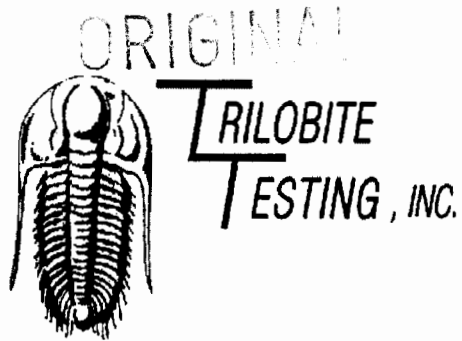


RECEIVED  
KANSAS CORPORATION COMMISSION

NOV 04 2005

CONSERVATION DIVISION  
WICHITA, KS



KCC  
CONFIDENTIAL

## DRILL STEM TEST REPORT

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

125 N. Market  
Ste. 1000  
Wichita, Ks 67202

ATTN: Vern Schrag

**8-34s-13w**

**Blunk #1**

Start Date: 2005.07.13 @ 12:54:24

End Date: 2005.07.13 @ 20:36:09

Job Ticket #: 21469                      DST #: 1

Woolsey Oper. Co; LLC

Blunk #1

8-34s-13w

DST # 1

Elgin Sand

2005.07.13

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: Vern Schrag

**Blunk #1**

**8-34s-13w**

Job Ticket: 21469

DST#: 1

Test Start: 2005.07.13 @ 12:54:24

### GENERAL INFORMATION:

Formation: **Egin Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:50:24

Time Test Ended: 20:36:09

Test Type: Conventional Bottom Hole

Tester: Davy Cline

Unit No: 24

Interval: **3740.00 ft (KB) To 3772.00 ft (KB) (TVD)**

Reference Elevations: 1716.00 ft (KB)

Total Depth: 3772.00 ft (KB) (TVD)

1705.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 6753**

**Inside**

Press@RunDepth: 749.45 psig @ 3741.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2005.07.13

End Date: 2005.07.13

Last Calib.: 2005.07.13

Start Time: 12:54:25

End Time: 20:36:09

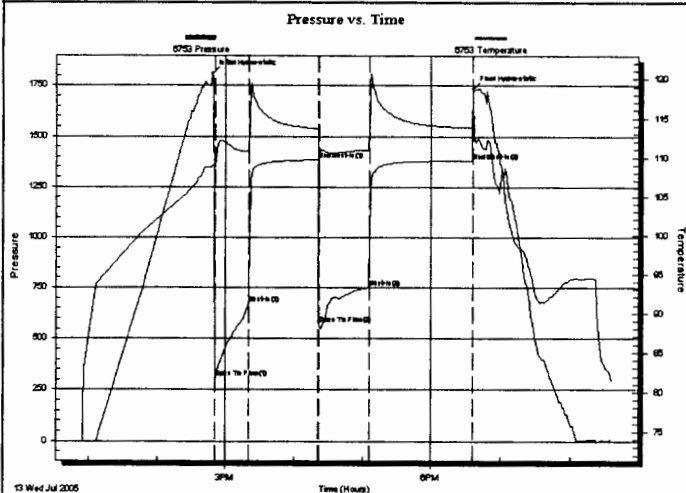
Time On Btm: 2005.07.13 @ 14:48:24

Time Off Btm: 2005.07.13 @ 18:36:39

**TEST COMMENT:** F: Strong blow . BOB 15 sec. GTS 3 min. 45 sec. Gauged gas. ( Had some mud to surface @ 28 min.)

1st Bled off for 30 min. Had a weak surface blow.

FF: Strong blow . BOB immediately. Gauged gas. ( Ha



### PRESSURE SUMMARY

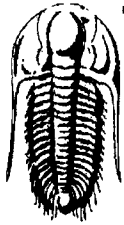
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1809.12	108.93	Initial Hydro-static
2	311.08	108.74	Open To Flow (1)
32	671.13	110.84	Shut-In(1)
93	1384.65	113.66	End Shut-In(1)
94	573.86	110.09	Open To Flow (2)
138	749.45	110.98	Shut-In(2)
228	1380.57	113.79	End Shut-In(2)
229	1734.03	118.10	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
835.00	Gassy Salt Water 100%w	8.57
0.00	Gas in all fluid free pipe.	0.00

### Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	45.00	400.69
Last Gas Rate	0.75	80.00	1474.51
Max. Gas Rate	0.50	165.00	1210.18



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Woolsey Oper. Co; LLC

125 N. Market  
Ste. 1000  
Wichita, Ks 67202  
ATTN: Vern Schrag

**Blunk #1**

**8-34s-13w**

Job Ticket: 21469

**DST#: 1**

Test Start: 2005.07.13 @ 12:54:24

### Tool Information

Drill Pipe:	Length: 3726.00 ft	Diameter: 3.25 inches	Volume: 38.23 bbl	Tool Weight: 2400.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 40000.00 lb
		<u>Total Volume:</u>	<u>38.23 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 36000.00 lb
Depth to Top Packer:	3740.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	60.00 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			3713.00	
Shut In Tool	5.00			3718.00	
Hydraulic tool	5.00			3723.00	
Jars	5.00			3728.00	
Safety Joint	2.00			3730.00	
Packer	5.00			3735.00	28.00 Bottom Of Top Packer
Packer	5.00			3740.00	
Stubb	1.00			3741.00	
Recorder	0.00	6753	Inside	3741.00	
Perforations	28.00			3769.00	
Recorder	0.00	13400	Outside	3769.00	
Bullnose	3.00			3772.00	32.00 Bottom Packers & Anchor

**Total Tool Length: 60.00**



**TRILOBITE**  
TESTING, INC.

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Woolsey Oper. Co; LLC

**Blunk #1**

125 N. Market  
Ste. 1000  
Wichita, Ks 67202  
ATTN: Vern Schrag

**8-34s-13w**

Job Ticket: 21469

**DST#: 1**

Test Start: 2005.07.13 @ 12:54:24

**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:

103000 ppm

Viscosity: 41.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 0.10 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
835.00	Gassy Salt Water 100%w	8.568
0.00	Gas in all fluid free pipe.	0.000

Total Length: 835.00 ft      Total Volume: 8.568 bbl

Num Fluid Samples: 1

Num Gas Bombs: 0

Serial #: DC

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments: Water Recovery- .064 ohms @ 85 deg.



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Woolsey Oper. Co; LLC

**Blunk #1**

125 N. Market  
Ste. 1000  
Wichita, Ks 67202  
ATTN: Vern Schrag

**8-34s-13w**

Job Ticket: 21469

**DST#: 1**

Test Start: 2005.07.13 @ 12:54:24

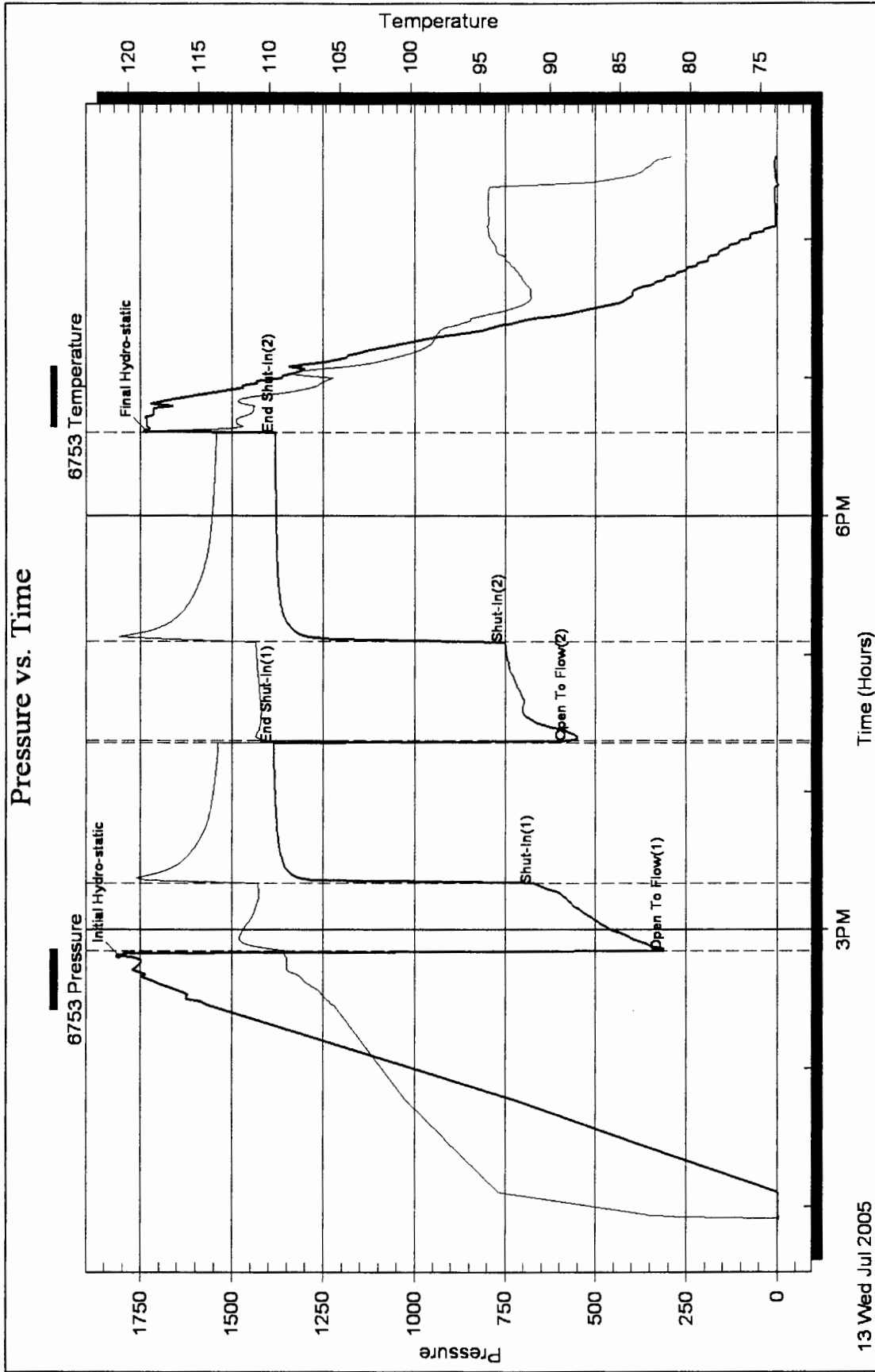
### Gas Rates Information

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 <sup>3</sup> /d)
1	5	0.50	45.00	400.69
1	10	0.50	90.00	704.25
1	15	0.50	118.00	893.13
1	20	0.50	134.00	1001.06
1	25	0.50	150.00	1108.99
1	30	0.50	165.00	1210.18
2	5	0.75	30.00	693.52
2	10	0.75	80.00	1474.51
2	15	0.75	85.00	1552.61
2	20	0.75	80.00	1474.51
2	25	0.75	80.00	1474.51
2	30	0.75	80.00	1474.51
2	35	0.75	80.00	1474.51
2	40	0.75	80.00	1474.51
2	45	0.75	80.00	1474.51

# Pressure vs. Time



13 Wed Jul 2005



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

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

125 N. Market  
Ste. 1000  
Wichita, Ks 67202

ATTN: Vern Schrag

**8-34s-13w**

**Blunk #1**

Start Date: 2005.07.16 @ 11:08:14

End Date: 2005.07.16 @ 20:24:14

Job Ticket #: 20767                      DST #: 2

Woolsey Oper. Co; LLC

Blunk #1

8-34s-13w

DST # 2

Mississippi

2005.07.16

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: Vern Schrag

**Blunk #1**

**8-34s-13w**

Job Ticket: 20767

**DST#: 2**

Test Start: 2005.07.16 @ 11:08:14

### GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 13:25:29

Time Test Ended: 20:24:14

Test Type: **Conventional Bottom Hole**

Tester: **Jake Fahrenbruch**

Unit No: **19**

Interval: **4723.00 ft (KB) To 4801.00 ft (KB) (TVD)**

Reference Elevations: **1716.00 ft (KB)**

Total Depth: **4801.00 ft (KB) (TVD)**

**1705.00 ft (CF)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

KB to GR/CF: **11.00 ft**

**Serial #: 6667**

**Inside**

Press@RunDepth: **86.52 psig @ 4724.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2005.07.16**

End Date: **2005.07.16**

Last Calib.: **2005.07.16**

Start Time: **11:08:19**

End Time: **20:24:14**

Time On Btrm: **2005.07.16 @ 13:22:29**

Time Off Btrm: **2005.07.16 @ 17:55:44**

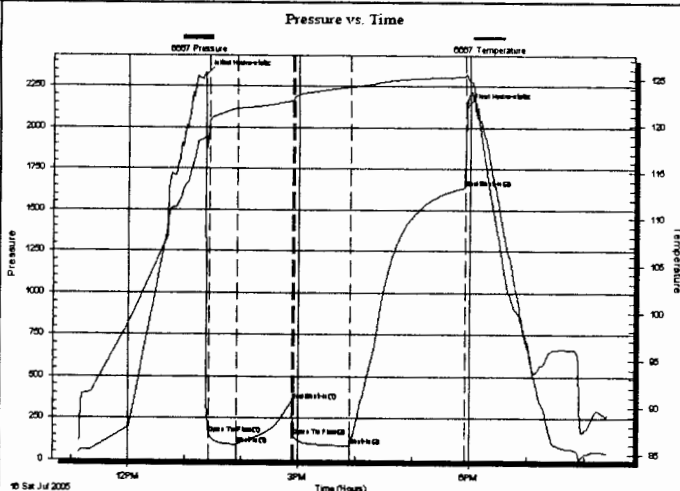
### TEST COMMENT:

IF: Strong blow, BOB 1min 30sec.

IS: Bled off, blow back building to BOB in 20min.

FF: Strong blow, BOB immediately.

FSt: Bled off, no blow back.



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2322.08	118.77	Initial Hydro-static
3	152.70	120.53	Open To Flow (1)
33	93.80	121.88	Shut-In(1)
91	356.93	122.68	End Shut-In(1)
93	140.38	123.01	Open To Flow (2)
151	86.52	124.16	Shut-In(2)
272	1636.89	125.30	End Shut-In(2)
274	2126.66	125.63	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
30.00	Drig. mud 100% m	0.42
0.00	GIP 2835'	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

**Blunk #1**

125 N. Market  
Ste. 1000  
Wichita, Ks 67202  
ATTN: Vern Schrag

**8-34s-13w**

Job Ticket: 20767

**DST#: 2**

Test Start: 2005.07.16 @ 11:08:14

### Tool Information

Drill Pipe:	Length: 4704.00 ft	Diameter: 3.80 inches	Volume: 65.98 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 49000.00 lb
			<u>Total Volume: 65.98 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	4723.00 ft			Final 43000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	78.00 ft			
Tool Length:	106.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

### Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4700.00	
Hydraulic tool	5.00			4705.00	
Perforations	5.00			4710.00	
Safety Joint	3.00			4713.00	
Packer	5.00			4718.00	28.00 Bottom Of Top Packer
Packer	5.00			4723.00	
Stubb	1.00			4724.00	
Recorder	0.00	6667	Inside	4724.00	
Perforations	34.00			4758.00	
Change Over Sub	1.00			4759.00	
Blank Spacing	31.00			4790.00	
Change Over Sub	1.00			4791.00	
Perforations	7.00			4798.00	
Recorder	0.00	11019	Outside	4798.00	
Bullnose	3.00			4801.00	78.00 Bottom Packers & Anchor

**Total Tool Length: 106.00**



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Woolsey Oper. Co; LLC

**Blunk #1**

125 N. Market  
Ste. 1000  
Wichita, Ks 67202  
ATTN: Vern Schrag

**8-34s-13w**

Job Ticket: 20767

**DST#: 2**

Test Start: 2005.07.16 @ 11:08:14

**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: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.04 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
30.00	Drig. mud 100%m	0.421
0.00	GIP 2835'	0.000

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: GIP was very indistinct.

Serial #: 6667

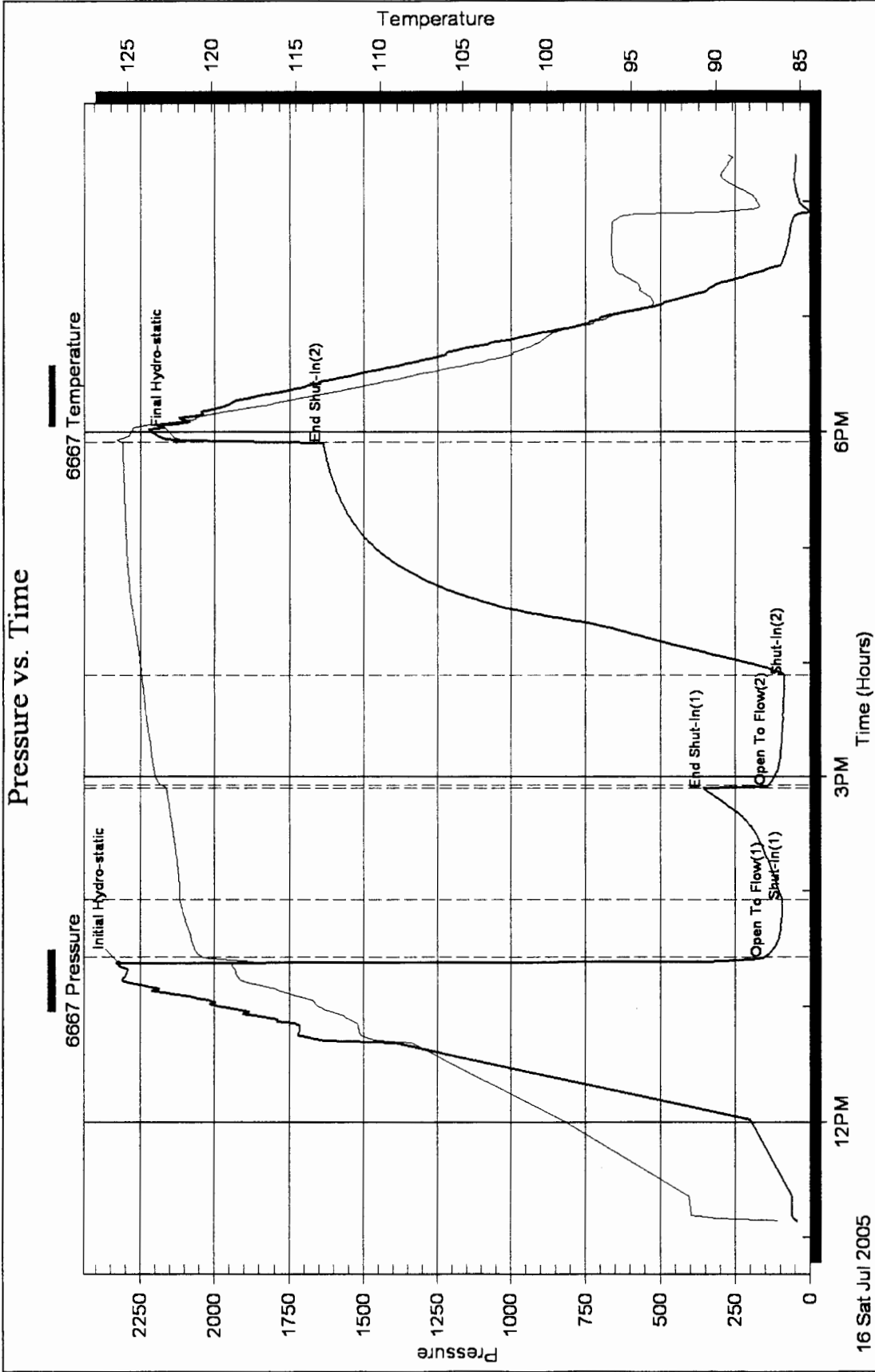
Inside

Woolsey Oper. Co. LLC

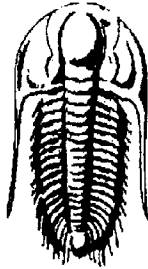
8-34s-13w

DST Test Number: 2

### 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: Vern Schrag

**8-34s-13w**

**Blunk #1**

Start Date: 2005.07.17 @ 07:34:39

End Date: 2005.07.17 @ 16:29:39

Job Ticket #: 20768                      DST #: 3

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

Woolsey Oper. Co; LLC

Blunk #1

8-34s-13w

DST # 3

Osage

2005.07.17



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Woolsey Oper. Co; LLC

**Blunk #1**

125 N. Market  
Ste. 1000  
Wichita, Ks 67202  
ATTN: Vern Schrag

**8-34s-13w**

Job Ticket: 20768

**DST#: 3**

Test Start: 2005.07.17 @ 07:34:39

## GENERAL INFORMATION:

Formation: **Osage**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 09:55:39

Time Test Ended: 16:29:39

Test Type: **Conventional Bottom Hole**

Tester: **Jake Fahrenbruch**

Unit No: **19**

Interval: **4857.00 ft (KB) To 4884.00 ft (KB) (TVD)**

Reference Elevations: **1716.00 ft (KB)**

Total Depth: **4801.00 ft (KB) (TVD)**

**1705.00 ft (CF)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

KB to GR/CF: **11.00 ft**

**Serial #: 6667** **Inside**

Press@RunDepth: **96.78 psig @ 4858.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2005.07.17**

End Date:

**2005.07.17**

Last Calib.: **2005.07.17**

Start Time: **07:34:44**

End Time:

**16:29:39**

Time On Btrr: **2005.07.17 @ 09:53:39**

Time Off Btrr: **2005.07.17 @ 14:30:24**

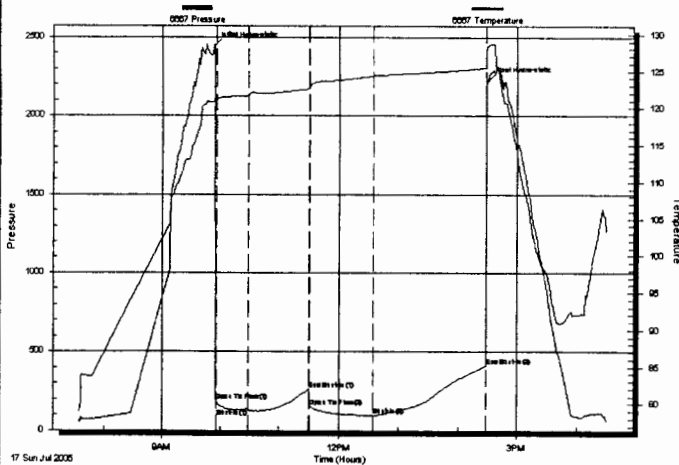
**TEST COMMENT:** **IF: Fair blow @ 8".**

**IS: Bled off, no blow back.**

**FF: Fair blow, BOB 50 min.**

**FS: Bled off, no blow back.**

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2444.52	120.92	Initial Hydro-static
2	188.32	120.82	Open To Flow (1)
35	138.26	121.68	Shut-In(1)
97	262.40	122.64	End Shut-In(1)
98	148.96	122.88	Open To Flow (2)
161	96.78	124.38	Shut-In(2)
275	411.98	125.50	End Shut-In(2)
277	2223.71	128.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	SLGCOSM 2%g2%o96%m	0.21
0.00	500' GIP	0.00
0.00	0	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

**Blunk #1**

125 N. Market  
Ste. 1000  
Wichita, Ks 67202  
ATTN: Vern Schrag

**8-34s-13w**  
Job Ticket: 20768      **DST#: 3**  
Test Start: 2005.07.17 @ 07:34:39

**Tool Information**

Drill Pipe:	Length: 4860.00 ft	Diameter: 3.80 inches	Volume: 68.17 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
		<u>Total Volume:</u>	68.17 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	4857.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4834.00	
Hydraulic tool	5.00			4839.00	
Jars	5.00			4844.00	
Safety Joint	3.00			4847.00	
Packer	5.00			4852.00	28.00      Bottom Of Top Packer
Packer	5.00			4857.00	
Stubb	1.00			4858.00	
Recorder	0.00	6667	Inside	4858.00	
Perforations	23.00			4881.00	
Recorder	0.00	11019	Outside	4881.00	
Bullnose	3.00			4884.00	27.00      Bottom Packers & Anchor

**Total Tool Length: 55.00**



**TRILOBITE**  
TESTING, INC

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Woolsey Oper. Co; LLC

**Blunk #1**

125 N. Market  
Ste. 1000  
Wichita, Ks 67202  
ATTN: Vern Schrag

**8-34s-13w**

Job Ticket: 20768

**DST#: 3**

Test Start: 2005.07.17 @ 07:34:39

## 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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.04 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	SLGCOSM 2%g2%o96%m	0.210
0.00	500' GIP	0.000
0.00	0	0.000

Total Length: 15.00 ft      Total Volume: 0.210 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

