

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

Jacobs et al #1-1

1-16s-17w Rush,KS

Start Date: 2012.07.14 @ 16:52:00
End Date: 2012.07.15 @ 00:48:00
Job Ticket #: 49270 DST #: 2

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

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DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49270 **DST#: 2**

Test Start: 2012.07.14 @ 16:52:00

GENERAL INFORMATION:

Formation: **LKC " F-G "**
Deviated: No Whipstock: 1943.00 ft (KB)
Time Tool Opened: 18:17:30
Time Test Ended: 00:48:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 59

Interval: 3306.00 ft (KB) To 3356.00 ft (KB) (TVD)
Total Depth: 3356.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

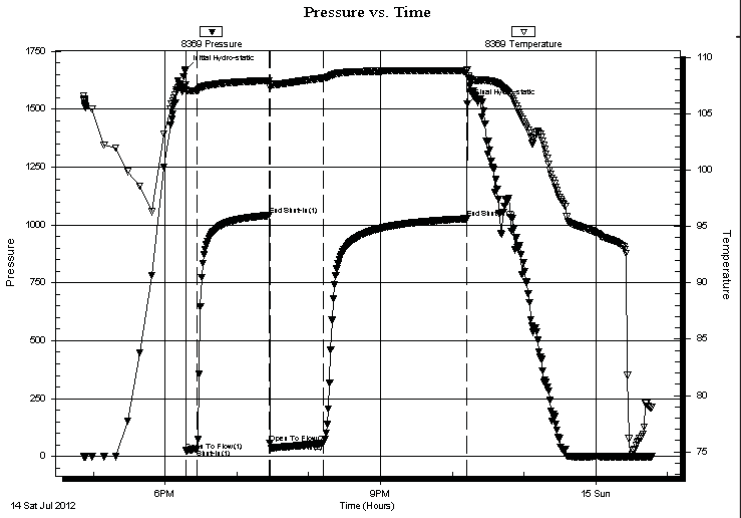
Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8369 **Inside**

Press@RunDepth: 58.06 psig @ 3317.00 ft (KB)
Start Date: 2012.07.14 End Date: 2012.07.15
Start Time: 16:52:05 End Time: 00:46:29

Capacity: 8000.00 psig
Last Calib.: 2012.07.15
Time On Btm: 2012.07.14 @ 18:17:00
Time Off Btm: 2012.07.14 @ 22:12:30

TEST COMMENT: 10-IFP- Surface Blow Building to 1 1/2"
60-ISIP- No Blow
45-FFP- Surface Blow in 5 min Building to 7"
120-FSIP Weak Surface Blow Died in 6 min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1671.06	107.56	Initial Hydro-static
1	24.91	107.11	Open To Flow (1)
10	31.58	107.03	Shut-In(1)
70	1040.90	107.94	End Shut-In(1)
71	58.54	107.33	Open To Flow (2)
116	58.06	108.16	Shut-In(2)
235	1026.98	108.77	End Shut-In(2)
236	1522.59	108.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	VSO&WCM 2%o 48%w 50%m	0.21
36.00	MCW 30%m 70%w	0.50

* Recovery from multiple tests

Gas Rates

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

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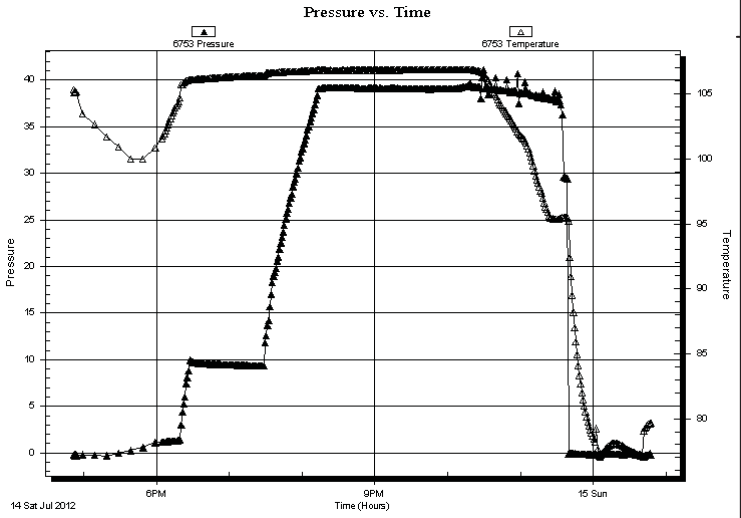
Interval: 3306.00 ft (KB) To 3356.00 ft (KB) (TVD)
Total Depth: 3356.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6753 **Fluid**
Press@RunDepth: psig @ 3272.00 ft (KB)
Start Date: 2012.07.14 End Date: 2012.07.15
Start Time: 16:52:05 End Time: 00:47:29

Capacity: 8000.00 psig
Last Calib.: 2012.07.15
Time On Btm:
Time Off Btm:

TEST COMMENT: 10-IFP- Surface Blow Building to 1 1/2"
60-ISIP- No Blow
45-FFP- Surface Blow in 5 min Building to 7"
120-FSIP Weak Surface Blow Died in 6 min



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	VSO&WCM 2%o 48%w 50%m	0.21
36.00	MCW 30%m 70%w	0.50

* Recovery from multiple tests

Gas Rates

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

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1515 Wynkoop Ste 700
Denver CO 80202

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1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49270 **DST#: 2**

Test Start: 2012.07.14 @ 16:52:00

GENERAL INFORMATION:

Formation: **LKC " F-G "**
Deviated: No Whipstock: 1943.00 ft (KB)
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Time Test Ended: 00:48:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 59

Interval: 3306.00 ft (KB) To 3356.00 ft (KB) (TVD)
Total Depth: 3356.00 ft (KB) (TVD)
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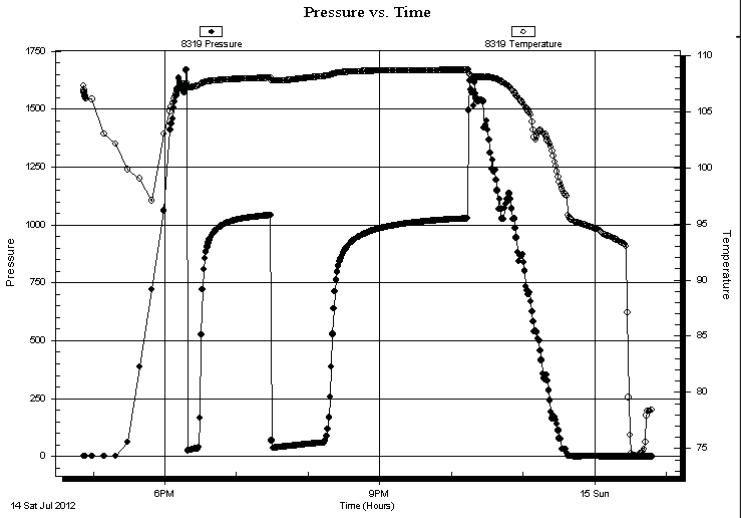
Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8319 **Outside**

Press@RunDepth: psig @ 3317.00 ft (KB)
Start Date: 2012.07.14 End Date: 2012.07.15
Start Time: 16:52:05 End Time: 00:47:59

Capacity: 8000.00 psig
Last Calib.: 2012.07.15
Time On Btm:
Time Off Btm:

TEST COMMENT: 10-IFP- Surface Blow Building to 1 1/2"
60-ISIP- No Blow
45-FFP- Surface Blow in 5 min Building to 7"
120-FSIP Weak Surface Blow Died in 6 min



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	VSO&WCM 2%o 48%w 50%m	0.21
36.00	MCW 30%m 70%w	0.50

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49270 **DST#: 2**

Test Start: 2012.07.14 @ 16:52:00

Tool Information

Drill Pipe:	Length:	3283.00 ft	Diameter:	3.80 inches	Volume:	46.05 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	
					Total Volume:	46.05 bbl	

Drill Pipe Above KB:	12.00 ft
Depth to Top Packer:	3306.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	50.00 ft
Tool Length:	85.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		54000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	52000.00 lb
	Final	52000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3272.00		
Recorder	0.00	6753	Fluid	3272.00		
Stubb	5.00			3277.00		
Shut In Tool	5.00			3282.00		
Sampler	2.00			3284.00		
Hydraulic tool	5.00			3289.00		
Jars	5.00			3294.00		
Safety Joint	2.00			3296.00		
Packer	5.00			3301.00	35.00	Bottom Of Top Packer
Packer	5.00			3306.00		
Stubb	1.00			3307.00		
Perforations	9.00			3316.00		
Change Over Sub	1.00			3317.00		
Recorder	0.00	8369	Inside	3317.00		
Recorder	0.00	8319	Outside	3317.00		
Blank Spacing	31.00			3348.00		
Change Over Sub	1.00			3349.00		
Perforations	4.00			3353.00		
Bullnose	3.00			3356.00	50.00	Bottom Packers & Anchor
Total Tool Length:	**85.00**					

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FLUID SUMMARY

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Jacobs et al #1-1

Job Ticket: 49270 **DST#: 2**

Test Start: 2012.07.14 @ 16:52:00

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:	95000 ppm
Viscosity:	67.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	11.15 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	9200.00 ppm				
Filter Cake:	inches				

Recovery Information

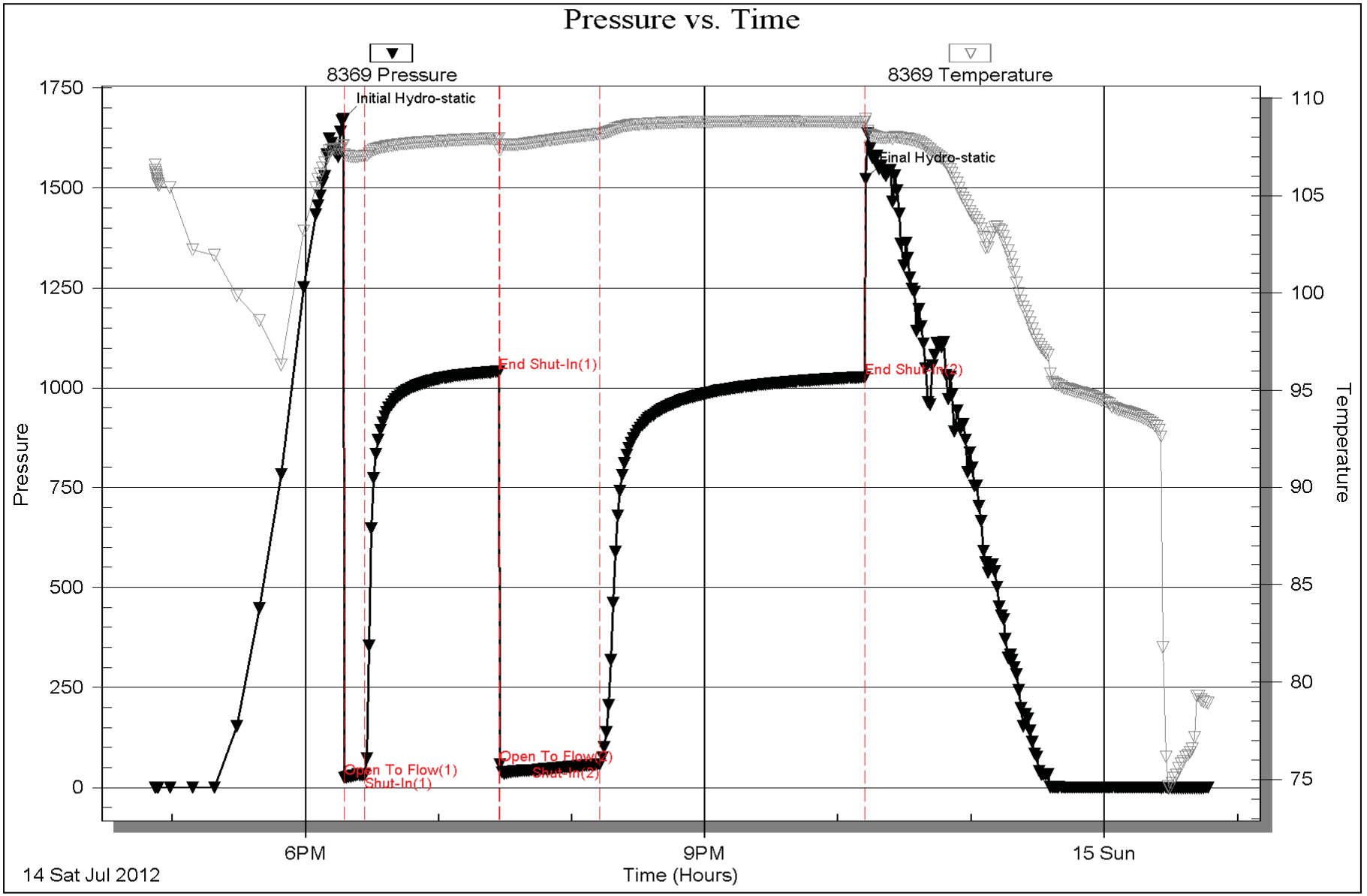
Recovery Table

Length ft	Description	Volume bbl
15.00	VSO&WCM 2%o 48%w 50%m	0.210
36.00	MCW 30%m 70%w	0.505

Total Length: 51.00 ft Total Volume: 0.715 bbl

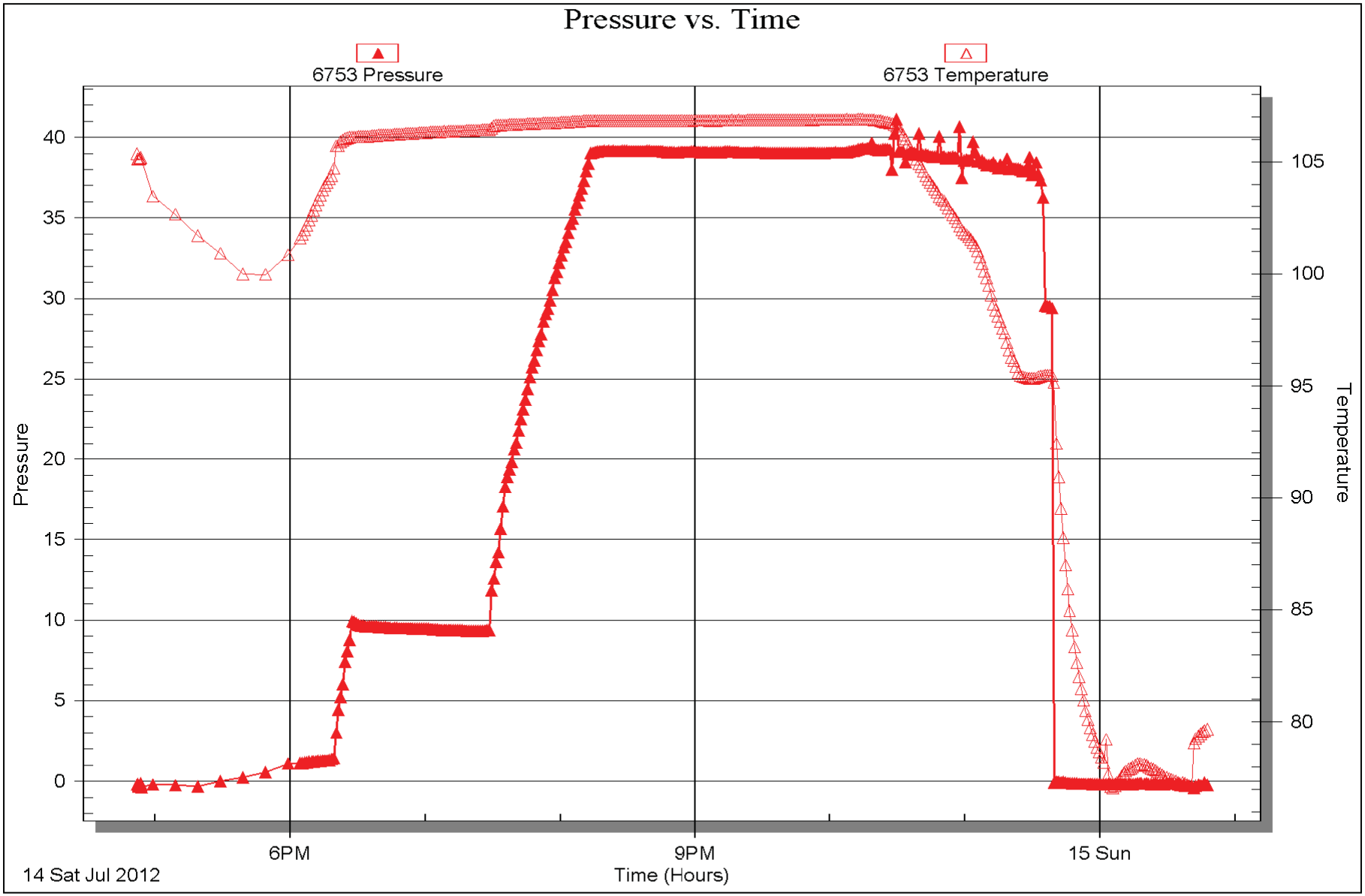
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: .073 @ 80

Serial #: 8369 **Inside** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 2



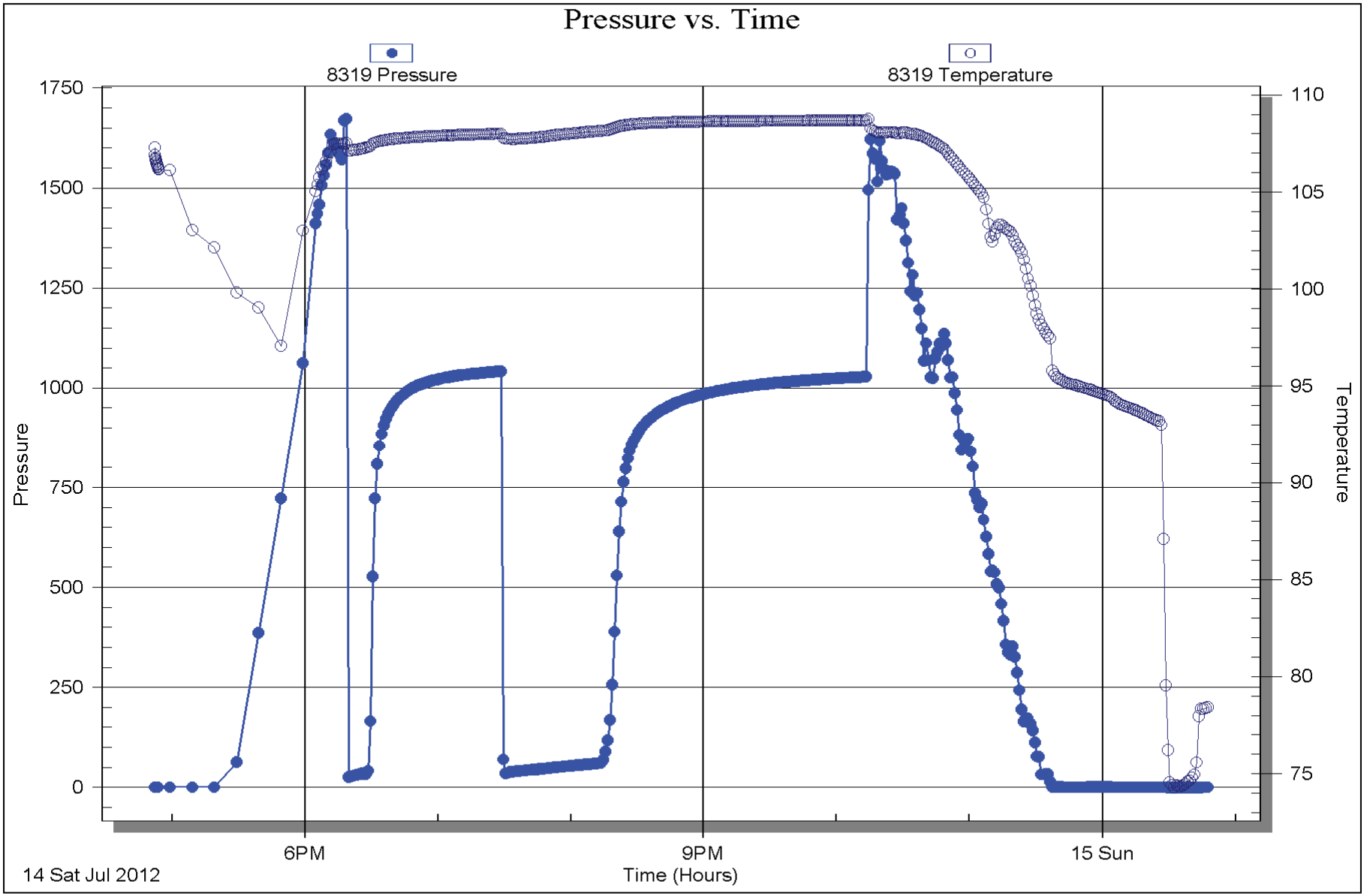
Trilobite Testing, Inc Ref. No: 49270 Printed: 2012.07.19 @ 10:08:10

Serial #: 6753 **Fluid** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 49270 Printed: 2012.07.19 @ 10:08:10

Serial #: 8319 **Outside** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 49270 Printed: 2012.07.19 @ 10:08:11