00	
Bullnose	4.00			3720.00	55.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>84.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co Inc

**3-10s-24w Graham,KS**

250 N Water STE 300  
Wichita KS 67202+1216

**Geyer #6-35**

Job Ticket: 65994

**DST#: 1**

ATTN: Saman Sharifaie

Test Start: 2019.09.20 @ 14:15:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

22000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	SOCWM 7%O 40%W 53%M	0.295
80.00	OCM 20%O 80%M	0.393
10.00	MCO 10%M 90%O	0.049

Total Length: 150.00 ft      Total Volume: 0.737 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 2#LCM

RW=.284@75F

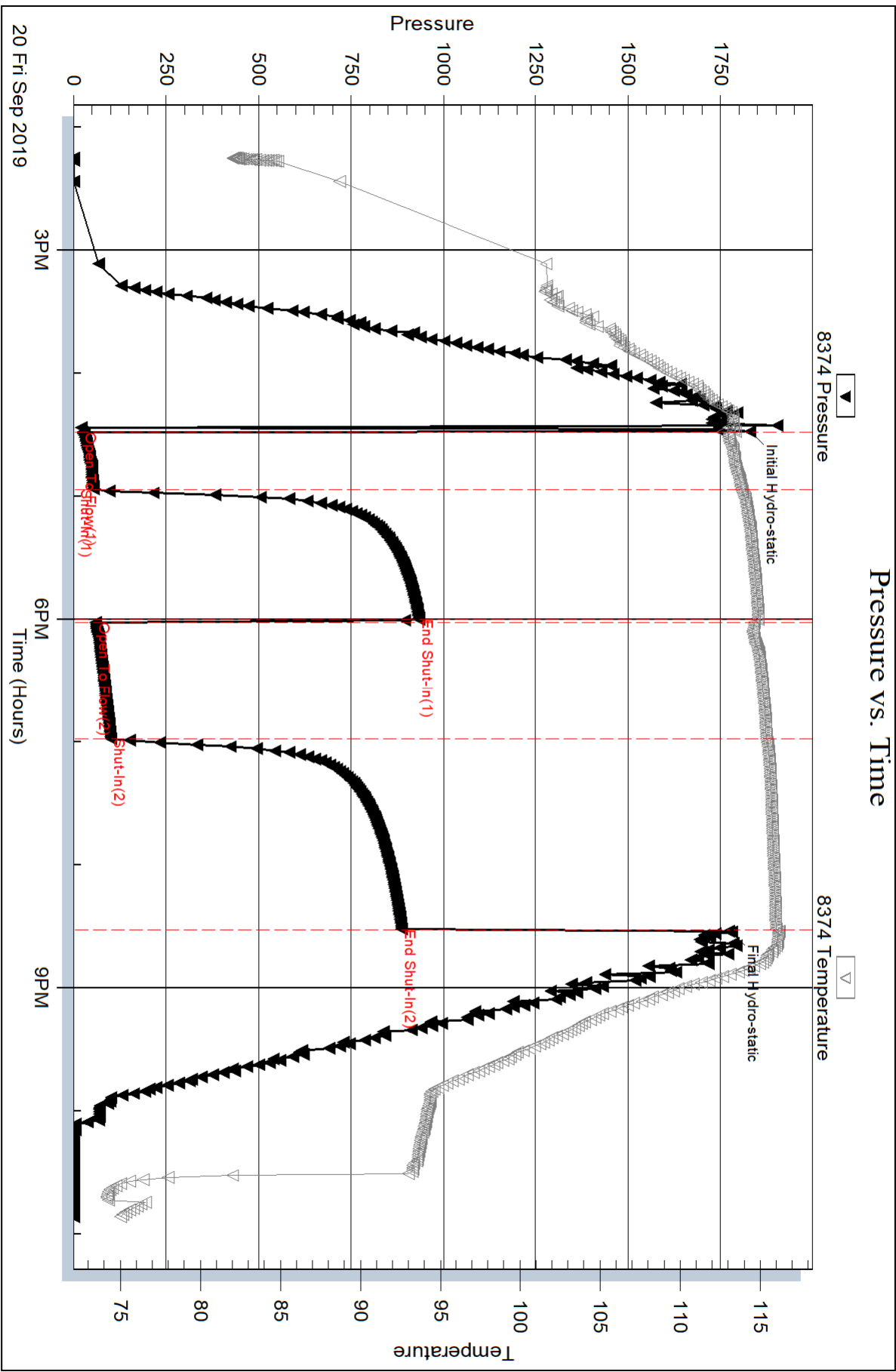
Serial #: 8374

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 65994

Printed: 2019.09.24 @ 14:31:03

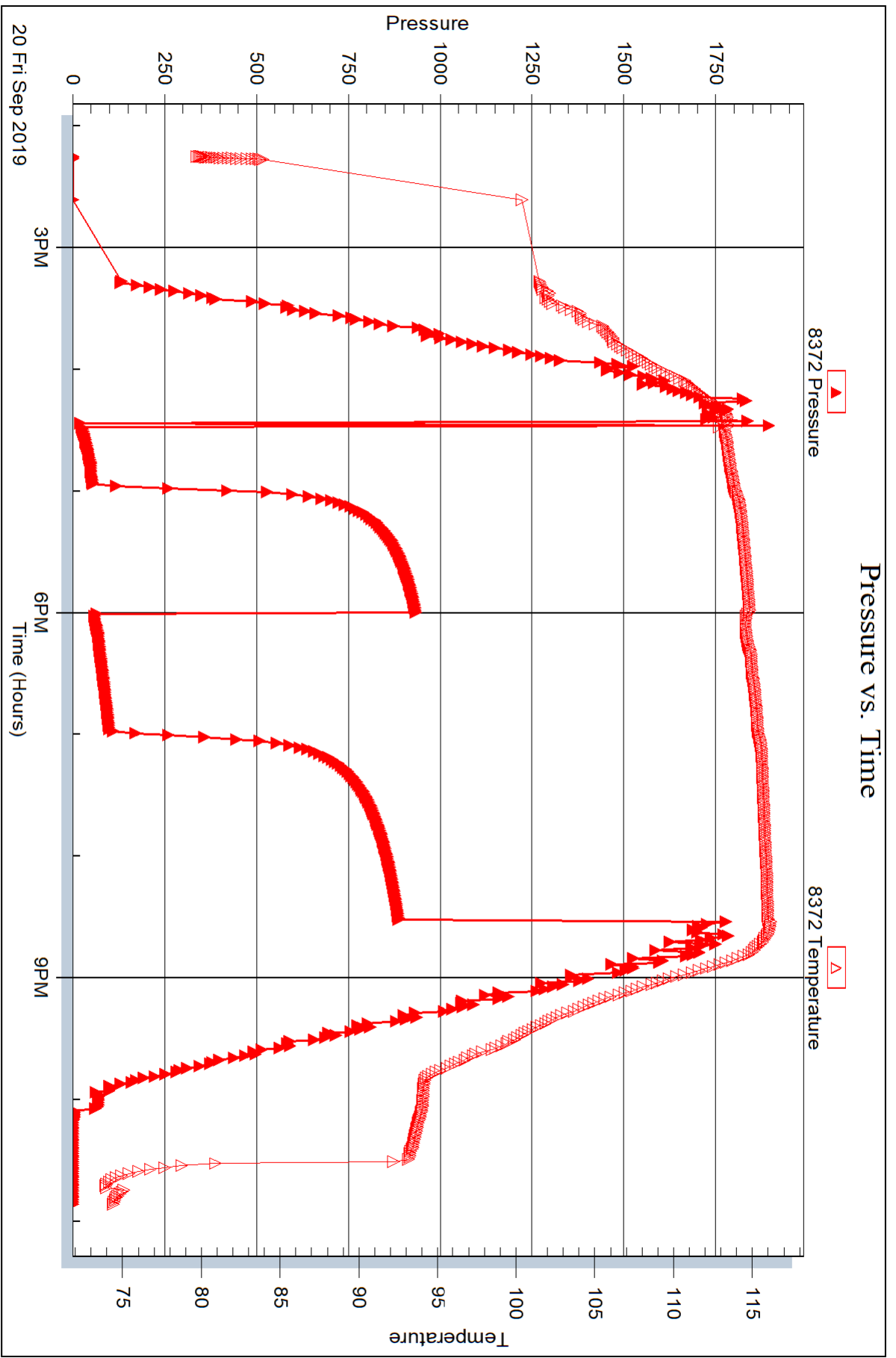
Serial #: 8372

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 65994

Printed: 2019.09.24 @ 14:31:04



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water STE 300  
Wichita KS 67202+1216

ATTN: Saman Sharifaie

**Geyer #6-35**

**3-10s-24w Graham,KS**

Start Date: 2019.09.21 @ 07:08:00

End Date: 2019.09.21 @ 15:47:02

Job Ticket #: 65995                      DST #: 2

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

Printed: 2019.09.24 @ 14:27:34

Murfin Drilling Co Inc  
3-10s-24w Graham,KS  
Geyer #6-35  
DST # 2  
LKC 'B-D'  
2019.09.21





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co Inc  
 250 N Water STE 300  
 Wichita KS 67202+1216  
 ATTN: Saman Sharifaie

**3-10s-24w Graham,KS**  
**Geyer #6-35**  
 Job Ticket: 65995 **DST#: 2**  
 Test Start: 2019.09.21 @ 07:08:00

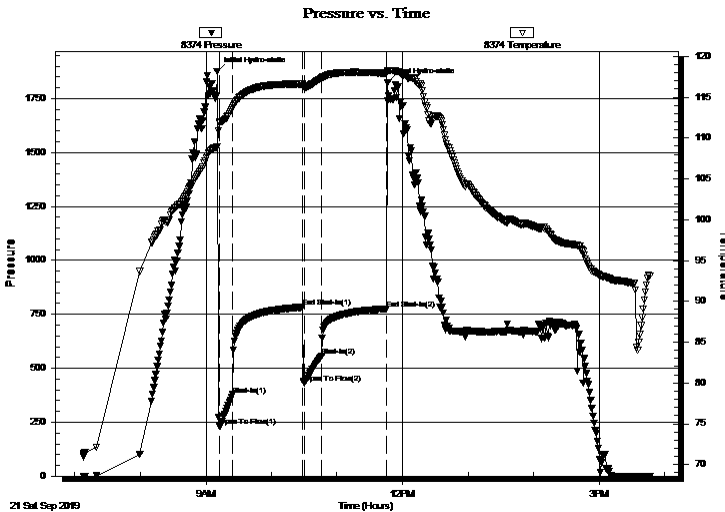
## GENERAL INFORMATION:

Formation: **LKC 'B-D'**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 09:12:47 Tester: Spencer J Staab  
 Time Test Ended: 15:47:02 Unit No: 84  
 Interval: **3720.00 ft (KB) To 3766.00 ft (KB) (TVD)** Reference Elevations: 2356.00 ft (KB)  
 Total Depth: 3766.00 ft (KB) (TVD) 2351.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

**Serial #: 8374 Inside**  
 Press@RunDepth: 556.34 psig @ 3724.00 ft (KB) Capacity: psig  
 Start Date: 2019.09.21 End Date: 2019.09.21 Last Calib.: 2019.09.21  
 Start Time: 07:08:01 End Time: 15:47:02 Time On Btm: 2019.09.21 @ 09:10:17  
 Time Off Btm: 2019.09.21 @ 11:46:32

**TEST COMMENT:** 15-IF-BOB 30secs; Built to 214"  
 60-ISI-BOB 1 min after 8 min bleed off; Built to 113"  
 15-FF-BOB instantaneously; Built to 105"; GTS TSTM @ 12 min  
 60-FSI-BOB 2mins after 6 min bleed off; Built to 112"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1875.71	108.91	Initial Hydro-static
3	232.31	111.94	Open To Flow (1)
14	376.82	113.64	Shut-In(1)
79	782.72	116.58	End Shut-In(1)
80	430.65	116.21	Open To Flow (2)
96	556.34	117.33	Shut-In(2)
156	775.80	117.97	End Shut-In(2)
157	1824.76	118.20	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
180.00	SOCMW 5%O 10%M 85%W	0.89
1270.00	GO 20%G 80%O	17.97

\* 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

**3-10s-24w Graham,KS**

250 N Water STE 300  
Wichita KS 67202+1216

**Geyer #6-35**

Job Ticket: 65995

**DST#: 2**

ATTN: Saman Sharifaie

Test Start: 2019.09.21 @ 07:08:00

## Tool Information

Drill Pipe:	Length: 3536.00 ft	Diameter: 3.82 inches	Volume: 50.12 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 61000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3720.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	75.00 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			3692.00	
Shut In Tool	5.00			3697.00	
Hydraulic tool	5.00			3702.00	
Jars	5.00			3707.00	
Safety Joint	3.00			3710.00	
Packer	5.00			3715.00	29.00 Bottom Of Top Packer
Packer	5.00			3720.00	
Stubb	1.00			3721.00	
Perforations	2.00			3723.00	
Change Over Sub	1.00			3724.00	
Recorder	0.00	8374	Inside	3724.00	
Recorder	0.00	8372	Inside	3724.00	
Drill Pipe	32.00			3756.00	
Change Over Sub	1.00			3757.00	
Perforations	5.00			3762.00	
Bullnose	4.00			3766.00	46.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>75.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co Inc

**3-10s-24w Graham,KS**

250 N Water STE 300  
Wichita KS 67202+1216

**Geyer #6-35**

Job Ticket: 65995

**DST#: 2**

ATTN: Saman Sharifaie

Test Start: 2019.09.21 @ 07:08:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

43 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

36000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	SOCMW 5%O 10%M 85%W	0.885
1270.00	GO 20%G 80%O	17.966

Total Length: 1450.00 ft      Total Volume: 18.851 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 2#LCM

RW=.143@95F

Serial #: 8374

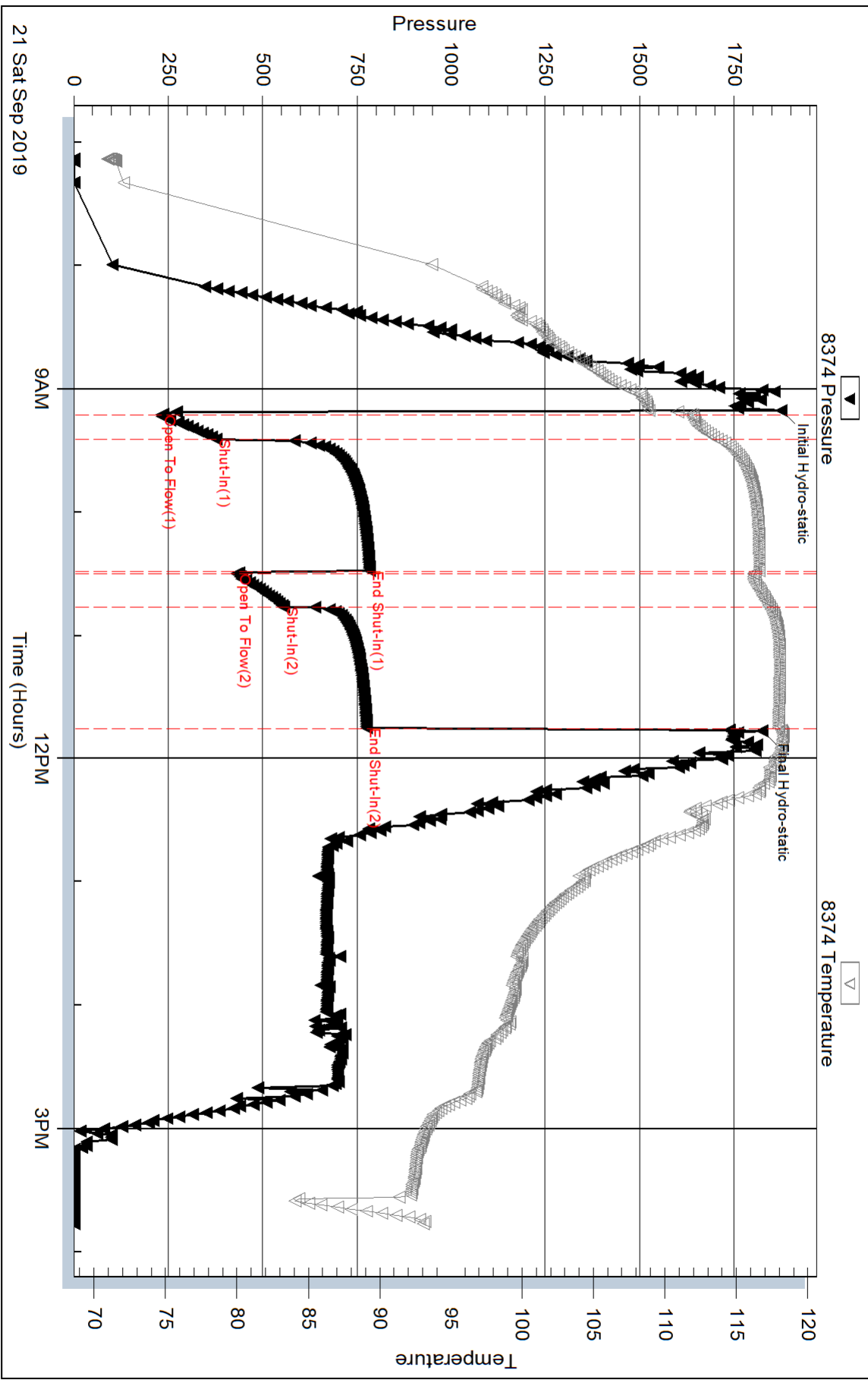
Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 2

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 65995

Printed: 2019.09.24 @ 14:27:35

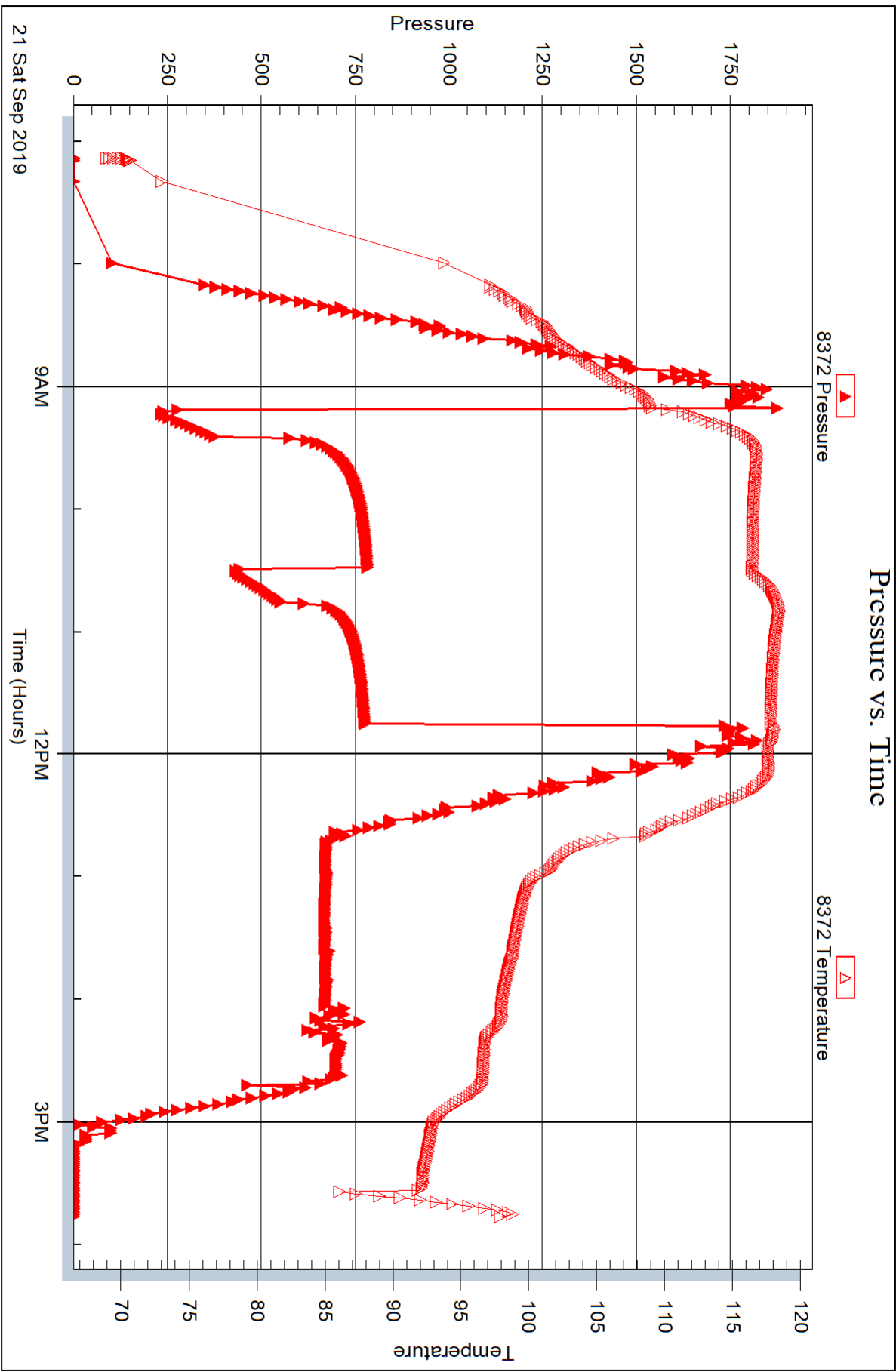
Serial #: 8372

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water STE 300  
Wichita KS 67202+1216

ATTN: Saman Sharifaie

**Geyer #6-35**

**3-10s-24w Graham,KS**

Start Date: 2019.09.21 @ 22:40:00

End Date: 2019.09.22 @ 06:49:02

Job Ticket #: 65996                      DST #: 3

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

Printed: 2019.09.24 @ 14:23:32



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co Inc  
 250 N Water STE 300  
 Wichita KS 67202+1216  
 ATTN: Saman Sharifaie

**3-10s-24w Graham,KS**  
**Geyer #6-35**  
 Job Ticket: 65996 **DST#: 3**  
 Test Start: 2019.09.21 @ 22:40:00

## GENERAL INFORMATION:

Formation: **LKC 'E-F'**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:24:17  
 Time Test Ended: 06:49:02  
 Interval: **3766.00 ft (KB) To 3790.00 ft (KB) (TVD)**  
 Total Depth: 3790.00 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: 2356.00 ft (KB)  
 2351.00 ft (CF)  
 KB to GR/CF: 5.00 ft

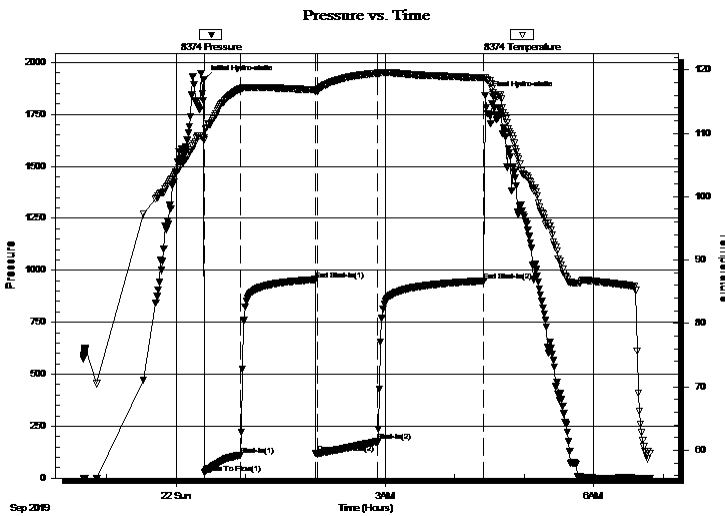
## Serial #: 8374

Inside

Press@RunDepth: 175.44 psig @ 3768.00 ft (KB) Capacity: psig  
 Start Date: 2019.09.21 End Date: 2019.09.22 Last Calib.: 2019.09.22  
 Start Time: 22:40:01 End Time: 06:49:02 Time On Btm: 2019.09.22 @ 00:23:47  
 Time Off Btm: 2019.09.22 @ 04:26:17

TEST COMMENT: 30-IF-BOB 15 mins; Built to 21"  
 60-ISI-Weak; Built to 3"  
 60-FF-BOB 17 mins; Built to 44"  
 90-FSI-Fair; Built to 6"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1916.15	109.27	Initial Hydro-static
1	25.23	109.01	Open To Flow (1)
32	110.59	117.02	Shut-In(1)
96	954.78	116.82	End Shut-In(1)
98	117.22	116.65	Open To Flow (2)
150	175.44	119.48	Shut-In(2)
242	949.00	118.74	End Shut-In(2)
243	1841.55	118.71	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	GSOCMW 5%G 5%O 10%M 80%W	0.59
60.00	GSOCWM 15%G 5%O 30%W 50%M	0.30
60.00	GSOCM 5%G 10%O 85%M	0.81
40.00	GO 70%G 30%O	0.57
0.00	500' GIP 100%G	0.00

\* 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  
 250 N Water STE 300  
 Wichita KS 67202+1216  
 ATTN: Saman Sharifaie

**3-10s-24w Graham,KS**

**Geyer #6-35**

Job Ticket: 65996

**DST#: 3**

Test Start: 2019.09.21 @ 22:40:00

## GENERAL INFORMATION:

Formation: **LKC 'E-F'**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:24:17  
 Time Test Ended: 06:49:02  
 Interval: **3766.00 ft (KB) To 3790.00 ft (KB) (TVD)**  
 Total Depth: 3790.00 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: 2356.00 ft (KB)  
 2351.00 ft (CF)  
 KB to GR/CF: 5.00 ft

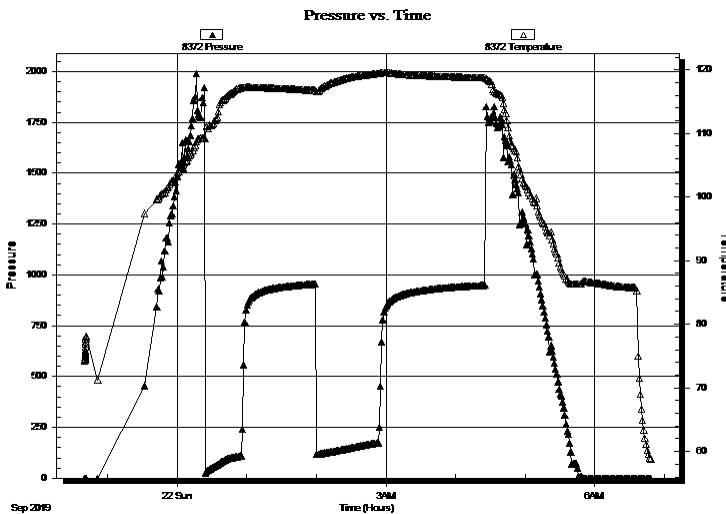
**Serial #: 8372**

**Inside**

Press@RunDepth: psig @ 3768.00 ft (KB) Capacity: psig  
 Start Date: 2019.09.21 End Date: 2019.09.22 Last Calib.: 2019.09.22  
 Start Time: 22:40:01 End Time: 06:49:02 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30-IF-BOB 15 mins; Built to 21"  
 60-ISI-Weak; Built to 3"  
 60-FF-BOB 17 mins; Built to 44"  
 90-FSI-Fair; Built to 6"

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	GSOCMW 5%G 5%O 10%M 80%W	0.59
60.00	GSOCWM 15%G 5%O 30%W 50%M	0.30
60.00	GSOCM 5%G 10%O 85%M	0.81
40.00	GO 70%G 30%O	0.57
0.00	500' GIP 100%G	0.00

## 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

**3-10s-24w Graham,KS**

250 N Water STE 300  
Wichita KS 67202+1216

**Geyer #6-35**

Job Ticket: 65996

**DST#: 3**

ATTN: Saman Sharifaie

Test Start: 2019.09.21 @ 22:40:00

## Tool Information

Drill Pipe:	Length: 3568.00 ft	Diameter: 3.82 inches	Volume: 50.58 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 54000.00 lb
		Total Volume: - bbl		Tool Chased ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3766.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	53.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

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

Change Over Sub	1.00			3738.00	
Shut In Tool	5.00			3743.00	
Hydraulic tool	5.00			3748.00	
Jars	5.00			3753.00	
Safety Joint	3.00			3756.00	
Packer	5.00			3761.00	29.00 Bottom Of Top Packer
Packer	5.00			3766.00	
Stubb	1.00			3767.00	
Perforations	1.00			3768.00	
Recorder	0.00	8374	Inside	3768.00	
Recorder	0.00	8372	Inside	3768.00	
Perforations	18.00			3786.00	
Bullnose	4.00			3790.00	24.00 Bottom Packers & Anchor

**Total Tool Length: 53.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co Inc

**3-10s-24w Graham,KS**

250 N Water STE 300  
Wichita KS 67202+1216

**Geyer #6-35**

Job Ticket: 65996

**DST#: 3**

ATTN: Saman Sharifaie

Test Start: 2019.09.21 @ 22:40:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

45 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

80000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbf

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
120.00	GSOCMW 5%G 5%O 10%M 80%W	0.590
60.00	GSOCWM 15%G 5%O 30%W 50%M	0.295
60.00	GSOCM 5%G 10%O 85%M	0.813
40.00	GO 70%G 30%O	0.567
0.00	500' GIP 100%G	0.000

Total Length: 280.00 ft

Total Volume: 2.265 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 2#LCM

RW=.135@54F

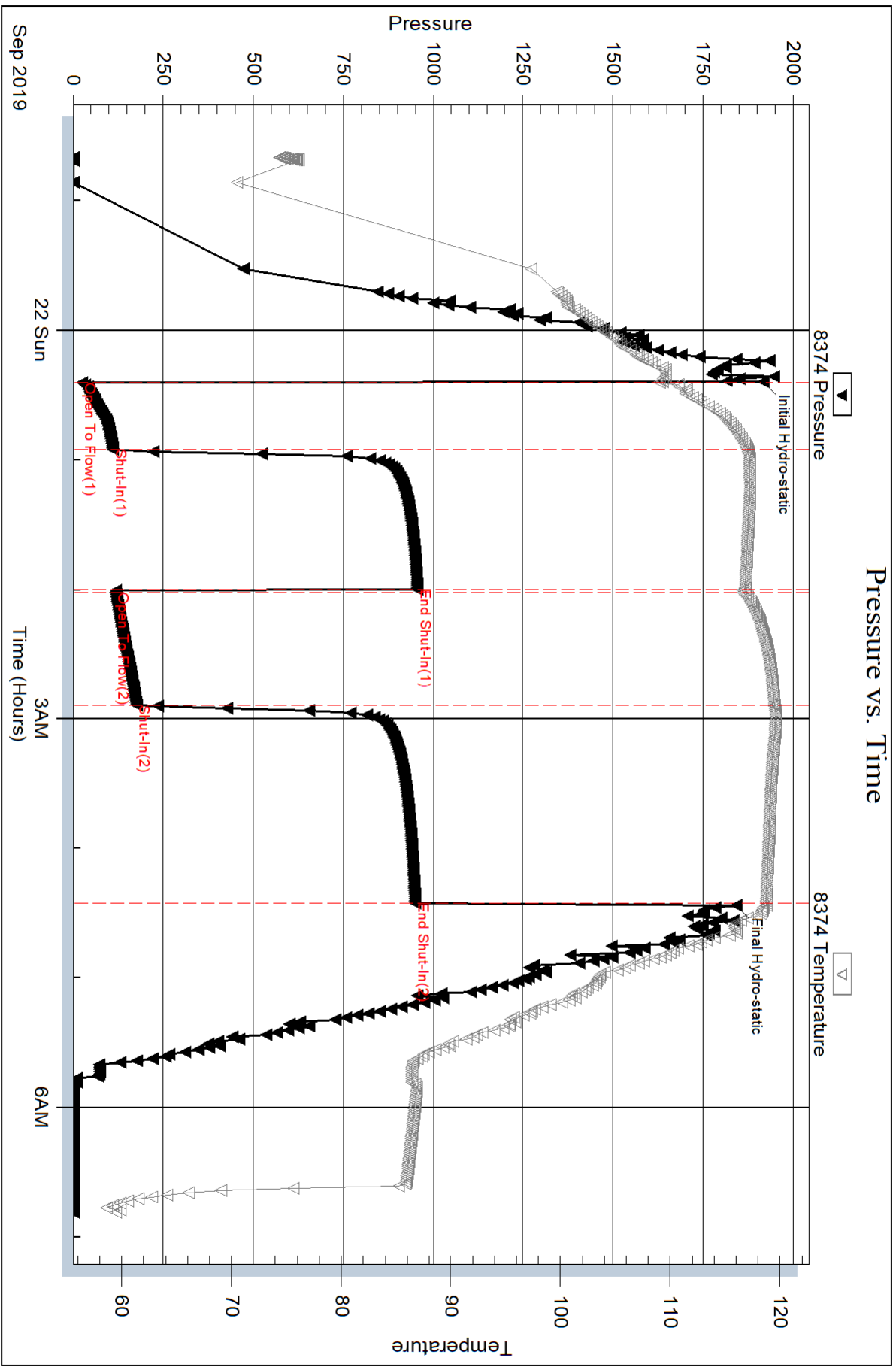
Serial #: 8374

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 65996

Printed: 2019.09.24 @ 14:23:33

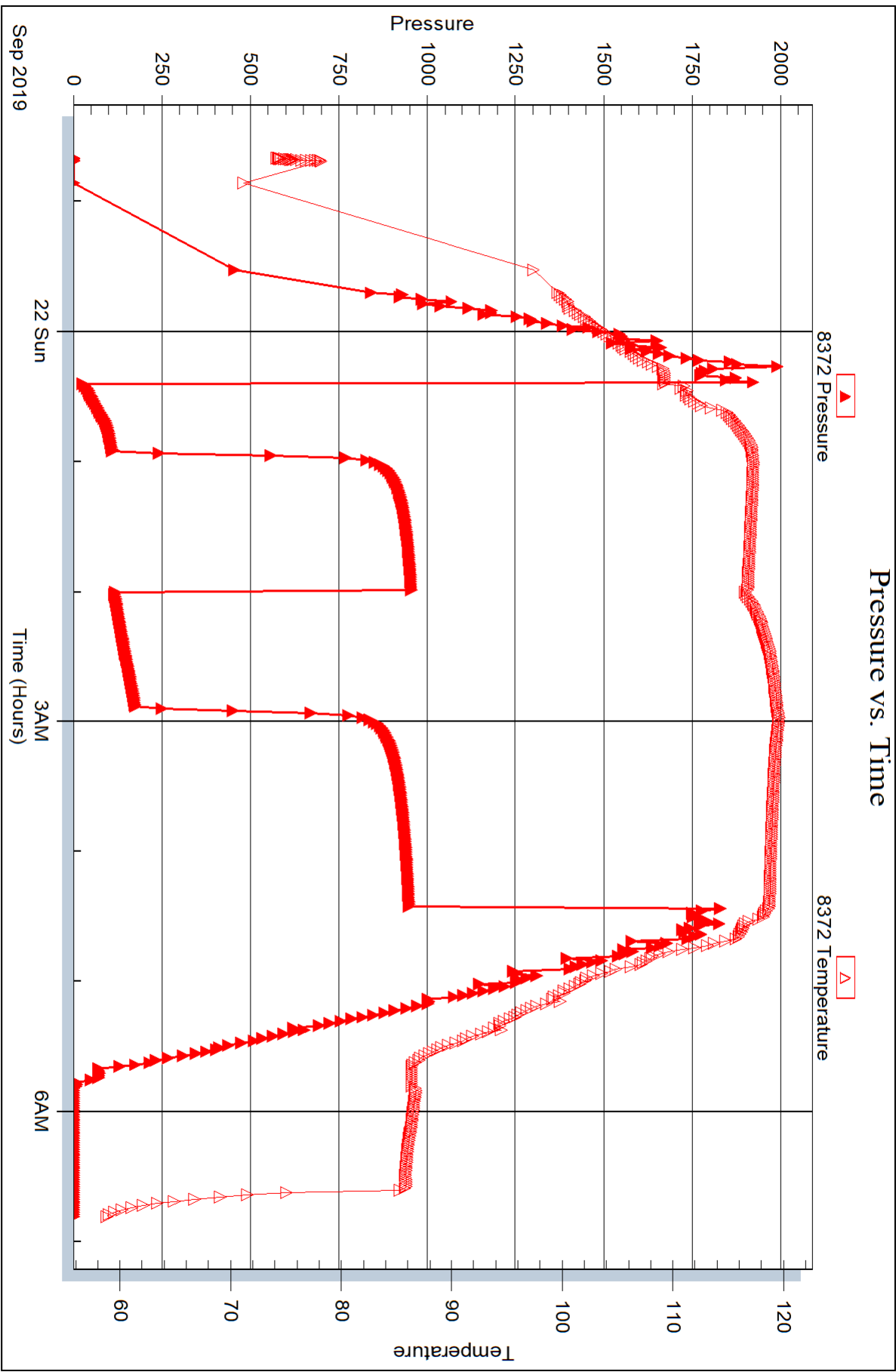
Serial #: 8372

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water STE 300  
Wichita KS 67202+1216

ATTN: Saman Sharifaie

**Geyer #6-35**

**3-10s-24w Graham,KS**

Start Date: 2019.09.22 @ 18:40:00

End Date: 2019.09.23 @ 02:57:02

Job Ticket #: 65997                      DST #: 4

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

Printed: 2019.09.24 @ 14:15:16



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co Inc  
 250 N Water STE 300  
 Wichita KS 67202+1216  
 ATTN: Saman Sharifaie

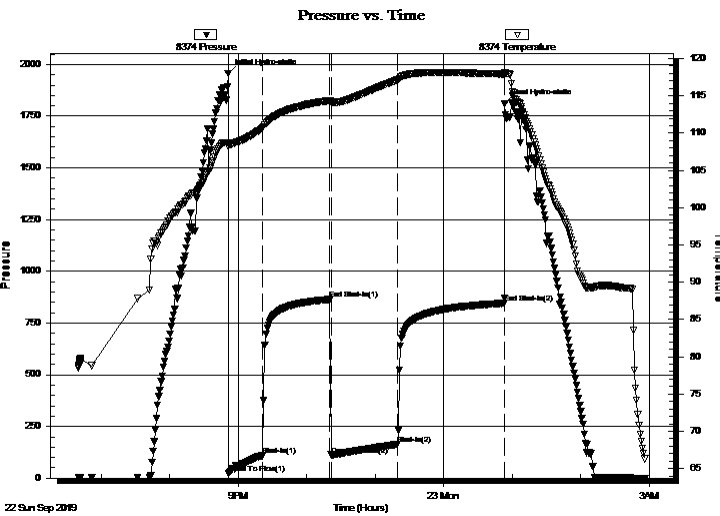
**3-10s-24w Graham,KS**  
**Geyer #6-35**  
 Job Ticket: 65997 **DST#: 4**  
 Test Start: 2019.09.22 @ 18:40:00

## GENERAL INFORMATION:

Formation: **LKC 'H-J'**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 20:51:17  
 Time Test Ended: 02:57:02  
 Interval: **3814.00 ft (KB) To 3890.00 ft (KB) (TVD)**  
 Total Depth: 3890.00 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: 2356.00 ft (KB)  
 2351.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8374** **Inside**  
 Press@RunDepth: 163.74 psig @ 3818.00 ft (KB) Capacity: psig  
 Start Date: 2019.09.22 End Date: 2019.09.23 Last Calib.: 2019.09.23  
 Start Time: 18:40:01 End Time: 02:57:02 Time On Btm: 2019.09.22 @ 20:51:02  
 Time Off Btm: 2019.09.23 @ 00:53:32

**TEST COMMENT:** 30-IF-Fair; Built to 7"  
 60-ISI-No Return  
 60-FF-Fair; Built to 6"  
 90-FSI-No Return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1956.94	108.75	Initial Hydro-static
1	22.52	108.17	Open To Flow (1)
31	108.75	110.68	Shut-In(1)
90	863.82	114.35	End Shut-In(1)
91	112.18	114.17	Open To Flow (2)
149	163.74	117.14	Shut-In(2)
242	845.63	117.94	End Shut-In(2)
243	1811.88	118.06	Final Hydro-static

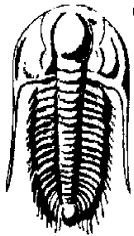
## Recovery

Length (ft)	Description	Volume (bbl)
350.00	MW 30%M 70%W	3.26

\* 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  
250 N Water STE 300  
Wichita KS 67202+1216  
ATTN: Saman Sharifaie

**3-10s-24w Graham,KS**

**Geyer #6-35**

Job Ticket: 65997

**DST#: 4**

Test Start: 2019.09.22 @ 18:40:00

## GENERAL INFORMATION:

Formation: **LKC 'H-J'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:51:17

Time Test Ended: 02:57:02

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J Staab

Unit No: 84

**Interval: 3814.00 ft (KB) To 3890.00 ft (KB) (TVD)**

Total Depth: 3890.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2356.00 ft (KB)

2351.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8372 Inside**

Press@RunDepth: psig @ 3818.00 ft (KB)

Start Date: 2019.09.22

End Date:

2019.09.23

Start Time: 18:40:01

End Time:

02:57:02

Capacity: psig

Last Calib.:

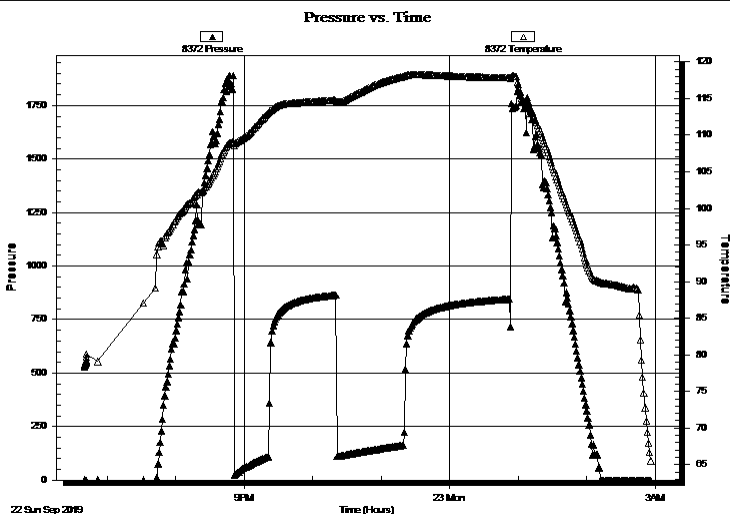
2019.09.23

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30-IF-Fair; Built to 7"  
60-ISI-No Return  
60-FF-Fair; Built to 6"  
90-FSI-No Return

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
350.00	MW 30%M 70%W	3.26

## 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

**3-10s-24w Graham,KS**

250 N Water STE 300  
Wichita KS 67202+1216

**Geyer #6-35**

Job Ticket: 65997

**DST#: 4**

ATTN: Saman Sharifaie

Test Start: 2019.09.22 @ 18:40:00

## Tool Information

Drill Pipe:	Length: 3633.00 ft	Diameter: 3.82 inches	Volume: 51.50 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose:	54000.00 lb
			<u>Total Volume:</u>	Tool Chased	ft
			- bbl	String Weight: Initial	52000.00 lb
Drill Pipe Above KB:	32.00 ft			Final	52000.00 lb
Depth to Top Packer:	3814.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	76.00 ft				
Tool Length:	105.00 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			3786.00	
Shut In Tool	5.00			3791.00	
Hydraulic tool	5.00			3796.00	
Jars	5.00			3801.00	
Safety Joint	3.00			3804.00	
Packer	5.00			3809.00	29.00 Bottom Of Top Packer
Packer	5.00			3814.00	
Stubb	1.00			3815.00	
Perforations	2.00			3817.00	
Change Over Sub	1.00			3818.00	
Recorder	0.00	8374	Inside	3818.00	
Recorder	0.00	8372	Inside	3818.00	
Drill Pipe	62.00			3880.00	
Change Over Sub	1.00			3881.00	
Perforations	5.00			3886.00	
Bullnose	4.00			3890.00	76.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>105.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co Inc

**3-10s-24w Graham,KS**

250 N Water STE 300  
Wichita KS 67202+1216

**Geyer #6-35**

Job Ticket: 65997

**DST#: 4**

ATTN: Saman Sharifaie

Test Start: 2019.09.22 @ 18:40:00

## 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:

58000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
350.00	MW 30%M 70%W	3.258

Total Length: 350.00 ft      Total Volume: 3.258 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

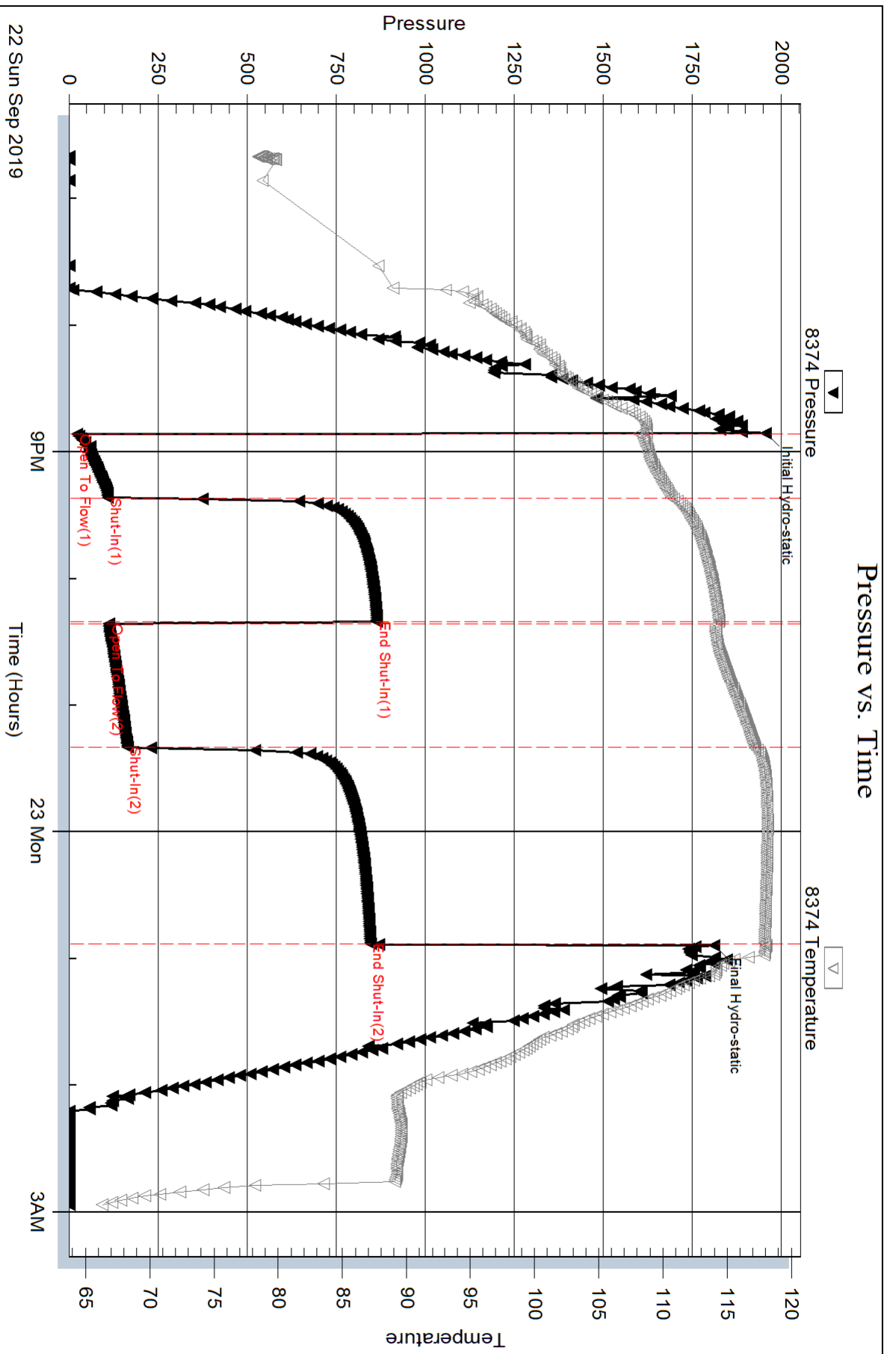
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1#LCM

RW=.167@55F



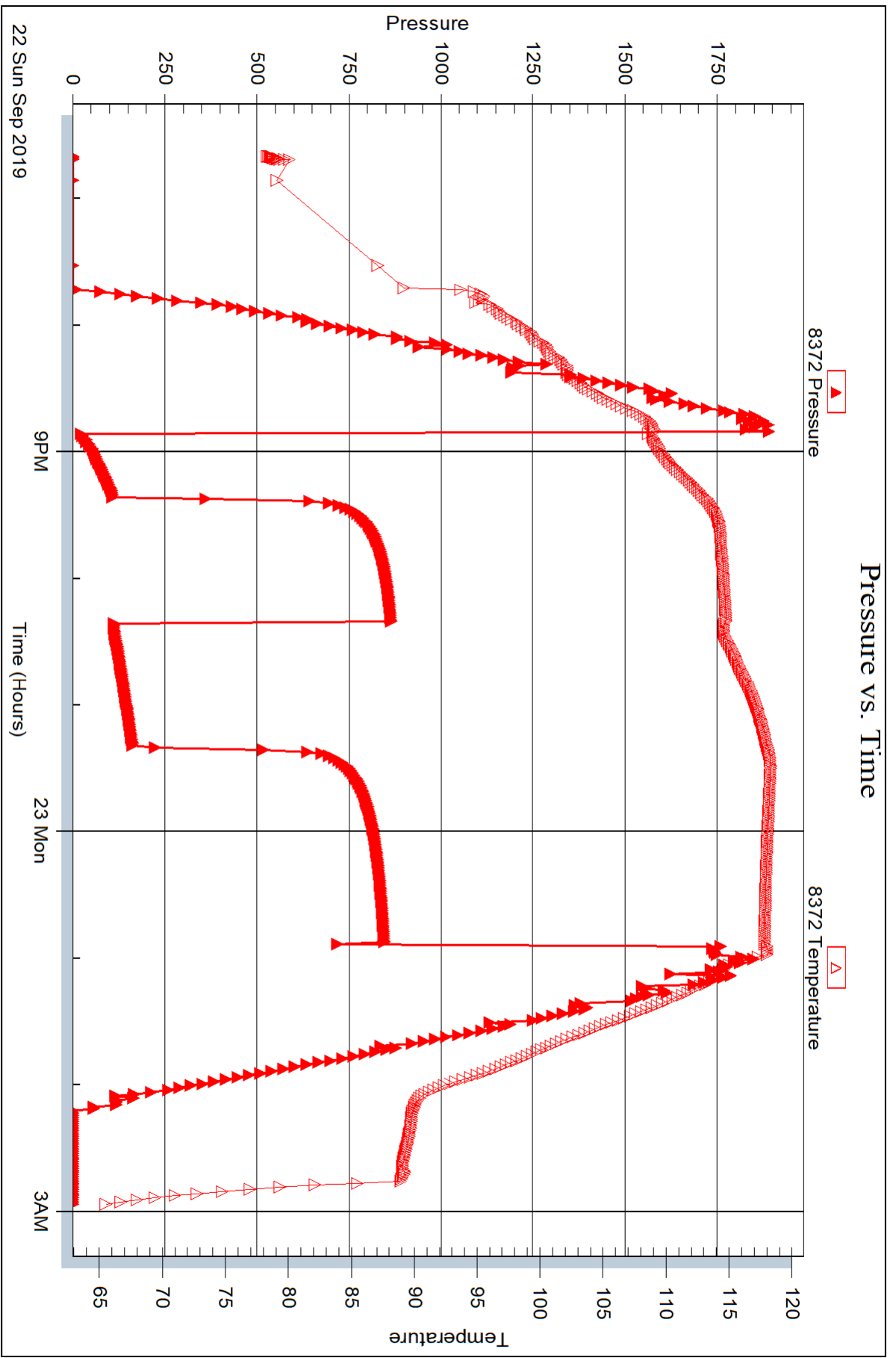
Serial #: 8372

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 65997

Printed: 2019.09.24 @ 14:15:17



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water STE 300  
Wichita KS 67202+1216

ATTN: Saman Sharifaie

**Geyer #6-35**

**3-10s-24w Graham,KS**

Start Date: 2019.09.23 @ 11:30:00

End Date: 2019.09.23 @ 19:05:02

Job Ticket #: 65998                      DST #: 5

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

Printed: 2019.09.24 @ 14:13:00



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co Inc  
 250 N Water STE 300  
 Wichita KS 67202+1216  
 ATTN: Saman Sharifaie

**3-10s-24w Graham,KS**  
**Geyer #6-35**  
 Job Ticket: 65998 **DST#: 5**  
 Test Start: 2019.09.23 @ 11:30:00

## GENERAL INFORMATION:

Formation: **LKC 'K-L'**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:22:17  
 Time Test Ended: 19:05:02  
 Interval: **3890.00 ft (KB) To 3934.00 ft (KB) (TVD)**  
 Total Depth: 3934.00 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: 2356.00 ft (KB)  
 2351.00 ft (CF)  
 KB to GR/CF: 5.00 ft

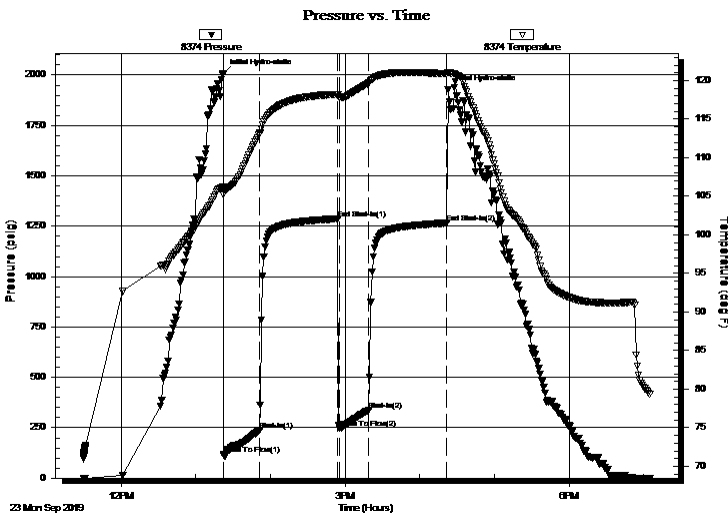
## Serial #: 8374

Inside

Press@RunDepth: 337.76 psig @ 3897.00 ft (KB) Capacity: psig  
 Start Date: 2019.09.23 End Date: 2019.09.23 Last Calib.: 2019.09.23  
 Start Time: 11:30:01 End Time: 19:05:02 Time On Btm: 2019.09.23 @ 13:22:02  
 Time Off Btm: 2019.09.23 @ 16:22:47

TEST COMMENT: 30-IF-BOB 3 mins; Built to 87"  
 60-ISI-BOB 5 mins after 6 mins to Bleed off; Built to 12"  
 30-FF-BOB 1 min; Built to 53"  
 60-FSI-BOB 59 mins after 4 mins to Bleed off

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2008.41	106.20	Initial Hydro-static
1	118.11	105.18	Open To Flow (1)
30	237.21	113.12	Shut-In(1)
93	1285.55	118.16	End Shut-In(1)
94	247.70	117.84	Open To Flow (2)
118	337.76	119.67	Shut-In(2)
180	1265.95	120.91	End Shut-In(2)
181	1927.39	120.99	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
180.00	GOCW 10%G 5%O 85%W	0.89
510.00	GO 60%G 40%O	7.19
60.00	GMCO 20%G 10%M 70%O	0.85
0.00	1150' GIP 100%G	0.00

\* 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  
250 N Water STE 300  
Wichita KS 67202+1216  
ATTN: Saman Sharifaie

**3-10s-24w Graham, KS**  
**Geyer #6-35**  
Job Ticket: 65998      **DST#: 5**  
Test Start: 2019.09.23 @ 11:30:00

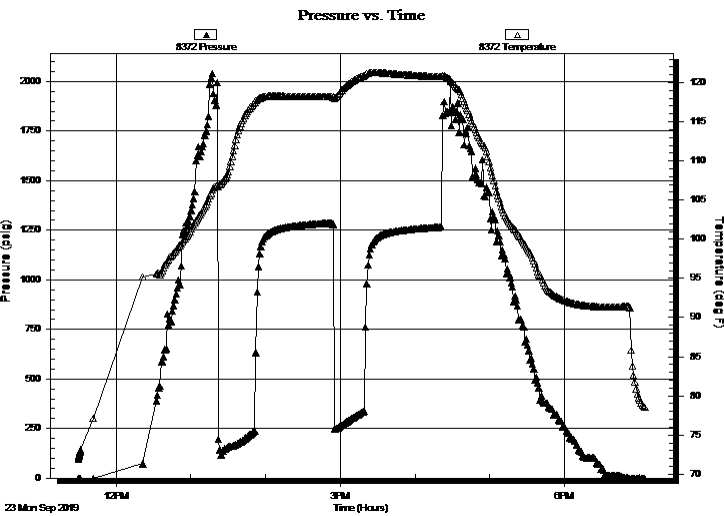
### GENERAL INFORMATION:

<b>Formation:</b>	<b>LKC 'K-L'</b>		
<b>Deviated:</b>	No Whipstock:	ft (KB)	<b>Test Type:</b> Conventional Bottom Hole (Reset)
<b>Time Tool Opened:</b>	13:22:17		<b>Tester:</b> Spencer J Staab
<b>Time Test Ended:</b>	19:05:02		<b>Unit No:</b> 84
<b>Interval:</b>	<b>3890.00 ft (KB) To 3934.00 ft (KB) (TVD)</b>		<b>Reference Elevations:</b> 2356.00 ft (KB)
<b>Total Depth:</b>	3934.00 ft (KB) (TVD)		2351.00 ft (CF)
<b>Hole Diameter:</b>	7.88 inches	<b>Hole Condition:</b> Fair	<b>KB to GR/CF:</b> 5.00 ft

### Serial #: 8372      Inside

<b>Press@RunDepth:</b>	psig @ 3897.00 ft (KB)	<b>Capacity:</b>	psig
<b>Start Date:</b>	2019.09.23	<b>End Date:</b>	2019.09.23
<b>Start Time:</b>	11:30:01	<b>End Time:</b>	19:05:02
		<b>Time On Btm:</b>	
		<b>Time Off Btm:</b>	

**TEST COMMENT:** 30-IF-BOB 3 mins; Built to 87"  
60-ISI-BOB 5 mins after 6 mins to Bleed off; Built to 12"  
30-FF-BOB 1 min; Built to 53"  
60-FSI-BOB 59 mins after 4 mins to Bleed off



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
180.00	GOCW 10%G 5%O 85%W	0.89
510.00	GO 60%G 40%O	7.19
60.00	GMCO 20%G 10%M 70%O	0.85
0.00	1150' GIP 100%G	0.00

### 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

**3-10s-24w Graham,KS**

250 N Water STE 300  
Wichita KS 67202+1216

**Geyer #6-35**

Job Ticket: 65998

**DST#: 5**

ATTN: Saman Sharifaie

Test Start: 2019.09.23 @ 11:30:00

## Tool Information

Drill Pipe:	Length: 3692.00 ft	Diameter: 3.82 inches	Volume: 52.34 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 80000.00 lb
		Total Volume: - bbl		Tool Chased ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3890.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	73.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

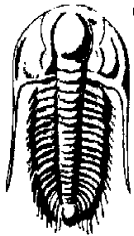
Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3862.00	
Shut In Tool	5.00			3867.00	
Hydraulic tool	5.00			3872.00	
Jars	5.00			3877.00	
Safety Joint	3.00			3880.00	
Packer	5.00			3885.00	29.00 Bottom Of Top Packer
Packer	5.00			3890.00	
Stubb	1.00			3891.00	
Perforations	5.00			3896.00	
Change Over Sub	1.00			3897.00	
Recorder	0.00	8374	Inside	3897.00	
Recorder	0.00	8372	Inside	3897.00	
Drill Pipe	32.00			3929.00	
Change Over Sub	1.00			3930.00	
Bullnose	4.00			3934.00	44.00 Bottom Packers & Anchor

**Total Tool Length: 73.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co Inc

**3-10s-24w Graham,KS**

250 N Water STE 300  
Wichita KS 67202+1216

**Geyer #6-35**

Job Ticket: 65998

**DST#: 5**

ATTN: Saman Sharifaie

Test Start: 2019.09.23 @ 11:30:00

## 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:

39000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	GOCW 10%G 5%O 85%W	0.885
510.00	GO 60%G 40%O	7.192
60.00	GMCO 20%G 10%M 70%O	0.851
0.00	1150' GIP 100%G	0.000

Total Length: 750.00 ft

Total Volume: 8.928 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1#LCM

RW=.178@74F

Serial #: 8374

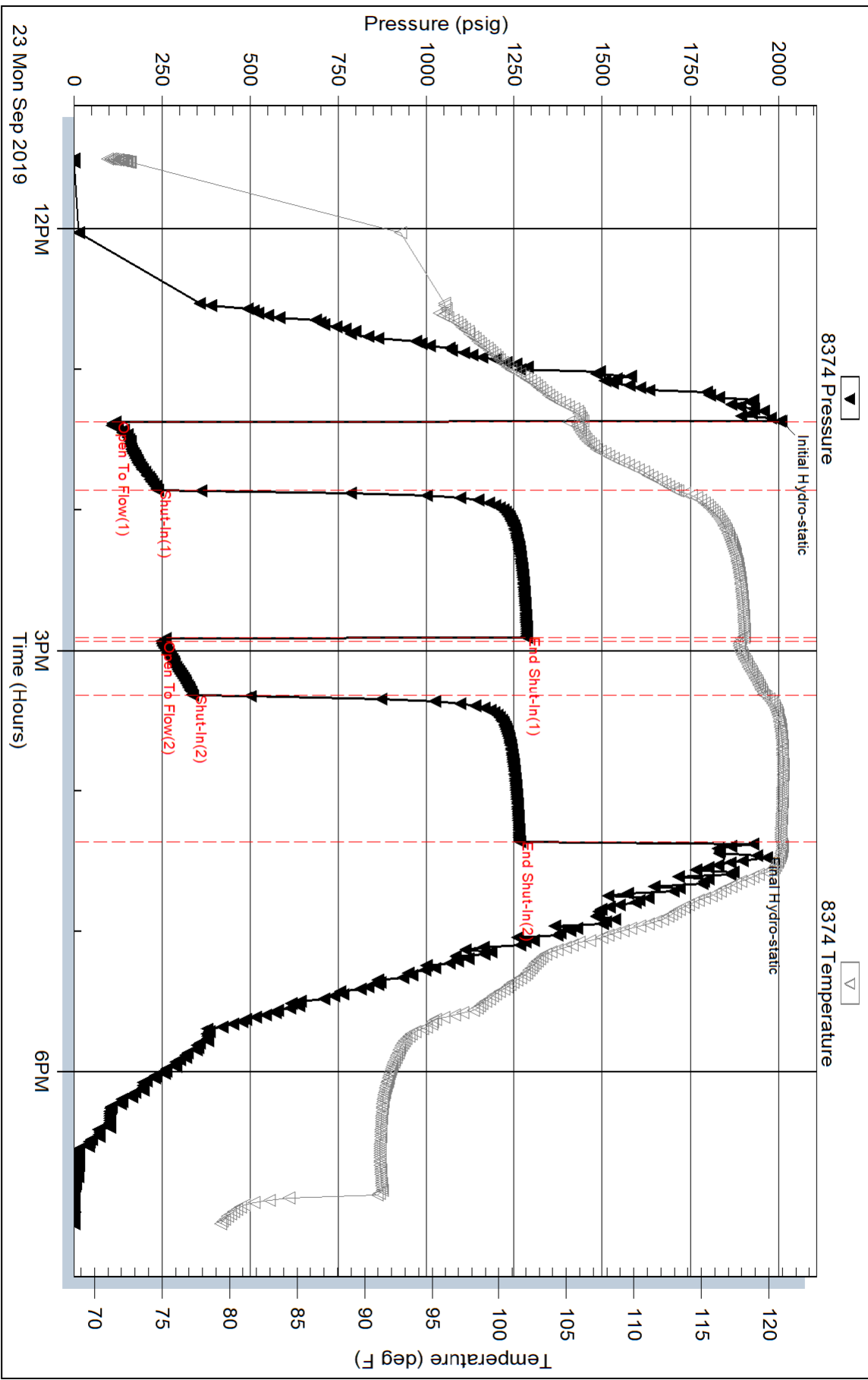
Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 5

# Pressure vs. Time



Triobite Testing, Inc

Ref. No: 65998

Printed: 2019.09.24 @ 14:13:01

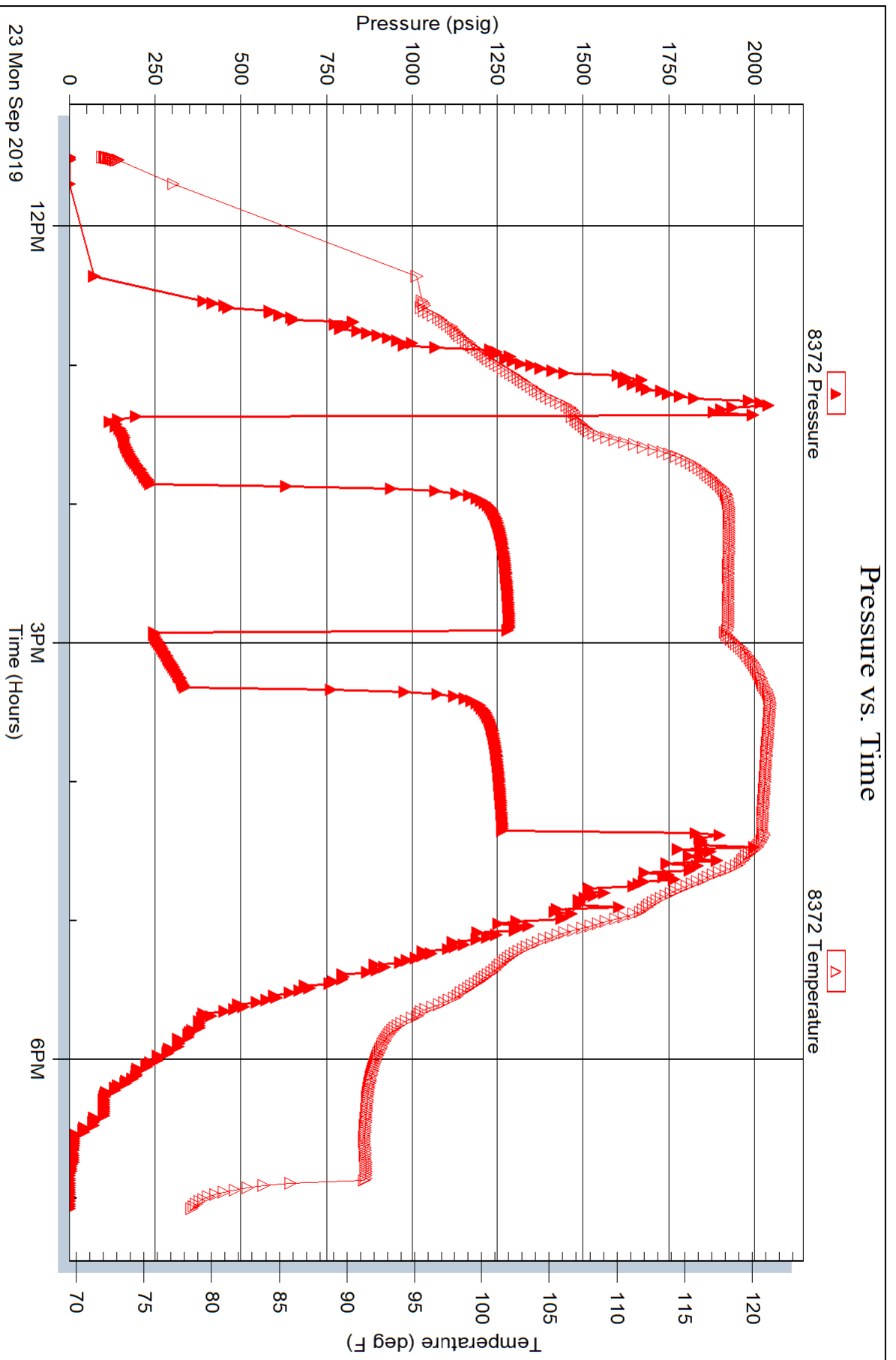
Serial #: 8372

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 65998

Printed: 2019.09.24 @ 14:13:01



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket 65994

NO.

Well Name & No. Neyer #6-35 Test No. 1 Date 09/20/2019  
 Company Murphy Drilling Co Inc Elevation 2356' KB 2351 GL  
 Address 250 N Water STE 300 Wichita KS 67202+1216  
 Co. Rep / Geo. Samon Sharifai Rig Murphy #8  
 Location: Sec. 31 Twp 80S Rge. 24W Co. Graham State KS

Interval Tested 3665' - 3720' Zone Tested Toronto, LNC 'A'  
 Anchor Length 55' Drill Pipe Run 3474' Mud Wt. 9.2  
 Top Packer Depth 3660' Drill Collars Run 184' Vis 57  
 Bottom Packer Depth 3665' Wt. Pipe Run - WL 7.4  
 Total Depth 3720' Chlorides 1200' ppm System LCM 2#

Blow Description 27-Weak; Built to 4"  
ISA - No Return  
77-Weak; Built to 3 3/4"  
75D - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>60'</u>	<u>SOEWM</u>	<u>7</u>	<u>40</u>	<u>53</u>	
<u>80'</u>	<u>OCM</u>	<u>20</u>		<u>80</u>	
<u>10'</u>	<u>MCO</u>	<u>90</u>		<u>10</u>	

Rec Total 150' BHT 116° Gravity 36° API RW 284 @ 75 ° F Chlorides 22,000 ppm

(A) Initial Hydrostatic <u>1830</u>	<input checked="" type="checkbox"/> Test <u>1200</u>	T-On Location <u>12:45</u>
(B) First Initial Flow <u>24</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>14:15</u>
(C) First Final Flow <u>54</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>16:25</u>
(D) Initial Shut-In <u>933</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>20:25</u>
(E) Second Initial Flow <u>59</u>	<input checked="" type="checkbox"/> Hourly Standby <u>X1</u>	T-Out <u>22:50</u>
(F) Second Final Flow <u>100</u>	<input checked="" type="checkbox"/> Mileage <u>100K17</u> 100	Comments
(G) Final Shut-In <u>886</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1779</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>

Initial Open 30  
 Initial Shut-In 60  
 Final Flow 60  
 Final Shut-In 90

Shale Packer  
 Extra Packer  
 Extra Recorder  
 Day Standby  
 Accessibility

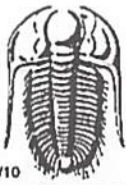
Sub Total 1625

Sub Total 1625 MP/DST Disc't

Approved By \_\_\_\_\_ Our Representative Samon Sharifai 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



# TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket 65995

NO.

Well Name & No. Levor #6-35 Test No. 2 Date 09/21/2009  
 Company Murfin Drilling Co Inc Elevation 2356 KB 2351 GL  
 Address 250 1/2 Water STE 300 Wichita KS 67202 +1216  
 Co. Rep / Geo. Saman Sharifai Rig Murfin #8  
 Location: Sec. 3 Twp 10S Rge. 24W Co. Graham State KS

Interval Tested 3720' - 3766' Zone Tested LRC 'B-D'  
 Anchor Length 46' Drill Pipe Run 3536' Mud Wt. 9.2  
 Top Packer Depth 3715' Drill Collars Run 184' Vis 57  
 Bottom Packer Depth 3720' Wt. Pipe Run - WL 7.2  
 Total Depth 3766' Chlorides 1400 ppm System LCM 2H

Blow Description 77- BOB; 30 secs; Built to 214"  
55- 8 min bleed off; BOB 1 min; Built to 113"  
77- BOB instantaneously; Built to 105" JTS7M @ 12 min  
75- 6 min bleed off; BOB 2 min; Built 112"

Rec	Feet of	%gas	%oil	%water	%mud
<u>180'</u>	<u>SOCMW</u>	<u>5</u>	<u>85</u>	<u>10</u>	
<u>1270'</u>	<u>GO</u>	<u>20</u>	<u>80</u>		

Rec Total 1450' BHT 118° Gravity 43° API RW 143 @ 95 °F Chlorides 36000 ppm

(A) Initial Hydrostatic <u>1875</u>	<input checked="" type="checkbox"/> Test <u>1200</u>	T-On Location <u>06:15</u>
(B) First Initial Flow <u>232</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>07:08</u>
(C) First Final Flow <u>376</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>09:06</u>
(D) Initial Shut-In <u>780</u>	<input checked="" type="checkbox"/> Circ Sub <u>50</u>	T-Pulled <u>11:40</u>
(E) Second Initial Flow <u>430</u>	<input checked="" type="checkbox"/> Hourly Standby <u>X1</u>	T-Out <u>15:43</u>
(F) Second Final Flow <u>556</u>	<input checked="" type="checkbox"/> Mileage <u>10007</u> 100	Comments _____
(G) Final Shut-In <u>775</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1824</u>	<input type="checkbox"/> Straddle _____	<input checked="" type="checkbox"/> EM Tool <u>350</u>

Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>15</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility _____	Total <u>1675</u>
	Sub Total <u>1675</u>	MP/DST Disc't _____

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

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785-259-0056



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

# 65996

NO.

Well Name & No. Deyer #6-35 Test No. 3 Date 09/21/2019  
 Company Murfin Drilling Co Inc Elevation 2356 KB 2351 GL  
 Address 850 N Water STE 300 Wichita KS 67202 + 1216  
 Co. Rep / Geo. Sammam Sharifue Rig Murfin #8  
 Location: Sec. 3 Twp 10A Rge. 24W Co. Graham State Ks

Interval Tested 3766' - 3790' Zone Tested LPC 'E-7'  
 Anchor Length 24' Drill Pipe Run 3568' Mud Wt. 9.2  
 Top Packer Depth 3761' Drill Collars Run 184' Vis 57  
 Bottom Packer Depth 3766' Wt. Pipe Run - WL 7.2  
 Total Depth 3790' Chlorides 1400 ppm System LCM 2#

Blow Description 7- BOB 15 mins; Built to 21"  
SD - Weak, Built to 3"  
77- BOB 17 mins; Built to 44"  
75- Fair, Built to 6"

Rec	Feet of	%gas	%oil	%water	%mud
120'	G.SOC MW	5	5	80	10
60'	G.SOC M	5	10		85
60'	G.SOC WM	15	5	30	50
40'	GO	70	30		
	500' GTP	100			

Rec Total 280' BHT 118° Gravity 45° API RW 1.35 @ 54 °F Chlorides 80,000 ppm

(A) Initial Hydrostatic 1916  Test 1200 T-On Location 10:28  
 (B) First Initial Flow 25  Jars 250 T-Started 10:40  
 (C) First Final Flow 110  Safety Joint 75 T-Open 08:22 09/22/2019  
 (D) Initial Shut-In 954  Circ Sub \_\_\_\_\_ T-Pulled 04:22  
 (E) Second Initial Flow 117  Hourly Standby \_\_\_\_\_ T-Out 06:47  
 (F) Second Final Flow 175  Mileage 10027 100  
 (G) Final Shut-In 949  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1841  Straddle \_\_\_\_\_  EM Tool 350  
 Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Sub Total 0  
 Accessibility \_\_\_\_\_ Total 1625  
 Sub Total 1625 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Spencer J. Fiala

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785-259-0056



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket 65997

NO.

Well Name & No. Weyer # 6-35 Test No. 4 Date 09/22/2019  
 Company Murfin Drilling Co Inc Elevation 2356 KB 2351 GL  
 Address 250 N. Water STE 300 Wichita KS 67202 +1216  
 Co. Rep / Geo. Saman Sharifaie Rig \_\_\_\_\_  
 Location: Sec. 3 Twp 10A Rge. 24W Co. Graham State KS

Interval Tested 3814' - 3890' Zone Tested LAC 'H-J'  
 Anchor Length 76' Drill Pipe Run 3633' Mud Wt. 9.0  
 Top Packer Depth 3809' Drill Collars Run 184' Vis 60+  
 Bottom Packer Depth 3814' Wt. Pipe Run - WL 6.4  
 Total Depth 3890' Chlorides 1200 ppm System LCM 1#

Blow Description 7- Fair; Buill to 7"  
51- No Return  
77- Fair; Buill to 6"  
75- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>350'</u>	<u>MW</u>			<u>70</u>	<u>30</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

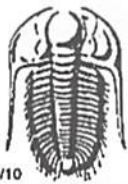
Rec Total 350' BHT 118° Gravity - API RW 167 @ 55° F Chlorides 58,000 ppm

(A) Initial Hydrostatic 1956  Test 1200 T-On Location 17:40  
 (B) First Initial Flow 22  Jars 250 T-Started 18:40  
 (C) First Final Flow 108  Safety Joint 75 T-Open 20:46  
 (D) Initial Shut-In 863  Circ Sub \_\_\_\_\_ T-Pulled 00:46 09/23/2019  
 (E) Second Initial Flow 112  Hourly Standby X1 T-Out 02:53  
 (F) Second Final Flow 163  Mileage 100R7 100 Comments \_\_\_\_\_  
 (G) Final Shut-In 845  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1811  Straddle \_\_\_\_\_  EM Tool 350  
 Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Sub Total 0  
 Accessibility \_\_\_\_\_ Total 1625

Initial Open 30  
 Initial Shut-In 60  
 Final Flow 80  
 Final Shut-In 90  
 Sub Total 1625 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Francis J. Jural Thanks!  
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785-259-0036



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket 65998

NO.

Well Name & No. Jeyer #6-35 Test No. 5 Date 09/23/2019  
 Company Murfin Drilling Co Inc Elevation 2356 KB 2351 GL  
 Address 250 W Water STE 300 Wichita KS 67202 +1216  
 Co. Rep / Geo. Saman Sharifkai Rig Murfin #8  
 Location: Sec. 3 Twp 10S Rge. 24W Co. Osage State KS

Interval Tested 3890' - 3934' Zone Tested LKC 'H-L'  
 Anchor Length 44' Drill Pipe Run 3692' Mud Wt. 9.2  
 Top Packer Depth 3885' Drill Collars Run 184' Vls 51  
 Bottom Packer Depth 3890' Wt. Pipe Run - WL 7.8  
 Total Depth 3934' Chlorides 1500 ppm System LCM 1#

Blow Description 7- BOB 3mins; Built to 87"  
2SD- BOB 5mins; 6mins to bleed off; Built to 13"  
77- BOB 1min; Built to 53"  
7SD- BOB 59mins; 4mins to bleed off

Rec	Feet of	%gas	%oil	%water	%mud
<u>180'</u>	<u>GOCW</u>	<u>10</u>	<u>5</u>	<u>85</u>	
<u>510</u>	<u>GO</u>	<u>60</u>	<u>40</u>		
<u>60'</u>	<u>GMCO</u>	<u>20</u>	<u>70</u>		<u>10</u>
<u>Rec</u>	<u>Feet of 1150' GJP</u>	<u>100</u>			
<u>Rec</u>	<u>Feet of</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>

Rec Total 750 BHT 120° Gravity 26° API RW .178 @ 74 °F Chlorides 39000 ppm

(A) Initial Hydrostatic <u>2008</u>	<input checked="" type="checkbox"/> Test <u>1200</u>	T-On Location <u>11:07</u>
(B) First Initial Flow <u>118</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>11:30</u>
(C) First Final Flow <u>237</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>13:18</u>
(D) Initial Shut-In <u>1285</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>16:18</u>
(E) Second Initial Flow <u>247</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>19:02</u>
(F) Second Final Flow <u>337</u>	<input checked="" type="checkbox"/> Mileage <u>10027</u> <u>100</u>	Comments <u>loaded after test</u>
(G) Final Shut-In <u>1265</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1927</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1625</u>
	Sub Total <u>1625</u>	MP/DST Disc#

Initial Open 30  
 Initial Shut-In 60  
 Final Flow 30  
 Final Shut-In 60

Approved By \_\_\_\_\_ Our Representative Spencer J. [Signature] Thanks!

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785-259-0058