



DRILL STEM TEST REPORT

Prepared For: **Sam Gary Jr & Assoc inc**

1515 Wynkoop St
STE 700
Denver Co. 80202

ATTN: Chris Mitchell

Layher Trust 1-20

20- 15s-15w Russell

Start Date: 2012.07.16 @ 01:52:05

End Date: 2012.07.16 @ 08:57:39

Job Ticket #: 47895 DST #: 1

Trilobite Testing, Inc
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TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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20- 15s-15w Russell

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STE 700
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Job Ticket: 47895 **DST#: 1**
Test Start: 2012.07.16 @ 01:52:05

GENERAL INFORMATION:

Formation: **LKC**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:58:10
 Time Test Ended: 08:57:39
 Interval: **3085.00 ft (KB) To 3126.00 ft (KB) (TVD)**
 Total Depth: 3126.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Poor
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Andy Carreira
 Unit No: 39
 Reference Elevations: 1830.00 ft (KB)
 1822.00 ft (CF)
 KB to GR/CF: 8.00 ft

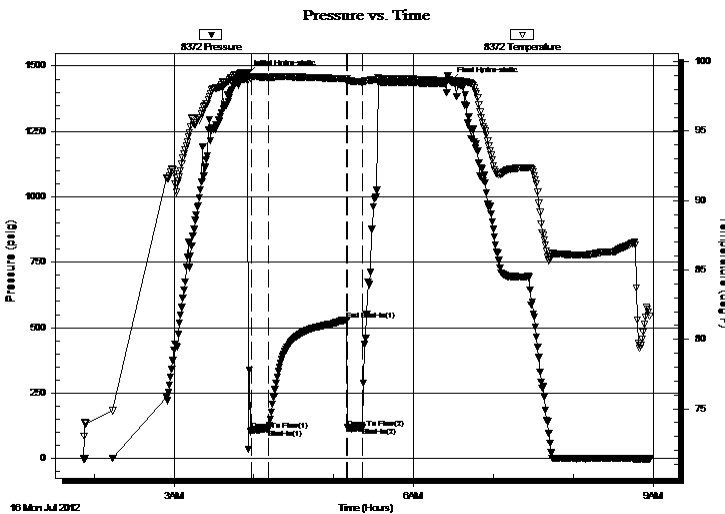
Serial #: 8372

Outside

Press @ Run Depth: 111.09 psig @ 3090.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.07.16 End Date: 2012.07.16 Last Calib.: 2012.07.16
 Start Time: 01:52:05 End Time: 08:57:40 Time On Btm: 2012.07.16 @ 03:55:20
 Time Off Btm: 2012.07.16 @ 06:27:50

TEST COMMENT: IF:(10min) Surface Blow
 IS:(60min) No Return
 FF:(10min) Surface Blow
 FS:(60min) No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1468.87	99.23	Initial Hydro-static
3	107.41	98.96	Open To Flow (1)
16	111.09	98.87	Shut-In(1)
75	529.48	98.76	End Shut-In(1)
75	117.12	98.52	Open To Flow (2)
87	117.29	98.54	Shut-In(2)
153	1441.54	98.65	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
185.00	Mud w / oil spks in tool	2.60

Gas Rates

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



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TOOL DIAGRAM

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Job Ticket: 47895

DST#: 1

Test Start: 2012.07.16 @ 01:52:05

Tool Information

Drill Pipe:	Length: 3069.00 ft	Diameter: 3.80 inches	Volume: 43.05 bbl	Tool Weight: 2500.00 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: 40000.00 lb
			<u>Total Volume: 43.05 bbl</u>	Tool Chased 10.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	3085.00 ft			Final 35000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	41.00 ft			
Tool Length:	77.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Tool slid 10ft to bottom. Charts showed no final shut in.

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3050.00	
Recorder	0.00	8647	Fluid	3050.00	
Blank Spacing	5.00			3055.00	
Shut In Tool	5.00			3060.00	
Sampler	3.00			3063.00	
Hydraulic tool	5.00			3068.00	
Jars	5.00			3073.00	
Safety Joint	3.00			3076.00	
Packer	5.00			3081.00	36.00 Bottom Of Top Packer
Packer	4.00			3085.00	
Stubb	1.00			3086.00	
Perforations	3.00			3089.00	
Change Over Sub	1.00			3090.00	
Recorder	0.00	8017	Inside	3090.00	
Recorder	0.00	8372	Outside	3090.00	
Drill Pipe	31.00			3121.00	
Change Over Sub	1.00			3122.00	
Perforations	1.00			3123.00	
Bullnose	3.00			3126.00	41.00 Bottom Packers & Anchor
Total Tool Length:	77.00				



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FLUID SUMMARY

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Job Ticket: 47895

DST#: 1

Test Start: 2012.07.16 @ 01:52:05

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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 cm³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
185.00	Mud w / oil spks in tool	2.595

Total Length: 185.00 ft Total Volume: 2.595 bbl

Num Fluid Samples: 0

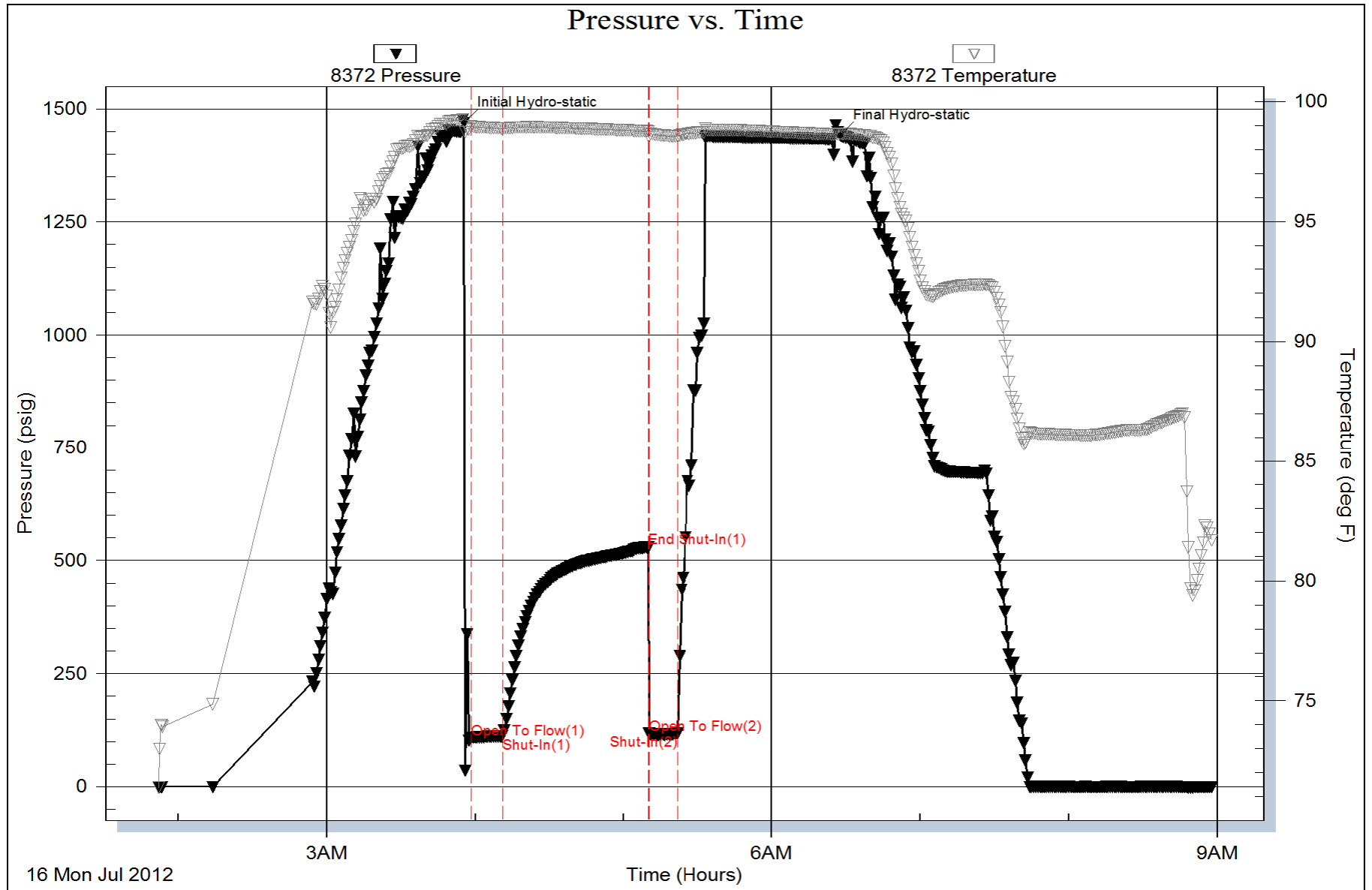
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data- oil=Trace mud=3000ml



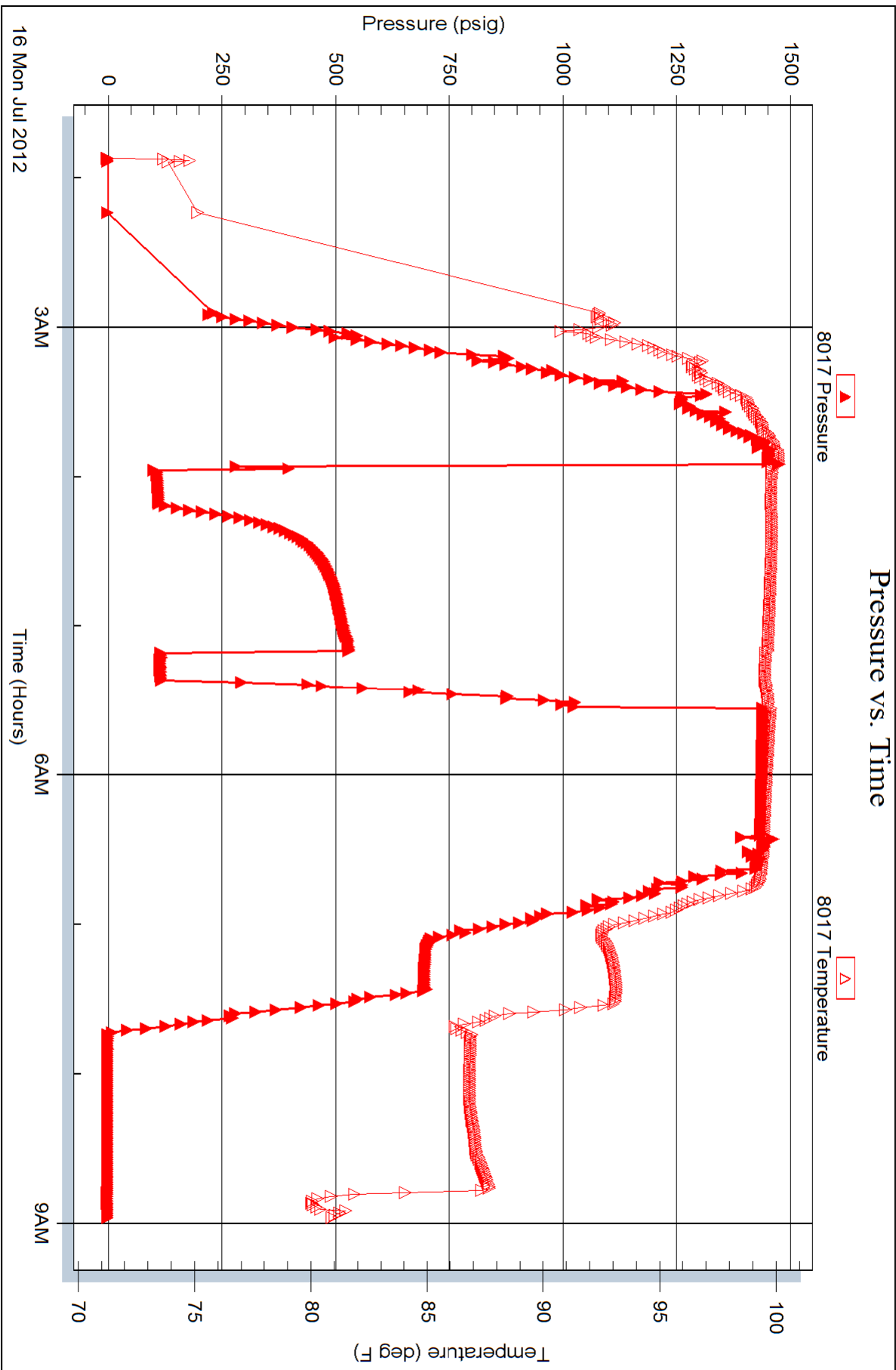
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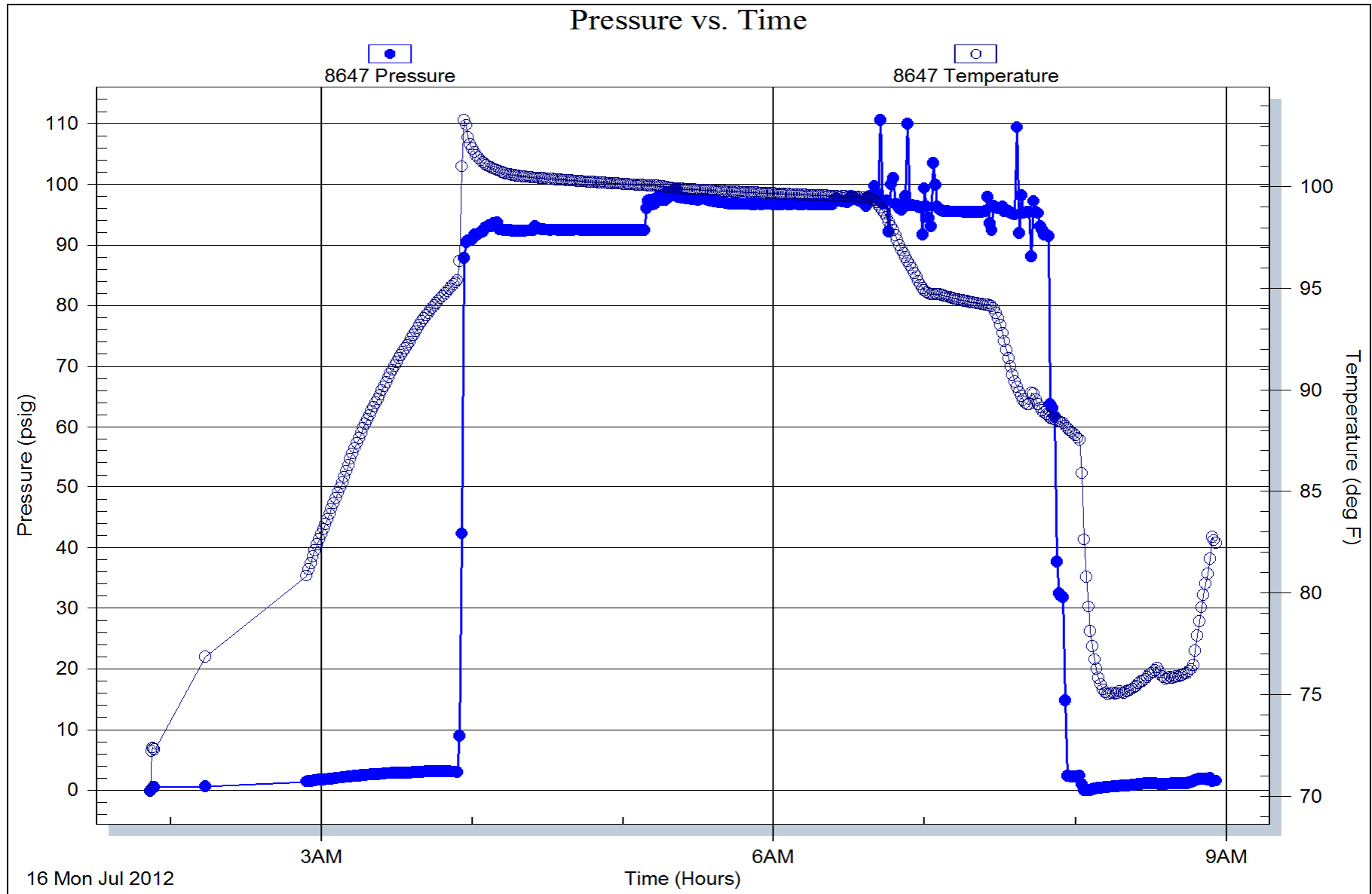
Inside

Sam Gary Jr & Assoc inc

Layher Trust 1-20

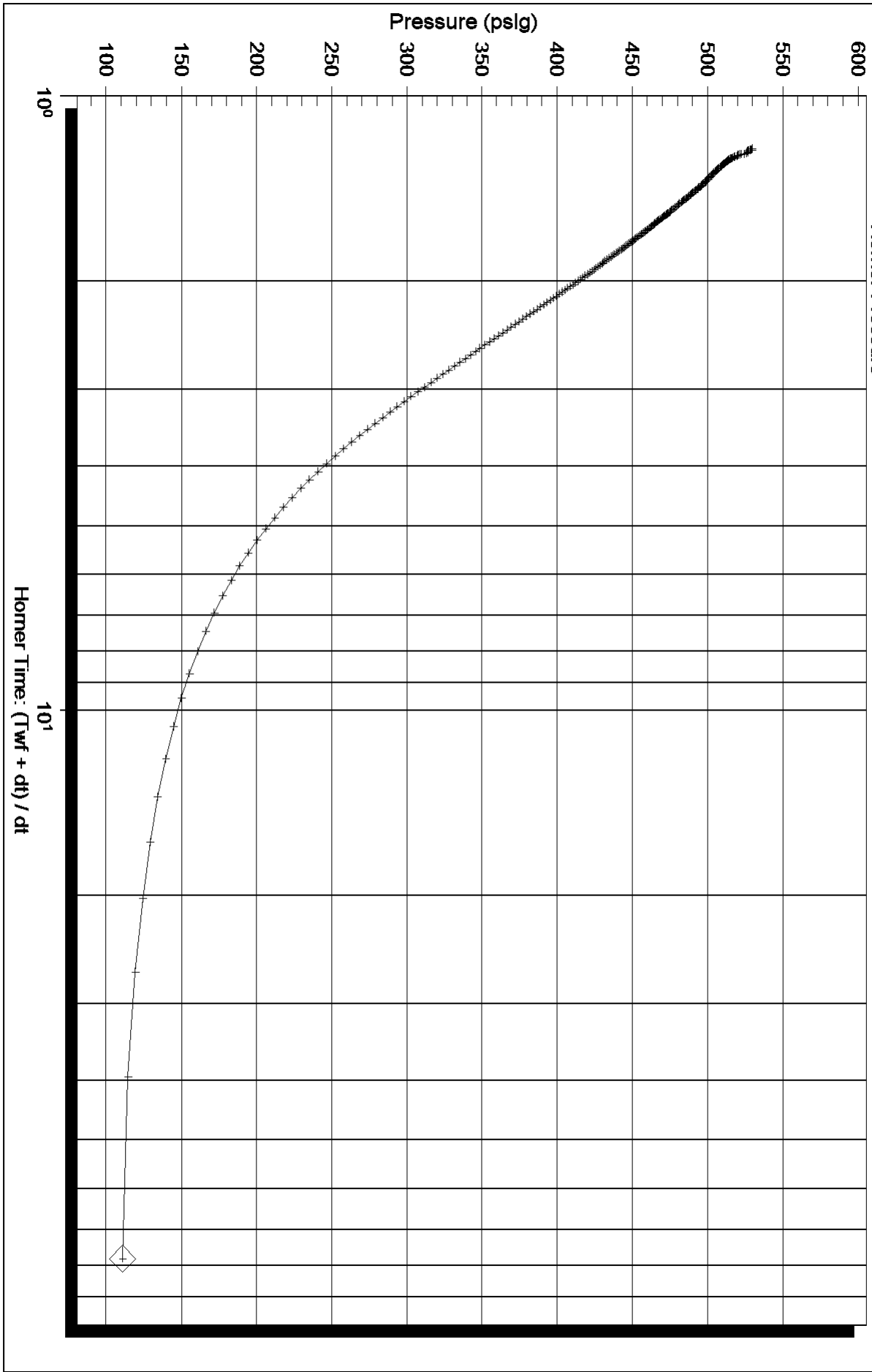
DST Test Number: 1





Horner Plot

Horner Pressure +



Serial Number: 8372 (Outside)

P* :

Slope (m) : kpa/log cycle

Flow Cycle: 1