



DRILL STEM TEST REPORT

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

1515 Wynkoop St. Ste 700
Denver, CO 80202

ATTN: Clayton Camozzi

9/18S/11W-Barton

Kirby Krier 1-9

Start Date: 2011.05.08 @ 09:13:11

End Date: 2011.05.08 @ 15:11:41

Job Ticket #: 42878 DST #: 1

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates Inc.

Kirby Krier 1-9

1515 Wynkoop St. Ste 700
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9/18S/11W-Barton

Job Ticket: 42878

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2011.05.08 @ 09:13:11

GENERAL INFORMATION:

Formation: **Lansing B-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:33:11

Time Test Ended: 15:11:41

Test Type: Conventional Bottom Hole

Tester: Dustin Rash

Unit No: 38

Interval: 3040.00 ft (KB) To 3105.00 ft (KB) (TVD)

Reference Elevations: 1776.00 ft (KB)

Total Depth: 3105.00 ft (KB) (TVD)

1769.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 7.00 ft

Serial #: 8354 Inside

Press @ Run Depth: 54.93 psig @ 3075.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.05.08

End Date:

2011.05.08

Last Calib.:

2011.05.08

Start Time: 09:23:11

End Time:

15:11:41

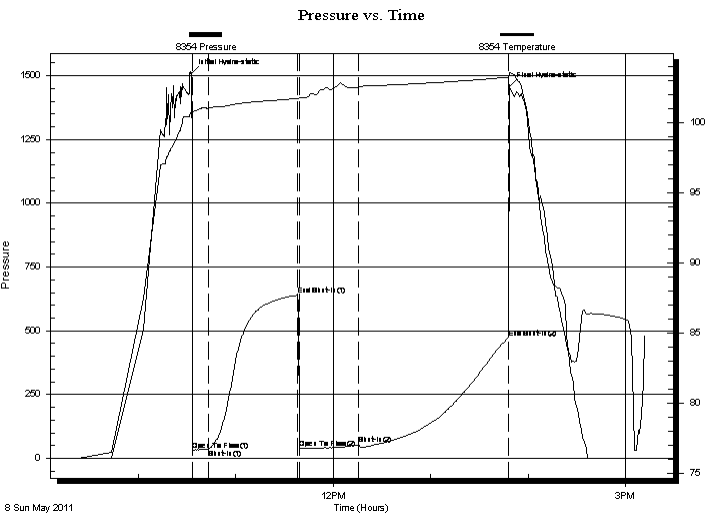
Time On Btm:

2011.05.08 @ 10:32:31

Time Off Btm:

2011.05.08 @ 13:48:41

TEST COMMENT: IF-Weak surface blow .
ISI-No Return.
FF-Weak surface blow . Died @ 22 minutes.
FSI-No Return.



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1508.58 | 100.87 | Initial Hydro-static |
| 1 | 32.72 | 100.50 | Open To Flow (1) |
| 11 | 36.02 | 101.01 | Shut-In(1) |
| 66 | 640.12 | 101.71 | End Shut-In(1) |
| 67 | 38.20 | 101.74 | Open To Flow (2) |
| 104 | 54.93 | 102.47 | Shut-In(2) |
| 196 | 473.88 | 103.21 | End Shut-In(2) |
| 197 | 1458.95 | 103.57 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------------------------|--------------|
| 5.00 | 100% Mud/ With Oil spots | 0.07 |
| 15.00 | 100% Mud | 0.21 |
| 0.00 | Sample- 2000 ML Mud with very few oil | 0.00 |
| | | |
| | | |

Gas Rates

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



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TOOL DIAGRAM

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9/18S/11W-Barton

Job Ticket: 42878

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2011.05.08 @ 09:13:11

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3021.00 ft | Diameter: 3.80 inches | Volume: 42.38 bbl | Tool Weight: 3000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.70 inches | Volume: 0.00 bbl | Weight set on Packer: 24000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 2.25 inches | Volume: 0.00 bbl | Weight to Pull Loose: 2000.00 lb |
| | | | <u>Total Volume: 42.38 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 11.00 ft | | | String Weight: Initial 48000.00 lb |
| Depth to Top Packer: | 3040.00 ft | | | Final 48000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 65.00 ft | | | |
| Tool Length: | 95.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Recorder | 0.00 | 8653 | Fluid | 3010.00 | |
| Change Over Sub | 1.00 | | | 3011.00 | |
| Shut In Tool | 5.00 | | | 3016.00 | |
| Sampler | 2.00 | | | 3018.00 | |
| Hydraulic tool | 5.00 | | | 3023.00 | |
| Jars | 5.00 | | | 3028.00 | |
| Safety Joint | 3.00 | | | 3031.00 | |
| Packer | 5.00 | | | 3036.00 | 30.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3040.00 | |
| Stubb | 1.00 | | | 3041.00 | |
| Perforations | 1.00 | | | 3042.00 | |
| Change Over Sub | 1.00 | | | 3043.00 | |
| Drill Pipe | 31.00 | | | 3074.00 | |
| Change Over Sub | 1.00 | | | 3075.00 | |
| Recorder | 0.00 | 8354 | Inside | 3075.00 | |
| Recorder | 0.00 | 8520 | Outside | 3075.00 | |
| Perforations | 27.00 | | | 3102.00 | |
| Bullnose | 3.00 | | | 3105.00 | 65.00 Bottom Packers & Anchor |

Total Tool Length: 95.00



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FLUID SUMMARY

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Job Ticket: 42878

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2011.05.08 @ 09:13:11

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: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbbl |
|--------------|---|----------------|
| 5.00 | 100%Mud/ With Oil spots | 0.070 |
| 15.00 | 100% Mud | 0.210 |
| 0.00 | Sample- 2000 ML Mud with very few oil s | 0.000 |

Total Length: 20.00 ft Total Volume: 0.280 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

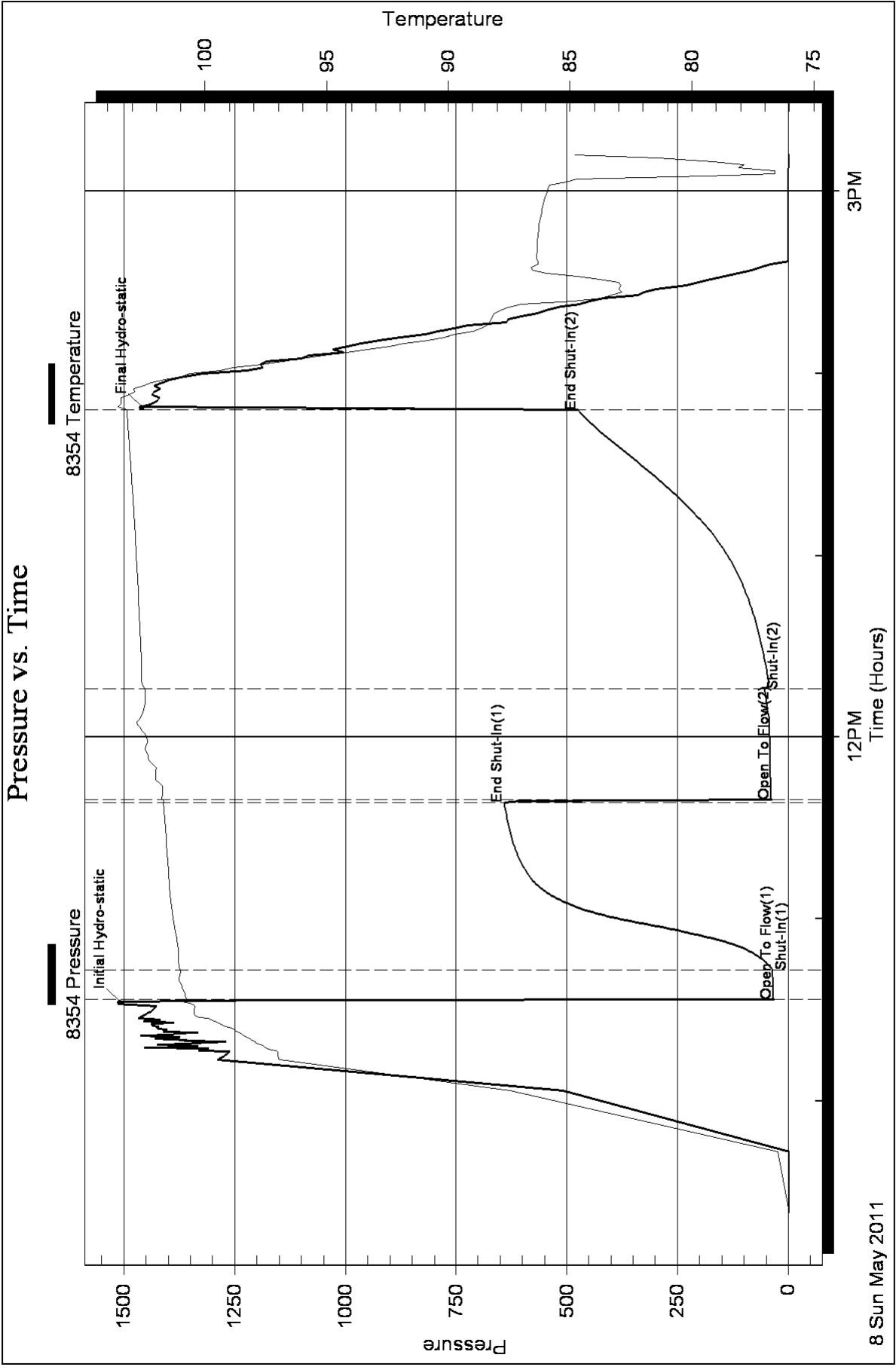
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Laboratory Name:

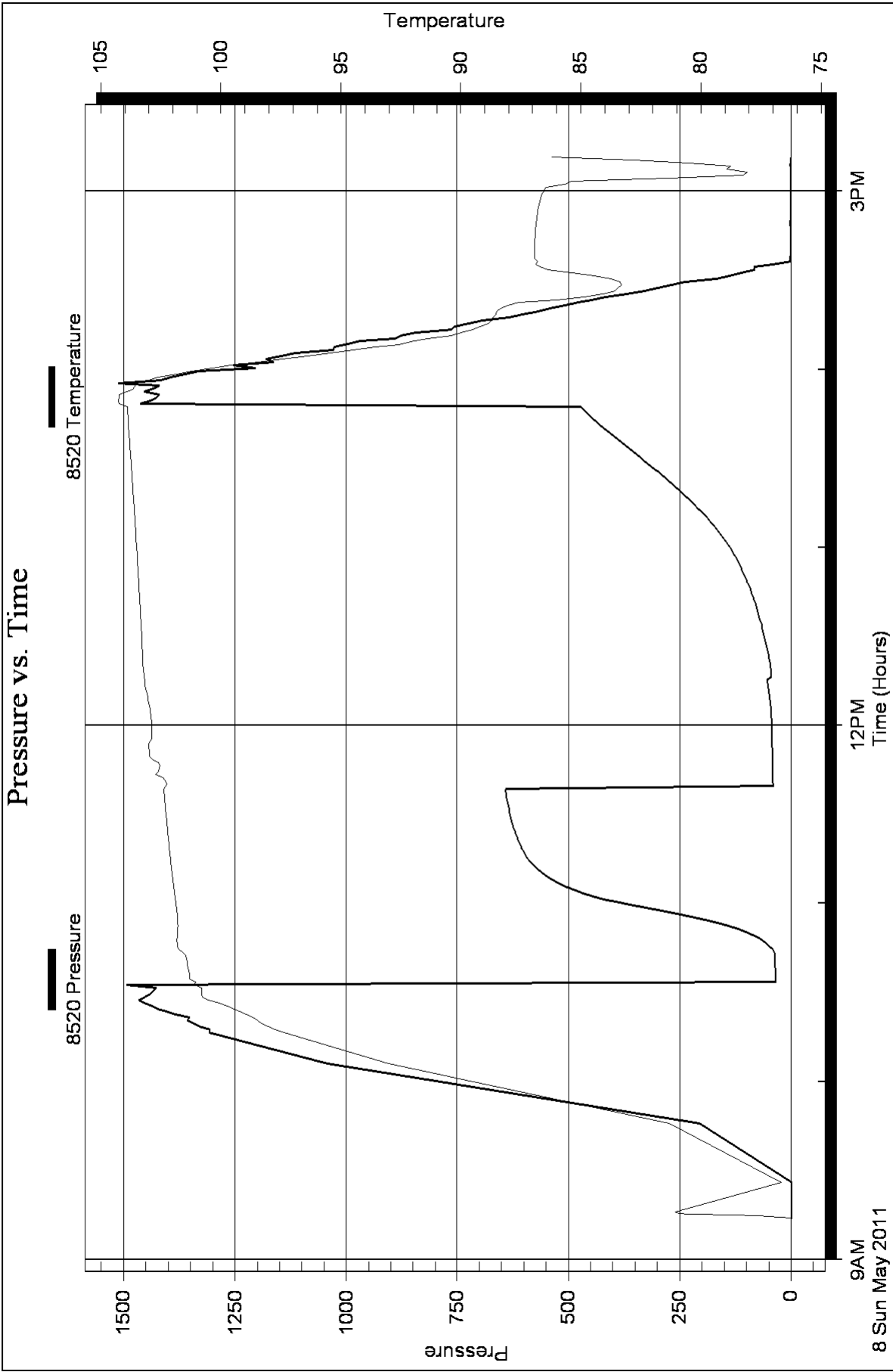
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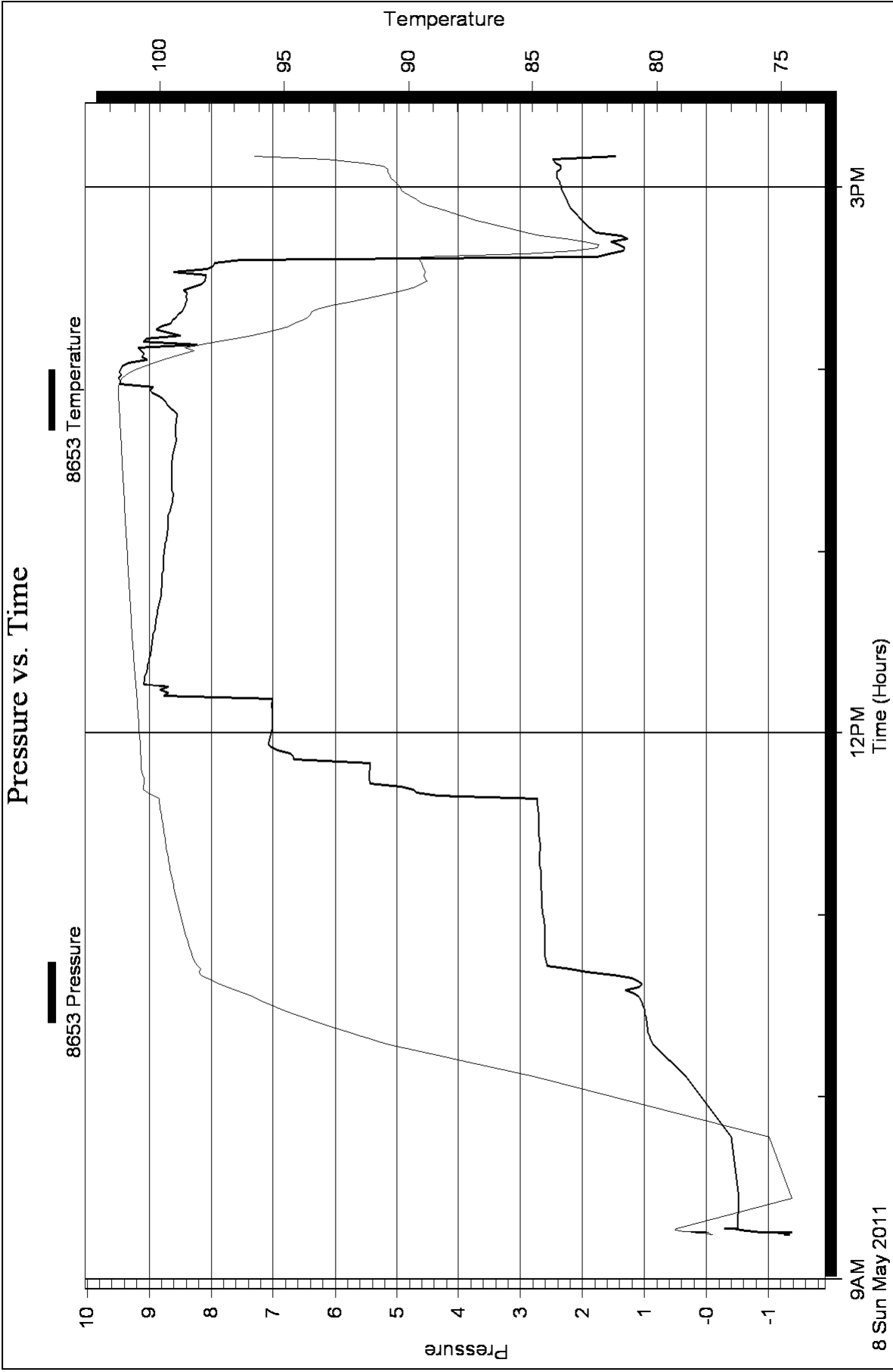
Recovery Comments:

Pressure vs. Time

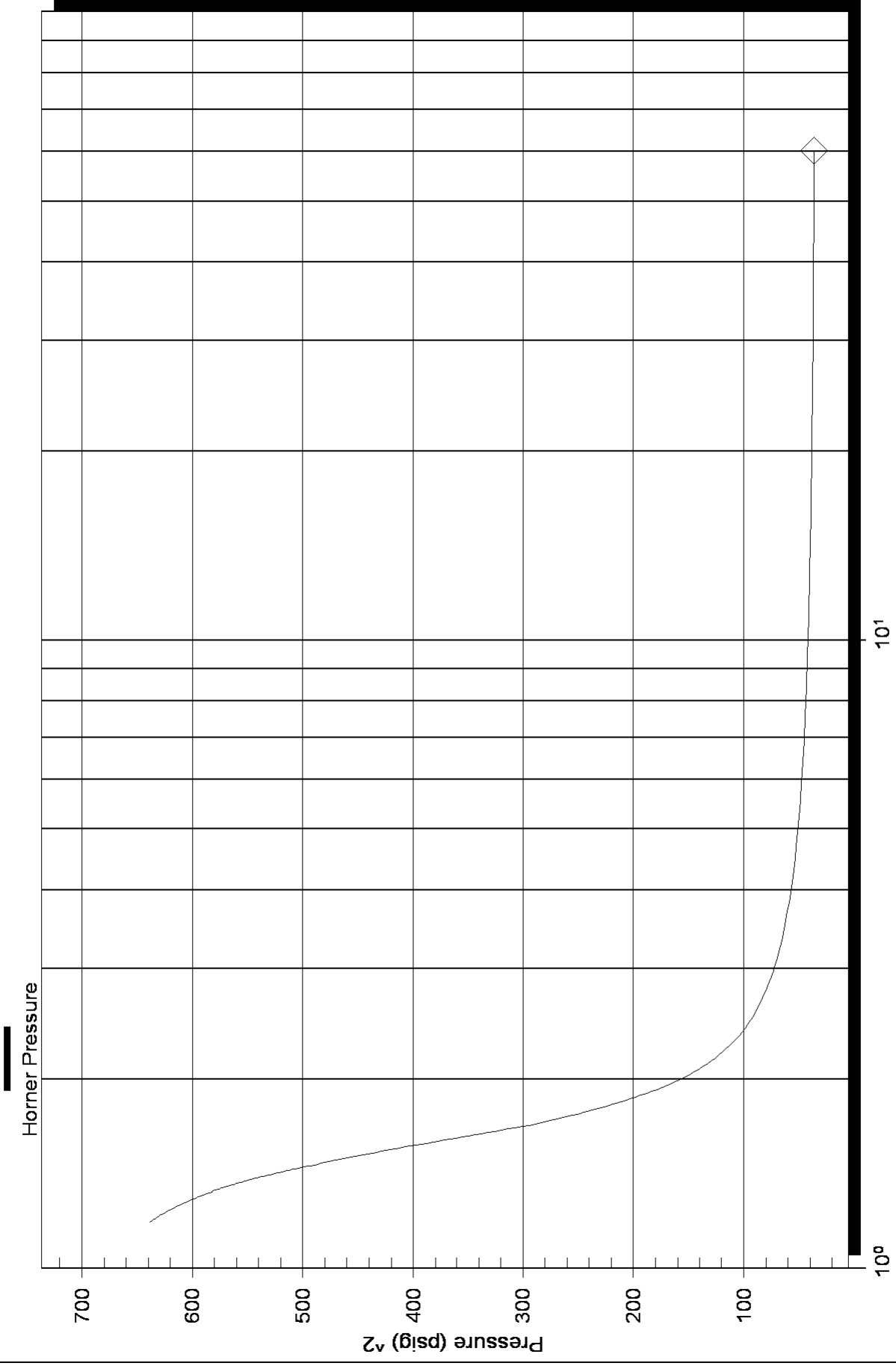


Pressure vs. Time

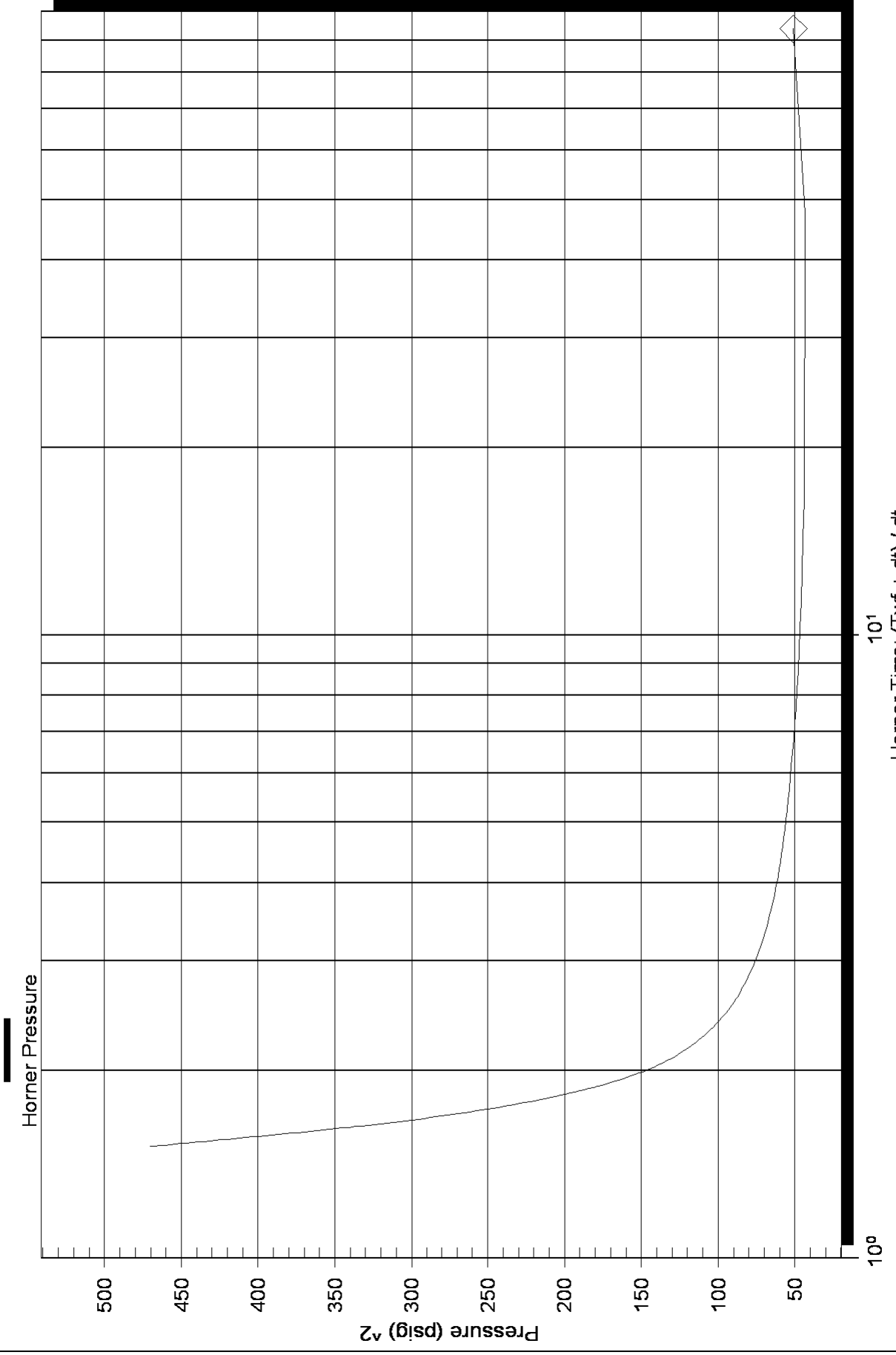




Homer Plot



Homer Plot



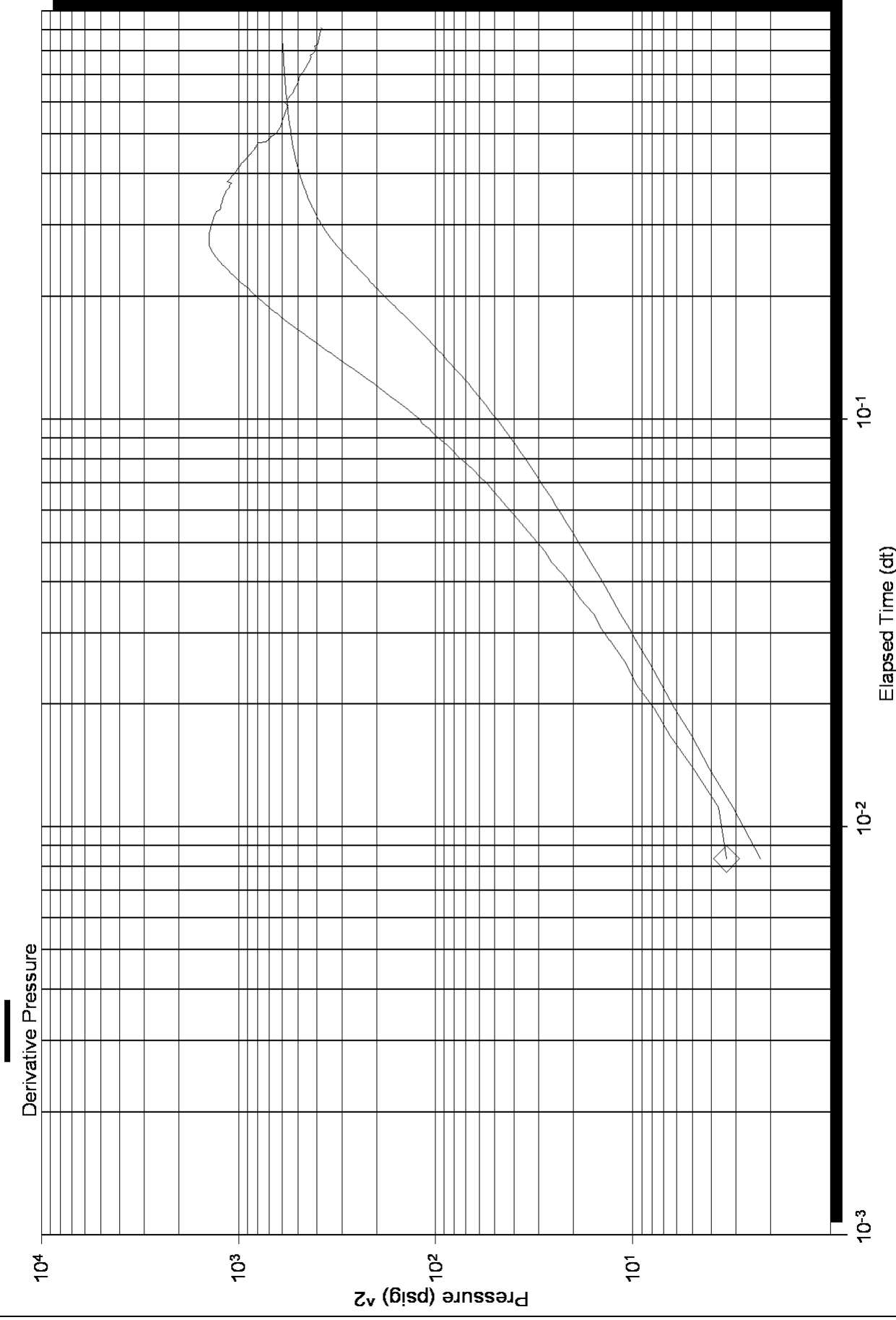
Horner Time: $(T_{wf} + dt) / dt$

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

Serial Number: 8354 (Inside)

Flow Cycle: 2

Log-Log and Pseudo-Derivative



Log-Log and Pseudo-Derivative

