



DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Wes Hansen

Jones 'A' #4-17

17-1s-37w Cheyenne,KS

Start Date: 2019.09.17 @ 11:32:00

End Date: 2019.09.17 @ 19:47:15

Job Ticket #: 65584 DST #: 1

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

Printed: 2019.09.23 @ 14:27:57



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
250 N. Water STE 300
Wichita, KS 67202
ATTN: Wes Hansen

17-1s-37w Cheyenne, KS

Jones 'A' #4-17

Job Ticket: 65584

DST#: 1

Test Start: 2019.09.17 @ 11:32:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:48:15

Time Test Ended: 19:47:15

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 83

Interval: 4148.00 ft (KB) To 4264.00 ft (KB) (TVD)

Reference Elevations: 3230.00 ft (KB)

Total Depth: 4264.00 ft (KB) (TVD)

3225.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8652 Outside

Press@RunDepth: 53.45 psig @ 4149.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.17 End Date: 2019.09.17

Last Calib.: 2019.09.17

Start Time: 11:32:05 End Time: 19:47:14

Time On Btm: 2019.09.17 @ 13:48:00

Time Off Btm: 2019.09.17 @ 17:51:45

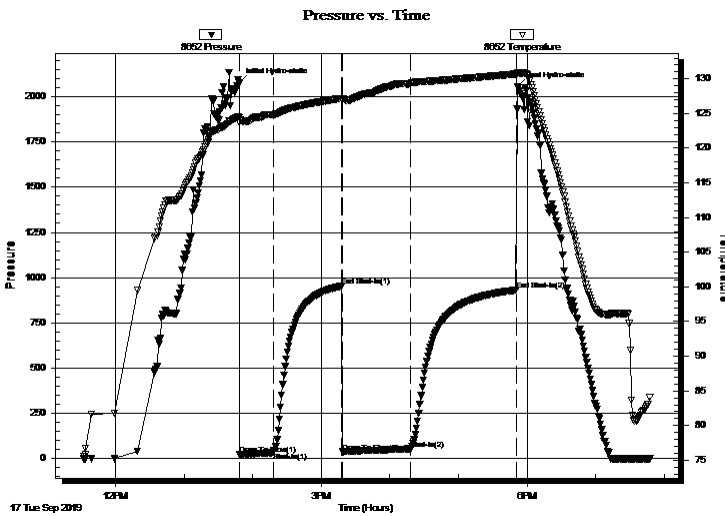
TEST COMMENT: 30 - IF: 1/2" Blow at open, built to 1 1/2"

60 - IS: No blow back

60 - FF: Blow built to 1/4"

90 - FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2075.28	124.45	Initial Hydro-static
1	21.25	123.64	Open To Flow (1)
31	33.58	124.82	Shut-In(1)
90	952.46	127.19	End Shut-In(1)
91	36.65	127.02	Open To Flow (2)
151	53.45	129.35	Shut-In(2)
243	931.19	130.69	End Shut-In(2)
244	2053.05	130.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	SOCM 91% m, 6% o, 3% g	0.34

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

17-1s-37w Cheyenne,KS

250 N. Water STE 300
Wichita, KS 67202

Jones 'A' #4-17

Job Ticket: 65584

DST#: 1

ATTN: Wes Hansen

Test Start: 2019.09.17 @ 11:32:00

Tool Information

Drill Pipe:	Length: 3951.00 ft	Diameter: 3.80 inches	Volume: 55.42 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 178.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 84000.00 lb
			<u>Total Volume: 56.30 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 63000.00 lb
Depth to Top Packer:	4148.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	116.00 ft			
Tool Length:	145.00 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			4120.00	
Shut In Tool	5.00			4125.00	
Hydraulic tool	5.00			4130.00	
Jars	5.00			4135.00	
Safety Joint	3.00			4138.00	
Packer	5.00			4143.00	29.00 Bottom Of Top Packer
Packer	5.00			4148.00	
Stubb	1.00			4149.00	
Recorder	0.00	6625	Inside	4149.00	
Recorder	0.00	8652	Outside	4149.00	
Perforations	15.00			4164.00	
Blank Spacing	95.00			4259.00	
Perforations	2.00			4261.00	
Bullnose	3.00			4264.00	116.00 Bottom Packers & Anchor

Total Tool Length: 145.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

17-1s-37w Cheyenne,KS

250 N. Water STE 300
Wichita, KS 67202

Jones 'A' #4-17

Job Ticket: 65584

DST#: 1

ATTN: Wes Hansen

Test Start: 2019.09.17 @ 11:32:00

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: 80.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	SOCM 91%m, 6%o, 3%g	0.344

Total Length: 70.00 ft Total Volume: 0.344 bbl

Num Fluid Samples: 0

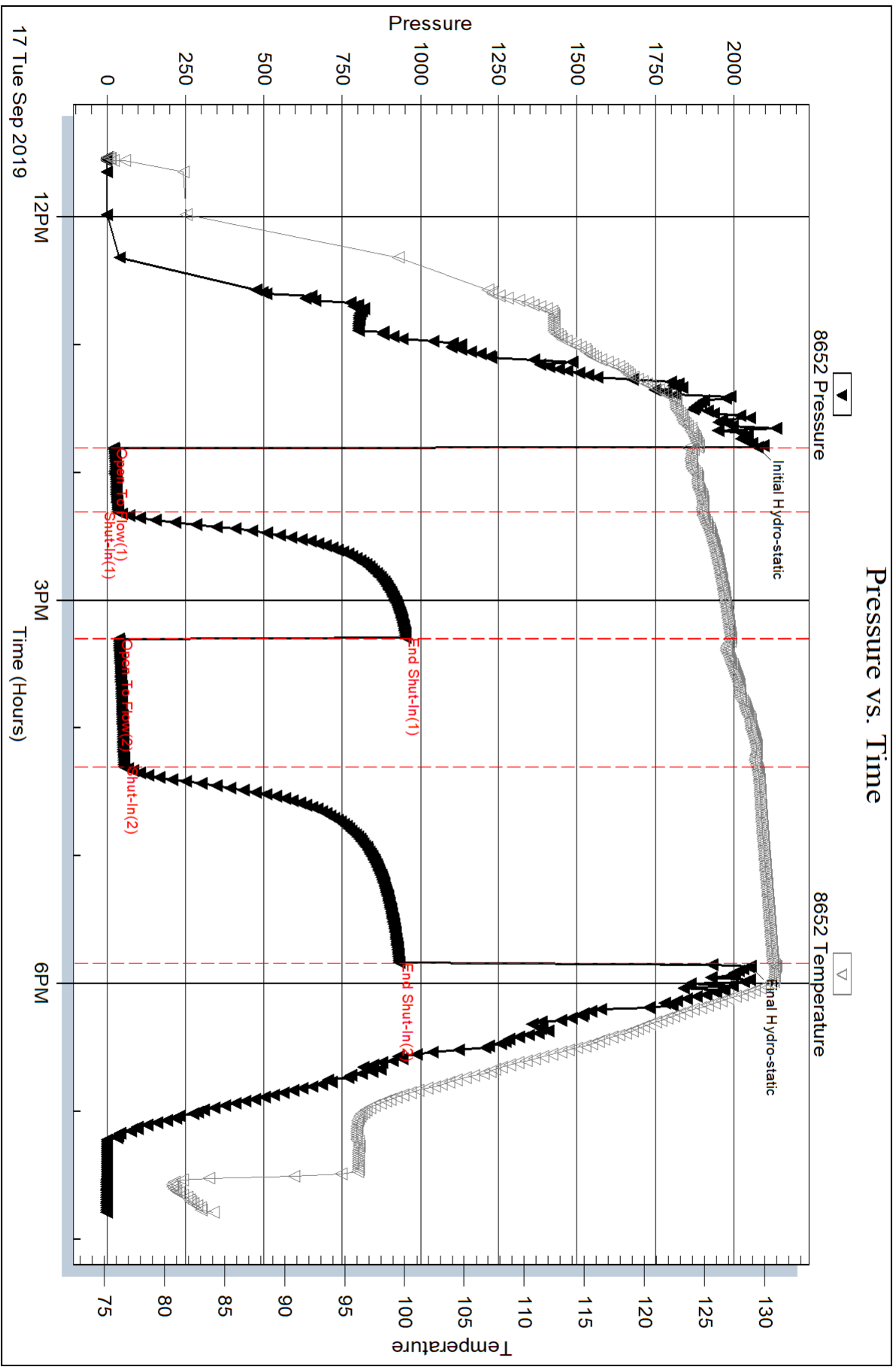
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



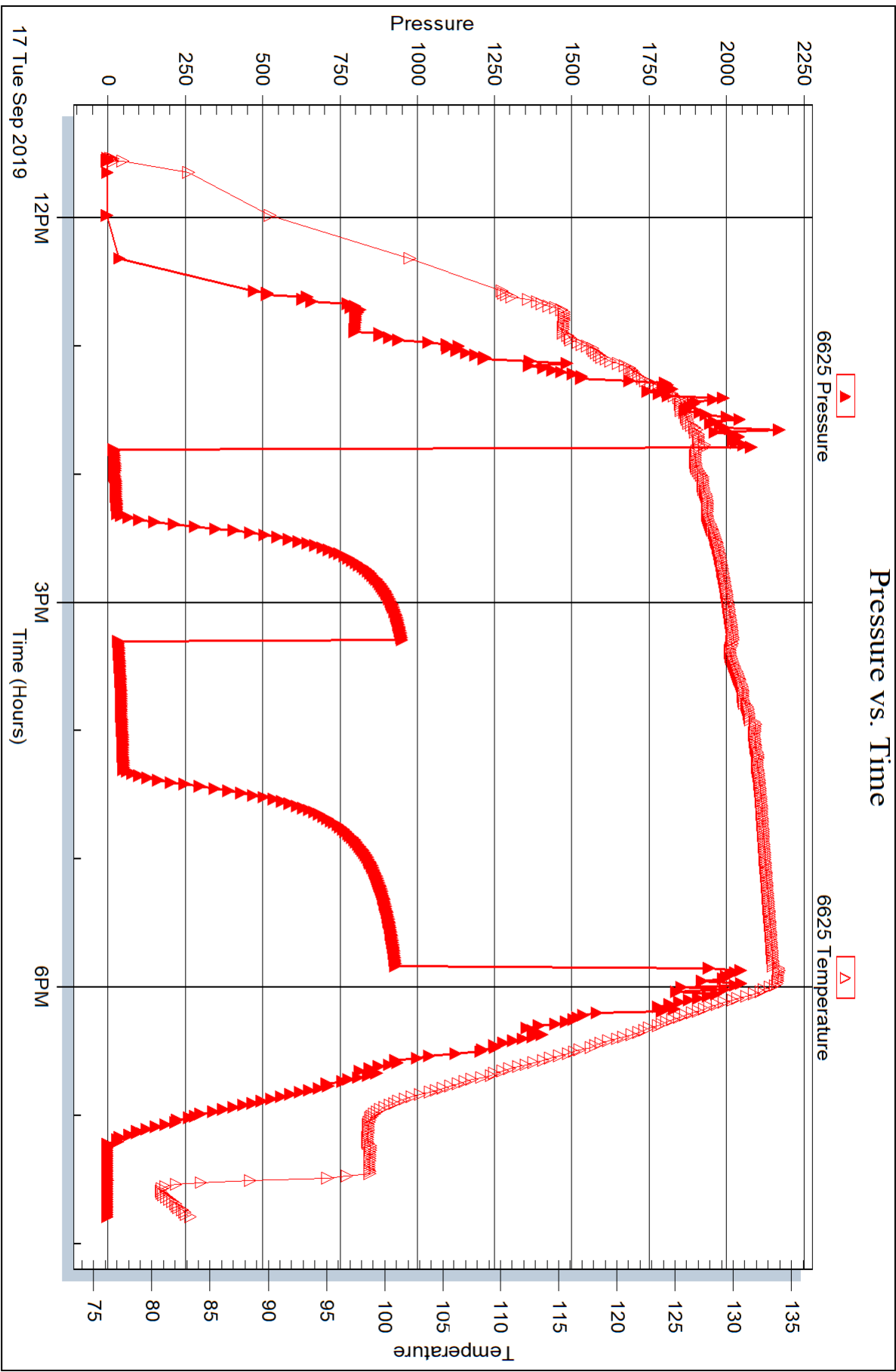
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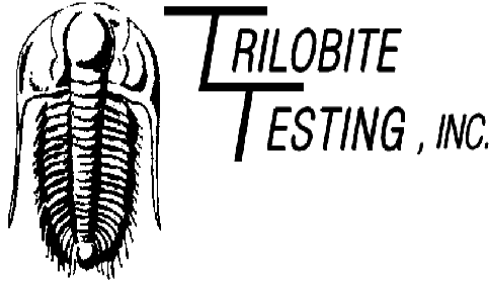
Inside

Murfin Drilling Co., Inc.

Jones 'A' #4-17

DST Test Number: 1





DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Wes Hansen

Jones 'A' #4-17

17-1s-37w Cheyenne,KS

Start Date: 2019.09.18 @ 18:30:00

End Date: 2019.09.19 @ 01:55:00

Job Ticket #: 65585 DST #: 2

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

Printed: 2019.09.23 @ 14:23:49

Murfin Drilling Co., Inc.

17-1s-37w Cheyenne,KS

Jones 'A' #4-17

DST # 2

LKC "G - J"

2019.09.18



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
 250 N. Water STE 300
 Wichita, KS 67202
 ATTN: Wes Hansen

17-1s-37w Cheyenne, KS
Jones 'A' #4-17
 Job Ticket: 65585 **DST#: 2**
 Test Start: 2019.09.18 @ 18:30:00

GENERAL INFORMATION:

Formation: **LKC "G - J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:03:45
 Time Test Ended: 01:55:00
 Interval: **4262.00 ft (KB) To 4420.00 ft (KB) (TVD)**
 Total Depth: 4420.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3230.00 ft (KB)
 3225.00 ft (CF)
 KB to GR/CF: 5.00 ft

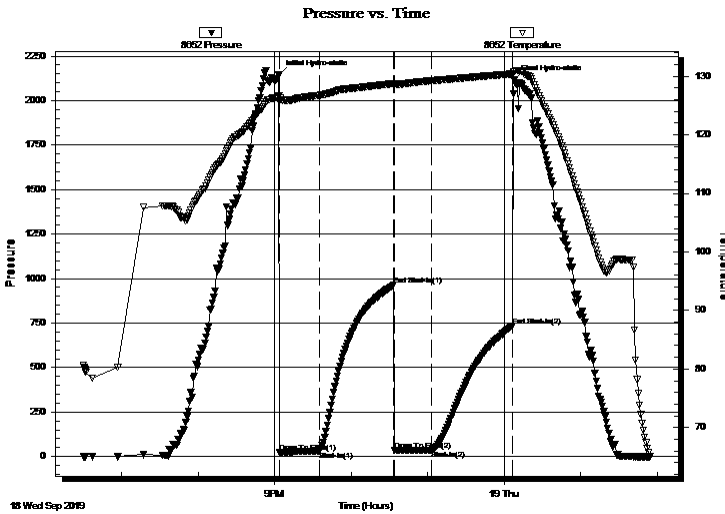
Serial #: 8652

Outside

Press@RunDepth: 36.56 psig @ 4263.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.09.18 End Date: 2019.09.19 Last Calib.: 2019.09.19
 Start Time: 18:30:05 End Time: 01:54:59 Time On Btm: 2019.09.18 @ 21:03:30
 Time Off Btm: 2019.09.19 @ 00:08:00

TEST COMMENT: 30 - IF: 1/2" Blow at open, built to 1 1/4"
 60 - IS: No blow back
 30 - FF: No blow
 60 - FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2147.20	126.62	Initial Hydro-static
1	22.66	125.70	Open To Flow (1)
32	29.94	126.72	Shut-In(1)
90	962.06	128.75	End Shut-In(1)
91	33.94	128.45	Open To Flow (2)
120	36.56	129.23	Shut-In(2)
184	735.01	130.39	End Shut-In(2)
185	2118.25	130.80	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Mud w /trace oil 100%m	0.15

* 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.

17-1s-37w Cheyenne,KS

250 N. Water STE 300
Wichita, KS 67202

Jones 'A' #4-17

Job Ticket: 65585

DST#: 2

ATTN: Wes Hansen

Test Start: 2019.09.18 @ 18:30:00

Tool Information

Drill Pipe:	Length: 4074.00 ft	Diameter: 3.80 inches	Volume: 57.15 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 178.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 58.03 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4262.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	158.00 ft			
Tool Length:	187.00 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			4234.00	
Shut In Tool	5.00			4239.00	
Hydraulic tool	5.00			4244.00	
Jars	5.00			4249.00	
Safety Joint	3.00			4252.00	
Packer	5.00			4257.00	29.00 Bottom Of Top Packer
Packer	5.00			4262.00	
Stubb	1.00			4263.00	
Recorder	0.00	6625	Inside	4263.00	
Recorder	0.00	8652	Outside	4263.00	
Perforations	24.00			4287.00	
Blank Spacing	128.00			4415.00	
Perforations	2.00			4417.00	
Bullnose	3.00			4420.00	158.00 Bottom Packers & Anchor

Total Tool Length: 187.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

17-1s-37w Cheyenne,KS

250 N. Water STE 300
Wichita, KS 67202

Jones 'A' #4-17

Job Ticket: 65585

DST#: 2

ATTN: Wes Hansen

Test Start: 2019.09.18 @ 18:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1300.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Mud w /trace oil 100%m	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

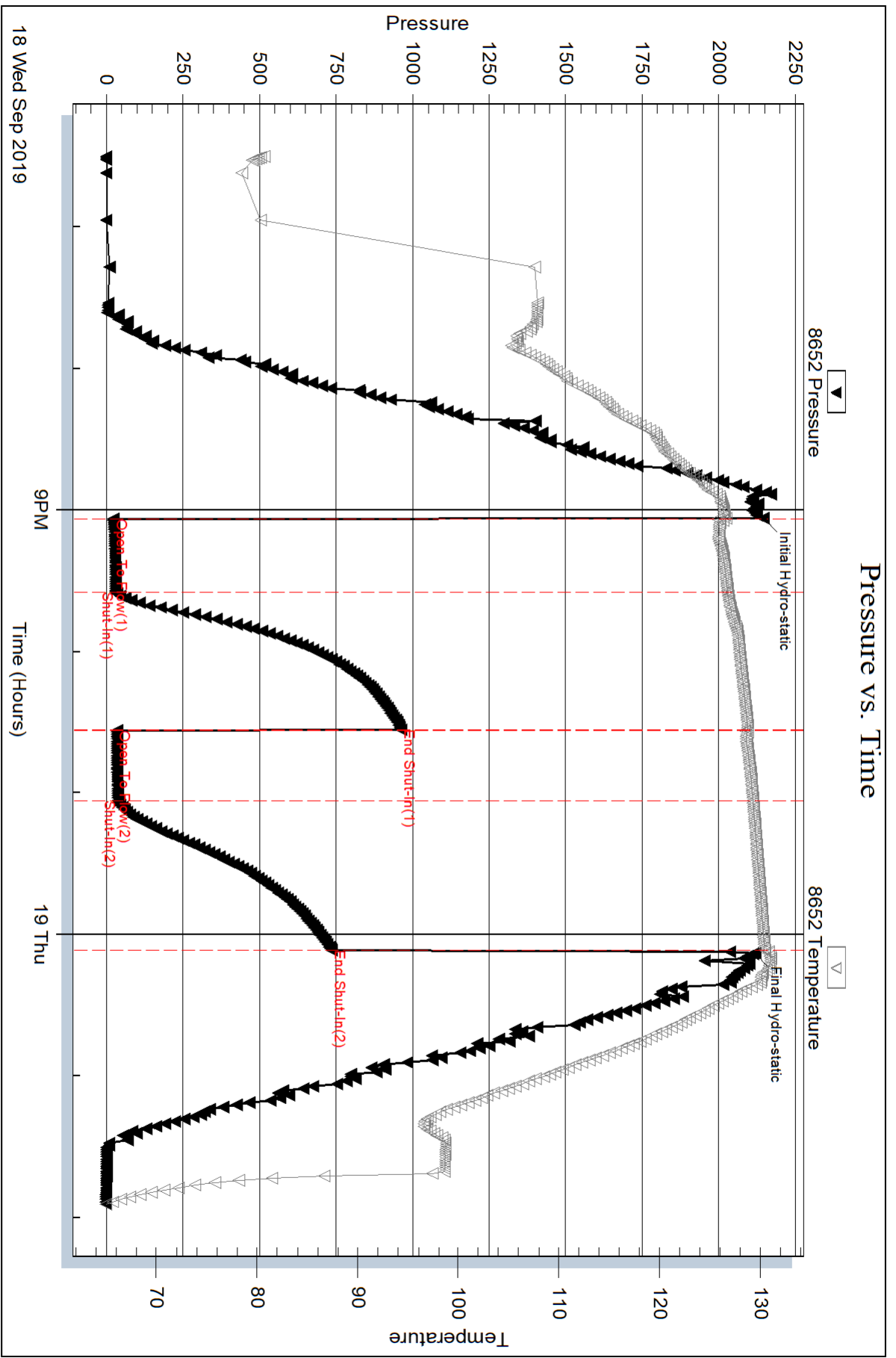
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



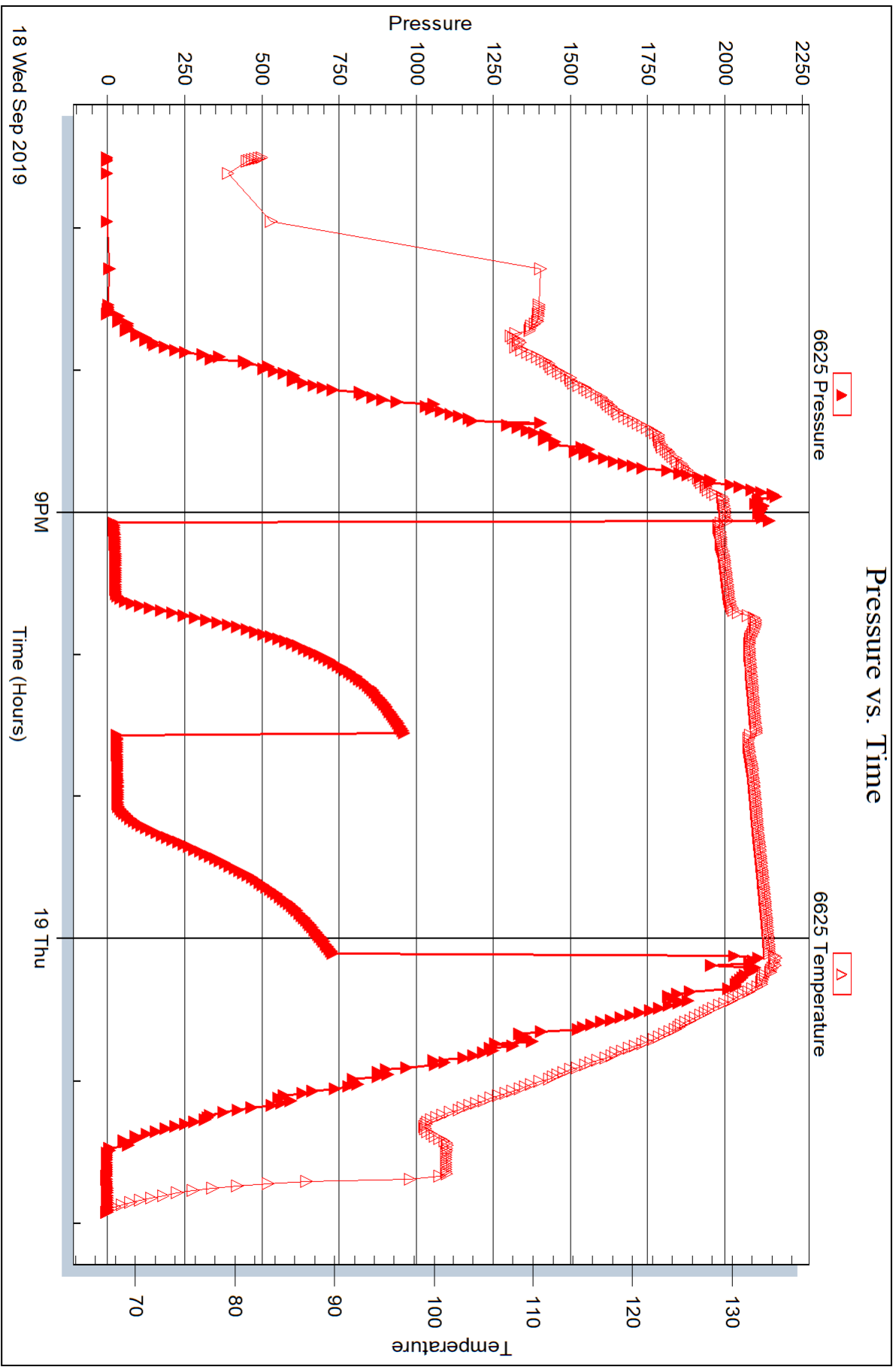
Serial #: 6625

Inside

Murfin Drilling Co., Inc.

Jones 'A' #4-17

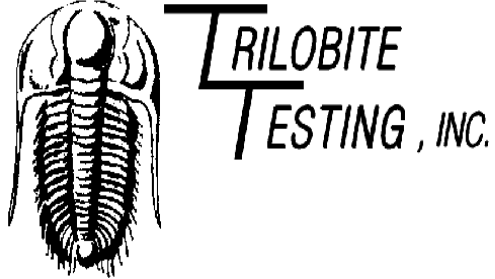
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 65585

Printed: 2019.09.23 @ 14:23:50



DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Wes Hansen

Jones 'A' #4-17

17-1s-37w Cheyenne,KS

Start Date: 2019.09.19 @ 23:30:00

End Date: 2019.09.20 @ 08:18:45

Job Ticket #: 65586 DST #: 3

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

Printed: 2019.09.23 @ 14:22:56



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
250 N. Water STE 300
Wichita, KS 67202
ATTN: Wes Hansen

17-1s-37w Cheyenne, KS

Jones 'A' #4-17

Job Ticket: 65586 **DST#: 3**

Test Start: 2019.09.19 @ 23:30:00

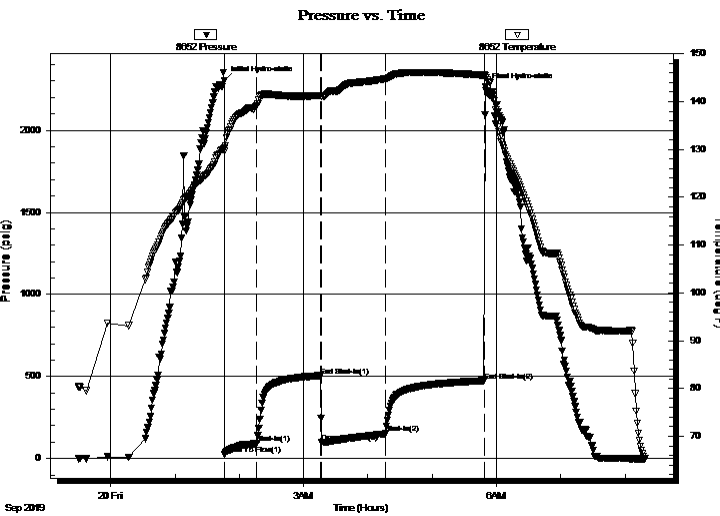
GENERAL INFORMATION:

Formation: **Ft. Scott**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:46:15
 Time Test Ended: 08:18:45
 Interval: **4573.00 ft (KB) To 4611.00 ft (KB) (TVD)**
 Total Depth: 4611.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3230.00 ft (KB)
 3225.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8652 Outside

Press@RunDepth: 150.57 psig @ 4574.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.09.19 End Date: 2019.09.20 Last Calib.: 2019.09.20
 Start Time: 23:30:05 End Time: 08:18:45 Time On Btm: 2019.09.20 @ 01:46:00
 Time Off Btm: 2019.09.20 @ 05:49:30

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 14 3/4 min., built to 23 1/4"
 60 - IS: Blow back built to 1/4" then died back
 60 - FF: Blow built to BOB at 10 1/4 min., built to 43 3/4"
 90 - FS: Blow back built to 2" then slowly died back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2302.00	130.30	Initial Hydro-static
1	23.79	129.67	Open To Flow (1)
31	92.19	139.18	Shut-In(1)
90	504.68	141.25	End Shut-In(1)
91	98.25	141.14	Open To Flow (2)
151	150.57	144.79	Shut-In(2)
243	474.18	145.54	End Shut-In(2)
244	2262.61	145.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
225.00	GOCM 56%o, 24%m, 20%g	1.53
145.00	CGO 66%o, 34%g	2.03
0.00	GIP = 500'	0.00

* 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.

17-1s-37w Cheyenne,KS

250 N. Water STE 300
Wichita, KS 67202

Jones 'A' #4-17

Job Ticket: 65586

DST#: 3

ATTN: Wes Hansen

Test Start: 2019.09.19 @ 23:30:00

Tool Information

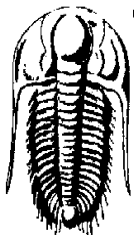
Drill Pipe:	Length: 4387.00 ft	Diameter: 3.80 inches	Volume: 61.54 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 178.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 62.42 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4573.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	67.00 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			4545.00	
Shut In Tool	5.00			4550.00	
Hydraulic tool	5.00			4555.00	
Jars	5.00			4560.00	
Safety Joint	3.00			4563.00	
Packer	5.00			4568.00	29.00 Bottom Of Top Packer
Packer	5.00			4573.00	
Stubb	1.00			4574.00	
Recorder	0.00	6625	Inside	4574.00	
Recorder	0.00	8652	Outside	4574.00	
Perforations	34.00			4608.00	
Bullnose	3.00			4611.00	38.00 Bottom Packers & Anchor

Total Tool Length: 67.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

17-1s-37w Cheyenne,KS

250 N. Water STE 300
Wichita, KS 67202

Jones 'A' #4-17

Job Ticket: 65586

DST#: 3

ATTN: Wes Hansen

Test Start: 2019.09.19 @ 23:30:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 65.00 sec/qt
Water Loss: 6.79 in³
Resistivity: ohm.m
Salinity: 1000.00 ppm
Filter Cake: 2.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 35.2 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
225.00	GOCM 56%o, 24%m, 20%g	1.535
145.00	CGO 66%o, 34%g	2.034
0.00	GIP = 500'	0.000

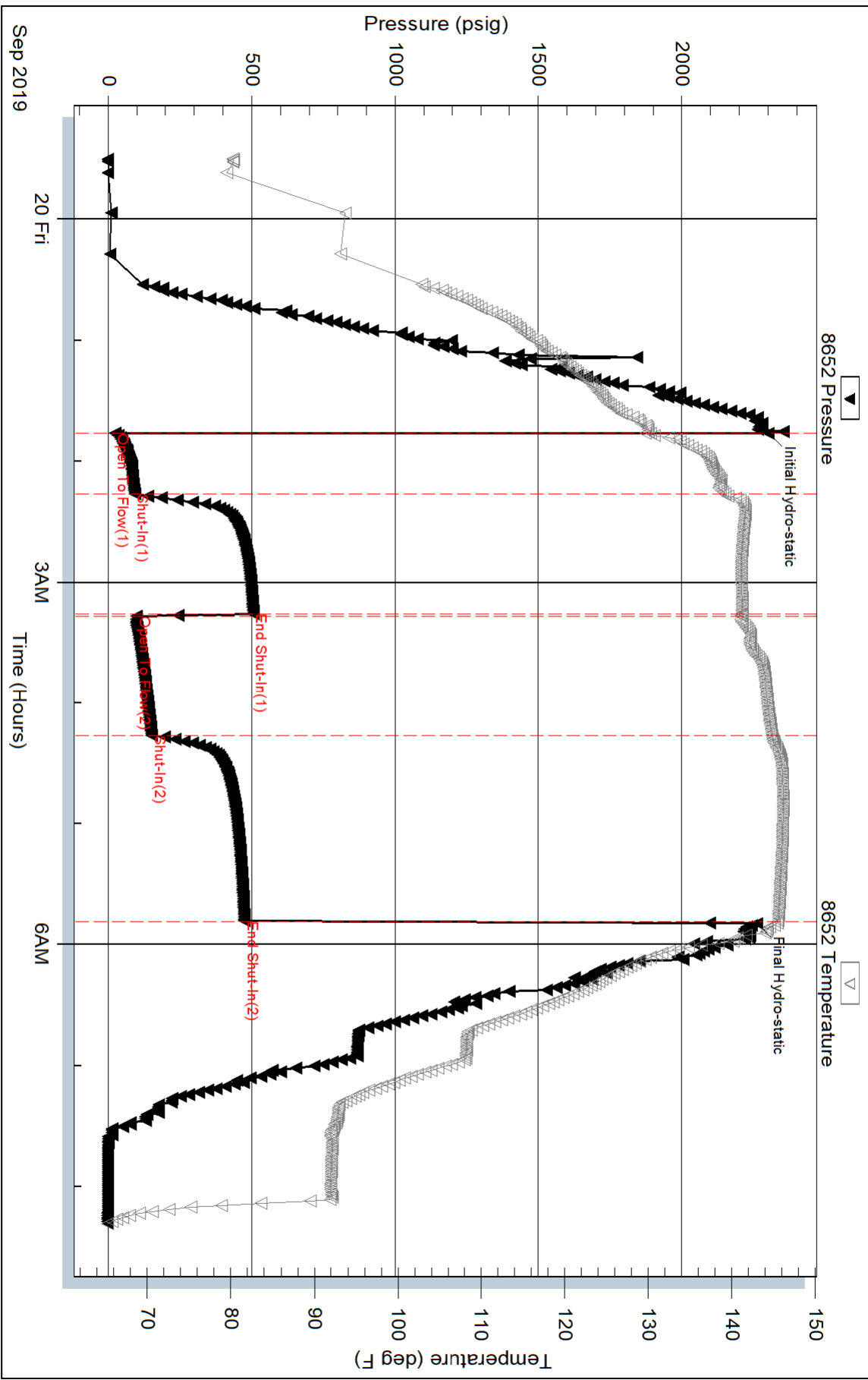
Total Length: 370.00 ft Total Volume: 3.569 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity = 36 api @ 68 deg F Corrected Gravity = 35.2 api

Pressure vs. Time



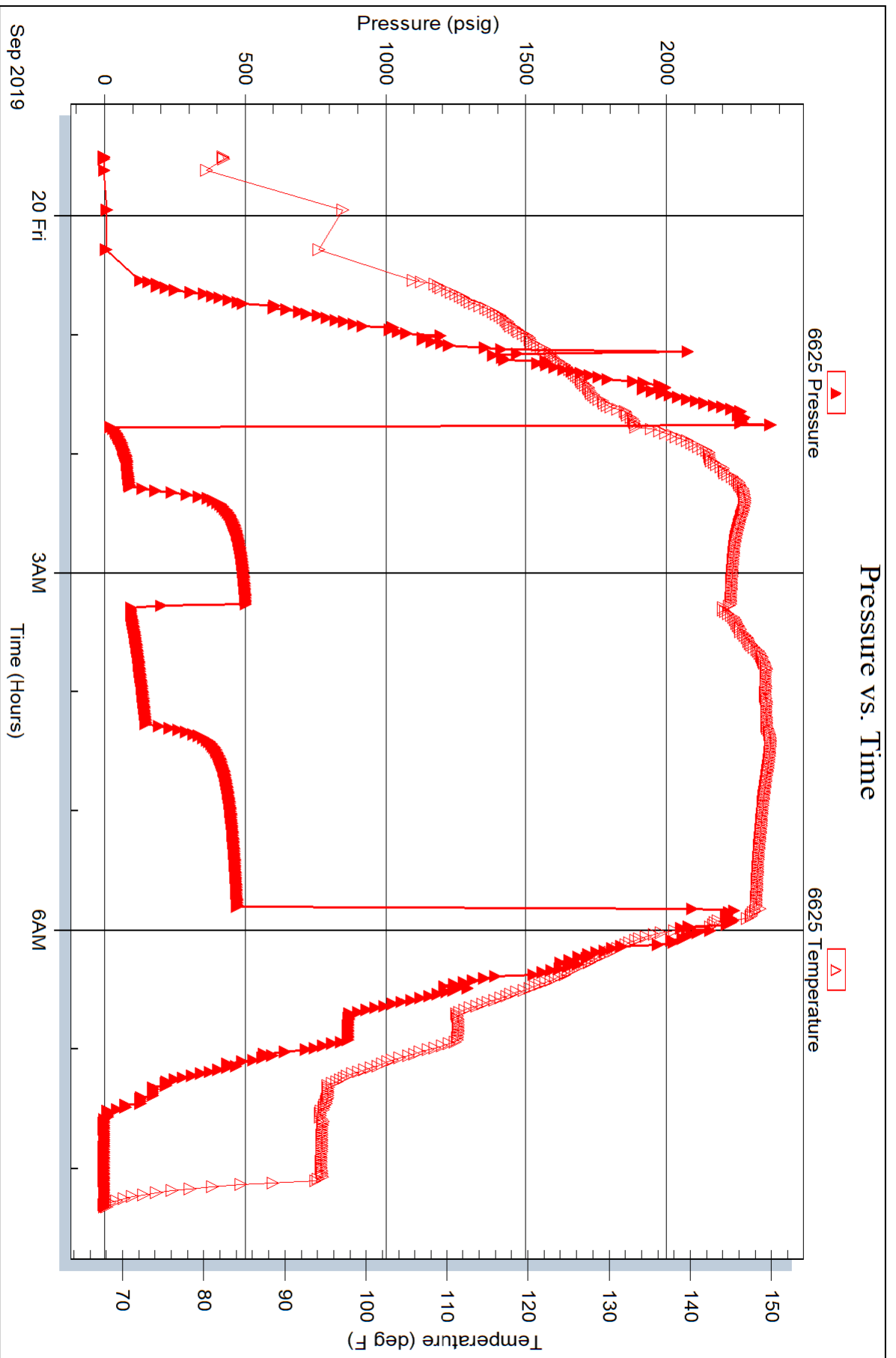
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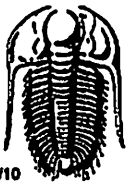
Inside

Murfin Drilling Co., Inc.

Jones 'A' #4-17

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65584

Well Name & No. Jones 'A' # 4-17 Test No. 1 Date 9-17-19
 Company Murfin Drilling Co Inc Elevation 3230 KB 3225 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Wes Hansen Rig Murfin #3
 Location: Sec. 17 Twp 1s Rge. 37w Co. Cheyenne State KS

Interval Tested 4148 - 4264 Zone Tested Lans "A-D"
 Anchor Length 116 Drill Pipe Run 3951 Mud Wt. 9.0
 Top Packer Depth 4143 Drill Collars Run 178 Vls 80
 Bottom Packer Depth 4148 Wt. Pipe Run - WL 7.2
 Total Depth 4264 Chlorides 1000 ppm System LCM 2

Blow Description IF: 1/2" Blow at open, built to 1 1/2"
ISI: No blowback
FF: Blow built to 1/4"
FST: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>70</u>	<u>50CM</u>	<u>3</u>	<u>6</u>	<u>91</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 70 BHT 131 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2075
 (B) First Initial Flow 21
 (C) First Final Flow 34
 (D) Initial Shut-In 952
 (E) Second Initial Flow 37
 (F) Second Final Flow 53
 (G) Final Shut-In 931
 (H) Final Hydrostatic 2053

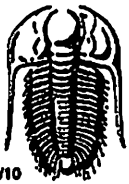
- Test 1300
- Jars 250
- Safety Joint 75
- Circ Sub _____
- Hourly Standby _____
- Mileage 148RT 148
- Sampler _____
- Straddle _____
- Shale Packer _____
- Extra Packer _____
- Extra Recorder _____
- Day Standby _____
- Accessibility _____
- Sub Total 1773

T-On Location 9:00
 T-Started 11:32
 T-Open 13:48
 T-Pulled 17:50
 T-Out 19:45
 Comments _____
 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1773
 MP/DST Disc't _____

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

Approved By Wes Hansen Our Representative James Murfin

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65585

Well Name & No. Jones 'A' #4-17 Test No. 2 Date 9-18-19
 Company Murfin Drilling Co. Inc Elevation 3230 KB 3225 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Wes Hansen Rlg Murfin #3
 Location: Sec. 17 Twp 1S Rge. 37W Co. Cheyenne State KS

Interval Tested 4262 - 4420 Zone Tested Lans. "B-J"
 Anchor Length 158 Drill Pipe Run 4074 Mud Wt. 9.1
 Top Packer Depth 4257 Drill Collars Run 178 Vis 62
 Bottom Packer Depth 4262 Wt. Pipe Run - WL 7.2
 Total Depth 4420 Chlorides 1300 ppm System LCM 3
 Blow Description IF: Blow built to 1 1/4" (1/2" Blow at open)
ISI: No blowback
FF: No blow
FSD: No blow

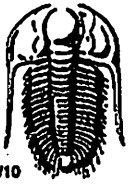
Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>Mud w/trace oil</u>	<u>trace</u>		<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 130 Gravity API RW @ ° F Chlorides ppm
 (A) Initial Hydrostatic 2147 Test 1300
 (B) First Initial Flow 23 Jars 250
 (C) First Final Flow 30 Safety Joint 75
 (D) Initial Shut-In 962 Circ Sub _____
 (E) Second Initial Flow 34 Hourly Standby _____
 (F) Second Final Flow 37 Mileage 148 RT 148
 (G) Final Shut-In 735 Sampler _____
 (H) Final Hydrostatic 2118 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30 T-On Location 17:25
 Initial Shut-In 60 T-Started 18:30
 Final Flow 30 T-Open 21:03
 Final Shut-In 60 T-Pulled 00:06
 T-Out 1:55
 Comments _____
 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1773
 MP/DST Disc't _____

Approved By Wes Hansen Our Representative James Nixen

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65586

Well Name & No. Jones 'A' #4-17 Test No. 3 Date 9-19-19
 Company Murfin Drilling Co. Inc Elevation 3230 KB 3225 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Wes Hansen Rig Murfin #3
 Location: Sec. 17 Twp 1s Rge. 37w Co. Cheyenne State KS

Interval Tested 4573 - 4611 Zone Tested Ft Scott
 Anchor Length 38 Drill Pipe Run 4387 Mud Wt. 9.0
 Top Packer Depth 4568 Drill Collars Run 178 Vis 65
 Bottom Packer Depth 4573 Wt. Pipe Run - WL 6.8
 Total Depth 4611 Chlorides 1000 ppm System LCM 2

Blow Description IF: Blow built to BOB (1") at 14 3/4 min, blow built to 23 1/4"
ISI: Blowback built to 1/4" then died back
FF: Blow built to BOB at 10 1/4 min, built to 43 3/4"
FBI: Blowback built to 2" then slowly died back

Rec	Feet of	%gas	%oil	%water	%mud
<u>145</u>	<u>C60</u>	<u>34</u>	<u>66</u>	<u>-</u>	<u>-</u>
<u>225</u>	<u>GMCO</u>	<u>20</u>	<u>56</u>	<u>-</u>	<u>24</u>
<u>Rec</u>	<u>Feet of</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>
<u>Rec</u>	<u>Feet of</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>

Rec Total 370 BHT 146 Gravity 35.2 API RW @ ° F Chlorides ppm
 (A) Initial Hydrostatic 2302 Test 1300 T-On Location 20:10 9/19
 (B) First Initial Flow 24 Jars 250 T-Started 23:30
 (C) First Final Flow 92 Safety Joint 75 T-Open 1:46
 (D) Initial Shut-In 505 Circ Sub _____ T-Pulled 5:48
 (E) Second Initial Flow 98 Hourly Standby _____ T-Out 8:15 9/20
 (F) Second Final Flow 151 Mileage 148 RT 148 Comments Went to rig early
 (G) Final Shut-In 474 Sampler _____ in case of rain
 (H) Final Hydrostatic 2263 Straddle _____ EM Tool _____
 Shale Packer _____ Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1773
 Sub Total 1773 MP/DST Disc't _____

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

Approved By Wes Hansen Our Representative James Winder

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