



## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell KS 67665

ATTN: Austin Klaus

**Johnson D #1**

**35-13s-15w Russell,KS**

Start Date: 2014.06.22 @ 00:50:35

End Date: 2014.06.22 @ 06:39:59

Job Ticket #: 59312                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.06.26 @ 13:25:33

John O Farmer Inc

35-13s-15w Russell,KS

Johnson D #1

DST # 1

Toronto - LKC B

2014.06.22



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59312

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2014.06.22 @ 00:50:35

## GENERAL INFORMATION:

Formation: **Toronto - LKC B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:53:30

Time Test Ended: 06:39:59

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 70

**Interval: 3017.00 ft (KB) To 3110.00 ft (KB) (TVD)**

Reference Elevations: 1903.00 ft (KB)

Total Depth: 3110.00 ft (KB) (TVD)

1895.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8018 Inside**

Press@RunDepth: 27.62 psig @ 3023.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.22 End Date: 2014.06.22

Last Calib.: 2014.06.22

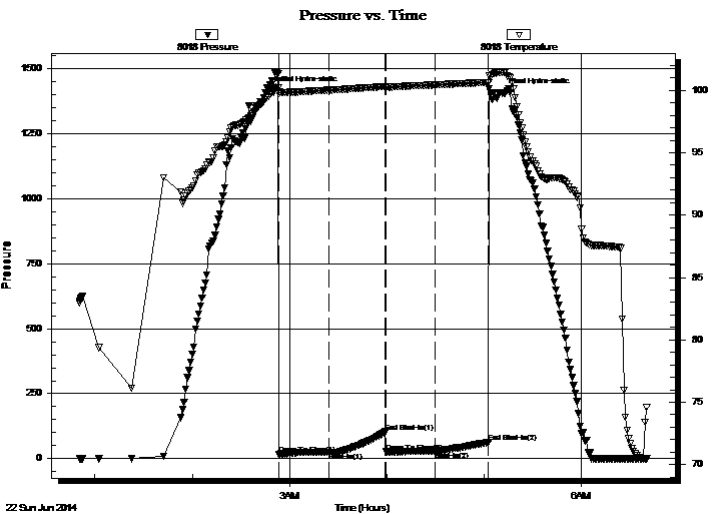
Start Time: 00:50:35 End Time: 06:39:59

Time On Btm: 2014.06.22 @ 02:47:00

Time Off Btm: 2014.06.22 @ 05:10:59

TEST COMMENT: 30-IFP-surface bl, died in 10 min  
30-ISIP-no bl  
30-FFP-no bl  
30-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1417.18	99.52	Initial Hydro-static
7	17.37	99.75	Open To Flow (1)
37	24.96	100.01	Shut-In(1)
72	102.94	100.31	End Shut-In(1)
73	26.08	100.27	Open To Flow (2)
103	27.62	100.44	Shut-In(2)
136	63.02	100.64	End Shut-In(2)
144	1407.83	101.44	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.02

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc  
PO Box 352  
Russell KS 67665  
ATTN: Austin Klaus

**35-13s-15w Russell, KS**  
**Johnson D #1**  
Job Ticket: 59312      **DST#: 1**  
Test Start: 2014.06.22 @ 00:50:35

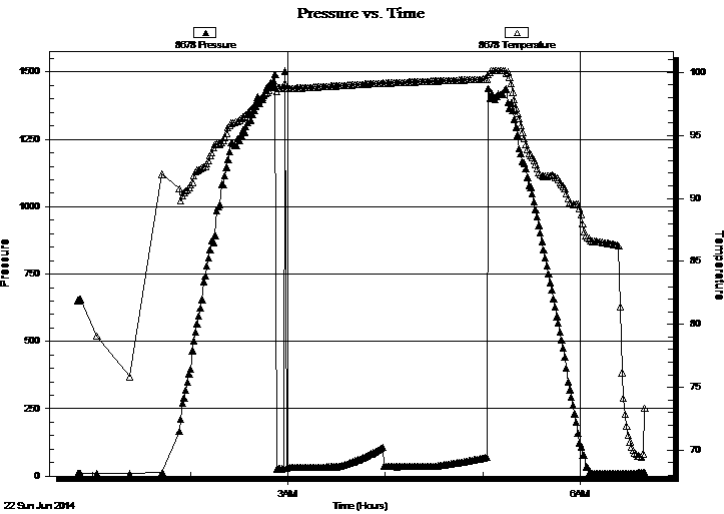
## GENERAL INFORMATION:

Formation: **Toronto - LKC B**  
Deviated: No    Whipstock:                          ft (KB)    Test Type: Conventional Bottom Hole (Initial)  
Time Tool Opened: 02:53:30    Tester: Ray Schwager  
Time Test Ended: 06:39:59    Unit No: 70  
**Interval: 3017.00 ft (KB) To 3110.00 ft (KB) (TVD)**    Reference Elevations:    1903.00 ft (KB)  
Total Depth: 3110.00 ft (KB) (TVD)    1895.00 ft (CF)  
Hole Diameter: 7.88 inches    Hole Condition: Fair    KB to GR/CF: 8.00 ft

**Serial #: 8678      Outside**

Press@RunDepth:                  psig @ 3023.00 ft (KB)    Capacity: 8000.00 psig  
Start Date: 2014.06.22    End Date: 2014.06.22    Last Calib.: 2014.06.22  
Start Time: 00:50:51    End Time: 06:39:15    Time On Btm:  
Time Off Btm:

TEST COMMENT: 30-IFP-surface bl, died in 10 min  
30-ISIP-no bl  
30-FFP-no bl  
30-FSIP-no bl



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.02

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59312

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2014.06.22 @ 00:50:35

## Tool Information

Drill Pipe:	Length: 2993.00 ft	Diameter: 3.80 inches	Volume: 41.98 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 42.13 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3017.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	93.00 ft			
Tool Length:	114.00 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			2997.00	
Shut In Tool	5.00			3002.00	
Hydraulic tool	5.00			3007.00	
Packer	5.00			3012.00	21.00 Bottom Of Top Packer
Packer	5.00			3017.00	
Stubb	1.00			3018.00	
Perforations	5.00			3023.00	
Recorder	0.00	8018	Inside	3023.00	
Recorder	0.00	8678	Outside	3023.00	
Blank Spacing	64.00			3087.00	
Perforations	20.00			3107.00	
Bullnose	3.00			3110.00	93.00 Bottom Packers & Anchor

**Total Tool Length: 114.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59312

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2014.06.22 @ 00:50:35

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.70 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

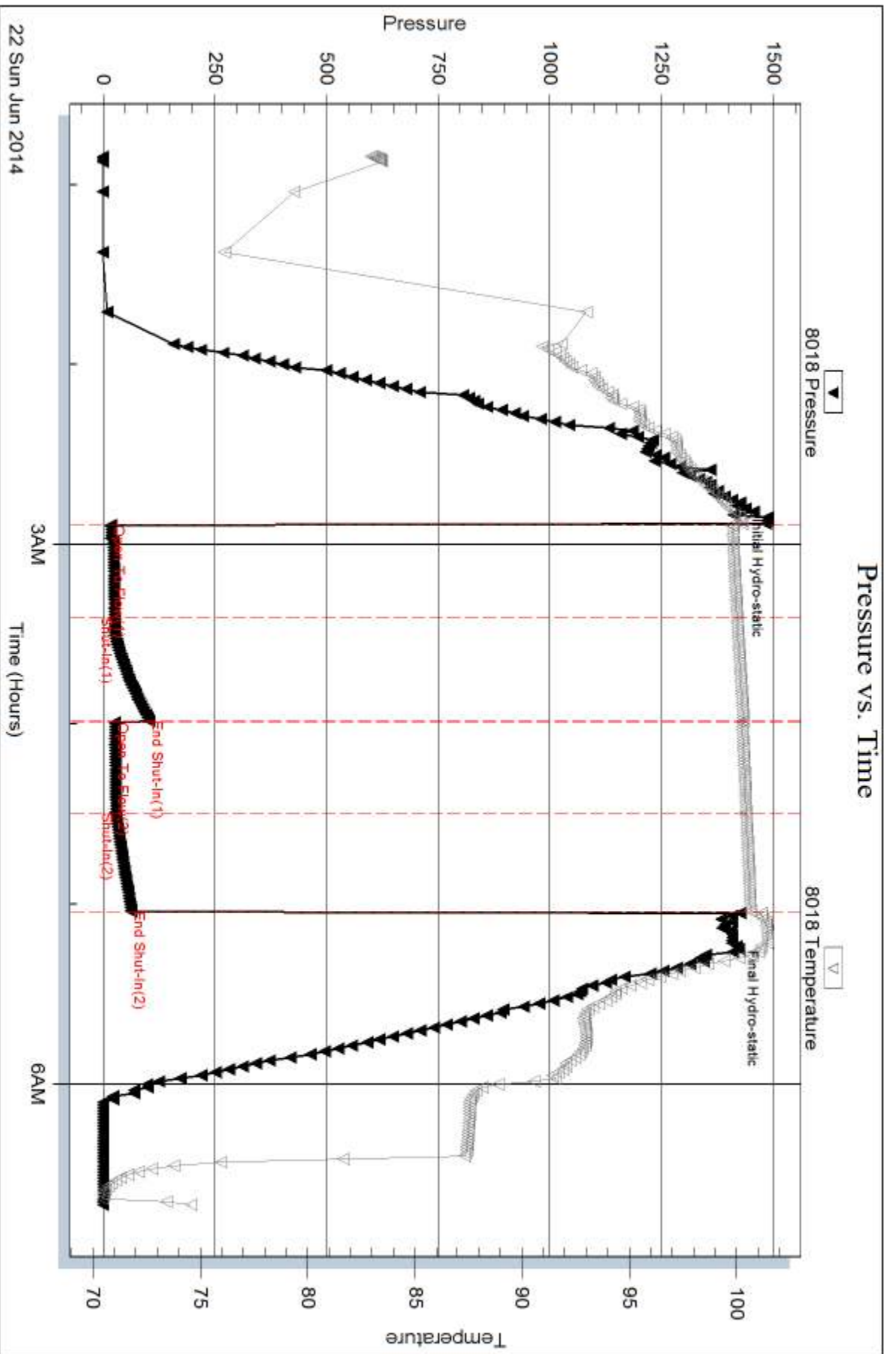
Num Gas Bombs: 0

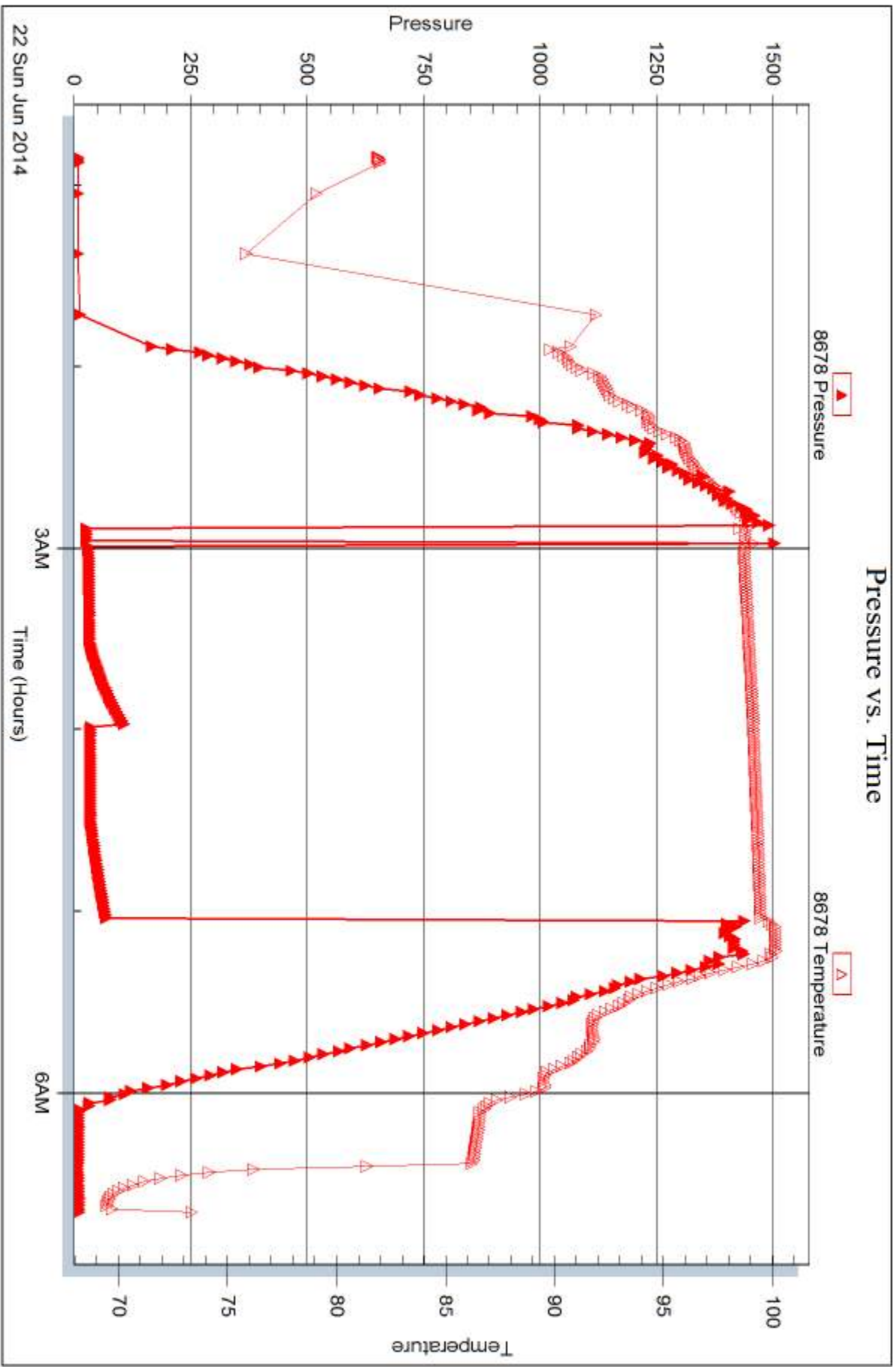
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell KS 67665

ATTN: Austin Klaus

**Johnson D #1**

**35-13s-15w Russell,KS**

Start Date: 2014.06.22 @ 15:50:44

End Date: 2014.06.22 @ 20:49:38

Job Ticket #: 59313                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.06.26 @ 13:25:07





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59313

**DST#: 2**

ATTN: Austin Klaus

Test Start: 2014.06.22 @ 15:50:44

## GENERAL INFORMATION:

Formation: **LKC C-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:23:39

Time Test Ended: 20:49:38

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3102.00 ft (KB) To 3140.00 ft (KB) (TVD)**

Reference Elevations: 1903.00 ft (KB)

Total Depth: 3140.00 ft (KB) (TVD)

1895.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8018 Inside**

Press@RunDepth: 19.61 psig @ 3108.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.22

End Date:

2014.06.22

Last Calib.:

2014.06.22

Start Time: 15:50:44

End Time:

20:49:38

Time On Btm:

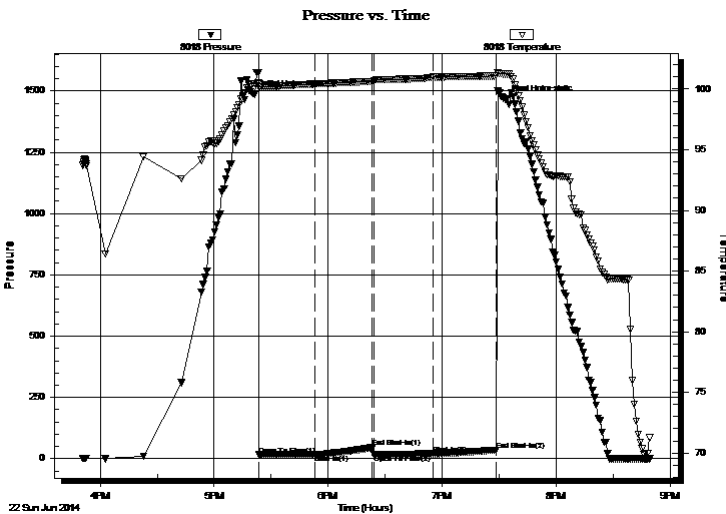
2014.06.22 @ 17:21:09

Time Off Btm:

2014.06.22 @ 19:33:09

TEST COMMENT: 30-IFP-w k bl thru-out surface to 1/8" bl  
30-ISIP-no bl  
30-FFP-no bl  
30-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1486.46	100.43	Initial Hydro-static
3	15.92	100.17	Open To Flow (1)
32	17.55	100.42	Shut-In(1)
62	46.66	100.64	End Shut-In(1)
63	18.43	100.67	Open To Flow (2)
94	19.61	100.98	Shut-In(2)
127	35.24	101.09	End Shut-In(2)
132	1467.06	101.24	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.02

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59313

**DST#: 2**

ATTN: Austin Klaus

Test Start: 2014.06.22 @ 15:50:44

**GENERAL INFORMATION:**

Formation: **LKC C-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:23:39

Time Test Ended: 20:49:38

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3102.00 ft (KB) To 3140.00 ft (KB) (TVD)**

Reference Elevations: 1903.00 ft (KB)

Total Depth: 3140.00 ft (KB) (TVD)

1895.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8678 Outside**

Press@RunDepth: psig @ 3108.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.22 End Date: 2014.06.22

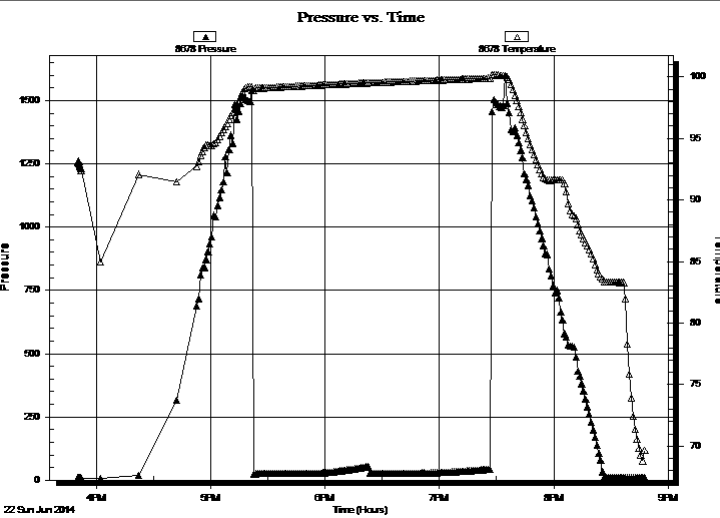
Last Calib.: 2014.06.22

Start Time: 15:50:15 End Time: 20:48:09

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30-IFP-w k bl thru-out surface to 1/8" bl  
30-ISIP-no bl  
30-FFP-no bl  
30-FSIP-no bl



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
5.00	Mud	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**

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59313

**DST#: 2**

ATTN: Austin Klaus

Test Start: 2014.06.22 @ 15:50:44

## Tool Information

Drill Pipe:	Length: 3066.00 ft	Diameter: 3.80 inches	Volume: 43.01 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 43.16 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	3102.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	38.00 ft				
Tool Length:	59.00 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			3082.00	
Shut In Tool	5.00			3087.00	
Hydraulic tool	5.00			3092.00	
Packer	5.00			3097.00	21.00 Bottom Of Top Packer
Packer	5.00			3102.00	
Stubb	1.00			3103.00	
Perforations	5.00			3108.00	
Recorder	0.00	8018	Inside	3108.00	
Recorder	0.00	8678	Outside	3108.00	
Perforations	29.00			3137.00	
Bullnose	3.00			3140.00	38.00 Bottom Packers & Anchor

**Total Tool Length: 59.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59313

**DST#: 2**

ATTN: Austin Klaus

Test Start: 2014.06.22 @ 15:50:44

## 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: 47.00 sec/qt

Cushion Volume:

bbf

Water Loss: 11.11 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	Mud	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbf

Num Fluid Samples: 0

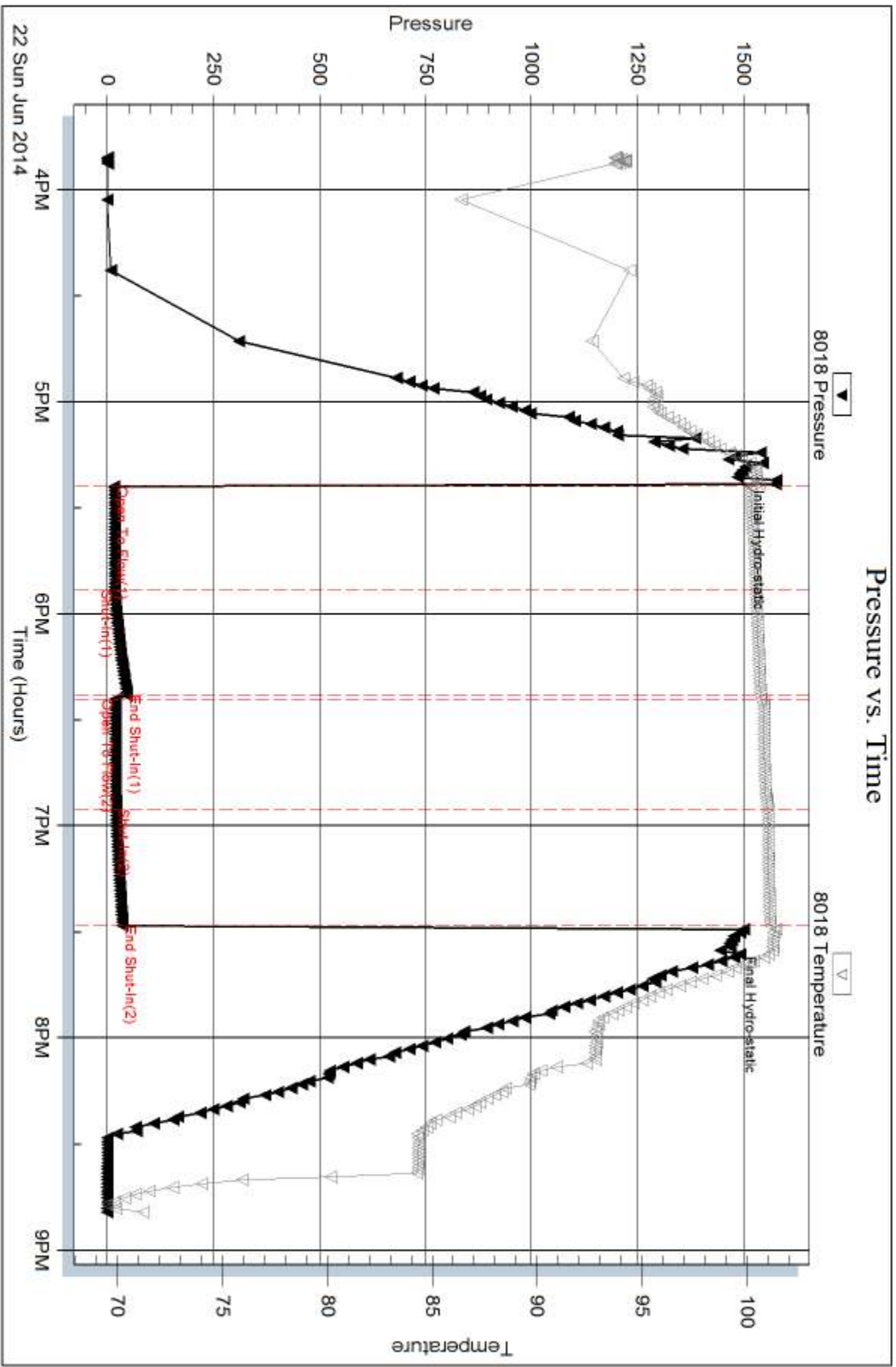
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

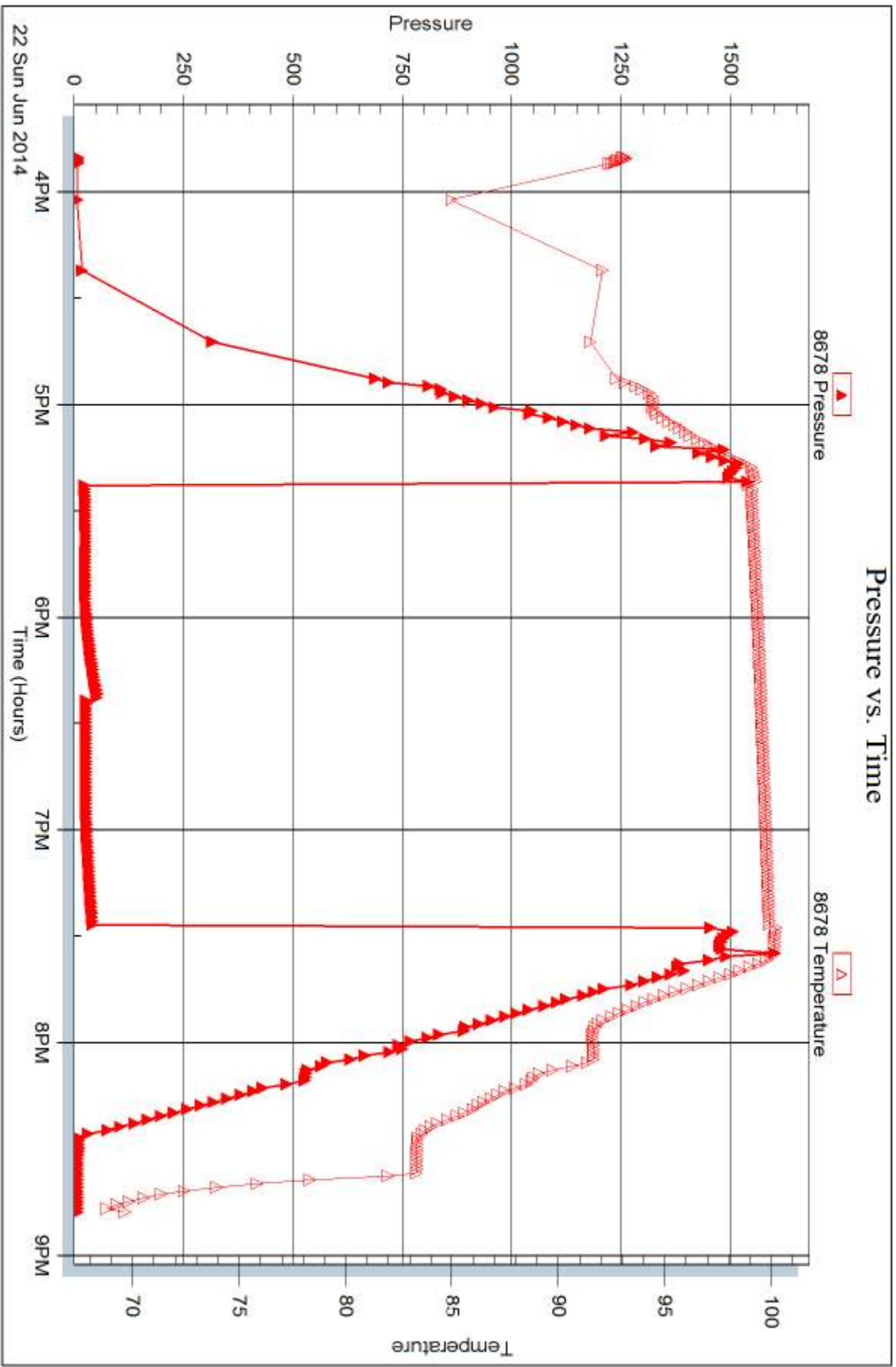


Serial #: 8678

Outside John O Farmer Inc

Johnson D#1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 59313

Printed: 2014.06.26 @ 13:25:08



## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell KS 67665

ATTN: Austin Klaus

### **Johnson D #1**

#### **35-13s-15w Russell,KS**

Start Date: 2014.06.23 @ 18:30:15

End Date: 2014.06.24 @ 00:01:39

Job Ticket #: 59314                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.06.26 @ 13:24:45

John O Farmer Inc  
35-13s-15w Russell,KS  
Johnson D #1  
DST # 3  
LKC H-L  
2014.06.23



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59314

**DST#: 3**

ATTN: Austin Klaus

Test Start: 2014.06.23 @ 18:30:15

## GENERAL INFORMATION:

Formation: **LKC H-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:08:10

Time Test Ended: 00:01:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3194.00 ft (KB) To 3314.00 ft (KB) (TVD)**

Reference Elevations: 1903.00 ft (KB)

Total Depth: 3314.00 ft (KB) (TVD)

1895.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8018**

**Inside**

Press@RunDepth: 18.01 psig @ 3196.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.23

End Date:

2014.06.24

Last Calib.:

2014.06.24

Start Time: 18:30:15

End Time:

00:01:39

Time On Btm:

2014.06.23 @ 20:06:10

Time Off Btm:

2014.06.23 @ 22:13:10

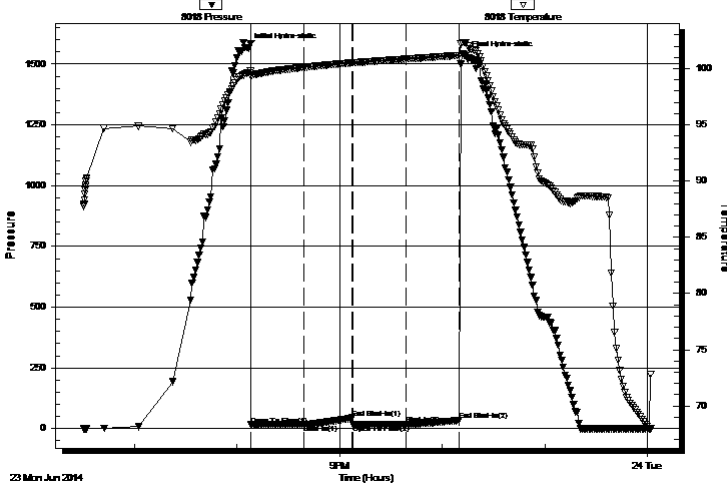
TEST COMMENT: 30-IFP-surface bl , died in 10 min

30-ISIP-no bl

30-FFP-no bl

30-FSIP-no bl

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1566.79	99.62	Initial Hydro-static
2	15.98	99.32	Open To Flow (1)
33	17.33	100.11	Shut-In(1)
61	44.53	100.52	End Shut-In(1)
62	17.41	100.52	Open To Flow (2)
93	18.01	100.86	Shut-In(2)
124	33.92	101.17	End Shut-In(2)
127	1535.10	102.32	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.02

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59314

**DST#: 3**

ATTN: Austin Klaus

Test Start: 2014.06.23 @ 18:30:15

## GENERAL INFORMATION:

Formation: **LKC H-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:08:10

Time Test Ended: 00:01:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3194.00 ft (KB) To 3314.00 ft (KB) (TVD)**

Reference Elevations: 1903.00 ft (KB)

Total Depth: 3314.00 ft (KB) (TVD)

1895.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8678** Outside

Press@RunDepth: psig @ 3196.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.23

End Date:

2014.06.24

Last Calib.:

2014.06.24

Start Time: 18:30:22

End Time:

00:00:46

Time On Btm:

Time Off Btm:

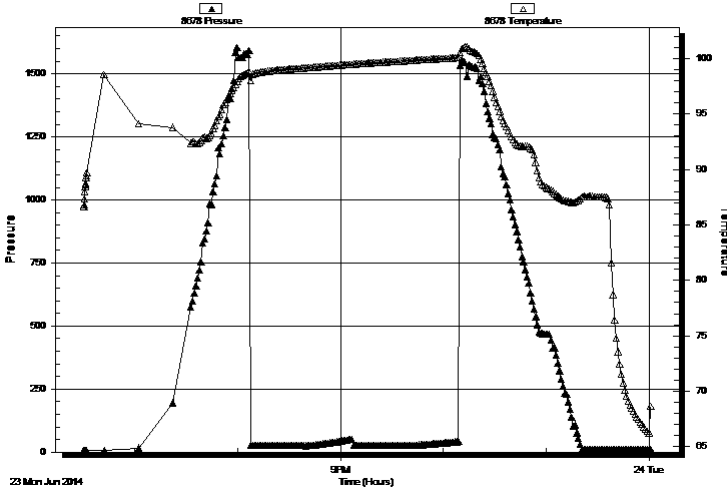
TEST COMMENT: 30-IFP-surface bl , died in 10 min

30-ISIP-no bl

30-FFP-no bl

30-FSIP-no bl

Pressure vs. Time



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.02

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59314

**DST#: 3**

ATTN: Austin Klaus

Test Start: 2014.06.23 @ 18:30:15

## Tool Information

Drill Pipe:	Length: 3158.00 ft	Diameter: 3.80 inches	Volume: 44.30 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 44.45 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3194.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	120.00 ft			
Tool Length:	141.00 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			3174.00	
Shut In Tool	5.00			3179.00	
Hydraulic tool	5.00			3184.00	
Packer	5.00			3189.00	21.00 Bottom Of Top Packer
Packer	5.00			3194.00	
Stubb	1.00			3195.00	
Perforations	1.00			3196.00	
Recorder	0.00	8018	Inside	3196.00	
Recorder	0.00	8678	Outside	3196.00	
Blank Spacing	95.00			3291.00	
Perforations	20.00			3311.00	
Bullnose	3.00			3314.00	120.00 Bottom Packers & Anchor

**Total Tool Length: 141.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59314

**DST#: 3**

ATTN: Austin Klaus

Test Start: 2014.06.23 @ 18:30:15

## 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: 61.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.95 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	Mud	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

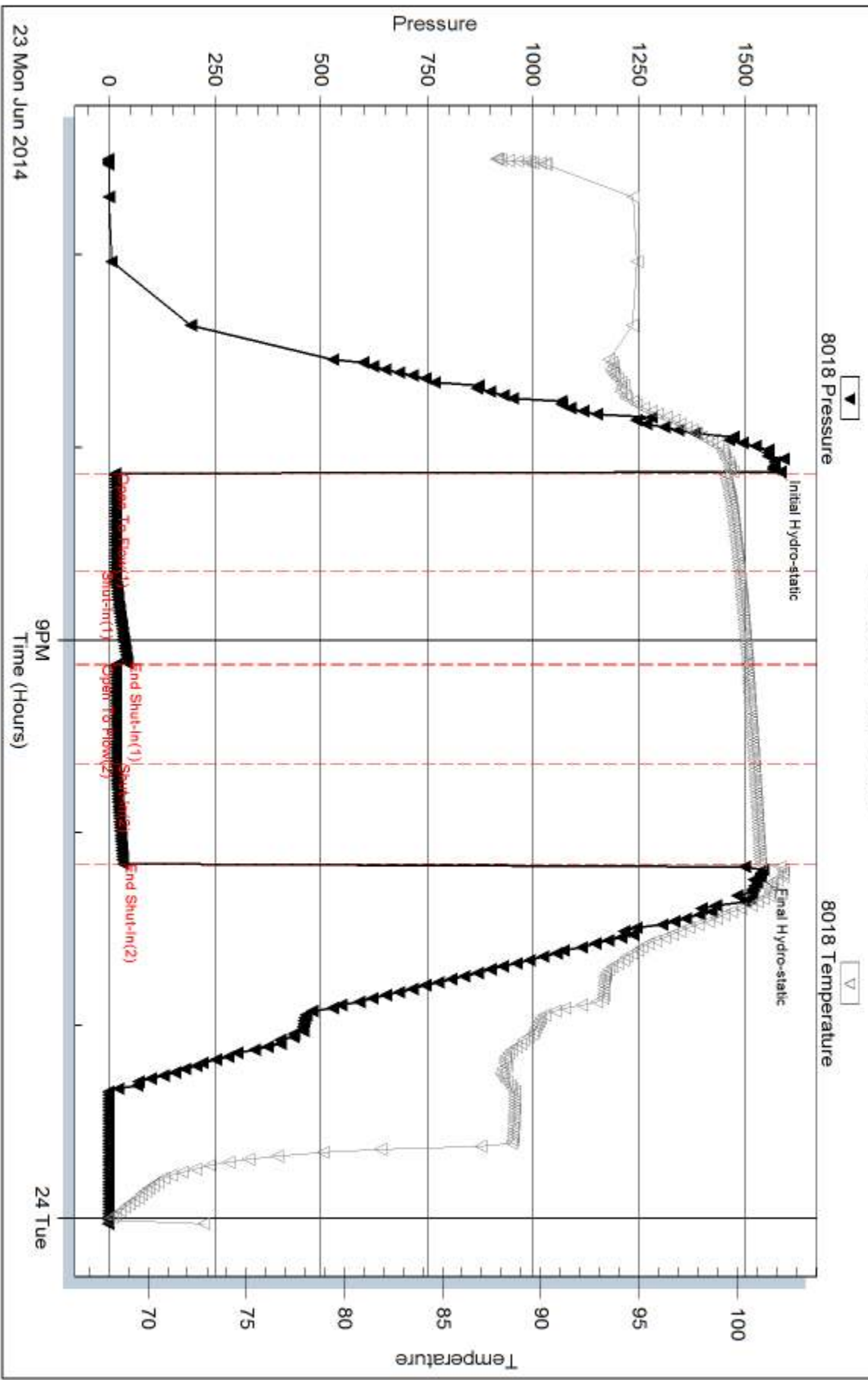
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

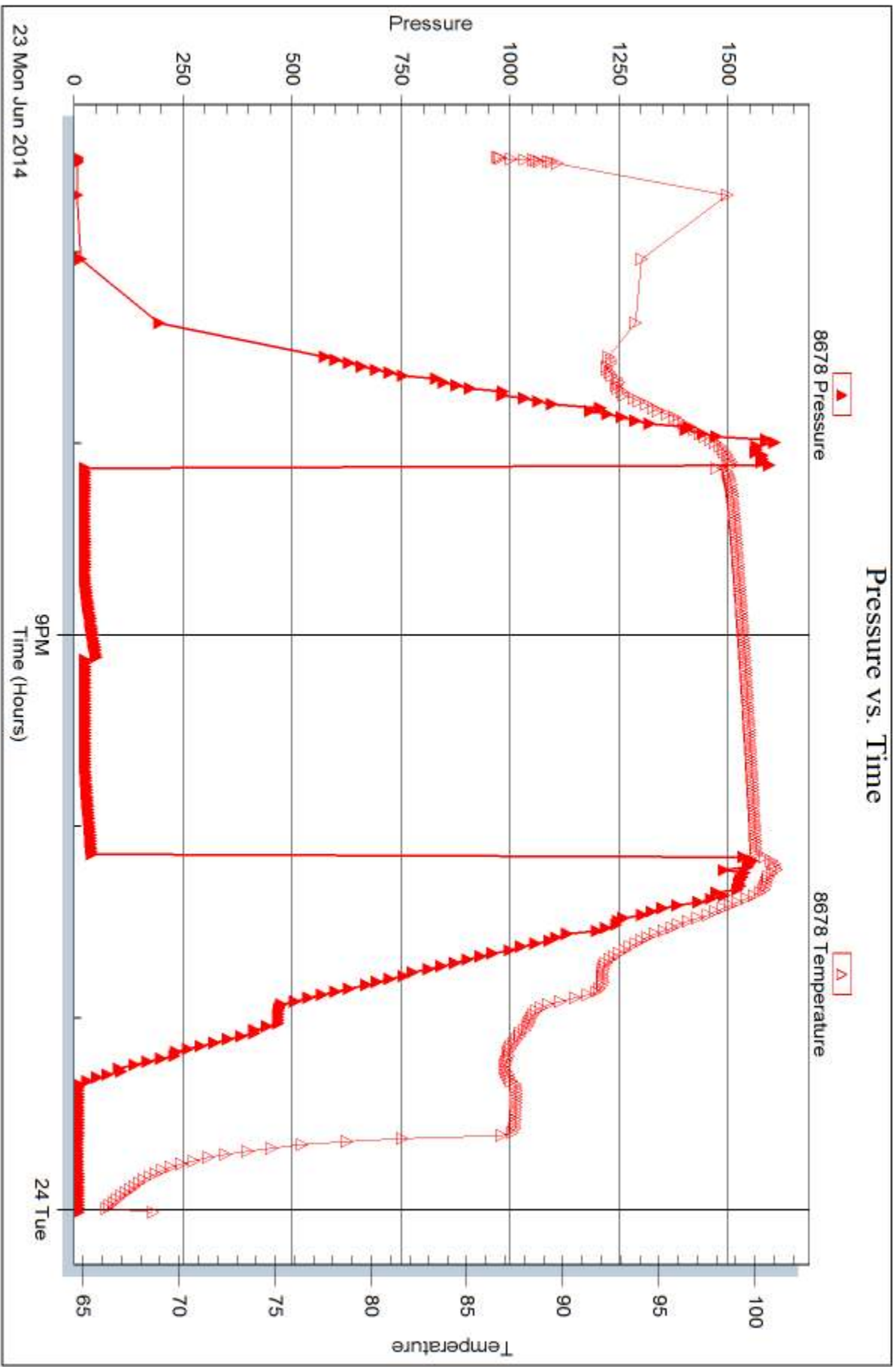


Serial #: 8678

Outside John O Farmer Inc

Johnson D#1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 59314

Printed: 2014.06.26 @ 13:24:46



## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell KS 67665

ATTN: Austin Klaus

### **Johnson D #1**

### **35-13s-15w Russell,KS**

Start Date: 2014.06.24 @ 11:55:22

End Date: 2014.06.24 @ 18:12:16

Job Ticket #: 59315                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.06.26 @ 13:24:05

John O Farmer Inc  
35-13s-15w Russell,KS  
Johnson D #1  
DST # 4  
Arbuckle  
2014.06.24



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59315

**DST#: 4**

ATTN: Austin Klaus

Test Start: 2014.06.24 @ 11:55:22

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:25:47

Time Test Ended: 18:12:16

Test Type: Conventional Straddle (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3294.00 ft (KB) To 3339.00 ft (KB) (TVD)**

Reference Elevations: 1903.00 ft (KB)

Total Depth: 3400.00 ft (KB) (TVD)

1895.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8018 Inside**

Press@RunDepth: 109.03 psig @ 3298.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.24

End Date:

2014.06.24

Last Calib.: 2014.06.24

Start Time: 11:55:22

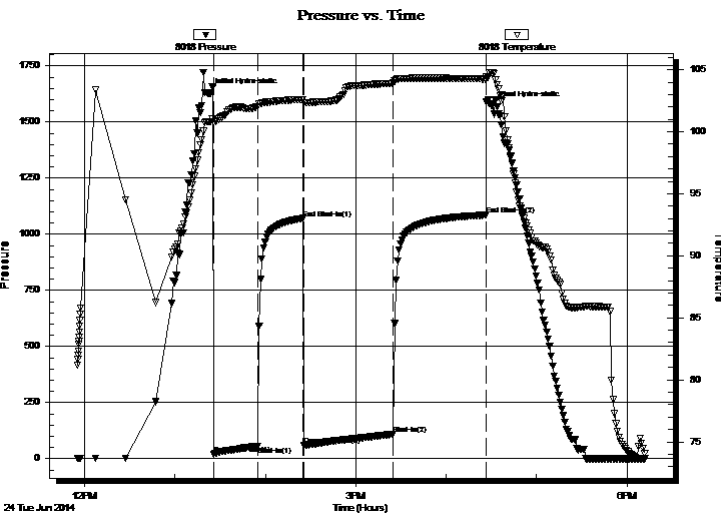
End Time:

18:12:16

Time On Btm: 2014.06.24 @ 13:22:17

Time Off Btm: 2014.06.24 @ 16:30:46

**TEST COMMENT:** 30-IFP-w k to a fr bl 1/4" to 3 1/2" bl  
30-ISIP-no bl  
60-FFP-w k to a gd bl , surface to 6 1/2" bl  
60-FSIP-no bl



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1629.56	100.82	Initial Hydro-static
4	19.32	100.78	Open To Flow (1)
33	56.57	102.02	Shut-In(1)
63	1071.01	102.61	End Shut-In(1)
64	58.79	102.34	Open To Flow (2)
123	109.03	103.92	Shut-In(2)
184	1085.46	104.25	End Shut-In(2)
189	1572.66	104.75	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	O&WCM 10%O30%W60%M	1.47
62.00	O&WCM 10%O10%W80%M	0.87
15.00	MGO 5%G10%O85%M	0.21
10.00	MGO 5%G65%O30%M	0.14

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59315

**DST#: 4**

ATTN: Austin Klaus

Test Start: 2014.06.24 @ 11:55:22

### GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:25:47

Time Test Ended: 18:12:16

Test Type: Conventional Straddle (Reset)

Tester: Ray Schwager

Unit No: 70

Interval: **3294.00 ft (KB) To 3339.00 ft (KB) (TVD)**

Reference Elevations: 1903.00 ft (KB)

Total Depth: 3400.00 ft (KB) (TVD)

1895.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8678 Outside**

Press@RunDepth: psig @ 3298.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.24

End Date:

2014.06.24

Last Calib.:

2014.06.24

Start Time: 11:55:44

End Time:

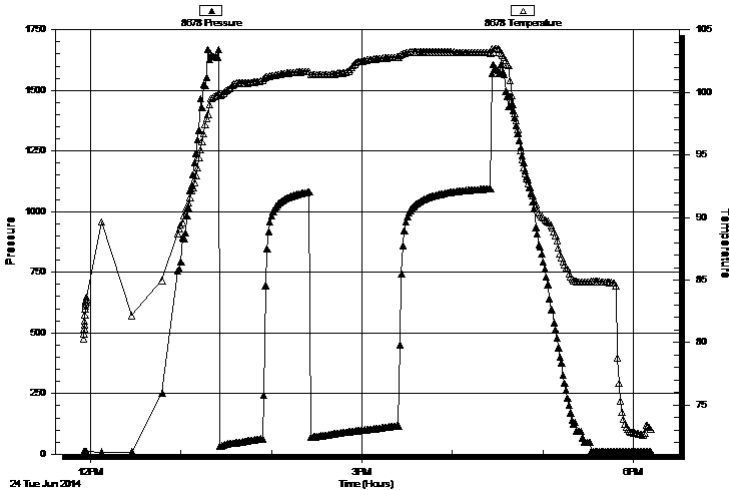
18:11:38

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IFP-w k to a fr bl 1/4" to 3 1/2" bl  
30-ISIP-no bl  
60-FFP-w k to a gd bl , surface to 6 1/2" bl  
60-FSIP-no bl

Pressure vs. Time



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
124.00	O&WCM 10%O30%W60%M	1.47
62.00	O&WCM 10%O10%W80%M	0.87
15.00	MGO 5%G10%O85%M	0.21
10.00	MGO 5%G65%O30%M	0.14

### Gas Rates

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

\* Recovery from multiple tests





# DRILL STEM TEST REPORT

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59315

**DST#: 4**

ATTN: Austin Klaus

Test Start: 2014.06.24 @ 11:55:22

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:25:47

Time Test Ended: 18:12:16

Test Type: Conventional Straddle (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3294.00 ft (KB) To 3339.00 ft (KB) (TVD)**

Total Depth: 3400.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1903.00 ft (KB)

1895.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 8374 Below (Straddle)**

Press@RunDepth: psig @ 3368.00 ft (KB)

Start Date: 2014.06.24 End Date: 2014.06.24

Start Time: 11:55:15 End Time: 18:12:39

Capacity: 8000.00 psig

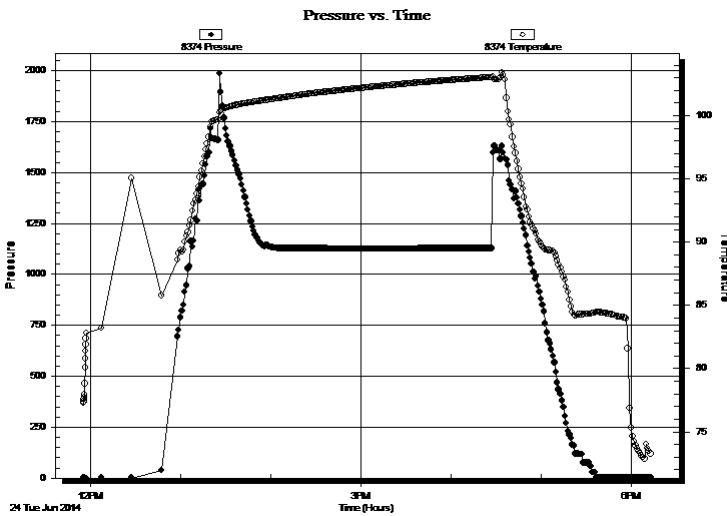
Last Calib.: 2014.06.24

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IFP-w k to a fr bl 1/4" to 3 1/2" bl  
30-ISIP-no bl  
60-FFP-w k to a gd bl , surface to 6 1/2" bl  
60-FSIP-no bl

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	O&WCM 10%O30%W60%M	1.47
62.00	O&WCM 10%O10%W80%M	0.87
15.00	MGO 5%G10%O85%M	0.21
10.00	MGO 5%G65%O30%M	0.14

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59315

**DST#: 4**

ATTN: Austin Klaus

Test Start: 2014.06.24 @ 11:55:22

## Tool Information

Drill Pipe:	Length: 3258.00 ft	Diameter: 3.80 inches	Volume: 45.70 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 45.85 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3294.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	3339.00 ft			
Interval between Packers:	45.00 ft			
Tool Length:	131.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3274.00	
Shut In Tool	5.00			3279.00	
Hydraulic tool	5.00			3284.00	
Packer	5.00			3289.00	21.00 Bottom Of Top Packer
Packer	5.00			3294.00	
Stubb	1.00			3295.00	
Perforations	3.00			3298.00	
Recorder	0.00	8018	Inside	3298.00	
Recorder	0.00	8678	Outside	3298.00	
Blank Spacing	32.00			3330.00	
Perforations	5.00			3335.00	
Blank Off Sub	1.00			3336.00	
Blank Spacing	3.00			3339.00	45.00 Tool Interval
Packer	5.00			3344.00	
Stubb	1.00			3345.00	
Perforations	23.00			3368.00	
Recorder	0.00	8374	Below	3368.00	
Blank Spacing	33.00			3401.00	
Bullnose	3.00			3404.00	65.00 Bottom Packers & Anchor

**Total Tool Length: 131.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer Inc

**35-13s-15w Russell,KS**

PO Box 352  
Russell KS 67665

**Johnson D #1**

Job Ticket: 59315

**DST#: 4**

ATTN: Austin Klaus

Test Start: 2014.06.24 @ 11:55:22

## 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:

19000 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.34 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	O&WCM 10%O30%W60%M	1.466
62.00	O&WCM 10%O10%W80%M	0.870
15.00	MGO 5%G10%O85%M	0.210
10.00	MGO 5%G65%O30%M	0.140

Total Length: 211.00 ft

Total Volume: 2.686 bbl

Num Fluid Samples: 0

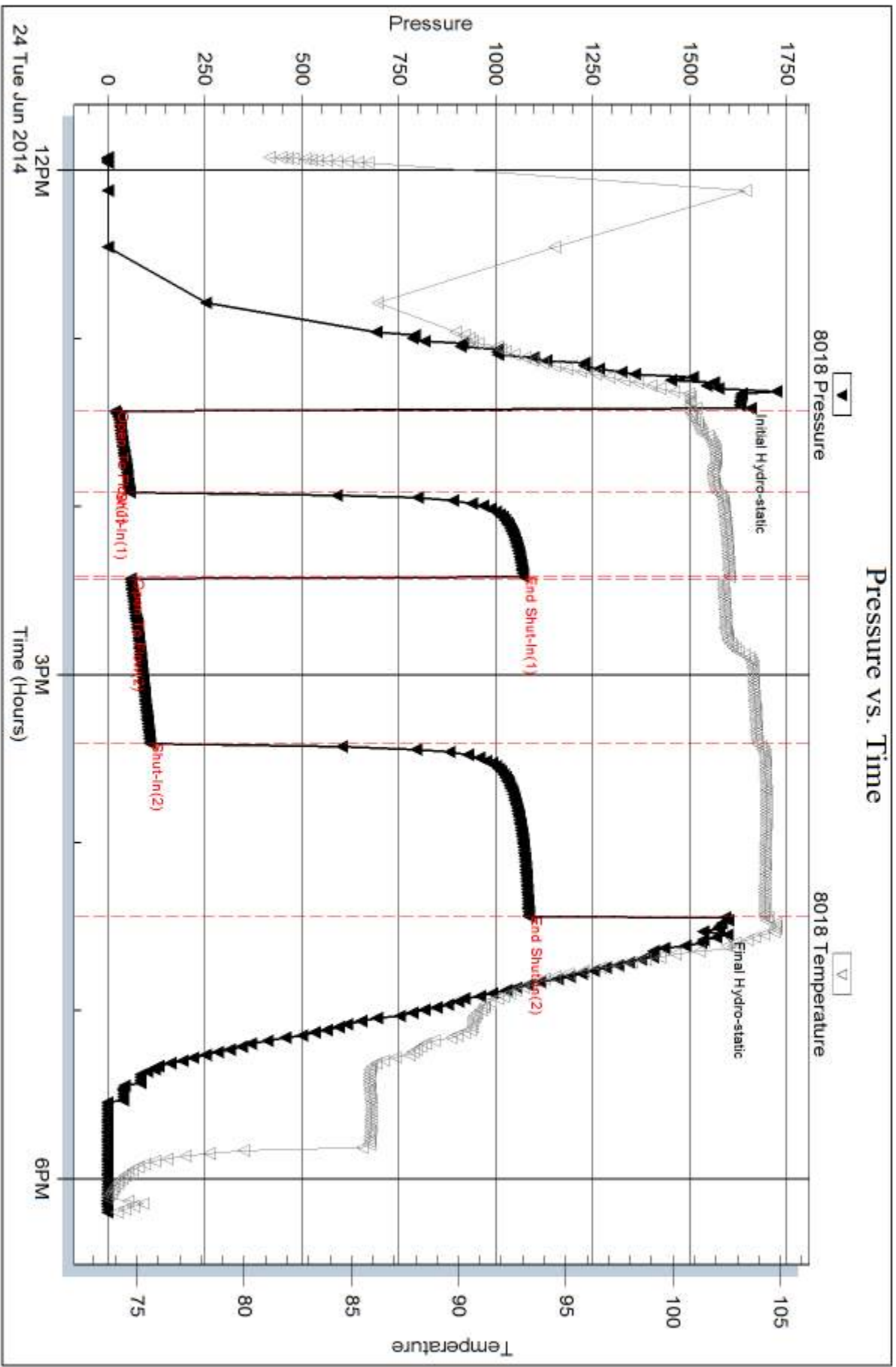
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW >37@69F

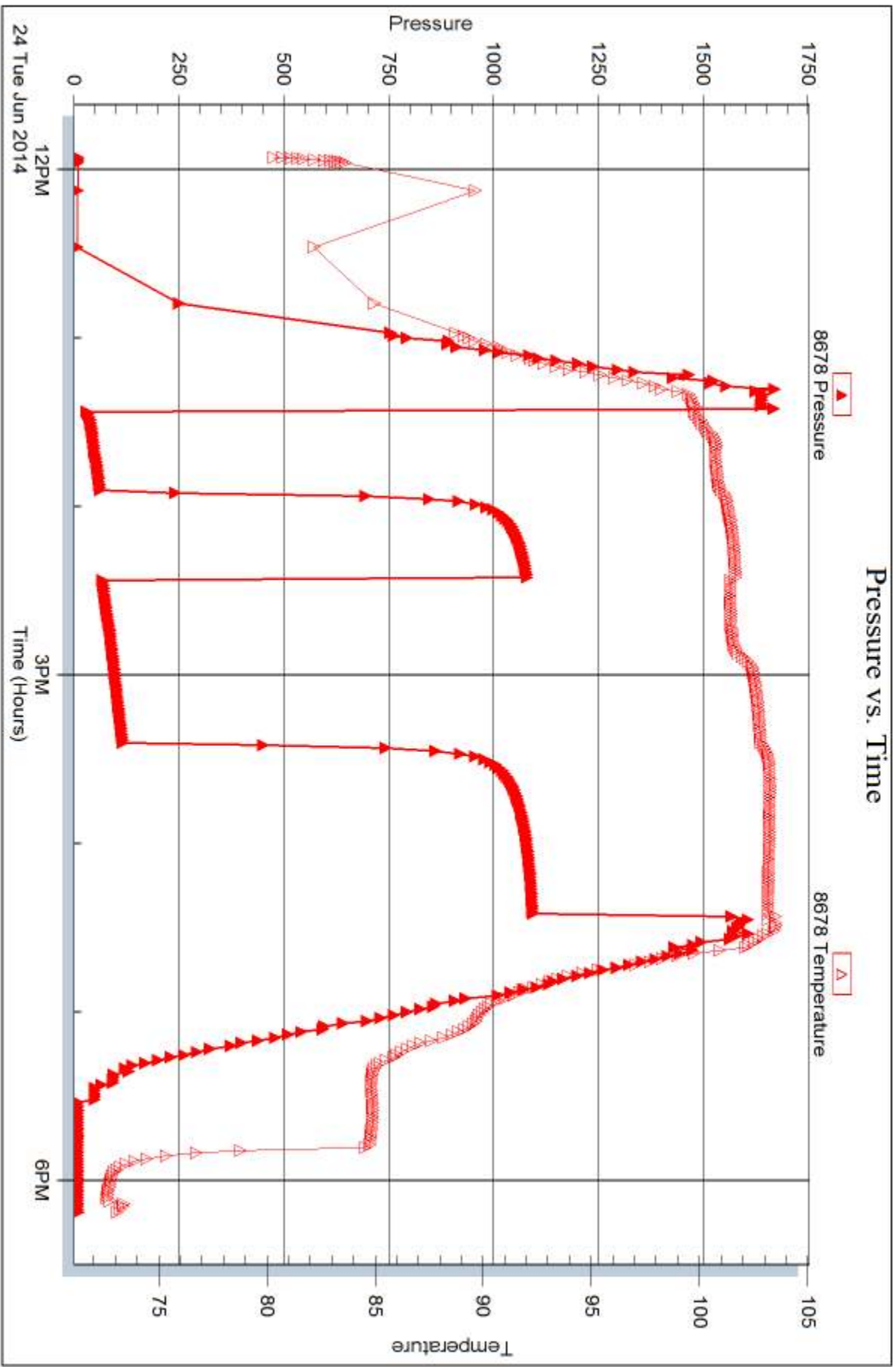


Serial #: 8678

Outside John O Farmer Inc

Johnson D#1

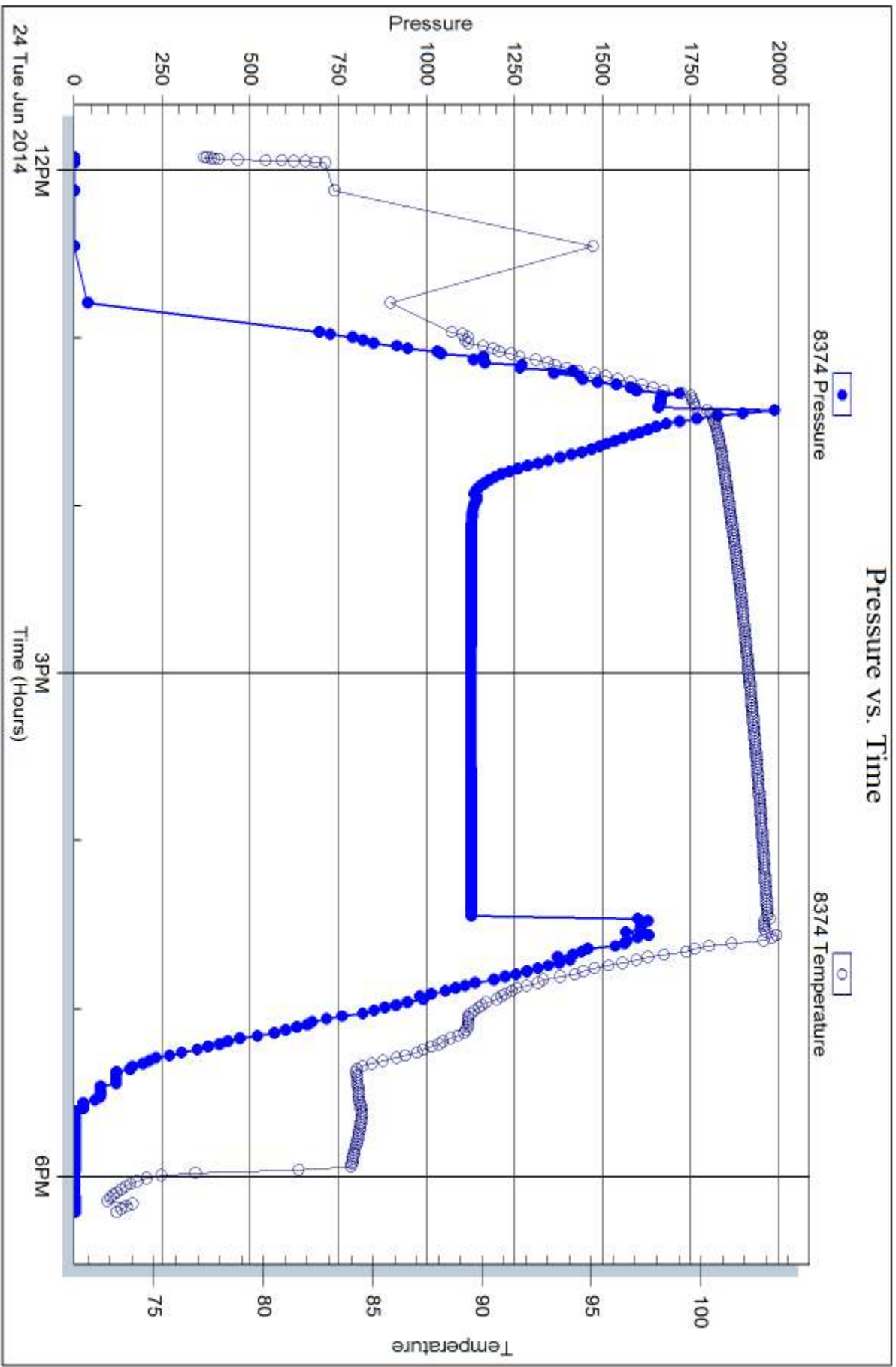
DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 59315

Printed: 2014.06.26 @ 13:24:06





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 59312

4/10

Well Name & No. Johnson O #1 Test No. 1 Date 6-21-14  
 Company John O. Farmer, Inc Elevation 1903 KB 1895 GL  
 Address Box 352 Russell, Ko 67665  
 Co. Rep / Geo. Austin Klaus Rig Discovery rig 2  
 Location: Sec. 35 Twp. 13<sup>s</sup> Rge. 15<sup>w</sup> Co. Russell State Ko

Interval Tested 3017-3110 Zone Tested Toronto - B  
 Anchor Length 93 Drill Pipe Run 2993 Mud Wt. 8.9  
 Top Packer Depth 3012 Drill Collars Run 30 Vis 58  
 Bottom Packer Depth 3017 Wt. Pipe Run - WL 8.8  
 Total Depth 3110 Chlorides 7000 ppm System LCM 2#

Blow Description IFP - SURFACE Blow, died in 10 min  
ISTP - NO Blow  
FFP - NO Blow  
FSIP - NO Blow

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

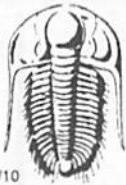
Rec Total 5 BHT 100 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1417  Test 1150 T-On Location 2245  
 (B) First Initial Flow 17  Jars - T-Started 0050  
 (C) First Final Flow 24  Safety Joint - T-Open 0255  
 (D) Initial Shut-In 102  Circ Sub - T-Pulled 0455  
 (E) Second Initial Flow 26  Hourly Standby - T-Out 0639  
 (F) Second Final Flow 27  Mileage 40 RT 62 Comments -  
 (G) Final Shut-In 63  Sampler -  
 (H) Final Hydrostatic 1407  Straddle -  Ruined Shale Packer -

Initial Open 30  Shale Packer -  Ruined Packer -  
 Initial Shut-In 30  Extra Packer -  Extra Copies -  
 Final Flow 30  Extra Recorder - Sub Total 0  
 Final Shut-In 30  Day Standby - Total 1212  
 Accessibility - MP/DST Disc't -  
 Sub Total 1212

Approved By \_\_\_\_\_ Our Representative Ray Schwager *Thank you*

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. 59313

4/10

Well Name & No. Johnson D #1 Test No. 2 Date 6-22-14  
 Company John O. Farmer Inc Elevation 1903 KB 1895 GL  
 Address PO Box 352 Russell, Ks 67665  
 Co. Rep / Geo. Austin Klaus Rig Discovery rig 2  
 Location: Sec. 35 Twp. 13<sup>s</sup> Rge. 15<sup>w</sup> Co. Russell State Ks

Interval Tested 3102-3140 Zone Tested LKC C-D  
 Anchor Length 38 Drill Pipe Run 3066 Mud Wt. 9.2  
 Top Packer Depth 3097 Drill Collars Run 30 Vis 47  
 Bottom Packer Depth 3102 Wt. Pipe Run - WL 11.2  
 Total Depth 3140 Chlorides 7000 ppm System LCM 1 1/2 #  
 Blow Description IFP - Weak Blow thru-out, surface to 1/8" Blow  
ISIP - NO Blow  
FFP - NO Blow  
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</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 101 Gravity - API RW - @ - ° F Chlorides - ppm  
 (A) Initial Hydrostatic 1486  Test 1150 T-On Location 1450  
 (B) First Initial Flow 15  Jars - T-Started 1550  
 (C) First Final Flow 17  Safety Joint - T-Open 1710  
 (D) Initial Shut-In 46  Circ Sub - T-Pulled 1910  
 (E) Second Initial Flow 18  Hourly Standby - T-Out 2049  
 (F) Second Final Flow 19  Mileage 40RT 62 Comments -  
 (G) Final Shut-In 35  Sampler -  
 (H) Final Hydrostatic 1467  Straddle -  Ruined Shale Packer -  
 Shale Packer -  Ruined Packer -  
 Extra Packer -  Extra Copies -  
 Extra Recorder - Sub Total 0  
 Day Standby - Total 1212  
 Accessibility - MP/DST Disc't -

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30  
 Sub Total 1212

Approved By \_\_\_\_\_ Our Representative RAY SCHWAGER *Thank you*

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. 59314

Well Name & No. Johnson D #1 Test No. 3 Date 6-23-14  
 Company John O. Farmer, Inc Elevation 1903 KB 1895 GL  
 Address Po Box 352 Russell, Ko 67665  
 Co. Rep / Geo. Austin Klaus Rig Discovery rig 2  
 Location: Sec. 35 Twp. 13<sup>s</sup> Rge. 15<sup>w</sup> Co. Russell State Ko

Interval Tested 3194-3314 Zone Tested Lower LKC  
 Anchor Length 120 Drill Pipe Run 3158 Mud Wt. 9.2  
 Top Packer Depth 3189 Drill Collars Run 30 Vis 61  
 Bottom Packer Depth 3194 Wt. Pipe Run - WL 8  
 Total Depth 3314 Chlorides 6000 ppm System LCM 2#

Blow Description IFP - Very Weak Blow, died in 10 min  
ISIP - NO Blow  
FFP - NO Blow  
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</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 101 Gravity - API RW - @ - ° F Chlorides - ppm  
 (A) Initial Hydrostatic 1566  Test 1150 T-On Location 1715  
 (B) First Initial Flow 15  Jars \_\_\_\_\_ T-Started 1830  
 (C) First Final Flow 17  Safety Joint \_\_\_\_\_ T-Open 2005  
 (D) Initial Shut-In 44  Circ Sub \_\_\_\_\_ T-Pulled 2205  
 (E) Second Initial Flow 17  Hourly Standby \_\_\_\_\_ T-Out 0001  
 (F) Second Final Flow 18  Mileage 40 RT 62 Comments \_\_\_\_\_  
 (G) Final Shut-In 33  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1535  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30  
 Sub Total 0  
 Total 1212  
 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1212

Approved By \_\_\_\_\_ Our Representative RAY SCHWAGER *thru 504*

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. 59315

Well Name & No. Johnson 0#1 Test No. 4 Date 6-24-14  
 Company John O. Farmer Inc Elevation 1903 KB 1895 GL  
 Address PO Box 352 Russell, Ks 67665  
 Co. Rep / Geo. Austin Klaus Rig Discovery rig 2  
 Location: Sec. 35 Twp. 13<sup>s</sup> Rge. 15<sup>w</sup> Co. Russell State Ks

Interval Tested 3294-3339 Zone Tested Arbuckle  
 Anchor Length 45 Drill Pipe Run 3258 Mud Wt. 9.2  
 Top Packer Depth 3294-3289 Drill Collars Run 30 Vis 59  
 Bottom Packer Depth 3339 Wt. Pipe Run — WL 8.4  
 Total Depth 3400 Chlorides 6000 ppm System LCM 2 1/2#  
 Blow Description IFP - WEAK TO A FAIR BLOW, 1/4" TO 3 1/2" BLOW  
ISIP - NO BLOW  
FFP - WEAK TO A GOOD BLOW, SURFACE TO 6 1/2" BLOW  
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>MGO</u>	<u>5</u>	<u>65</u>	<u>—</u>	<u>30</u>
<u>15</u>	<u>MGO + GCM</u>	<u>5</u>	<u>10</u>	<u>—</u>	<u>85</u>
<u>62</u>	<u>O + WCM</u>	<u>—</u>	<u>10</u>	<u>10</u>	<u>80</u>
<u>124</u>	<u>O + WCM</u>	<u>—</u>	<u>10</u>	<u>30</u>	<u>60</u>

Rec Total 211 BHT 104 Gravity — API RW 33 @ 69 °F Chlorides 18000 ppm  
 Test 1150 T-On Location 1130  
 Jars \_\_\_\_\_ T-Started 1155  
 Safety Joint \_\_\_\_\_ T-Open 1325  
 Circ Sub \_\_\_\_\_ T-Pulled 1625  
 Hourly Standby \_\_\_\_\_ T-Out 1812  
 Mileage 40RT 62 Comments \_\_\_\_\_  
 Sampler \_\_\_\_\_  
 Straddle 600  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1812  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1812

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

Approved By \_\_\_\_\_

Our Representative RAY SCHWAGN

Thank you