



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **FIML Natural Resources**

410 17th St Ste 900
Denver CO 80202

ATTN: Terry

32 18 31 Scott KS

Christy #14-32 1831

Start Date: 2007.12.03 @ 14:18:21

End Date: 2007.12.04 @ 00:25:01

Job Ticket #: 29519 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

FIML Natural Resources

Christy #14-32 1831

32 18 31 Scott KS

DST # 1

KC

2007.12.03



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FIML Natural Resources

410 17th St Ste 900
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ATTN: Terry

Christy #14-32 1831

32 18 31 Scott KS

Job Ticket: 29519

DST#: 1

Test Start: 2007.12.03 @ 14:18:21

GENERAL INFORMATION:

Formation: **KC**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:22:46
 Time Test Ended: 00:25:01

Test Type: Conventional Bottom Hole
 Tester: Shane McBride
 Unit No: 40

Interval: **4210.00 ft (KB) To 4289.00 ft (KB) (TVD)**
 Total Depth: 4289.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2976.00 ft (KB)
 2966.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 6771

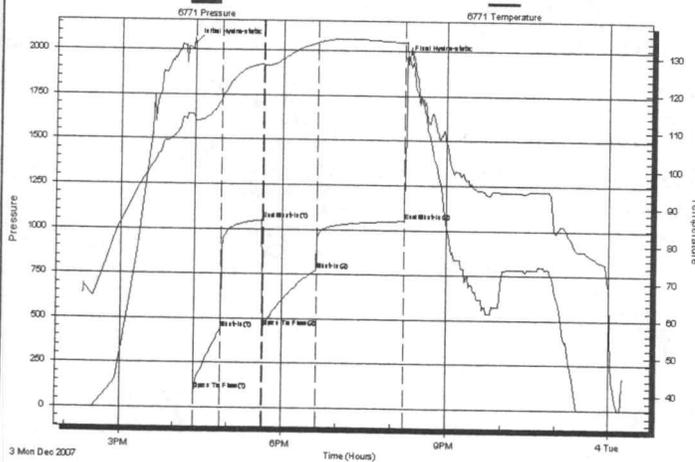
Outside

Press@RunDepth: 774.56 psig @ 4211.00 ft (KB)
 Start Date: 2007.12.03 End Date: 2007.12.04
 Start Time: 14:18:21 End Time: 00:16:01

Capacity: 7000.00 psig
 Last Calib.: 2007.12.04
 Time On Btm: 2007.12.03 @ 16:22:31
 Time Off Btm: 2007.12.03 @ 20:16:01

TEST COMMENT: BOB in 2 1/2 min.
 6 1/2 " in return blow
 BOB in 1 1/2 min.
 2 1/2 " in return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2037.34	113.44	Initial Hydro-static
1	95.54	112.73	Open To Flow (1)
30	441.52	118.39	Shut-In(1)
75	1049.27	127.82	End Shut-In(1)
76	451.50	127.57	Open To Flow (2)
135	774.56	133.55	Shut-In(2)
232	1049.47	133.84	End Shut-In(2)
234	1959.45	134.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	under circ sub MCGO 30%M 30%G 40%O.59	
1200.00	CGO 30%G 70%O reversed out	15.97
630.00	CGO 25%G 75%O	8.84
0.00	630' GIP	0.00

Gas Rates

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



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TOOL DIAGRAM

FIML Natural Resources

Christy #14-32 1831

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32 18 31 Scott KS

Job Ticket: 29519

DST#: 1

ATTN: Terry

Test Start: 2007.12.03 @ 14:18:21

Tool Information

Drill Pipe:	Length: 4006.00 ft	Diameter: 3.80 inches	Volume: 56.19 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: 215.00 ft	Diameter: 2.25 inches	Volume: 1.06 bbl	Weight to Pull Loose: 120000.0 lb
			<u>Total Volume: 57.25 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	4210.00 ft			Final 86000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	79.00 ft			
Tool Length:	99.00 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			4191.00	
Shut In Tool	5.00			4196.00	
Hydraulic tool	5.00			4201.00	
Packer	5.00			4206.00	20.00 Bottom Of Top Packer
Packer	4.00			4210.00	
Stubb	1.00			4211.00	
Recorder	0.00	6667	Inside	4211.00	
Recorder	0.00	6771	Outside	4211.00	
Perforations	8.00			4219.00	
Change Over Sub	1.00			4220.00	
Drill Pipe	63.00			4283.00	
Change Over Sub	1.00			4284.00	
Bullnose	5.00			4289.00	79.00 Bottom Packers & Anchor

Total Tool Length: 99.00



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FLUID SUMMARY

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ATTN: Terry

Job Ticket: 29519

DST#: 1

Test Start: 2007.12.03 @ 14:18:21

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 7.19 in³

Resistivity: 0.00 ohm.m

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

35 deg API

0 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	under circ sub MCGO 30%M 30%G 40%O	0.590
1200.00	CGO 30%G 70%O reversed out	15.967
630.00	CGO 25%G 75%O	8.837
0.00	630' GIP	0.000

Total Length: 1950.00 ft

Total Volume: 25.394 bbl

Num Fluid Samples: 0

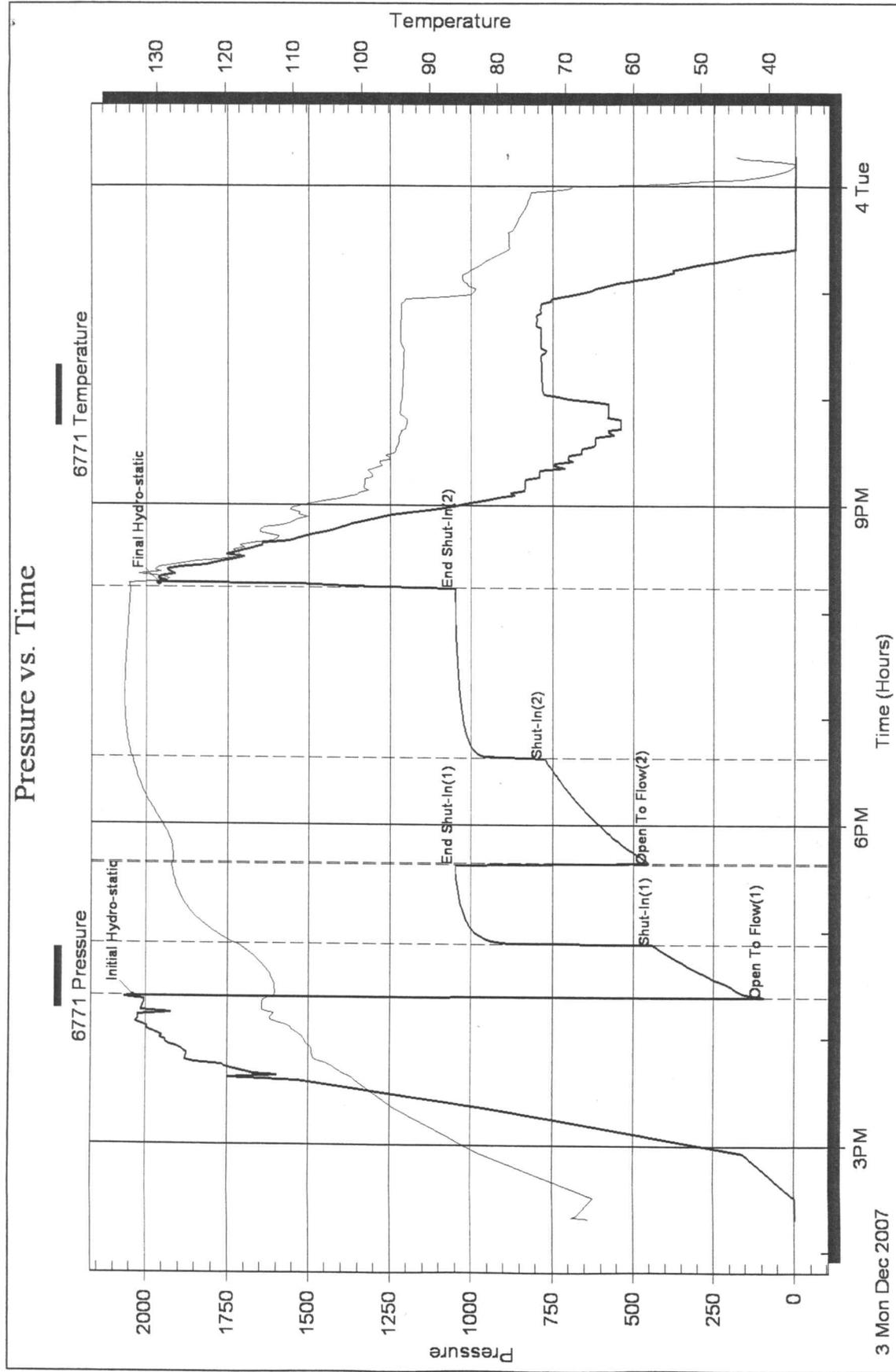
Num Gas Bombs: 0

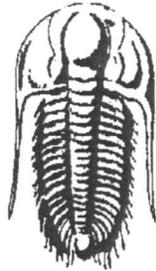
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





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Prepared For: **FIML Natural Resources**

410 17th St Ste 900
Denver CO 80202

ATTN: Terry

32 18 31 Scott KS

Christy #14-32 1831

Start Date: 2007.12.04 @ 14:26:00

End Date: 2007.12.04 @ 20:45:30

Job Ticket #: 29520 DST #: 2

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ATTN: Terry

Christy #14-32 1831

32 18 31 Scott KS

Job Ticket: 29520

DST#: 2

Test Start: 2007.12.04 @ 14:26:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:16:15

Time Test Ended: 20:45:30

Test Type: Conventional Bottom Hole

Tester: Chuck Smith

Unit No: 40

Interval: 4345.00 ft (KB) To 4390.00 ft (KB) (TVD)

Total Depth: 4390.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2976.00 ft (KB)

2966.00 ft (CF)

KB to GRVCF: 10.00 ft

Serial #: 6667

Inside

Press@RunDepth: 23.32 psig @ 4346.00 ft (KB)

Start Date: 2007.12.04

End Date:

2007.12.04

Start Time: 14:26:05

End Time:

20:45:29

Capacity: 7000.00 psig

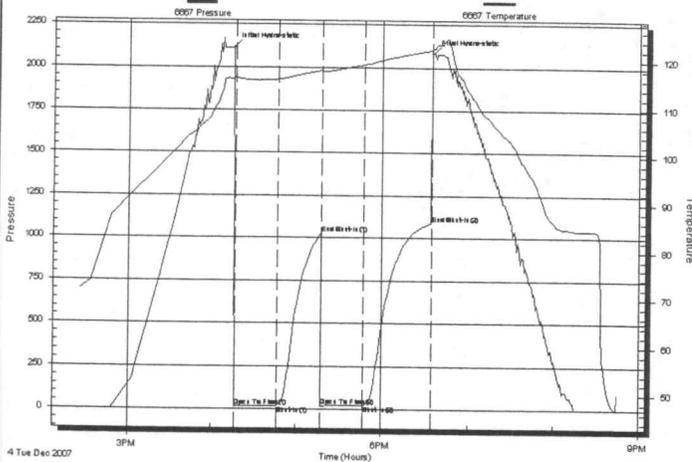
Last Calib.: 2007.12.04

Time On Btm: 2007.12.04 @ 16:15:15

Time Off Btm: 2007.12.04 @ 18:35:15

TEST COMMENT: IF 1/4 " blow died @ 22 min.
ISI No return
FF No blow
FSI No return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2114.78	116.29	Initial Hydro-static
1	15.22	116.50	Open To Flow (1)
32	19.24	116.14	Shut-In(1)
63	1027.57	118.04	End Shut-In(1)
63	20.27	117.65	Open To Flow (2)
92	23.32	119.25	Shut-In(2)
140	1089.30	122.29	End Shut-In(2)
140	2079.96	122.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	SOCM 2%O 98%M	0.02

Gas Rates

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



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TOOL DIAGRAM

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Job Ticket: 29520

DST#: 2

ATTN: Terry

Test Start: 2007.12.04 @ 14:26:00

Tool Information

Drill Pipe:	Length: 4136.00 ft	Diameter: 3.80 inches	Volume: 58.02 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: 215.00 ft	Diameter: 2.25 inches	Volume: 1.06 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 59.08 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4345.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.00 ft			
Tool Length:	65.00 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			4326.00	
Shut In Tool	5.00			4331.00	
Hydraulic tool	5.00			4336.00	
Packer	5.00			4341.00	20.00 Bottom Of Top Packer
Packer	4.00			4345.00	
Stubb	1.00			4346.00	
Recorder	0.00	6667	Inside	4346.00	
Recorder	0.00	6771	Outside	4346.00	
Perforations	6.00			4352.00	
Change Over Sub	1.00			4353.00	
Drill Pipe	31.00			4384.00	
Change Over Sub	1.00			4385.00	
Bullnose	5.00			4390.00	45.00 Bottom Packers & Anchor

Total Tool Length: 65.00



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Job Ticket: 29520

DST#: 2

ATTN: Terry

Test Start: 2007.12.04 @ 14:26:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 49.00 sec/qt

Water Loss: 7.20 in³

Resistivity: 0.00 ohm.m

Salinity: 1400.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbbl

psig

Oil API:

Water Salinity:

0 deg API

0 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	SOCM 2%O 98%M	0.025

Total Length:

5.00 ft

Total Volume:

0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

