



## DRILL STEM TEST REPORT

Prepared For: **Funk Petroleum LLC**

2110 N. 1184 th St.  
Eudora, KS 66025

ATTN: Tim Priest

### **Calliham Trust #1-18**

### **18-9s-35w Thomas,KS**

Start Date: 2016.10.13 @ 02:11:00

End Date: 2016.10.13 @ 11:03:00

Job Ticket #: 61180                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.10.17 @ 09:06:09



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Funk Petroleum LLC

**18-9s-35w Thomas, KS**

2110 N. 1184 th St.  
Eudora, KS 66025

**Calliham Trust #1-18**

ATTN: Tim Priest

Job Ticket: 61180

**DST#: 1**

Test Start: 2016.10.13 @ 02:11:00

## GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:51:00

Time Test Ended: 11:03:00

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 83

**Interval: 4576.00 ft (KB) To 4610.00 ft (KB) (TVD)**

Reference Elevations: 3385.00 ft (KB)

Total Depth: 4610.00 ft (KB) (TVD)

3380.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8366 Outside**

Press @ Run Depth: 115.09 psig @ 4577.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.10.13

End Date:

2016.10.13

Last Calib.: 2016.10.13

Start Time: 02:11:05

End Time:

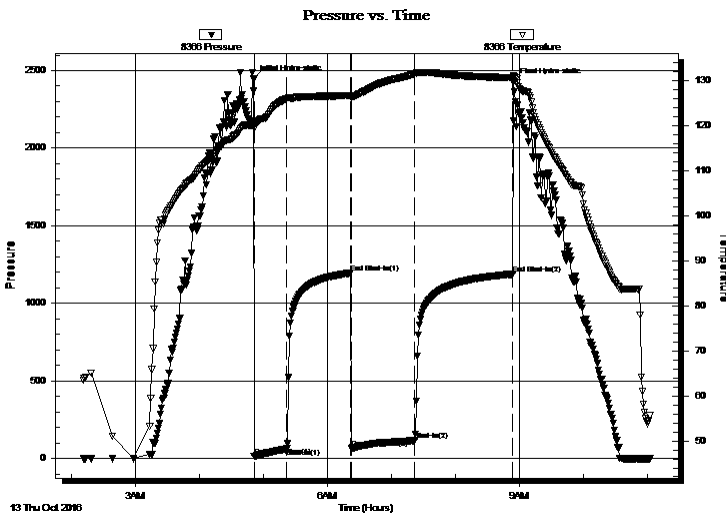
11:03:00

Time On Btm: 2016.10.13 @ 04:50:45

Time Off Btm: 2016.10.13 @ 08:54:30

**TEST COMMENT:** 30 - IF: 1/4" Blow at open, built to 4"  
60 - IS: No blow back  
60 - FF: Blow started at 5 1/2 min, built to 4 1/4"  
90 - FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2445.05	120.76	Initial Hydro-static
1	13.32	119.49	Open to Flow (1)
31	61.94	125.95	Shut-In(1)
91	1194.58	126.66	End Shut-In(1)
92	65.75	126.32	Open To Flow (2)
151	115.09	131.47	Shut-In(2)
243	1187.80	130.70	End Shut-In(2)
244	2420.86	131.18	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
125.00	MCW w/trace oil 90%w, 10%m	0.61
100.00	MCW w/trace oil 61%w, 39%m	0.84

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Funk Petroleum LLC  
 2110 N. 1184 th St.  
 Eudora, KS 66025  
 ATTN: Tim Priest

**18-9s-35w Thomas, KS**

**Calliham Trust #1-18**

Job Ticket: 61180

**DST#: 1**

Test Start: 2016.10.13 @ 02:11:00

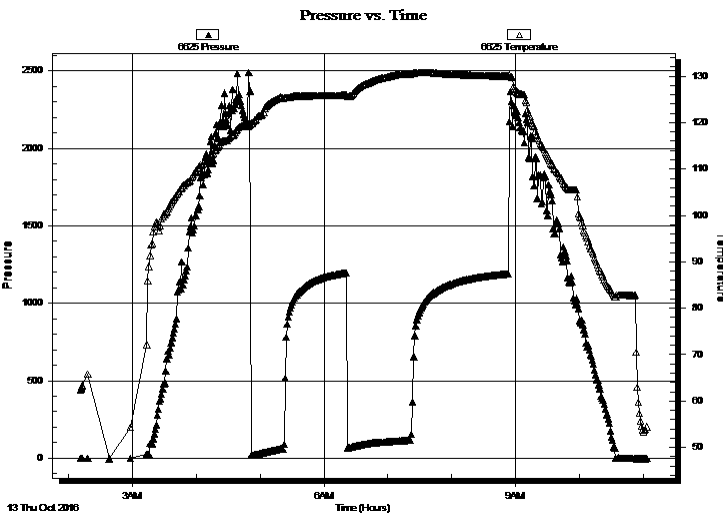
### GENERAL INFORMATION:

Formation:	<b>Pawnee</b>			Test Type:	Conventional Bottom Hole (Initial)
Deviated:	No Whipstock:		ft (KB)	Tester:	James Winder
Time Tool Opened:	04:51:00			Unit No:	83
Time Test Ended:	11:03:00			Reference Elevations:	3385.00 ft (KB)
<b>Interval:</b>	<b>4576.00 ft (KB) To 4610.00 ft (KB) (TVD)</b>				3380.00 ft (CF)
Total Depth:	4610.00 ft (KB) (TVD)			KB to GR/CF:	5.00 ft
Hole Diameter:	7.88 inches	Hole Condition:	Fair		

### Serial #: 6625 Inside

Press@RunDepth:	psig @	4577.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2016.10.13	End Date:	2016.10.13	Last Calib.:	2016.10.13
Start Time:	02:11:05	End Time:	11:03:45	Time On Btm:	
				Time Off Btm:	

**TEST COMMENT:** 30 - IF: 1/4" Blow at open, built to 4"  
 60 - IS: No blow back  
 60 - FF: Blow started at 5 1/2 min, built to 4 1/4"  
 90 - FS: No blow back



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
125.00	MCW w/trace oil 90%w , 10%m	0.61
100.00	MCW w/trace oil 61%w , 39%m	0.84

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Funk Petroleum LLC

**18-9s-35w Thomas,KS**

2110 N. 1184 th St.  
Eudora, KS 66025

**Calliham Trust #1-18**

Job Ticket: 61180

**DST#: 1**

ATTN: Tim Priest

Test Start: 2016.10.13 @ 02:11:00

## Tool Information

Drill Pipe:	Length: 4401.00 ft	Diameter: 3.80 inches	Volume: 61.73 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: 187.00 ft	Diameter: 2.25 inches	Volume: 0.92 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 62.65 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial	54000.00 lb
Depth to Top Packer:	4576.00 ft			Final	56000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	34.00 ft				
Tool Length:	55.00 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			4556.00	
Shut In Tool	5.00			4561.00	
Hydraulic tool	5.00			4566.00	
Packer	5.00			4571.00	21.00 Bottom Of Top Packer
Packer	5.00			4576.00	
Packer - Shale	0.00			4576.00	
Stubb	1.00			4577.00	
Recorder	0.00	6625	Inside	4577.00	
Recorder	0.00	8366	Outside	4577.00	
Perforations	30.00			4607.00	
Bullnose	3.00			4610.00	34.00 Bottom Packers & Anchor

**Total Tool Length: 55.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Funk Petroleum LLC

**18-9s-35w Thomas,KS**

2110 N. 1184 th St.  
Eudora, KS 66025

**Calliham Trust #1-18**

Job Ticket: 61180

**DST#: 1**

ATTN: Tim Priest

Test Start: 2016.10.13 @ 02:11:00

## 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:

17500 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.96 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
125.00	MCW w/trace oil 90%w , 10%m	0.615
100.00	MCW w/trace oil 61%w , 39%m	0.838

Total Length: 225.00 ft      Total Volume: 1.453 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

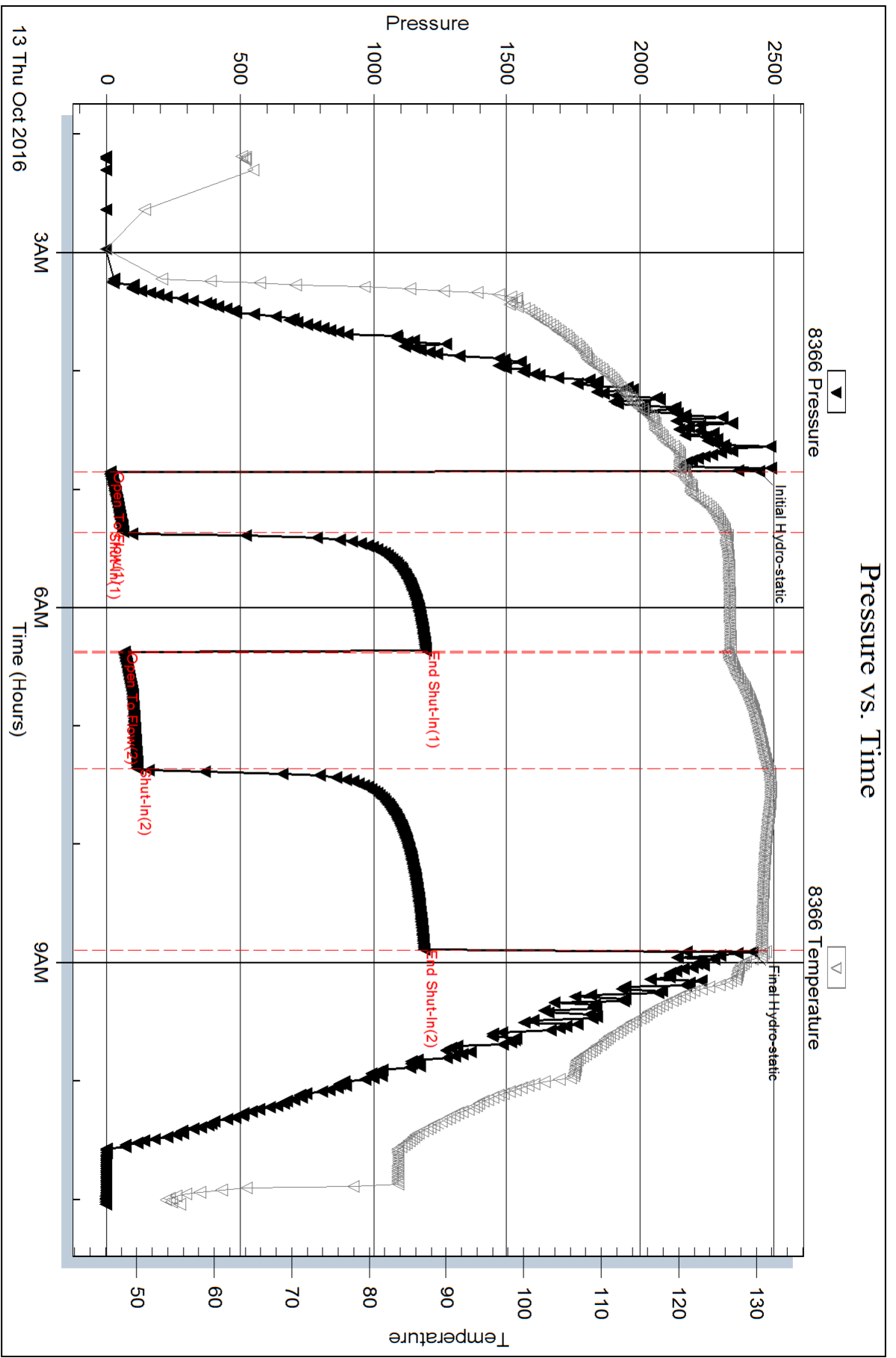
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .481 ohms @ 55.5 deg F

Chlorides = 17,500 ppm



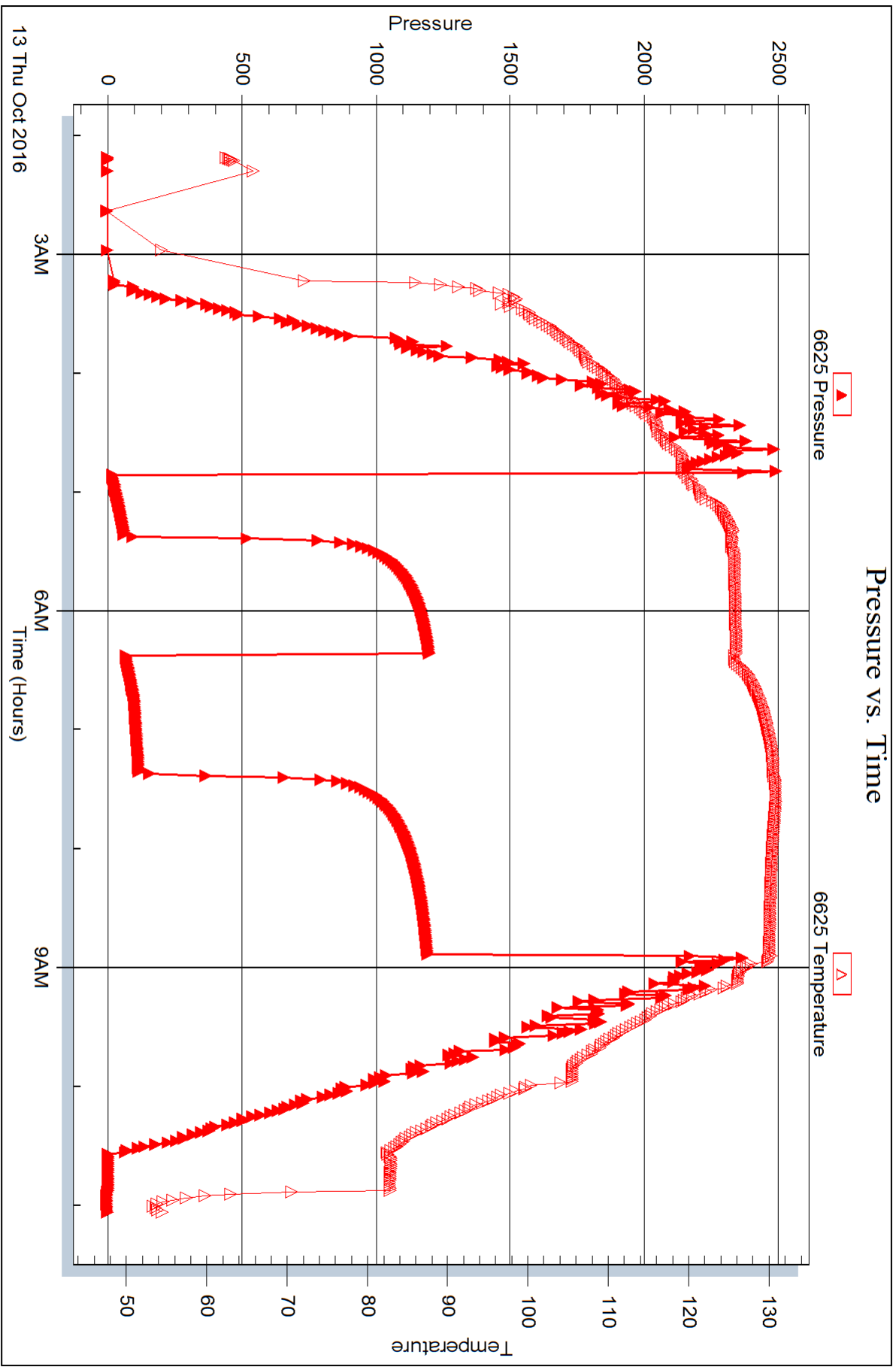
Serial #: 6625

Inside

Funk Petroleum LLC

Callham Trust #1-18

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Funk Petroleum LLC**

2110 N. 1184 th St.  
Eudora, KS 66025

ATTN: Tim Priest

### **Calliham Trust #1-18**

### **18-9s-35w Thomas,KS**

Start Date: 2016.10.13 @ 21:44:00

End Date: 2016.10.14 @ 07:02:45

Job Ticket #: 61181                      DST #: 2

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

Printed: 2016.10.17 @ 09:05:42





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Funk Petroleum LLC

**18-9s-35w Thomas,KS**

2110 N. 1184 th St.  
Eudora, KS 66025

**Calliham Trust #1-18**

ATTN: Tim Priest

Job Ticket: 61181

**DST#: 2**

Test Start: 2016.10.13 @ 21:44:00

## GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:03:45

Time Test Ended: 07:02:45

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

**Interval: 4670.00 ft (KB) To 4715.00 ft (KB) (TVD)**

Reference Elevations: 3385.00 ft (KB)

Total Depth: 4715.00 ft (KB) (TVD)

3380.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8366 Outside**

Press @ Run Depth: 170.82 psig @ 4671.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.10.13

End Date:

2016.10.14

Last Calib.: 2016.10.14

Start Time: 21:44:05

End Time:

07:02:45

Time On Btm: 2016.10.14 @ 00:03:30

Time Off Btm: 2016.10.14 @ 04:14:45

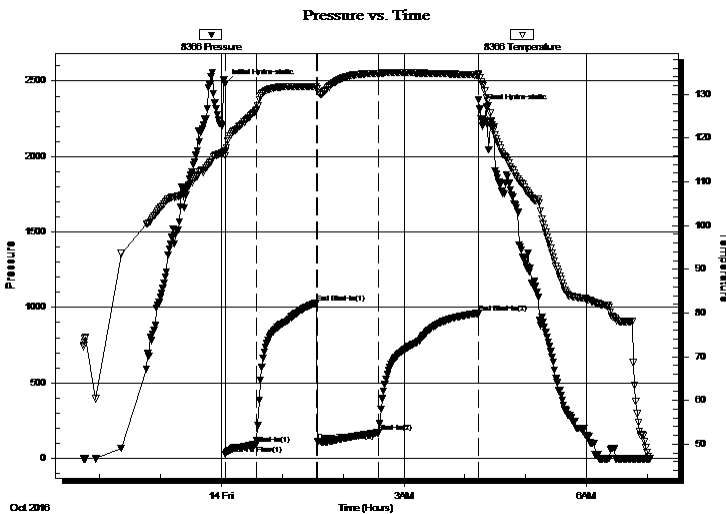
**TEST COMMENT:** 30 - IF: Blow built to BOB (11") at 10 1/4 min.

60 - IS: Blow back built to 3 1/2"

60 - FF: Blow built to BOB at 16 1/2 min.

90 - FS: Blow back built to 5"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2484.08	116.99	Initial Hydro-static
1	25.35	115.96	Open To Flow (1)
31	93.79	126.35	Shut-In(1)
91	1029.08	131.73	End Shut-In(1)
92	111.51	131.32	Open To Flow (2)
152	170.82	134.80	Shut-In(2)
250	960.21	134.43	End Shut-In(2)
252	2314.65	133.88	Final Hydro-static

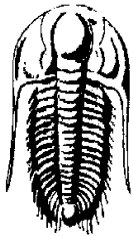
## Recovery

Length (ft)	Description	Volume (bbl)
187.00	SMCO 78%o, 13%g, 9%m	0.92
10.00	SOCM 75%m, 20%g, 5%o	0.14
53.00	SMCO 87%o, 8%m, 5%g	0.74
190.00	CGO 67%o, 33%g	2.67
130.00	CGO 85%o, 15%g	1.82
0.00	GIP = 380'	0.00

\* Recovery from multiple tests

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Funk Petroleum LLC

18-9s-35w Thomas,KS

2110 N. 1184 th St.  
Eudora, KS 66025

Calliham Trust #1-18

ATTN: Tim Priest

Job Ticket: 61181      **DST#: 2**  
Test Start: 2016.10.13 @ 21:44:00

### GENERAL INFORMATION:

**Formation: Cherokee**  
**Deviated: No Whipstock: ft (KB)**  
**Time Tool Opened: 00:03:45**  
**Time Test Ended: 07:02:45**

**Interval: 4670.00 ft (KB) To 4715.00 ft (KB) (TVD)**  
**Total Depth: 4715.00 ft (KB) (TVD)**  
**Hole Diameter: 7.88 inches Hole Condition: Fair**

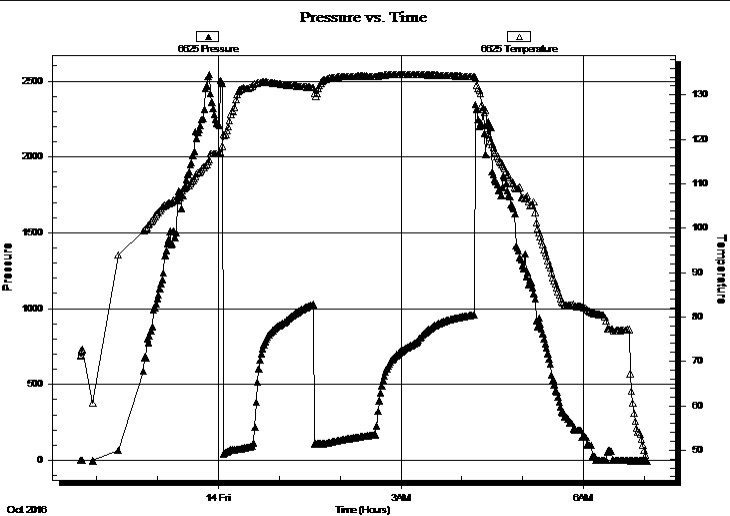
**Test Type: Conventional Bottom Hole (Reset)**  
**Tester: James Winder**  
**Unit No: 83**

**Reference Elevations: 3385.00 ft (KB)**  
**3380.00 ft (CF)**  
**KB to GR/CF: 5.00 ft**

**Serial #: 6625 Inside**

Press @ Run Depth:                    psig @                    4671.00 ft (KB)	Capacity:                                 8000.00 psig
Start Date:                                 2016.10.13                    End Date:                                 2016.10.14	Last Calib.:                                 2016.10.14
Start Time:                                 21:44:05                    End Time:                                 07:03:15	Time On Btm:
	Time Off Btm:

**TEST COMMENT:** 30 - IF: Blow built to BOB (11") at 10 1/4 min.  
 60 - IS: Blow back built to 3 1/2"  
 60 - FF: Blow built to BOB at 16 1/2 min.  
 90 - FS: Blow back built to 5"



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
187.00	SMCO 78%o, 13%g, 9%m	0.92
10.00	SOCM 75%m, 20%g, 5%o	0.14
53.00	SMCO 87%o, 8%m, 5%g	0.74
190.00	CGO 67%o, 33%g	2.67
130.00	CGO 85%o, 15%g	1.82
0.00	GIP = 380'	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**

Funk Petroleum LLC

**18-9s-35w Thomas,KS**

2110 N. 1184 th St.  
Eudora, KS 66025

**Calliham Trust #1-18**

Job Ticket: 61181

**DST#: 2**

ATTN: Tim Priest

Test Start: 2016.10.13 @ 21:44:00

## Tool Information

Drill Pipe:	Length: 4496.00 ft	Diameter: 3.80 inches	Volume: 63.07 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: 187.00 ft	Diameter: 2.25 inches	Volume: 0.92 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 63.99 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4670.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.00 ft			
Tool Length:	66.00 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			4650.00	
Shut In Tool	5.00			4655.00	
Hydraulic tool	5.00			4660.00	
Packer	5.00			4665.00	21.00 Bottom Of Top Packer
Packer	5.00			4670.00	
Packer - Shale	0.00			4670.00	
Stubb	1.00			4671.00	
Recorder	0.00	6625	Inside	4671.00	
Recorder	0.00	8366	Outside	4671.00	
Perforations	7.00			4678.00	
Blank Spacing	34.00			4712.00	
Bullnose	3.00			4715.00	45.00 Bottom Packers & Anchor

**Total Tool Length: 66.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Funk Petroleum LLC

**18-9s-35w Thomas,KS**

2110 N. 1184 th St.  
Eudora, KS 66025

**Calliham Trust #1-18**

Job Ticket: 61181

**DST#: 2**

ATTN: Tim Priest

Test Start: 2016.10.13 @ 21:44:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

25 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
187.00	SMCO 78%o, 13%g, 9%m	0.920
10.00	SOCM 75%m, 20%g, 5%o	0.140
53.00	SMCO 87%o, 8%m, 5%g	0.743
190.00	CGO 67%o, 33%g	2.665
130.00	CGO 85%o, 15%g	1.824
0.00	GIP = 380'	0.000

Total Length: 570.00 ft      Total Volume: 6.292 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

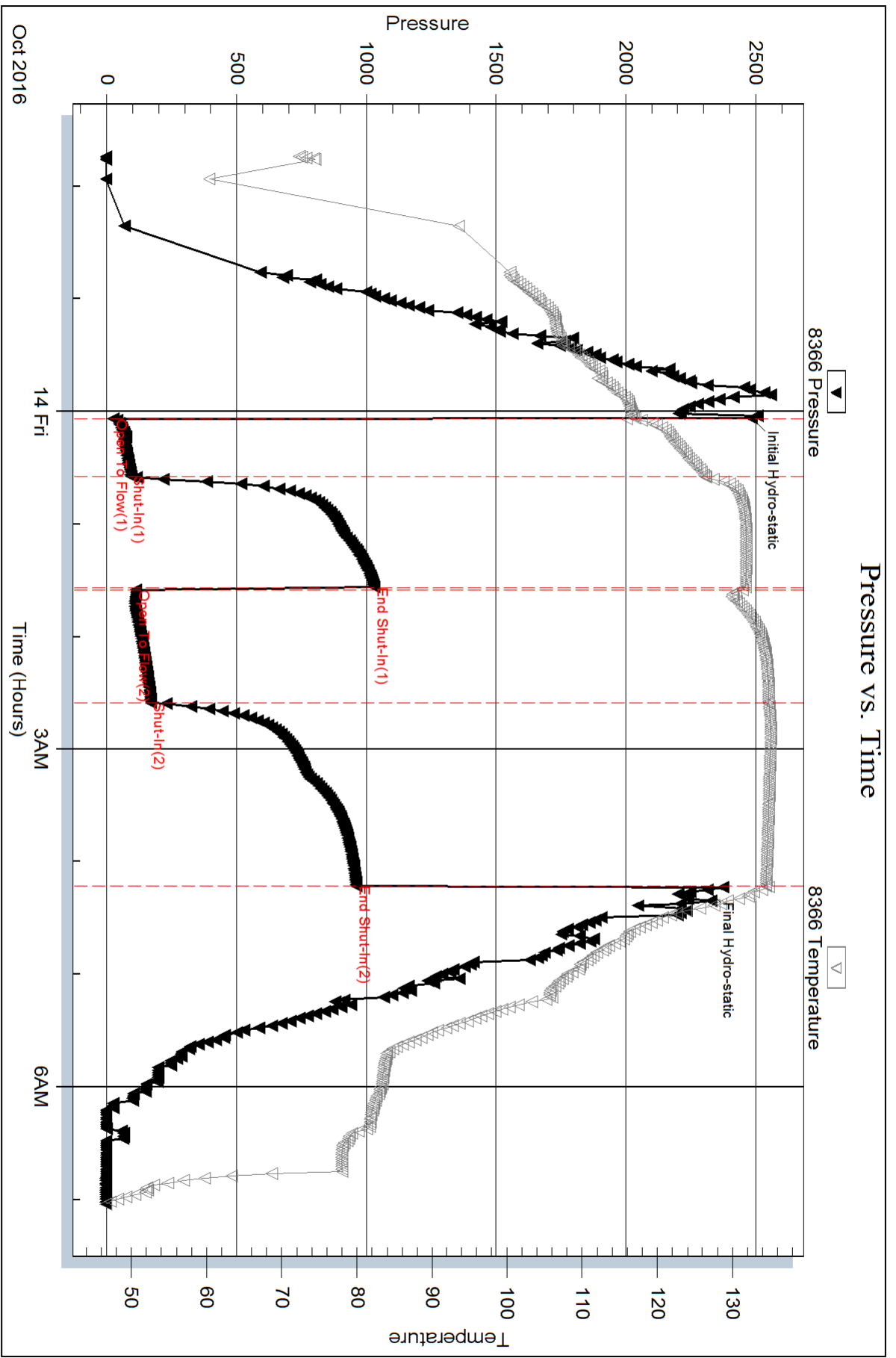
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 23.4 api @ 44 deg F

Corrected Gravity = 25 api



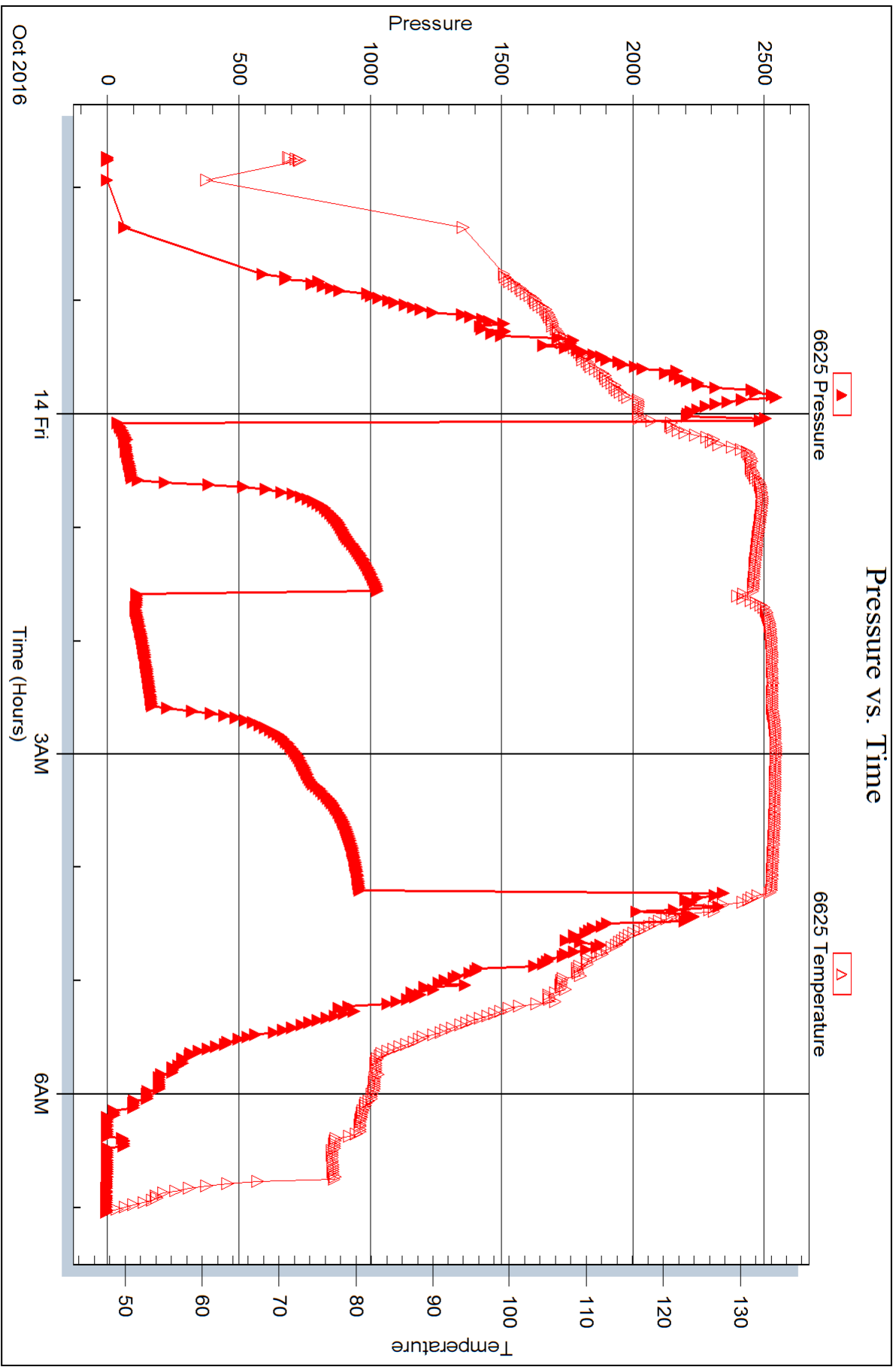
Serial #: 6625

Inside

Funk Petroleum LLC

Calliham Trust #1-18

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Funk Petroleum LLC**

2110 N. 1184 th St.  
Eudora, KS 66025

ATTN: Tim Priest

### **Calliham Trust #1-18**

### **18-9s-35w Thomas,KS**

Start Date: 2016.10.14 @ 15:51:00

End Date: 2016.10.14 @ 22:14:30

Job Ticket #: 61182                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.10.17 @ 09:04:58



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Funk Petroleum LLC

**18-9s-35w Thomas, KS**

2110 N. 1184 th St.  
Eudora, KS 66025

**Calliham Trust #1-18**

ATTN: Tim Priest

Job Ticket: 61182

**DST#: 3**

Test Start: 2016.10.14 @ 15:51:00

## GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:52:45

Time Test Ended: 22:14:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

**Interval: 4714.00 ft (KB) To 4760.00 ft (KB) (TVD)**

Reference Elevations: 3385.00 ft (KB)

Total Depth: 4760.00 ft (KB) (TVD)

3380.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8366 Outside**

Press @ Run Depth: 16.66 psig @ 4715.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.10.14

End Date: 2016.10.14

Last Calib.: 2016.10.14

Start Time: 15:51:05

End Time: 22:14:29

Time On Btm: 2016.10.14 @ 17:52:30

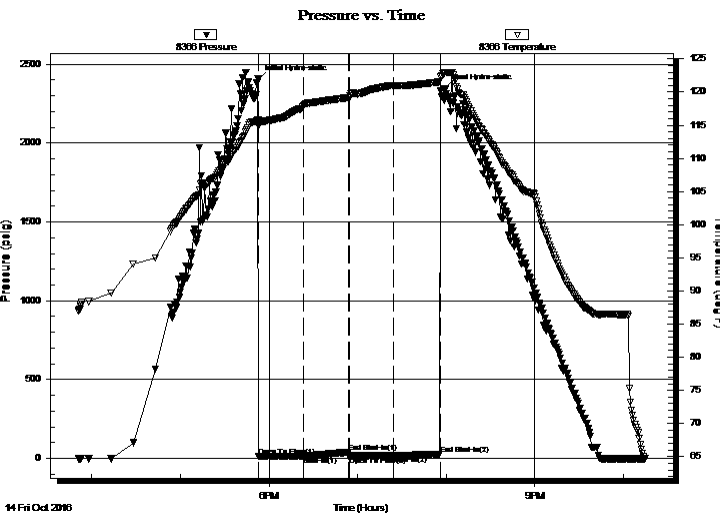
Time Off Btm: 2016.10.14 @ 19:59:00

**TEST COMMENT:** 30 - IF: 1/8" Blow at open, died back, Intermittent blow from 10 to 19 min. then dead

30 - IS: No blow

30 - FF: No blow

30 - FS: No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2405.55	115.83	Initial Hydro-static
1	12.68	114.84	Open To Flow (1)
31	15.00	117.93	Shut-In(1)
62	39.04	119.16	End Shut-In(1)
62	15.79	119.17	Open To Flow (2)
92	16.66	120.94	Shut-In(2)
124	27.45	121.55	End Shut-In(2)
127	2346.65	122.94	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	SOCM 96% m, 4% o	0.02

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Funk Petroleum LLC  
 2110 N. 1184 th St.  
 Eudora, KS 66025  
 ATTN: Tim Priest

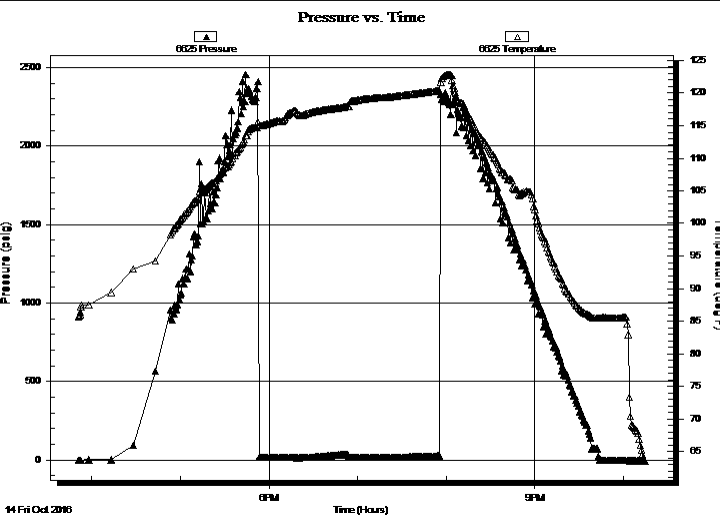
**18-9s-35w Thomas,KS**  
**Calliham Trust #1-18**  
 Job Ticket: 61182 **DST#: 3**  
 Test Start: 2016.10.14 @ 15:51:00

**GENERAL INFORMATION:**

Formation: **Johnson**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 17:52:45 Tester: James Winder  
 Time Test Ended: 22:14:30 Unit No: 83  
 Interval: **4714.00 ft (KB) To 4760.00 ft (KB) (TVD)** Reference Elevations: 3385.00 ft (KB)  
 Total Depth: 4760.00 ft (KB) (TVD) 3380.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

**Serial #: 6625 Inside**  
 Press @ Run Depth: psig @ 4715.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2016.10.14 End Date: 2016.10.14 Last Calib.: 2016.10.14  
 Start Time: 15:51:05 End Time: 22:14:44 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30 - IF: 1/8" Blow at open, died back, Intermittent blow from 10 to 19 min. then dead  
 30 - IS: No blow  
 30 - FF: No blow  
 30 - FS: No blow



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

Recovery		
Length (ft)	Description	Volume (bbl)
5.00	SOCM 96% m, 4% o	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**

Funk Petroleum LLC

**18-9s-35w Thomas,KS**

2110 N. 1184 th St.  
Eudora, KS 66025

**Calliham Trust #1-18**

Job Ticket: 61182

**DST#: 3**

ATTN: Tim Priest

Test Start: 2016.10.14 @ 15:51:00

## Tool Information

Drill Pipe:	Length: 4465.00 ft	Diameter: 3.80 inches	Volume: 62.63 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: 249.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 88000.00 lb
			Total Volume: 63.85 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4714.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 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			4694.00	
Shut In Tool	5.00			4699.00	
Hydraulic tool	5.00			4704.00	
Packer	5.00			4709.00	21.00 Bottom Of Top Packer
Packer	5.00			4714.00	
Packer - Shale	0.00			4714.00	
Stubb	1.00			4715.00	
Recorder	0.00	6625	Inside	4715.00	
Recorder	0.00	8366	Outside	4715.00	
Perforations	7.00			4722.00	
Blank Spacing	34.00			4756.00	
Perforations	1.00			4757.00	
Bullnose	3.00			4760.00	46.00 Bottom Packers & Anchor

**Total Tool Length: 67.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Funk Petroleum LLC

**18-9s-35w Thomas,KS**

2110 N. 1184 th St.  
Eudora, KS 66025

**Calliham Trust #1-18**

Job Ticket: 61182

**DST#: 3**

ATTN: Tim Priest

Test Start: 2016.10.14 @ 15:51:00

## 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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	SOCM 96% <sub>m</sub> , 4% <sub>o</sub>	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:

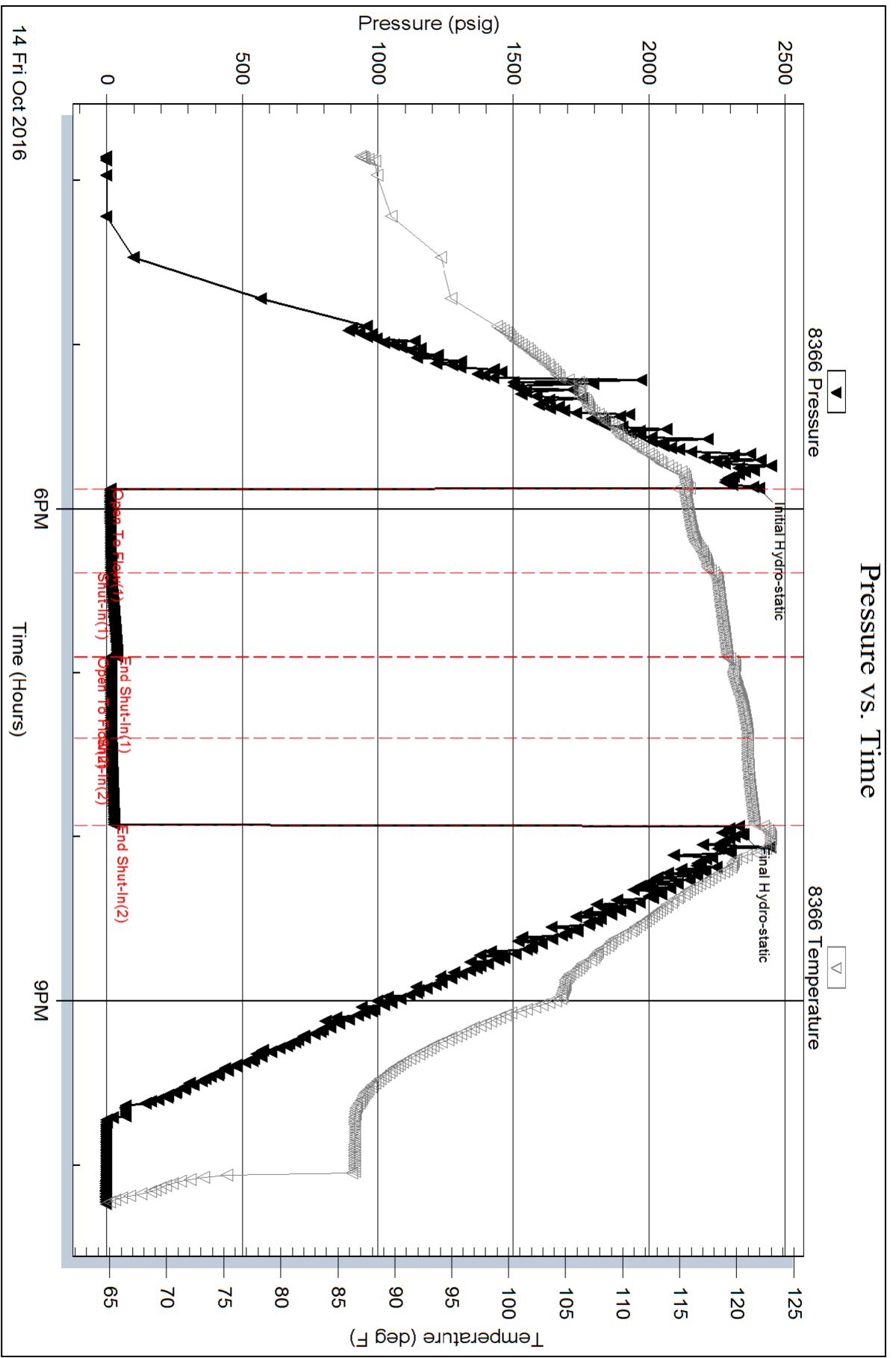
Recovery Comments:

Serial #: 8366

Outside Funk Petroleum LLC

Callham Trust #1-18

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 61182

Printed: 2016.10.17 @ 09:05:00

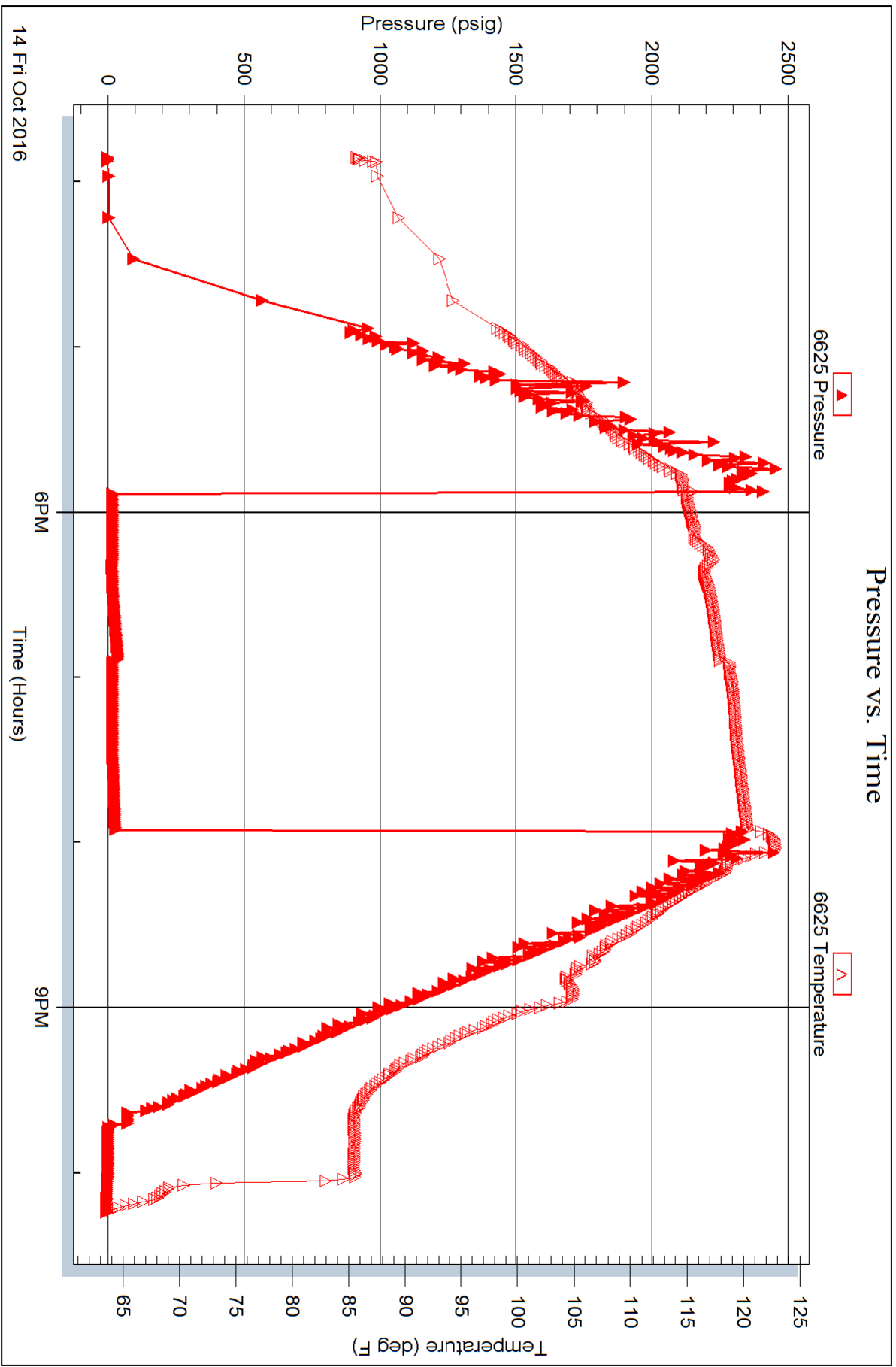
Serial #: 6625

Inside

Funk Petroleum LLC

Callham Trust #1-18

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 61182

Printed: 2016.10.17 @ 09:05:00



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 61180

Well Name & No. Calliham Trust #1-18 Test No. 1 Date 10-13-16  
 Company Funk Petroleum LLC Elevation 3385 KB 3380 GL  
 Address 2110 N. 1184th St. Eudora, KS 66025  
 Co. Rep / Geo. Tim Priest Rig Murfin #7  
 Location: Sec. 18 Twp. 9s Rge. 35w Co. Thomas State KS

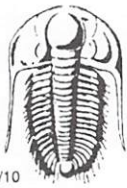
Interval Tested 4576-4610 Zone Tested Pawnee  
 Anchor Length 34 Drill Pipe Run 4401 Mud Wt. 9.2  
 Top Packer Depth 4571 Drill Collars Run 187 Vis 57  
 Bottom Packer Depth 4576 (Shale) Wt. Pipe Run - WL 8.0  
 Total Depth 4610 Chlorides 3000 ppm System LCM 6  
 Blow Description IF: 1/4" Blow at open, built to 4"  
ISI: No blowback  
FF: Blow started at 5 1/2 min., built to 4 1/4"  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
100	MCW w/trace oil	trace	61	39	
125	MCW w/trace oil	trace	90	10	

Rec Total 225 BHT 131 Gravity 1150 API RW .481 @ 55.5 °F Chlorides 17,500 ppm  
 (A) Initial Hydrostatic 2445  Test 1150 T-On Location 23:55 10/12  
 (B) First Initial Flow 13  Jars \_\_\_\_\_ T-Started 2:11  
 (C) First Final Flow 62  Safety Joint \_\_\_\_\_ T-Open 4:51  
 (D) Initial Shut-In 1195  Circ Sub \_\_\_\_\_ T-Pulled 8:53  
 (E) Second Initial Flow 66  Hourly Standby \_\_\_\_\_ T-Out 11:00 10/13  
 (F) Second Final Flow 115  Mileage 152 RT 114 Comments (Hotel)  
 (G) Final Shut-In 1189  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2421  Straddle \_\_\_\_\_  
 Shale Packer 250  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Sub Total 0  
 Accessibility \_\_\_\_\_ Total 1514  
 Sub Total 1514 MP/DST Disc't \_\_\_\_\_

Approved By [Signature] Our Representative James Winder  
 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. **61181**

4/10

Well Name & No. Calliham Trust #1-18 Test No. 2 Date 10-13-16  
 Company Funk Petroleum LLC Elevation 3385 KB 3380 GL  
 Address 2110 N. 1184th St Eudora, KS 66025  
 Co. Rep / Geo. Tim Priest Rig Murfin #7  
 Location: Sec. 18 Twp. 9s Rge. 35w Co. Thomas State KS

Interval Tested 4670 - 4715 Zone Tested Cherokee  
 Anchor Length 45 Drill Pipe Run 4496 Mud Wt. 9.2  
 Top Packer Depth 4665 Drill Collars Run 187 Vis 58  
 Bottom Packer Depth 4670 (shale) Wt. Pipe Run - WL 8.8  
 Total Depth 4715 Chlorides 5060 ppm System LCM 6  
 Blow Description IF: Blow built to BOB (11") at 10 1/4 min.  
ISI: Blowback built to 3 1/2"  
FF: Blow built to BOB at 16 1/2 min.  
FSI: Blowback built to 5"

Rec	Feet of	%gas	%oil	%water	%mud
<u>130</u>	<u>CGO</u>	<u>15</u>	<u>85</u>	<u>-</u>	<u>-</u>
<u>190</u>	<u>CGO</u>	<u>33</u>	<u>67</u>	<u>-</u>	<u>-</u>
<u>53</u>	<u>smco</u>	<u>5</u>	<u>87</u>	<u>-</u>	<u>8</u>
<u>10</u>	<u>SOCM</u>	<u>20</u>	<u>5</u>	<u>-</u>	<u>75</u>
<u>187</u>	<u>smco</u>	<u>13</u>	<u>78</u>	<u>-</u>	<u>9</u>

Rec Total 570 Fluid 380'GIP BHT 134 Gravity 25 API RW @          °F Chlorides          ppm

(A) Initial Hydrostatic 2484  Test 1150 T-On Location 20:30 <sup>10/13</sup>  
 (B) First Initial Flow 25  Jars          T-Started 21:44  
 (C) First Final Flow 94  Safety Joint          T-Open 00:03  
 (D) Initial Shut-In 1029  Circ Sub          T-Pulled 4:13  
 (E) Second Initial Flow 112  Hourly Standby          T-Out 6:50 <sup>10/14</sup>  
 (F) Second Final Flow 171  Mileage 152 RT 114 Comments (Hotel)  
 (G) Final Shut-In 960  Sampler           
 (H) Final Hydrostatic 2315  Straddle           Ruined Shale Packer           
 Shale Packer 250  Ruined Packer           
 Extra Packer           Extra Copies           
 Extra Recorder          Sub Total 0  
 Day Standby          Total 1514  
 Accessibility          MP/DST Disc't           
 Sub Total 1514

Approved By \_\_\_\_\_ Our Representative James Winder

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 61182

Well Name & No. Calliham Trust #1-18 Test No. 3 Date 10-14-16  
 Company Funk Petroleum LLC Elevation 3385 KB 3380 GL  
 Address 2110 N. 1184th St Eudora KS 66025  
 Co. Rep / Geo. Tim Priest Rig Murfin #7  
 Location: Sec. 18 Twp. 9s Rge. 35w Co. Thomas State KS

Interval Tested 4714 - 4760 Zone Tested Johnson  
 Anchor Length 46 Drill Pipe Run 4465 Mud Wt. 9.3  
 Top Packer Depth 4709 Drill Collars Run ~~187~~ 249 Vis 53  
 Bottom Packer Depth 4714 (shale) Wt. Pipe Run - WL 8.8  
 Total Depth 4760 Chlorides 5400 ppm System LCM 6

Blow Description IF: 1/8" Blow at open, died back, Intermittent surface blow 10-19 min then dead  
ISI: No blow  
FF: No blow  
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>50cm</u>		<u>4</u>		<u>96</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 5 BHT 122 Gravity 1150 API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic 2406  Test 1150 T-On Location 14:30  
 (B) First Initial Flow 13  Jars \_\_\_\_\_ T-Started 15:51  
 (C) First Final Flow 15  Safety Joint \_\_\_\_\_ T-Open 17:52  
 (D) Initial Shut-In 39  Circ Sub \_\_\_\_\_ T-Pulled 19:55  
 (E) Second Initial Flow 16  Hourly Standby \_\_\_\_\_ T-Out 22:10  
 (F) Second Final Flow 17  Mileage 152 RT x2 114+114 Comments (Hole)  
 (G) Final Shut-In 27  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2347  Straddle \_\_\_\_\_  
 Shale Packer 250  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30  
 Sub Total 0  
 Total 1628  
 Sub Total 1628  
 MP/DST Disc't \_\_\_\_\_

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

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