



DRILL STEM TEST REPORT

Prepared For: **Woolsey Oper.Co.LLC**

125 N.Market Ste.1000
Wichita Ks.67202

ATTN: Wes Hansen

18-34s-11w Barber Ks

#1 Michel

Start Date: 2003.10.23 @ 03:40:45

End Date: 2003.10.23 @ 13:05:15

Job Ticket #: 17913 DST #: 1

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Woolsey Oper.Co.LLC

#1 Michel

125 N.Market Ste.1000
Wichita Ks.67202

18-34s-11w Barber Ks

ATTN: Wes Hansen

Job Ticket: 17913

DST#: 1

Test Start: 2003.10.23 @ 03:40:45

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:59:00

Time Test Ended: 13:05:15

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 23

Interval: ft (KB) To **4578.00 ft (KB) (TVD)**

Total Depth: 4578.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1419.00 ft (KB)

1408.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6770

Inside

Press@RunDepth: 29.30 psig @ 4551.00 ft (KB)

Start Date: 2003.10.23

End Date:

2003.10.23

Start Time: 03:40:46

End Time:

13:05:15

Capacity: 7000.00 psig

Last Calib.: 2003.10.23

Time On Btm: 2003.10.23 @ 05:56:45

Time Off Btm: 2003.10.23 @ 10:33:15

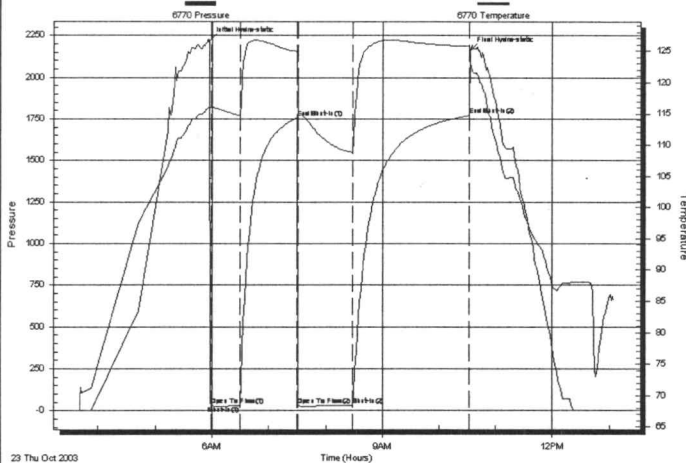
TEST COMMENT: IF:Strong blow . GTS in 9 mins.(see gas volume report)

IS:No blow .

FF:Strong blow .(see gas volume report)

FS:No blow .

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2217.00	116.08	Initial Hydro-static
3	33.64	115.95	Open To Flow (1)
33	30.32	114.67	Shut-In(1)
93	1757.63	124.95	End Shut-In(1)
95	30.06	114.95	Open To Flow (2)
152	29.30	108.70	Shut-In(2)
276	1772.74	125.80	End Shut-In(2)
277	2161.85	123.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Drilg.mud	0.10

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	2.00	26.02
Last Gas Rate	0.25	9.00	37.12
Max. Gas Rate	0.25	15.00	46.64



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Oper.Co.LLC

#1 Michel

125 N.Market Ste.1000
Wichita Ks.67202

18-34s-11w Barber Ks

Job Ticket: 17913

DST#: 1

ATTN: Wes Hansen

Test Start: 2003.10.23 @ 03:40:45

Tool Information

Drill Pipe:	Length: 4424.00 ft	Diameter: 3.80 inches	Volume: 62.06 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 62.65 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4550.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4524.00	
Shut In Tool	5.00			4529.00	
Hydraulic tool	5.00			4534.00	
Jars	5.00			4539.00	
Safety Joint	2.00			4541.00	
Packer	4.00			4545.00	27.00 Bottom Of Top Packer
Packer	5.00			4550.00	
Stubb	1.00			4551.00	
Recorder	0.00	6770	Inside	4551.00	
Perforations	22.00			4573.00	
Recorder	0.00	13222	Outside	4573.00	
Bullnose	5.00			4578.00	28.00 Bottom Packers & Anchor

Total Tool Length: 55.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Oper.Co.LLC

#1 Michel

125 N.Market Ste.1000
Wichita Ks.67202

18-34s-11w Barber Ks

Job Ticket: 17913

DST#: 1

ATTN: Wes Hansen

Test Start: 2003.10.23 @ 03:40:45

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:

6000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 14.36 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Drig.mud	0.098

Total Length: 20.00 ft

Total Volume: 0.098 bbl

Num Fluid Samples: 0

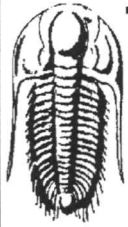
Num Gas Bombs: 1

Serial #: gp-1

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Woolsey Oper.Co.LLC
125 N.Market Ste.1000
Wichita Ks.67202
ATTN: Wes Hansen

#1 Michel
18-34s-11w Barber Ks
Job Ticket: 17913 **DST#: 1**
Test Start: 2003.10.23 @ 03:40:45

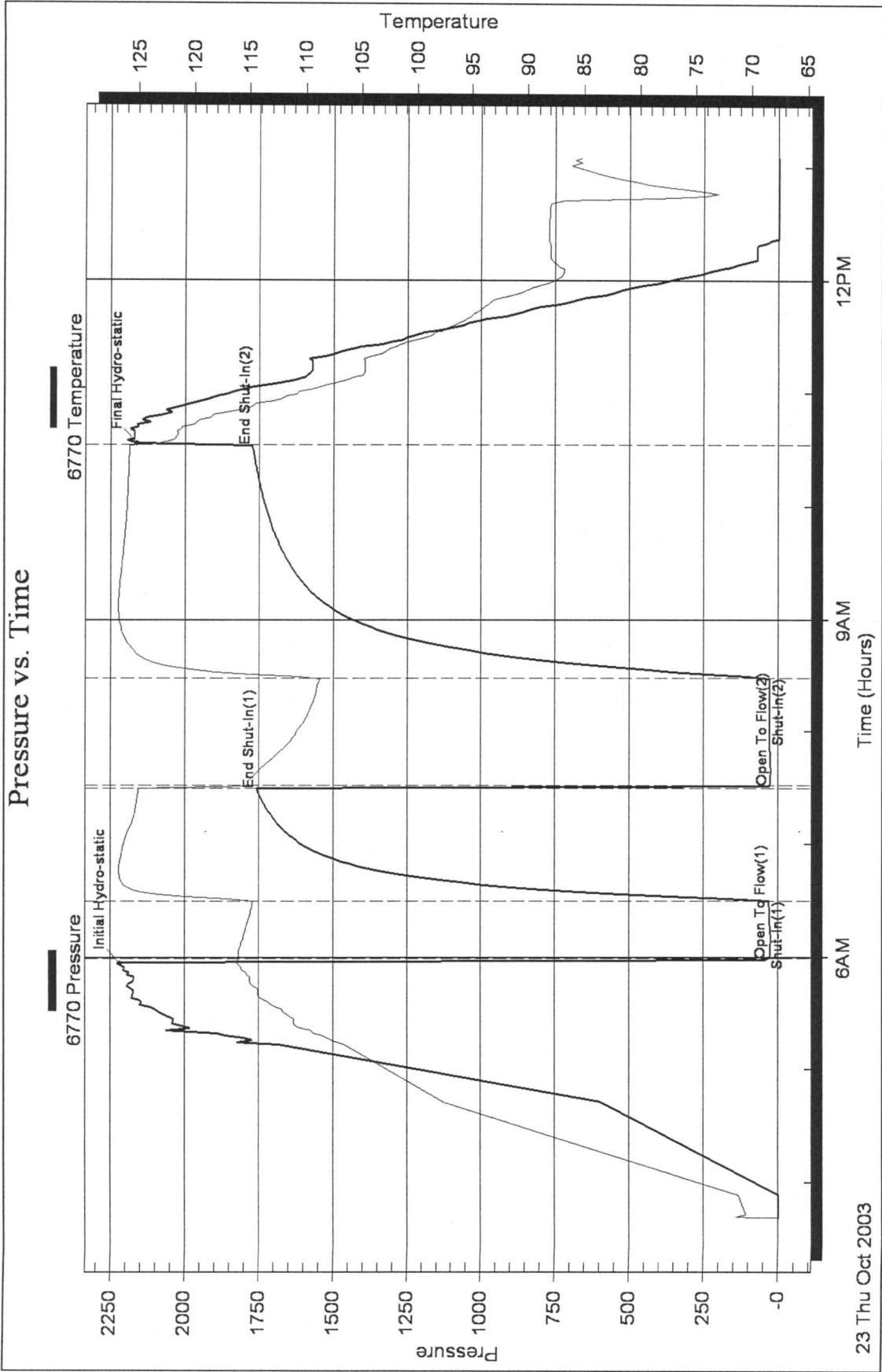
Gas Rates Information

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	15	0.25	2.00	26.02
1	20	0.25	4.00	29.19
1	25	0.25	5.00	30.78
1	30	0.25	6.00	32.36
2	5	0.38	7.00	78.39
2	10	0.25	15.00	46.64
2	15	0.25	8.00	35.54
2	20	0.25	8.00	35.54
2	30	0.25	8.00	35.54
2	40	0.25	9.00	37.12
2	50	0.25	9.00	37.12
2	60	0.25	9.00	37.12

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Woolsey Oper.Co.LLC**

125 N.Market Ste.1000
Wichita Ks.67202

ATTN: Wes Hansen

18-34s-11w Barber Ks

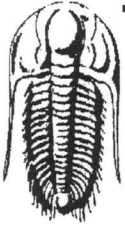
#1 Michel

Start Date: 2003.10.24 @ 02:22:40

End Date: 2003.10.24 @ 11:35:55

Job Ticket #: 17914 . DST #: 2

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Oper.Co.LLC

#1 Michel

125 N.Market Ste.1000
Wichita Ks.67202

18-34s-11w Barber Ks

ATTN: Wes Hansen

Job Ticket: 17914

DST#: 2

Test Start: 2003.10.24 @ 02:22:40

GENERAL INFORMATION:

Formation: **Chrokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:29:40

Time Test Ended: 11:35:55

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 23

Interval: **4626.00 ft (KB) To 4647.00 ft (KB) (TVD)**

Total Depth: 4647.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1419.00 ft (KB)

1408.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6770

Inside

Press@RunDepth: 156.66 psig @ 4627.00 ft (KB)

Start Date: 2003.10.24

End Date:

2003.10.24

Capacity: 7000.00 psig

Last Calib.: 2003.10.24

Start Time: 02:22:41

End Time:

11:35:55

Time On Btm: 2003.10.24 @ 04:28:10

Time Off Btm: 2003.10.24 @ 09:04:25

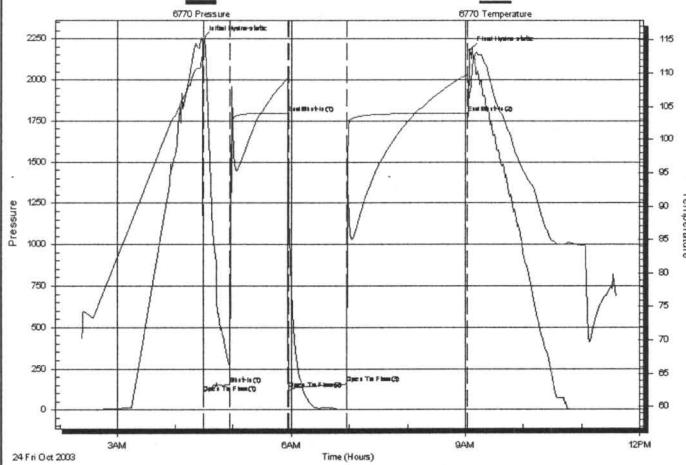
TEST COMMENT: IF:Strong blow . GTS in 4 mins.(see gas volume report)

ISI:Venting throughout.

FF:Strong blow . (sse gas volume report)

FSI:Venting throughout.

Pressure vs. Time



PRESSURE SUMMARY

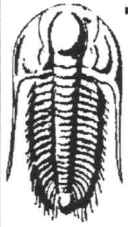
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2248.84	112.63	Initial Hydro-static
2	103.76	114.81	Open To Flow (1)
29	156.66	66.14	Shut-In(1)
89	1799.00	109.19	End Shut-In(1)
90	123.14	85.89	Open To Flow (2)
149	160.45	59.73	Open To Flow (3)
275	1798.08	109.85	End Shut-In(2)
277	2180.87	106.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Drlg.mud	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	26.00	631.04
Last Gas Rate	0.75	45.00	927.82
Max. Gas Rate	0.75	45.00	927.82



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Oper.Co.LLC

#1 Michel

125 N.Market Ste.1000
Wichita Ks.67202

18-34s-11w Barber Ks

Job Ticket: 17914

DST#:2

ATTN: Wes Hansen

Test Start: 2003.10.24 @ 02:22:40

Tool Information

Drill Pipe:	Length: 4487.00 ft	Diameter: 3.80 inches	Volume: 62.94 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 63.53 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4626.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4600.00	
Shut In Tool	5.00			4605.00	
Hydraulic tool	5.00			4610.00	
Jars	5.00			4615.00	
Safety Joint	2.00			4617.00	
Packer	4.00			4621.00	27.00 Bottom Of Top Packer
Packer	5.00			4626.00	
Stubb	1.00			4627.00	
Recorder	0.00	6770	Inside	4627.00	
Perforations	16.00			4643.00	
Recorder	0.00	13222	Outside	4643.00	
Bullnose	5.00			4648.00	22.00 Bottom Packers & Anchor
Total Tool Length:	49.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Oper.Co.LLC

#1 Michel

125 N.Market Ste.1000
Wichita Ks.67202

18-34s-11w Barber Ks

Job Ticket: 17914

DST#: 2

ATTN: Wes Hansen

Test Start: 2003.10.24 @ 02:22:40

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:	6000 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 12.77 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Drlg.mud	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 1

Serial #: gp-2

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Woolsey Oper.Co.LLC

#1 Michel

125 N.Market Ste.1000
Wichita Ks.67202

18-34s-11w Barber Ks

Job Ticket: 17914

DST#: 2

ATTN: Wes Hansen

Test Start: 2003.10.24 @ 02:22:40

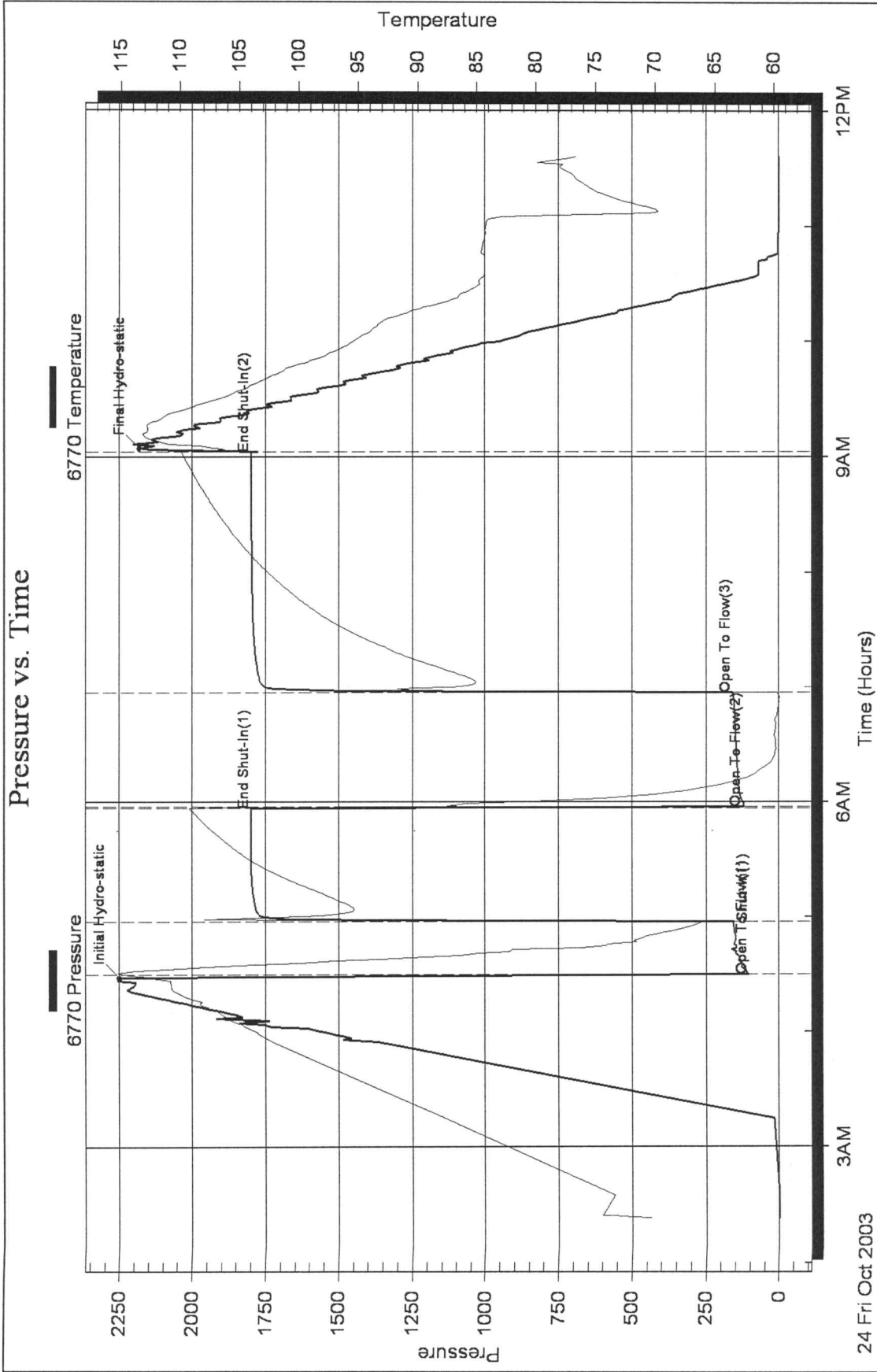
Gas Rates Information

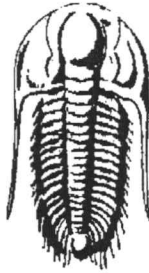
Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
1	10	0.75	26.00	631.04
1	10	0.75	26.00	631.04
1	15	0.75	33.00	740.38
1	20	0.75	35.00	771.62
1	25	0.75	38.00	818.48
1	30	0.75	38.00	818.48
2	5	0.75	30.00	693.52
2	10	0.75	39.00	834.10
2	20	0.75	42.00	880.96
2	30	0.75	43.00	896.58
2	40	0.75	44.00	912.20
2	50	0.75	45.00	927.82

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Woolsey Oper.Co.LLC**

125 N.Market Ste.1000
Wichita Ks.67202

ATTN: Wes Hansen

18-34s-11w Barber Ks

#1 Michel

Start Date: 2003.10.24 @ 22:48:33

End Date: 2003.10.25 @ 07:19:48

Job Ticket #: 17915 DST #: 3

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Woolsey Oper.Co.LLC

125 N.Market Ste.1000
Wichita Ks.67202

ATTN: Wes Hansen

#1 Michel

18-34s-11w Barber Ks

Job Ticket: 17915

DST#: 3

Test Start: 2003.10.24 @ 22:48:33

GENERAL INFORMATION:

Formation: **Miss.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:00:48

Time Test Ended: 07:19:48

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 23

Interval: 4660.00 ft (KB) To 4683.00 ft (KB) (TVD)

Total Depth: 4683.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1419.00 ft (KB)

1408.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6770

Inside

Press@RunDepth: 22.29 psig @ 4661.00 ft (KB)

Start Date: 2003.10.24 End Date: 2003.10.25

Start Time: 22:48:34 End Time: 07:19:48

Capacity: 7000.00 psig

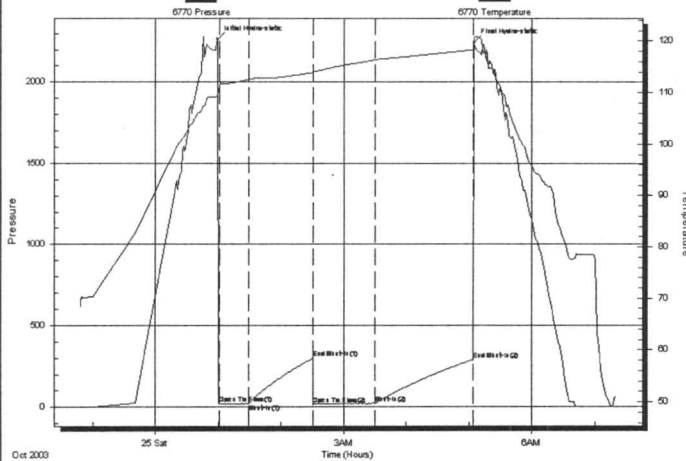
Last Calib.: 2003.10.25

Time On Btm: 2003.10.25 @ 00:59:18

Time Off Btm: 2003.10.25 @ 05:04:48

TEST COMMENT: IF:Strong blow . B.O.B. in 2 mins.
IS:No blow .
FF:Strong blow . B.O.B. in 30 secs.
FSI:No blow .

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2264.05	109.41	Initial Hydro-static
2	18.52	111.38	Open To Flow (1)
31	22.13	112.53	Shut-In(1)
91	297.45	113.87	End Shut-In(1)
92	15.05	114.26	Open To Flow (2)
151	22.29	116.31	Shut-In(2)
245	288.22	118.27	End Shut-In(2)
246	2243.14	120.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Drlg.mud	0.07
0.00	420 ft.of gas in pipe	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Oper.Co.LLC

#1 Michel

125 N.Market Ste.1000
Wichita Ks.67202

18-34s-11w Barber Ks

Job Ticket: 17915

DST#: 3

ATTN: Wes Hansen

Test Start: 2003.10.24 @ 22:48:33

Tool Information

Drill Pipe:	Length: 4547.00 ft	Diameter: 3.80 inches	Volume: 63.78 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 64.37 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4660.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	50.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4634.00	
Shut In Tool	5.00			4639.00	
Hydraulic tool	5.00			4644.00	
Jars	5.00			4649.00	
Safety Joint	2.00			4651.00	
Packer	4.00			4655.00	27.00 Bottom Of Top Packer
Packer	5.00			4660.00	
Stubb	1.00			4661.00	
Recorder	0.00	6770	Inside	4661.00	
Perforations	17.00			4678.00	
Recorder	0.00	13222	Outside	4678.00	
Bullnose	5.00			4683.00	23.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Oper.Co.LLC
125 N.Market Ste.1000
Wichita Ks.67202
ATTN: Wes Hansen

#1 Michel
18-34s-11w Barber Ks
Job Ticket: 17915 **DST#: 3**
Test Start: 2003.10.24 @ 22:48:33

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:	6000 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 12.78 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 0.20 inches			

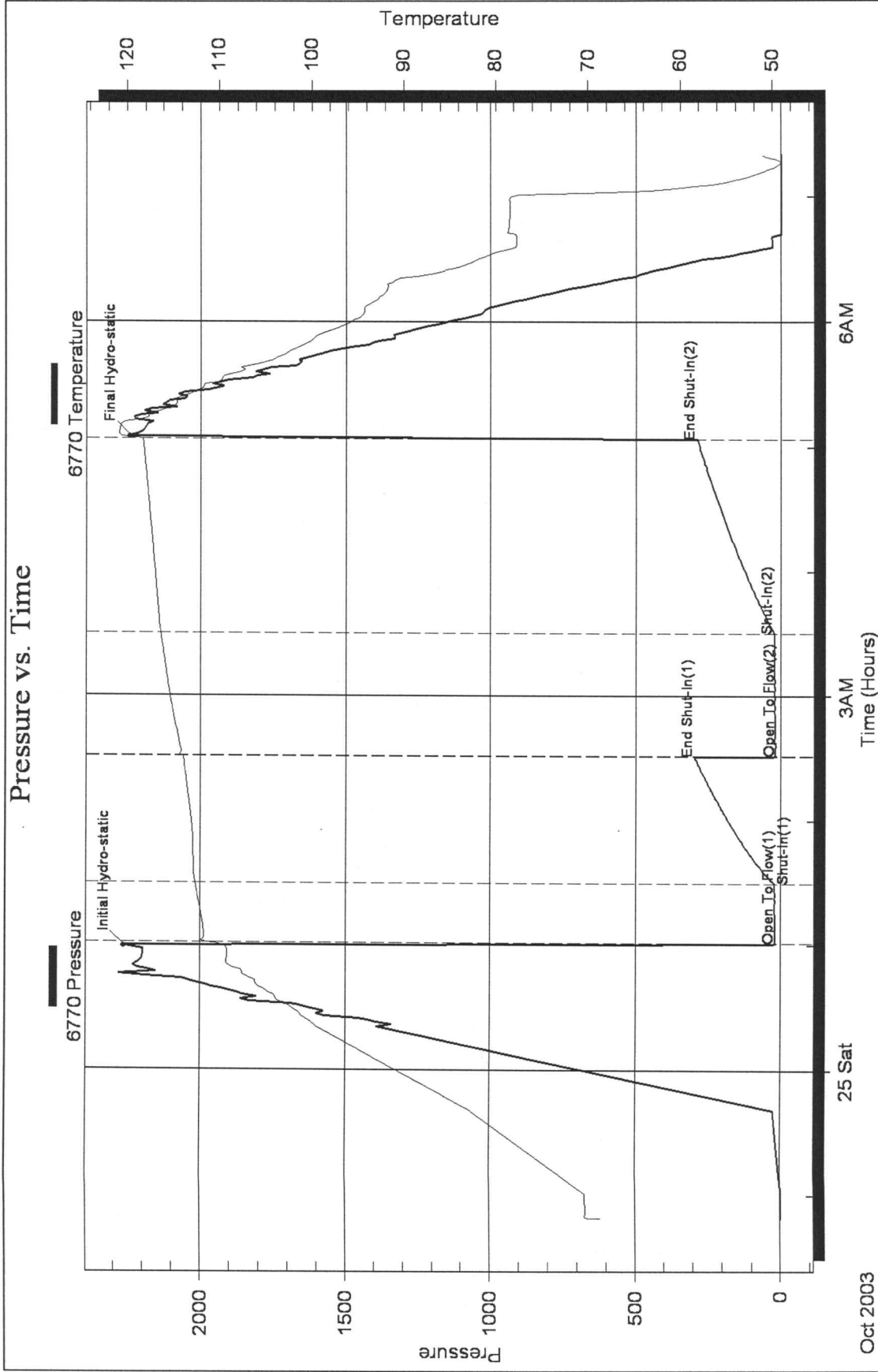
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Drig.mud	0.074
0.00	420 ft.of gas in pipe	0.000

Total Length: 15.00 ft Total Volume: 0.074 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
Laboratory Name: Laboratory Location:
Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Woolsey Oper.Co.LLC**

125 N.Market Ste.1000
Wichita Ks.67202

ATTN: Wes Hansen

18-34s-11w Barber Ks

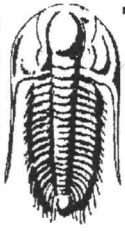
#1 Michel

Start Date: 2003.10.25 @ 14:53:23

End Date: 2003.10.25 @ 23:07:38

Job Ticket #: 17916 DST #: 4

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Oper.Co.LLC

#1 Michel

125 N.Market Ste.1000
Wichita Ks.67202

18-34s-11w Barber Ks

ATTN: Wes Hansen

Job Ticket: 17916

DST#: 4

Test Start: 2003.10.25 @ 14:53:23

GENERAL INFORMATION:

Formation: **Miss.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:04:23

Time Test Ended: 23:07:38

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 23

Interval: **4684.00 ft (KB) To 4700.00 ft (KB) (TVD)**

Reference Elevations: 1419.00 ft (KB)

Total Depth: 4700.00 ft (KB) (TVD)

1408.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 6770

Inside

Press@RunDepth: 98.97 psig @ 4685.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2003.10.25

End Date:

2003.10.25

Last Calib.: 2003.10.25

Start Time: 14:53:24

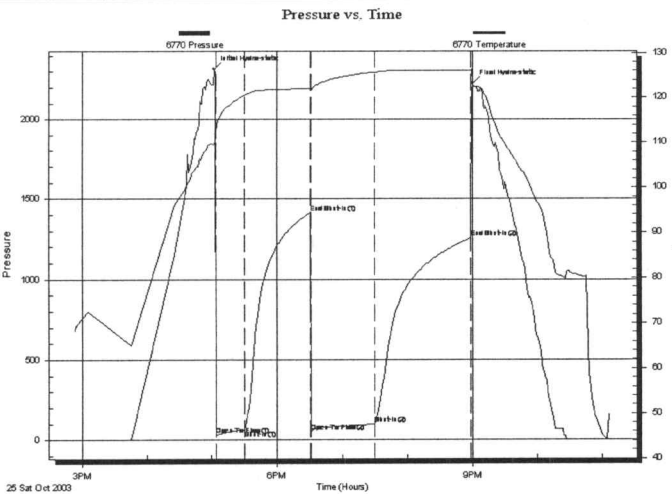
End Time:

23:07:38

Time On Btm: 2003.10.25 @ 17:02:08

Time Off Btm: 2003.10.25 @ 21:00:08

TEST COMMENT: IF:Strong blow . B.O.B. in 2.5 mins.
IS:No blow .
FF:Strong blow . B.O.B. in 3 mins.
FS:No blow .



PRESSURE SUMMARY

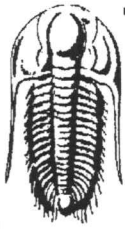
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2314.01	109.73	Initial Hydro-static
3	29.33	112.52	Open To Flow (1)
29	63.77	120.61	Shut-In (1)
89	1414.01	122.05	End Shut-In (1)
90	49.28	121.83	Open To Flow (2)
148	98.97	125.70	Shut-In (2)
237	1255.48	126.14	End Shut-In (2)
238	2223.68	123.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	SOCMJW 1%o 14% m 85% w Rw .15 ohr 0.49 59deg	
40.00	SOCM 4%o 96% m	0.38
0.00	540 ft. of gas in pipe	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Oper.Co.LLC

#1 Michel

125 N.Market Ste.1000
Wichita Ks.67202

18-34s-11w Barber Ks

Job Ticket: 17916

DST#: 4

ATTN: Wes Hansen

Test Start: 2003.10.25 @ 14:53:23

Tool Information

Drill Pipe:	Length: 4547.00 ft	Diameter: 3.80 inches	Volume: 63.78 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 64.37 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4684.00 ft			Final 67000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	43.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4658.00	
Shut In Tool	5.00			4663.00	
Hydraulic tool	5.00			4668.00	
Jars	5.00			4673.00	
Safety Joint	2.00			4675.00	
Packer	4.00			4679.00	27.00 Bottom Of Top Packer
Packer	5.00			4684.00	
Stubb	1.00			4685.00	
Recorder	0.00	6770	Inside	4685.00	
Perforations	10.00			4695.00	
Recorder	0.00	13222	Outside	4695.00	
Bullnose	5.00			4700.00	16.00 Bottom Packers & Anchor

Total Tool Length: 43.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Oper.Co.LLC

#1 Michel

125 N.Market Ste.1000
Wichita Ks.67202

18-34s-11w Barber Ks

Job Ticket: 17916

DST#: 4

ATTN: Wes Hansen

Test Start: 2003.10.25 @ 14:53:23

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:	59000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.38 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
100.00	SOCMJW 1%o 14%m 85%w Rw .15 ohms @	0.492
40.00	SOCM 4%o 96%m	0.379
0.00	540 ft.of gas in pipe	0.000

Total Length: 140.00 ft Total Volume: 0.871 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

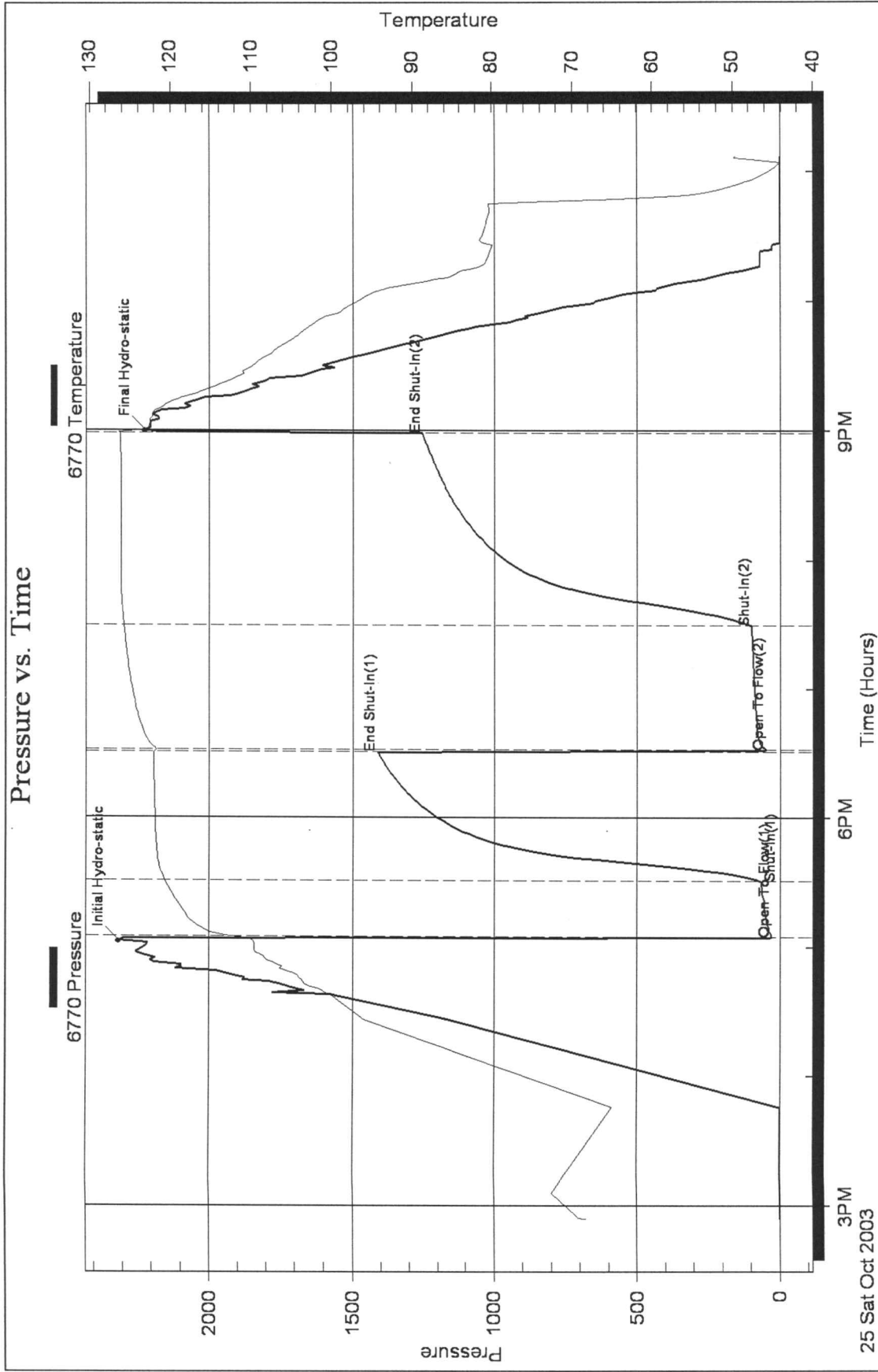
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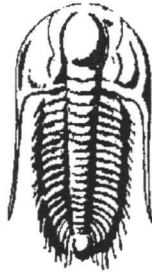
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Woolsey Oper.Co.LLC**

125 N.Market Ste.1000
Wichita Ks.67202

ATTN: Wes Hansen

18-34s-11w Barber Ks

#1 Michel

Start Date: 2003.10.27 @ 03:06:17

End Date: 2003.10.27 @ 11:49:02

Job Ticket #: 17917 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Woolsey Oper.Co.LLC

#1 Michel

18-34s-11w Barber Ks

DST # 5

Viola

2003.10.27



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Woolsey Oper.Co.LLC
125 N.Market Ste.1000
Wichita Ks.67202
ATTN: Wes Hansen

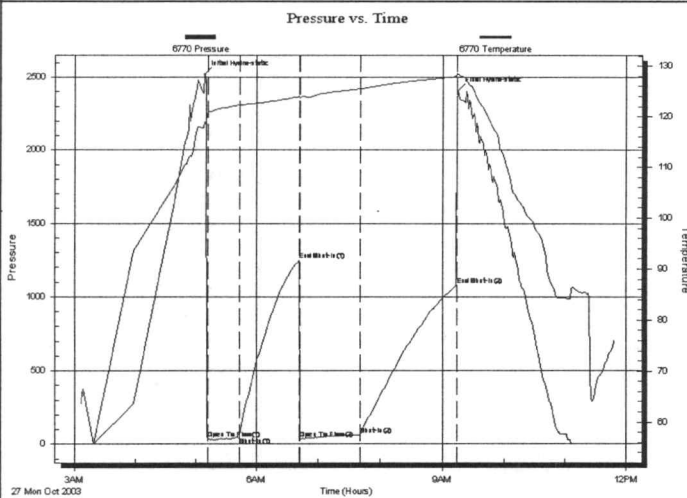
#1 Michel
18-34s-11w Barber Ks
Job Ticket: 17917 **DST#: 5**
Test Start: 2003.10.27 @ 03:06:17

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:12:02
Time Test Ended: 11:49:02
Interval: **4994.00 ft (KB) To 5025.00 ft (KB) (TVD)**
Total Depth: 5025.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Gary Pevoteaux
Unit No: 23
Reference Elevations: 1419.00 ft (KB)
1408.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6770 Inside
Press@RunDepth: 62.16 psig @ 4995.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2003.10.27 End Date: 2003.10.27 Last Calib.: 2003.10.27
Start Time: 03:06:18 End Time: 11:49:02 Time On Btm: 2003.10.27 @ 05:08:17
Time Off Btm: 2003.10.27 @ 09:14:32

TEST COMMENT: IF:Strong blow .B.O.B. in 2 mins.
IS:No blow .
FF:Strong blow . B.O.B. in 3 - 5 secs.
FSI:Very weak blow . (surface)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2520.38	118.95	Initial Hydro-static
4	37.53	120.85	Open To Flow (1)
35	45.42	122.32	Shut-In(1)
93	1248.49	123.99	End Shut-In(1)
94	35.88	123.65	Open To Flow (2)
152	62.16	125.49	Shut-In(2)
245	1076.86	127.93	End Shut-In(2)
247	2407.61	128.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 33%g 32%o 35%m	0.30
65.00	SOCGM 3%o 17%g 80%m	0.37
0.00	3400 ft. of gas in pipe	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Oper.Co.LLC
125 N.Market Ste.1000
Wichita Ks.67202
ATTN: Wes Hansen

#1 Michel
18-34s-11w Barber Ks
Job Ticket: 17917 **DST#: 5**
Test Start: 2003.10.27 @ 03:06:17

Tool Information

Drill Pipe:	Length: 4870.00 ft	Diameter: 3.80 inches	Volume: 68.31 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 68.90 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4994.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4968.00	
Shut In Tool	5.00			4973.00	
Hydraulic tool	5.00			4978.00	
Jars	5.00			4983.00	
Safety Joint	2.00			4985.00	
Packer	4.00			4989.00	27.00 Bottom Of Top Packer
Packer	5.00			4994.00	
Stubb	1.00			4995.00	
Recorder	0.00	6770	Inside	4995.00	
Perforations	25.00			5020.00	
Recorder	0.00	13222	Outside	5020.00	
Bullnose	5.00			5025.00	31.00 Bottom Packers & Anchor

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Oper.Co.LLC

#1 Michel

125 N.Market Ste.1000
Wichita Ks.67202

18-34s-11w Barber Ks

Job Ticket: 17917

DST#: 5

ATTN: Wes Hansen

Test Start: 2003.10.27 @ 03:06:17

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:

6000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.39 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GOCM 33%g 32%o 35%m	0.295
65.00	SOCGM 3%o 17%g 80%m	0.365
0.00	3400 ft. of gas in pipe	0.000

Total Length: 125.00 ft Total Volume: 0.660 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

