



## DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr. and Associates Inc.**

1515 Wynkoop St. Ste. 700  
Denver, CO 80202

ATTN: Clayton Camozzi

**31-15-15 Russell, Ks**

**Hopkins 1-31**

Start Date: 2011.07.13 @ 13:40:10

End Date: 2011.07.13 @ 19:50:40

Job Ticket #: 43914                      DST #: 2

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



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Job Ticket: 43914

**DST#: 2**

Test Start: 2011.07.13 @ 13:40:10

## GENERAL INFORMATION:

Formation: **KC "I,J,K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:06:40

Time Test Ended: 19:50:40

Test Type: Conventional Bottom Hole

Tester: Brett Dickinson

Unit No: 47

**Interval: 3324.00 ft (KB) To 3375.00 ft (KB) (TVD)**

Reference Elevations: 1894.00 ft (KB)

Total Depth: 3375.00 ft (KB) (TVD)

1886.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8319 Outside**

Press @ Run Depth: 37.69 psig @ 3325.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.07.13

End Date:

2011.07.13

Last Calib.:

2011.07.13

Start Time:

13:40:15

End Time:

19:50:39

Time On Btm:

2011.07.13 @ 15:05:10

Time Off Btm:

2011.07.13 @ 18:07:40

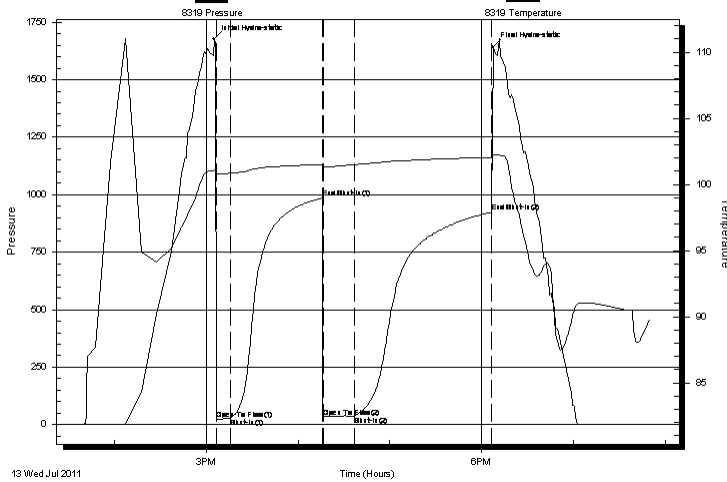
TEST COMMENT: IF-Weak surface blow

ISI-NBlow

FF-NBlow

FSI-NBlow

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1676.56	101.07	Initial Hydro-static
2	21.53	100.77	Open To Flow (1)
11	28.62	100.85	Shut-In(1)
71	985.55	101.51	End Shut-In(1)
71	33.21	101.28	Open To Flow (2)
92	37.69	101.50	Shut-In(2)
182	923.81	102.04	End Shut-In(2)
183	1643.47	102.22	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
35.00	VSOCM 5%O 95%M	0.22

## Gas Rates

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



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Total Depth: 3375.00 ft (KB) (TVD)

1886.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8369 Fluid**

Press @ Run Depth: psig @ 3290.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.07.13

End Date: 2011.07.13

Last Calib.: 2011.07.13

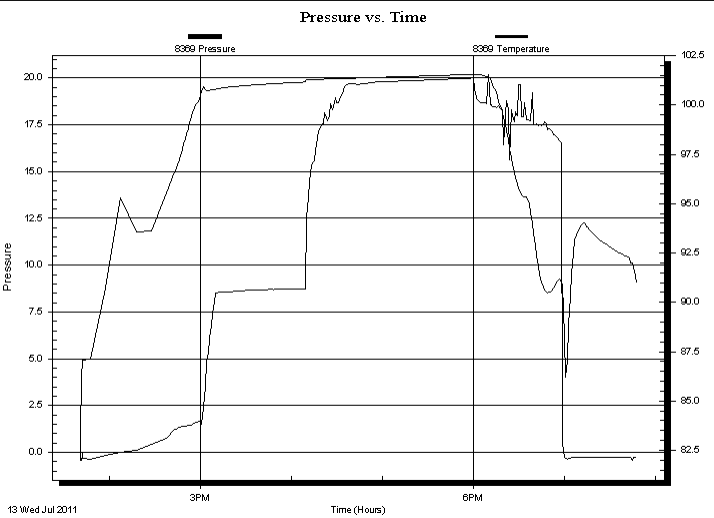
Start Time: 13:40:18

End Time: 19:47:42

Time On Btm:

Time Off Btm:

**TEST COMMENT:** IF-Weak surface blow  
ISI-NBlow  
FF-NBlow  
FSI-NBlow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
35.00	VSOCM 5%O 95%M	0.22

## Gas Rates

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





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**TOOL DIAGRAM**

Samuel Gary Jr. and Associates Inc.

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Job Ticket: 43914

**DST#: 2**

Test Start: 2011.07.13 @ 13:40:10

## Tool Information

Drill Pipe:	Length: 3281.00 ft	Diameter: 3.80 inches	Volume: 46.02 bbl	Tool Weight: 2500.00 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: 50000.00 lb
			<u>Total Volume: 46.17 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3324.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	86.00 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			3290.00	
Recorder	0.00	8369	Fluid	3290.00	
Blank Spacing	5.00			3295.00	
Shut In Tool	5.00			3300.00	
Sampler	2.00			3302.00	
Hydraulic tool	5.00			3307.00	
Jars	5.00			3312.00	
Safety Joint	2.00			3314.00	
Packer	5.00			3319.00	35.00 Bottom Of Top Packer
Packer	5.00			3324.00	
Stubb	1.00			3325.00	
Recorder	0.00	6753	Inside	3325.00	
Recorder	0.00	8319	Outside	3325.00	
Perforations	4.00			3329.00	
Change Over Sub	1.00			3330.00	
Blank Spacing	31.00			3361.00	
Change Over Sub	1.00			3362.00	
Perforations	10.00			3372.00	
Bullnose	3.00			3375.00	51.00 Bottom Packers & Anchor

**Total Tool Length: 86.00**



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**FLUID SUMMARY**

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Test Start: 2011.07.13 @ 13:40:10

## 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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5400.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	VSOCM 5%O 95%M	0.218

Total Length: 35.00 ft      Total Volume: 0.218 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

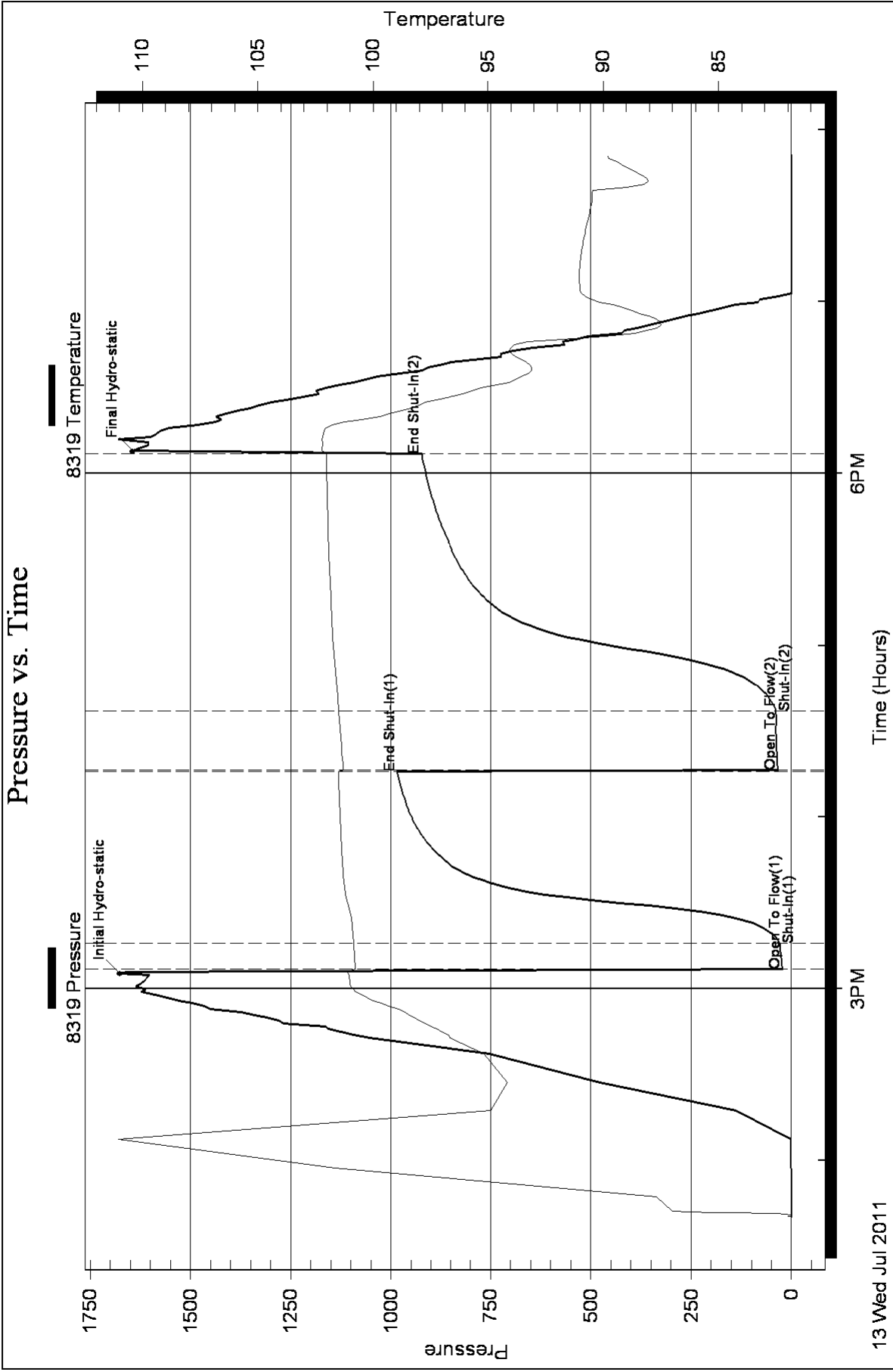
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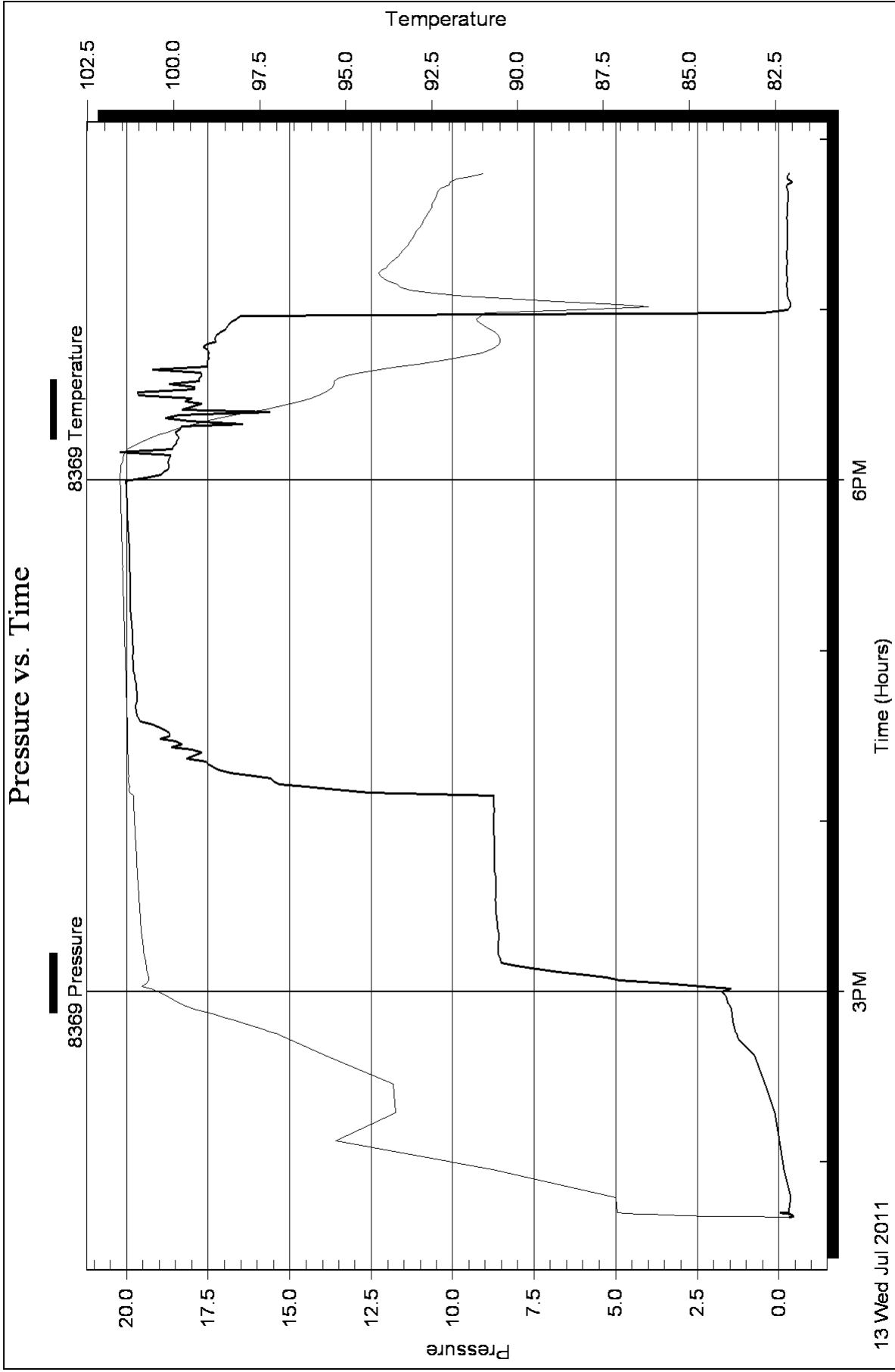
Laboratory Name:

Laboratory Location:

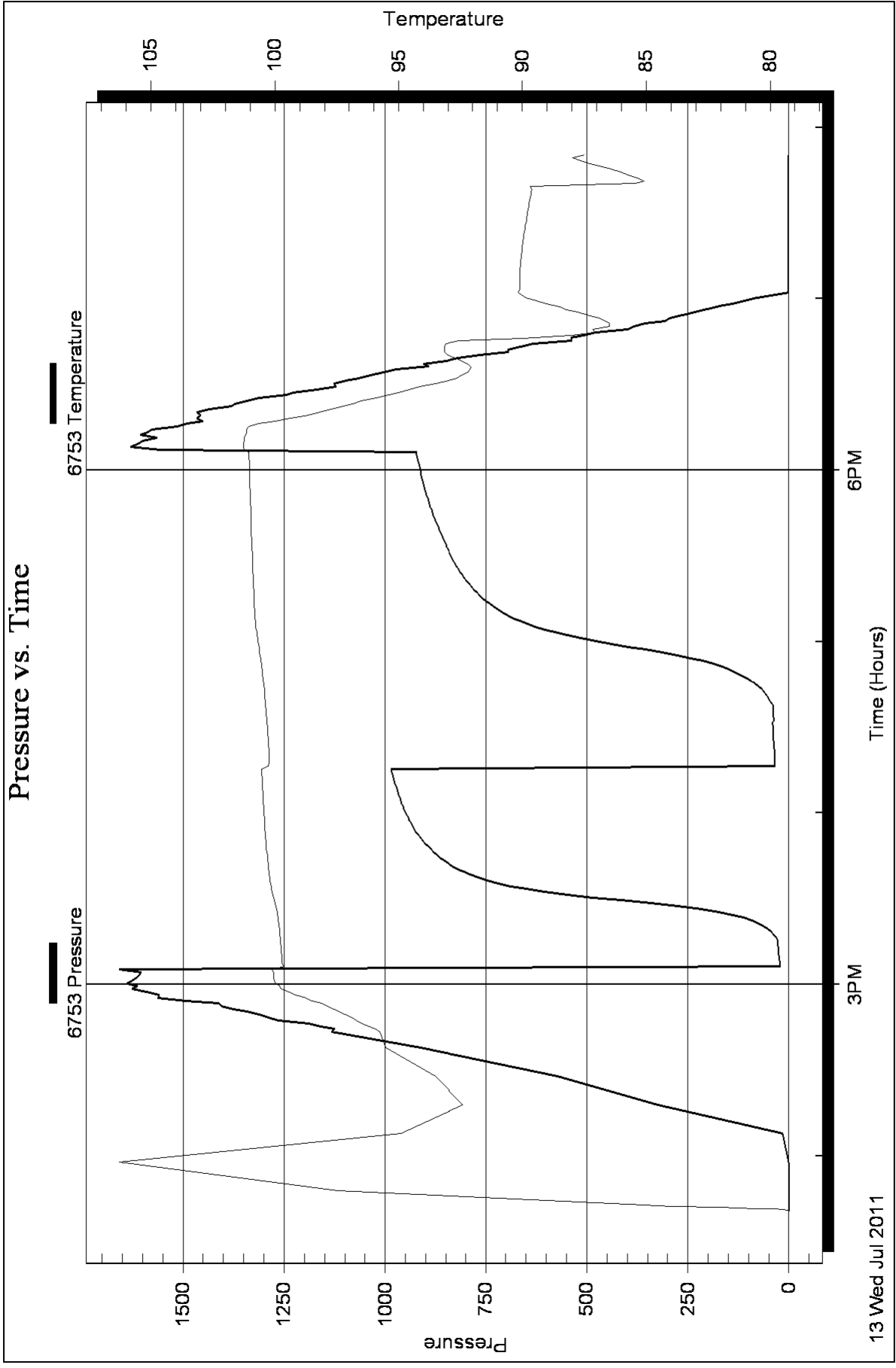
Recovery Comments: Sampler Data Plugged 100PSI

### Pressure vs. Time

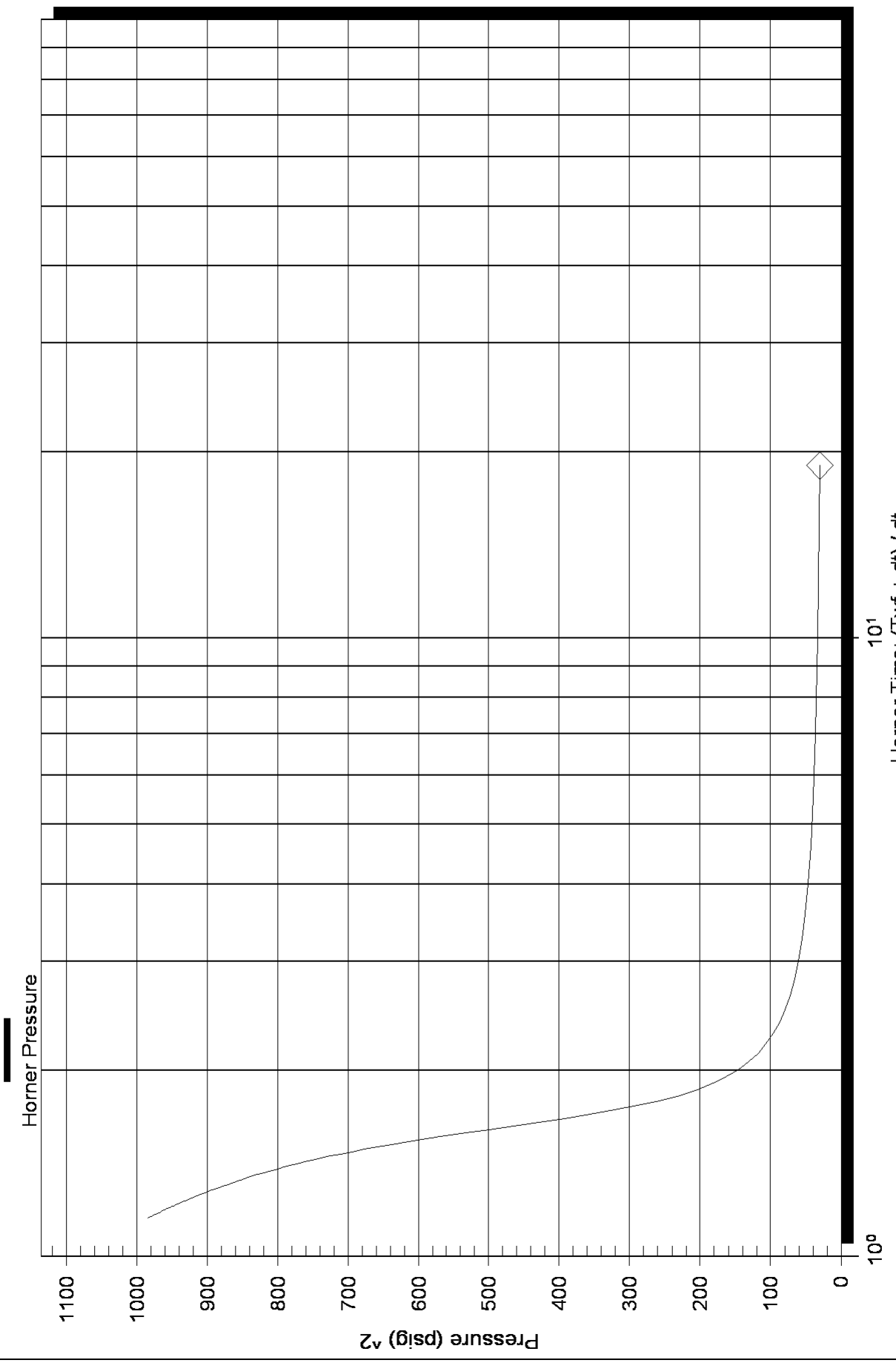




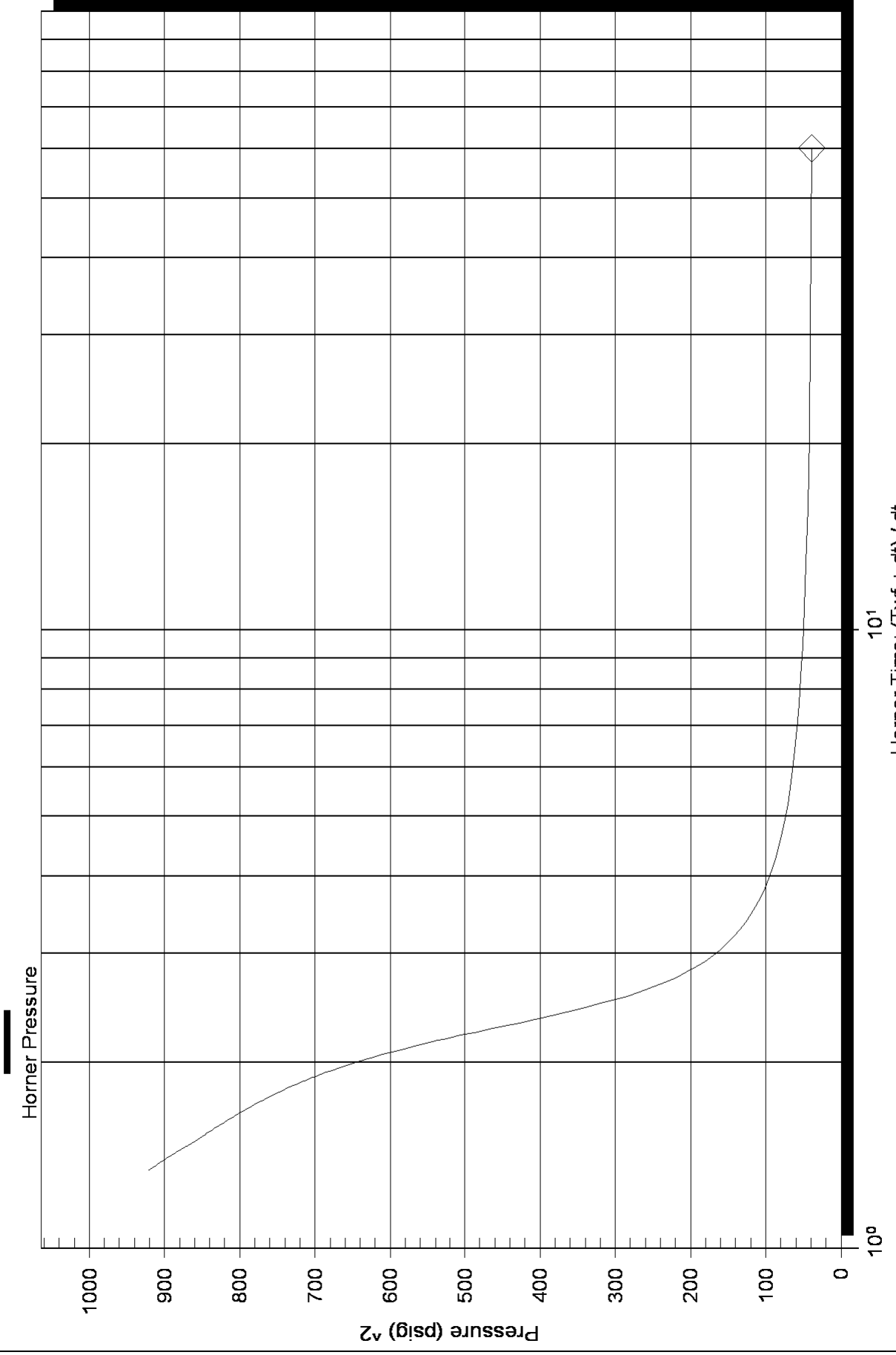




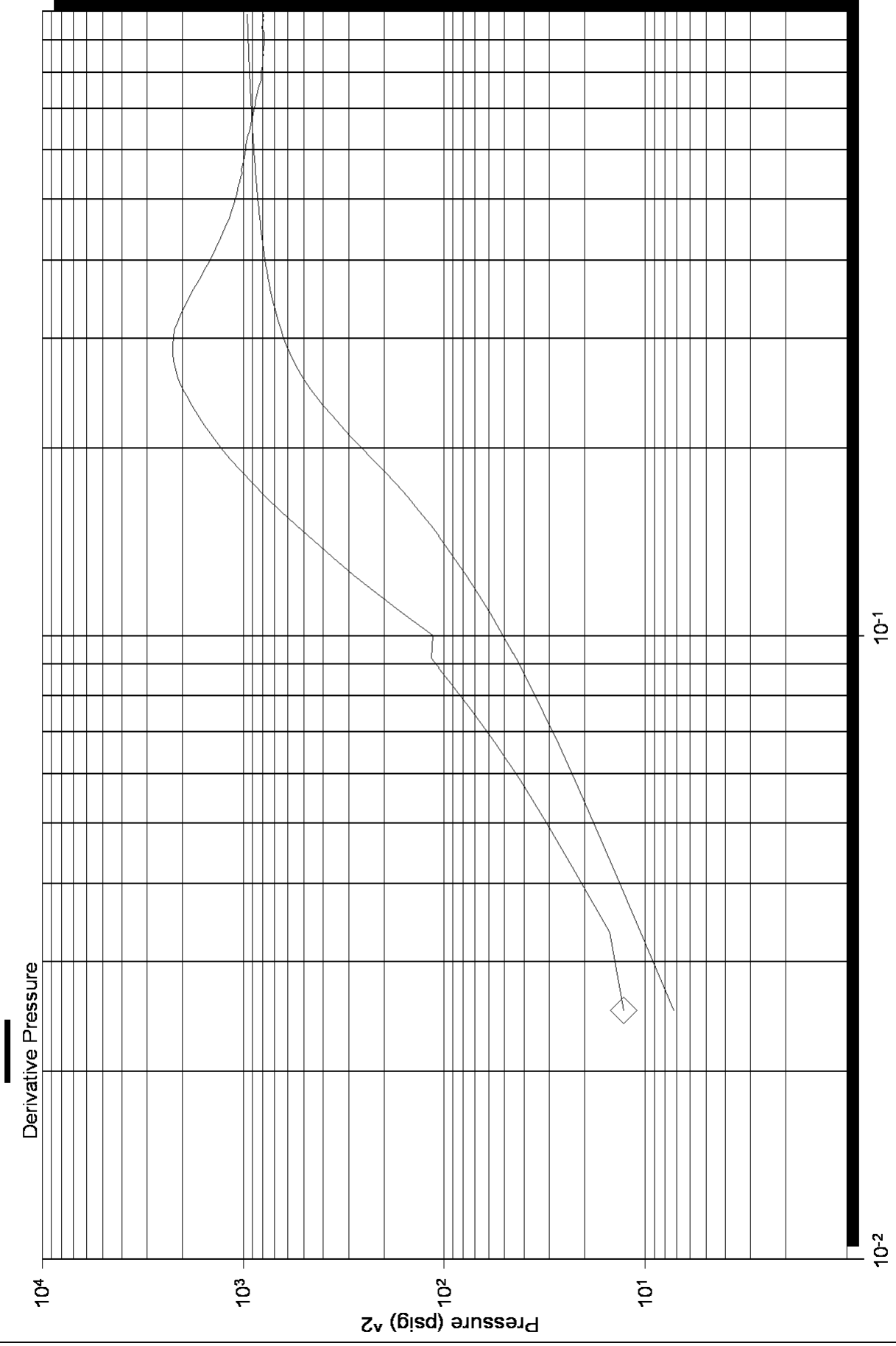
### Homer Plot



### Homer Plot



# Log-Log and Pseudo-Log-Derivative



### Log-Log and Pseudo-Derivative

