



## DRILL STEM TEST REPORT

Prepared For: **SGJ & Assoc. Inc.**

1515 Wynkoop Ste 700  
Denver CO 80202

ATTN: Tom Fertal

### **Miller-Leiker 1-28**

### **28 14s 17w Ellis**

Start Date: 2012.06.24 @ 09:20:00

End Date: 2012.06.24 @ 18:30:00

Job Ticket #: 47407                      DST #: 2

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
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Printed: 2012.06.25 @ 09:06:43



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TESTING, INC.**

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Test Start: 2012.06.24 @ 09:20:00

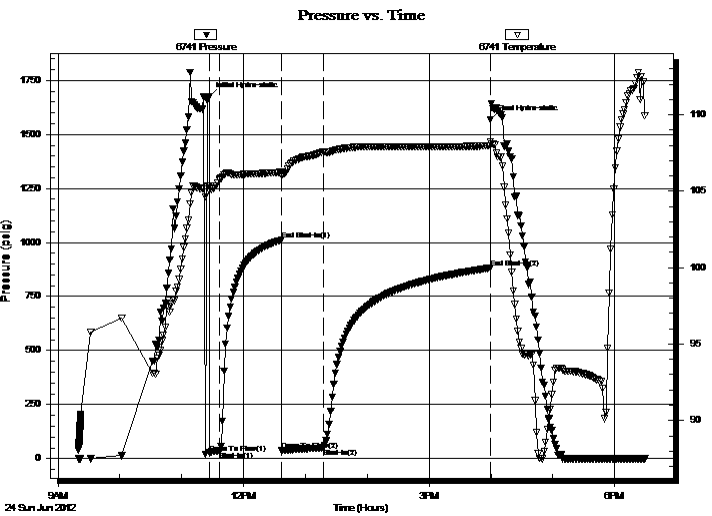
## GENERAL INFORMATION:

Formation: **Arbuckle**  
Deviated: No      Whipstock: 1965.00 ft (KB)  
Time Tool Opened: 11:27:00  
Time Test Ended: 18:30:00  
Interval: **3450.00 ft (KB) To 3500.00 ft (KB) (TVD)**  
Total Depth: 3500.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches      Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Jim Svaty  
Unit No: 41  
Reference Elevations: 1965.00 ft (KB)  
1957.00 ft (CF)  
KB to GR/CF: 8.00 ft

## Serial #: 6741

Press @ Run Depth: 49.42 psig @      ft (KB)      Capacity: 8000.00 psig  
Start Date: 2012.06.24      End Date: 2012.06.24      Last Calib.: 2012.06.24  
Start Time: 09:20:01      End Time: 18:29:00      Time On Btm: 2012.06.24 @ 11:26:30  
Time Off Btm: 2012.06.24 @ 15:59:30

TEST COMMENT: 10-IFP- Good Surge No Blow  
60-ISIP- No Blow  
40-FFP- Surface Blow in 2min. Building to 5in.  
160-FSIP- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1676.24	105.36	Initial Hydro-static
1	26.76	105.04	Open To Flow (1)
11	35.85	105.77	Shut-In(1)
70	1010.79	106.23	End Shut-In(1)
71	39.03	106.05	Open To Flow (2)
111	49.42	107.56	Shut-In(2)
273	882.07	107.98	End Shut-In(2)
273	1569.27	108.24	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
50.00	OCM 20%o 80%m	0.43
30.00	CO 100%o	0.42

\* Recovery from multiple tests

## Gas Rates

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







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**TOOL DIAGRAM**

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## Tool Information

Drill Pipe:	Length: 3406.00 ft	Diameter: 3.80 inches	Volume: 47.78 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 47.93 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3450.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	85.00 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			3416.00	
Recorder	0.00	8365	Fluid	3416.00	
Blank Spacing	5.00			3421.00	
Shut In Tool	5.00			3426.00	
Sampler	2.00			3428.00	
Hydraulic tool	5.00			3433.00	
Jars	5.00			3438.00	
Safety Joint	2.00			3440.00	
Packer	5.00			3445.00	35.00 Bottom Of Top Packer
Packer	5.00			3450.00	
Stubb	1.00			3451.00	
Recorder	0.00	6752	Inside	3451.00	
Recorder	0.00	6741	Outside	3451.00	
Perforations	13.00			3464.00	
Change Over Sub	1.00			3465.00	
Blank Spacing	31.00			3496.00	
Change Over Sub	1.00			3497.00	
Bullnose	3.00			3500.00	50.00 Bottom Packers & Anchor

**Total Tool Length: 85.00**



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## FLUID SUMMARY

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### Mud and Cushion Information

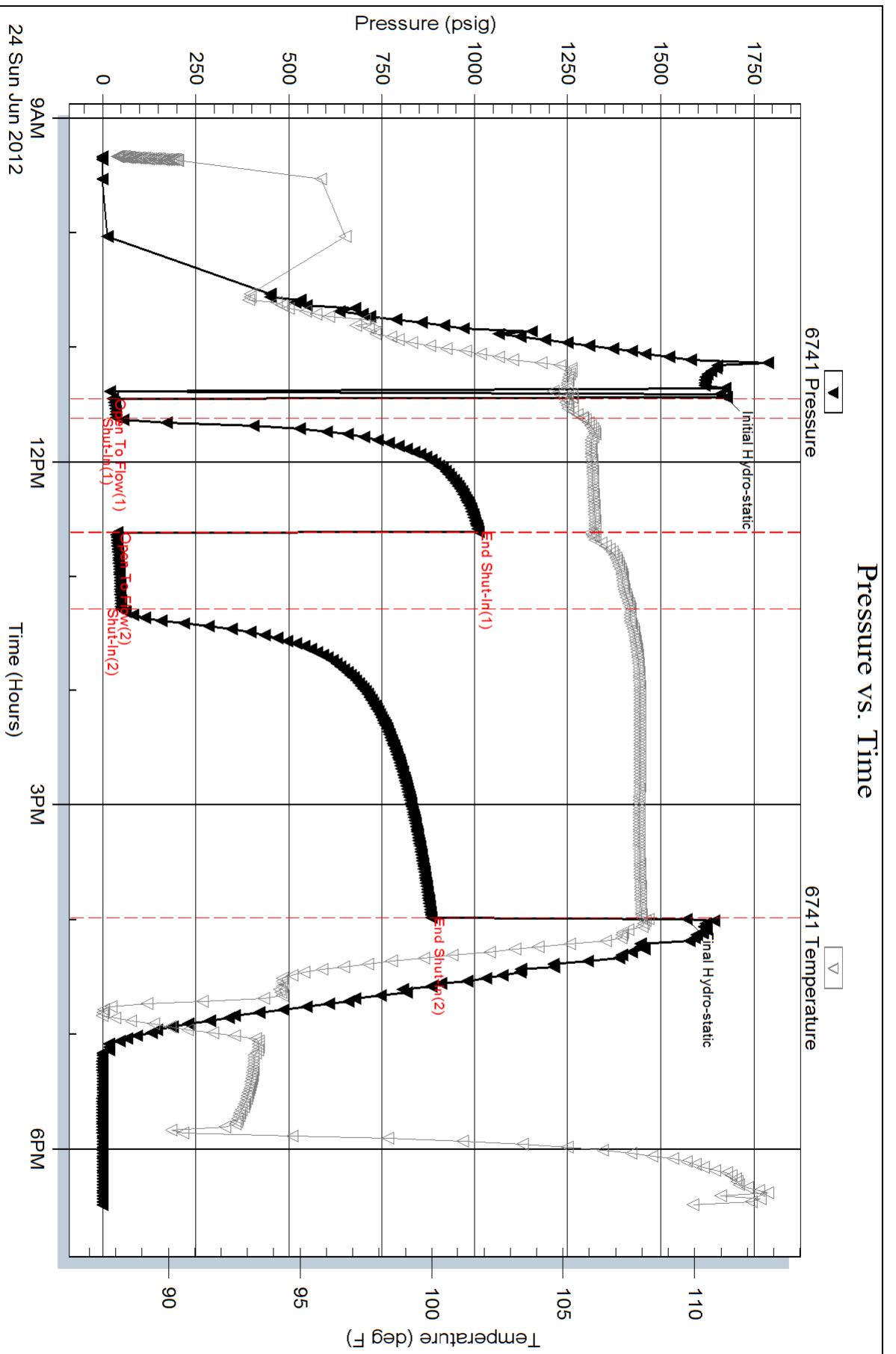
Mud Type: Gel Chem	Cushion Type:	Oil API: 28 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 46.00 sec/qt	Cushion Volume: bbl	
Water Loss: 9.57 cm <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 4000.00 ppm		
Filter Cake: inches		

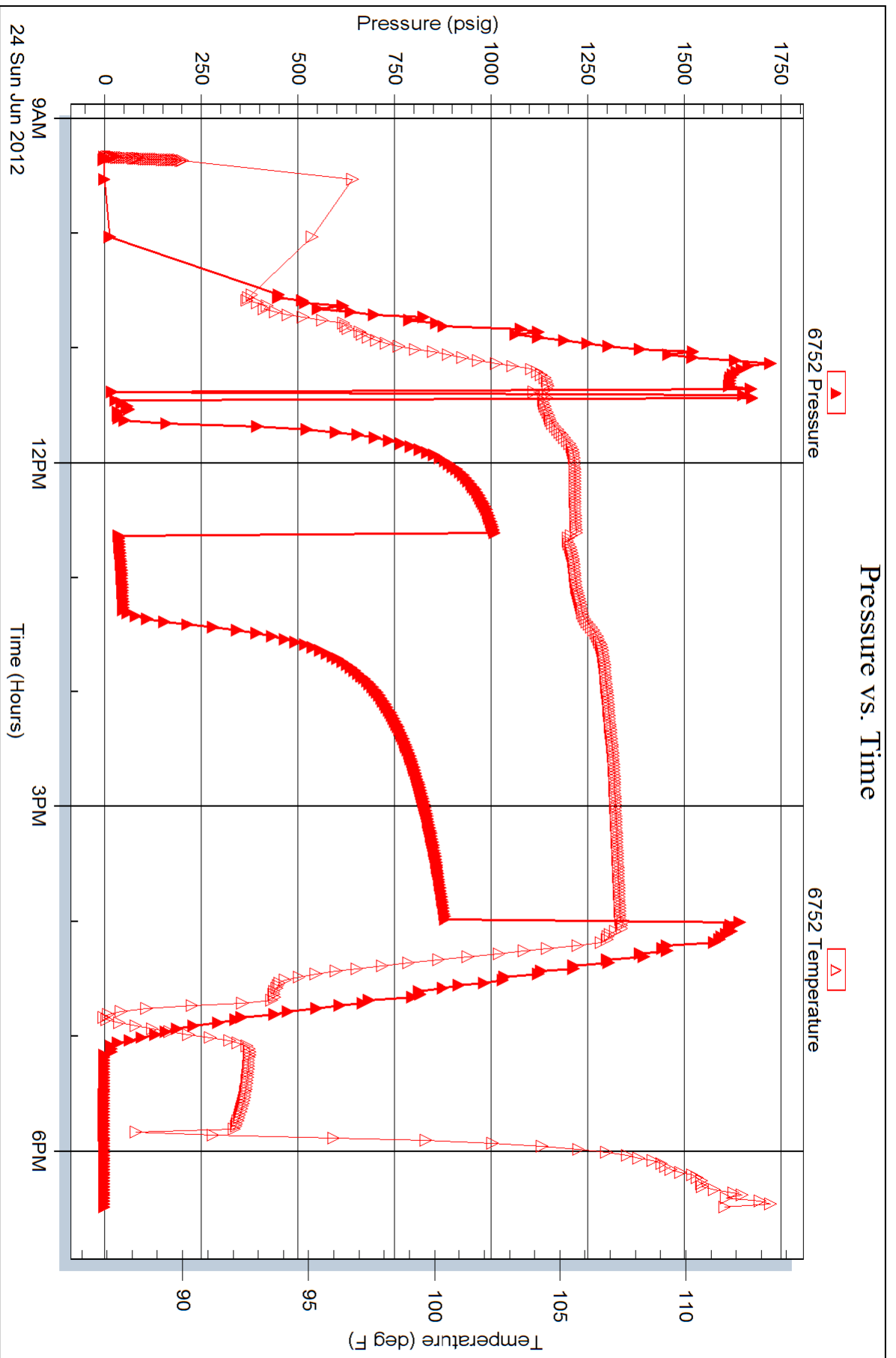
### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	OCM 20%o 80%m	0.428
30.00	CO 100%o	0.421

Total Length: 80.00 ft      Total Volume: 0.849 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

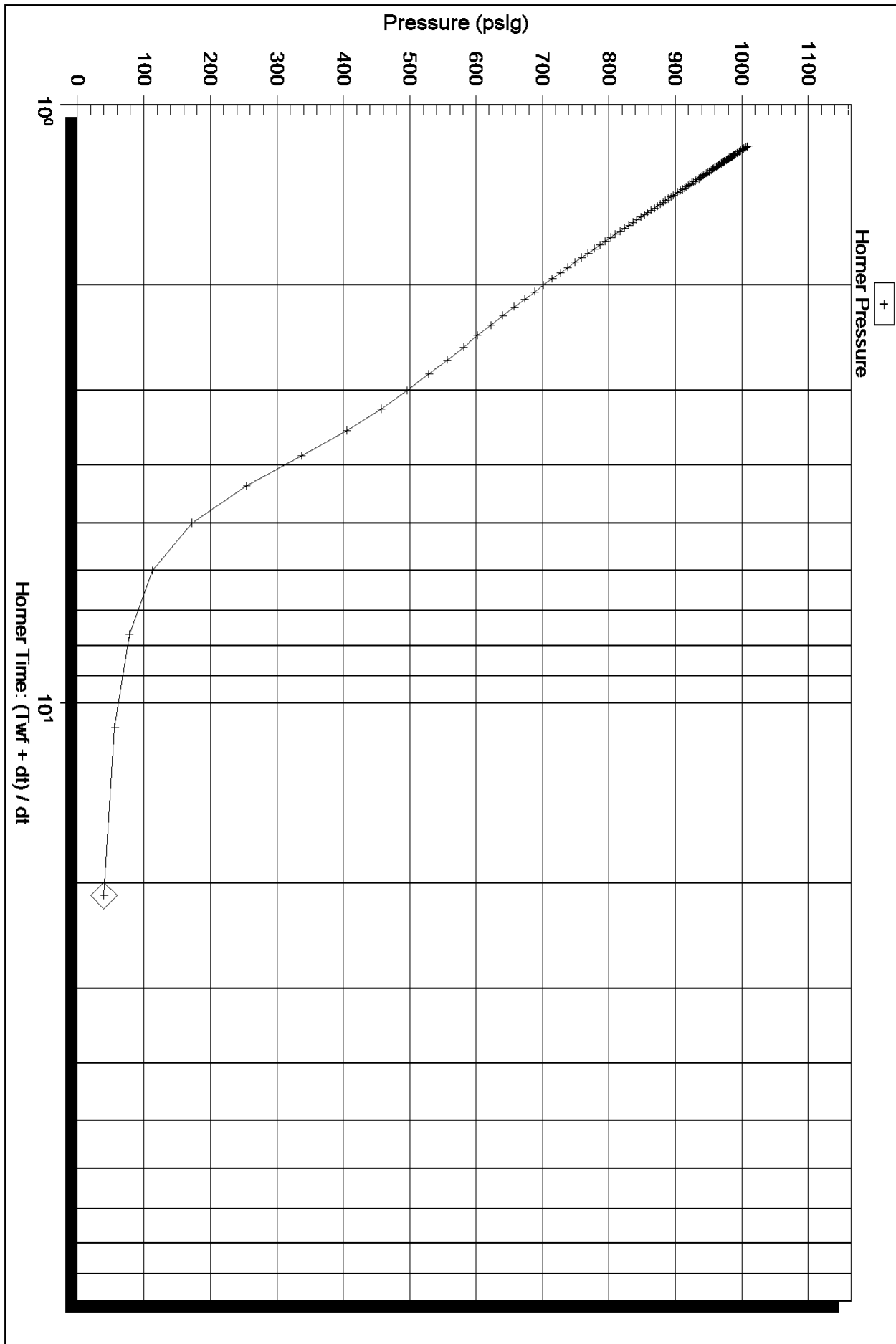








# Horner Plot



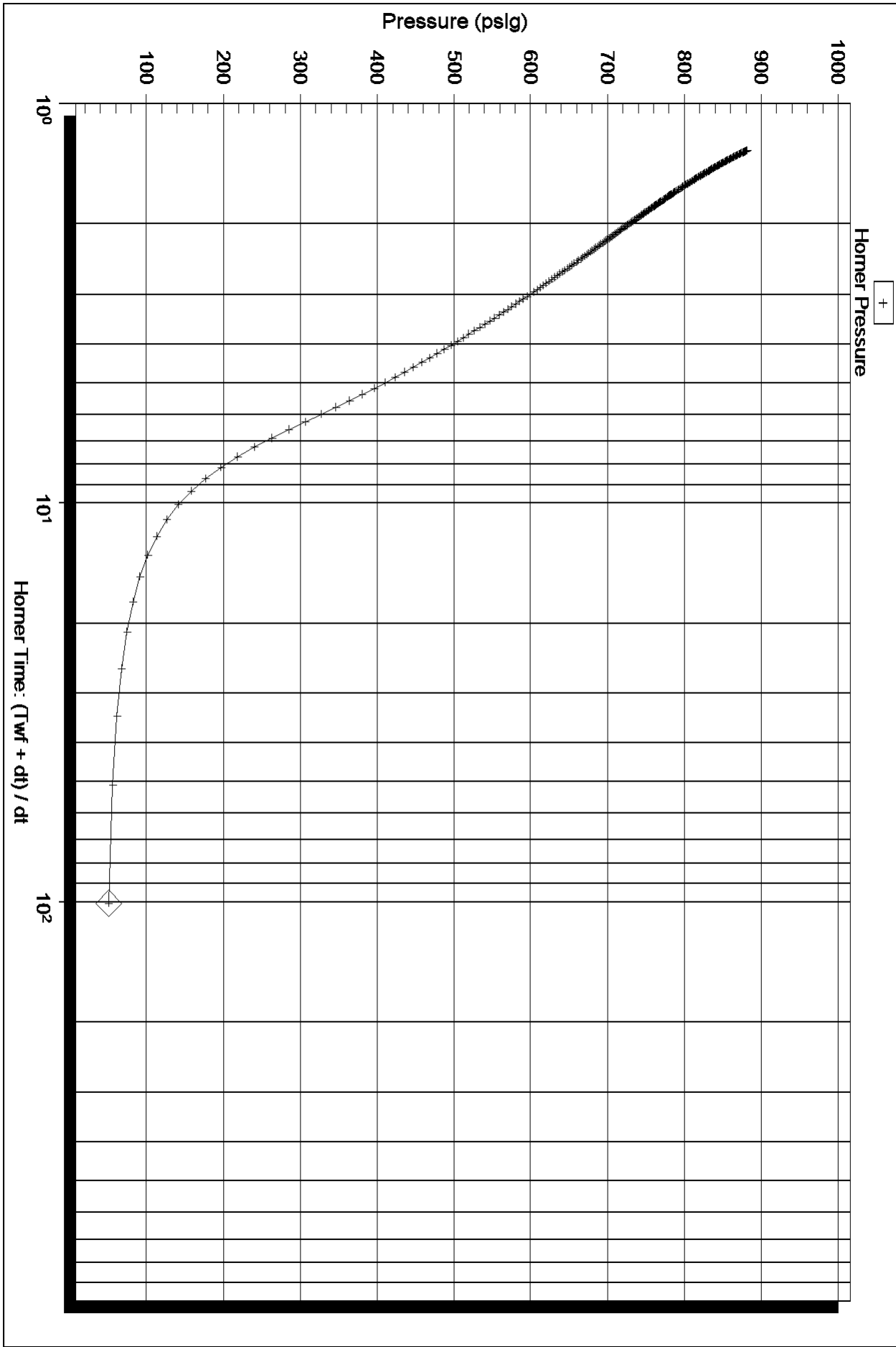
Serial Number: 6741 ()

P\* :

Slope (m) : kpa/log cycle

Flow Cycle: 1

### Horner Plot



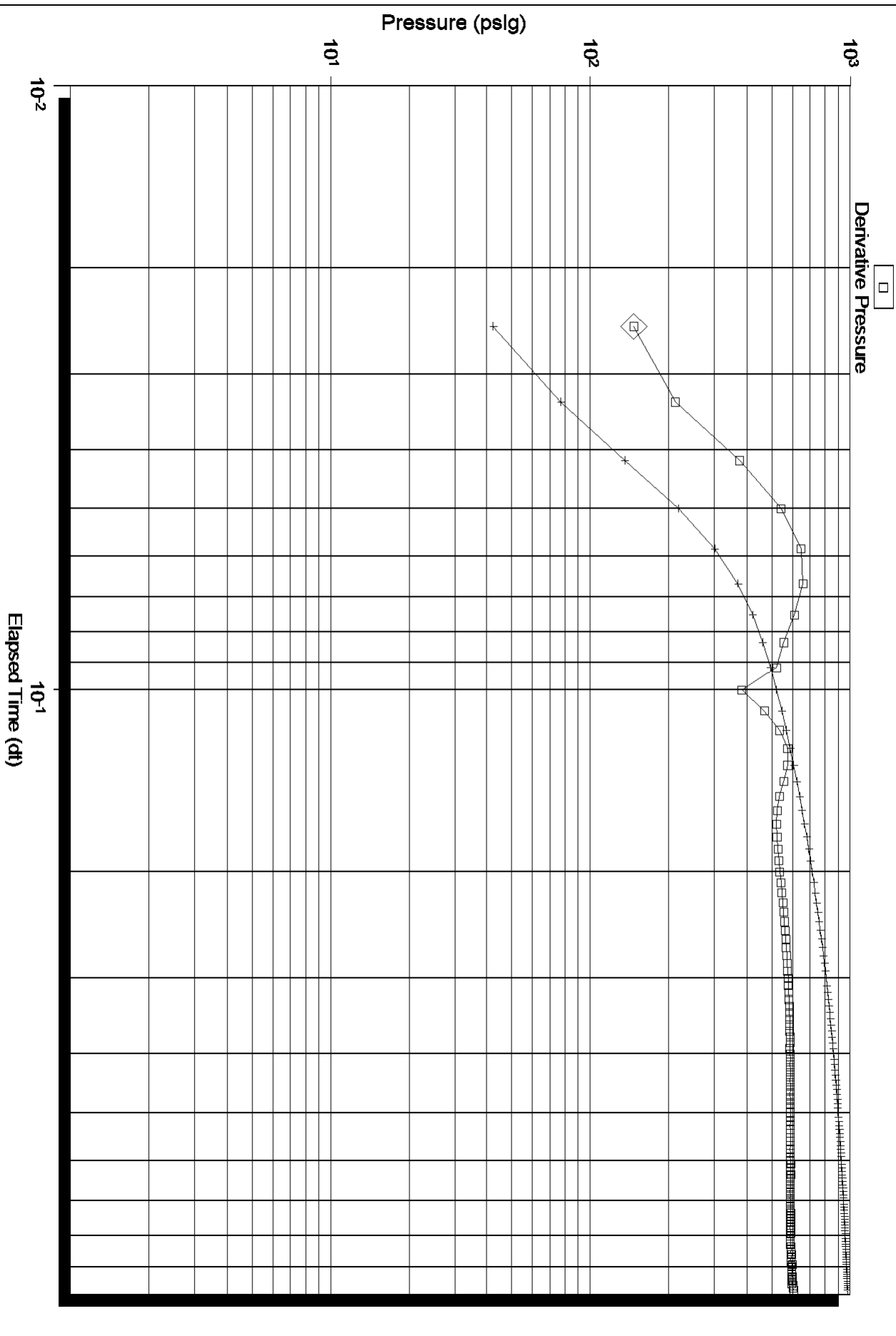
Serial Number: 6741 ()

P\* :

Slope (m) : kpa/log cycle

Flow Cycle: 2

# Log-Log and Pseudo-Derivative



# Log-Log and Pseudo-Derivative

