

## DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations, Inc.**

P.O. Box 33  
Russell, KS 67665

ATTN: Allen Bangert

**6-11-20 Ellis co KS**

**Richards #11**

Start Date: 2001.06.22 @ 00:58:38

End Date: 2001.06.22 @ 08:06:07

Job Ticket #: 15453      DST #: 1

MAI OIL OPERATIONS, INC.  
RUSSELL, KS 67665  
JUL 19 2001  
CONFIDENTIAL

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

99888



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Mai Oil Operations, Inc.  
 P.O. Box 33  
 Russell, KS 67665  
 ATTN: Allen Bangert

**Richards #11**  
**6-11-20 Ellis co KS**  
 Job Ticket: 15453      **DST#: 1**  
 Test Start: 2001.06.22 @ 00:58:38

**GENERAL INFORMATION:**

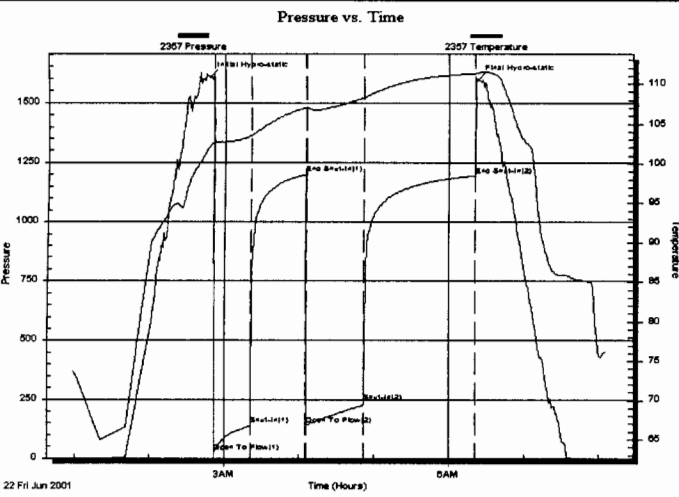
Formation: **A-B-C-**  
 Deviated: No      Whipstock:      ft (KB)  
 Time Tool Opened: 02:51:37  
 Time Test Ended: 08:06:07  
 Interval: **3332.00 ft (KB) To 3395.00 ft (KB) (TVD)**  
 Total Depth: **3395.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: Fair  
 Test Type: Conventional Bottom Hole  
 Tester: Dan Bangle  
 Unit No: 21  
 Reference Elevations: 2071.00 ft (KB)  
 2066.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 2357**

**Inside**

Press@RunDepth: 235.99 psig @ 3339.01 ft (KB)      Capacity: 7000.00 psig  
 Start Date: 2001.06.22      End Date: 2001.06.22      Last Calib.: 2001.01.25  
 Start Time: 00:58:38      End Time: 08:06:07      Time On Btm: 2001.06.22 @ 02:48:07  
 Time Off Btm: 2001.06.22 @ 06:23:07

**TEST COMMENT:** IF-Strong BOB in 21 min  
 FF-Strong BOB in 40 min



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1606.23	102.25	Initial Hydro-static
4	22.65	102.65	Open To Flow (1)
33	138.03	103.51	Shut-In(1)
77	1199.76	107.04	End Shut-In(1)
78	139.85	107.06	Open To Flow (2)
124	235.99	108.30	Shut-In(2)
213	1195.05	111.26	End Shut-In(2)
215	1594.13	111.33	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
124.00	Heavy mud w with few oil spots	0.61
327.00	muddy water Rw .10 @ 80 = 70000	4.05

**Gas Rates**

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Mai Oil Operations, Inc.

**Richards #11**

P.O. Box 33  
Russell, KS 67665

**6-11-20 Ellis co KS**

Job Ticket: 15453      **DST#: 1**

ATTN: Allen Bangert

Test Start: 2001.06.22 @ 00:58:38

**Tool Information**

Drill Pipe:	Length: 3156.00 ft	Diameter: 3.80 inches	Volume: 44.27 bbl	Tool Weight: 1400.00 lb
Heavy Wt. Pipe:	Length: 0.01 ft	Diameter: 0.01 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 183.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 45.17 bbl</u>	Tool Chased 0.01 ft
Drill Pipe Above KB:	28.01 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3332.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	63.02 ft			
Tool Length:	84.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3312.00	
S.I. Tool	5.00			3317.00	
HMV	5.00			3322.00	
Packer	5.00			3327.00	21.00      Bottom Of Top Packer
Packer	5.00			3332.00	
Stubb	1.00			3333.00	
Perforations	5.00			3338.00	
C.O. Sub	1.00			3339.00	
Recorder	0.01	2357	Inside	3339.01	
Blank Spacing	32.00			3371.01	
C.O. Sub	1.00			3372.01	
Recorder	0.01	13254	Outside	3372.02	
Perforations	20.00			3392.02	
Bullnose	3.00			3395.02	63.02      Bottom Packers & Anchor

**Total Tool Length: 84.02**

MAINTAINED

JUL 19 2001

CONSERVED



**TRILOBITE TESTING, INC.**

### DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations, Inc.

Richards #11

P.O. Box 33  
Russell, KS 67665

6-11-20 Ellis co KS

Job Ticket: 15453

DST#: 1

ATTN: Allen Bangert

Test Start: 2001.06.22 @ 00:58:38

#### 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: 45.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.92 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: inches			

#### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	Heavy mud w ith few oil spots	0.610
327.00	muddy w ater Rw .10 @ 80 = 70000	4.049

Total Length: 451.00 ft      Total Volume: 4.659 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

Serial #: 2357

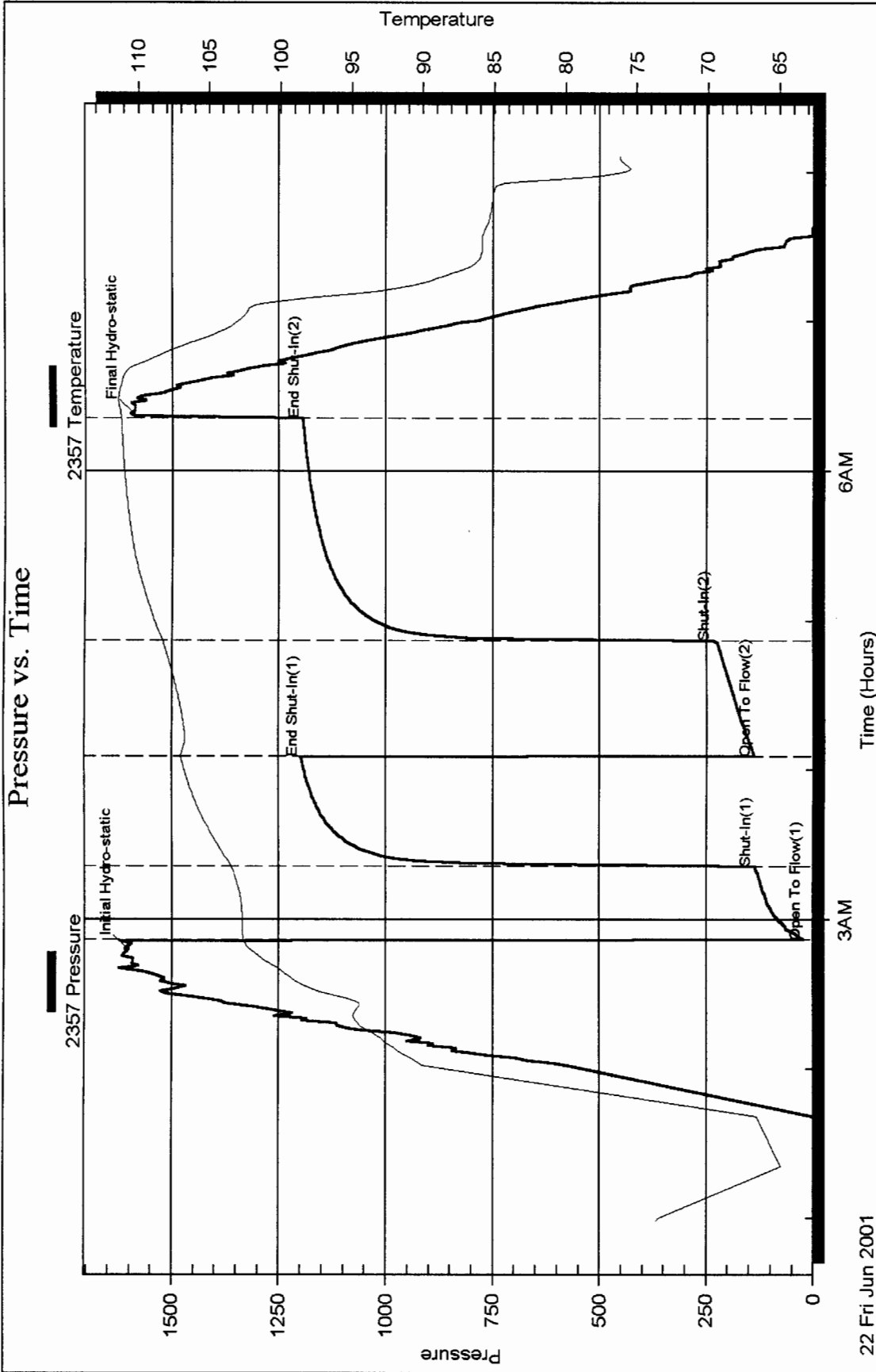
Inside

Mai Oil Operations, Inc.

6-11-20 Ellis co KS

DST Test Number: 1

### Pressure vs. Time



22 Fri Jun 2001

Trilobite Testing, Inc

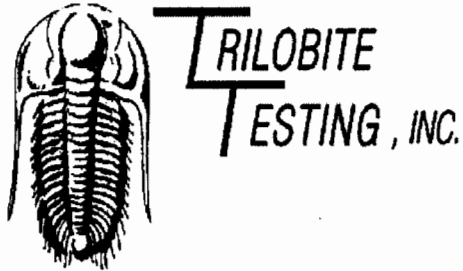
Ref. No: 15453

Printed: 2001.06.25 @ 09:25:05 Page 5

WINDING - 04/11/2001

JUL 19 2001

CONSERVATION DIVISION



## DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations, Inc.**

P.O. Box 33  
Russell, KS 67665

ATTN: Allen Bangert

**6-11-20 Ellis co KS**

**Richards #11**

Start Date: 2001.06.22 @ 15:57:18

End Date: 2001.06.22 @ 23:13:48

Job Ticket #: 15454                      DST #: 2

*Received by  
Richardson Oil Company*

JUL 19 2001

CONSERVATION DEPT

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Mai Oil Operations, Inc.

**Richards #11**

P.O. Box 33  
Russell, KS 67665

**6-11-20 Ellis co KS**

Job Ticket: 15454      **DST#: 2**

ATTN: Allen Bangert

Test Start: 2001.06.22 @ 15:57:18

**GENERAL INFORMATION:**

Formation: "F-G-"

Deviated: No      Whipstock:      ft (KB)

Test Type: Conventional Bottom Hole

Time Tool Opened: 18:09:18

Tester: Dan Bangle

Time Test Ended: 23:13:48

Unit No: 21

Interval: 3414.00 ft (KB) To 3450.00 ft (KB) (TVD)

Reference Elevations: 2071.00 ft (KB)

Total Depth: 3450.00 ft (KB) (TVD)

2066.00 ft (CF)

Hole Diameter: 7.88 inches      Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 2357**

**Inside**

Press@RunDepth: 154.21 psig @ 3420.01 ft (KB)

Capacity: 7000.00 psig

Start Date: 2001.06.22      End Date: 2001.06.22

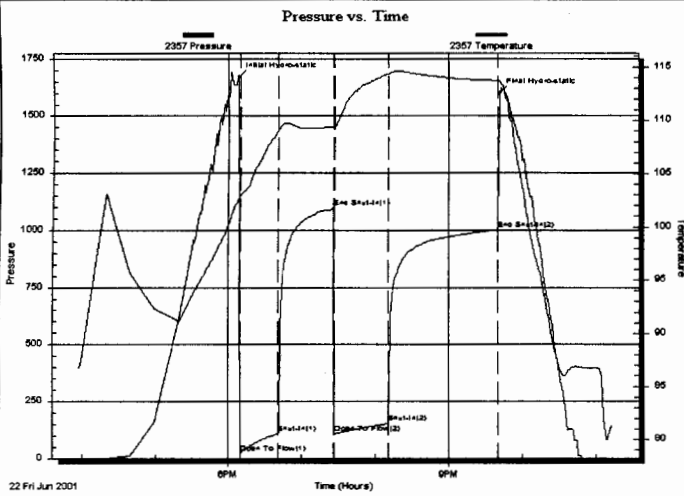
Last Calib.: 2001.01.25

Start Time: 15:57:19      End Time: 23:13:48

Time On Btm: 2001.06.22 @ 18:08:18

Time Off Btm: 2001.06.22 @ 21:41:18

**TEST COMMENT:** IF- Weak building to 4" fair blow  
FF-WEak building to 1 1/2"



**PRESSURE SUMMARY**

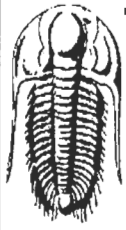
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1669.92	102.67	Initial Hydro-static
1	20.69	102.91	Open To Flow (1)
33	107.51	109.09	Shut-In(1)
78	1094.51	109.41	End Shut-In(1)
78	108.83	109.41	Open To Flow (2)
122	154.21	114.34	Shut-In(2)
212	1000.75	113.72	End Shut-In(2)
213	1596.34	113.71	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
20.00	Mud w / oil spots	0.10
245.00	Water      Rw .10 @ 81 = 70000 ppm	1.95

**Gas Rates**

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations, Inc.

Richards #11

P.O. Box 33  
Russell, KS 67665

6-11-20 Ellis co KS

Job Ticket: 15454

DST#: 2

ATTN: Allen Bangert

Test Start: 2001.06.22 @ 15:57:18

### Tool Information

Drill Pipe:	Length: 3218.00 ft	Diameter: 3.80 inches	Volume: 45.14 bbl	Tool Weight: 1200.00 lb
Heavy Wt. Pipe:	Length: 0.01 ft	Diameter: 0.01 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 183.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 45000.00 lb
			Total Volume: 46.04 bbl	Tool Chased 0.01 ft
Drill Pipe Above KB:	8.01 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3414.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.02 ft			
Tool Length:	57.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3394.00	
S.I. Tool	5.00			3399.00	
HMV	5.00			3404.00	
Packer	5.00			3409.00	21.00 Bottom Of Top Packer
Packer	5.00			3414.00	
Stubb	1.00			3415.00	
Perforations	5.00			3420.00	
Recorder	0.01	2357	Inside	3420.01	
Perforations	27.00			3447.01	
Recorder	0.01	13254	Outside	3447.02	
Bullnose	3.00			3450.02	36.02 Bottom Packers & Anchor


**Total Tool Length: 57.02**

RECORDED  
KANSAS CORPORATION

JUL 19 2001

CONSERVATION DIVISION

19888

 <b>TRILOBITE TESTING, INC.</b>	<b>DRILL STEM TEST REPORT</b>		<b>FLUID SUMMARY</b>
	Mai Oil Operations, Inc. P.O. Box 33 Russell, KS 67665  ATTN: Allen Bangert	<b>Richards #11</b> <b>6-11-20 Ellis co KS</b> Job Ticket: 15454      DST#: 2 Test Start: 2001.06.22 @ 15:57:18	

**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: 42.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.74 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
20.00	Mud w / oil spots	0.098
245.00	Water      Rw .10 @ 81 = 70000 ppm	1.952

Total Length: 265.00 ft      Total Volume: 2.050 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

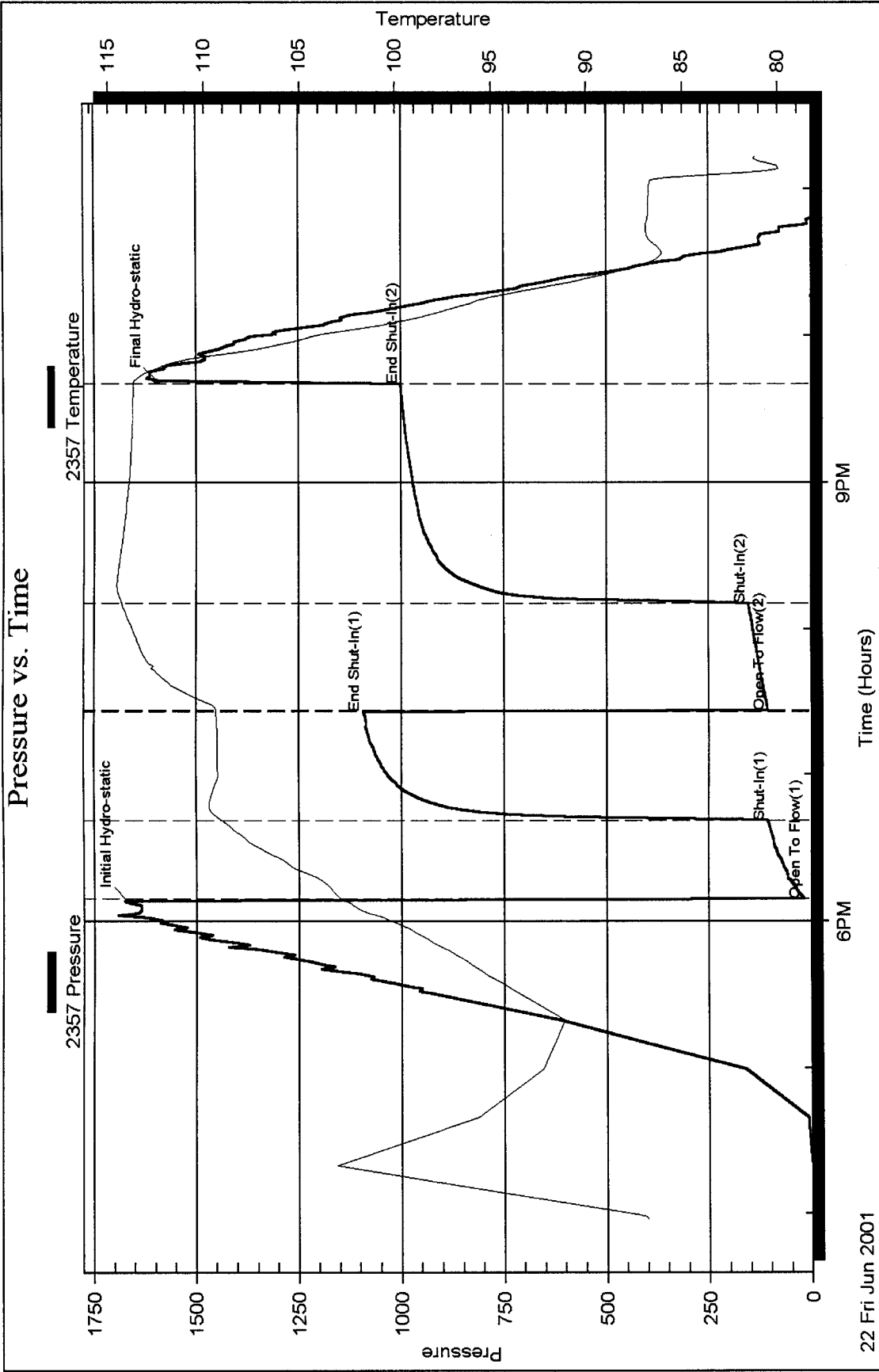
Serial #: 2357

Inside Mai Oil Operations, Inc.

6-11-20 Ellis co KS

DST Test Number: 2

### Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 15454

Printed: 2001.06.25 @ 09:26:09 Page 5

JUL 19 2001

CONSERVATION DESIGN



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations, Inc.**

P.O. Box 33  
Russell, KS 67665

ATTN: Allen Bangert

**6-11-20 Ellis co KS**

**Richards #11**

Start Date: 2001.06.23 @ 08:56:46

End Date: 2001.06.23 @ 16:02:16

Job Ticket #: 15455      DST #: 3

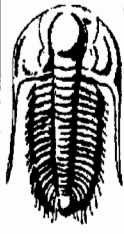
MAINTENANCE  
JUL 19 2001  
CONSERVATION

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Mai Oil Operations, Inc.  
Richards #11  
6-11-20 Ellis co KS  
DST # 3  
H-J-K  
L  
2001.06.23



# TRILOBITE TESTING, INC.

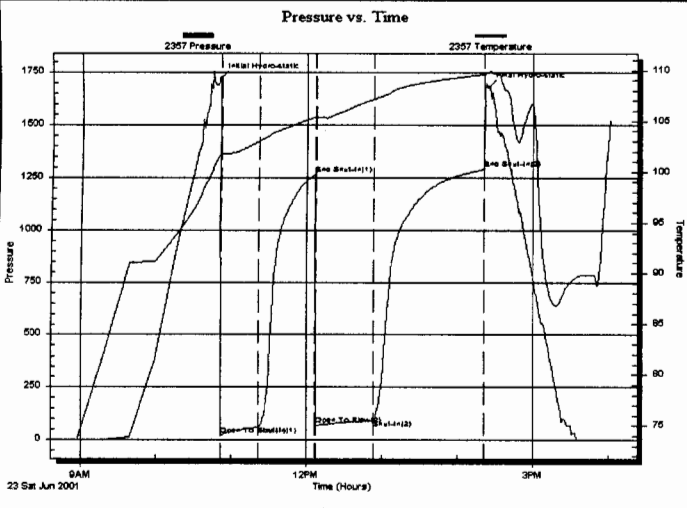
## DRILL STEM TEST REPORT

Mai Oil Operations, Inc. Richards #11  
 P.O. Box 33 6-11-20 Ellis co KS  
 Russell, KS 67665 Job Ticket: 15455 DST#: 3  
 ATTN: Allen Bangert Test Start: 2001.06.23 @ 08:56:46

**GENERAL INFORMATION:**  
 Formation: **H-I-J-K L**  
 Deviated: **No Whipstock:** ft (KB) Test Type: Conventional Bottom Hole  
 Time Tool Opened: 10:51:16 Tester: Dan Bangle  
 Time Test Ended: 16:02:16 Unit No: 21  
 Interval: **3466.00 ft (KB) To 3550.00 ft (KB) (TVD)** Reference Elevations: 2071.00 ft (KB)  
 Total Depth: **3550.00 ft (KB) (TVD)** 2066.00 ft (CF)  
 Hole Diameter: **7.88 inches** Hole Condition: Fair KB to GR/CF: 5.00 ft

**Serial #: 2357** **Inside**  
 Press@RunDepth: **94.39 psig @ 3473.01 ft (KB)** Capacity: 7000.00 psig  
 Start Date: **2001.06.23** End Date: **2001.06.23** Last Calib.: 2001.01.25  
 Start Time: **08:56:47** End Time: **16:02:16** Time On Btm: 2001.06.23 @ 10:50:46  
Time Off Btm: 2001.06.23 @ 14:24:46

**TEST COMMENT:** IF Weak building to 4"  
 FF-Weak building to 4"



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1721.10	101.70	Initial Hydro-static
1	21.67	101.73	Open To Flow (1)
31	61.65	103.01	Shut-In(1)
76	1264.02	105.39	End Shut-In(1)
77	68.66	105.39	Open To Flow (2)
123	94.39	107.14	Shut-In(2)
211	1289.12	109.58	End Shut-In(2)
214	1680.23	109.81	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
61.00	Oil cut gassy mud 10%g 30%o 60%m	0.30
122.00	Heavy mud cut gassy oil 10%g 60%o 30%o	0.60

Gas Rates			
	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Mai Oil Operations, Inc.  
P.O. Box 33  
Russell, KS 67665  
ATTN: Allen Bangert

**Richards #11**  
**6-11-20 Ellis co KS**  
Job Ticket: 15455      **DST#:3**  
Test Start: 2001.06.23 @ 08:56:46

**Tool Information**

Drill Pipe:	Length: 3278.00 ft	Diameter: 3.80 inches	Volume: 45.98 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.01 ft	Diameter: 0.01 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 183.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 46.88 bbl</u>	Tool Chased 0.01 ft
Drill Pipe Above KB:	16.01 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3466.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	84.02 ft			
Tool Length:	105.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3446.00	
S.I. Tool	5.00			3451.00	
HMV	5.00			3456.00	
Packer	5.00			3461.00	21.00 Bottom Of Top Packer
Packer	5.00			3466.00	
Stubb	1.00			3467.00	
Perforations	5.00			3472.00	
C.O. Sub	1.00			3473.00	
Recorder	0.01	2357	Inside	3473.01	
Blank Spacing	63.00			3536.01	
C.O. Sub	1.00			3537.01	
Recorder	0.01	13254	Outside	3537.02	
Perforations	10.00			3547.02	
Bullnose	3.00			3550.02	84.02 Bottom Packers & Anchor

**Total Tool Length: 105.02**

RECORDED  
JUL 19 2001  
CONSOLIDATED



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Mai Oil Operations, Inc.  
P.O. Box 33  
Russell, KS 67665  
ATTN: Allen Bangert

**Richards #11**  
**6-11-20 Ellis co KS**  
Job Ticket: 15455      **DST#: 3**  
Test Start: 2001.06.23 @ 08:56:46

**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: 45.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.75 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
61.00	Oil cut gassy mud 10%g 30%o 60%m	0.300
122.00	Heavy mud cut gassy oil 10%g 60%o 30%m	0.600

Total Length: 183.00 ft      Total Volume: 0.900 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: 124' Gas in pipe

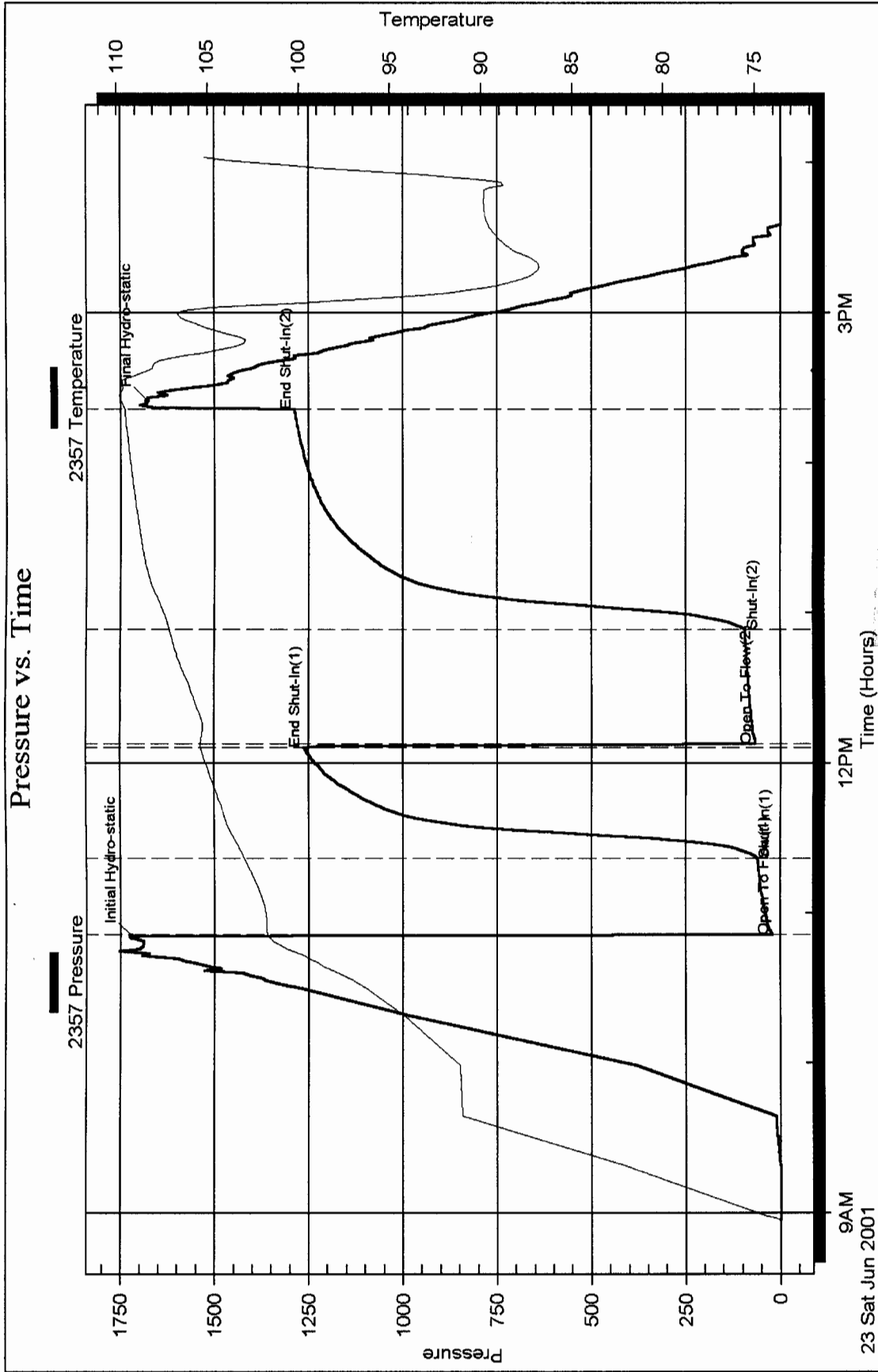
DST Test Number: 3

6-11-20 Ellis co KS

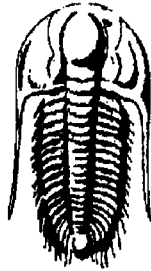
Inside Mai Oil Operations, Inc.

Serial #: 2357

### Pressure vs. Time



2357 Pressure vs. Time



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations, Inc.**

P.O. Box 33  
Russell, KS 67665

ATTN: Allen Bangert

**6-11-20 Ellis co KS**

**Richards #11**

Start Date: 2001.06.24 @ 08:58:05

End Date: 2001.06.24 @ 16:56:05

Job Ticket #: 14456                      DST #: 4

2001.06.24  
KANSAS COMPTROLLER

JUL 19 2001

CONSERVATION DIVISION

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



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Mai Oil Operations, Inc.

Richards #11

P.O. Box 33  
Russell, KS 67665

6-11-20 Ellis co KS

Job Ticket: 14456

DST#: 4

ATTN: Allen Bangert

Test Start: 2001.06.24 @ 08:58:05

**GENERAL INFORMATION:**

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:51:05

Time Test Ended: 16:56:05

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 21

Interval: **3677.00 ft (KB) To 3701.00 ft (KB) (TVD)**

Reference Elevations: 2071.00 ft (KB)

Total Depth: 3701.00 ft (KB) (TVD)

2066.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 2357**

**Inside**

Press@RunDepth: 763.26 psig @ 3683.01 ft (KB)

Capacity: 7000.00 psig

Start Date: 2001.06.24

End Date: 2001.06.24

Last Calib.: 2001.01.25

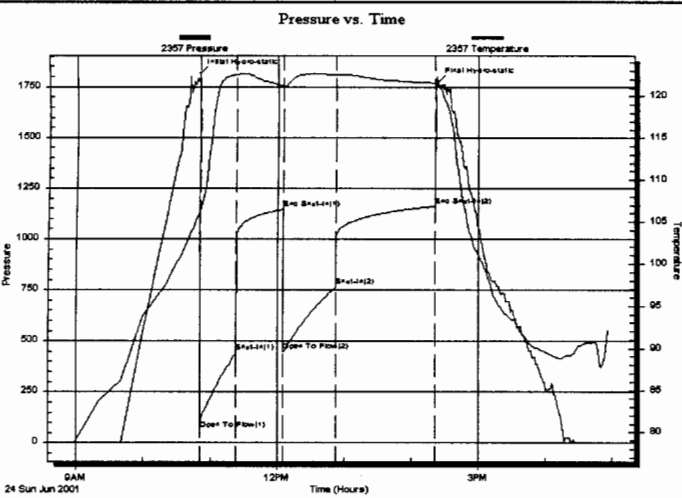
Start Time: 08:58:06

End Time: 16:56:05

Time On Btm: 2001.06.24 @ 10:50:35

Time Off Btm: 2001.06.24 @ 14:23:35

TEST COMMENT: IF-Strong BOB in 3 min  
FF-Strong BOB in 6 min



**PRESSURE SUMMARY**

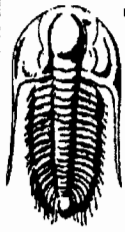
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1815.31	106.32	Initial Hydro-static
1	61.67	106.48	Open To Flow (1)
33	443.73	122.55	Shut-In(1)
75	1145.10	121.29	End Shut-In(1)
75	448.15	121.28	Open To Flow (2)
122	763.26	122.57	Shut-In(2)
211	1160.80	121.57	End Shut-In(2)
213	1772.98	121.48	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
30.00	Clean oil	0.15
434.00	Oil cut w ater 20%o 80%w	4.69
186.00	Slightly oil cut w ater 5%o 95%w	2.61
930.00	Water R <sub>w</sub> .23 @ 80 = 28000	13.05

**Gas Rates**

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Mai Oil Operations, Inc.

**Richards #11**

P.O. Box 33  
Russell, KS 67665

**6-11-20 Ellis co KS**

Job Ticket: 14456

**DST#: 4**

ATTN: Allen Bangert

Test Start: 2001.06.24 @ 08:58:05

## Tool Information

Drill Pipe:	Length: 3499.00 ft	Diameter: 3.80 inches	Volume: 49.08 bbl	Tool Weight: 900.00 lb
Heavy Wt. Pipe:	Length: 0.01 ft	Diameter: 0.01 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 183.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 49.98 bbl</u>	Tool Chased 0.01 ft
Drill Pipe Above KB:	26.01 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3677.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.02 ft			
Tool Length:	45.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3657.00	
S.I. Tool	5.00			3662.00	
HMV	5.00			3667.00	
Packer	5.00			3672.00	21.00 Bottom Of Top Packer
Packer	5.00			3677.00	
Stubb	1.00			3678.00	
Perforations	5.00			3683.00	
Recorder	0.01	2357	Inside	3683.01	
Perforations	15.00			3698.01	
Recorder	0.01	13248	Outside	3698.02	
Bullnose	3.00			3701.02	24.02 Bottom Packers & Anchor

**Total Tool Length: 45.02**

KANSAS CONSERVATION DEPARTMENT  
JUL 19 2001  
CONSERVATION DISTRICT

99889



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations, Inc.

Richards #11

P.O. Box 33  
Russell, KS 67665

6-11-20 Ellis co KS

Job Ticket: 14456

DST#: 4

ATTN: Allen Bangert

Test Start: 2001.06.24 @ 08:58:05

## 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: 7.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Clean oil	0.147
434.00	Oil cut w ater 20%o 80%w	4.694
186.00	Slightly oil cut w ater 5%o 95%w	2.609
930.00	Water Rw .23 @ 80 = 28000	13.045

Total Length: 1580.00 ft      Total Volume: 20.495 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

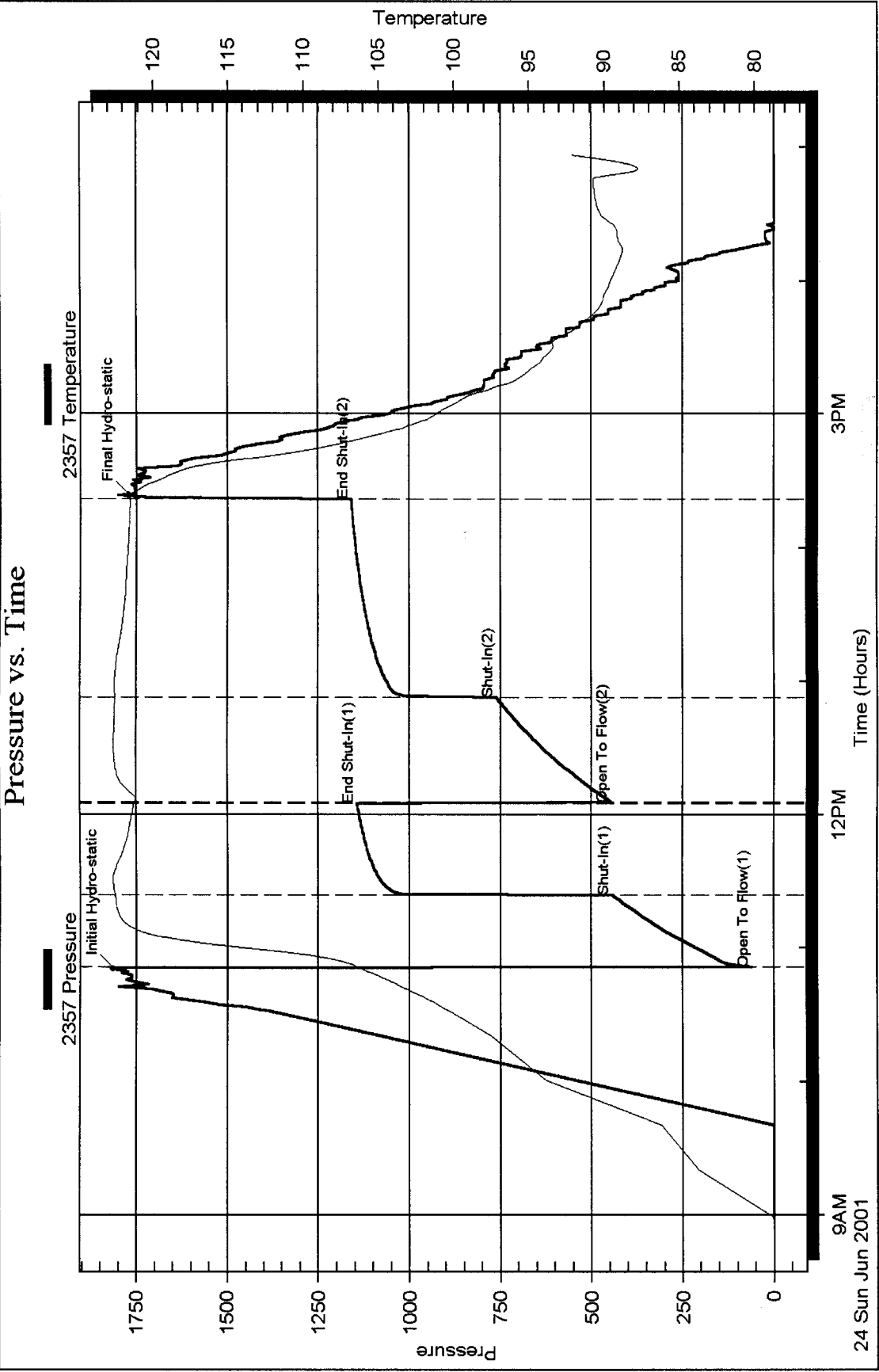
Serial #: 2357

Inside

Mai Oil Operations, Inc.

6-11-20 Ellis co KS

DST Test Number: 4



CONSERVATION DIVISION