

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: 2011.07.12 @ 15:00:44

End Date: 2011.07.12 @ 21:30:14

Job Ticket #: 43913 DST #: 1

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



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TESTING, INC.**

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Test Start: 2011.07.12 @ 15:00:44

GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:51:44

Time Test Ended: 21:30:14

Test Type: Conventional Bottom Hole

Tester: Brian Fairbank

Unit No: 47

Interval: 3178.00 ft (KB) To 3198.00 ft (KB) (TVD)

Reference Elevations: 1894.00 ft (KB)

Total Depth: 3198.00 ft (KB) (TVD)

1886.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 6753 Inside

Press @ Run Depth: 37.13 psig @ 3179.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.07.12 End Date: 2011.07.12

Last Calib.: 2011.07.12

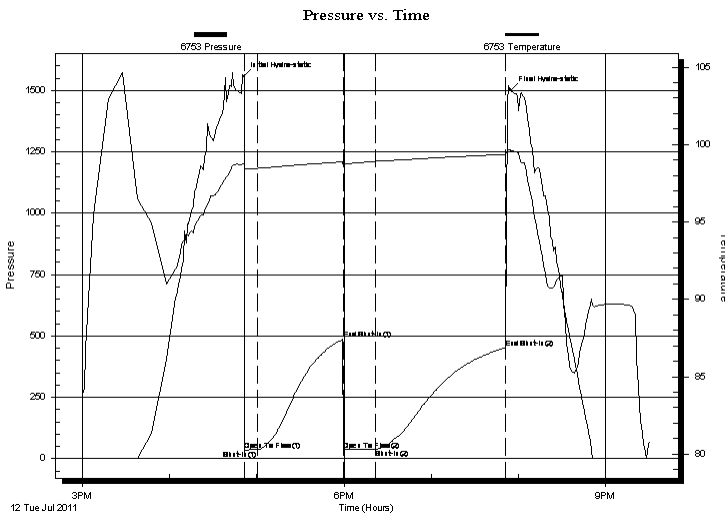
Start Time: 15:00:49 End Time: 21:30:13

Time On Btm: 2011.07.12 @ 16:50:44

Time Off Btm: 2011.07.12 @ 19:54:44

TEST COMMENT: 10 - IFP - sur blow - died 2 min
60 - ISI - no blow back
20 - FFP - no blow
90 - FSI - no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1556.35	98.79	Initial Hydro-static
1	35.65	98.44	Open To Flow (1)
10	35.86	98.47	Shut-In(1)
69	487.31	98.88	End Shut-In(1)
69	36.09	98.62	Open To Flow (2)
91	37.13	98.92	Shut-In(2)
181	452.78	99.36	End Shut-In(2)
184	1500.49	99.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	drl mud 100%	0.07

Gas Rates

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



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TOOL DIAGRAM

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DST#: 1

Test Start: 2011.07.12 @ 15:00:44

Tool Information

Drill Pipe:	Length: 3127.00 ft	Diameter: 3.80 inches	Volume: 43.86 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: 44.01 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3178.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 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			3144.00	
Recorder	0.00	8369	Fluid	3144.00	
Blank Spacing	5.00			3149.00	
Shut In Tool	5.00			3154.00	
Sampler	2.00			3156.00	
Hydraulic tool	5.00			3161.00	
Jars	5.00			3166.00	
Safety Joint	2.00			3168.00	
Packer	5.00			3173.00	35.00 Bottom Of Top Packer
Packer	5.00			3178.00	
Stubb	1.00			3179.00	
Recorder	0.00	6753	Inside	3179.00	
Recorder	0.00	8319	Outside	3179.00	
Perforations	16.00			3195.00	
Bullnose	3.00			3198.00	20.00 Bottom Packers & Anchor

Total Tool Length: 55.00



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FLUID SUMMARY

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ATTN: Clayton Camozzi

Test Start: 2011.07.12 @ 15:00:44

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	drl mud 100%	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

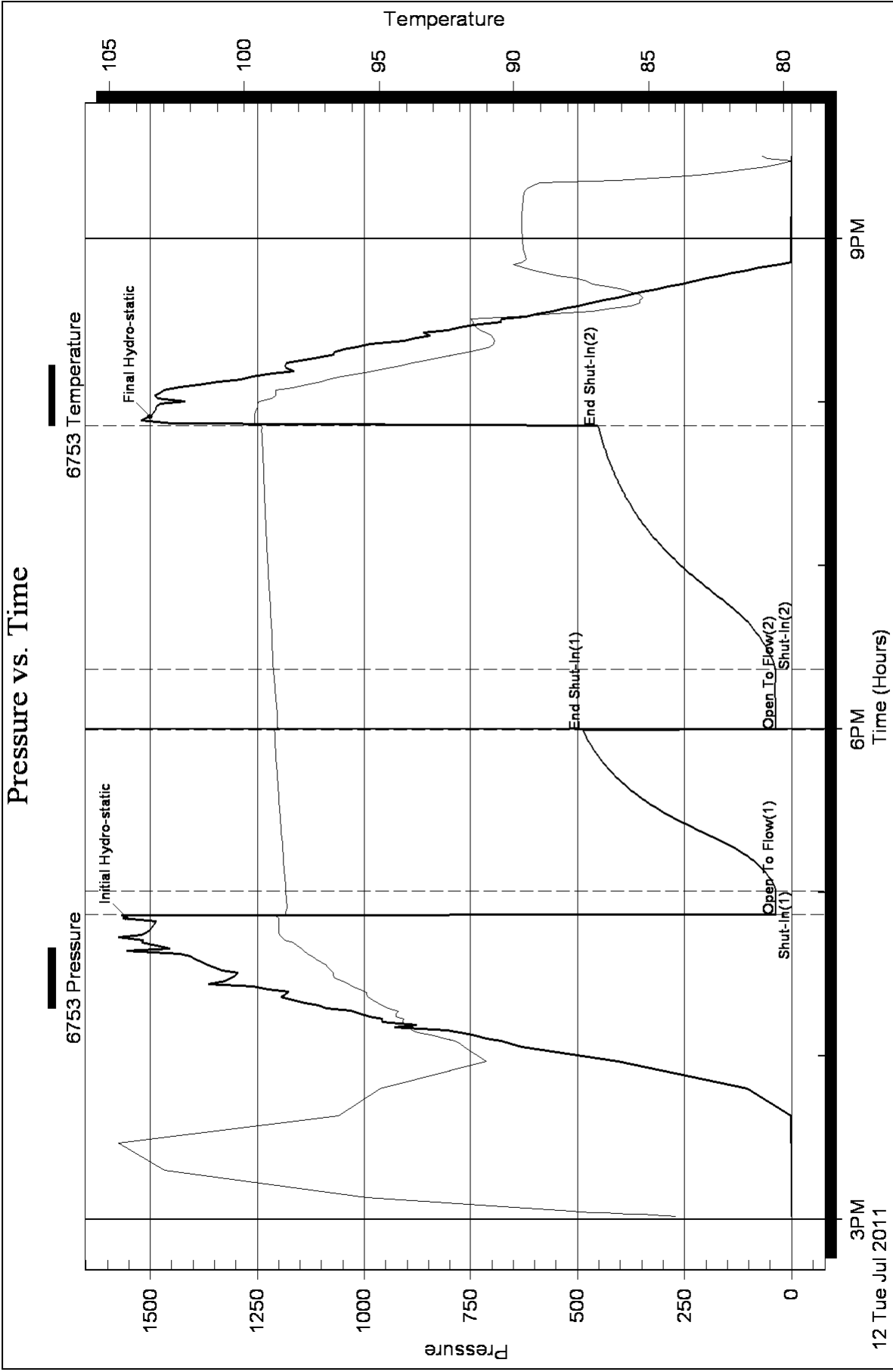
Serial #:

Laboratory Name:

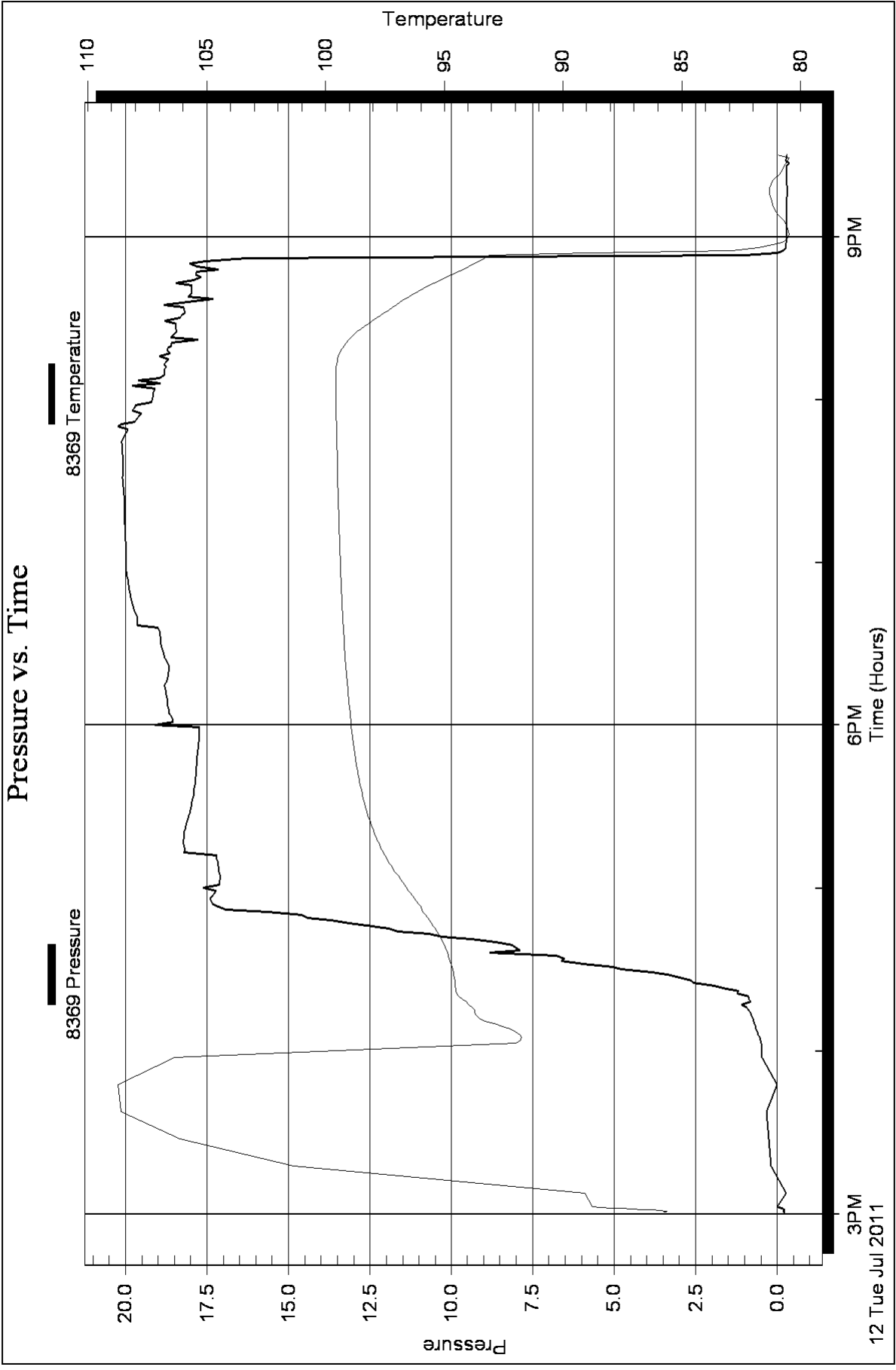
Laboratory Location:

Recovery Comments: 4000 ml mud, 40 lbs

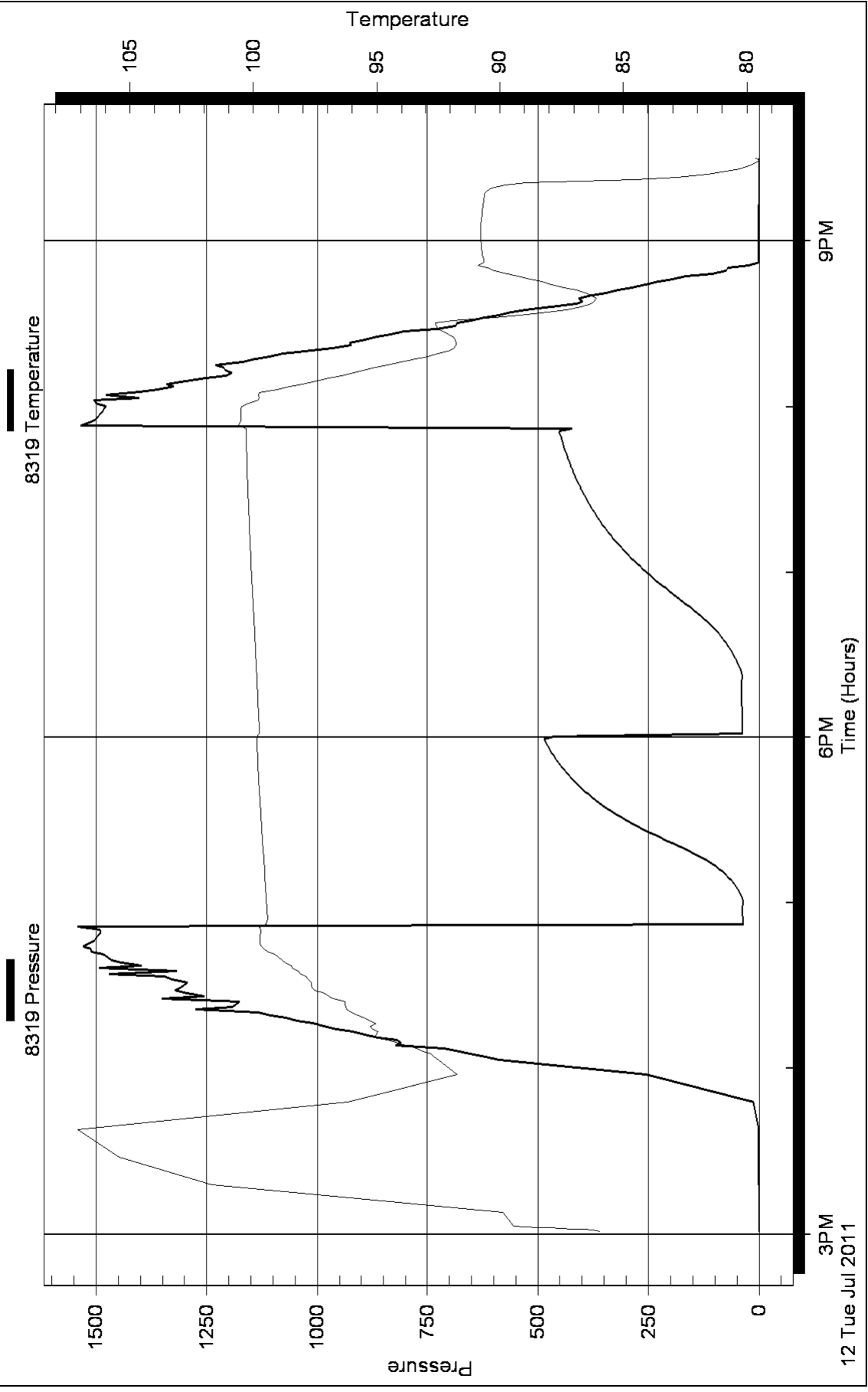
Pressure vs. Time



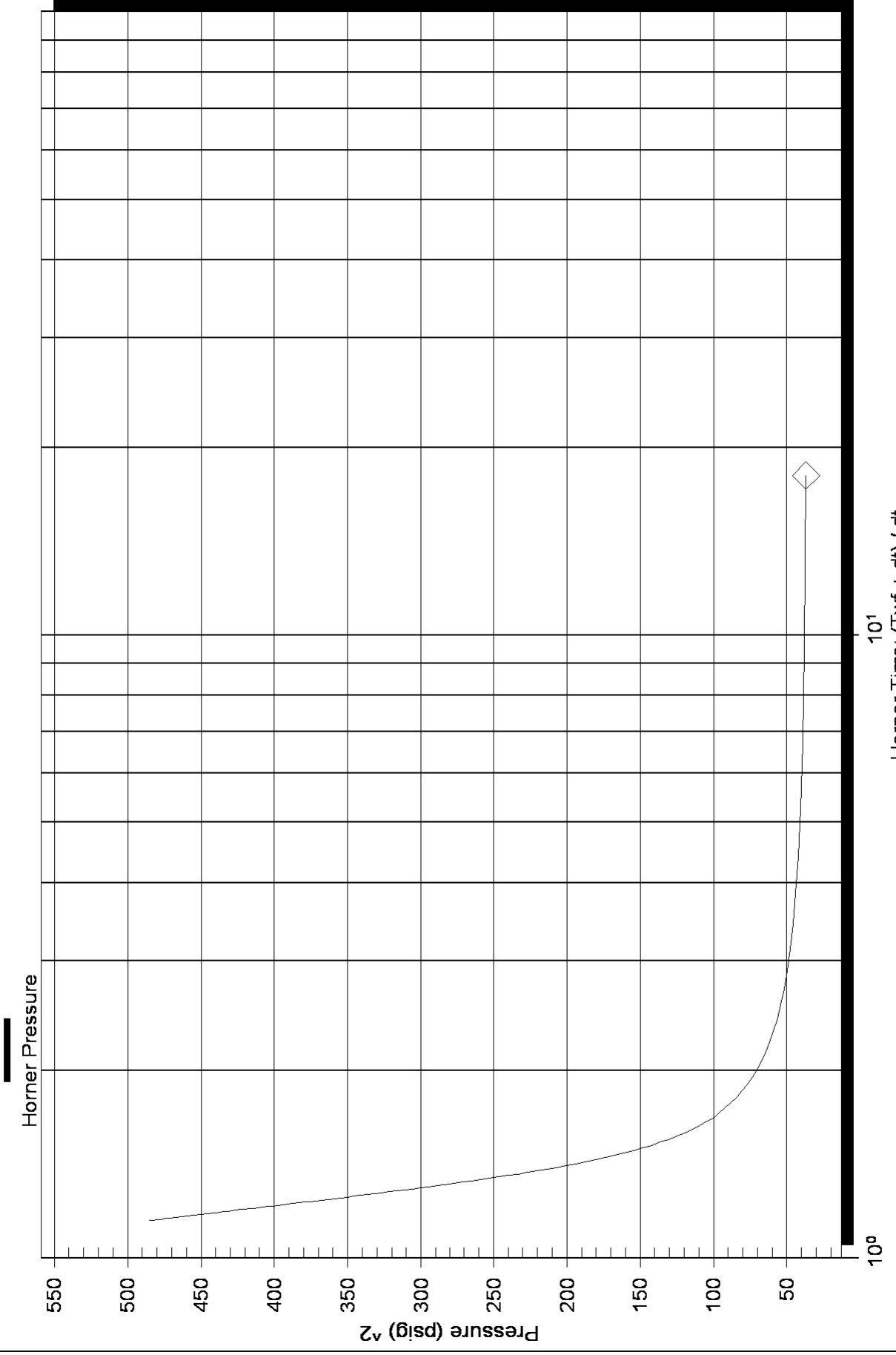
Pressure vs. Time



Pressure vs. Time



Homer Plot

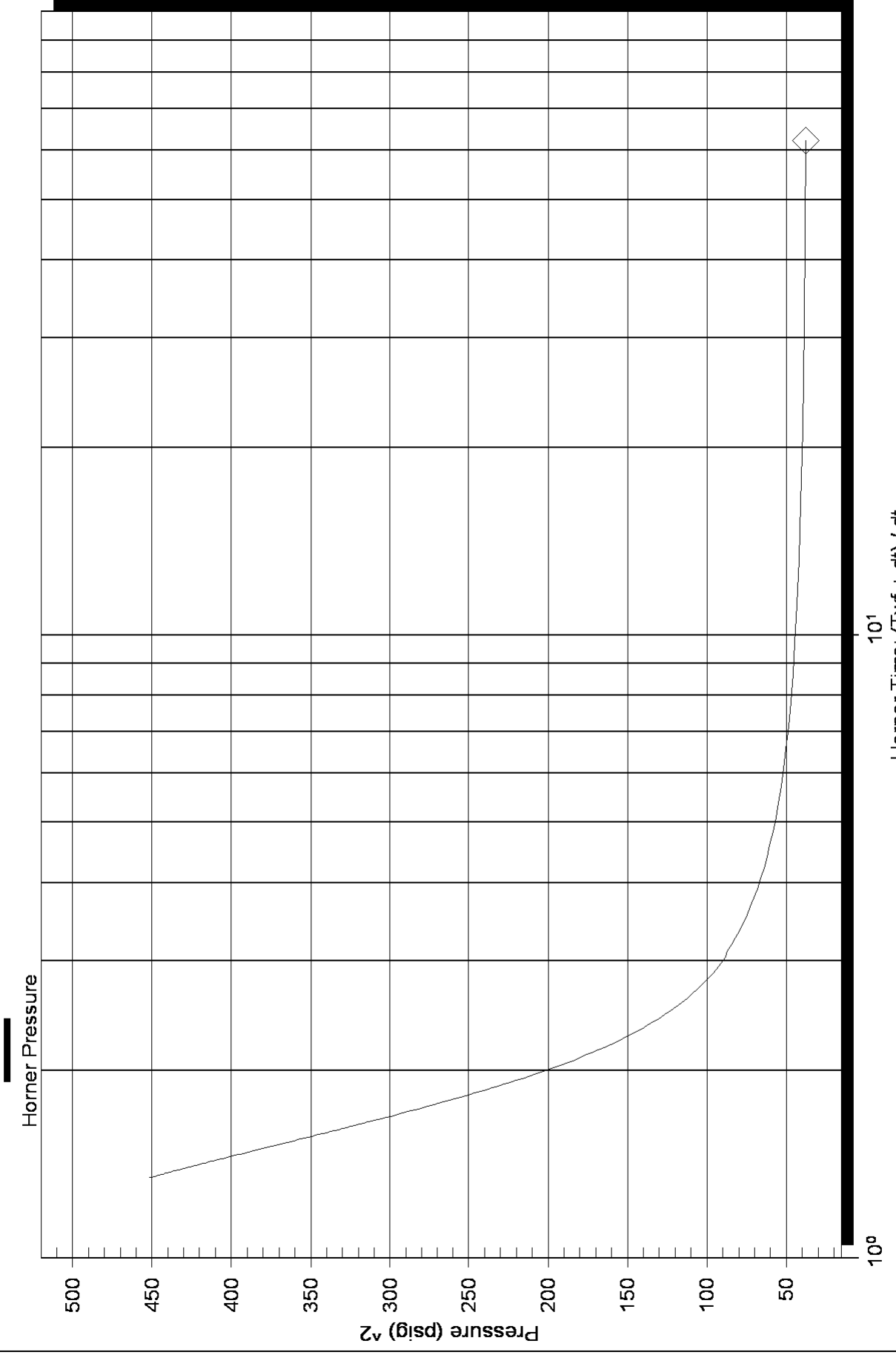


Serial Number: 6753 (Inside)

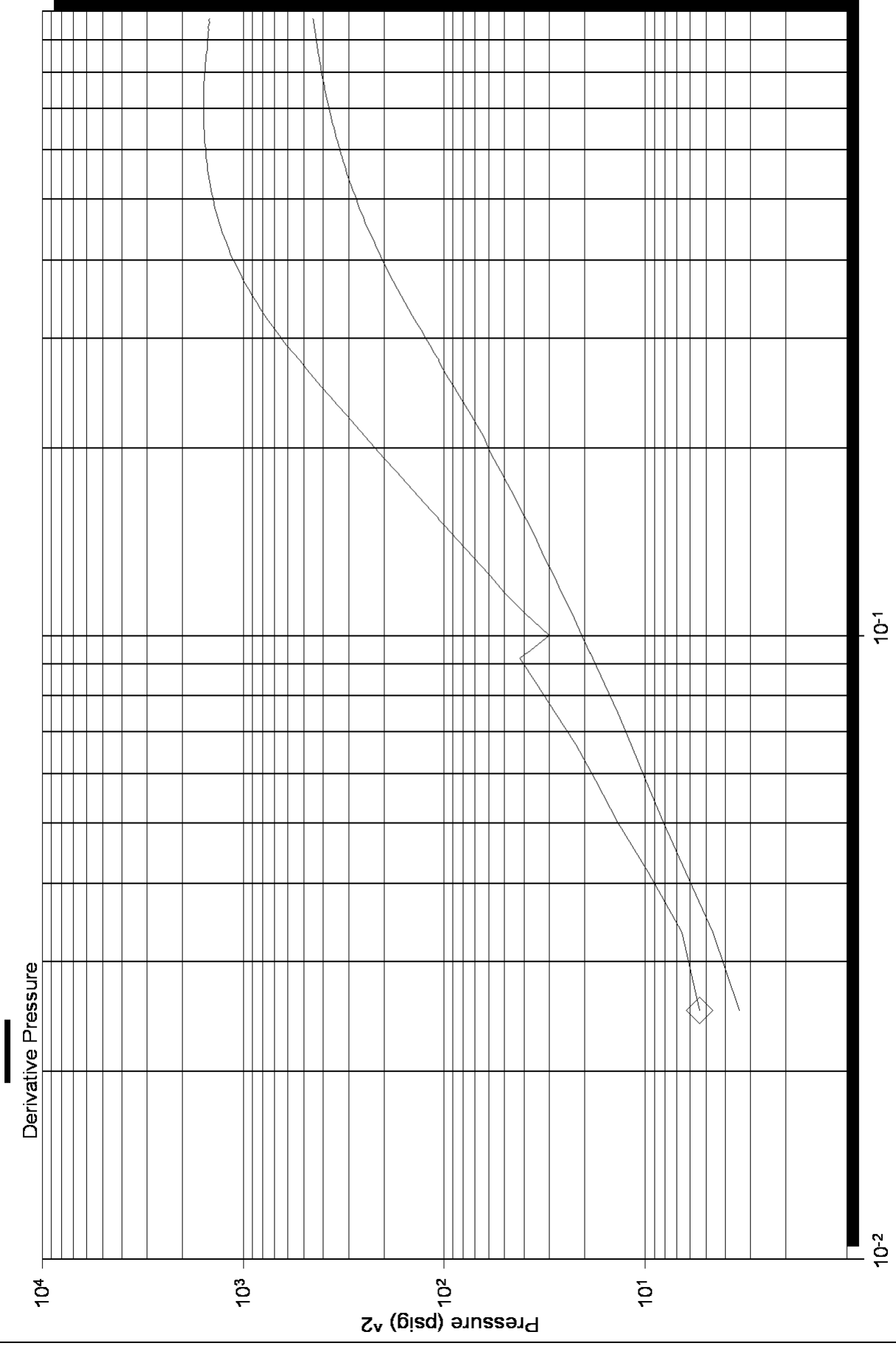
P* : Slope (m) : kpa/log cycle

Flow Cycle: 1

Homer Plot



Log-Log and Pseudo-Derivative



Log-Log and Pseudo-Derivative

