



DRILL STEM TEST REPORT

Prepared For: **Sam Gary Jr & Associates**

ATTN: Clayton Camozzi

1/16s/16w Rush KS

Wagner Trust 6-1

Start Date: 2011.07.04 @ 11:21:15

End Date: 2011.07.04 @ 18:17:24

Job Ticket #: 43503 DST #: 2

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Sam Gary Jr & Associates

Wagner Trust 6-1

1/16s/16w Rush KS

Job Ticket: 43503

DST#: 2

ATTN: Clayton Camozzi

Test Start: 2011.07.04 @ 11:21:15

GENERAL INFORMATION:

Formation: **Lansing F & G**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:53:35

Time Test Ended: 18:17:24

Test Type: Conventional Bottom Hole

Tester: Paul Simpson

Unit No: 36

Interval: 3240.00 ft (KB) To 3291.00 ft (KB) (TVD)

Reference Elevations: 1920.00 ft (KB)

Total Depth: 3291.00 ft (KB) (TVD)

1912.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8647 Outside

Press @ Run Depth: 490.32 psig @ 3306.47 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.07.04 End Date: 2011.07.04

Last Calib.: 2011.07.04

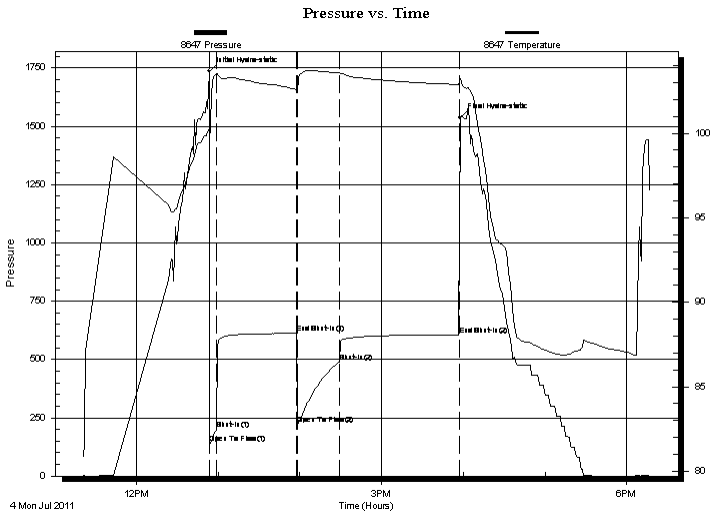
Start Time: 11:21:20 End Time: 18:17:24

Time On Btm: 2011.07.04 @ 12:53:25

Time Off Btm: 2011.07.04 @ 15:57:35

TEST COMMENT: IF-5 Strong blow bottom of bucket in 90 seconds
 ISI -60 no blow
 FF -30 strong blow bottom of bucket in 1 minute
 FSI -90 weak surface blow throughout shutin

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1735.61	100.26	Initial Hydro-static
1	142.59	99.47	Open To Flow (1)
6	201.92	103.52	Shut-In(1)
65	612.29	102.57	End Shut-In(1)
65	223.03	102.40	Open To Flow (2)
96	490.32	103.56	Shut-In(2)
184	606.85	102.88	End Shut-In(2)
185	1536.98	103.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
420.00	water with oil specks 90% water 10% oil	5.62
590.00	gsy osmw 15%g 2%o 53%w 30%o	8.28
15.00	clean gassy oil 20%g 80%o	0.21
0.00	780 gas in pipe	0.00

Gas Rates

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



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Tester: Paul Simpson

Unit No: 36

Interval: 3240.00 ft (KB) To 3291.00 ft (KB) (TVD)

Reference Elevations: 1920.00 ft (KB)

Total Depth: 3291.00 ft (KB) (TVD)

1912.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8017 Inside

Press @ Run Depth: psig @ 3306.47 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.07.04 End Date: 2011.07.04

Last Calib.: 2011.07.04

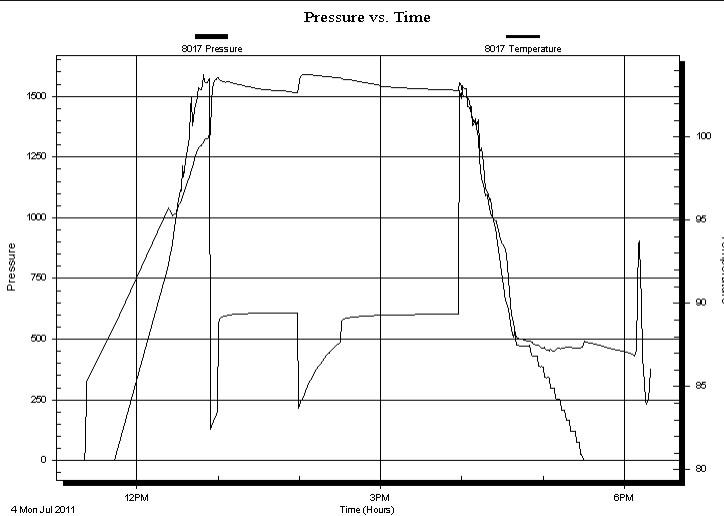
Start Time: 11:21:29 End Time: 18:19:23

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-5 Strong blow bottom of bucket in 90 seconds
 ISI -60 no blow
 FF -30 strong blow bottom of bucket in 1 minute
 FSI -90 weak surface blow throughout shutin

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
420.00	water with oil specks 90% water 10% oil	5.62
590.00	gsy osmw 15%g 2%o 53%w 30%m	8.28
15.00	clean gassy oil 20%g 80%o	0.21
0.00	780 gas in pipe	0.00

Gas Rates

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



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Job Ticket: 43503

DST#: 2

ATTN: Clayton Camozzi

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Time Test Ended: 18:17:24

Test Type: Conventional Bottom Hole

Tester: Paul Simpson

Unit No: 36

Interval: 3240.00 ft (KB) To 3291.00 ft (KB) (TVD)

Reference Elevations: 1920.00 ft (KB)

Total Depth: 3291.00 ft (KB) (TVD)

1912.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8352 Outside

Press @ Run Depth: psig @ 3306.47 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.07.04 End Date: 2011.07.04

Last Calib.: 2011.07.04

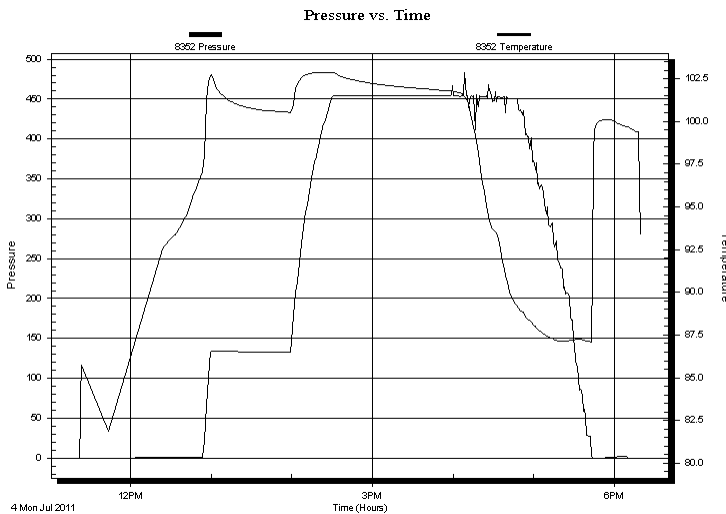
Start Time: 11:21:48 End Time: 18:20:22

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-5 Strong blow bottom of bucket in 90 seconds
 ISI -60 no blow
 FF -30 strong blow bottom of bucket in 1 minute
 FSI -90 weak surface blow throughout shutin

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
420.00	water with oil specks 90% water 10% oil	5.62
590.00	gsy osmw 15%g 2%o 53%w 30%o	8.28
15.00	clean gassy oil 20%g 80%o	0.21
0.00	780 gas in pipe	0.00

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Sam Gary Jr & Associates

Wagner Trust 6-1

1/16s/16w Rush KS

Job Ticket: 43503

DST#: 2

ATTN: Clayton Camozzi

Test Start: 2011.07.04 @ 11:21:15

Tool Information

Drill Pipe:	Length: 3190.00 ft	Diameter: 3.80 inches	Volume: 44.75 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3240.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	82.47 ft			
Tool Length:	118.47 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Recorder	0.00	8452	Fluid	3204.00	
Blank Spacing	5.00			3209.00	
Shut In Tool	5.00			3214.00	
Sampler	3.00			3217.00	
Hydraulic tool	5.00			3222.00	
Jars	5.00			3227.00	
Safety Joint	3.00			3230.00	
Packer	5.00			3235.00	36.00 Bottom Of Top Packer
Packer	5.00			3240.00	
Stubb	1.00			3241.00	
Perforations	1.00			3242.00	
Change Over Sub	0.60			3242.60	
Blank Spacing	31.00			3273.60	
Change Over Sub	1.00			3274.60	
Blank Spacing	31.27			3305.87	
Change Over Sub	0.60			3306.47	
Recorder	0.00	8017	Inside	3306.47	
Recorder	0.00	8647	Outside	3306.47	
Perforations	13.00			3319.47	
Bullnose	3.00			3322.47	82.47 Bottom Packers & Anchor

Total Tool Length: 118.47



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FLUID SUMMARY

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Test Start: 2011.07.04 @ 11:21:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

90000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
420.00	water with oil specks 90% water 10% mud	5.618
590.00	gsy osmw 15%g 2%o 53%w 30%m	8.276
15.00	clean gassy oil 20%g 80%o	0.210
0.00	780 gas in pipe	0.000

Total Length: 1025.00 ft Total Volume: 14.104 bbl

Num Fluid Samples: 0

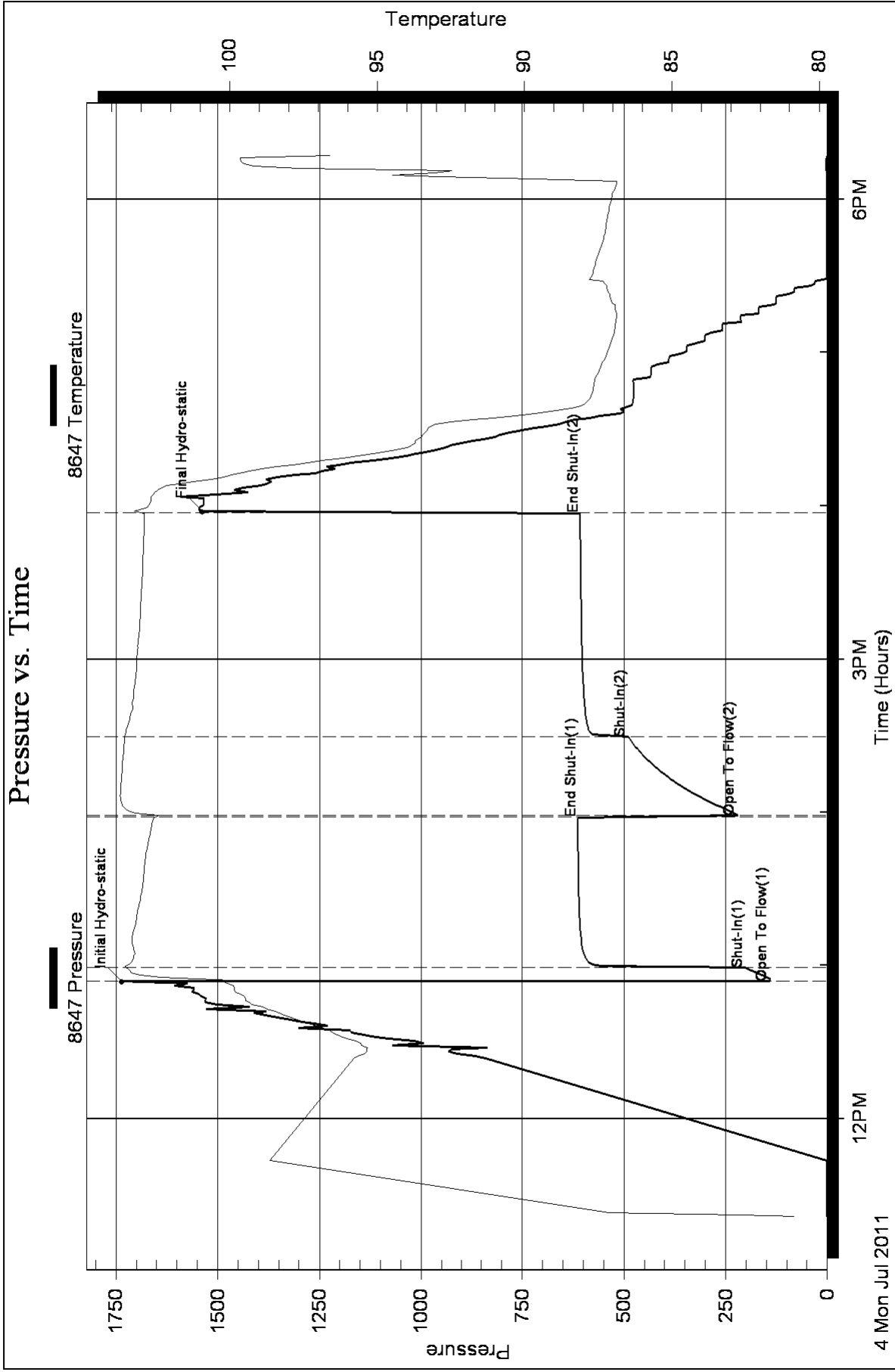
Num Gas Bombs: 0

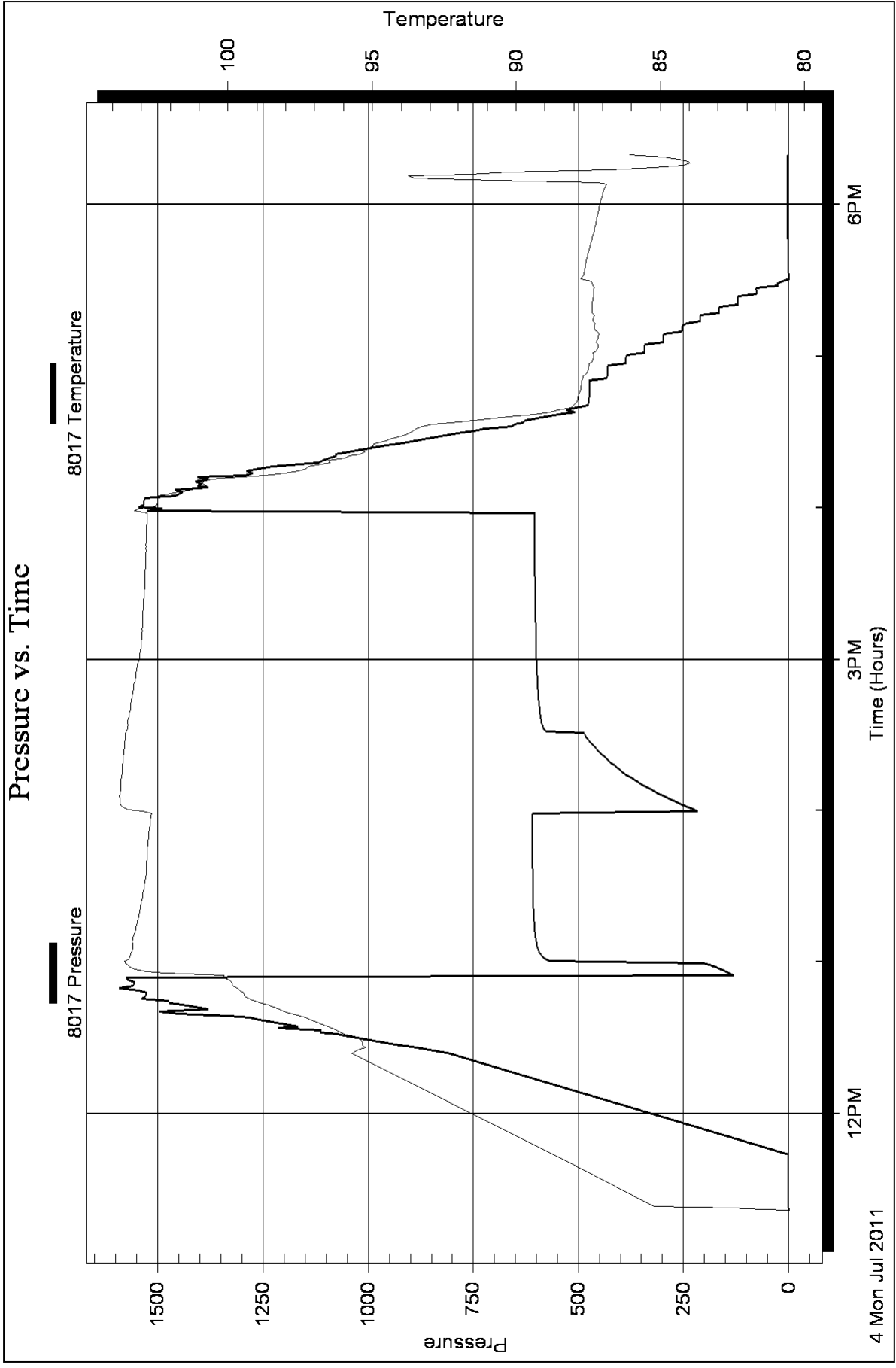
Serial #:

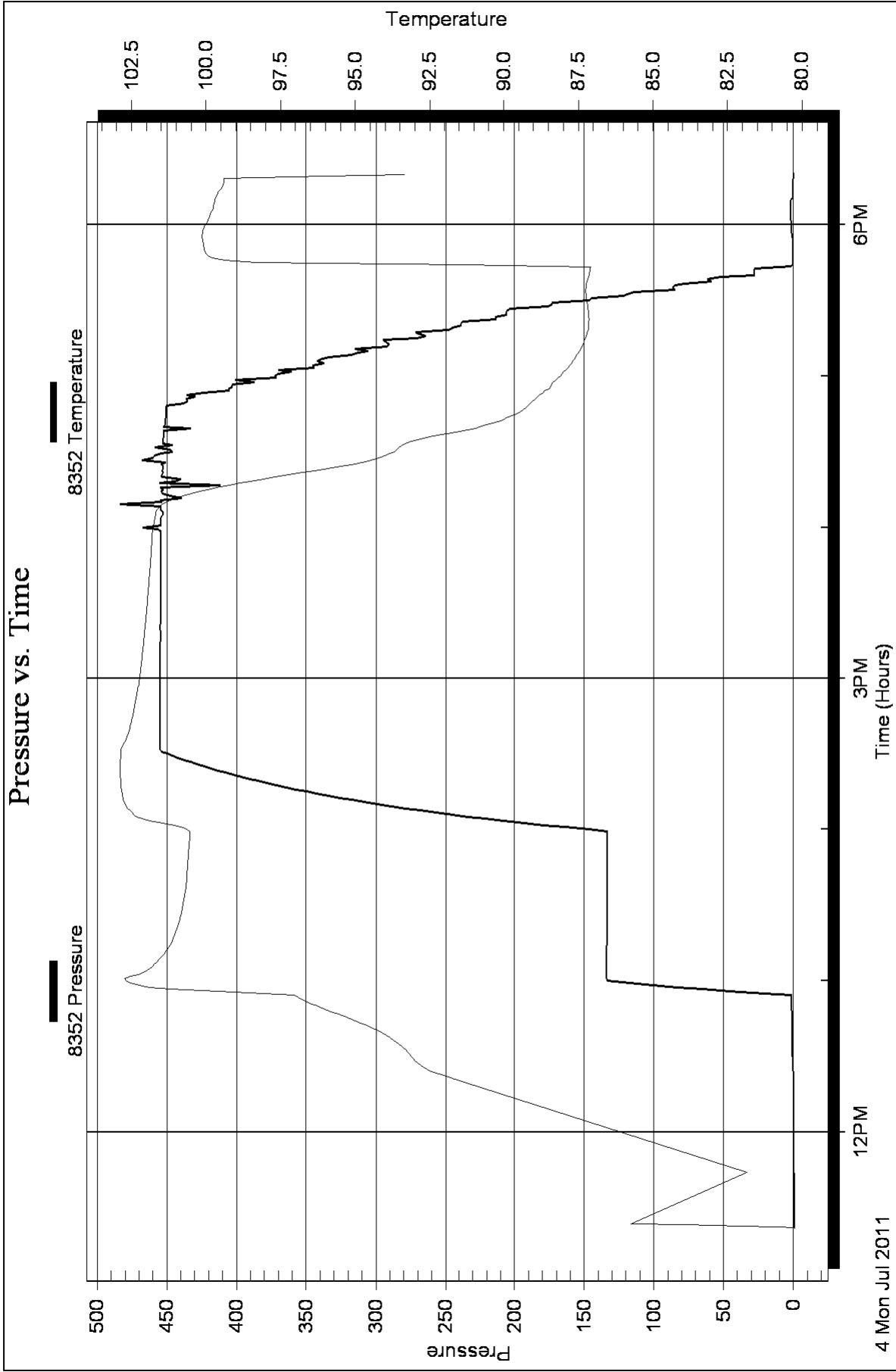
Laboratory Name:

Laboratory Location:

Recovery Comments: tool slid 2' w hen opening

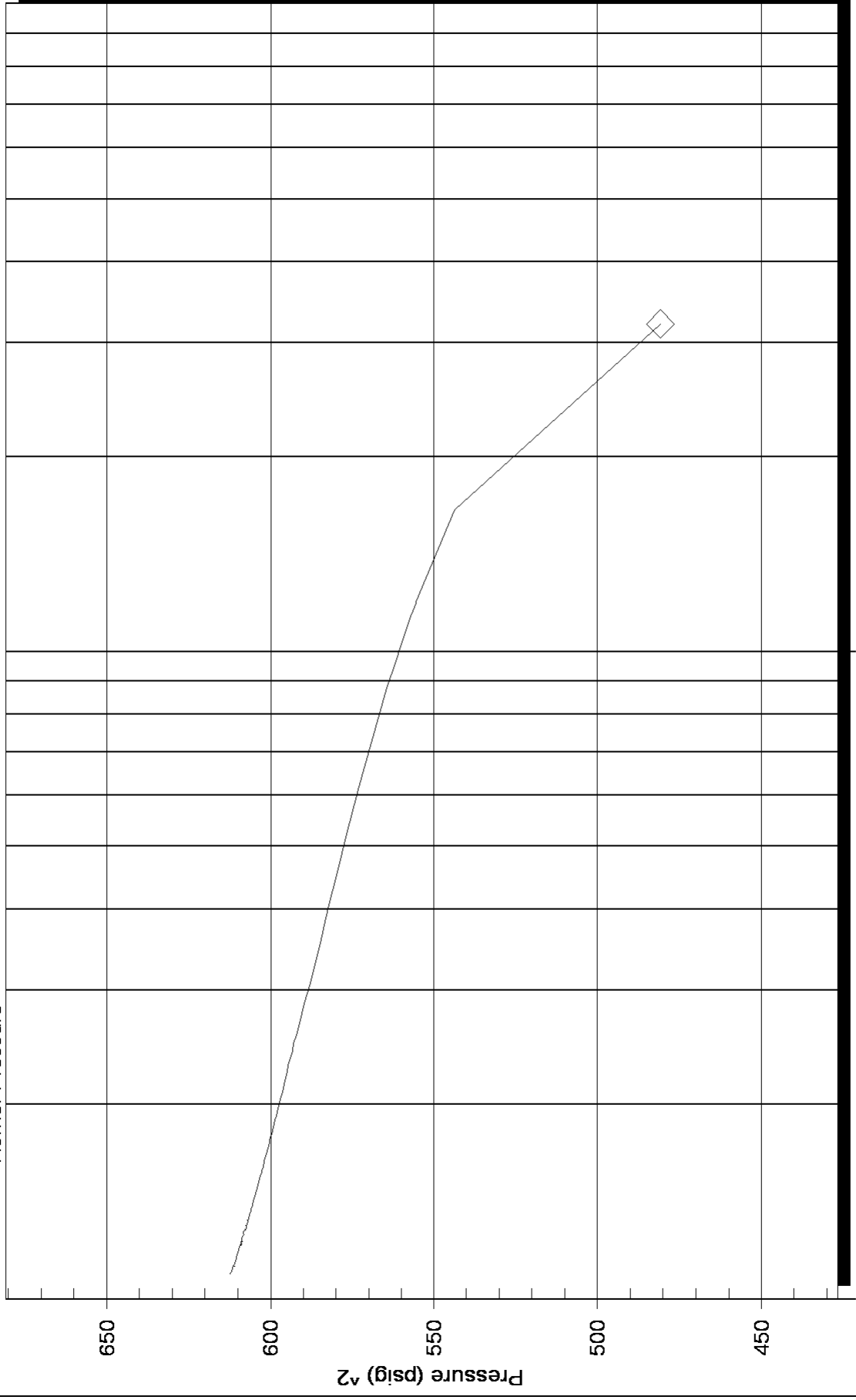






Homer Plot

Horner Pressure



10⁰

10¹

Horner Time: (Twf + dt) / dt

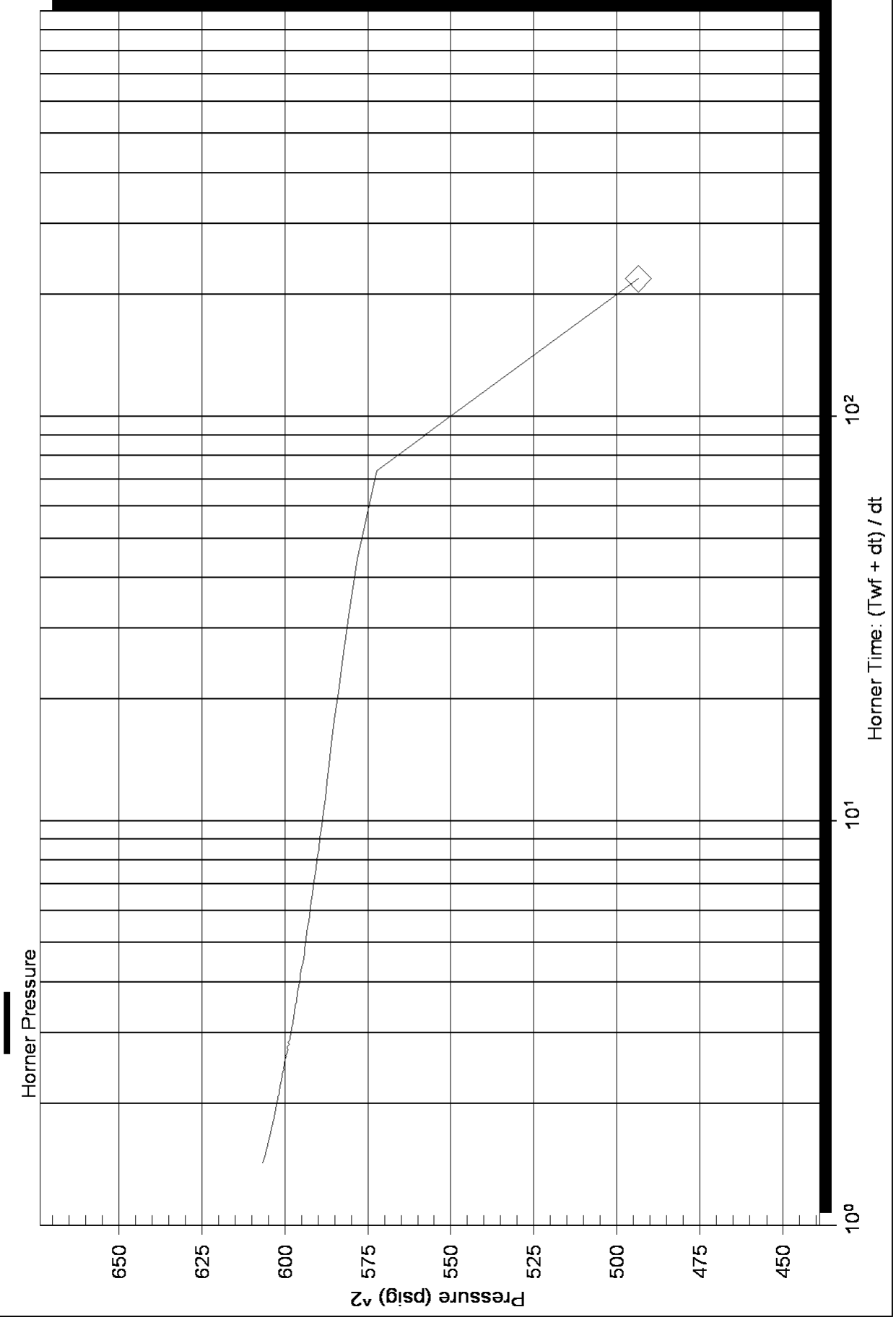
Serial Number: 8647 (Outside)

P* :

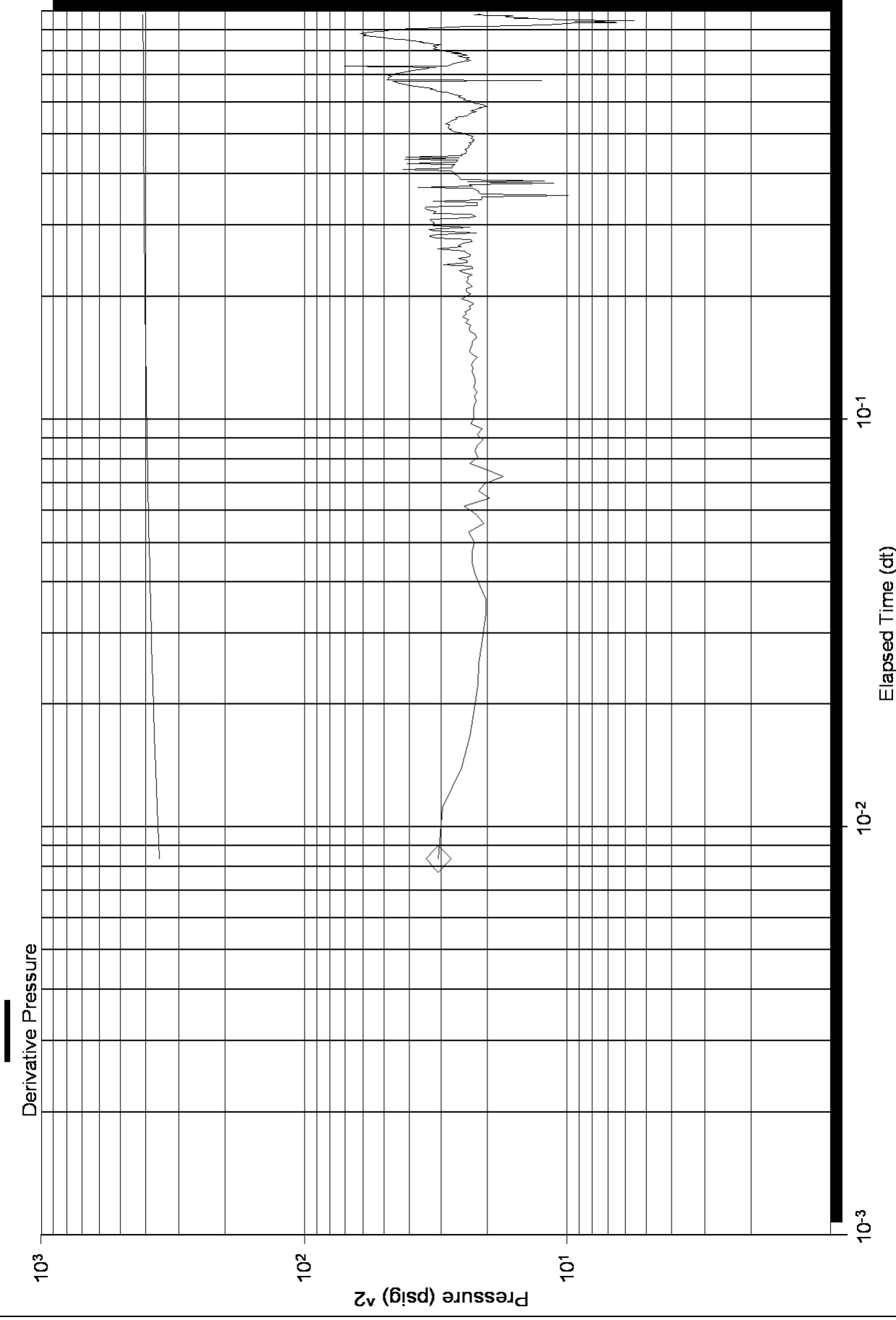
Slope (m) : kpa/log cycle

Flow Cycle: 1

Homer Plot



Log-Log and Pseudo-Derivative



Log-Log and Pseudo-Log-Derivative

