

DRILL STEM TEST REPORT

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

1515 Wynkoop, Ste 700
Denver Co 80202

ATTN: Clayton Camozzi

23-17s-12w Barton KS

Schiller #1-23

Start Date: 2010.07.30 @ 09:06:08

End Date: 2010.07.30 @ 17:19:02

Job Ticket #: 39530 DST #: 4

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

Samuel Gary Jr. & Assoc Inc

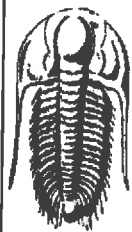
Schiller #1-23

23-17s-12w Barton KS

DST # 4

Arbuckle

2010.07.30



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

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Schiller #1-23

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Denver Co 80202

23-17s-12w Barton KS

Job Ticket: 39530

DST#: 4

ATTN: Clayton Carozzi

Test Start: 2010.07.30 @ 09:06:08

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:23:33

Time Test Ended: 17:19:02

Test Type: Conventional Straddle

Tester: Brian Fairbank

Unit No: 41

Interval: **3350.00 ft (KB) To 3360.00 ft (KB) (TVD)**

Total Depth: 3468.00 ft (KB) (TVD)

Hole Diameter: 7.85 inches Hole Condition: Fair

Reference Elevations: 1874.00 ft (KB)

1866.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: **8647**

Inside

Press@RunDepth: 95.40 psig @ 3351.00 ft (KB)

Start Date: 2010.07.30

End Date:

2010.07.30

Start Time: 09:06:08

End Time:

17:19:02

Capacity: 8000.00 psig

Last Calib.: 2010.07.30

Time On Btm: 2010.07.30 @ 10:22:33

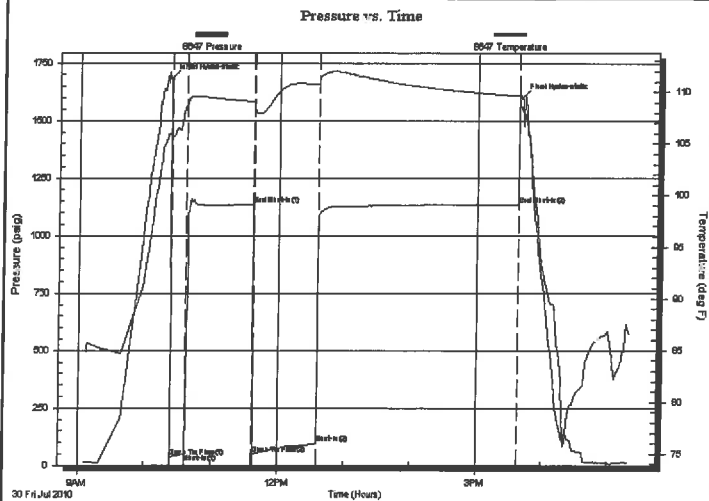
Time Off Btm: 2010.07.30 @ 15:40:02

TEST COMMENT: IFP - weak to fair blow 1/2" - 4 1/2"

ISI - no blow back

FFP - BOB 33 min.

FSI -



PRESSURE SUMMARY

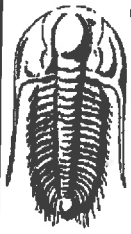
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1684.61	105.93	Initial Hydro-static
1	37.07	105.64	Open To Flow (1)
14	50.92	108.69	Shut-In(1)
74	1134.02	109.08	End Shut-In(1)
75	49.47	108.39	Open To Flow (2)
133	95.40	110.83	Shut-In(2)
315	1134.81	109.60	End Shut-In(2)
318	1600.15	108.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	GMCO 10%G, 70%O, 20%M	0.28
200.00	FREE OIL 95%O, 5%M	2.81
0.00	55' GIP	0.00

Gas Rates

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



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Job Ticket: 39530

DST#: 4

ATTN: Clayton Camozzi

Test Start: 2010.07.30 @ 09:06:08

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 10:23:33

Time Test Ended: 17:19:02

Test Type: Conventional Straddle

Tester: Brian Fairbank

Unit No: 41

Interval: **3350.00 ft (KB) To 3360.00 ft (KB) (TVD)**

Total Depth: **3468.00 ft (KB) (TVD)**

Hole Diameter: **7.85 inches** Hole Condition: **Fair**

Reference Elevations: **1874.00 ft (KB)**

1866.00 ft (CF)

KB to GR/CF: **8.00 ft**

Serial #: 8372 Below (Straddle)

Press@RunDepth: **psig @ 3377.00 ft (KB)**

Start Date: **2010.07.30**

End Date:

2010.07.30

Capacity:

8000.00 psig

Start Time:

09:06:33

End Time:

17:20:57

Last Calib.:

2010.07.30

Time On Btm:

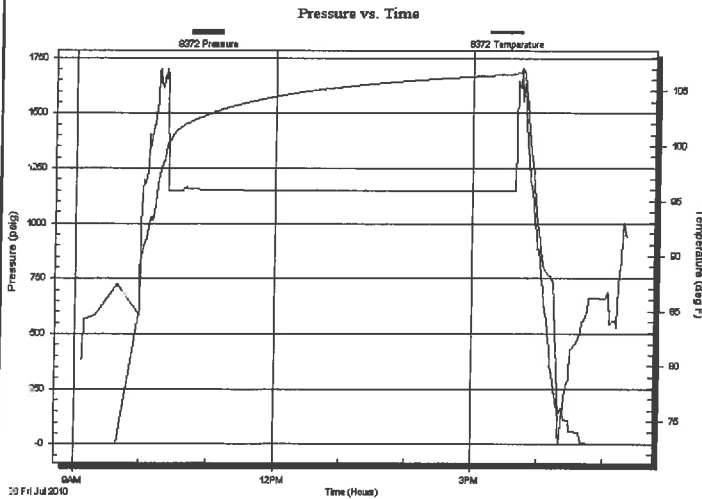
Time Off Btm:

TEST COMMENT: IFP - weak to fair blow 1/2" - 4 1/2"

ISI - no blow back

FFP - BOB 33 min.

FSI -



PRESSURE SUMMARY

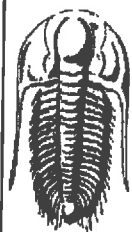
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
20.00	GMCO 10%G, 70%O, 20%M	0.28
200.00	FREE OIL 95%O, 5%M	2.81
0.00	55' GIP	0.00

Gas Rates

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



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1515 Wynkoop, Ste 700
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Job Ticket: 39530

DST#: 4

ATTN: Clayton Carozzi

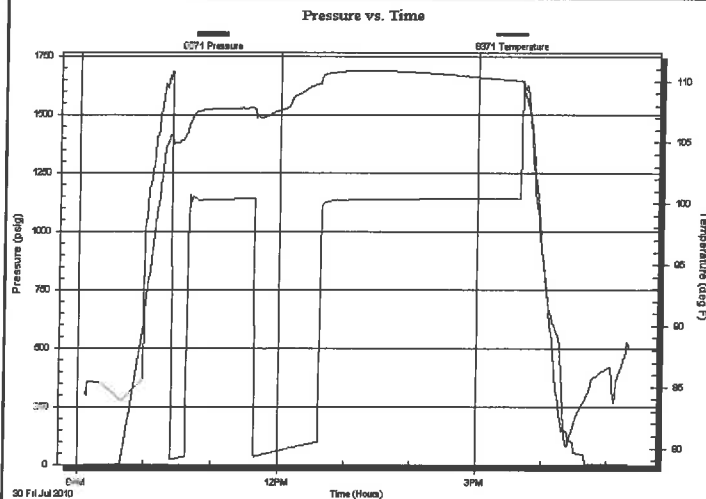
Test Start: 2010.07.30 @ 09:06:08

GENERAL INFORMATION:

Formation: Arbuckle
Deviated: No **Whipstock:** ft (KB)
Time Tool Opened: 10:23:33
Time Test Ended: 17:19:02
Interval: 3350.00 ft (KB) To 3360.00 ft (KB) (TVD)
Total Depth: 3468.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches **Hole Condition:** Fair
Test Type: Conventional Straddle
Tester: Brian Fairbank
Unit No: 41
Reference Elevations: 1874.00 ft (KB)
 1866.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8371 **Outside**
Press@RunDepth: psig @ 3351.00 ft (KB) **Capacity:** 8000.00 psig
Start Date: 2010.07.30 **End Date:** 2010.07.30 **Last Calib.:** 2010.07.30
Start Time: 09:06:43 **End Time:** 17:21:07 **Time On Btm:**
Time Off Btm:

TEST COMMENT: IFP - weak to fair blow 1/2" - 4 1/2"
 ISI - no blow back
 FFP - BOB 33 min.
 FSI -



PRESSURE SUMMARY

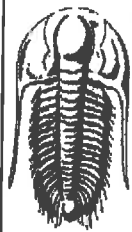
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
20.00	GMCO 10%G, 70%O, 20%M	0.28
200.00	FREE OIL 95%O, 5%M	2.81
0.00	55' GIP	0.00

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr. & Assoc Inc

Schiller #1-23

1515 Wynkoop, Ste 700
Denver Co 80202

23-17s-12w Barton KS

Job Ticket: 39530

DST#: 4

ATTN: Clayton Carozzi

Test Start: 2010.07.30 @ 09:06:08

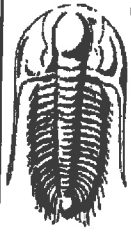
Tool Information

Drill Pipe:	Length: 3346.00 ft	Diameter: 3.80 inches	Volume: 46.94 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
		<u>Total Volume:</u>	46.94 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	3350.00 ft			Final 34000.00 lb
Depth to Bottom Packer:	3360.00 ft			
Interval between Packers:	10.00 ft			
Tool Length:	152.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3328.00	
Hydraulic tool	5.00			3333.00	
Jars	5.00			3338.00	
Safety Joint	2.00			3340.00	
Packer	5.00			3345.00	27.00 Bottom Of Top Packer
Packer	5.00			3350.00	
Stubb	1.00			3351.00	
Recorder	0.00	8647	Inside	3351.00	
Recorder	0.00	8371	Outside	3351.00	
Perforations	4.00			3355.00	
Blank Off Sub	1.00			3356.00	
Blank Spacing	4.00			3360.00	10.00 Tool Interval
Packer	5.00			3365.00	
Stubb	1.00			3366.00	
Perforations	11.00			3377.00	
Recorder	0.00	8372	Below	3377.00	
Bullnose	3.00			3380.00	
Blank Spacing	95.00			3475.00	115.00 Bottom Packers & Anchor

Total Tool Length: 152.00



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FLUID SUMMARY

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23-17s-12w Barton KS

Job Ticket: 39530

DST#: 4

ATTN: Clayton Camozzi

Test Start: 2010.07.30 @ 09:06:08

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbl

Water Loss: 12.77 in²

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	GMCO 10%G, 70%O, 20%M	0.281
200.00	FREE OIL 95%O, 5%M	2.805
0.00	55' GIP	0.000

Total Length: 220.00 ft Total Volume: 3.086 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

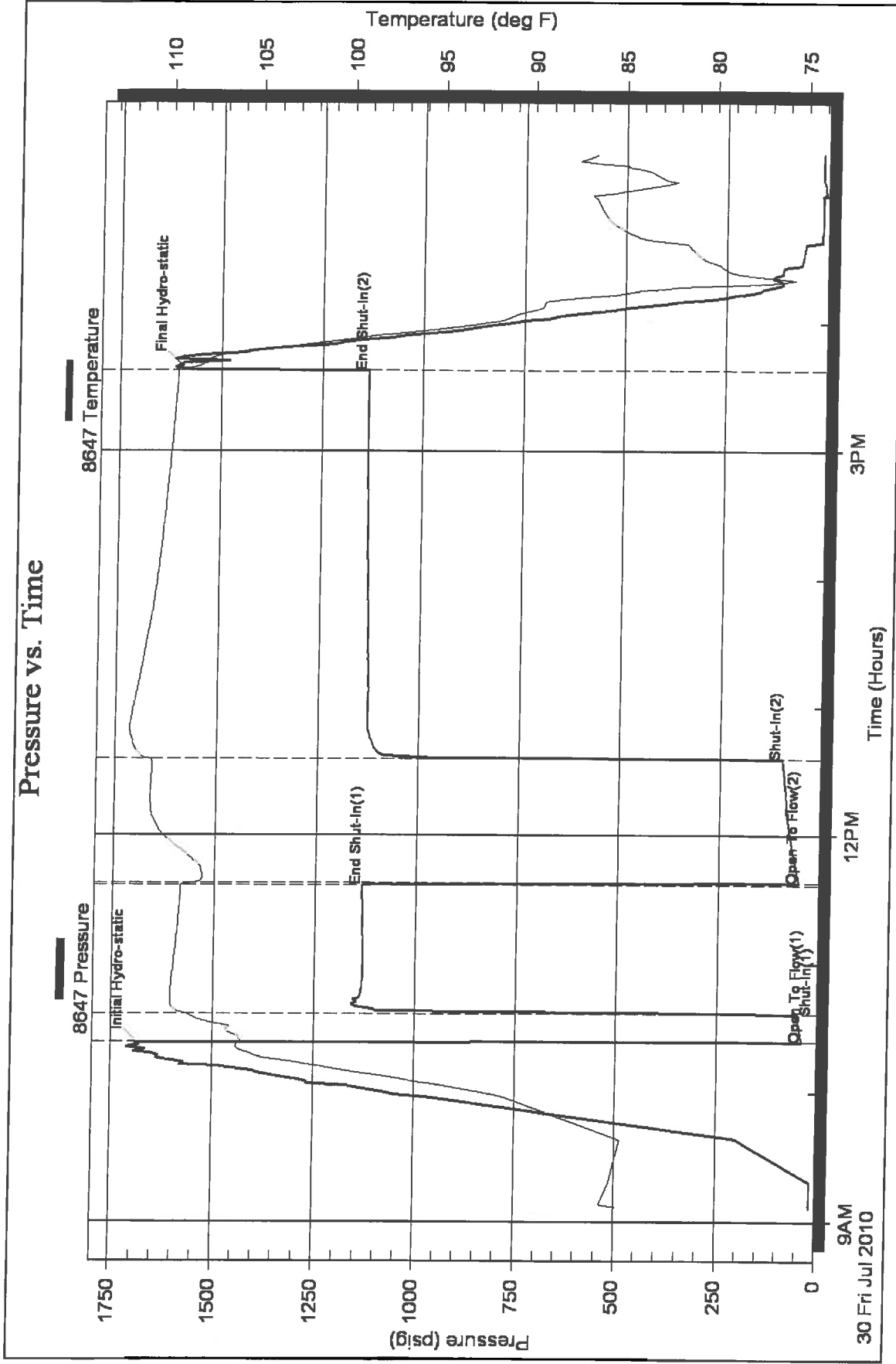
Serial #: 8647

Inside

Samuel Gary Jr. & Assoc Inc

23-17s-12w Barton KS

DST Test Number: 4

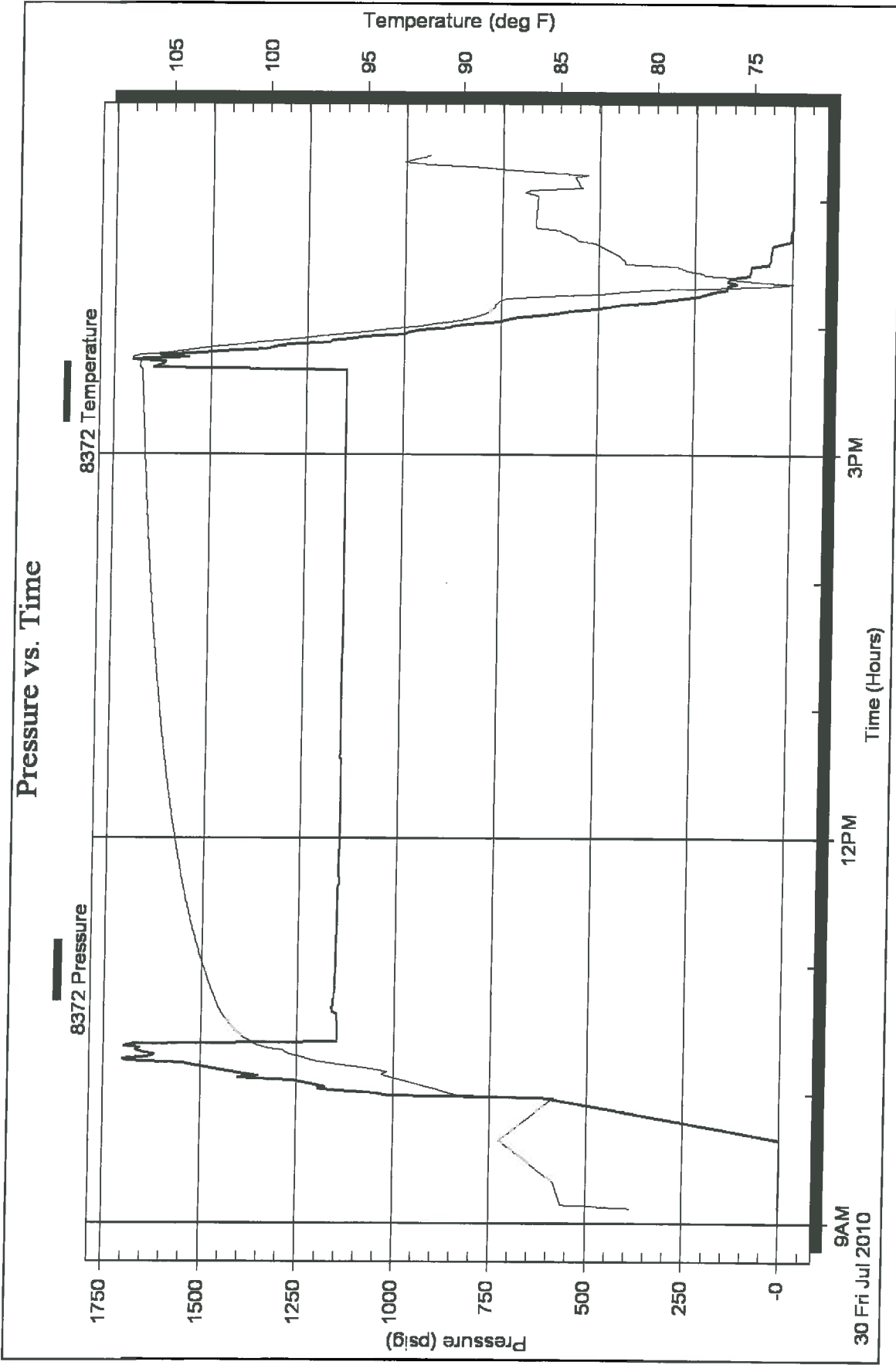


Serial #: 8372

Below (Stratistics) Gary Jr. & Assoc Inc

23-17s-12w Barton KS

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 39530

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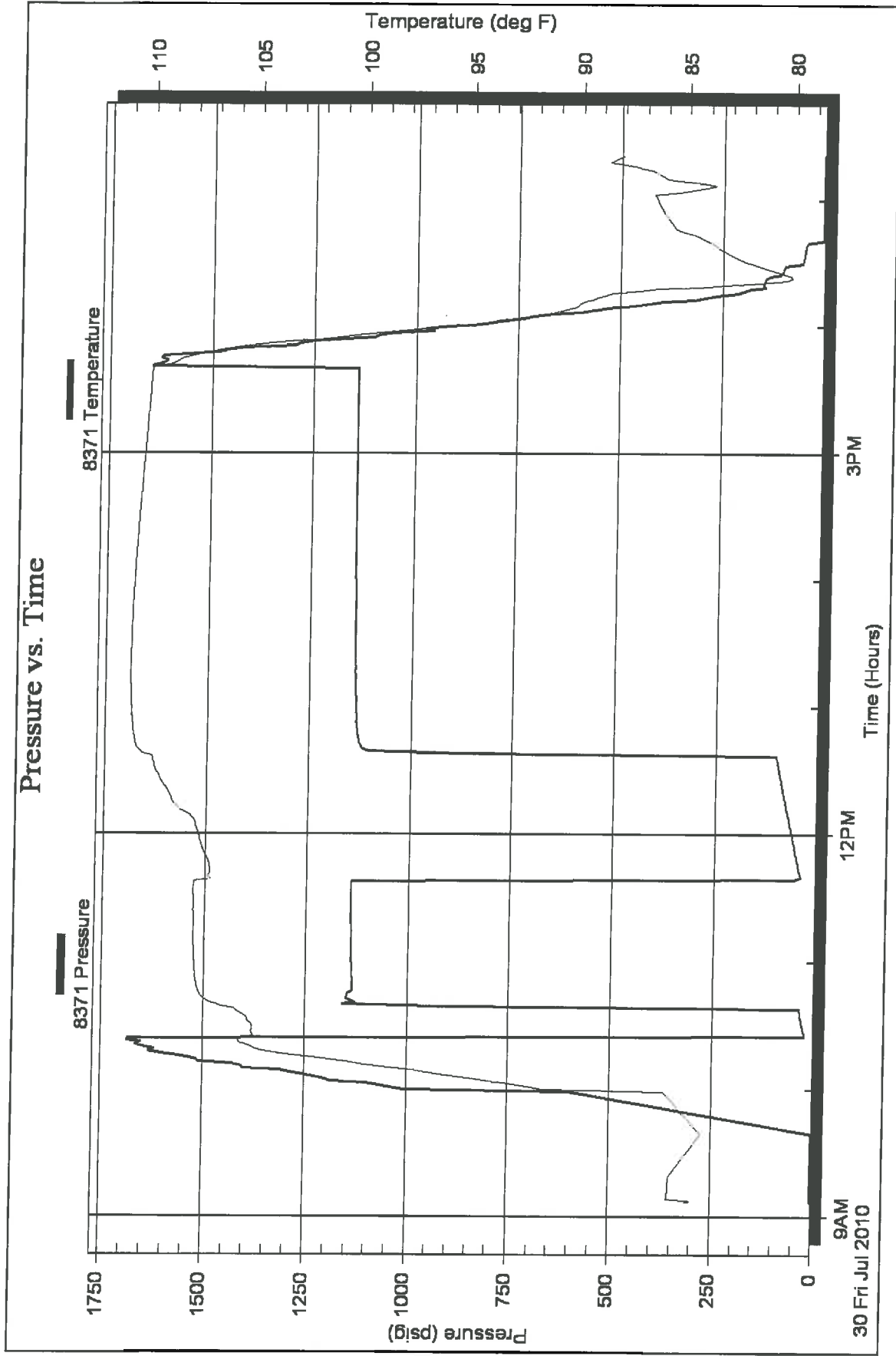
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Outside

Samuel Gary Jr. & Assoc Inc

23-17s-12w Barton KS

DST Test Number: 4

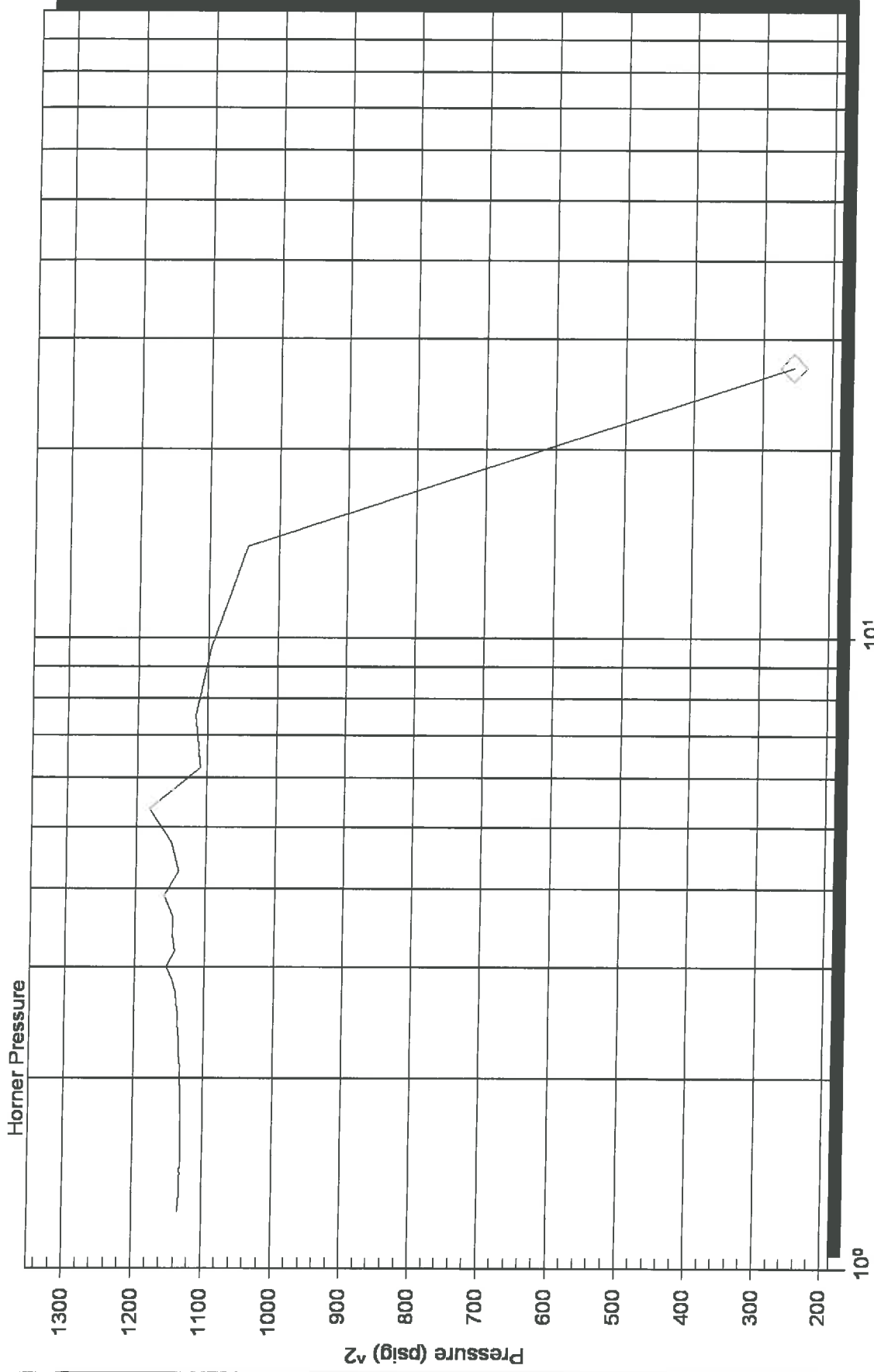


Trilobite Testing, Inc

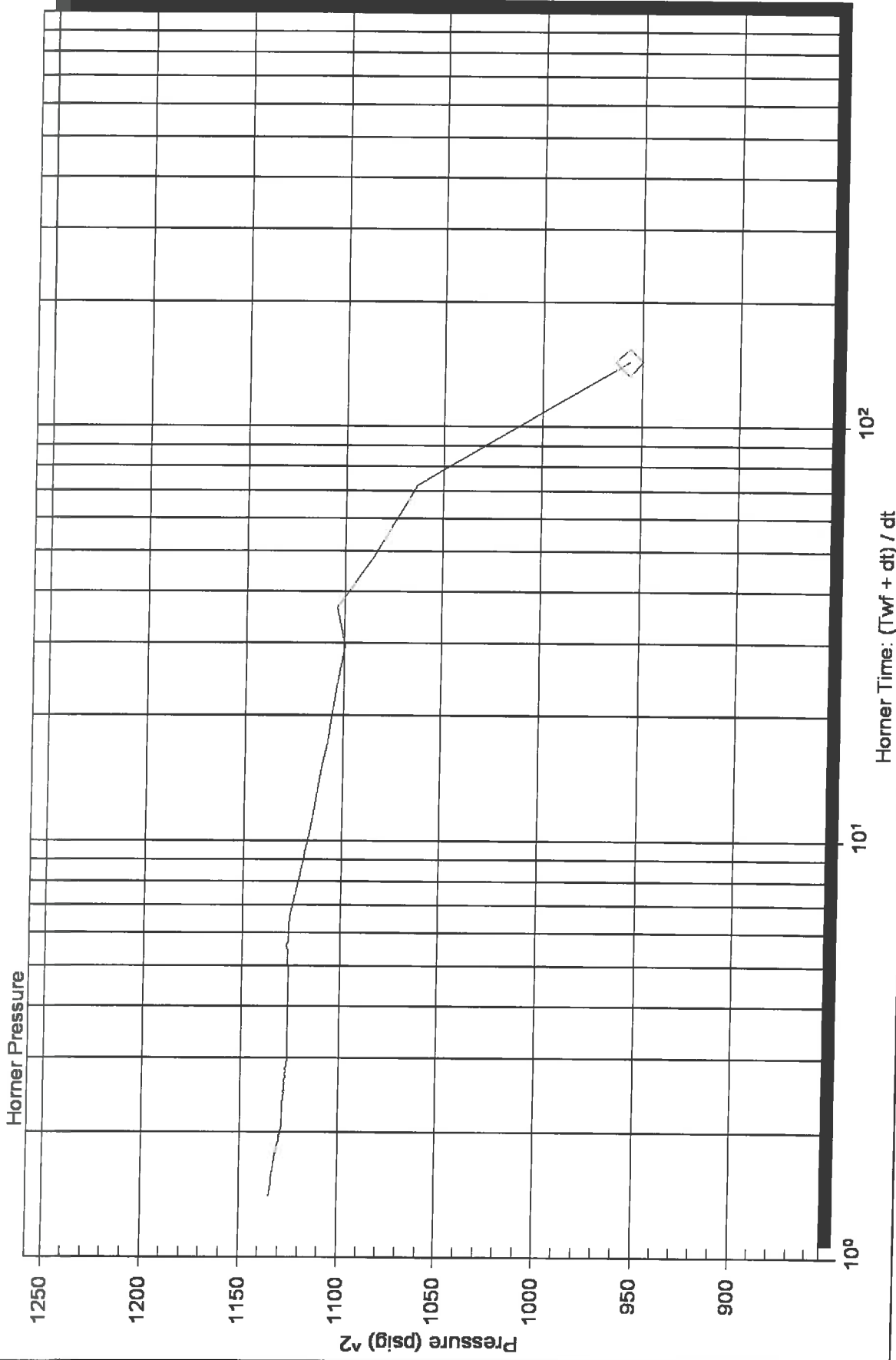
Ref. No: 39530

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Homer Plot



Horner Plot

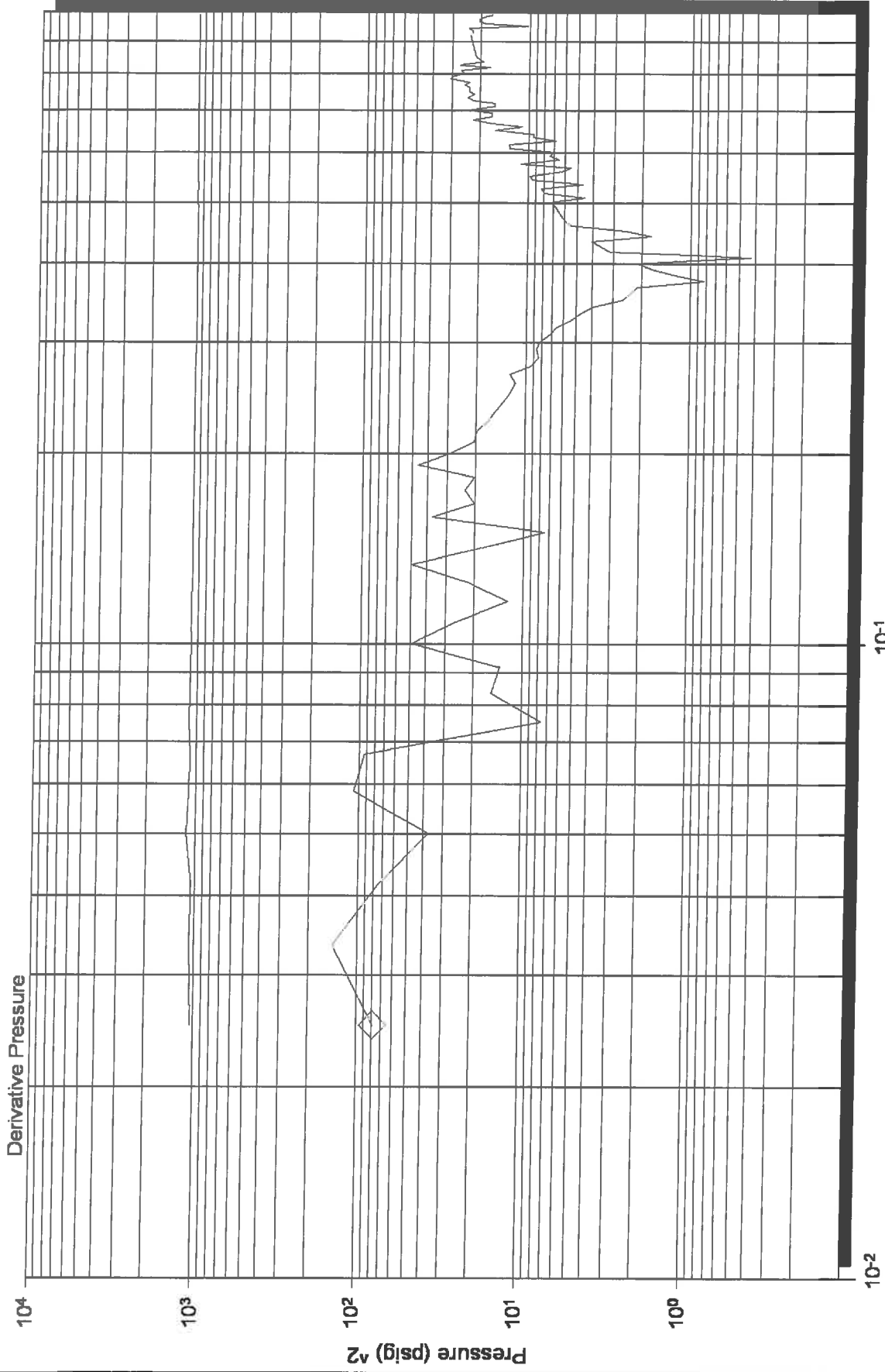


Serial Number: 8647 (Inside)

P* : Slope (m) : kpallog cycle

Flow Cycle: 2

Log-Log and Pseudo-Derivative



Log-Log and Pseudo-Derivative

