

KCC
AUG 18 2004
CONFIDENTIAL



DRILL STEM TEST REPORT

KCC
AUG 18 2004
CONFIDENTIAL

Prepared For: **Mull Drilling Co. Inc.**
PO Box 2758
Wichita, KS. 67201-2758

ATTN: Roger Martin

17-21s-12w-Stafford

Ha!! E #1-17

Start Date: 2004.04.28 @ 18:30:22

End Date: 2004.04.29 @ 03:19:22

Job Ticket #: 17388 DST #: 1

RECEIVED
AUG 19 2004
KCC WICHITA

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

Mull Drilling Co. Inc.

Hall E #1-17

17-21s-12w-Stafford

DST # 1

Lansing "A-G"

2004.04.28



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Mull Drilling Co. Inc.
 PO Box 2758
 Wichita, KS. 67201-2758
 ATTN: Roger Martin

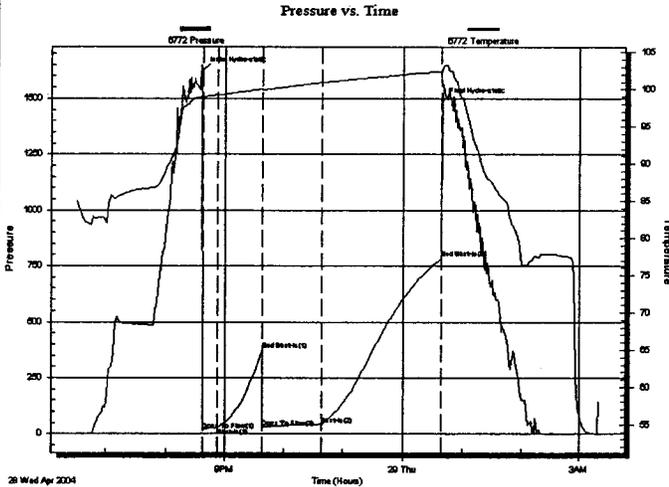
Hall E #1-17
 17-21s-12w-Stafford
 Job Ticket: 17388 **DST#: 1**
 Test Start: 2004.04.28 @ 18:30:22

GENERAL INFORMATION:

Formation: **Lansing "A-G"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:37:22
 Time Test Ended: 03:19:22
 Test Type: Conventional Bottom Hole
 Tester: Jason Mclemore
 Unit No: 24
 Interval: **3246.00 ft (KB) To 3355.00 ft (KB) (TVD)**
 Reference Elevations: 1870.00 ft (KB)
 Total Depth: 3355.00 ft (KB) (TVD) 1860.00 ft (CF)
 Hole Diameter: 7.80 inches Hole Condition: Good KB to GR/CF: 10.00 ft

Serial #: 6772 **Inside**
 Press@RunDepth: 41.89 psig @ 3251.00 ft (KB) Capacity: 7000.00 psig
 Start Date: 2004.04.28 End Date: 2004.04.29 Last Calib.: 1899.12.30
 Start Time: 18:30:52 End Time: 03:19:22 Time On Btm: 2004.04.28 @ 20:37:07
 Time Off Btm: 2004.04.29 @ 00:39:22

TEST COMMENT: FF-Weak Blow ,Built to 1-1/2"
 IS-No Blow back
 FFP-Weak Blow ,Built to 4"
 FSI-No Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1624.18	99.21	Initial Hydro-static
1	15.13	98.34	Open To Flow (1)
16	27.50	99.24	Shut-In(1)
61	373.96	100.07	End Shut-In(1)
62	27.20	99.99	Open To Flow (2)
121	41.89	100.91	Shut-In(2)
242	783.70	102.38	End Shut-In(2)
243	1487.50	102.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	Gassy Mud W/Oil Specs	0.30

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Co. Inc.

Hall E #1-17

PO Box 2758
Wichita, KS. 67201-2758

17-21s-12w-Stafford

Job Ticket: 17388

DST#: 1

ATTN: Roger Martin

Test Start: 2004.04.28 @ 18:30:22

Tool Information

Drill Pipe:	Length: 2993.00 ft	Diameter: 3.80 inches	Volume: 41.98 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 244.00 ft	Diameter: 2.25 inches	Volume: 1.20 bbl	Weight to Pull Loose: 58000.00 lb
			Total Volume: 43.18 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 51000.00 lb
Depth to Top Packer:	3246.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	109.38 ft			
Tool Length:	130.38 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			3226.00	
Shut In Tool	5.00			3231.00	
Hydraulic tool	5.00			3236.00	
Packer	5.00			3241.00	21.00 Bottom Of Top Packer
Packer	5.00			3246.00	
Stubb	1.00			3247.00	
Perforations	3.00			3250.00	
Change Over Sub	1.00			3251.00	
Recorder	0.00	6772	Inside	3251.00	
Blank Spacing	95.00			3346.00	
Change Over Sub	1.00			3347.00	
Perforations	5.38			3352.38	
Recorder	0.00	13252	Outside	3352.38	
Bullnose	3.00			3355.38	109.38 Bottom Packers & Anchor

Total Tool Length: 130.38



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Co. Inc.
PO Box 2758
Wichita, KS. 67201-2758
ATTN: Roger Martin

Hall E #1-17
17-21s-12w-Stafford
Job Ticket: 17388 DST#: 1
Test Start: 2004.04.28 @ 18:30:22

Mud and Cushion Information

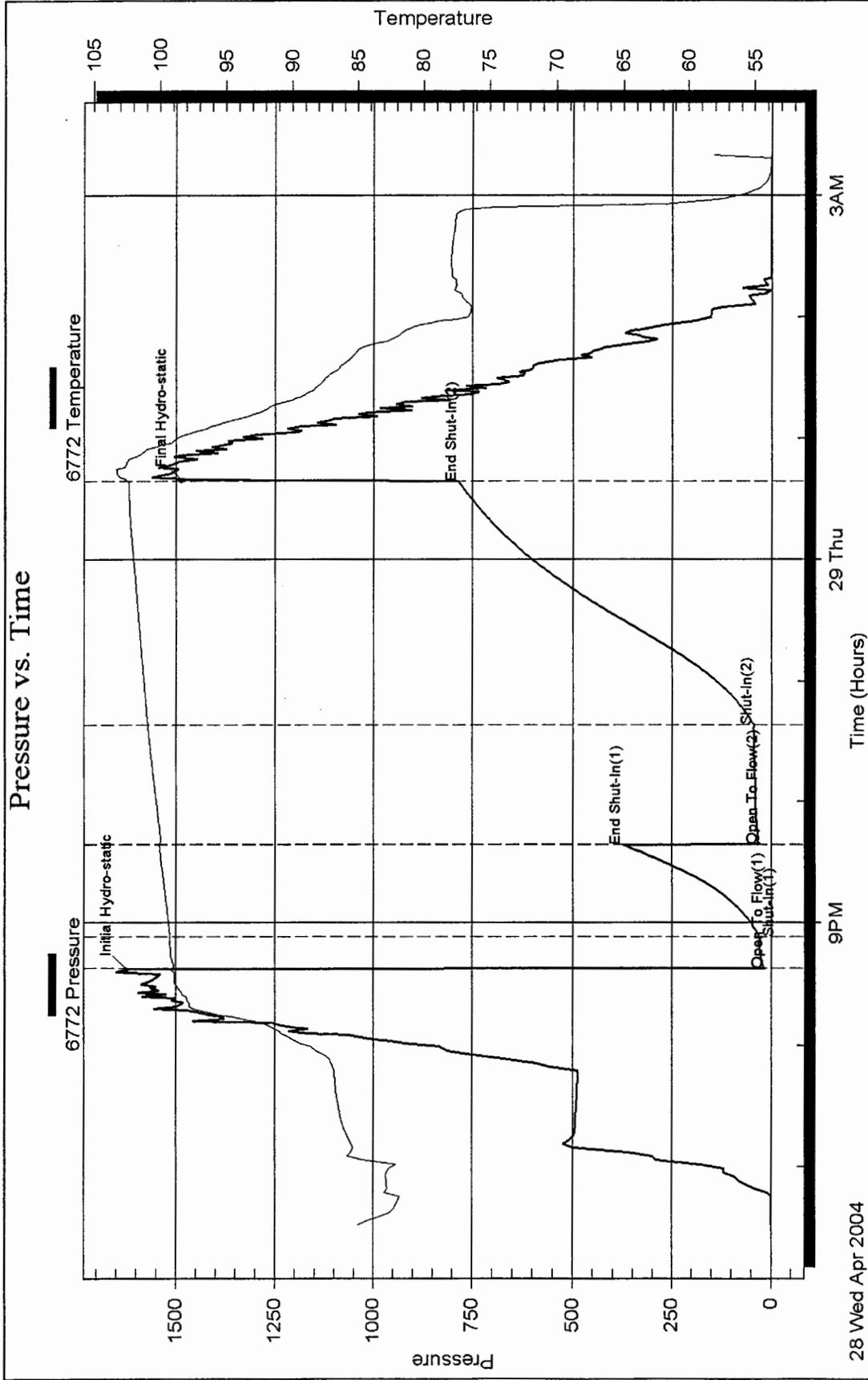
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 47.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.17 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4500.00 ppm			
Filter Cake: 2.00 inches			

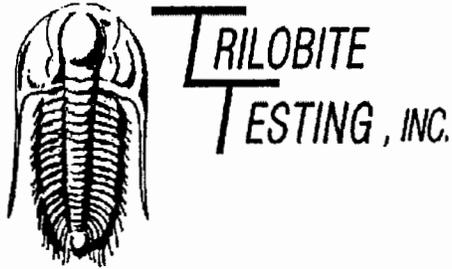
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	Gassy Mud W/Oil Specs	0.305

Total Length: 62.00 ft Total Volume: 0.305 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Co. Inc.**

PO Box 2758
Wichita, KS. 67201-2758

ATTN: Roger Martin

17-21s-12w-Stafford

Hall E #1-17

Start Date: 2004.04.29 @ 16:24:49

End Date: 2004.04.29 @ 21:45:49

Job Ticket #: 17389 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Mull Drilling Co. Inc.

Hall E #1-17

17-21s-12w-Stafford

DST # 2

Lansing-KC- "H&I"

2004.04.29



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Co. Inc.
PO Box 2758
Wichita, KS. 67201-2758

ATTN: Roger Martin

Hall E #1-17
17-21s-12w-Stafford
Job Ticket: 17389 **DST#: 2**
Test Start: 2004.04.29 @ 16:24:49

Tool Information

Drill Pipe:	Length: 3121.00 ft	Diameter: 3.80 inches	Volume: 43.78 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 244.00 ft	Diameter: 2.25 inches	Volume: 1.20 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 44.98 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 51000.00 lb
Depth to Top Packer:	3369.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	72.00 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			3349.00	
Shut In Tool	5.00			3354.00	
Hydraulic tool	5.00			3359.00	
Packer	5.00			3364.00	21.00 Bottom Of Top Packer
Packer	5.00			3369.00	
Stubb	1.00			3370.00	
Perforations	3.00			3373.00	
Change Over Sub	1.00			3374.00	
Recorder	0.00	6772	Inside	3374.00	
Blank Spacing	32.00			3406.00	
Change Over Sub	1.00			3407.00	
Perforations	10.00			3417.00	
Recorder	0.00	13252	Outside	3417.00	
Bullnose	3.00			3420.00	51.00 Bottom Packers & Anchor

Total Tool Length: 72.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Co. Inc.
PO Box 2758
Wichita, KS. 67201-2758
ATTN: Roger Martin

Hall E #1-17
17-21s-12w-Stafford
Job Ticket: 17389 **DST#: 2**
Test Start: 2004.04.29 @ 16:24:49

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 55.00 sec/qt
Water Loss: 10.17 in³
Resistivity: ohm.m
Salinity: 6500.00 ppm
Filter Cake: 2.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud	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:

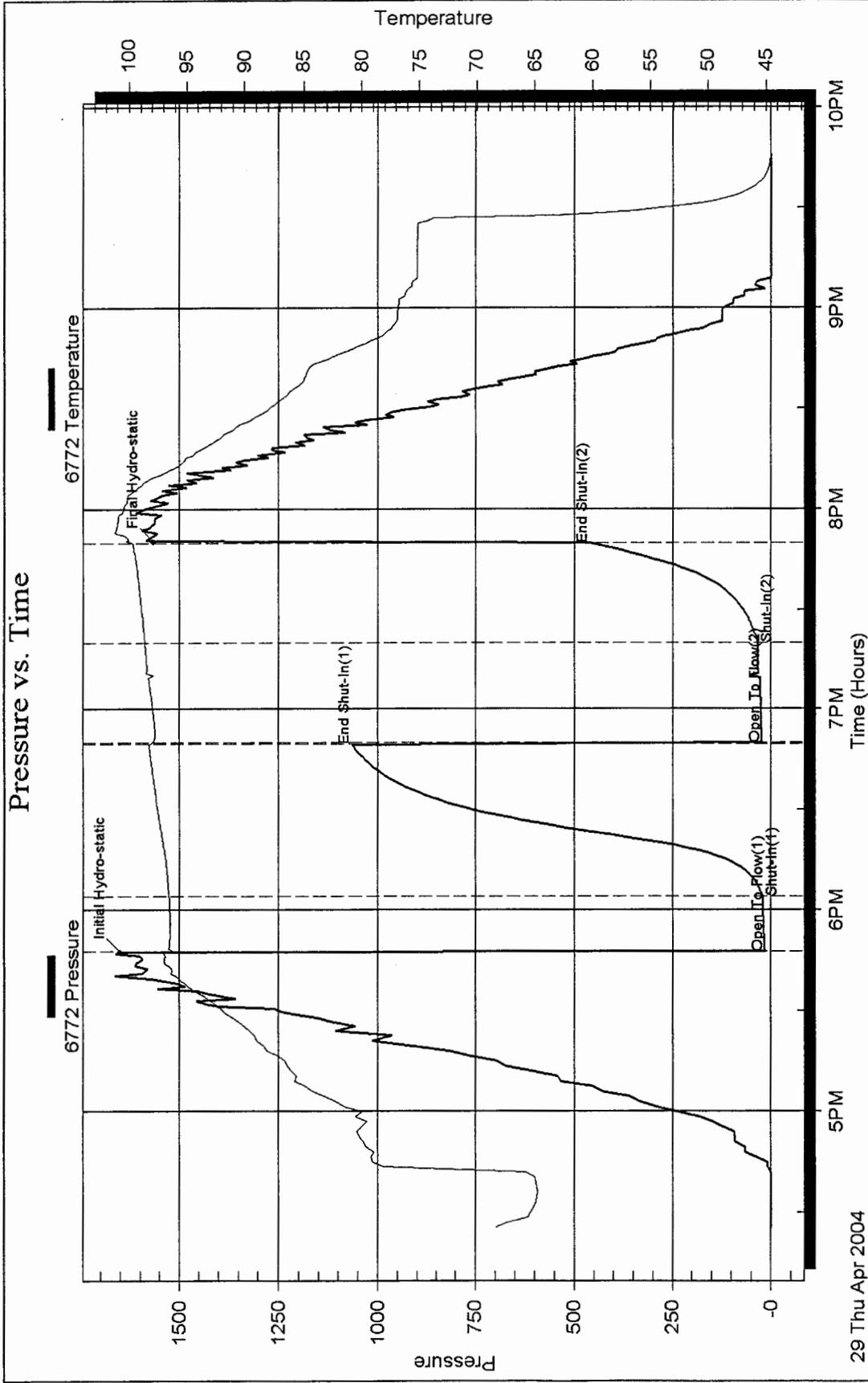
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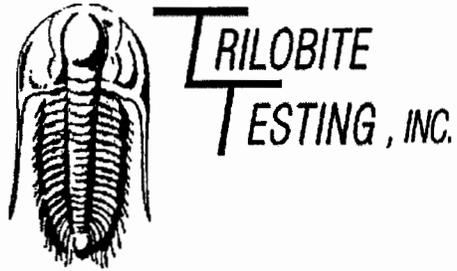
Inside

Mull Drilling Co. Inc.

17-21s-12w-Stafford

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Co. Inc.**

PO Box 2758
Wichita, KS. 67201-2758

ATTN: Roger Martin

17-21s-12w-Stafford

Hall E #1-17

Start Date: 2004.04.30 @ 07:24:01

End Date: 2004.04.30 @ 14:59:21

Job Ticket #: 17390 DST #: 3

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

Mull Drilling Co. Inc.

Hall E #1-17

17-21s-12w-Stafford

DST # 3

KC-"J-K-L"

2004.04.30



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Co. Inc.
PO Box 2758
Wichita, KS. 67201-2758
ATTN: Roger Martin

Hall E #1-17
17-21s-12w-Stafford
Job Ticket: 17390 **DST#: 3**
Test Start: 2004.04.30 @ 07:24:01

Tool Information

Drill Pipe:	Length: 3154.00 ft	Diameter: 3.80 inches	Volume: 44.24 bbl	Tool Weight: 2600.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 244.00 ft	Diameter: 2.25 inches	Volume: 1.20 bbl	Weight to Pull Loose: lb
		<u>Total Volume: 45.44 bbl</u>		Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3408.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	64.00 ft			
Tool Length:	85.00 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			3388.00	
Shut In Tool	5.00			3393.00	
Hydraulic tool	5.00			3398.00	
Packer	5.00			3403.00	21.00 Bottom Of Top Packer
Packer	5.00			3408.00	
Stubb	1.00			3409.00	
Perforations	3.00			3412.00	
Change Over Sub	1.00			3413.00	
Recorder	0.00	6772	Inside	3413.00	
Blank Spacing	31.00			3444.00	
Change Over Sub	1.00			3445.00	
Perforations	24.00			3469.00	
Recorder	0.00	13252	Outside	3469.00	
Bullnose	3.00			3472.00	64.00 Bottom Packers & Anchor

Total Tool Length: 85.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Co. Inc.
PO Box 2758
Wichita, KS. 67201-2758
ATTN: Roger Martin

Hall E #1-17
17-21s-12w-Stafford
Job Ticket: 17390 **DST#: 3**
Test Start: 2004.04.30 @ 07:24:01

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:	ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.17 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6500.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
260.00	HG & OCM 20%gas,26%oil,54%mud	1.424

Total Length: 260.00 ft Total Volume: 1.424 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6772

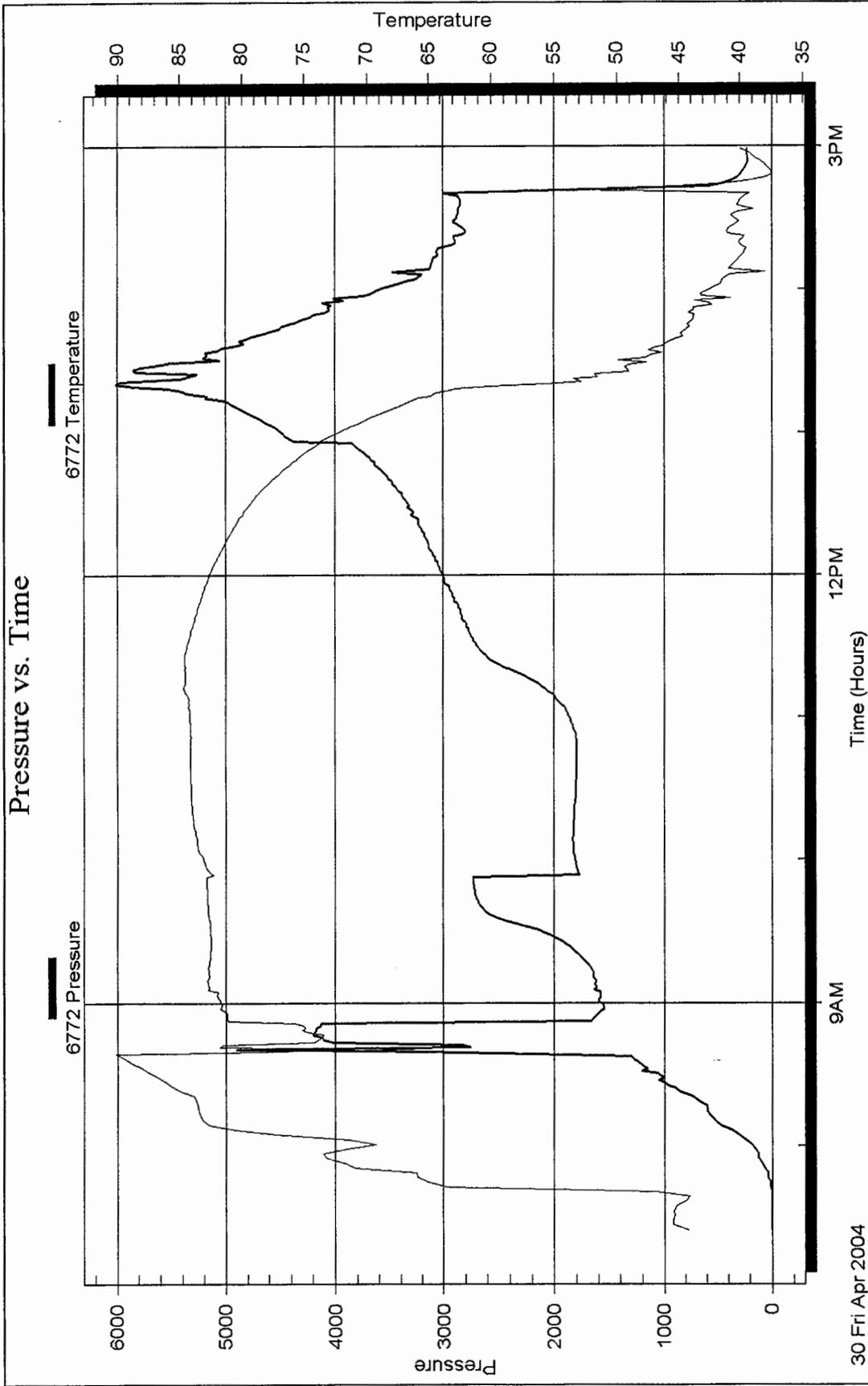
Inside

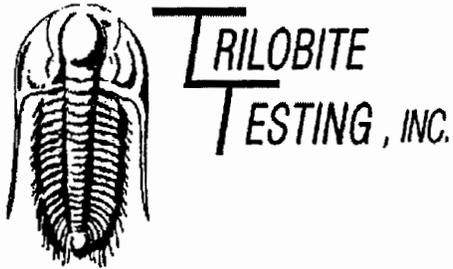
Mull Drilling Co. Inc.

17-21s-12w -Stafford

DST Test Number: 3

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Co. Inc.**

PO Box 2758
Wichita, KS. 67201-2758

ATTN: Roger Martin

17-21s-12w-Stafford

Hall E #1-17

Start Date: 2004.05.01 @ 04:17:27

End Date: 2004.05.01 @ 12:42:57

Job Ticket #: 17391 DST #: 4

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

Mull Drilling Co. Inc.

Hall E #1-17

17-21s-12w-Stafford

DST # 4

Arbuckle

2004.05.01



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Mull Drilling Co. Inc.
PO Box 2758
Wichita, KS. 67201-2758
ATTN: Roger Martin

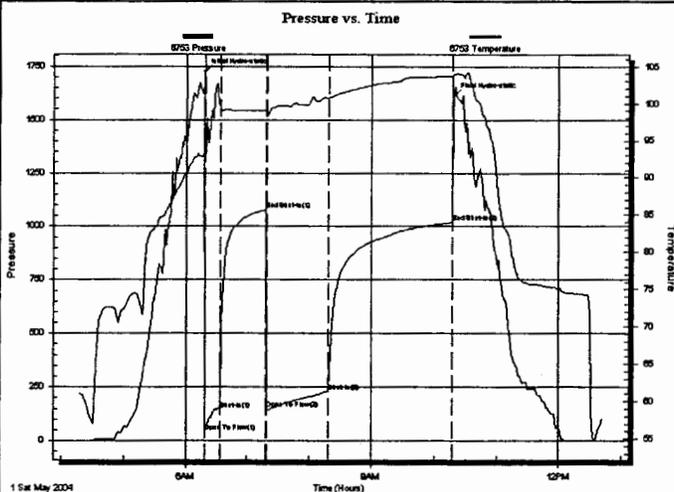
Hall E #1-17
17-21s-12w-Stafford
Job Ticket: 17391 **DST#: 4**
Test Start: 2004.05.01 @ 04:17:27

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: 06:18:37
Time Test Ended: 12:42:57
Test Type: Conventional Bottom Hole
Tester: Jason Mclemore
Unit No: 24
Interval: **3467.00 ft (KB) To 3550.00 ft (KB) (TVD)**
Reference Elevations: 1870.00 ft (KB)
Total Depth: 3550.00 ft (KB) (TVD) 1860.00 ft (CF)
Hole Diameter: 7.80 inches Hole Condition: Good KB to GR/CF: 10.00 ft

Serial #: 6753 **Inside**
Press@RunDepth: 230.06 psig @ 3472.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2004.05.01 End Date: 2004.05.01 Last Calib.: 1899.12.30
Start Time: 04:17:57 End Time: 12:42:57 Time On Btm: 2004.05.01 @ 06:18:07
Time Off Btm: 2004.05.01 @ 10:18:06

TEST COMMENT: FFP-Strong Blow, BOB in 6-1/2 min.
ISI-Blow back After 3 min. Built to 1/2"
FFP-Strong Blow, Built to BOB in 6 min.
FSI-Blow back After 3 min. Built to BOB in 12 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1722.42	93.70	Initial Hydro-static
1	42.69	92.98	Open To Flow (1)
16	145.86	99.37	Shut-in (1)
61	1078.09	99.03	End Shut-in (1)
61	146.74	98.74	Open To Flow (2)
121	230.06	100.78	Shut-in (2)
240	1019.07	103.67	End Shut-in (2)
240	1610.11	103.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	GMCO-28% Mud, 30% Oil 36& Gas, 6% Wtr	0.59
60.00	CGO	0.30
60.00	GOCM-TrWtr-33% Mud, 25% Oil, 40% Gas	20.30tr
124.00	GOCM-15% Mud, 13% Oil, 70% Gas, 2% Wtr	1.70
196.00	CGO	2.75

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Co. Inc.

Hall E #1-17

PO Box 2758
Wichita, KS. 67201-2758

17-21s-12w-Stafford

Job Ticket: 17391

DST#: 4

ATTN: Roger Martin

Test Start: 2004.05.01 @ 04:17:27

Tool Information

Drill Pipe:	Length: 3216.00 ft	Diameter: 3.80 inches	Volume: 45.11 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 244.00 ft	Diameter: 2.25 inches	Volume: 1.20 bbl	Weight to Pull Loose: 72000.00 lb
			Total Volume: 46.31 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3467.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	83.00 ft			
Tool Length:	104.00 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			3447.00	
Shut In Tool	5.00			3452.00	
Hydraulic tool	5.00			3457.00	
Packer	5.00			3462.00	21.00 Bottom Of Top Packer
Packer	5.00			3467.00	
Stubb	1.00			3468.00	
Perforations	3.00			3471.00	
Change Over Sub	1.00			3472.00	
Recorder	0.00	6753	inside	3472.00	
Blank Spacing	63.00			3535.00	
Change Over Sub	1.00			3536.00	
Perforations	11.00			3547.00	
Recorder	0.00	13252	Outside	3547.00	
Bullnose	3.00			3550.00	83.00 Bottom Packers & Anchor

Total Tool Length: 104.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Co. Inc.
PO Box 2758
Wichita, KS. 67201-2758

Hall E #1-17
17-21s-12w-Stafford
Job Ticket: 17391 **DST#: 4**
Test Start: 2004.05.01 @ 04:17:27

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 40 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl	
Water Loss: 9.18 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 7000.00 ppm		
Filter Cake: 2.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	GMCO-28%Mud,30%Oil36&Gas,6%Wtr	0.590
60.00	CGO	0.295
60.00	GOCM-TrWtr-33%Mud,25%Oil,40%Gas,2%W	0.295
124.00	GOCM-15%Mud,13%Oil,70%Gas,2%Wtr	1.703
196.00	CGO	2.749

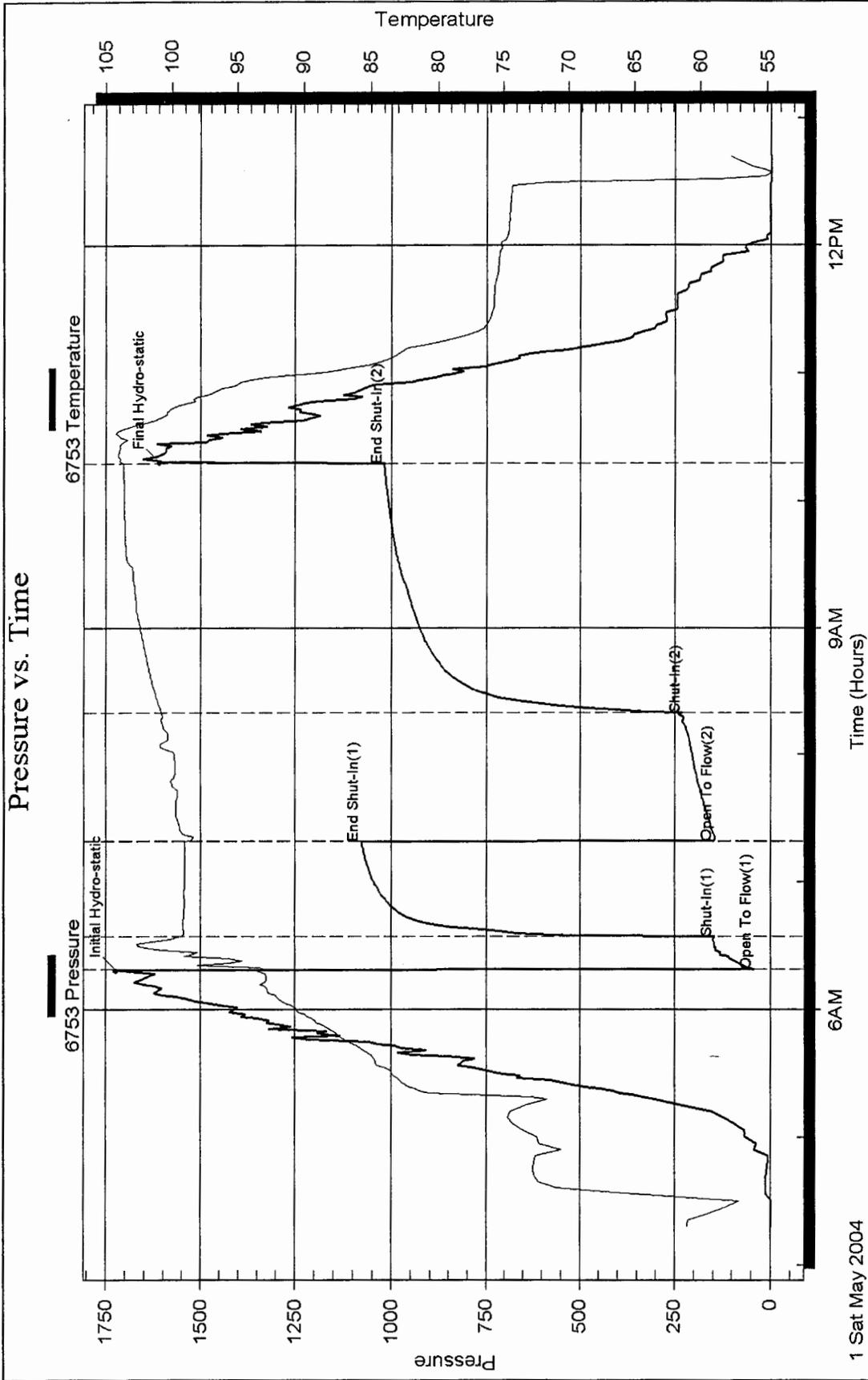
Total Length: 560.00 ft Total Volume: 5.632 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Co. Inc.**

PO Box 2758
Wichita, KS. 67201-2758

ATTN: Roger Martin

17-21s-12w-Stafford

Hall E #1-17

Start Date: 2004.05.01 @ 21:43:53

End Date: 2004.05.02 @ 05:54:23

Job Ticket #: 17392 DST #: 5

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

Mull Drilling Co. Inc.

Hall E #1-17

17-21s-12w-Stafford

DST # 5

Arbuckle

2004.05.01



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Mull Drilling Co. Inc.
 PO Box 2758
 Wichita, KS. 67201-2758
 ATTN: Roger Martin

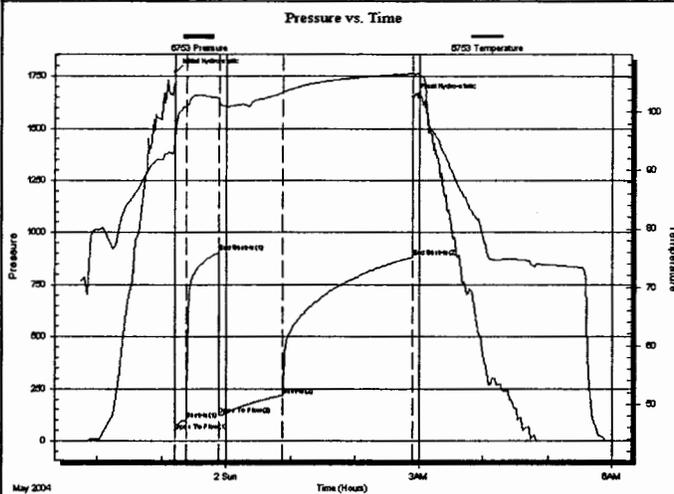
Hall E #1-17
17-21s-12w-Stafford
 Job Ticket: 17392 **DST#: 5**
 Test Start: 2004.05.01 @ 21:43:53

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:12:23
 Time Test Ended: 05:54:23
 Interval: **3546.00 ft (KB) To 3569.00 ft (KB) (TVD)**
 Total Depth: **3569.00 ft (KB) (TVD)**
 Hole Diameter: **7.80 inches** Hole Condition: Good
 Test Type: Conventional Bottom Hole
 Tester: Jason McEmore
 Unit No: 24
 Reference Elevations: 1870.00 ft (KB)
 1860.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 6753 Inside
 Press@RunDepth: 218.47 psig @ 3550.00 ft (KB) Capacity: 7000.00 psig
 Start Date: 2004.05.01 End Date: 2004.05.02 Last Calib.: 1899.12.30
 Start Time: 21:44:23 End Time: 05:54:23 Time On Btm: 2004.05.01 @ 23:12:13
 Time Off Btm: 2004.05.02 @ 02:54:32

TEST COMMENT: FFP-Strong Blow, BOB in 2-1/2 min
 ISI-Blow down n 5 min, Built to BOB in 4-1/2 min, Lasted throughout
 FFP-BOB on Opening
 FSI-Blow down n 5min, Built to BOB in 8 min, Lasted for 50 min then declined



PRESSURE SUMMARY

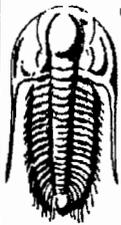
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1769.37	95.49	Initial Hydro-static
1	45.33	94.95	Open To Flow (1)
11	100.20	100.99	Shut-In(1)
41	903.50	102.39	End Shut-In(1)
41	125.99	101.92	Open To Flow (2)
101	218.47	103.32	Shut-In(2)
222	882.48	106.58	End Shut-In(2)
223	1649.62	106.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	GOCWM-40%G-10%O-10%W-40%M	0.59
60.00	GOCM-25%G-10%O-65%M	0.30
60.00	VSLMGOil-99%GO-1%M	0.30
322.00	Clean Gassy Oil	4.48
1.00	Tool Sample-70%O-10%W-20M	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Co. Inc.
PO Box 2758
Wichita, KS. 67201-2758
ATTN: Roger Martin

Hall E #1-17
17-21s-12w-Stafford
Job Ticket: 17392 **DST#: 5**
Test Start: 2004.05.01 @ 21:43:53

Tool Information

Drill Pipe:	Length: 3280.00 ft	Diameter: 3.80 inches	Volume: 46.01 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 244.00 ft	Diameter: 2.25 inches	Volume: 1.20 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 47.21 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3546.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	51.00 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			3519.00	
Shut In Tool	5.00			3524.00	
Hydraulic tool	5.00			3529.00	
Jars	5.00			3534.00	
Safety Joint	2.00			3536.00	
Packer	5.00			3541.00	28.00 Bottom Of Top Packer
Packer	5.00			3546.00	
Stubb	1.00			3547.00	
Perforations	3.00			3550.00	
Recorder	0.00	6753	Inside	3550.00	
Perforations	16.00			3566.00	
Recorder	0.00	13252	Outside	3566.00	
Bullnose	3.00			3569.00	23.00 Bottom Packers & Anchor

Total Tool Length: 51.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Co. Inc.
PO Box 2758
Wichita, KS. 67201-2758
ATTN: Roger Martin

Hall E #1-17
17-21s-12w-Stafford
Job Ticket: 17392 **DST#: 5**
Test Start: 2004.05.01 @ 21:43:53

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: 59.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 7000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	GOCWM-40%G-10%O-10%W-40%M	0.590
60.00	GOCM-25%G-10%O-65%M	0.295
60.00	VSLMCOil-99%GO-1%M	0.295
322.00	Clean Gassy Oil	4.480
1.00	Tool Sample-70%O-10%W-20M	0.014

Total Length: 563.00 ft Total Volume: 5.674 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

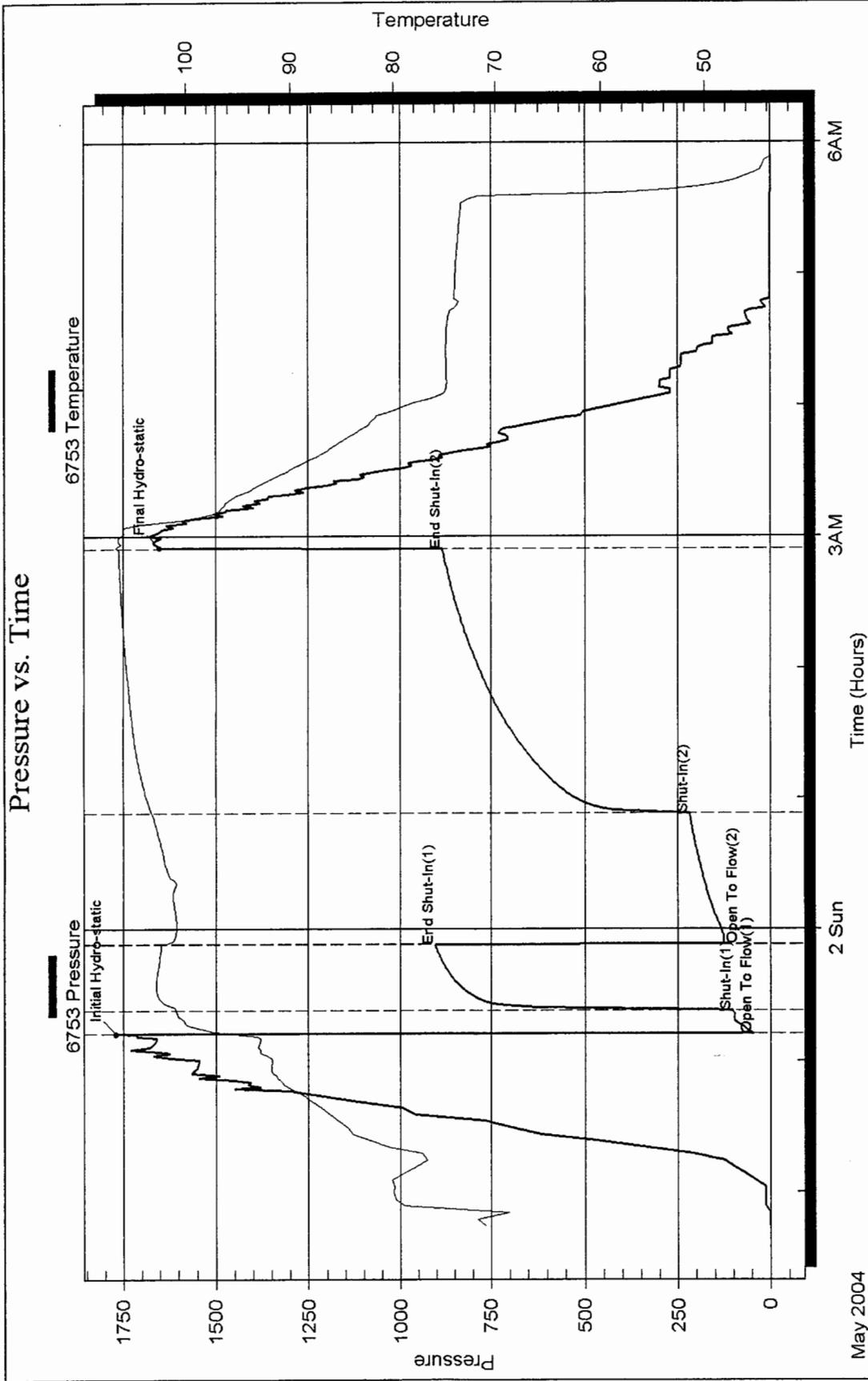
Serial #: 6753

Inside

Mull Drilling Co. Inc.

17-21s-12w-Stafford

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 17392

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