



## DRILL STEM TEST REPORT

Prepared For: **Ares Energy, LTD**

405 N. Marienfeld  
Suite 250  
Midland, TX 79701

ATTN: Justin Carter

### **Fisher Farms #9-11**

#### **9-23S-13W Stafford, Ks.**

Start Date: 2014.01.16 @ 17:07:16

End Date: 2014.01.17 @ 03:19:39

Job Ticket #: 51868                      DST #: 2

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

Printed: 2014.01.17 @ 02:57:09



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Ares Energy, LTD  
405 N. Marienfeld  
Suite 250  
Midland, TX 79701  
ATTN: Justin Carter

**9-23S-13W Stafford, Ks.**

**Fisher Farms #9-11**

Job Ticket: 51868      **DST#: 2**  
Test Start: 2014.01.16 @ 17:07:16

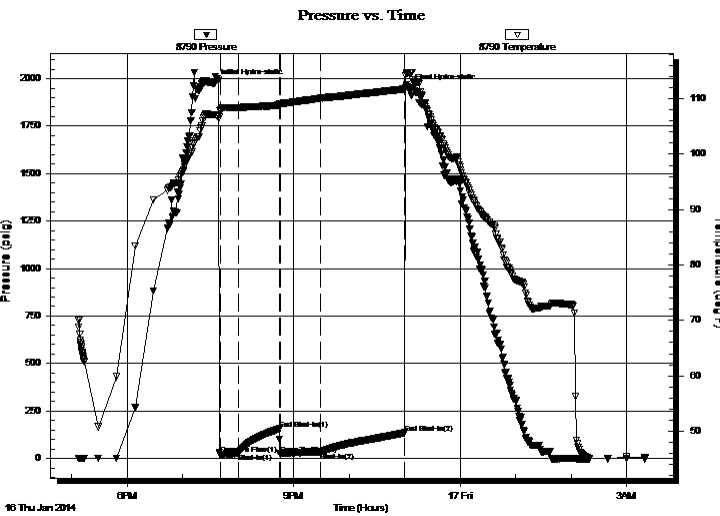
## GENERAL INFORMATION:

Formation: **Viola**  
Deviated: No Whipstock:                      ft (KB)  
Time Tool Opened: 19:40:24  
Time Test Ended: 03:19:39  
Interval: **4138.00 ft (KB) To 4167.00 ft (KB) (TVD)**  
Total Depth: 4167.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Reference Elevations: 1949.00 ft (KB)  
1941.00 ft (CF)  
KB to GR/CF: 8.00 ft

## Serial #: 8790

Press @ Run Depth: 33.45 psig @                      ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.01.16      End Date: 2014.01.17      Last Calib.: 1899.12.30  
Start Time: 17:07:21      End Time: 03:19:39      Time On Btm: 2014.01.16 @ 19:34:09  
Time Off Btm: 2014.01.16 @ 23:04:09

**TEST COMMENT:** Weak blow building to strong blow 5 minutes into initial flow period.  
Weak blow building to strong blow 15 minutes into final flow period.



## PRESSURE SUMMARY

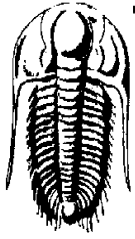
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1975.27	107.16	Initial Hydro-static
7	19.42	107.75	Open To Flow (1)
26	25.66	108.38	Shut-In(1)
71	155.85	108.86	End Shut-In(1)
71	21.75	109.07	Open To Flow (2)
116	33.45	110.09	Shut-In(2)
206	134.84	111.77	End Shut-In(2)
210	1945.38	114.69	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
360.00	Gas In Pipe 100% G	3.68
40.00	Heavy Oil cut Mud 29% O 71% M	0.56

## Gas Rates

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



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Suite 250  
Midland, TX 79701  
ATTN: Justin Carter

**9-23S-13W Stafford, Ks.**  
**Fisher Farms #9-11**  
Job Ticket: 51868 **DST#: 2**  
Test Start: 2014.01.16 @ 17:07:16

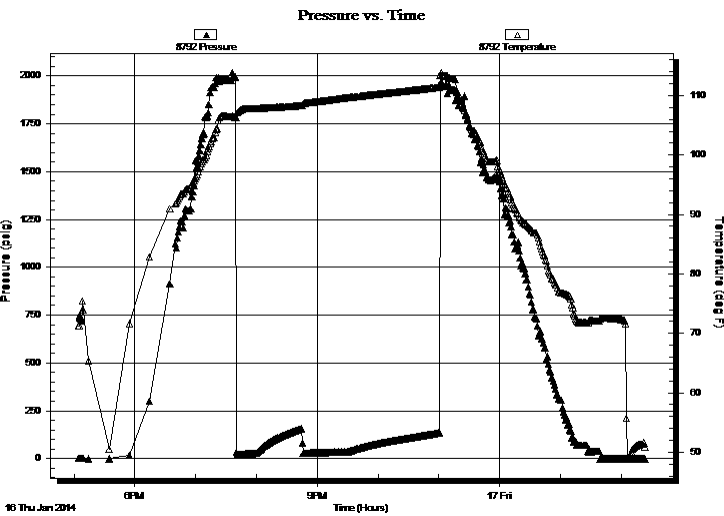
**GENERAL INFORMATION:**

Formation: **Viola**  
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)  
Time Tool Opened: 19:40:24 Tester: Jimmy Ricketts  
Time Test Ended: 03:19:39 Unit No: 48  
**Interval: 4138.00 ft (KB) To 4167.00 ft (KB) (TVD)** Reference Elevations: 1949.00 ft (KB)  
Total Depth: 4167.00 ft (KB) (TVD) 1941.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

**Serial #: 8792**

Press @ Run Depth: psig @ ft (KB) Capacity: 8000.00 psig  
Start Date: 2014.01.16 End Date: 2014.01.17 Last Calib.: 1899.12.30  
Start Time: 17:04:30 End Time: 02:23:40 Time On Btm:  
Time Off Btm:

**TEST COMMENT:** Weak blow building to strong blow 5 minutes into initial flow period.  
Weak blow building to strong blow 15 minutes into final flow period.



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
360.00	Gas In Pipe 100% G	3.68
40.00	Heavy Oil cut Mud 29% O 71% M	0.56

**Gas Rates**

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



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TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Ares Energy, LTD

**9-23S-13W Stafford, Ks.**

405 N. Marienfeld  
Suite 250

**Fisher Farms #9-11**

Midland, TX 79701

Job Ticket: 51868

**DST#: 2**

ATTN: Justin Carter

Test Start: 2014.01.16 @ 17:07:16

**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: 38.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbbl
360.00	Gas In Pipe 100% G	3.683
40.00	Heavy Oil cut Mud 29% O 71% M	0.561

Total Length: 400.00 ft      Total Volume: 4.244 bbl

Num Fluid Samples: 0

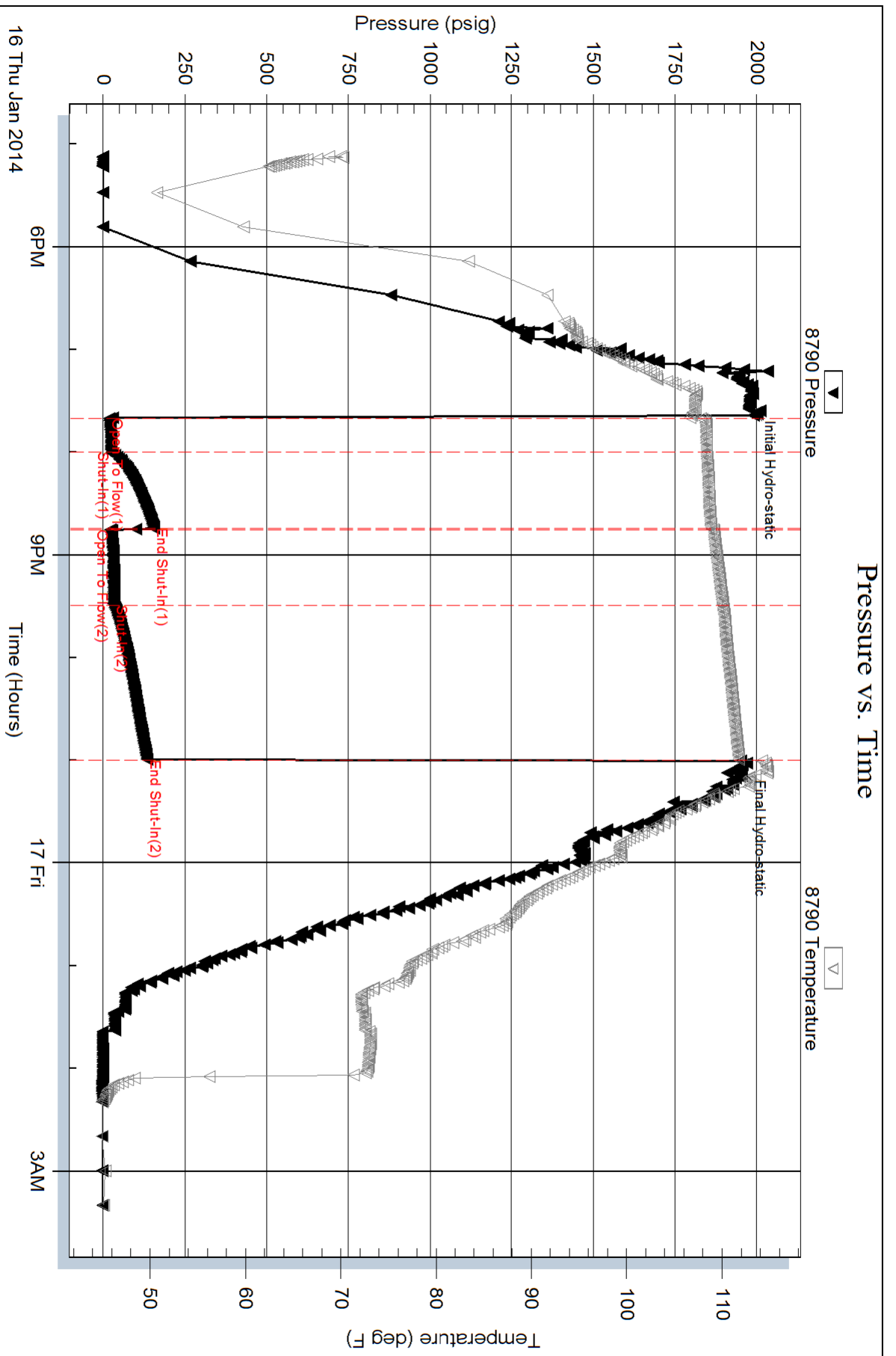
Num Gas Bombs: 0

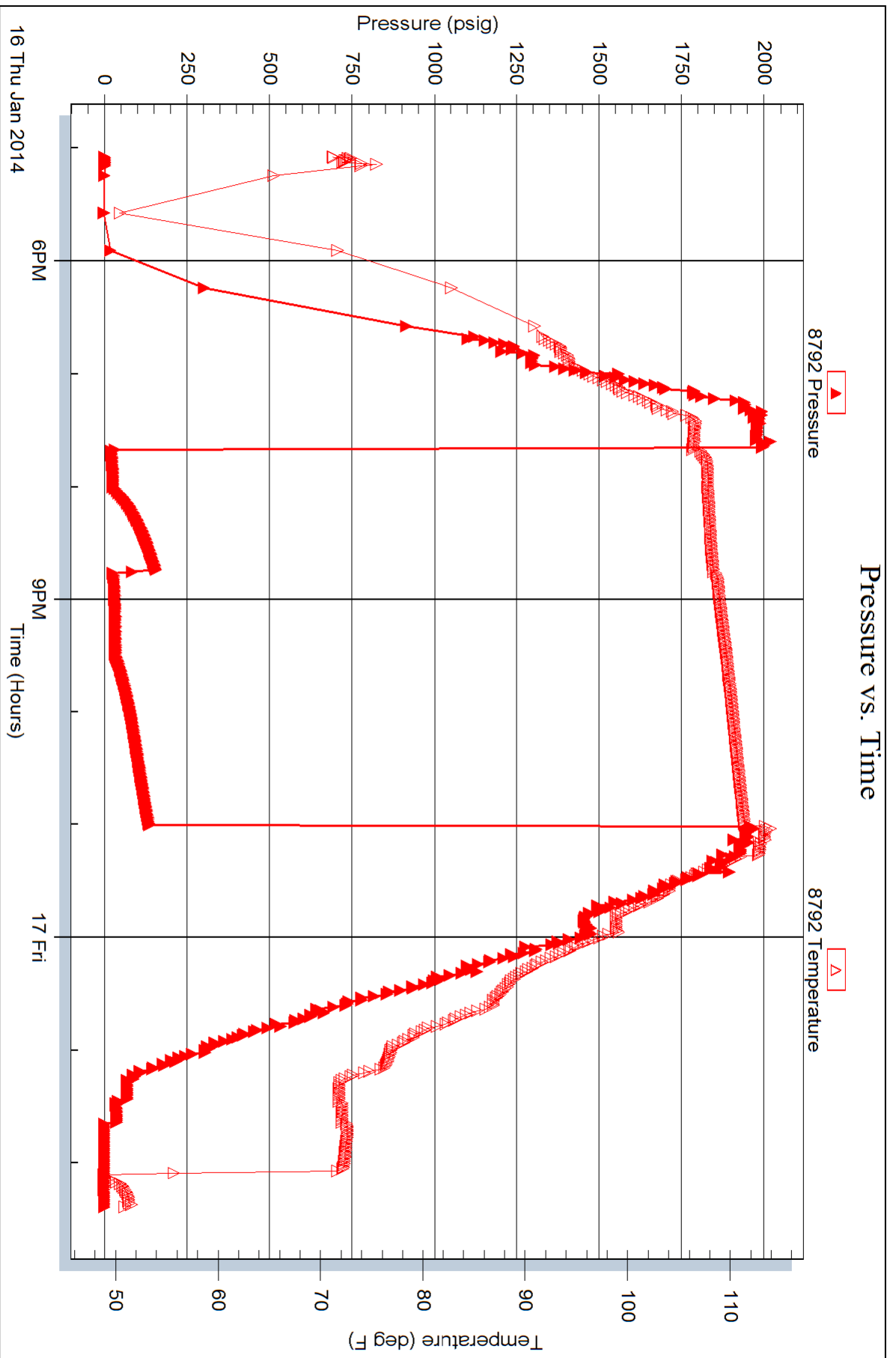
Serial #:

Laboratory Name:

Laboratory Location:

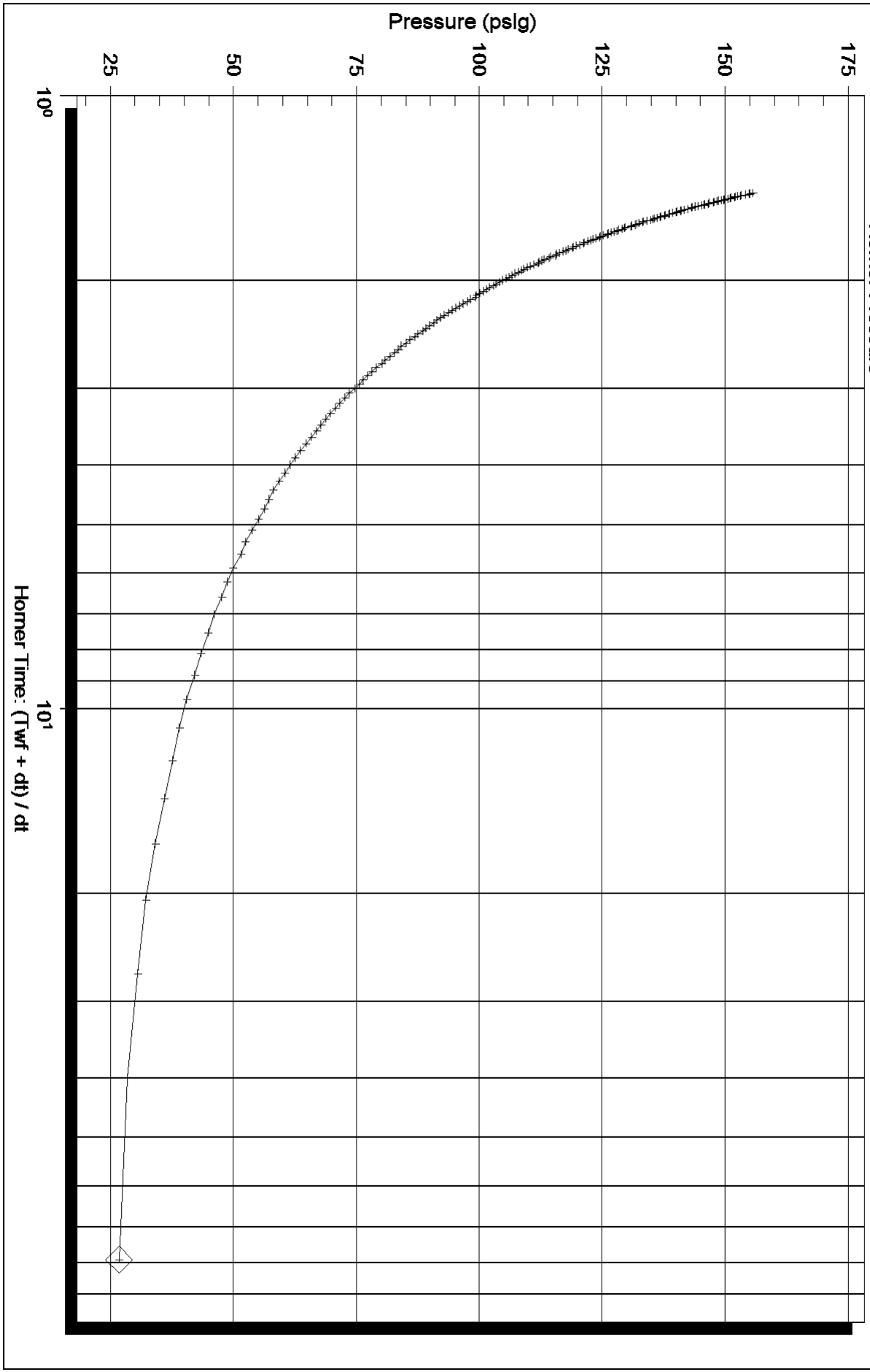
Recovery Comments:





### Horner Plot

Horner Pressure  +



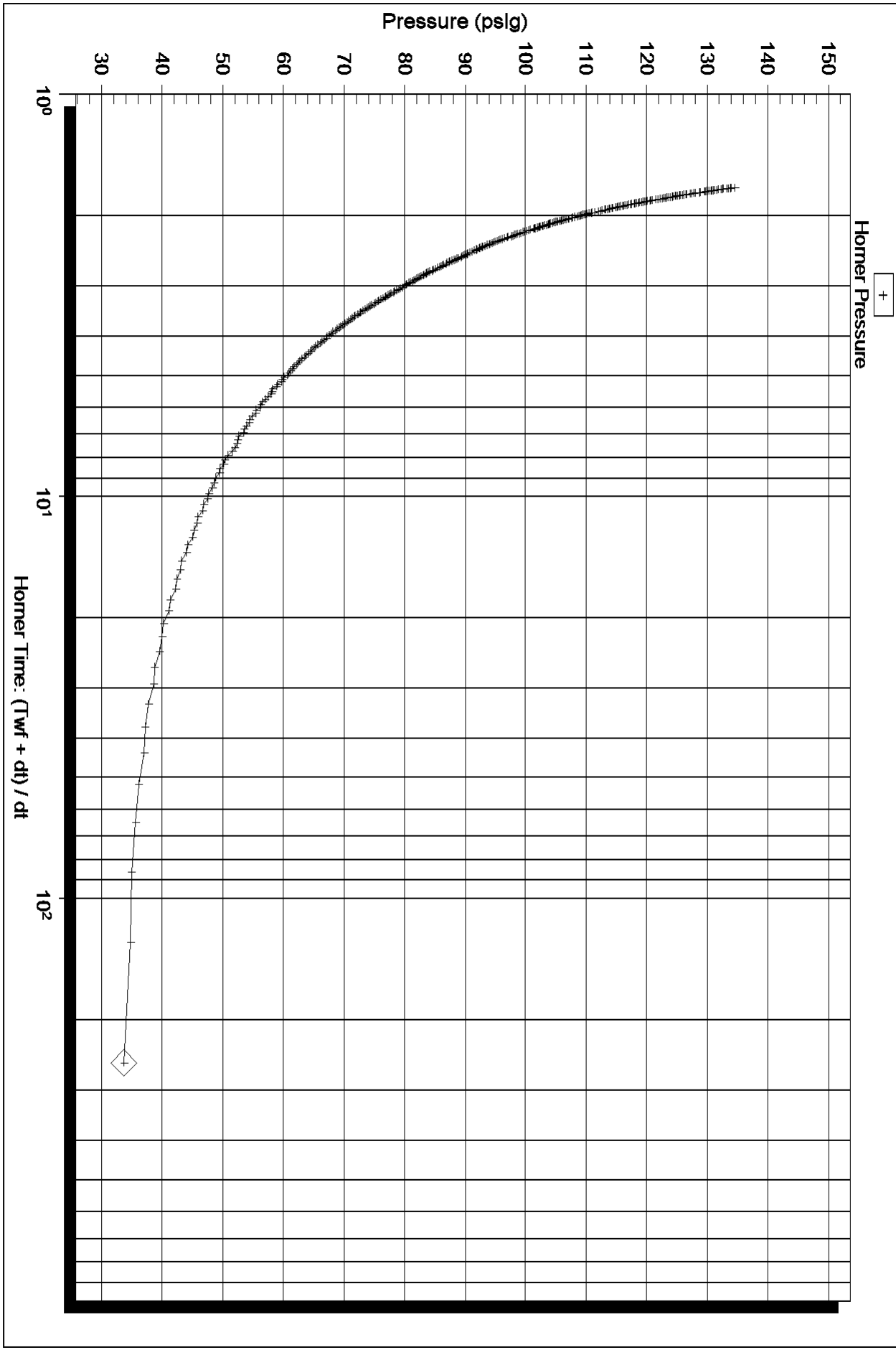
Serial Number: 8790 ()

P\* :

Slope (m) : kpa/log cycle

Flow Cycle: 1

### Horner Plot



Serial Number: 8790 ()

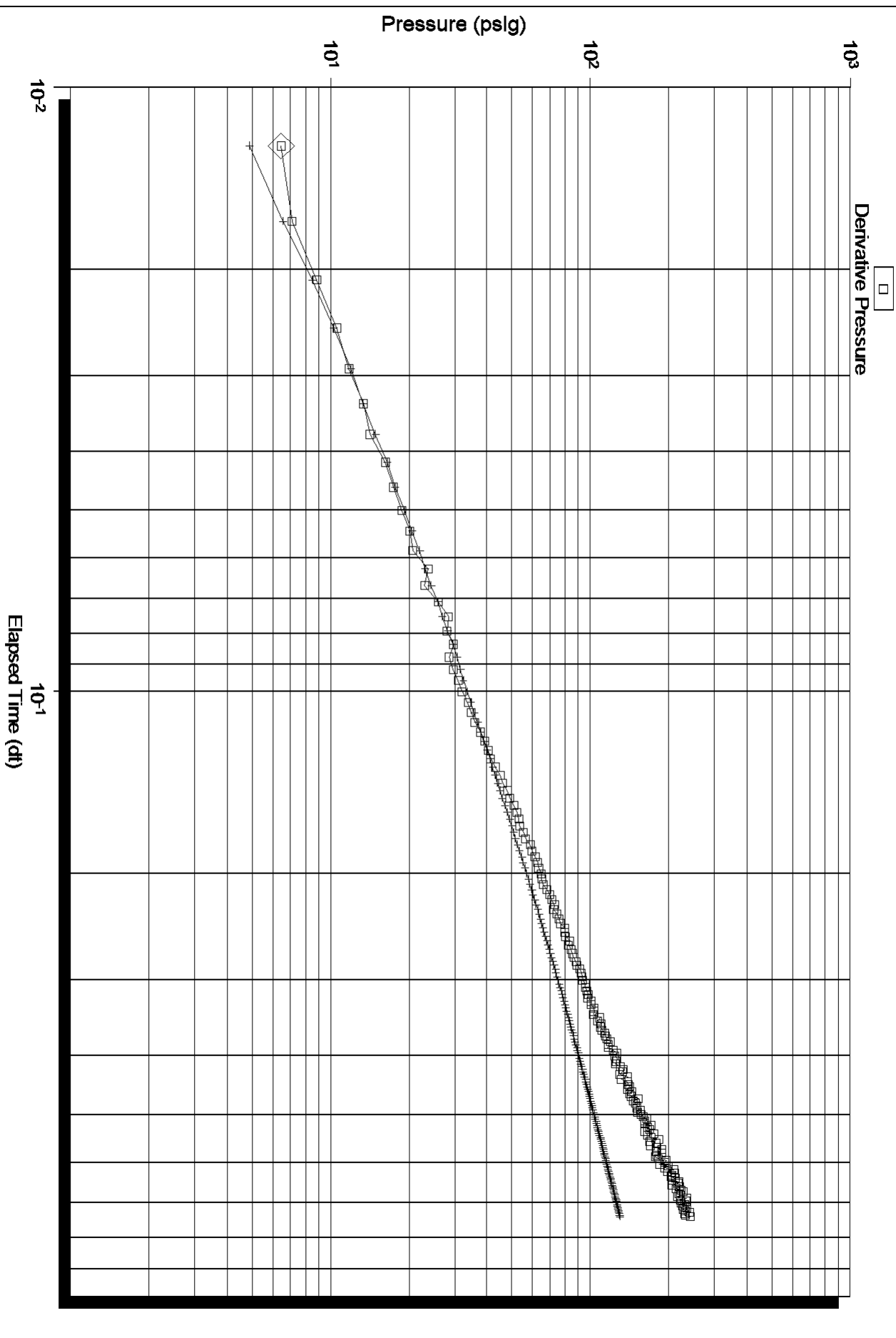
P\* :

Slope (m) : kpa/log cycle

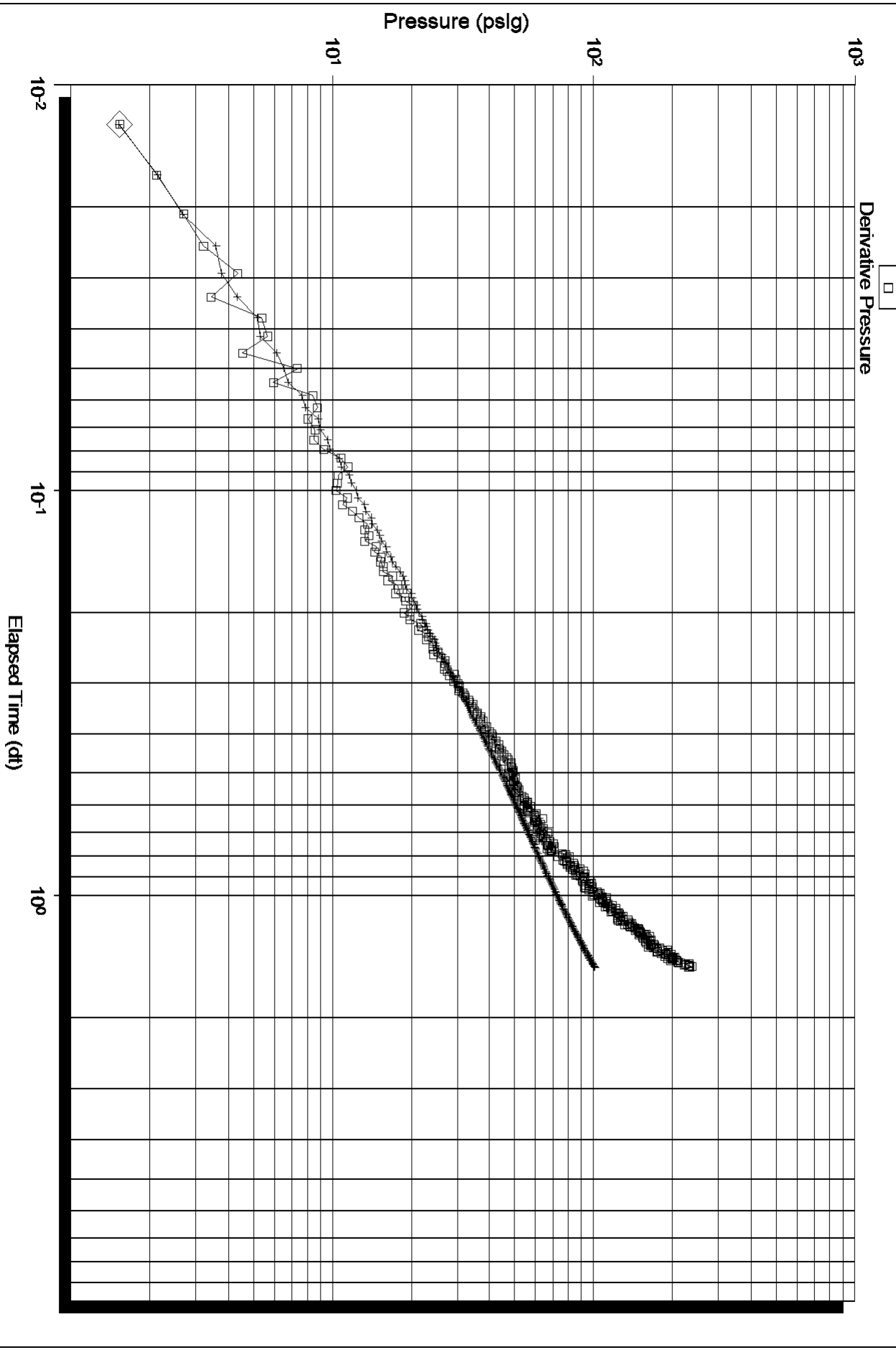
Flow Cycle: 2



# Log-Log and Pseudo-Derivative



# Log-Log and Pseudo-Derivative



Serial Number: 8790 ()

Flow Cycle: 2