

DRILL STEM TEST REPORT

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

1515 Wynkoop Ste.#700
Denver, Co 80202

ATTN: Tom Fertal

Heitschmidt #1-35

35/17S/10W-Ellsworth

Start Date: 2011.10.19 @ 12:01:30

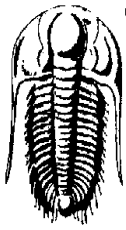
End Date: 2011.10.19 @ 19:06:00

Job Ticket #: 45263 DST #: 1

Trilobite Testing, Inc

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

Printed: 2011.10.20 @ 15:04:39



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

35/17S/10W-Elsworth

1515 Wynkoop Ste.#700
Denver, Co 80202

Heitschmidt #1-35

Job Ticket: 45263

DST#: 1

ATTN: Tom Fertal

Test Start: 2011.10.19 @ 12:01:30

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:32:20

Time Test Ended: 19:06:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

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

Total Depth: 3297.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1796.00 ft (KB)

1788.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8354 Inside

Press@RunDepth: 155.27 psig @ 3280.00 ft (KB)

Start Date: 2011.10.19

End Date:

2011.10.19

Capacity: 8000.00 psig

Last Calib.: 2011.10.19

Start Time: 12:11:30

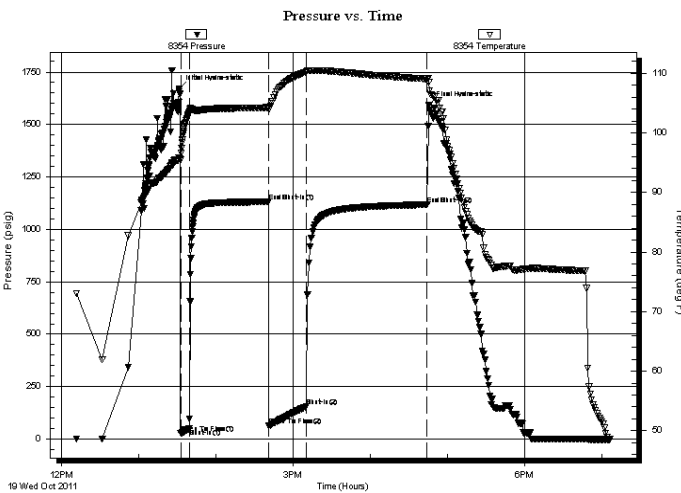
End Time:

19:06:00

Time On Btm: 2011.10.19 @ 13:31:10

Time Off Btm: 2011.10.19 @ 16:45:30

TEST COMMENT: IF-Strong building blow . Built to 9 inches.
IS-No Return.
FF-Strong building blow . BOB in 9 minutes.
FS-No Return. Times-5-60-30-90



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1669.99	95.76	Initial Hydro-static
2	29.24	95.41	Open To Flow (1)
8	50.83	103.47	Shut-In(1)
70	1130.74	104.24	End Shut-In(1)
70	64.79	103.94	Open To Flow (2)
99	155.27	110.21	Shut-In(2)
193	1118.04	109.09	End Shut-In(2)
195	1593.71	108.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	20%Oil/70%Water/10%Mud	0.84
120.00	10%Gas/50%Oil/30%Water/10%Mud	1.68
130.00	10%Gas/50%Oil/10%Water/30%Mud	1.82
20.00	40%Gas/60%Oil	0.28

Gas Rates

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



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TOOL DIAGRAM

Samuel Gary Jr. & Associates
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Heitschmidt #1-35
Job Ticket: 45263 **DST#: 1**
Test Start: 2011.10.19 @ 12:01:30

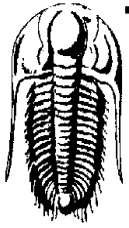
Tool Information

Drill Pipe:	Length: 3256.00 ft	Diameter: 3.80 inches	Volume: 45.67 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: 5000.00 lb
			<u>Total Volume: 45.67 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3278.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	19.00 ft			
Tool Length:	49.00 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			3249.00	
Recorder	0.00	8653	Fluid	3249.00	
Shut In Tool	5.00			3254.00	
Sampler	2.00			3256.00	
Hydraulic tool	5.00			3261.00	
Jars	5.00			3266.00	
Safety Joint	3.00			3269.00	
Packer	5.00			3274.00	30.00 Bottom Of Top Packer
Packer	4.00			3278.00	
Stubb	1.00			3279.00	
Perforations	1.00			3280.00	
Recorder	0.00	8354	Inside	3280.00	
Recorder	0.00	8520	Outside	3280.00	
Perforations	14.00			3294.00	
Bullnose	3.00			3297.00	19.00 Bottom Packers & Anchor

Total Tool Length: 49.00



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FLUID SUMMARY

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Denver, Co 80202
ATTN: Tom Fertal

35/17S/10W-Ellsworth
Heitschmidt #1-35
Job Ticket: 45263 **DST#: 1**
Test Start: 2011.10.19 @ 12:01:30

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 41 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 16000 ppm
Viscosity: 62.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.98 in ³	Gas Cushion Type:	
Resistivity: 0.59 ohm.m	Gas Cushion Pressure: psig	
Salinity: 4800.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	20%Oil/70%Water/10%Mud	0.842
120.00	10%Gas/50%Oil/30%Water/10%Mud	1.683
130.00	10%Gas/50%Oil/10%Water/30%Mud	1.824
20.00	40%Gas/60%Oil	0.281

Total Length: 330.00 ft Total Volume: 4.630 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: Sampler-525# of pressure. 2000 ML Total. 1600 ML Oil-200 ML Water- 200 ML Gas. .25 Cubic feet of gas. Oil Gravity- 41

Serial #: 8354

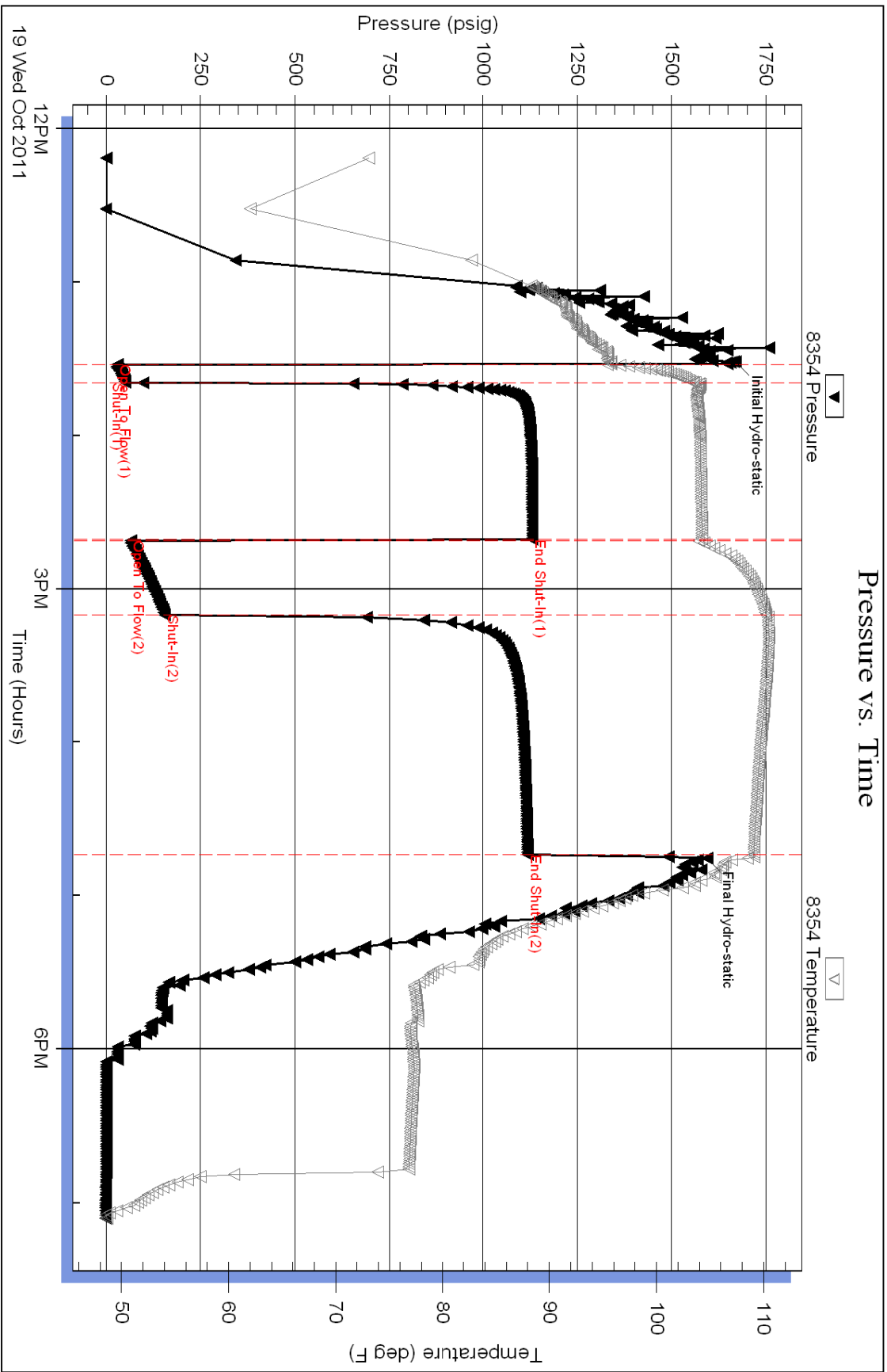
Inside

Samuel Gary Jr. & Associates

Heilschmidt #1-35

DST Test Number: 1

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 45263

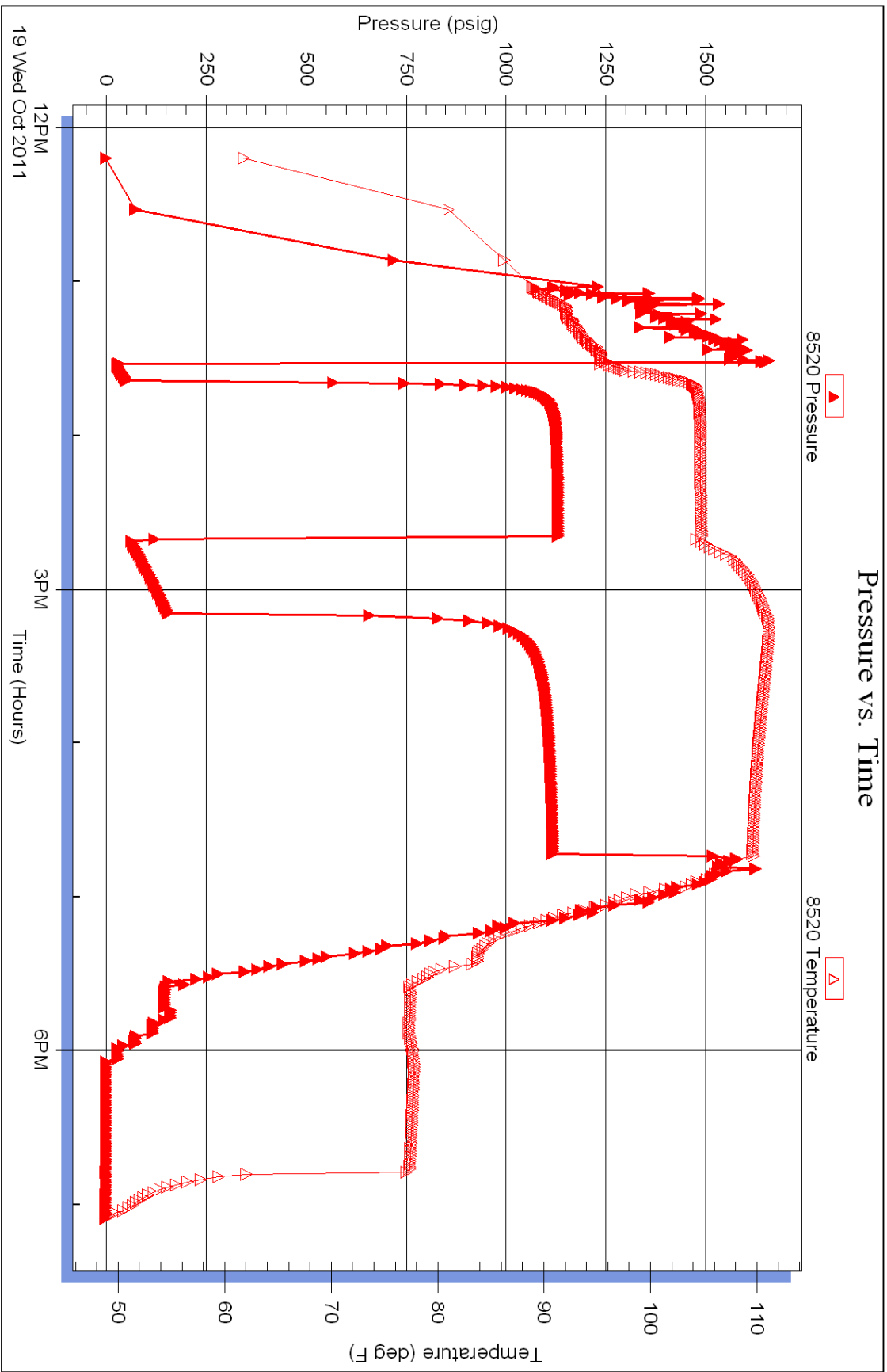
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Serial #: 8520

Outside Samuel Gary Jr. & Associates

Helischmidt #1-35

DST Test Number: 1

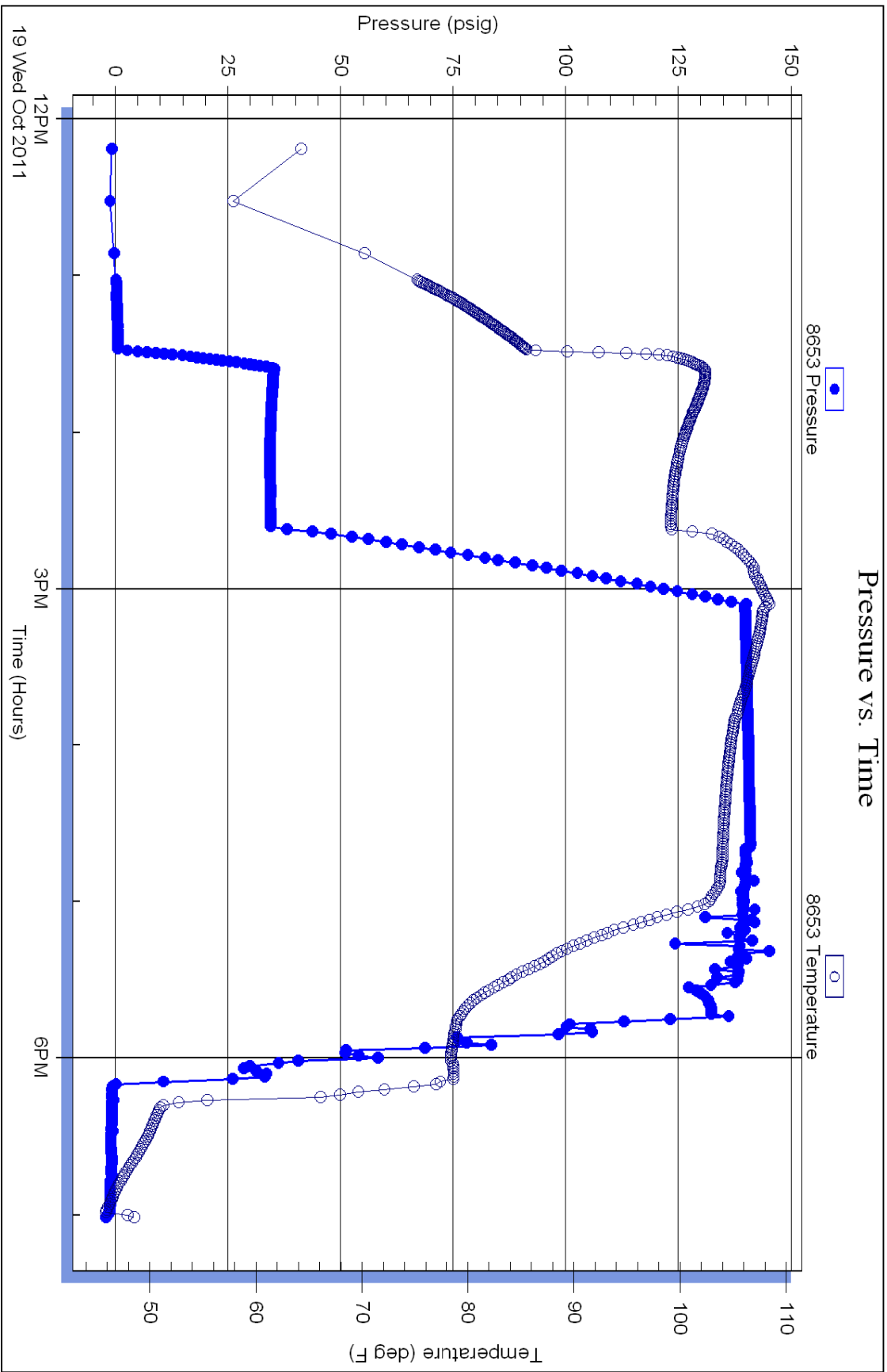


Serial #: 8653

Fluid Samuel Gary Jr. & Associates

Helischmidt #1-35

DST Test Number: 1

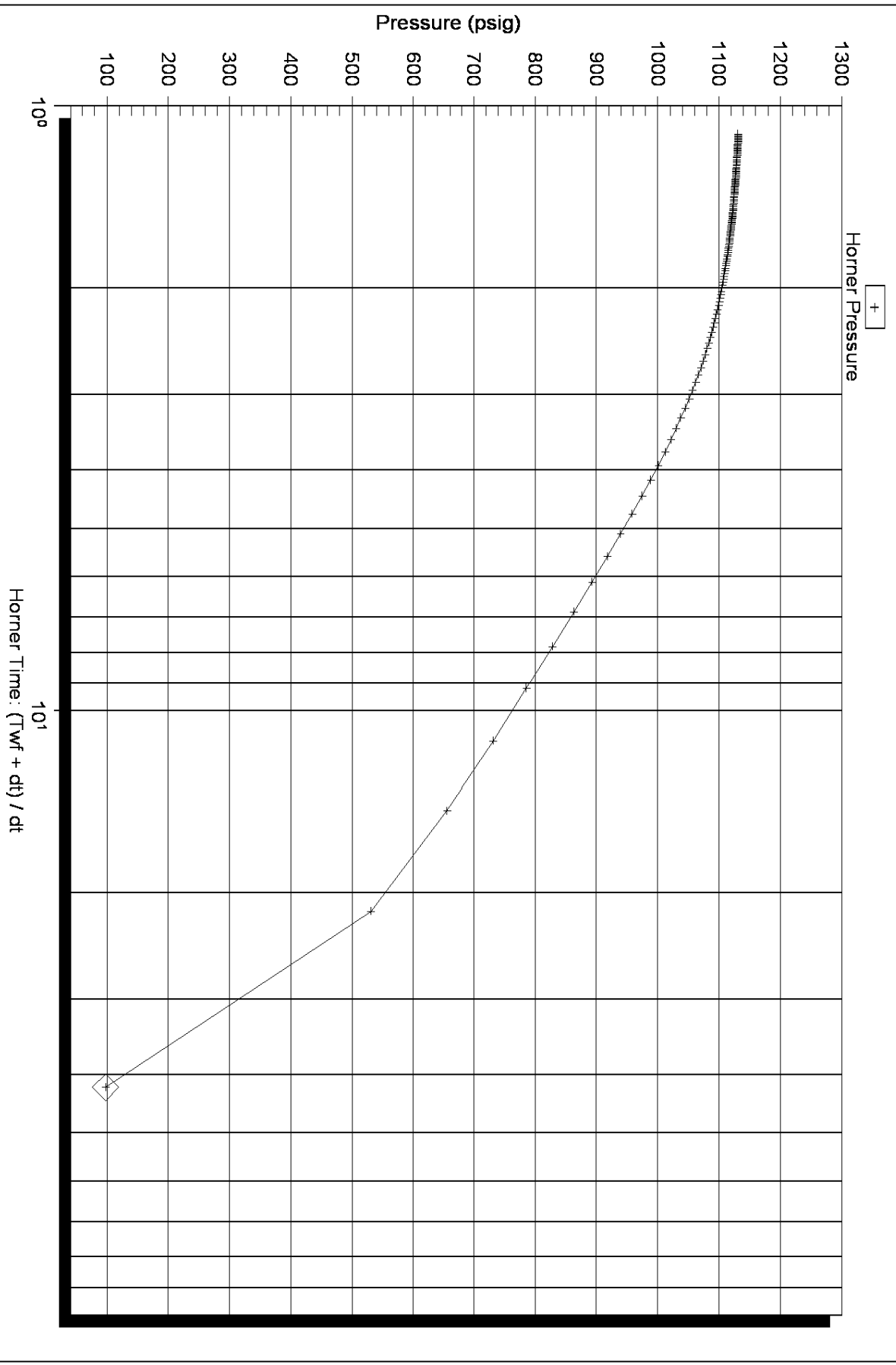


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Horner Plot



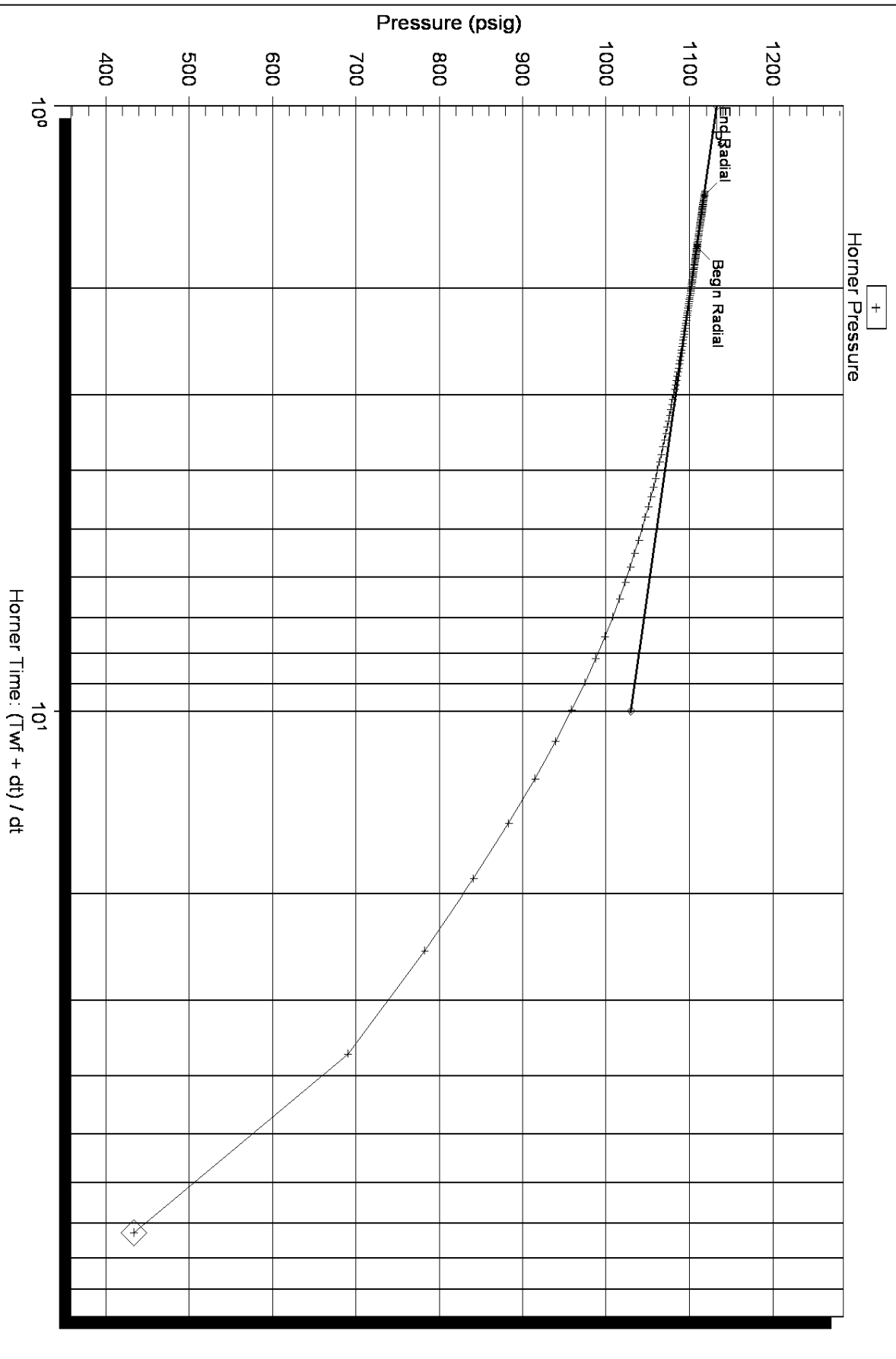
Serial Number: 8354 (Inside)

P* :

Slope (m) : kpa/log cycle

Flow Cycle: 1

Horner Plot



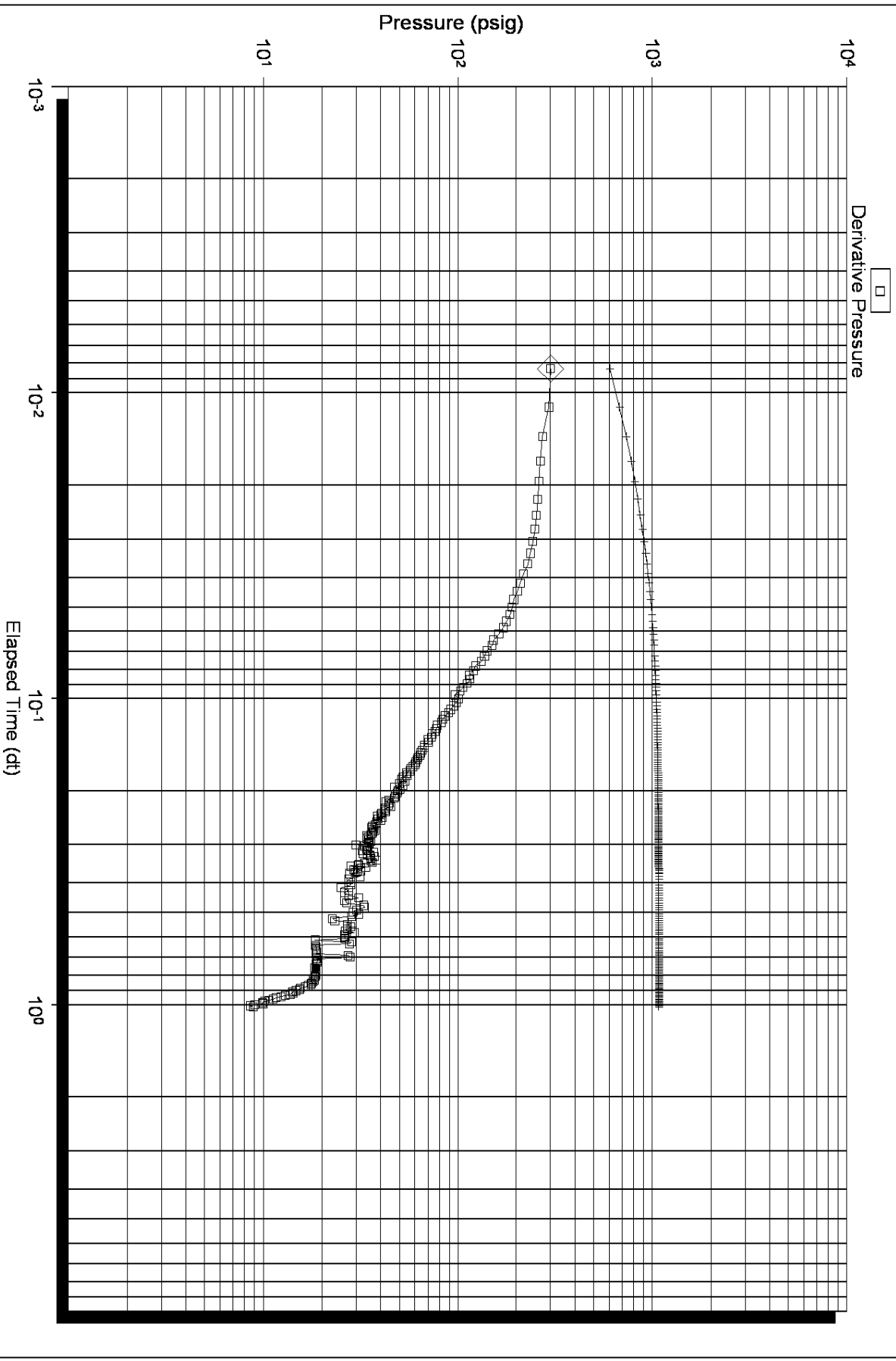
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P* : 1132.49

Slope (m) : 102.66 kpa/log cycle

Flow Cycle: 2

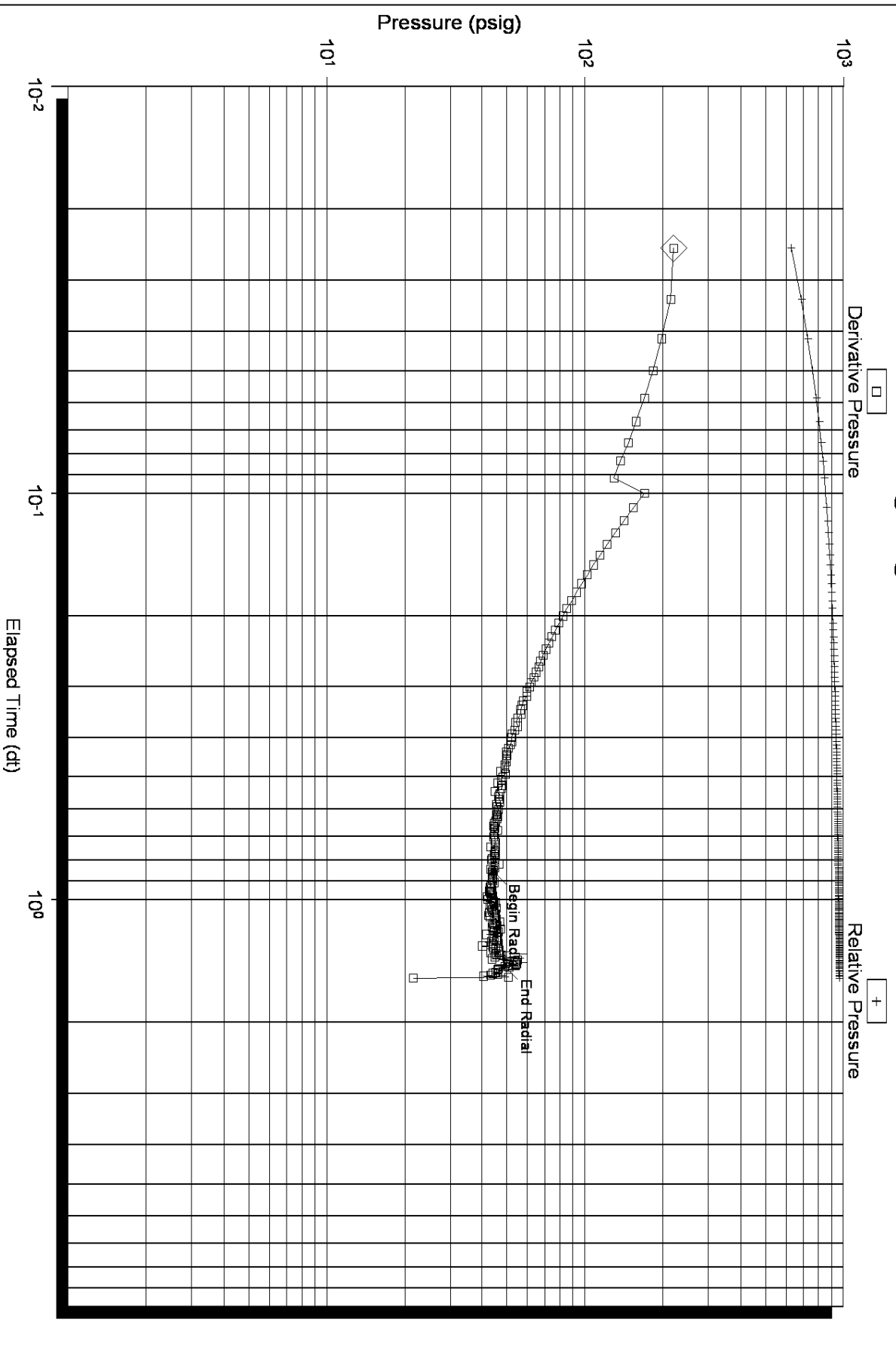
Log-Log and Pseudo-Derivative



Serial Number: 8354 (Inside)

Flow Cycle: 1

Log-Log and Pseudo-Derivative



Serial Number: 8354 (Inside)

Flow Cycle: 2