



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates Inc.

**15/2s/36w Rawlins KS**

1515 Wynkoop St. STE 700  
Denver, CO 80202

**Frisbie #1-15**

Job Ticket: 62154

**DST#: 4**

ATTN: Clayton Camozzi

Test Start: 2015.02.10 @ 14:05:00

## GENERAL INFORMATION:

Formation: **LKC "J"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 16:18:45  
 Time Test Ended: 22:41:00  
 Interval: **4437.00 ft (KB) To 4483.00 ft (KB) (TVD)**  
 Total Depth: 4483.00 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: 3330.00 ft (KB)  
 3325.00 ft (CF)  
 KB to GR/CF: 5.00 ft

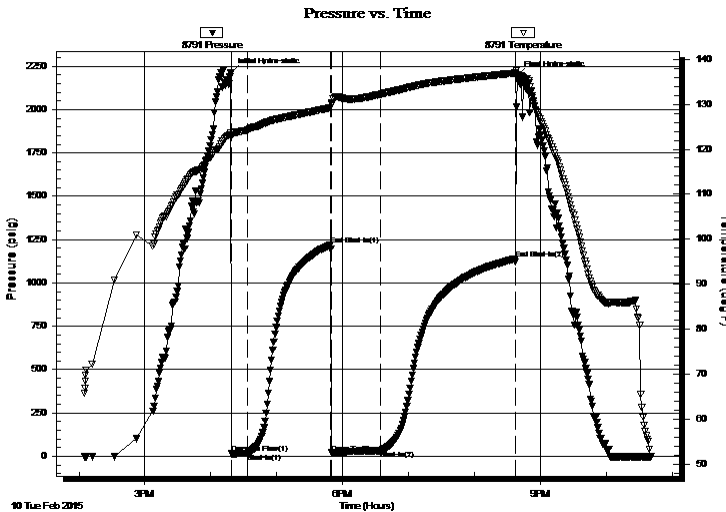
## Serial #: 8791

Inside

Press @ Run Depth: 32.18 psig @ 4438.00 ft (KB)  
 Start Date: 2015.02.10 End Date: 2015.02.10  
 Start Time: 14:05:05 End Time: 22:41:00  
 Capacity: 8000.00 psig  
 Last Calib.: 2015.02.10  
 Time On Btm: 2015.02.10 @ 16:18:30  
 Time Off Btm: 2015.02.10 @ 20:38:45

TEST COMMENT: 15 - IF: 1/4" Blow at open, built to 1 1/2"  
 75 - IS: No blow back  
 45 - FF: Blow built to just over 2"  
 120 - FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2213.99	123.71	Initial Hydro-static
1	14.81	122.77	Open To Flow (1)
15	17.67	124.27	Shut-In(1)
91	1219.51	129.22	End Shut-In(1)
92	20.29	130.15	Open To Flow (2)
136	32.18	132.23	Shut-In(2)
259	1139.17	136.94	End Shut-In(2)
261	2197.76	136.52	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	OCM 56%m, 40%o, 4%g	0.07
30.00	SMCO 94%o, 4%m, 2%g	0.15
0.00	GIP = 80'	0.00

## Gas Rates

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

\* Recovery from multiple tests



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Frisbie #1-15

ATTN: Clayton Camozzi

Job Ticket: 62154

DST#: 4

Test Start: 2015.02.10 @ 14:05:00

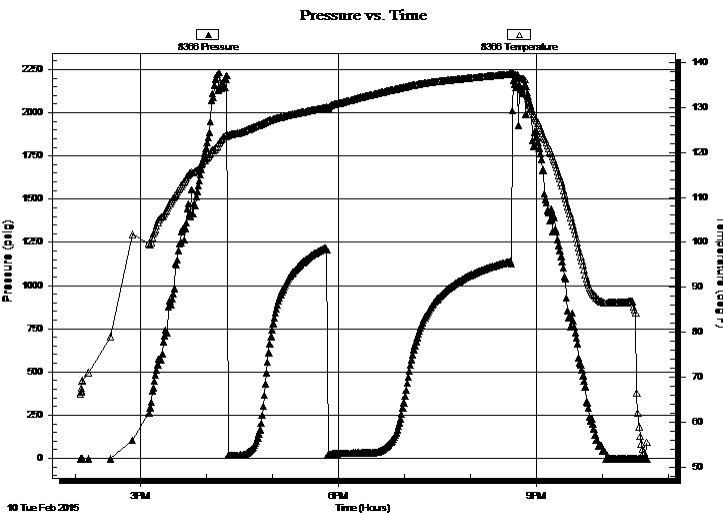
## GENERAL INFORMATION:

Formation: <b>LKC "J"</b>				
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)		
Time Tool Opened: 16:18:45		Tester: James Winder		
Time Test Ended: 22:41:00		Unit No: 83		
<b>Interval: 4437.00 ft (KB) To 4483.00 ft (KB) (TVD)</b>		Reference Elevations: 3330.00 ft (KB)		
Total Depth: 4483.00 ft (KB) (TVD)		3325.00 ft (CF)		
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 5.00 ft		

## Serial #: 8366 Outside

Press @ Run Depth:	psig @ 4438.00 ft (KB)	Capacity:	8000.00 psig
Start Date:	2015.02.10	End Date:	2015.02.10
Start Time:	14:05:05	End Time:	22:40:30
		Last Calib.:	2015.02.10
		Time On Btm:	
		Time Off Btm:	

TEST COMMENT: 15 - IF: 1/4" Blow at open, built to 1 1/2"  
75 - IS: No blow back  
45 - FF: Blow built to just over 2"  
120 - FS: No blow back



## PRESSURE SUMMARY

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

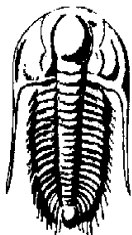
## Recovery

Length (ft)	Description	Volume (bbl)
15.00	OCM 56%m, 40%o, 4%g	0.07
30.00	SMCO 94%o, 4%m, 2%g	0.15
0.00	GIP = 80'	0.00

## Gas Rates

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

\* Recovery from multiple tests



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## DRILL STEM TEST REPORT

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**15/2s/36w Rawlins KS**

1515 Wynkoop St. STE 700  
Denver, CO 80202

**Frisbie #1-15**

Job Ticket: 62154

**DST#: 4**

ATTN: Clayton Camozzi

Test Start: 2015.02.10 @ 14:05:00

### GENERAL INFORMATION:

Formation: **LKC "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:18:45

Time Test Ended: 22:41:00

**Interval: 4437.00 ft (KB) To 4483.00 ft (KB) (TVD)**

Total Depth: 4483.00 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: 3330.00 ft (KB)

3325.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8320**

**Fluid**

Press @ Run Depth: psig @ 4404.00 ft (KB)

Start Date: 2015.02.10

End Date: 2015.02.10

Start Time: 14:05:05

End Time: 22:41:45

Capacity: 8000.00 psig

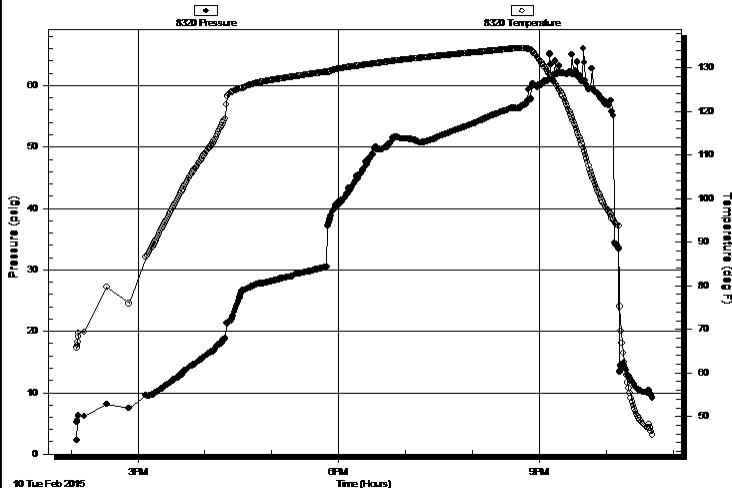
Last Calib.: 2015.02.10

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 15 - IF: 1/4" Blow at open, built to 1 1/2"  
75 - IS: No blow back  
45 - FF: Blow built to just over 2"  
120 - FS: No blow back

Pressure vs. Time



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
15.00	OCM 56%m, 40%o, 4%g	0.07
30.00	SMCO 94%o, 4%m, 2%g	0.15
0.00	GIP = 80'	0.00

### Gas Rates

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

\* Recovery from multiple tests



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

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**15/2s/36w Rawlins KS**

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**Frisbie #1-15**

Job Ticket: 62154

**DST#: 4**

ATTN: Clayton Camozzi

Test Start: 2015.02.10 @ 14:05:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36.8 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
15.00	OCM 56%m, 40%o, 4%g	0.074
30.00	SMCO 94%o, 4%m, 2%g	0.148
0.00	GIP = 80'	0.000

Total Length: 45.00 ft      Total Volume: 0.222 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

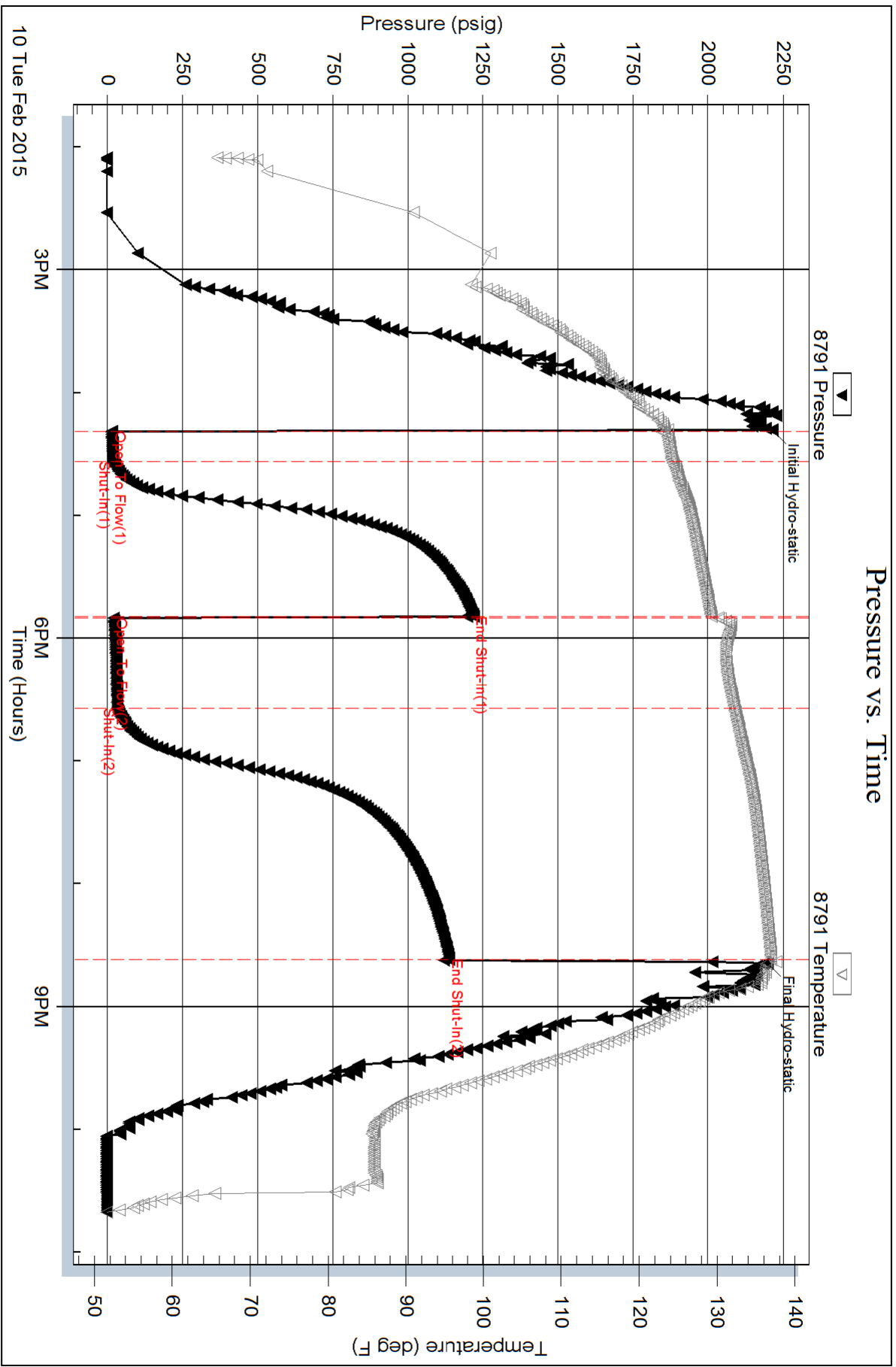
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 35.6 api @ 48 deg F

Corrected Gravity = 36.8 api

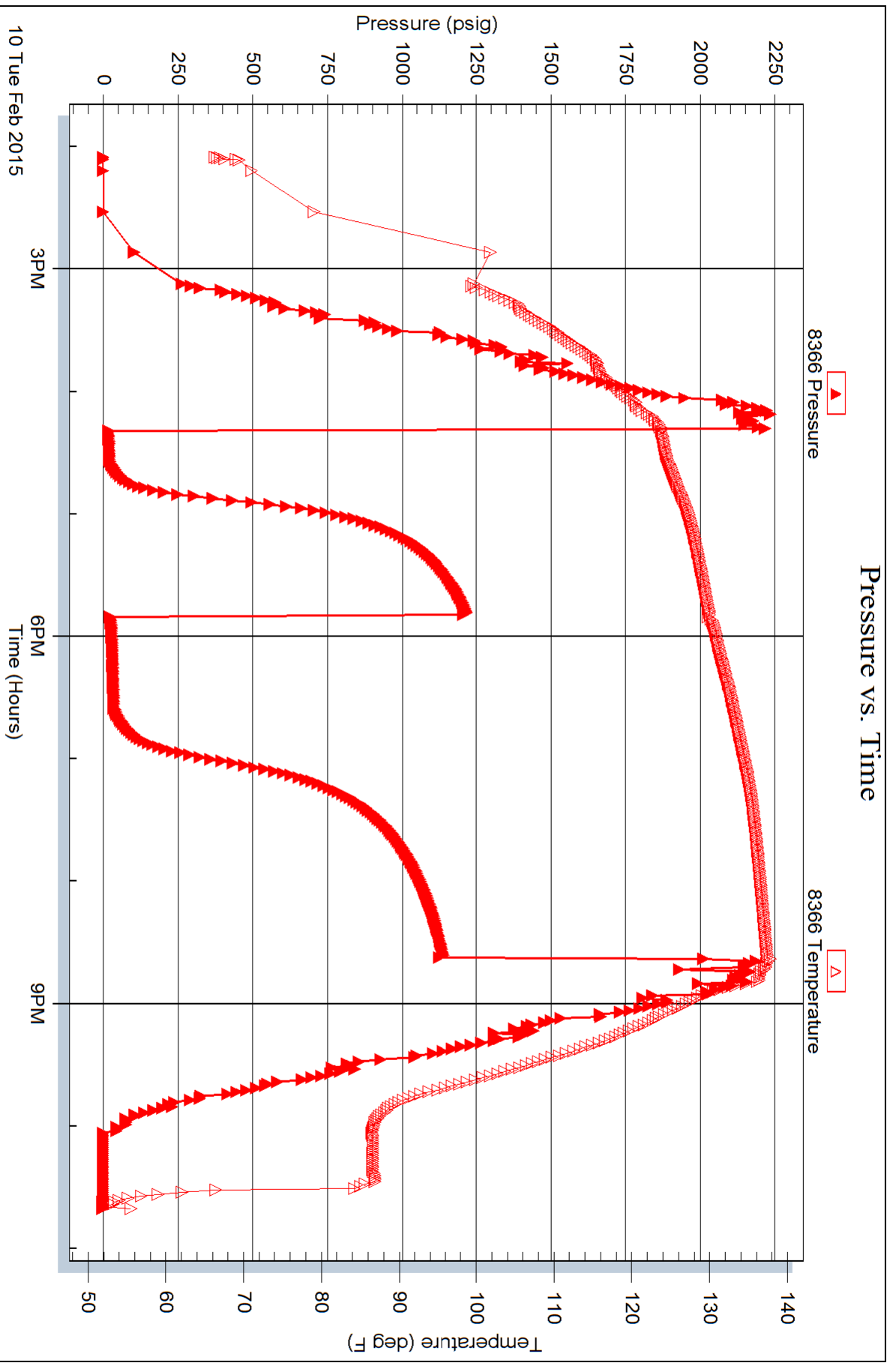


Serial #: 8366

Outside Samuel Gary Jr. & Associates Inc.

Frisbie #1-15

DST Test Number: 4



Serial #: 8320

Fluid

Samuel Gary Jr. & Associates Inc.

Frisbie #1-15

DST Test Number: 4

