



DRILL STEM TEST REPORT

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

1515 Wynkoop
Suite 700
Denver, CO. 80202

ATTN: Tom Fertal

34-14s-17w-Ellis

Herl #1-34

Start Date: 2011.08.28 @ 07:07:25

End Date: 2011.08.28 @ 15:03:40

Job Ticket #: 43570 DST #: 4

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

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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

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34-14s-17w-Ellis

Job Ticket: 43570

DST#: 4

Test Start: 2011.08.28 @ 07:07:25

GENERAL INFORMATION:

Formation: **I-J**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 08:58:40
 Tester: Jason McLemore
 Time Test Ended: 15:03:40
 Unit No: 54
 Interval: **3372.00 ft (KB) To 3410.00 ft (KB) (TVD)**
 Reference Elevations: 1959.00 ft (KB)
 Total Depth: 3410.00 ft (KB) (TVD)
 1951.00 ft (CF)
 Hole Diameter: 7.80 inches
 Hole Condition: Good
 KB to GR/CF: 8.00 ft

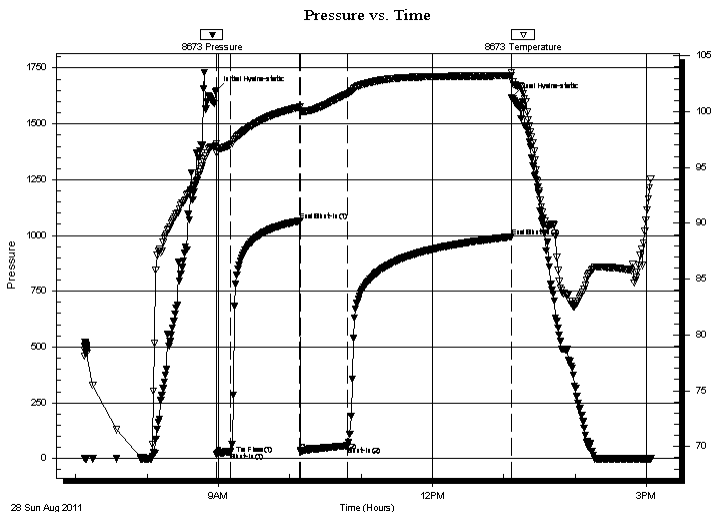
Serial #: 8673

Inside

Press @ Run Depth: 57.43 psig @ 3407.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.08.28 End Date: 2011.08.28 Last Calib.: 2011.08.28
 Start Time: 07:07:27 End Time: 15:03:40 Time On Btm: 2011.08.28 @ 08:58:10
 Time Off Btm: 2011.08.28 @ 13:06:25

TEST COMMENT: IFP-Fair,Built to 2-1/2"
 ISI-Dead
 FFP-Fair,Built to 3"
 FSI-Dead

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1648.30	97.11	Initial Hydro-static
1	19.08	96.31	Open To Flow (1)
12	30.08	97.05	Shut-In(1)
71	1065.34	100.41	End Shut-In(1)
71	34.37	100.05	Open To Flow (2)
111	57.43	101.61	Shut-In(2)
248	994.07	103.22	End Shut-In(2)
249	1618.81	103.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
69.00	Muddy Water-95%W-5%M	0.97
1.00	Free Oil	0.01

Gas Rates

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

* Recovery from multiple tests



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ATTN: Tom Fertal

34-14s-17w-Ellis

Job Ticket: 43570

DST#: 4

Test Start: 2011.08.28 @ 07:07:25

GENERAL INFORMATION:

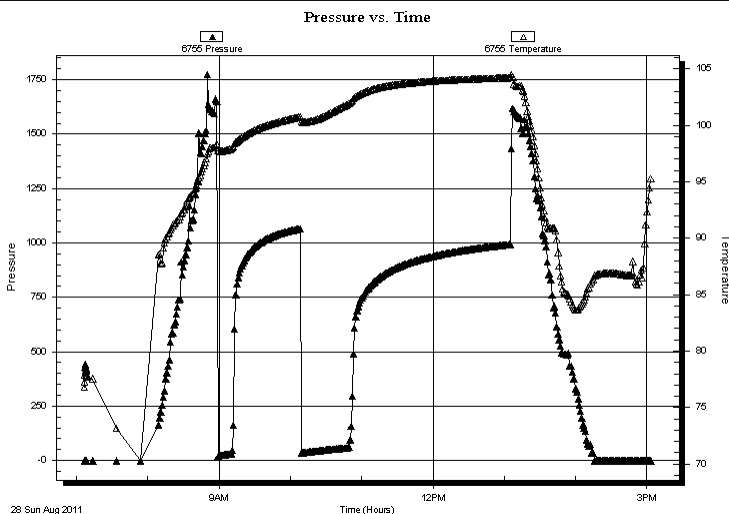
Formation: **I-J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:58:40
 Time Test Ended: 15:03:40
 Interval: **3372.00 ft (KB) To 3410.00 ft (KB) (TVD)**
 Total Depth: 3410.00 ft (KB) (TVD)
 Hole Diameter: 7.80 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jason McLemore
 Unit No: 54
 Reference Elevations: 1959.00 ft (KB)
 1951.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6755

Outside

Press @ Run Depth: psig @ 3407.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.08.28 End Date: 2011.08.28 Last Calib.: 2011.08.28
 Start Time: 07:06:56 End Time: 15:03:54 Time On Btm:
 Time Off Btm:

TEST COMMENT: IFP-Fair, Built to 2-1/2"
 ISI-Dead
 FFP-Fair, Built to 3"
 FSI-Dead



PRESSURE SUMMARY

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

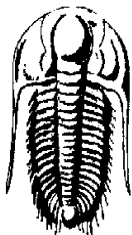
Recovery

Length (ft)	Description	Volume (bbl)
69.00	Muddy Water-95%W-5%M	0.97
1.00	Free Oil	0.01

Gas Rates

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

* Recovery from multiple tests



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34-14s-17w-Ellis

Job Ticket: 43570 **DST#: 4**
Test Start: 2011.08.28 @ 07:07:25

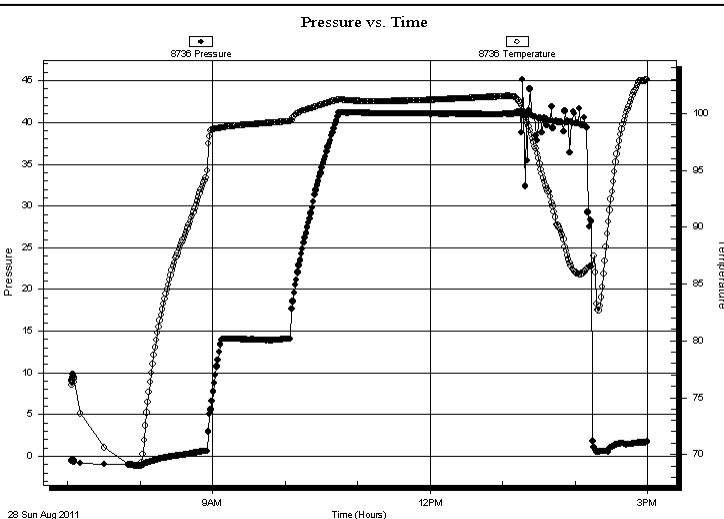
GENERAL INFORMATION:

Formation: **I-J**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 08:58:40 Tester: Jason McLemore
Time Test Ended: 15:03:40 Unit No: 54
Interval: 3372.00 ft (KB) To 3410.00 ft (KB) (TVD) Reference Elevations: 1959.00 ft (KB)
Total Depth: 3410.00 ft (KB) (TVD) 1951.00 ft (CF)
Hole Diameter: 7.80 inches Hole Condition: Good KB to GR/CF: 8.00 ft

Serial #: 8736 Fluid

Press @ Run Depth: psig @ 3338.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.08.28 End Date: 2011.08.28 Last Calib.: 2011.08.28
Start Time: 07:03:35 End Time: 14:59:33 Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-Fair, Built to 2-1/2"
ISI-Dead
FFP-Fair, Built to 3"
FSI-Dead



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
69.00	Muddy Water-95%W-5%M	0.97
1.00	Free Oil	0.01

Gas Rates

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

* Recovery from multiple tests



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DRILL STEM TEST REPORT

TOOL DIAGRAM

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ATTN: Tom Fertal

34-14s-17w-Ellis

Job Ticket: 43570

DST#: 4

Test Start: 2011.08.28 @ 07:07:25

Tool Information

Drill Pipe:	Length: 3344.00 ft	Diameter: 3.80 inches	Volume: 46.91 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 2500.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 46.91 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3372.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	73.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3338.00	
Recorder	0.00	8736	Fluid	3338.00	
Change Over Sub	4.00			3342.00	
Shut In Tool	5.00			3347.00	
Sampler	3.00			3350.00	
Hydraulic tool	5.00			3355.00	
Jars	5.00			3360.00	
Safety Joint	2.00			3362.00	
Packer	5.00			3367.00	35.00 Bottom Of Top Packer
Packer	5.00			3372.00	
Stubb	1.00			3373.00	
Perforations	1.00			3374.00	
Change Over Sub	1.00			3375.00	
Blank Spacing	31.00			3406.00	
Change Over Sub	1.00			3407.00	
Recorder	0.00	8673	Inside	3407.00	
Recorder	0.00	6755	Outside	3407.00	
Bullnose	3.00			3410.00	38.00 Bottom Packers & Anchor

Total Tool Length: 73.00



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FLUID SUMMARY

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Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 57.00 sec/qt

Water Loss: 6.39 cm³

Resistivity: ohm.m

Salinity: 3100.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API: deg API

Water Salinity: 50000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
69.00	Muddy Water-95%W-5%M	0.968
1.00	Free Oil	0.014

Total Length: 70.00 ft Total Volume: 0.982 bbl

Num Fluid Samples: 0

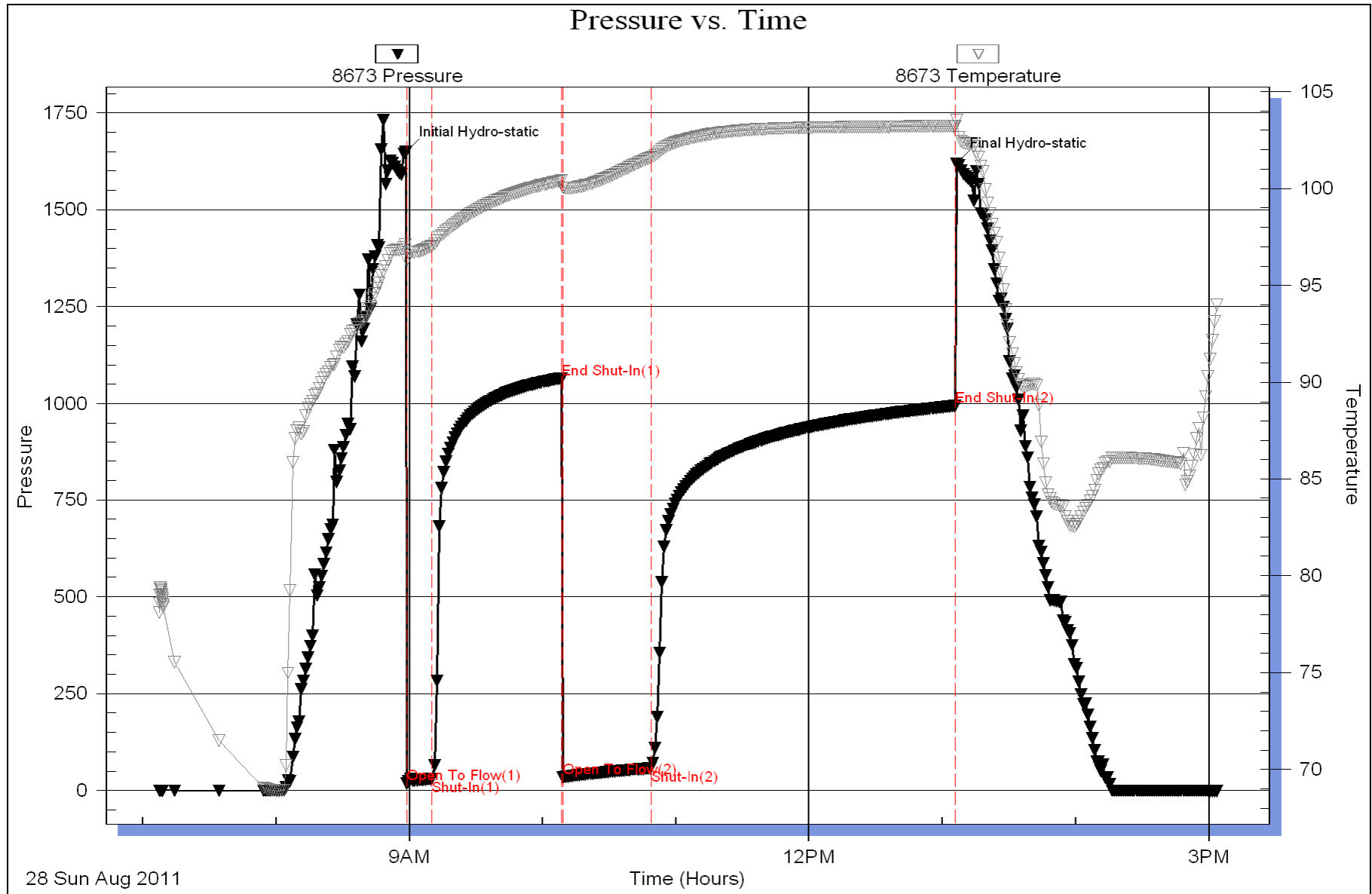
Num Gas Bombs: 0

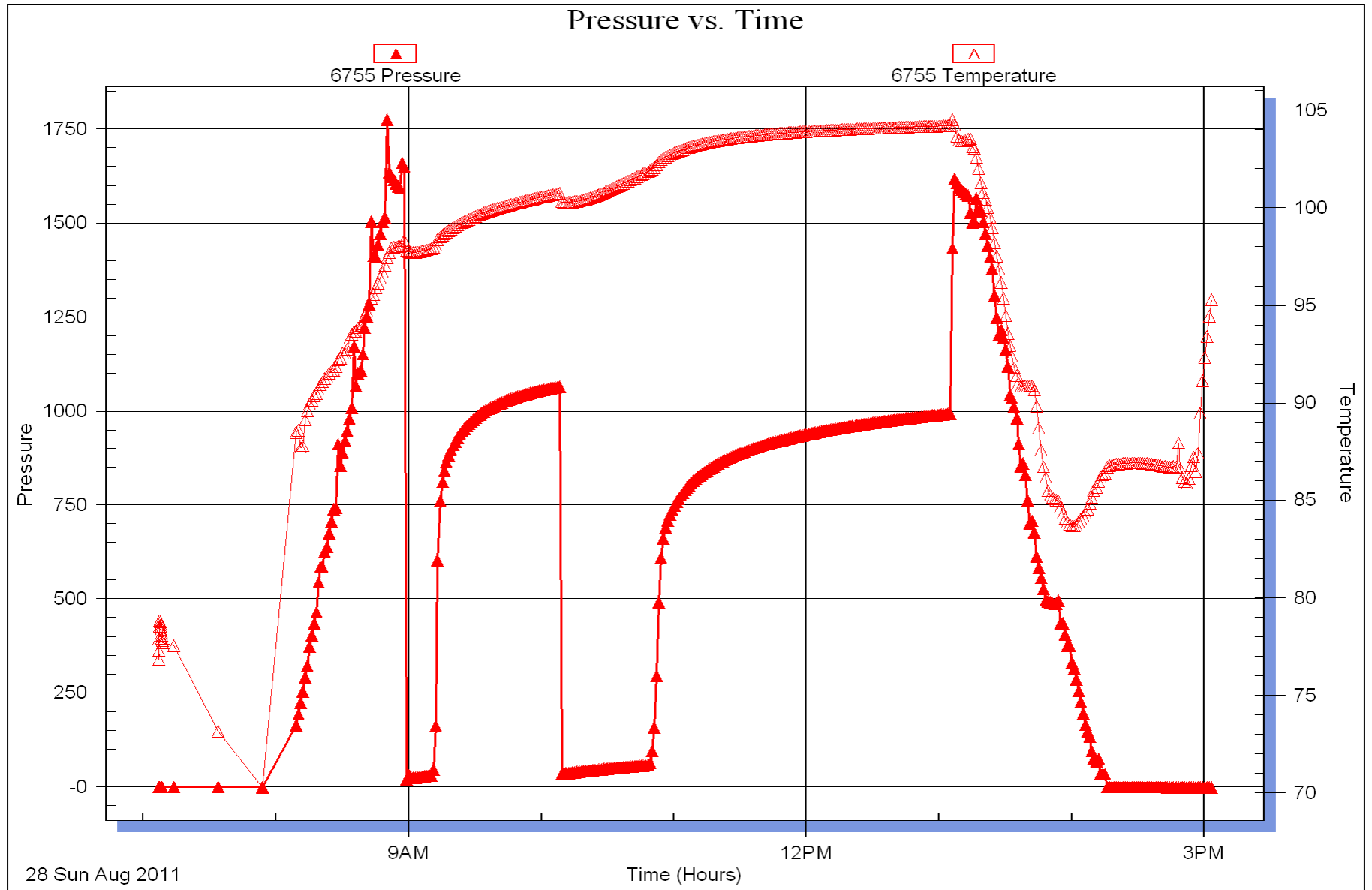
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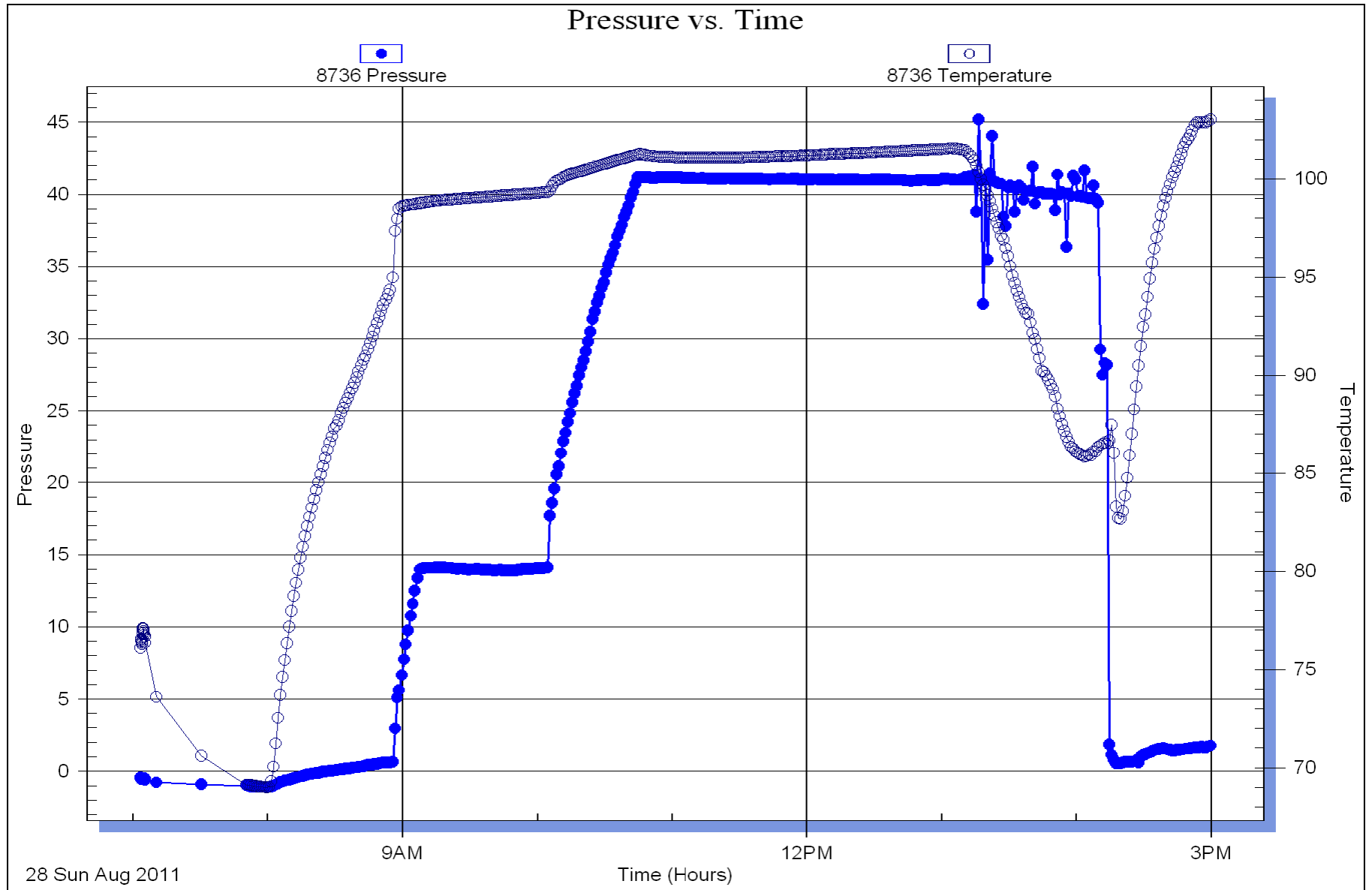
Laboratory Name:

Laboratory Location:

Recovery Comments:







Horner Plot



Horner Plot

