15-065-23745 33-10s-24w

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Phillips Exploration Co.**

1601 Sagebrush
Wichita, KS 67230

ATTN: Jim Phillips

33-10s-24w Graham,KS

Hobbs #1-33

Start Date: 2011.06.26 @ 10:00:00
End Date: 2011.06.26 @ 16:07:00
Job Ticket #: 43358 DST #: 1

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Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

DRILL STEM TEST REPORT

Phillips Exploration Co.

1601 Sagebrush
Wichita, KS 67230

ATTN: Jim Phillips

Hobbs #1-33

33-10s-24w Graham,KS

Job Ticket: 43358 **DST#: 1**

Test Start: 2011.06.26 @ 10:00:00

GENERAL INFORMATION:

Formation: **LKC "B,C"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:04:15
Time Test Ended: 16:07:00

Test Type: Conventional Bottom Hole
Tester: Kevin Mack
Unit No: 43

Interval: 3725.00 ft (KB) To 3779.00 ft (KB) (TVD)
Total Depth: 3779.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

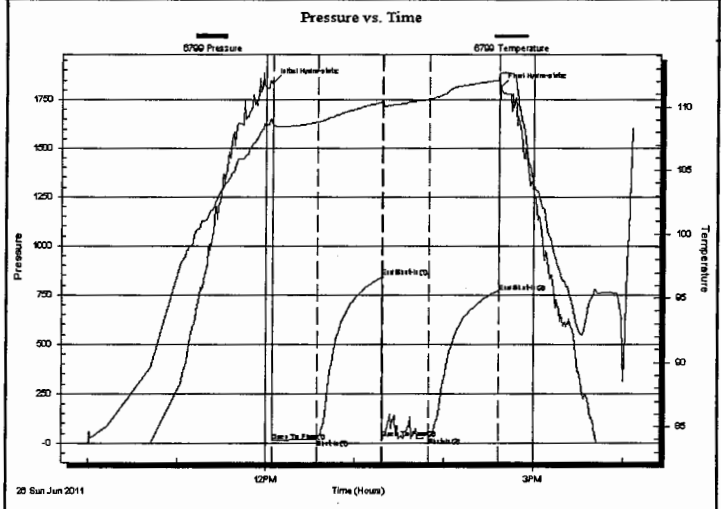
Reference Elevations: 2380.00 ft (KB)
2372.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6799 **Inside**

Press@RunDepth: 26.59 psig @ 3726.00 ft (KB)
Start Date: 2011.06.26 End Date: 2011.06.26
Start Time: 10:00:05 End Time: 16:06:59

Capacity: 8000.00 psig
Last Calib.: 2011.06.26
Time On Btm: 2011.06.26 @ 12:04:00
Time Off Btm: 2011.06.26 @ 14:37:15

TEST COMMENT: IF: Blow built to 1/4"
IS: No Return
FF: No Blow
FS: No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1839.42	109.01	Initial Hydro-static
1	10.61	108.50	Open To Flow (1)
31	18.28	108.84	Shut-In(1)
75	841.76	110.38	End Shut-In(1)
75	21.19	109.92	Open To Flow (2)
106	26.59	110.63	Shut-In(2)
153	762.32	112.10	End Shut-In(2)
154	1813.62	112.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OSM 100M (oil spots)	0.05

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Phillips Exploration Co.

1601 Sagebrush
Wichita, KS 67230

ATTN: Jim Phillips

Hobbs #1-33

33-10s-24w Graham,KS

Job Ticket: 43358 **DST#: 1**

Test Start: 2011.06.26 @ 10:00:00

Tool Information

Drill Pipe:	Length:	3678.00 ft	Diameter:	3.80 inches	Volume:	51.59 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	29.00 ft	Diameter:	2.25 inches	Volume:	0.14 bbl	
					Total Volume:	51.73 bbl	

Drill Pipe Above KB:	6.00 ft
Depth to Top Packer:	3725.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	54.00 ft
Tool Length:	78.00 ft
Number of Packers:	2
Diameter:	6.75 inches

Tool Weight:	2000.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	50000.00 lb
Tool Chased	ft
String Weight: Initial	46000.00 lb
Final	46000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3702.00		
Shut In Tool	5.00			3707.00		
Hydraulic tool	5.00			3712.00		
Safety Joint	3.00			3715.00		
Packer	5.00			3720.00	24.00	Bottom Of Top Packer
Packer	5.00			3725.00		
Stubb	1.00			3726.00		
Recorder	0.00	8648	Inside	3726.00		
Recorder	0.00	6799	Inside	3726.00		
Perforations	15.00			3741.00		
Change Over Sub	1.00			3742.00		
Drill Pipe	31.00			3773.00		
Change Over Sub	1.00			3774.00		
Bullnose	5.00			3779.00	54.00	Bottom Packers & Anchor
Total Tool Length:	**78.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Phillips Exploration Co.

1601 Sagebrush
Wichita, KS 67230

ATTN: Jim Phillips

Hobbs #1-33

33-10s-24w Graham,KS

Job Ticket: 43358 **DST#: 1**

Test Start: 2011.06.26 @ 10:00:00

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:	ppm
Viscosity:	68.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.38 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	200.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

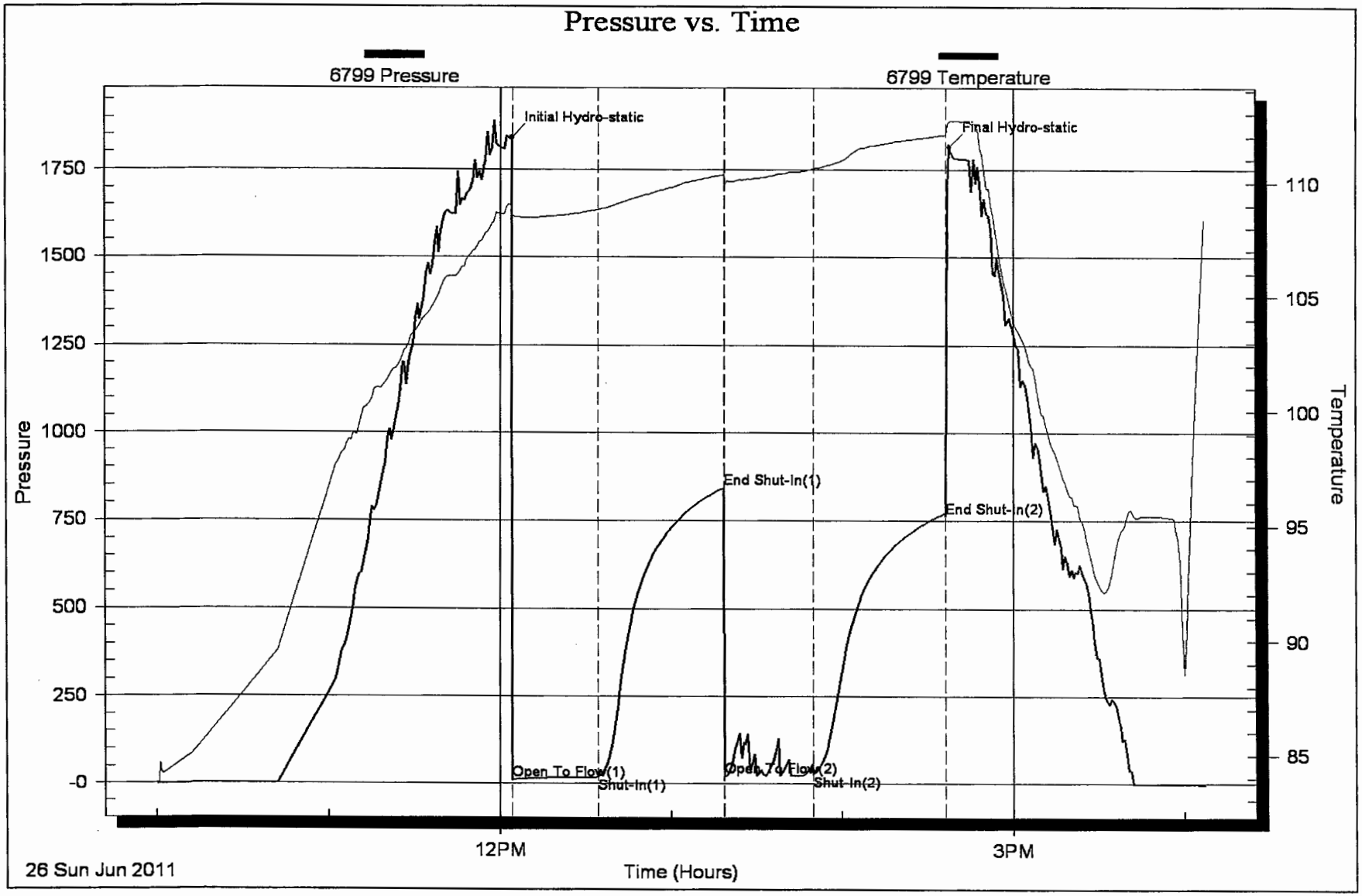
Length ft	Description	Volume bbl
10.00	OSM 100M (oil spots)	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6799 Pressure
6799 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1750
1500
1250
1000
750
500
250
-0
110
105
100
95
90
85
12PM
3PM
26 Sun Jun 2011
Time (Hours)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Phillips Exploration Co.**

1601 Sagebrush
Wichita, KS 67230

ATTN: Jim Phillips

33-10s-24w Graham,KS

Hobbs #1-33

Start Date: 2011.06.27 @ 04:54:00
End Date: 2011.06.27 @ 10:50:15
Job Ticket #: 43359 DST #: 2

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

DRILL STEM TEST REPORT

Phillips Exploration Co.

1601 Sagebrush
Wichita, KS 67230

ATTN: Jim Phillips

Hobbs #1-33

33-10s-24w Graham,KS

Job Ticket: 43359 **DST#: 2**

Test Start: 2011.06.27 @ 04:54:00

GENERAL INFORMATION:

Formation: **LKC "H,I,J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:38:15
Time Test Ended: 10:50:15

Test Type: Conventional Bottom Hole
Tester: Kevin Mack
Unit No: 43

Interval: 3852.00 ft (KB) To 3915.00 ft (KB) (TVD)
Total Depth: 3915.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

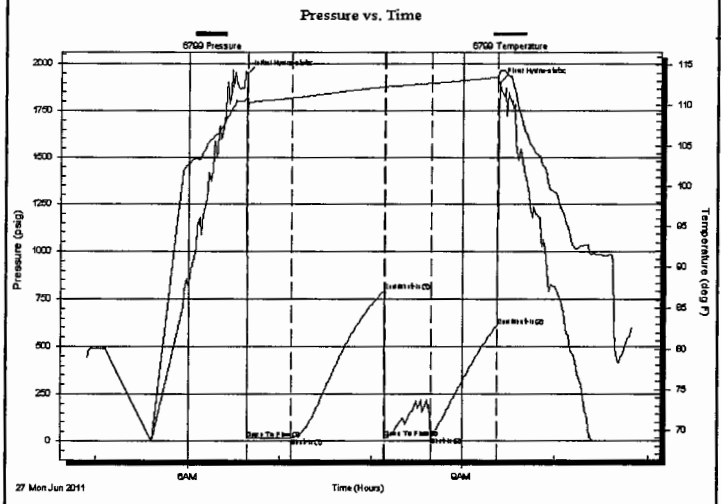
Reference Elevations: 2380.00 ft (KB)
2372.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6799 **Inside**

Press@RunDepth: 20.85 psig @ 3853.00 ft (KB)
Start Date: 2011.06.27 End Date: 2011.06.27
Start Time: 04:54:05 End Time: 10:50:14

Capacity: 8000.00 psig
Last Calib.: 2011.06.27
Time On Btm: 2011.06.27 @ 06:38:00
Time Off Btm: 2011.06.27 @ 09:23:45

TEST COMMENT: IF: Blow built to 1/4", then began to die
IS: No Return
FF: No Blow
FS: No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1944.85	110.82	Initial Hydro-static
1	12.82	109.77	Open To Flow (1)
30	15.09	110.91	Shut-In(1)
91	791.77	112.32	End Shut-In(1)
91	16.70	112.12	Open To Flow (2)
121	20.85	112.71	Shut-In(2)
165	610.01	113.50	End Shut-In(2)
166	1901.56	114.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	MUD 100M	0.02

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Phillips Exploration Co.

1601 Sagebrush
Wichita, KS 67230

ATTN: Jim Phillips

Hobbs #1-33

33-10s-24w Graham,KS

Job Ticket: 43359 **DST#: 2**

Test Start: 2011.06.27 @ 04:54:00

Tool Information

Drill Pipe:	Length:	3805.00 ft	Diameter:	3.80 inches	Volume:	53.37 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	29.00 ft	Diameter:	2.25 inches	Volume:	0.14 bbl	
					Total Volume:	53.51 bbl	

Drill Pipe Above KB:	6.00 ft
Depth to Top Packer:	3852.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	63.00 ft
Tool Length:	87.00 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:	50000.00 lb
Tool Chased	ft
String Weight: Initial	48000.00 lb
Final	48000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3829.00		
Shut In Tool	5.00			3834.00		
Hydraulic tool	5.00			3839.00		
Safety Joint	3.00			3842.00		
Packer	5.00			3847.00	24.00	Bottom Of Top Packer
Packer	5.00			3852.00		
Stubb	1.00			3853.00		
Recorder	0.00	8648	Inside	3853.00		
Recorder	0.00	6799	Inside	3853.00		
Perforations	23.00			3876.00		
Change Over Sub	1.00			3877.00		
Drill Pipe	31.00			3908.00		
Change Over Sub	1.00			3909.00		
Perforations	1.00			3910.00		
Bullnose	5.00			3915.00	63.00	Bottom Packers & Anchor
Total Tool Length:	**87.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Phillips Exploration Co.

1601 Sagebrush
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ATTN: Jim Phillips

Hobbs #1-33

33-10s-24w Graham,KS

Job Ticket: 43359 **DST#: 2**

Test Start: 2011.06.27 @ 04:54:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	10.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	63.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.38 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3200.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

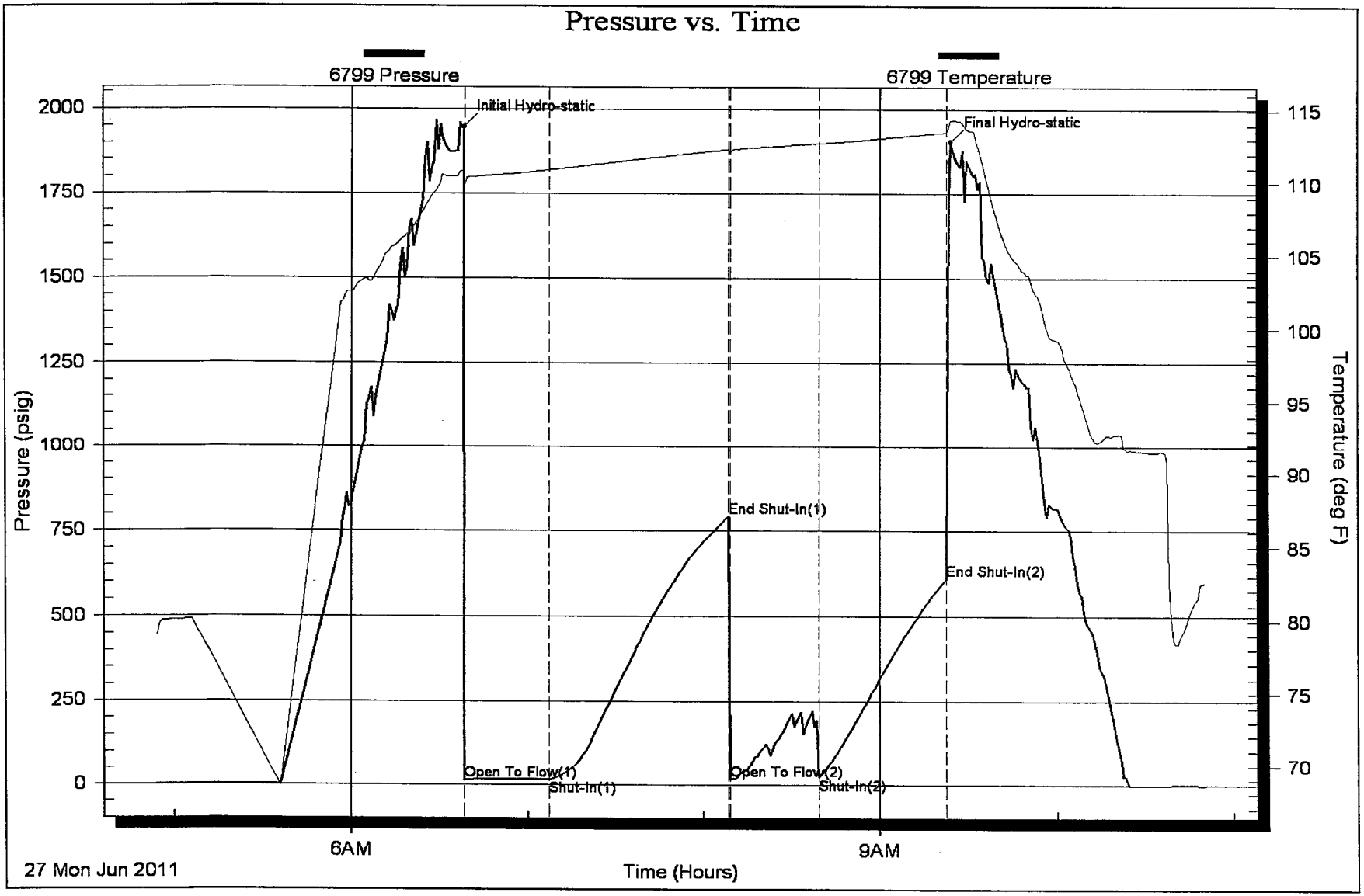
Length ft	Description	Volume bbl
5.00	MUD 100M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6799 Pressure
6799 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
2000
1750
1500
1250
1000
750
500
250
0
115
110
105
100
95
90
85
80
75
70
6AM
9AM
27 Mon Jun 2011
Time (Hours)