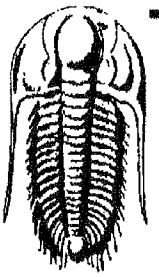
15-007-22807 18-34s-11w



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Woolsey Operating, LLC**

125 N. Market, Suite 1000
Wichita, KS 67202

ATTN: Vern Schrag

18-34-11 Barber

Logan #2 - X

Start Date: 2004.03.05 @ 11:31:01
End Date: 2004.03.05 @ 20:52:31
Job Ticket #: 18951 DST #: 1

RECEIVED
KANSAS CORPORATION COMMISSION
DEC 0 6 2007
CONSERVATION DIVISION
WICHITA, KS

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

DRILL STEM TEST REPORT

Woolsey Operating, LLC

125 N. Market, Suite 1000
Wichita, KS 67202

ATTN: Vern Schrag

Logan #2 - X

18-34-11 Barber

Job Ticket: 18951 **DST#: 1**

Test Start: 2004.03.05 @ 11:31:01

GENERAL INFORMATION:

Formation: **Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:10:11
Time Test Ended: 20:52:31

Test Type: Conventional Bottom Hole
Tester: Nathan
Unit No: 16

Interval: 4586.00 ft (KB) To 4610.00 ft (KB) (TVD)
Total Depth: 4610.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

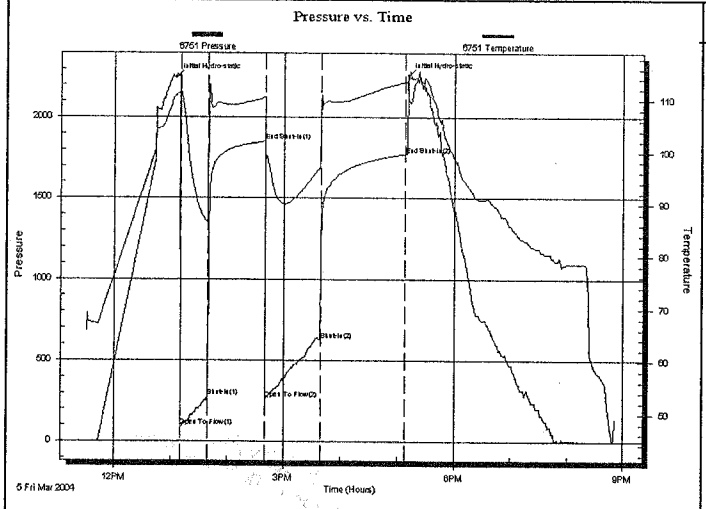
Reference Elevations: 1439.00 ft (KB)
1431.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6751 **Inside**

Press@RunDepth: 625.07 psig @ 4587.00 ft (KB)
Start Date: 2004.03.05 End Date: 2004.03.05
Start Time: 11:31:06 End Time: 20:52:31

Capacity: 7000.00 psig
Last Calib.: 1899.12.30
Time On Btm: 2004.03.05 @ 13:05:01
Time Off Btm:

TEST COMMENT: IF- Strong blow O.B.B. 30 seconds; GTS in 5 minutes 20 seconds
ISI- Good blow building O.B.B.
FF- Strong blow O.B.B. ASAT opened
FF- Good blow building O.B.B. in 1minutes 45 seconds



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2245.95	110.81	Initial Hydro-static
6	86.72	111.88	Open To Flow (1)
34	271.97	86.47	Shut-In(1)
95	1851.06	110.65	End Shut-In(1)
96	261.11	97.88	Open To Flow (2)
155	625.07	97.16	Shut-In(2)
243	1772.17	113.50	End Shut-In(2)
246	2257.32	110.46	Initial Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1448.00	Gassy mud	20.31

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.63	4.00	208.93
Last Gas Rate	0.50	8.50	163.92
Max. Gas Rate	0.50	18.50	235.50

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Operating, LLC

125 N. Market, Suite 1000
Wichita, KS 67202

ATTN: Vern Schrag

Logan #2 - X

18-34-11 Barber

Job Ticket: 18951 **DST#: 1**

Test Start: 2004.03.05 @ 11:31:01

Tool Information

Drill Pipe:	Length:	4586.00 ft	Diameter:	3.80 inches	Volume:	64.33 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	
					Total Volume:	64.33 bbl	

Drill Pipe Above KB:	27.00 ft
Depth to Top Packer:	4586.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	24.00 ft
Tool Length:	51.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2400.00 lb
Weight set on Packer:	22000.00 lb
Weight to Pull Loose:	115000.0 lb
Tool Chased	0.00 ft
String Weight: Initial	86000.00 lb
Final	90000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4560.00		
Shut In Tool	5.00			4565.00		
Hydraulic tool	5.00			4570.00		
Jars	5.00			4575.00		
Safety Joint	2.00			4577.00		
Packer	4.00			4581.00	27.00	Bottom Of Top Packer
Packer	5.00			4586.00		
Stubb	1.00			4587.00		
Recorder	0.00	6751	Inside	4587.00		
Perforations	20.00			4607.00		
Recorder	0.00	13630	Outside	4607.00		
Bullnose	3.00			4610.00	24.00	Bottom Packers & Anchor
Total Tool Length:	**51.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating, LLC

125 N. Market, Suite 1000
Wichita, KS 67202

ATTN: Vern Schrag

Logan #2 - X

18-34-11 Barber

Job Ticket: 18951 **DST#: 1**

Test Start: 2004.03.05 @ 11:31:01

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:	25000 ppm
Viscosity:	44.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.94 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3000.00 ppm				
Filter Cake:	0.02 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1448.00	Gassy mud	20.312

Total Length: 1448.00 ft Total Volume: 20.312 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

Woolsey Operating, LLC

125 N. Market, Suite 1000
Wichita, KS 67202

ATTN: Vern Schrag

Logan #2 - X

18-34-11 Barber

Job Ticket: 18951 **DST#: 1**

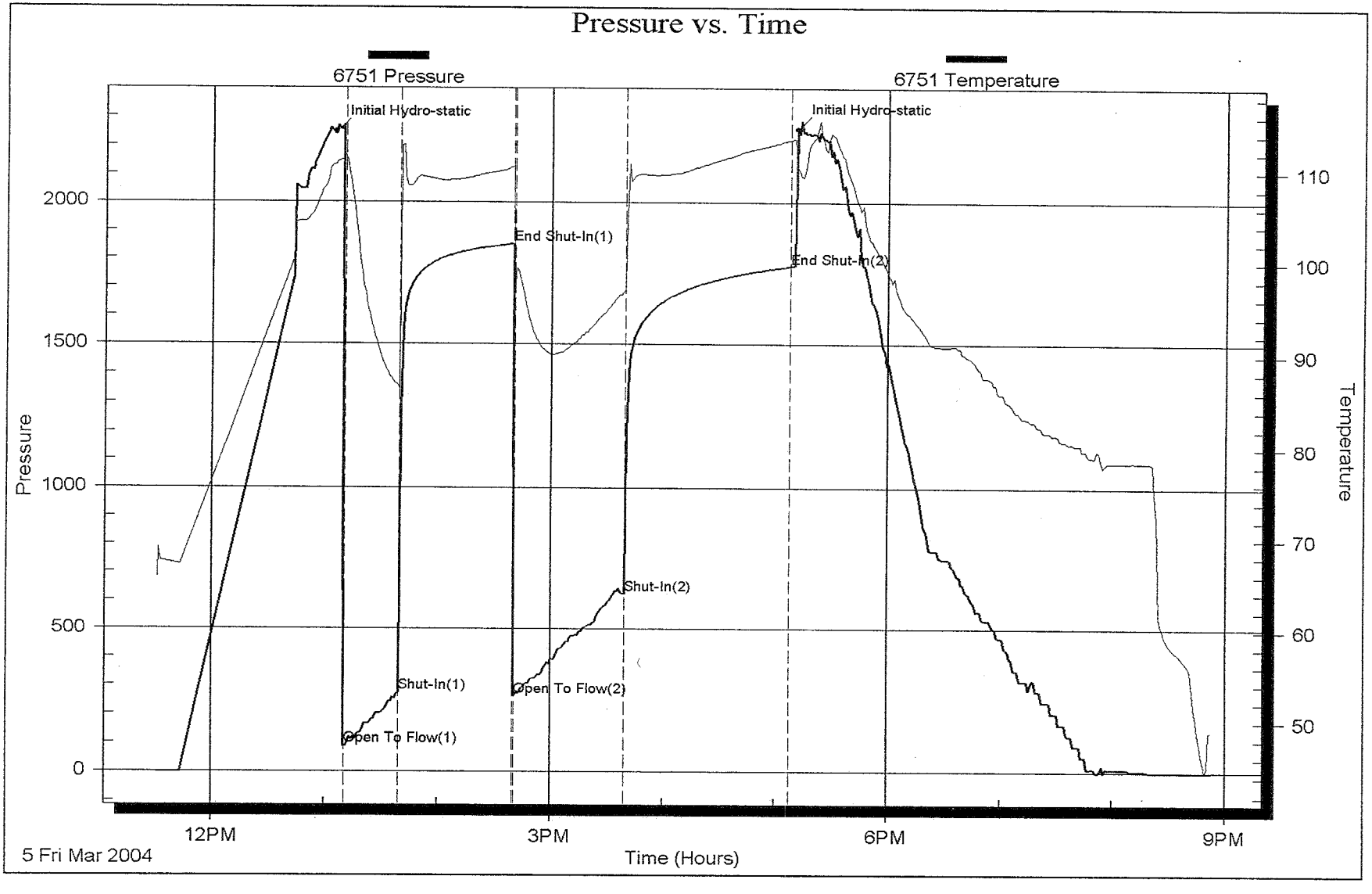
Test Start: 2004.03.05 @ 11:31:01

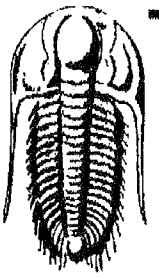
Gas Rates Information

Temperature: 1 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m^3/d)
1	10	0.63	4.00	208.93
1	10	0.63	4.00	208.93
1	15	0.50	12.00	188.97
1	20	0.50	15.00	210.44
1	25	0.50	15.50	214.02
1	30	0.50	15.50	214.02
2	5	0.50	7.00	153.18
2	10	0.50	18.50	235.50
2	15	0.50	17.00	224.76
2	20	0.50	15.00	210.44
2	25	0.50	14.50	206.87
2	30	0.50	14.00	203.29
2	35	0.50	11.50	185.39
2	40	0.50	11.50	185.39
2	45	0.50	11.00	181.81
2	50	0.50	11.00	181.81
2	60	0.50	8.50	163.92


Pressure vs. Time
6751 Pressure
6751 Temperature
Initial Hydro-static
Initial Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
Pressure
Temperature
2000
1500
1000
500
0
110
100
90
80
70
60
50
12PM
3PM
6PM
9PM
5 Fri Mar 2004
Time (Hours)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Woolsey Operating, LLC**

125 N. Market, Suite 1000
Wichita, KS 67202

ATTN: Vern Schrag

18-34-11 Barber

Logan #2 - X

Start Date: 2004.03.06 @ 08:11:28
End Date: 2004.03.06 @ 16:12:37
Job Ticket #: 18952 DST #: 2

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

DRILL STEM TEST REPORT

Woolsey Operating, LLC

125 N. Market, Suite 1000
Wichita, KS 67202

ATTN: Vern Schrag

Logan #2 - X

18-34-11 Barber

Job Ticket: 18952 **DST#: 2**

Test Start: 2004.03.06 @ 08:11:28

GENERAL INFORMATION:

Formation: **Cherokee Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:04:38
Time Test Ended: 16:12:37

Test Type: Conventional Bottom Hole
Tester: Nathan
Unit No: 16

Interval: 4648.00 ft (KB) To 4667.00 ft (KB) (TVD)
Total Depth: 4667.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

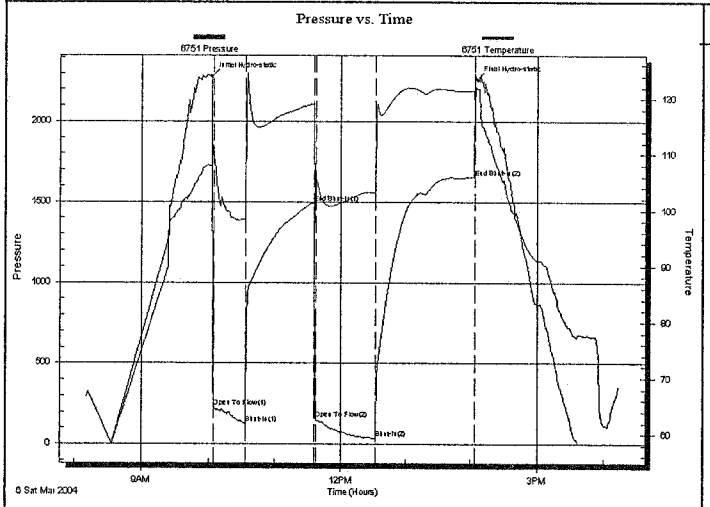
Reference Elevations: 1439.00 ft (KB)
1431.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6751 **Inside**

Press@RunDepth: 39.50 psig @ 4649.00 ft (KB)
Start Date: 2004.03.06 End Date: 2004.03.06
Start Time: 08:11:33 End Time: 16:12:38

Capacity: 7000.00 psig
Last Calib.: 1899.12.30
Time On Btm: 2004.03.06 @ 10:02:38
Time Off Btm: 2004.03.06 @ 14:05:58

TEST COMMENT: IF- Strong blow building O.B.B. in 20 seconds: GTS in 2 minutes 45 seconds
ISI- Good blow O.B.B. in 2 minutes 25 seconds
FF- Strond blow O.B.B. ASAT opened
FSI- Good blow O.B.B. in 2 minutes 5 seco



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2280.98	108.01	Initial Hydro-static
2	227.65	109.65	Open To Flow (1)
31	125.47	98.56	Shut-In(1)
93	1494.09	119.01	End Shut-In(1)
95	153.18	105.81	Open To Flow (2)
150	39.50	103.34	Shut-In(2)
241	1651.97	121.37	End Shut-In(2)
244	2259.81	121.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Drlg mud	0.42

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	40.00	849.72
Last Gas Rate	0.63	3.00	186.19
Max. Gas Rate	0.75	50.00	1005.92

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Operating, LLC

125 N. Market, Suite 1000
Wichita, KS 67202

ATTN: Vern Schrag

Logan #2 - X

18-34-11 Barber

Job Ticket: 18952 **DST#: 2**

Test Start: 2004.03.06 @ 08:11:28

Tool Information

Drill Pipe:	Length:	4652.00 ft	Diameter:	3.80 inches	Volume:	65.26 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
					Total Volume:	65.26 bbl	

Drill Pipe Above KB:	31.00 ft
Depth to Top Packer:	4648.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	19.00 ft
Tool Length:	46.00 ft
Number of Packers:	2
Diameter:	6.75 inches

Tool Weight:	2400.00 lb
Weight set on Packer:	22000.00 lb
Weight to Pull Loose:	94000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	90000.00 lb
Final	90000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4622.00		
Shut In Tool	5.00			4627.00		
Hydraulic tool	5.00			4632.00		
Jars	5.00			4637.00		
Safety Joint	2.00			4639.00		
Packer	4.00			4643.00	27.00	Bottom Of Top Packer
Packer	5.00			4648.00		
Stubb	1.00			4649.00		
Recorder	0.00	6751	Inside	4649.00		
Perforations	15.00			4664.00		
Recorder	0.00	13630	Outside	4664.00		
Bullnose	3.00			4667.00	19.00	Bottom Packers & Anchor
Total Tool Length:	**46.00**					

RECEIVED
KANSAS CORPORATION COMMISSION
DEC 0 6 2007
CONSERVATION DIVISION
WICHITA, KS

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating, LLC

125 N. Market, Suite 1000
Wichita, KS 67202

ATTN: Vern Schrag

Logan #2 - X

18-34-11 Barber

Job Ticket: 18952 **DST#: 2**

Test Start: 2004.03.06 @ 08:11:28

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	lb/gal	Cushion Length:	ft	Water Salinity:	7600 ppm
Viscosity:	sec/qt	Cushion Volume:	bbl		
Water Loss:	in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Drlg mud	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

Woolsey Operating, LLC

125 N. Market, Suite 1000
Wichita, KS 67202

ATTN: Vern Schrag

Logan #2 - X

18-34-11 Barber

Job Ticket: 18952 **DST#: 2**

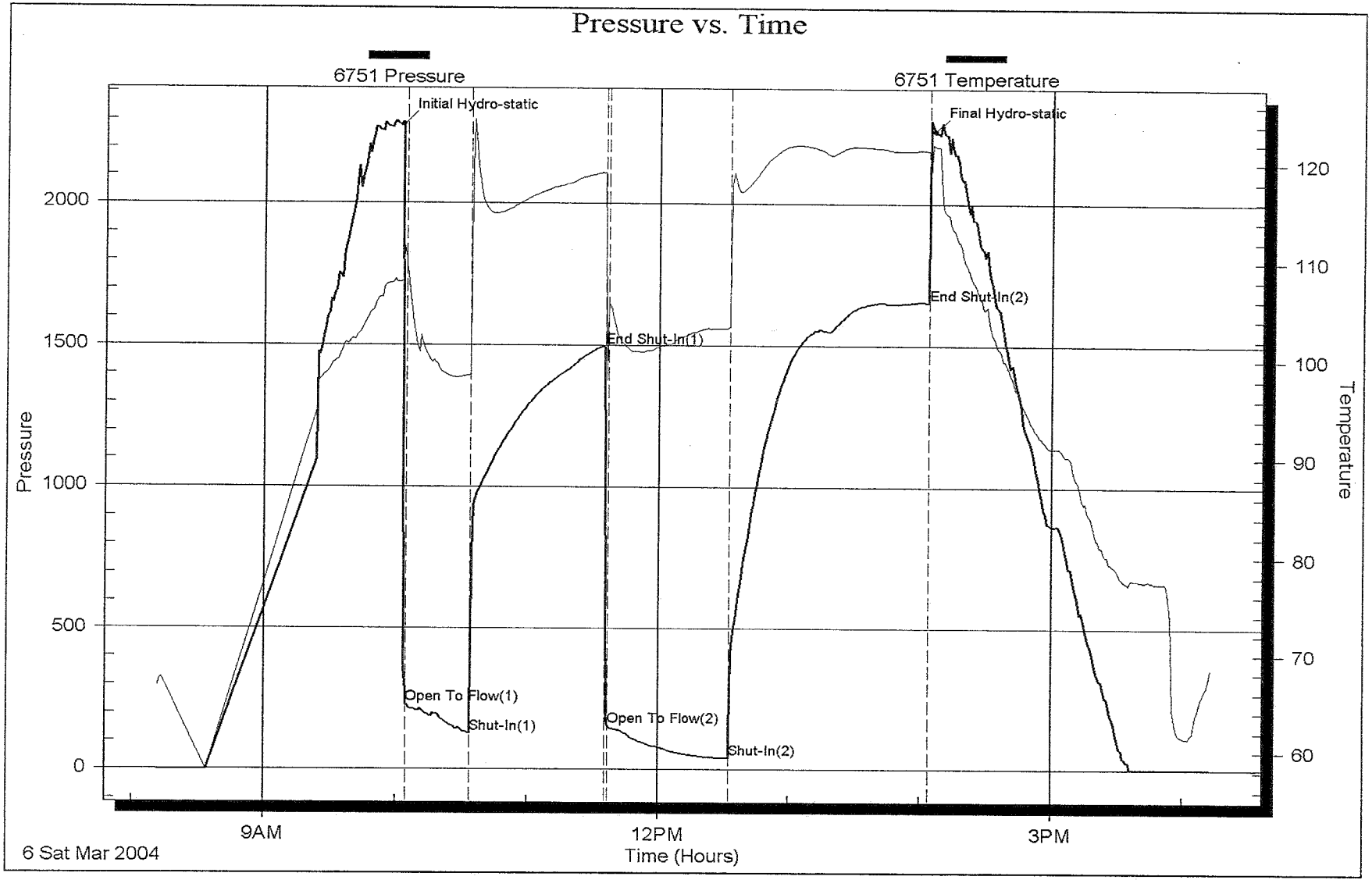
Test Start: 2004.03.06 @ 08:11:28

Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m^3/d)
1	5	0.75	40.00	849.72
1	10	0.75	50.00	1005.92
1	15	0.75	45.00	927.82
1	20	0.75	35.00	771.62
1	25	0.75	30.00	693.52
1	30	0.75	25.00	615.42
2	5	0.75	20.00	537.32
2	10	0.75	25.00	615.42
2	15	0.75	22.00	568.56
2	20	0.75	17.50	498.27
2	25	0.75	11.50	404.55
2	30	0.75	10.00	381.12
2	35	0.75	7.50	342.07
2	40	0.63	10.00	261.10
2	45	0.63	8.00	239.70
2	50	0.63	5.00	207.59
2	55	0.63	4.00	196.89
2	60	0.63	3.00	186.19


Pressure vs. Time
6751 Pressure
6751 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(2)
End Shut-In(1)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
2000
1500
1000
500
0
120
110
100
90
80
70
60
9AM
12PM
3PM
Time (Hours)
6 Sat Mar 2004