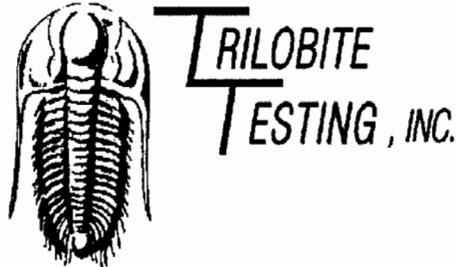


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## DRILL STEM TEST REPORT

Prepared For: **Dreiling Oil Inc**

Box 550  
Hays Ks 67601

ATTN: Terry Piesker

**6-13-17 Ellis-Ks**

**A Staab #5**

Start Date: 2003.09.26 @ 21:15:53

End Date: 2003.09.27 @ 03:55:53

Job Ticket #: 16174      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**

Dreiling Oil Inc

**A Staab #5**

Box 550  
Hays Ks 67601

**6-13-17 Ellis-Ks**

Job Ticket: 16174

**DST#: 1**

ATTN: Terry Plesker

Test Start: 2003.09.26 @ 21:15:53

**GENERAL INFORMATION:**

Formation: **Toronto/LKC "C"**  
 Deviated: **No Whipstock:** ft (KB)  
 Time Tool Opened: 23:17:53  
 Time Test Ended: 03:55:53

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Test Type: **Conventional Bottom Hole**  
 Tester: **Dan Bangle**  
 Unit No: **21**

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Interval: **3279.00 ft (KB) To 3370.00 ft (KB) (TVD)**  
 Total Depth: **3370.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Good**

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Reference Elevations: **2061.00 ft (KB)**  
**2056.00 ft (CF)**  
 KB to GR/CF: **5.00 ft**

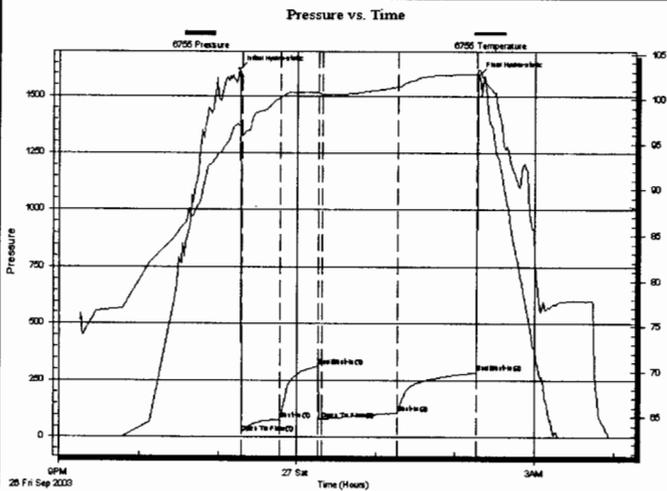
**Serial #: 6755**

**Inside**

Press@RunDepth: **106.02 psig @ 3284.00 ft (KB)**  
 Start Date: **2003.09.26** End Date: **2003.09.27**  
 Start Time: **21:15:54** End Time: **03:55:53**

Capacity: **7000.00 psig**  
 Last Calib.: **2003.09.27**  
 Time On Btm: **2003.09.26 @ 23:15:53**  
 Time Off Btm: **2003.09.27 @ 02:17:23**

**TEST COMMENT:** IF-Strong BOB in 19 min  
 IS-Weak building to 2"  
 FF-Strong BOB in 10 min  
 FSI-Weak steady surface blow



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1619.60	97.07	Initial Hydro-static
2	20.38	96.21	Open To Flow (1)
31	78.47	100.12	Shut-In (1)
60	313.28	100.75	End Shut-In (1)
63	79.53	100.57	Open To Flow (2)
120	106.02	101.36	Shut-In (2)
181	285.29	102.74	End Shut-In (2)
182	1593.57	103.27	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
154.00	MCGsyO 10%g 60%o 30%m	0.78
90.00	CGsyO 20%g 80%o	1.26
0.00	310 GIP	0.00

**Gas Rates**

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dreiling Oil Inc

**A Staab #5**

Box 550  
Hays Ks 67601

**6-13-17 Ellis-Ks**

Job Ticket: 16174

**DST#: 1**

ATTN: Terry Flesker

Test Start: 2003.09.26 @ 21:15:53

### Tool Information

Drill Pipe:	Length: 3111.00 ft	Diameter: 3.80 inches	Volume: 43.64 bbl	Tool Weight: 1800.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 152.00 ft	Diameter: 2.25 inches	Volume: 0.75 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 44.39 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3279.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	91.00 ft			
Tool Length:	112.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3259.00	
Shut In Tool	5.00			3264.00	
Hydraulic tool	5.00			3269.00	
Packer	5.00			3274.00	21.00 Bottom Of Top Packer
Packer	5.00			3279.00	
Stubb	1.00			3280.00	
Perforations	3.00			3283.00	
Change Over Sub	1.00			3284.00	
Recorder	0.00	6755	Inside	3284.00	
Blank Spacing	62.00			3346.00	
Change Over Sub	1.00			3347.00	
Recorder	0.00	13254	Outside	3347.00	
Perforations	20.00			3367.00	
Bullnose	3.00			3370.00	91.00 Bottom Packers & Anchor

**Total Tool Length: 112.00**



**TRILOBITE TESTING, INC.**

### DRILL STEM TEST REPORT

FLUID SUMMARY

Dreiling Oil Inc

A Staab #5

Box 550  
Hays Ks 67601

6-13-17 Ellis-Ks

Job Ticket: 16174

DST#: 1

ATTN: Terry Plesker

Test Start: 2003.09.26 @ 21:15:53

#### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

#### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
154.00	MCGsyO 10%g 60%o 30%m	0.776
90.00	CGsyO 20%g 80%o	1.262
0.00	310 GIP	0.000

Total Length: 244.00 ft      Total Volume: 2.038 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

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Serial #: 6755

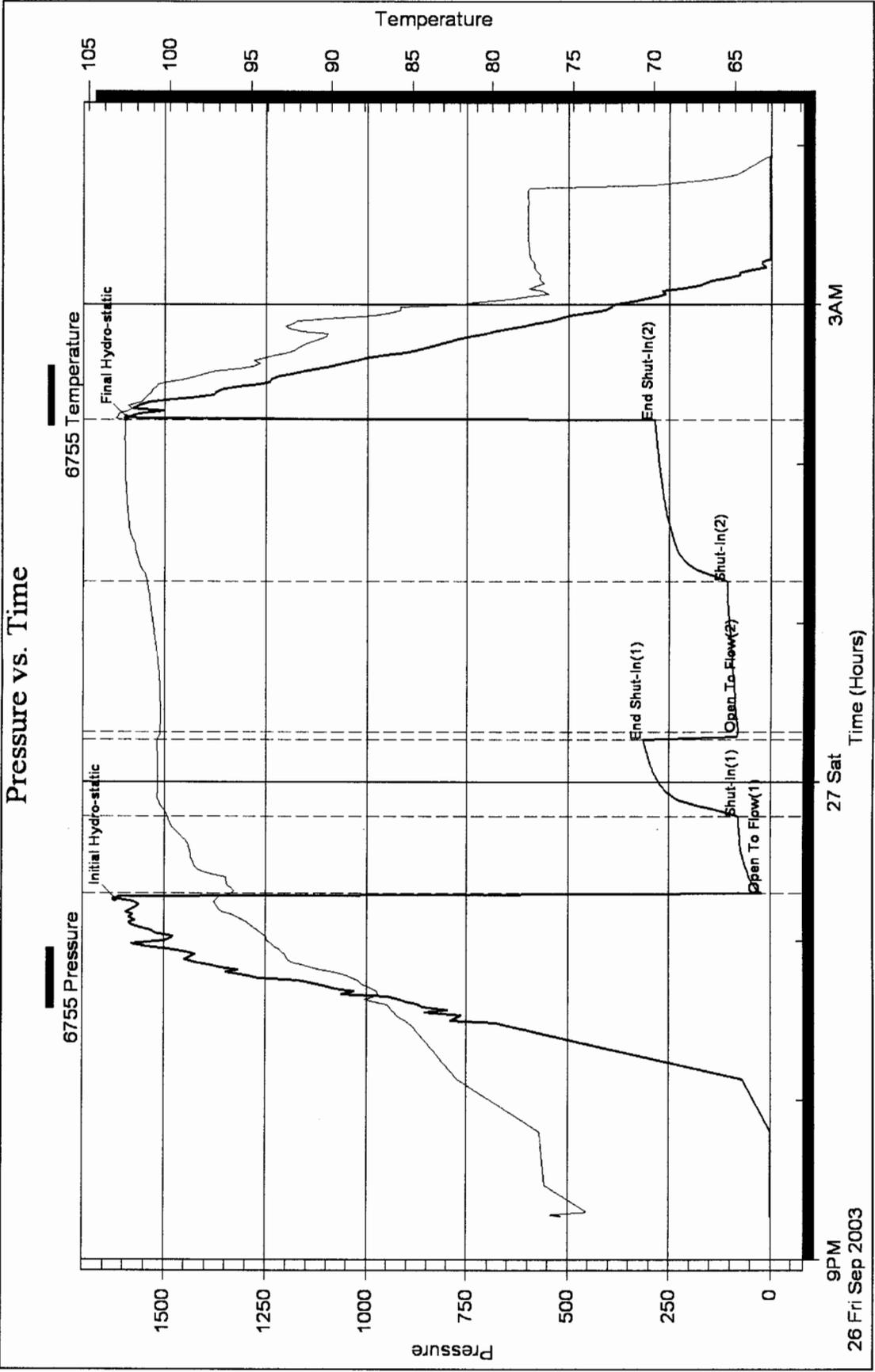
Inside

Dreiling Oil Inc

6-13-17 Ellis-Ks

DST Test Number: 1

### Pressure vs. Time



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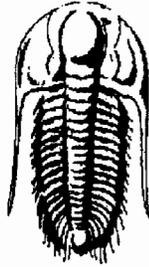
Trilobite Testing, Inc

Ref. No: 16174

Printed: 2003.10.06 @ 15:27:59 Page 5

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TESTING, INC.

## DRILL STEM TEST REPORT

Prepared For: **Dreiling Oil Inc**

Box 550  
Hays Ks 67601

ATTN: Terry Piesker

**6-13-17 Ellis-Ks**

**A Staab #5**

Start Date: 2003.09.27 @ 10:50:02

End Date: 2003.09.27 @ 16:11:02

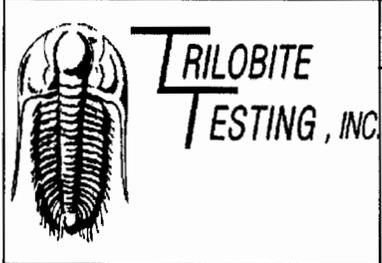
Job Ticket #: 16175                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

101194



# DRILL STEM TEST REPORT

Drilling Oil Inc  
 Box 550  
 Hays Ks 67601  
 ATTN: Terry Pesker

**A Staab #5**  
**6-13-17 Ellis-Ks**  
 Job Ticket: 16175      **DST#: 2**  
 Test Start: 2003.09.27 @ 10:50:02

**GENERAL INFORMATION:**

Formation: **D-G LKC**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 12:44:02  
 Time Test Ended: 16:11:02

Interval: **3368.00 ft (KB) To 3425.00 ft (KB) (TVD)**  
 Total Depth: 3425.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole  
 Tester: Dan Bangle  
 Unit No: 21

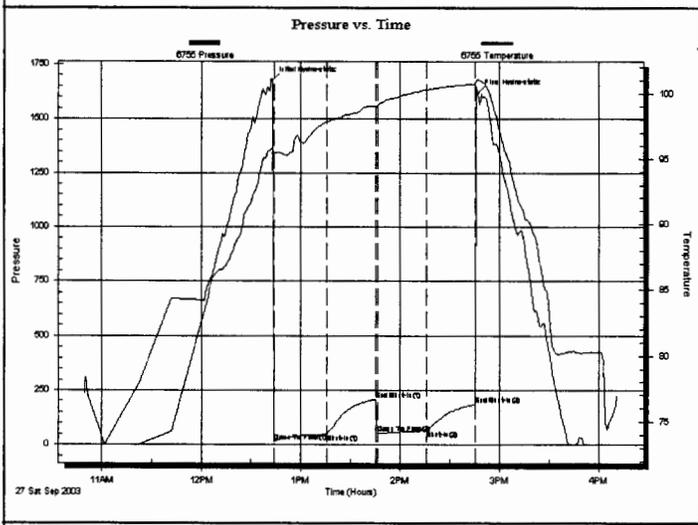
Reference Elevations: 2061.00 ft (KB)  
 2056.00 ft (CF)  
 KB to GR/CF: 5.00 ft

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**DEC 19 2003**  
**KCC WICHITA**

**Serial #: 6755      Inside**

Press@RunDepth: 66.43 psig @ 3372.00 ft (KB)      Capacity: 7000.00 psig  
 Start Date: 2003.09.27      End Date: 2003.09.27      Last Calib.: 2003.09.27  
 Start Time: 10:50:03      End Time: 16:11:02      Time On Btm: 2003.09.27 @ 12:42:32  
 Time Off Btm: 2003.09.27 @ 14:47:02

**TEST COMMENT:** IF-Weak building to 2"  
 FF-Weak building to 1/2"  
 Times-30-30-30-30



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1675.25	95.82	Initial Hydro-static
2	16.95	95.49	Open To Flow (1)
33	51.52	97.81	Shut-In(1)
63	208.56	99.05	End Shut-In(1)
64	53.19	99.00	Open To Flow (2)
93	66.43	100.27	Shut-In(2)
123	185.49	100.71	End Shut-In(2)
125	1617.80	101.06	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
120.00	OCM 20% @ 80% m	0.59

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dreiling Oil Inc

**A Staab #5**

Box 550  
Hays Ks 67601

**6-13-17 Ellis-Ks**

Job Ticket: 16175

**DST#: 2**

ATTN: Terry Flesker

Test Start: 2003.09.27 @ 10:50:02

### Tool Information

Drill Pipe:	Length: 3206.00 ft	Diameter: 3.80 inches	Volume: 44.97 bbl	Tool Weight: 1700.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 152.00 ft	Diameter: 2.25 inches	Volume: 0.75 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 45.72 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3368.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.00 ft			
Tool Length:	78.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

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KCC WICHITA**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3348.00	
Shut In Tool	5.00			3353.00	
Hydraulic tool	5.00			3358.00	
Packer	5.00			3363.00	21.00 Bottom Of Top Packer
Packer	5.00			3368.00	
Stubb	1.00			3369.00	
Perforations	2.00			3371.00	
Change Over Sub	1.00			3372.00	
Recorder	0.00	6755	Inside	3372.00	
Blank Spacing	30.00			3402.00	
Change Over Sub	1.00			3403.00	
Recorder	0.00	13248	Outside	3403.00	
Perforations	19.00			3422.00	
Bullnose	3.00			3425.00	57.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>78.00</b>				

101194



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Dreiling Oil Inc	<b>A Staab #5</b>
Box 550	<b>6-13-17 Ellis-Ks</b>
Hays Ks 67601	Job Ticket: 16175 <b>DST#: 2</b>
ATTN: Terry Pesker	Test Start: 2003.09.27 @ 10:50:02

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.57 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 9000.00 ppm			
Filter Cake: inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	OCM 20%o 80%m	0.590

Total Length: 120.00 ft      Total Volume: 0.590 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

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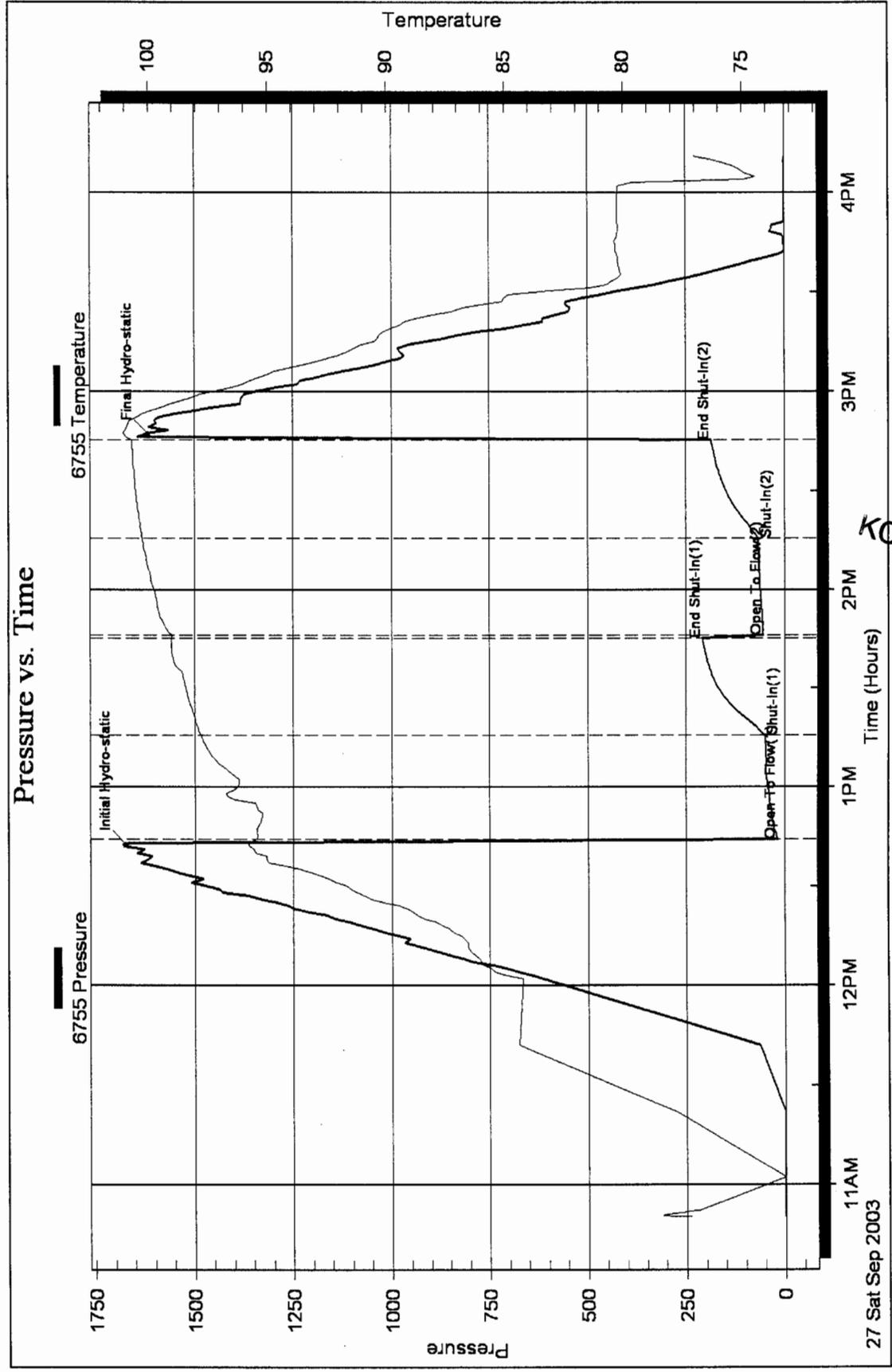
DST Test Number: 2

6-13-17 Ellis-Ks

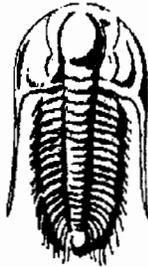
Dreiling Oil Inc

Inside

Serial #: 6755



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**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Prepared For: **Dreiling Oil Inc**

Box 550  
Hays Ks 67601

ATTN: Terry Piesker

**6-13-17 Ellis-Ks**

**A Staab #5**

Start Date: 2003.09.28 @ 03:15:33

End Date: 2003.09.28 @ 08:38:03

Job Ticket #: 18876                      DST #: 3

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Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Dreiling Oil Inc  
 Box 550  
 Hays Ks 67601  
 ATTN: Terry Plesker

**A Staab #5**  
**6-13-17 Ellis-Ks**  
 Job Ticket: 18876 **DST#: 3**  
 Test Start: 2003.09.28 @ 03:15:33

**GENERAL INFORMATION:**

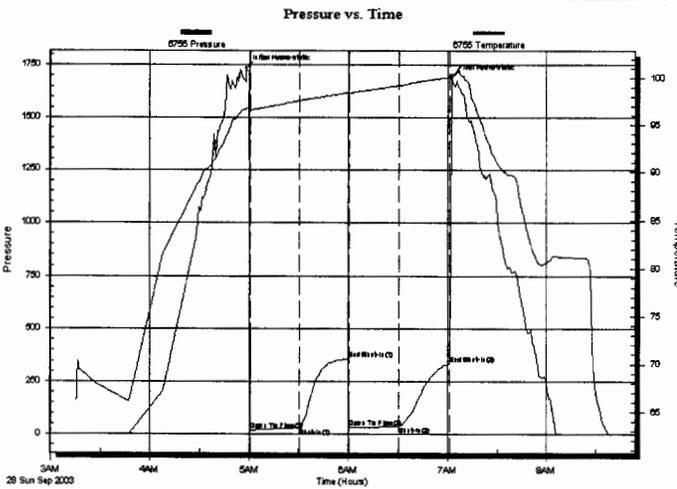
Formation: **H-L LKC**  
 Deviated: **No Whipstock:** ft (KB)  
 Time Tool Opened: 05:00:33  
 Time Test Ended: 08:38:03  
**Interval: 3443.00 ft (KB) To 3562.00 ft (KB) (TVD)**  
 Total Depth: 3562.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good

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Test Type: Conventional Bottom Hole  
 Tester: Dan Bangle  
 Unit No: 21  
 Reference Elevations: 2061.00 ft (KB)  
 2056.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 6755 Inside**  
 Press@RunDepth: 37.36 psig @ 3449.00 ft (KB) Capacity: 7000.00 psig  
 Start Date: 2003.09.28 End Date: 2003.09.28 Last Calib.: 2003.09.28  
 Start Time: 03:15:34 End Time: 08:38:03 Time On Btm: 2003.09.28 @ 04:58:03  
 Time Off Btm: 2003.09.28 @ 07:02:33

TEST COMMENT: IF-Weak building to 1/4"  
 FF-No blow  
 Times-30-30-30-30



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1734.18	96.72	Initial Hydro-static
3	19.06	96.55	Open To Flow (1)
32	31.09	97.58	Shut-In(1)
62	358.49	98.41	End Shut-In(1)
63	33.33	98.32	Open To Flow (2)
93	37.36	99.15	Shut-In(2)
123	336.19	100.03	End Shut-In(2)
125	1688.75	100.40	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
30.00	Mud w/ oil spots	0.15

**Gas Rates**

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Drilling Oil Inc  
Box 550  
Hays Ks 67601  
ATTN: Terry Flesker

**A Staab #5**  
**6-13-17 Ellis-Ks**  
Job Ticket: 18876      **DST#: 3**  
Test Start: 2003.09.28 @ 03:15:33

**Tool Information**

Drill Pipe:	Length: 3301.00 ft	Diameter: 3.80 inches	Volume: 46.30 bbl	Tool Weight: 1700.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 152.00 ft	Diameter: 2.25 inches	Volume: 0.75 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 47.05 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3443.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	119.00 ft			
Tool Length:	140.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3423.00	
Shut In Tool	5.00			3428.00	
Hydraulic tool	5.00			3433.00	
Packer	5.00			3438.00	21.00      Bottom Of Top Packer
Packer	5.00			3443.00	
Stubb	1.00			3444.00	
Perforations	4.00			3448.00	
Change Over Sub	1.00			3449.00	
Recorder	0.00	6755	Inside	3449.00	
Blank Spacing	93.00			3542.00	
Change Over Sub	1.00			3543.00	
Recorder	0.00	13248	Outside	3543.00	
Perforations	16.00			3559.00	
Bullnose	3.00			3562.00	119.00      Bottom Packers & Anchor

**Total Tool Length: 140.00**



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Drilling Oil Inc

**A Staab #5**

Box 550  
Hays Ks 67601

**6-13-17 Ellis-Ks**

Job Ticket: 18876

**DST#: 3**

ATTN: Terry Pesker

Test Start: 2003.09.28 @ 03:15:33

**Mud and Cushion Information**

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.57 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 9000.00 ppm			
Filter Cake: inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
30.00	Mud w / oil spots	0.148

Total Length: 30.00 ft      Total Volume: 0.148 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

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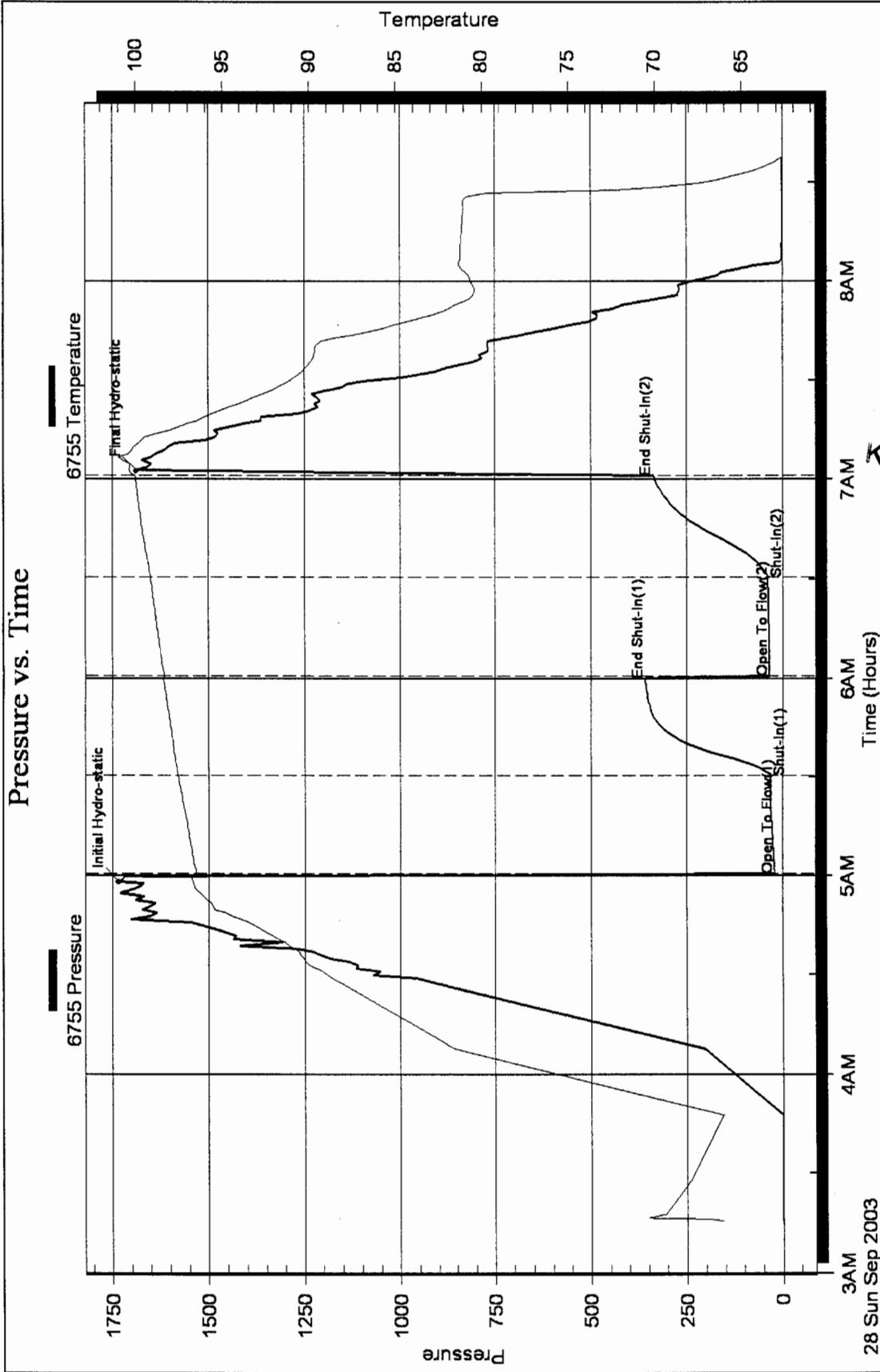
Serial #: 6755

Inside

Drilling Oil Inc

6-13-17 Ellis-Ks

DST Test Number: 3



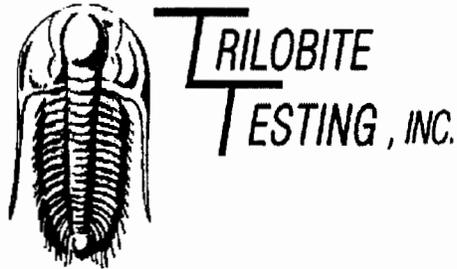
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Ref. No: 18876

Printed: 2003.10.06 @ 15:29:51 Page 5

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## DRILL STEM TEST REPORT

Prepared For: **Dreiling Oil Inc**

Box 550  
Hays Ks 67601

ATTN: Terry Piesker

**6-13-17 Ellis-Ks**

**A Staab #5**

Start Date: 2003.09.28 @ 14:20:46

End Date: 2003.09.28 @ 21:06:46

Job Ticket #: 18877      DST #: 4

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

 <p><b>TRILOBITE TESTING, INC.</b></p>	<b>DRILL STEM TEST REPORT</b>	
	Drilling Oil Inc Box 550 Hays Ks 67601 ATTN: Terry Plesker	<b>A Staab #5</b> <b>6-13-17 Ellis-Ks</b> Job Ticket: 18877 <b>DST#: 4</b> Test Start: 2003.09.28 @ 14:20:46

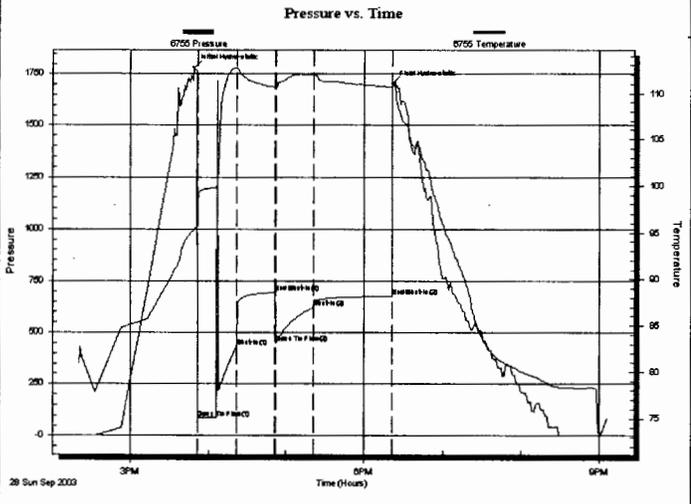
**GENERAL INFORMATION:**

Formation: <b>Arbuckle</b>	Test Type: <b>Conventional Bottom Hole</b>
Deviated: <b>No Whipstock:</b> ft (KB)	Tester: <b>Dan Bangle</b>
Time Tool Opened: <b>15:51:46</b>	Unit No: <b>21</b>
Time Test Ended: <b>21:06:46</b>	Reference Elevations: <b>2061.00 ft (KB)</b>
Interval: <b>3557.00 ft (KB) To 3605.00 ft (KB) (TVD)</b>	<b>2056.00 ft (CF)</b>
Total Depth: <b>3605.00 ft (KB) (TVD)</b>	KB to GR/CF: <b>5.00 ft</b>
Hole Diameter: <b>7.88 inches</b> Hole Condition: <b>Good</b>	

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<b>Serial #: 6755</b> <b>Inside</b>	Capacity: <b>7000.00 psig</b>
Press@RunDepth: <b>621.34 psig @ 3561.00 ft (KB)</b>	Last Calib.: <b>2003.09.28</b>
Start Date: <b>2003.09.28</b> End Date: <b>2003.09.28</b>	Time On Btm: <b>2003.09.28 @ 15:48:46</b>
Start Time: <b>14:20:47</b> End Time: <b>21:06:46</b>	Time Off Btm: <b>2003.09.28 @ 18:21:46</b>

**TEST COMMENT:** IF-Strong BOB in 1 min-blow started dieing- flushed tool-Strong BOB rest of open  
 FF-Strong BOB in 4 min  
 Times-30-30-30-60



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1779.75	95.25	Initial Hydro-static
3	84.02	98.10	Open To Flow (1)
33	433.28	112.72	Shut-In(1)
63	693.52	110.69	End Shut-In(1)
64	451.41	110.56	Open To Flow (2)
93	621.34	111.97	Shut-In(2)
153	677.57	110.67	End Shut-In(2)
153	1702.60	111.09	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
62.00	Mdy Wtr 70%w 30%m	0.30
62.00	W&MCO 60%o 20%w 20%m	0.30
124.00	MCO 80%o 20%m	1.48
1240.00	Sltly MCO 97%o 3%m	17.39

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Drilling Oil Inc

**A Staab #5**

Box 550  
Hays Ks 67601

**6-13-17 Ellis-Ks**

Job Ticket: 18877

**DST#: 4**

ATTN: Terry Flesker

Test Start: 2003.09.28 @ 14:20:46

**Tool Information**

Drill Pipe:	Length: 3393.00 ft	Diameter: 3.80 inches	Volume: 47.59 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 152.00 ft	Diameter: 2.25 inches	Volume: 0.75 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 48.34 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3557.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	48.00 ft			
Tool Length:	69.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3537.00	
Shut In Tool	5.00			3542.00	
Hydraulic tool	5.00			3547.00	
Packer	5.00			3552.00	21.00 Bottom Of Top Packer
Packer	5.00			3557.00	
Stubb	1.00			3558.00	
Perforations	2.00			3560.00	
Change Over Sub	1.00			3561.00	
Recorder	0.00	6755	Inside	3561.00	
Blank Spacing	31.00			3592.00	
Change Over Sub	1.00			3593.00	
Recorder	0.00	13248	Outside	3593.00	
Perforations	9.00			3602.00	
Bullnose	3.00			3605.00	48.00 Bottom Packers & Anchor

**Total Tool Length: 69.00**



**TRILOBITE TESTING, INC.**

### DRILL STEM TEST REPORT

**FLUID SUMMARY**

Drilling Oil Inc

**A Staab #5**

Box 550  
Hays Ks 67601

**6-13-17 Ellis-Ks**

Job Ticket: 18877

**DST#: 4**

ATTN: Terry Pesker

Test Start: 2003.09.28 @ 14:20:46

#### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 49.00 sec/qt  
Water Loss: 8.78 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 11000.00 ppm  
Filter Cake: inches

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

Oil API: 30 deg API  
Water Salinity: 24000 ppm

#### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	Mdy Wtr 70%w 30%m	0.305
62.00	W&MCO 60%o 20%w 20%m	0.305
124.00	MCO 80%o 20%m	1.484
1240.00	SityMCO 97%o 3%m	17.394

Total Length: 1488.00 ft      Total Volume: 19.488 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

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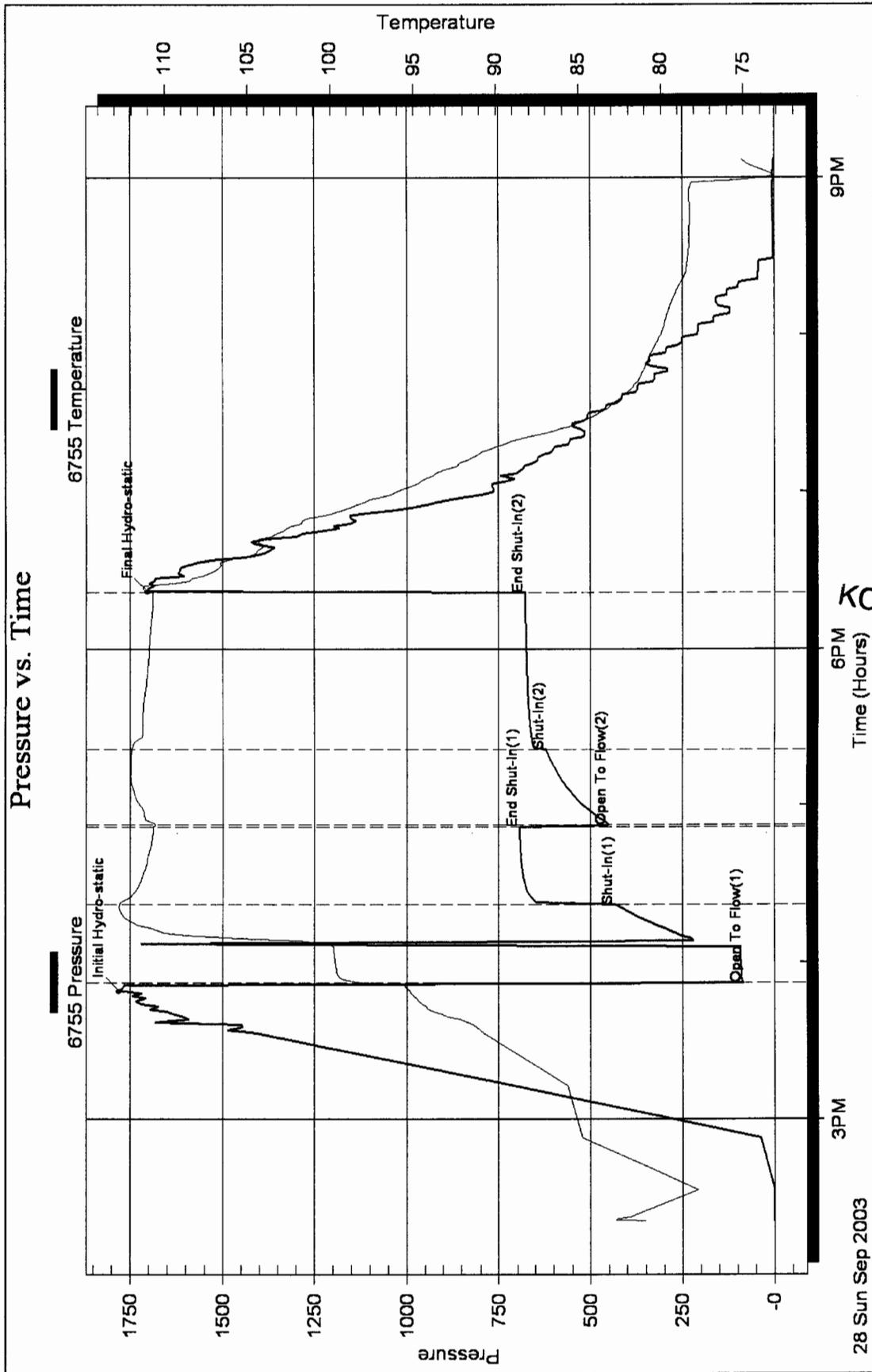
Serial #: 6755

Inside

Drilling Oil Inc

6-13-17 Ellis-Ks

DST Test Number: 4



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Trilobite Testing, Inc

Ref. No: 18877

Printed: 2003.10.06 @ 15:34:56 Page 5



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Prepared For: **Dreiling Oil Inc**

Box 550  
Hays Ks 67601

ATTN: Terry Piesker

**6-13-17 Ellis-Ks**

**A Staab #5**

Start Date: 2003.09.29 @ 02:17:28

End Date: 2003.09.29 @ 08:28:58

Job Ticket #: 18878      DST #: 5

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

Dreiling Oil Inc

A Staab #5

6-13-17 Ellis-Ks

DST # 5

Arbuckle

2003.09.29



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Drilling Oil Inc  
 Box 550  
 Hays Ks 67601  
 ATTN: Terry Flesker

**A Staab #5**  
**6-13-17 Ellis-Ks**  
 Job Ticket: 18878      **DST#: 5**  
 Test Start: 2003.09.29 @ 02:17:28

**GENERAL INFORMATION:**

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 03:48:28  
 Time Test Ended: 08:28:58  
 Interval: **3605.00 ft (KB) To 3618.00 ft (KB) (TVD)**  
 Total Depth: 3618.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good

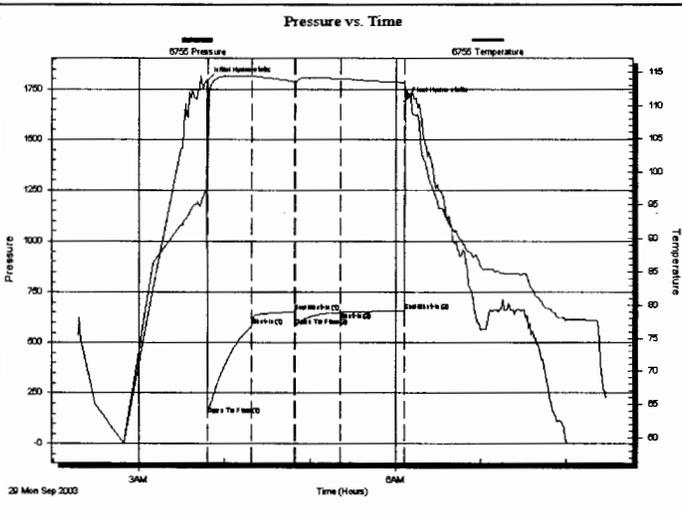
**RECEIVED**  
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**KCC WICHITA**

Test Type: Conventional Bottom Hole  
 Tester: Dan Bangle  
 Unit No: 21  
 Reference Elevations: 2061.00 ft (KB)  
 2056.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 6755**

**Inside**  
 Press@RunDepth: 650.89 psig @ 3606.00 ft (KB)      Capacity: 7000.00 psig  
 Start Date: 2003.09.29      End Date: 2003.09.29      Last Calib.: 2003.09.29  
 Start Time: 02:17:29      End Time: 08:28:58      Time On Btm: 2003.09.29 @ 03:47:58  
 Time Off Btm: 2003.09.29 @ 06:06:28

**TEST COMMENT:** IF-Strong BOB in 1 min  
 FF-Strong BOB in 5 min  
 Times-30-30-30-45



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1790.03	97.15	Initial Hydro-static
1	142.19	98.96	Open To Flow (1)
32	578.97	114.41	Shut-in(1)
61	651.47	113.64	End Shut-in(1)
62	581.80	113.59	Open To Flow (2)
93	650.89	114.05	Shut-in(2)
138	655.18	113.46	End Shut-in(2)
139	1691.48	112.61	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
1485.00	Wtr Rw .19 @ 80	19.45
2.00	CO	0.03

**Gas Rates**

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Drilling Oil Inc

**A Staab #5**

Box 550  
Hays Ks 67601

**6-13-17 Ellis-Ks**

Job Ticket: 18878

**DST#: 5**

ATTN: Terry Flesker

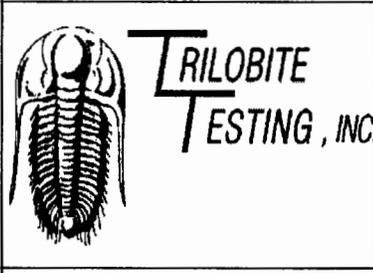
Test Start: 2003.09.29 @ 02:17:28

**Tool Information**

Drill Pipe:	Length: 3455.00 ft	Diameter: 3.80 inches	Volume: 48.46 bbl	Tool Weight: 1200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 152.00 ft	Diameter: 2.25 inches	Volume: 0.75 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 49.21 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3605.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.00 ft			
Tool Length:	34.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3585.00	
Shut In Tool	5.00			3590.00	
Hydraulic tool	5.00			3595.00	
Packer	5.00			3600.00	21.00 Bottom Of Top Packer
Packer	5.00			3605.00	
Stubb	1.00			3606.00	
Recorder	0.00	6755	Inside	3606.00	
Perforations	9.00			3615.00	
Recorder	0.00	13254	Outside	3615.00	
Bullnose	3.00			3618.00	13.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>34.00</b>				



**DRILL STEM TEST REPORT** **FLUID SUMMARY**

Drilling Oil Inc Box 550 Hays Ks 67601 ATTN: Terry Flesker	<b>A Staab #5</b> <b>6-13-17 Ellis-Ks</b> Job Ticket: 18878 <b>DST#: 5</b> Test Start: 2003.09.29 @ 02:17:28
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**Mud and Cushion Information**

Mud Type: Gel Chem Mud Weight: 9.00 lb/gal Viscosity: 49.00 sec/qt Water Loss: 8.79 in <sup>3</sup> Resistivity: ohm.m Salinity: 11000.00 ppm Filter Cake: inches	Cushion Type: Cushion Length: ft Cushion Volume: bbl Gas Cushion Type: Gas Cushion Pressure: psig	Oil API: deg API Water Salinity: 27000 ppm
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**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
1485.00	Wtr Rw .19 @ 80	19.446
2.00	CO	0.028

Total Length: 1487.00 ft      Total Volume: 19.474 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

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Serial #: 6755

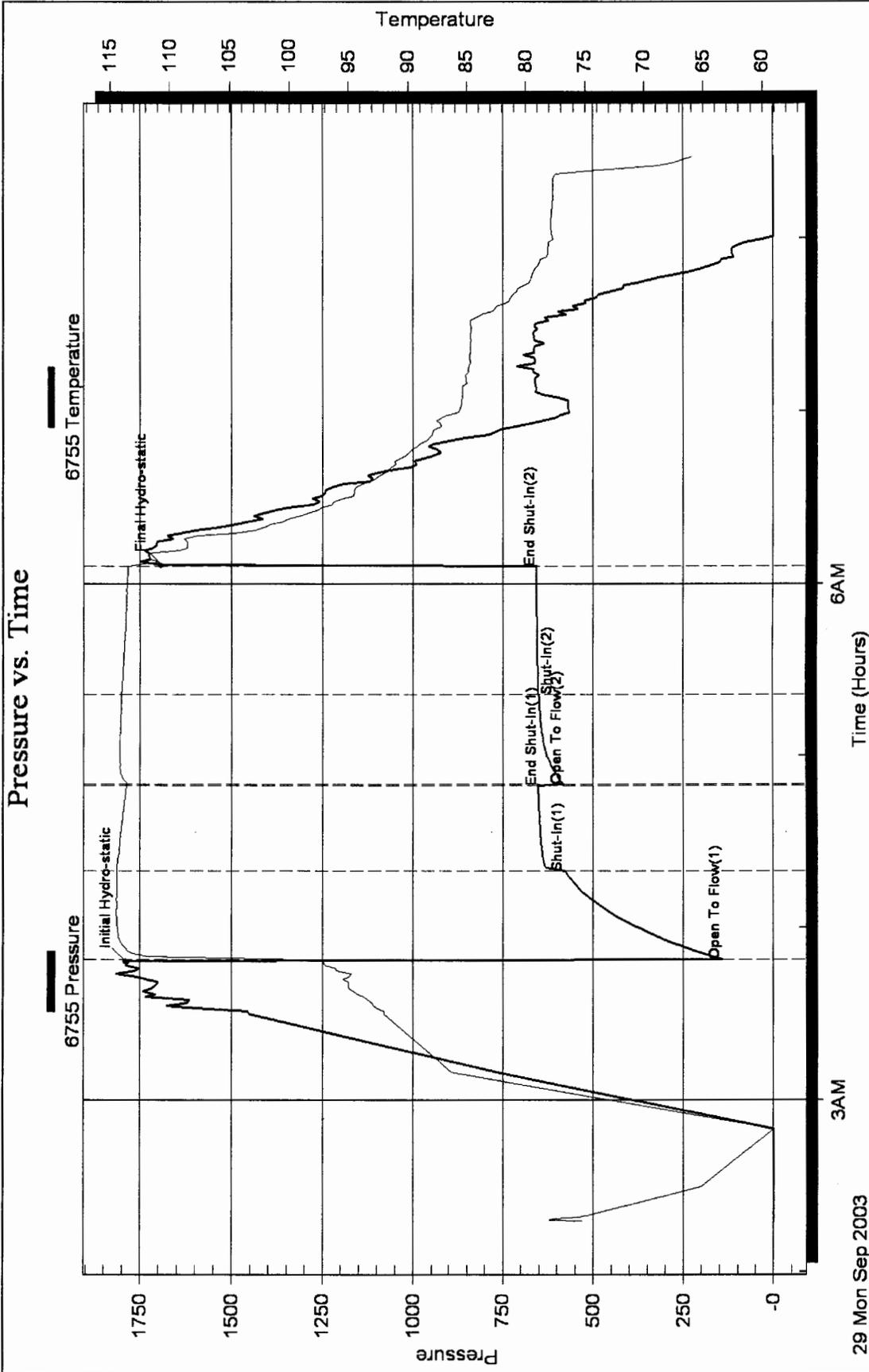
Inside

Drilling Oil Inc

6-13-17 Ellis-Ks

DST Test Number: 5

### Pressure vs. Time



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Trilobite Testing, Inc

Ref. No: 18878

Printed: 2003.10.06 @ 15:35:43 Page 5