

**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Castelli Exploration Inc**

6908 NW 112th St  
Oklahoma City OK 73162

ATTN: Popp/Castelli

**34 33S 16W Comanche**

**Merrill Ranch #2-34**

Start Date: 2006.05.27 @ 12:50:54

End Date: 2006.05.27 @ 20:06:09

Job Ticket #: 24100                      DST #: 1

15 - 033 - 21472 - 00 - 00

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

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**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

**Merrill Ranch #2-34**

**34 33S 16W Comanche**

Castelli Exploration Inc  
6908 NW 112th St  
Oklahoma City OK 73162  
ATTN: Popp/Castelli

Job Ticket: 24100      **DST#: 1**

Test Start: 2006.05.27 @ 12:50:54

**GENERAL INFORMATION:**

Formation: **Miss.**  
 Deviated: No    Whipstock:                      ft (KB)  
 Time Tool Opened: 15:04:54  
 Time Test Ended: 20:06:09

Test Type: Conventional Straddle  
 Tester: Gary Pevoteaux  
 Unit No: 23

Interval: **4860.00 ft (KB) To 4890.00 ft (KB) (TVD)**  
 Total Depth: 5000.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches    Hole Condition: Fair

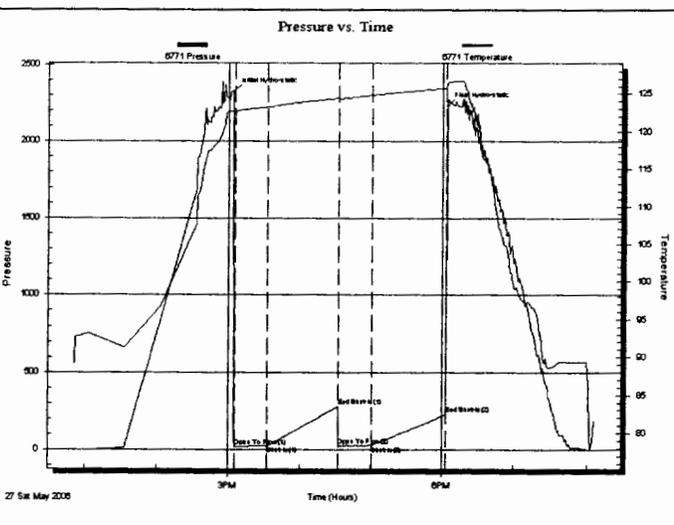
Reference Elevations: 1655.00 ft (KB)  
 1642.00 ft (CF)  
 KB to GR/CF: 13.00 ft

**Serial #: 6771      Inside**

Press@RunDepth: 27.68 psig @ 4861.00 ft (KB)  
 Start Date: 2006.05.27      End Date: 2006.05.27  
 Start Time: 12:50:59      End Time: 20:06:08

Capacity: 7000.00 psig  
 Last Calib.: 2006.05.27  
 Time On Btm: 2006.05.27 @ 15:04:09  
 Time Off Btm: 2006.05.27 @ 18:03:38

**TEST COMMENT:** IF Fair blow increase to 13 in  
 ISI No blow  
 FF Fair blow 5 - 10 in  
 FSI No blow



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2322.25	122.58	Initial Hydro-static
1	21.89	122.23	Open To Flow (1)
29	25.24	123.24	Shut-in(1)
88	279.70	124.41	End Shut-in(1)
89	24.10	124.33	Open To Flow (2)
117	27.68	124.80	Shut-in(2)
179	229.27	125.73	End Shut-in(2)
180	2231.72	126.43	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
20.00	GCM 8%g 92%m / 310 ft.of GIP	0.10

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



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## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Castelli Exploration Inc  
6908 NW 112th St  
Oklahoma City OK 73162

**Merrill Ranch #2-34**

**34 33S 16W Comanche**

Job Ticket: 24100

**DST#: 1**

ATTN: Popp/Castelli

Test Start: 2006.05.27 @ 12:50:54

### Tool Information

Drill Pipe:	Length: 4682.00 ft	Diameter: 3.80 inches	Volume: 65.68 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 79000.00 lb
			<u>Total Volume: 66.57 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4860.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	4890.00 ft			
Interval between Packers:	30.00 ft			
Tool Length:	167.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4834.00	
Shut In Tool	5.00			4839.00	
Hydraulic tool	5.00			4844.00	
Jars	5.00			4849.00	
Safety Joint	2.00			4851.00	
Packer	4.00			4855.00	27.00 Bottom Of Top Packer
Packer	5.00			4860.00	
Stubb	1.00			4861.00	
Recorder	0.00	6771	Inside	4861.00	
Perforations	25.00			4886.00	
Recorder	0.00	10290	Outside	4886.00	
Blank Off Sub	1.00			4887.00	
Travel collar	3.00			4890.00	30.00 Tool Interval
Packer	0.00			4890.00	
Stubb	1.00			4891.00	
Perforations	8.00			4899.00	
Change Over Sub	1.00			4900.00	
Blank Spacing	94.00			4994.00	
Change Over Sub	1.00			4995.00	
Recorder	0.00	13222	Below	4995.00	
Bullnose	5.00			5000.00	110.00 Bottom Packers & Anchor

**Total Tool Length: 167.00**



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**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Castelli Exploration Inc  
6908 NW 112th St  
Oklahoma City OK 73162  
ATTN: Popp/Castelli

**Merrill Ranch #2-34**  
**34 33S 16W Comanche**  
Job Ticket: 24100      **DST#: 1**  
Test Start: 2006.05.27 @ 12:50:54

**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:	4000 ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.78 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 0.20 inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
20.00	GCM 8%g 92%m / 310 ft.of GIP	0.098

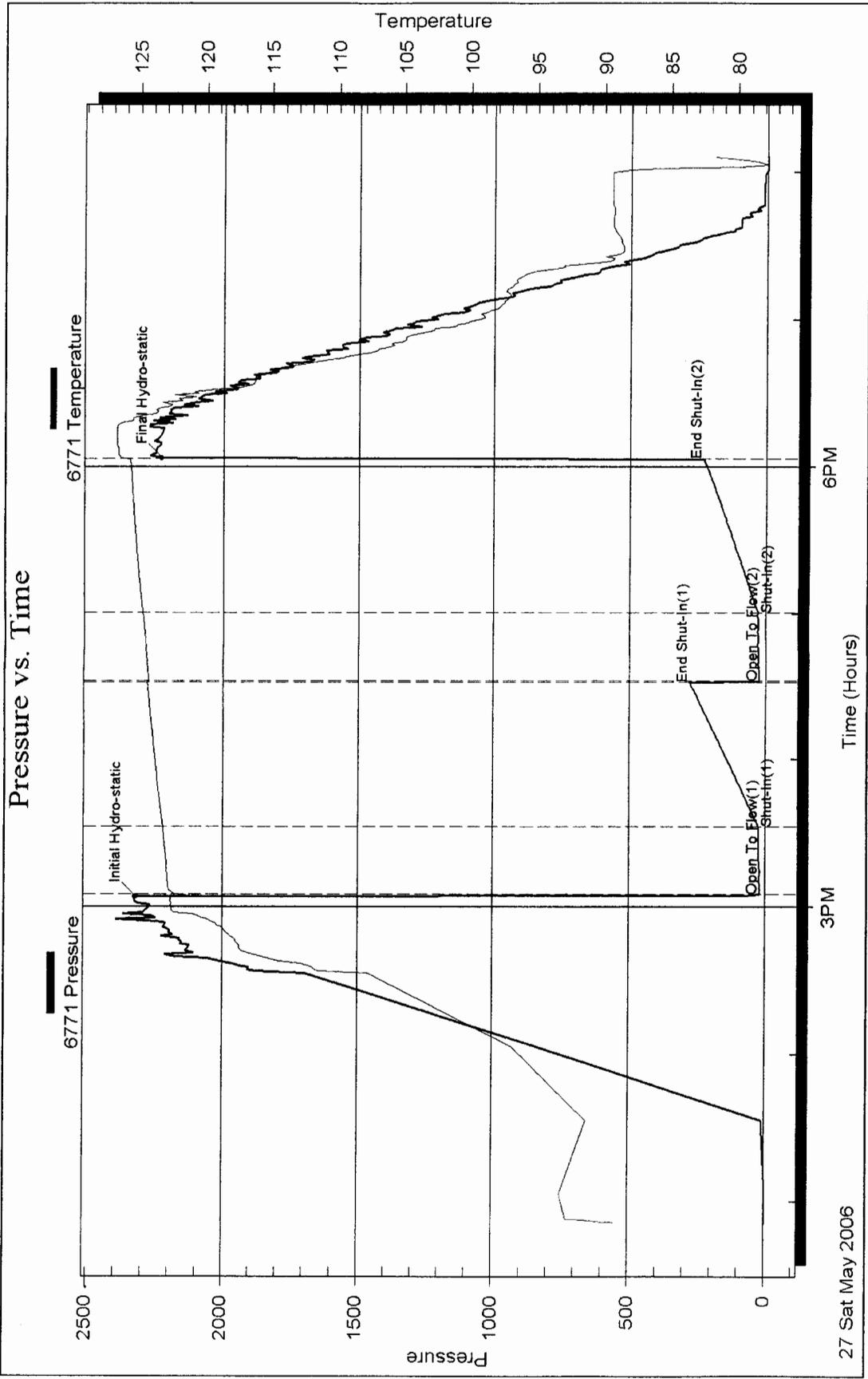
Total Length: 20.00 ft      Total Volume: 0.098 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #: none  
Laboratory Name:      Laboratory Location:  
Recovery Comments: LCM 6#/bl

Serial #: 6771

Inside Castell Exploration Inc

34 33S 16W Comanche

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Castelli Exploration Inc**

6908 NW 112th St  
Oklahoma City OK 73162

ATTN: Popp/Castelli

**34 33S 16W Comanche**

**Merrill Ranch #2-34**

Start Date: 2006.05.27 @ 21:10:32

End Date: 2006.05.28 @ 06:40:02

Job Ticket #: 24851                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Castelli Exploration Inc

Merrill Ranch #2-34

34 33S 16W Comanche

DST # 2

Cherokee

2006.05.27





**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Castelli Exploration Inc  
6908 NW 112th St  
Oklahoma City OK 73162  
ATTN: Popp/Castelli

**Merrill Ranch #2-34**  
**34 33S 16W Comanche**  
Job Ticket: 24851      **DST#: 2**  
Test Start: 2006.05.27 @ 21:10:32

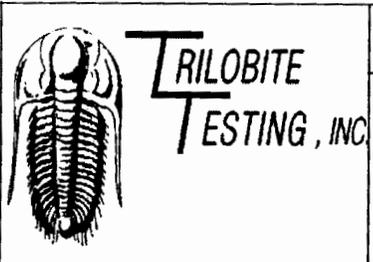
**Tool Information**

Drill Pipe:	Length: 4619.00 ft	Diameter: 3.80 inches	Volume: 64.79 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 97000.00 lb
			<u>Total Volume: 65.68 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 71000.00 lb
Depth to Top Packer:	4810.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	4857.00 ft			
Interval between Packers:	47.00 ft			
Tool Length:	217.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4784.00	
Shut In Tool	5.00			4789.00	
Hydraulic tool	5.00			4794.00	
Jars	5.00			4799.00	
Safety Joint	2.00			4801.00	
Packer	4.00			4805.00	27.00      Bottom Of Top Packer
Packer	5.00			4810.00	
Stubb	1.00			4811.00	
Recorder	0.00	6771	Inside	4811.00	
Perforations	7.00			4818.00	
Change Over Sub	1.00			4819.00	
Blank Spacing	31.00			4850.00	
Change Over Sub	1.00			4851.00	
Perforations	2.00			4853.00	
Recorder	0.00	10290	Outside	4853.00	
Blank Off Sub	1.00			4854.00	
Travel collar	3.00			4857.00	47.00      Tool Interval
Packer	0.00			4857.00	
Stubb	1.00			4858.00	
Perforations	9.00			4867.00	
Change Over Sub	1.00			4868.00	
Blank Spacing	126.00			4994.00	
Change Over Sub	1.00			4995.00	
Recorder	0.00	13222	Below	4995.00	
Bullnose	5.00			5000.00	143.00      Bottom Packers & Anchor

**Total Tool Length: 217.00**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Castelli Exploration Inc  
 6908 NW 112th St  
 Oklahoma City OK 73162  
 ATTN: Popp/Castelli

**Merrill Ranch #2-34**  
**34 33S 16W Comanche**  
 Job Ticket: 24851      DST#: 2  
 Test Start: 2006.05.27 @ 21:10:32

### 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:	4000 ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.78 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 0.20 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
140.00	SOCM <1%O 99%M	0.688

Total Length: 140.00 ft      Total Volume: 0.688 bbl

Num Fluid Samples: 0      Num Gas Bombs: 1      Serial #: gp-2

Laboratory Name: Caraway      Laboratory Location: Liberal, KS

Recovery Comments:



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## DRILL STEM TEST REPORT

**GAS RATES**

Castelli Exploration Inc  
6908 NW 112th St  
Oklahoma City OK 73162

**Merrill Ranch #2-34**

**34 33S 16W Comanche**

Job Ticket: 24851

**DST#: 2**

ATTN: Popp/Castelli

Test Start: 2006.05.27 @ 21:10:32

### 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	20	0.25	2.00	26.02
1	20	0.25	2.00	26.02
1	30	0.25	3.00	27.60
2	10	0.25	17.00	49.81
2	20	0.25	16.00	48.23
2	30	0.25	14.00	45.05
2	40	0.25	12.00	41.88

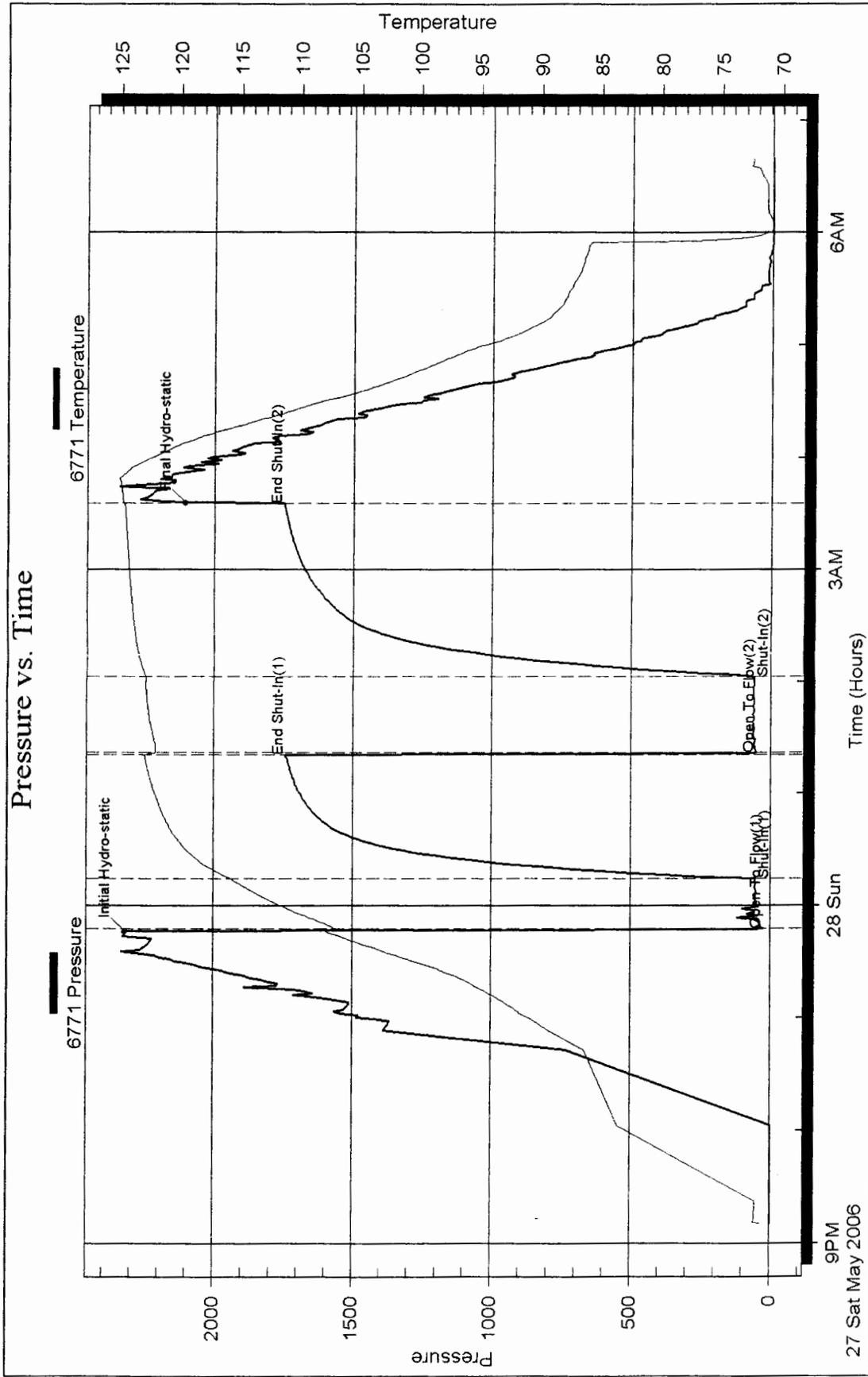
Serial #: 6771

Inside

Castelli Exploration Inc

34 33S 16W Comanche

DST Test Number: 2

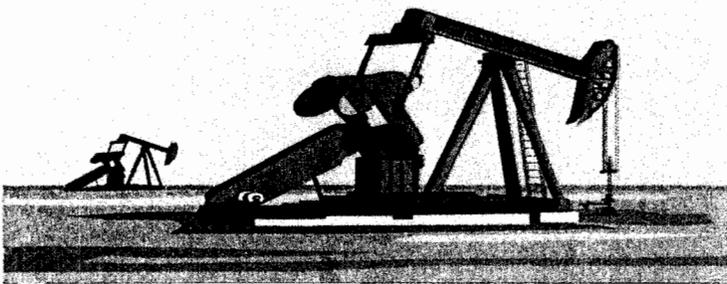


Trilobite Testing, Inc

Ref. No: 24851

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Castelli Exploration, Inc  
 Merril Ranch 2-34  
 Shimer Field  
 Comanche County, Kansas

Date	Tiem	Treatment	Comments
5/25/2006	2:14PM		Start mixing LeakBlock HD @ 14,000 ppm, Heavy Flake
5/25/2006	2:23PM	7mixed	Start down hole w/LeakBlock HD, BOP Closed @ .85bpm
5/25/2006	2:34PM	10 out	
5/25/2006	2:45PM	20 out	
5/25/2006	2:57PM	30 out	
5/25/2006	3:07PM	40 out	
5/25/2006	3:11PM	43 out, 15psi	Caught pressure
5/25/2006	3:18PM	50 out	
5/25/2006	3:21PM	52 out, 55psi	Shut down, open BOP
5/25/2006	3:24PM	52 out,	Start back down hole BOP open
5/25/2006	3:29PM	58 out	Lost pressure 140psi to 0
5/25/2006	3:32PM	60 out	
5/25/2006	3:43PM	70 out	
5/25/2006	3:44PM	78 mixed, 70.5 out	End LeakBlock HD treatment, drain tanks
5/25/2006	3:52Pm	78 out	Tank Empty
5/25/2006	3:52PM		Start Pumping 3bbl H2O to clear drill pipe
5/25/2006	3:55PM	3 out	End Job

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