

## DRILL STEM TEST REPORT

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

1515 Wynkoop  
Ste 700

ATTN: Tom Fertal

**4-18s-10w**

**Hoelscher Farms #1-4**

Start Date: 2010.08.29 @ 13:13:20

End Date: 2010.08.29 @ 20:39:20

Job Ticket #: 35809                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Samuel Gary Jr & Associates, Inc

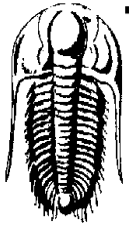
Hoelscher Farms #1-4

4-18s-10w

DST # 1

Lower Lansing

2010.08.29



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TESTING, INC**

# DRILL STEM TEST REPORT

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**Hoelscer Farms #1-4**

1515 Wynkoop  
Ste 700

**4-18s-10w**

Job Ticket: 35809

**DST#: 1**

ATTN: Tom Fertal

Test Start: 2010.08.29 @ 13:13:20

## GENERAL INFORMATION:

Formation: **Lower Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:45:20

Time Test Ended: 20:39:20

Test Type: Conventional Bottom Hole

Tester: Jeff Brown

Unit No: 44

**Interval: 3124.00 ft (KB) To 3230.00 ft (KB) (TVD)**

Reference Elevations: 1802.00 ft (KB)

Total Depth: 3230.00 ft (KB) (TVD)

1792.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

## Serial #: 8321

Inside

Press@RunDepth: 76.42 psig @ 3127.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.08.29

End Date: 2010.08.29

Last Calib.: 2010.08.29

Start Time: 13:13:21

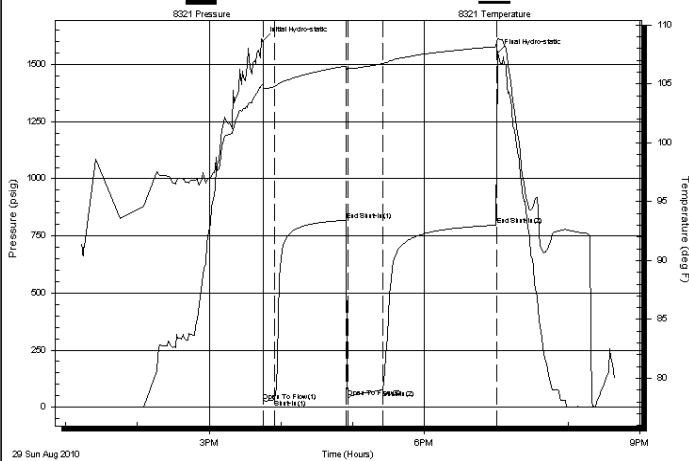
End Time: 20:39:20

Time On Btm: 2010.08.29 @ 15:44:50

Time Off Btm: 2010.08.29 @ 19:01:20

**TEST COMMENT:** IFP-Strong blow BOB in 2 1/2 min  
IS-Dead no blow back  
FFP-Strong blow BOB in 45 sec  
FSI-Weak blow back built to 2 in Died back to 1/4 in

Pressure vs. Time



## PRESSURE SUMMARY

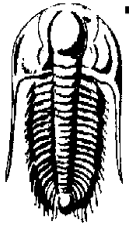
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1604.59	104.96	Initial Hydro-static
1	26.97	104.66	Open To Flow (1)
10	34.86	104.80	Shut-In(1)
70	818.43	106.51	End Shut-In(1)
71	42.98	106.32	Open To Flow (2)
100	76.42	106.71	Shut-In(2)
195	797.29	108.16	End Shut-In(2)
197	1551.27	108.86	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
173.00	OCWGM5%M5%W35%G55%O	2.43
0.00	1825 GIP	0.00

## Gas Rates

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



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Job Ticket: 35809

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Reference Elevations: 1802.00 ft (KB)

Total Depth: 3230.00 ft (KB) (TVD)

1792.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8672 Outside**

Press @RunDepth: psig @ 3127.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.08.29

End Date:

2010.08.29

Last Calib.:

2010.08.29

Start Time: 13:13:59

End Time:

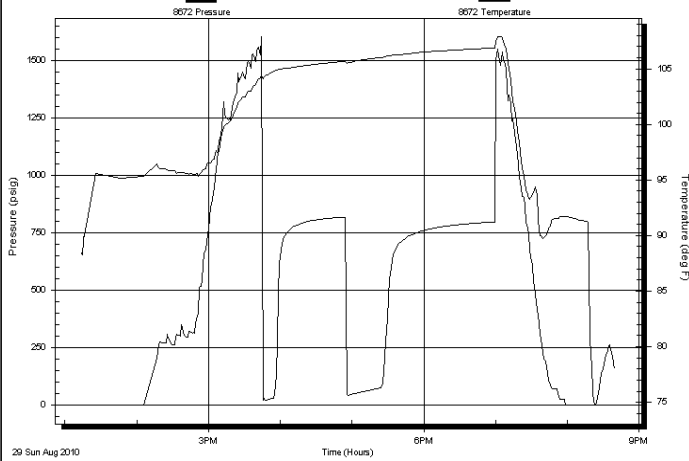
20:39:28

Time On Btm:

Time Off Btm:

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Pressure vs. Time



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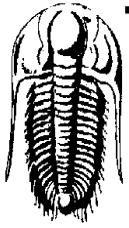
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

### Recovery

Length (ft)	Description	Volume (bbl)
173.00	OCWGM5%M5%W35%G55%O	2.43
0.00	1825 GIP	0.00

### Gas Rates

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



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# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Samuel Gary Jr & Associates, Inc

**Hoelscer Farms #1-4**

1515 Wynkoop  
Ste 700

**4-18s-10w**

Job Ticket: 35809

**DST#: 1**

ATTN: Tom Fertal

Test Start: 2010.08.29 @ 13:13:20

## Tool Information

Drill Pipe:	Length: 3103.00 ft	Diameter: 3.80 inches	Volume: 43.53 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 44000.00 lb
			<u>Total Volume: 43.53 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 29000.00 lb
Depth to Top Packer:	3124.00 ft			Final 30000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	106.00 ft			
Tool Length:	134.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3097.00	
Shut In Tool	5.00			3102.00	
Hydraulic tool	5.00			3107.00	
Jars	5.00			3112.00	
Safety Joint	3.00			3115.00	
Packer	4.00			3119.00	28.00 Bottom Of Top Packer
Packer	5.00			3124.00	
Stubb	1.00			3125.00	
Perforations	2.00			3127.00	
Recorder	0.00	8321	Inside	3127.00	
Recorder	0.00	8672	Outside	3127.00	
Change Over Sub	1.00			3128.00	
Drill Pipe	93.00			3221.00	
Change Over Sub	1.00			3222.00	
Perforations	5.00			3227.00	
Bullnose	3.00			3230.00	106.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>134.00</b>				



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**FLUID SUMMARY**

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Ste 700

**4-18s-10w**

Job Ticket: 35809

**DST#: 1**

ATTN: Tom Fertal

Test Start: 2010.08.29 @ 13:13:20

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 41 deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 50.00 sec/l	Cushion Volume: bbl	
Water Loss: 12.18 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 7500.00 ppm		
Filter Cake: inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
173.00	OCWGM5%M5%W35%G55%O	2.427
0.00	1825 GIP	0.000

Total Length: 173.00 ft      Total Volume: 2.427 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

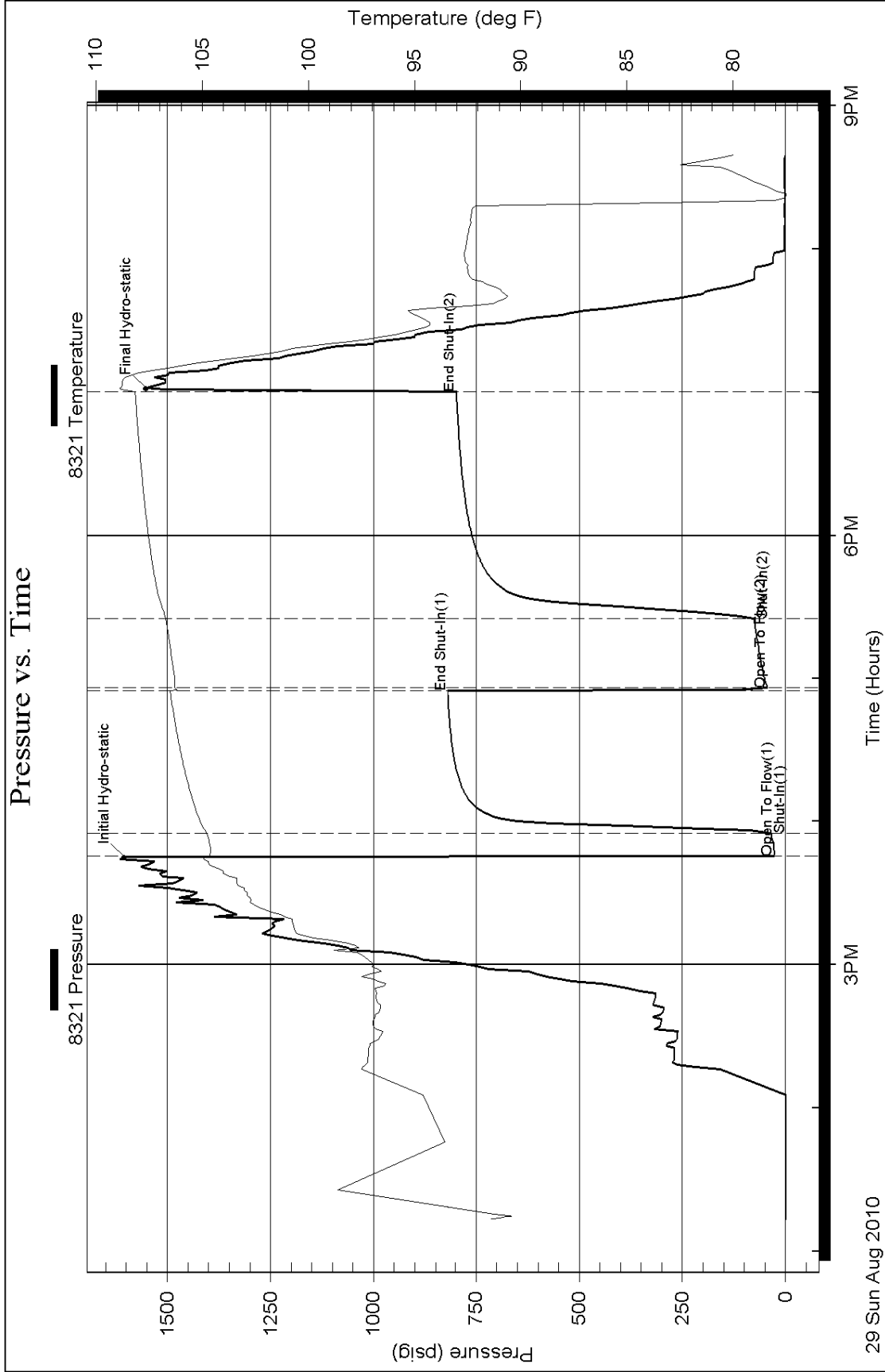
Serial #: 8321

Inside

Samuel Gary Jr & Associates, Inc

4-18s-10w

DST Test Number: 1

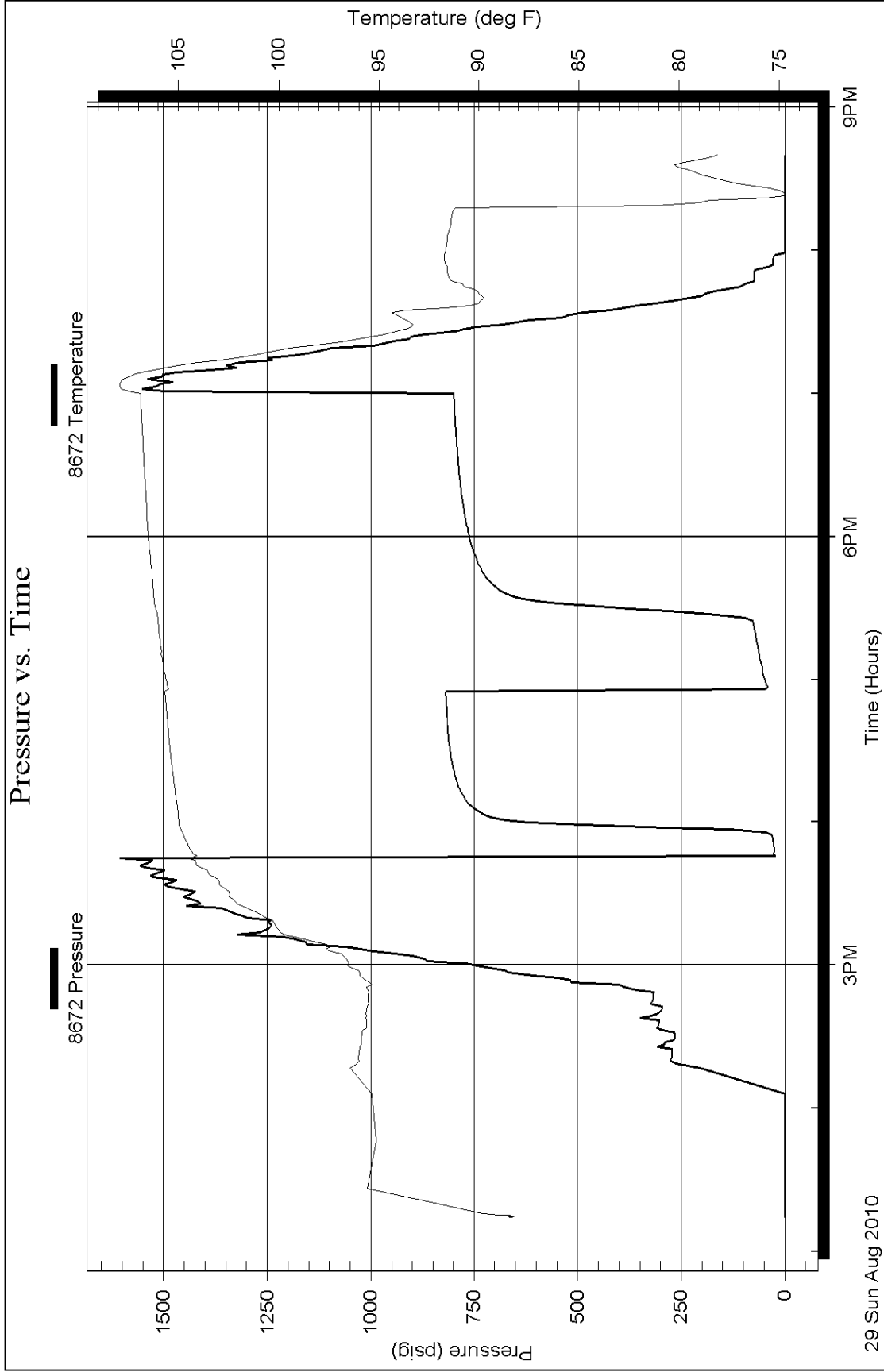


Serial #: 8672

Outside Samuel Gary Jr & Associates, Inc

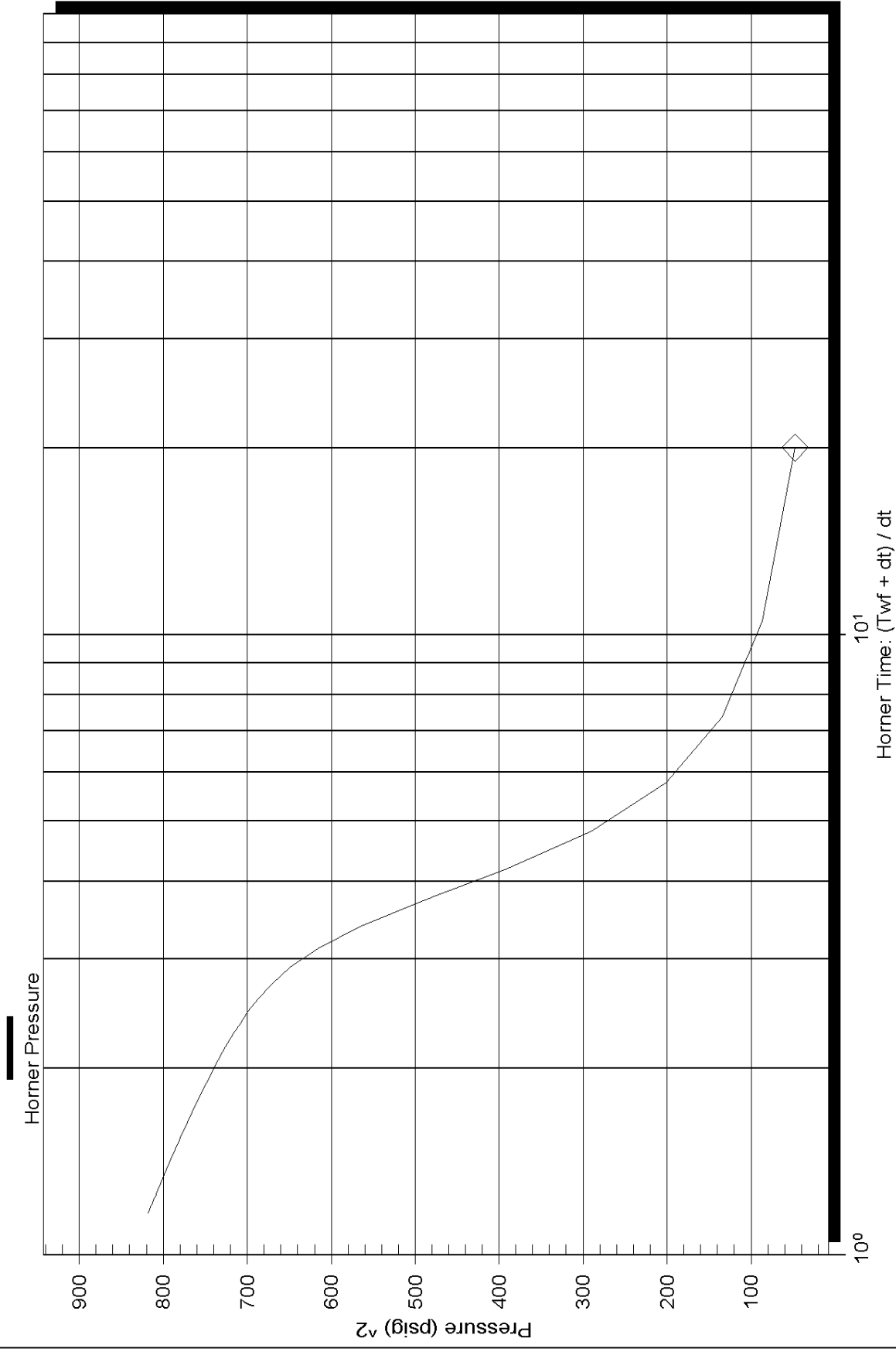
4-18s-10w

DST Test Number: 1



29 Sun Aug 2010

### Horner Plot



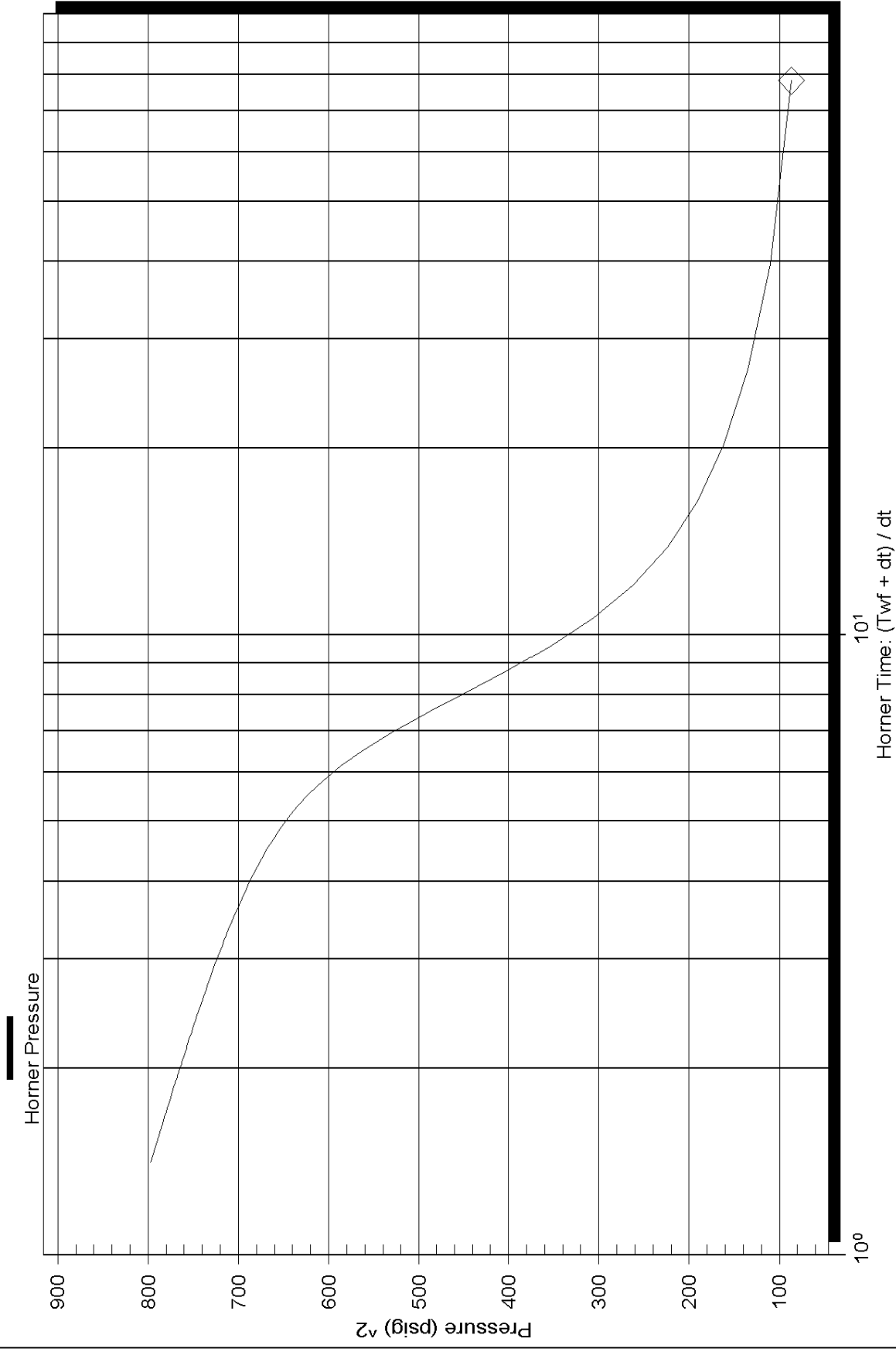
Serial Number: 8321 (Inside)

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

Flow Cycle: 1



### Horner Plot



Serial Number: 8321 (Inside)

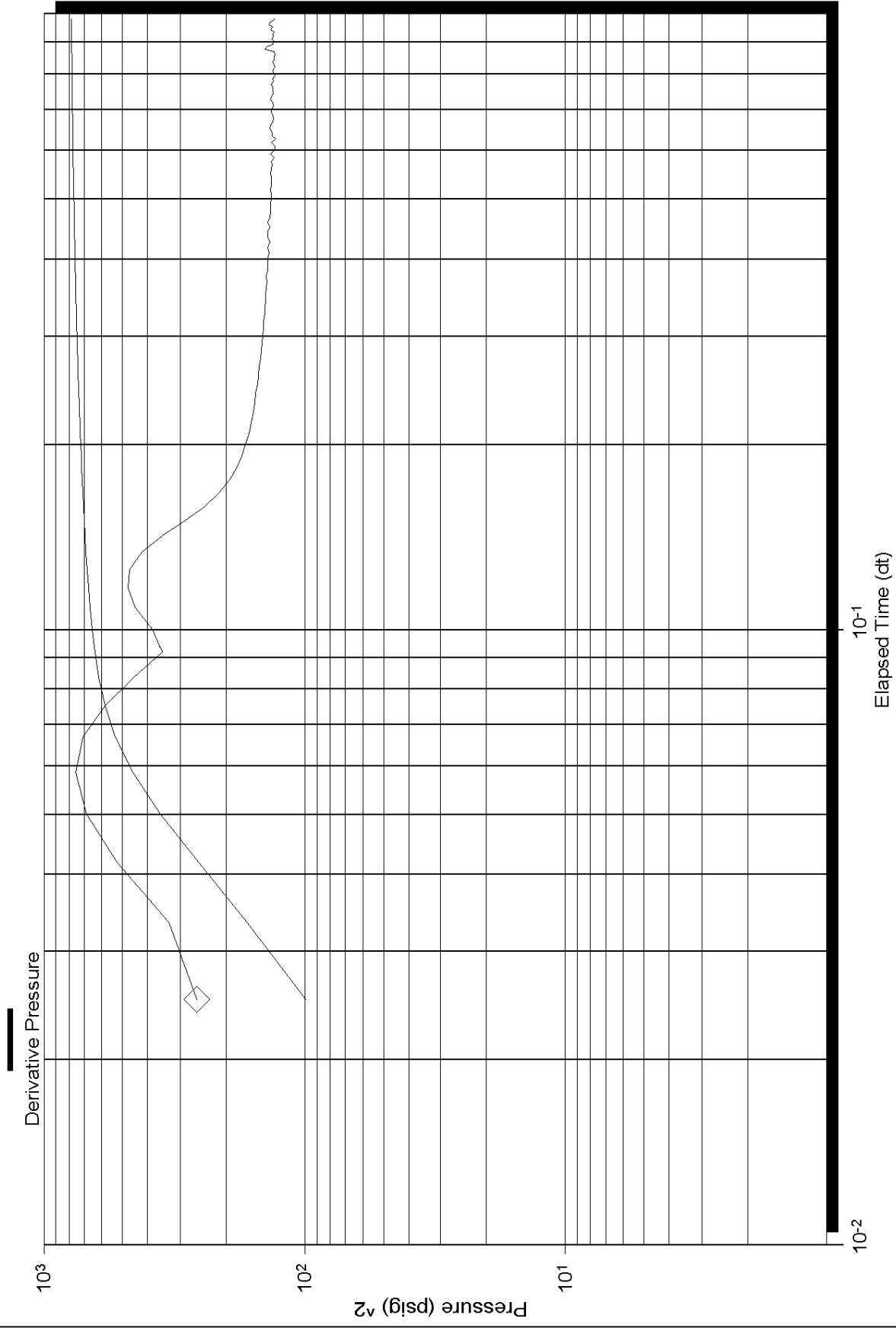
Slope (m) : kpa/log cycle

P\* :

Horner Time: (Twf + dt) / dt

Flow Cycle: 2

# Log-Log and Pseudo-Derivative



# Log-Log and Pseudo-Log-Derivative

