

24-17-26W



DRILL STEM TEST REPORT

Prepared For: **Pickrell Drilling Company**

100 S Main Ste 505
Wichita KS 67202

ATTN: Jerry Smith

24 17 26 Ness KS

#4 Popp "A"

Start Date: 2007.08.02 @ 19:20:00

End Date: 2007.08.02 @ 00:18:00

Job Ticket #: 28716 DST #: 1

N2 N2 SE
2310 FSL 1430 FEL

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

Pickrell Drilling Company

#4 Popp "A"

24 17 26 Ness KS

DST # 1

Miss.

2007.08.02

15-135-24679



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Pickrell Drilling Company

100 S Main Ste 505
Wichita KS 67202

ATTN: Jerry Smith

#4 Popp "A"

24 17 26 Ness KS

Job Ticket: 28716

DST#: 1

Test Start: 2007.08.02 @ 19:20:00

GENERAL INFORMATION:

Formation: **Miss.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:35:00

Time Test Ended: 00:18:00

Interval: **4356.00 ft (KB) To 4366.00 ft (KB) (TVD)**

Total Depth: 4366.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Brandon Domsch

Unit No: 25

Reference Elevations: 2422.00 ft (KB)

2417.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6755 Inside

Press@RunDepth: psig @ 4353.00 ft (KB)

Start Date: 2007.08.01

End Date: 2007.08.02

Start Time: 19:20:24

End Time: 00:12:48

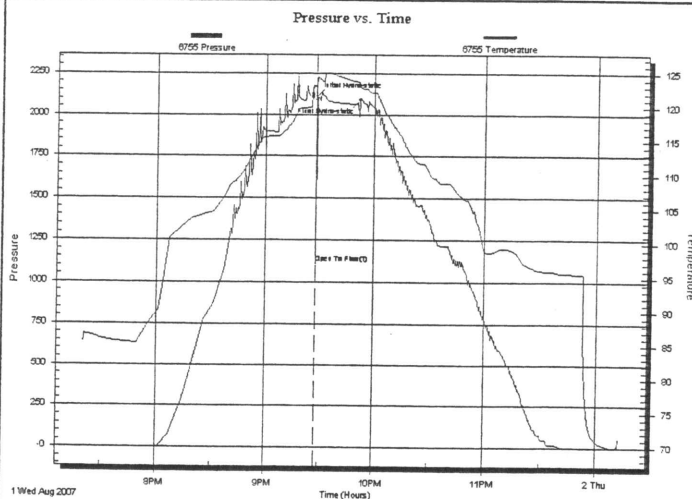
Capacity: 7000.00 psig

Last Calib.: 2007.08.02

Time On Btm: 2007.08.01 @ 21:27:49

Time Off Btm: 2007.08.01 @ 21:51:49

TEST COMMENT: Packers Failed



PRESSURE SUMMARY

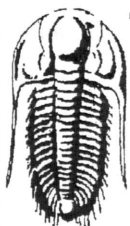
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2111.14	122.99	Initial Hydro-static
1	1108.21	123.21	Open To Flow (1)
24	2087.97	123.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
130.00	100%M	1.82

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Pickrell Drilling Company

100 S Main Ste 505
Wichita KS 67202

ATTN: Jerry Smith

#4 Popp "A"

24 17 26 Ness KS

Job Ticket: 28716

DST#: 1

Test Start: 2007.08.02 @ 19:20:00

Tool Information

Drill Pipe:	Length: 4324.00 ft	Diameter: 3.80 inches	Volume: 60.65 bbl	Tool Weight:	3500.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	65000.00 lb
		Total Volume:	60.65 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	4352.00 ft			Final	59000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	14.00 ft				
Tool Length:	62.00 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			4305.00	
Shut In Tool	5.00			4310.00	
Telemetry Tool	25.00			4335.00	
Hydraulic tool	5.00			4340.00	
Safety Joint	3.00			4343.00	
Packer	5.00			4348.00	48.00 Bottom Of Top Packer
Packer	4.00			4352.00	
Stubb	1.00			4353.00	
Recorder	0.00	6755	Inside	4353.00	
Perforations	8.00			4361.00	
Recorder	0.00	2607	Inside	4361.00	
Bullnose	5.00			4366.00	14.00 Bottom Packers & Anchor
Total Tool Length:		62.00			



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Pickrell Drilling Company

#4 Popp "A"

100 S Main Ste 505
Wichita KS 67202

24 17 26 Ness KS

Job Ticket: 28716

DST#: 1

ATTN: Jerry Smith

Test Start: 2007.08.02 @ 19:20:00

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: 9.33 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
130.00	100%M	1.824

Total Length: 130.00 ft

Total Volume: 1.824 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

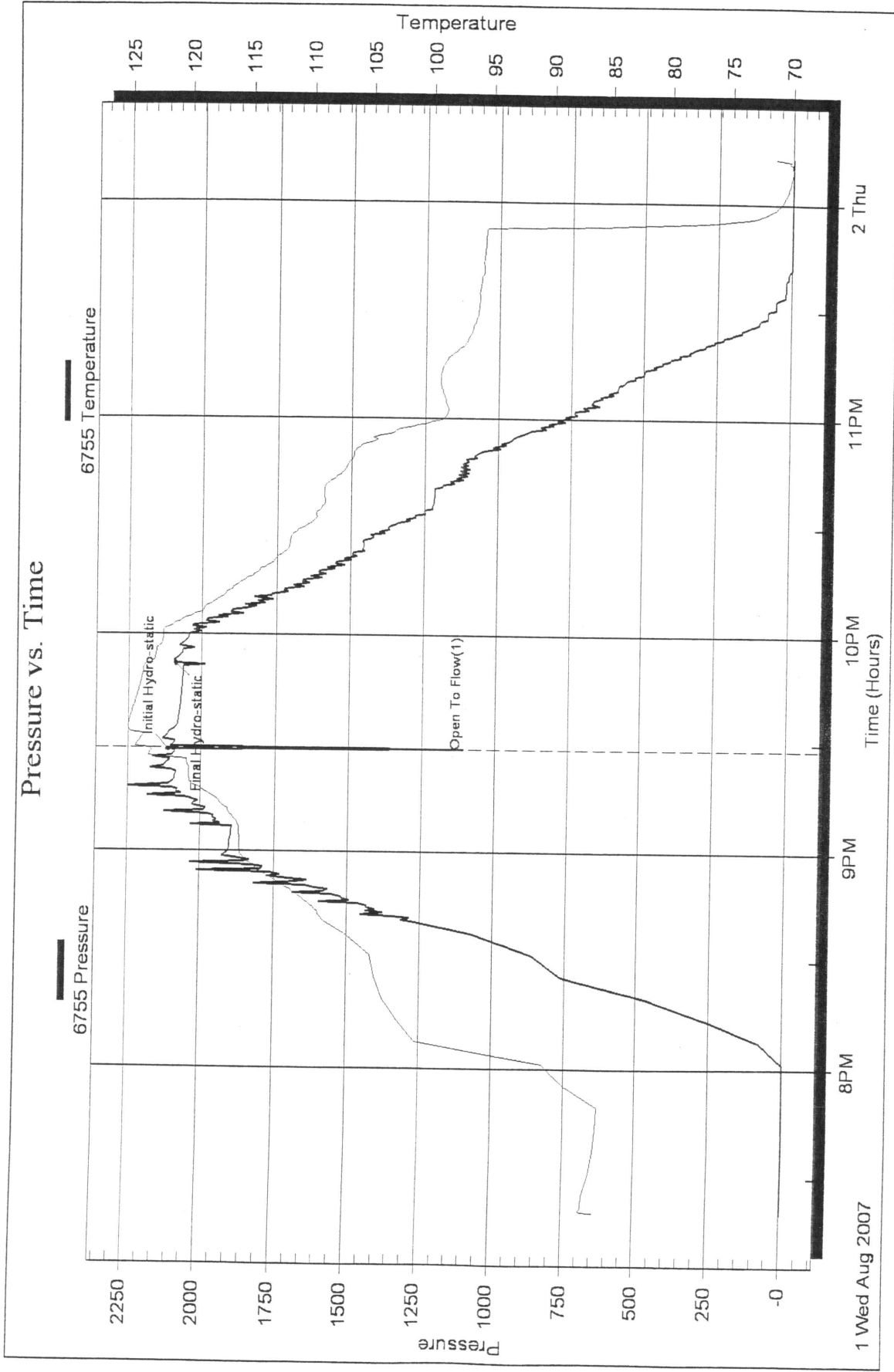
Serial #: 6755

Inside

Pickrell Drilling Company

24 17 26 Ness KS

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Pickrell Drilling Company**100 S Main Ste 505
Wichita KS 67202

ATTN: Jerry Smith

24 17 26 Ness KS**#4 Popp "A"**

Start Date: 2007.08.02 @ 00:52:38

End Date: 2007.08.02 @ 05:18:02

Job Ticket #: 28717 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Pickrell Drilling Company

100 S Main Ste 505
Wichita KS 67202

ATTN: Jerry Smith

#4 Popp "A"

24 17 26 Ness KS

Job Ticket: 28717

DST#: 2

Test Start: 2007.08.02 @ 00:52:38

GENERAL INFORMATION:

Formation: **Miss.**

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

Time Tool Opened: 02:26:18

Time Test Ended: 05:18:02

Test Type: Conventional Bottom Hole

Tester: Brandon Domsch

Unit No: 25

Interval: **4322.00 ft (KB) To 4366.00 ft (KB) (TVD)**

Total Depth: **4366.00 ft (KB) (TVD)**

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

Reference Elevations: **2422.00 ft (KB)**

2417.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: 6755 **Inside**

Press@RunDepth: **psig @ 4323.00 ft (KB)**

Start Date: **2007.08.02**

End Date:

2007.08.02

Start Time: **00:52:38**

End Time:

05:18:02

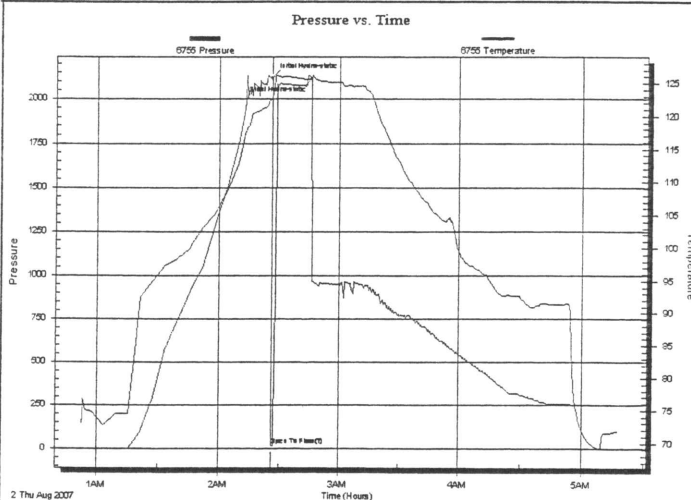
Capacity: **7000.00 psig**

Last Calib.: **2007.08.02**

Time On Btm: **2007.08.02 @ 02:26:03**

Time Off Btm: **2007.08.02 @ 02:45:48**

TEST COMMENT: IF 1/4 inch blow for 3 mins. Lost packer seat



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2122.54	122.70	Initial Hydro-static
1	17.05	122.71	Open To Flow(1)
20	2118.41	125.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
330.00	100%M	4.63

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Pickrell Drilling Company

#4 Popp "A"

100 S Main Ste 505
Wichita KS 67202

24 17 26 Ness KS

Job Ticket: 28717

DST#: 2

ATTN: Jerry Smith

Test Start: 2007.08.02 @ 00:52:38

Tool Information

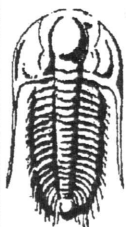
Drill Pipe:	Length: 4324.00 ft	Diameter: 3.80 inches	Volume: 60.65 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 60.65 bbl</u>	Tool Chased	3.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial	56000.00 lb
Depth to Top Packer:	4322.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	44.00 ft				
Tool Length:	67.00 ft				
Number of Packers:	1	Diameter: 6.75 inches			
Tool Comments:					

Tool Description

Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00		4300.00	
Shut In Tool	5.00		4305.00	
Hydraulic tool	5.00		4310.00	
Safety Joint	3.00		4313.00	
Packer	5.00		4318.00	23.00 Bottom Of Top Packer
Packer	4.00		4322.00	
Stubb	1.00		4323.00	
Recorder	0.00	6755 Inside	4323.00	
Perforations	7.00		4330.00	
Change Over Sub	1.00		4331.00	
Drill Pipe	29.00		4360.00	
Change Over Sub	1.00		4361.00	
Recorder	0.00	2607 Inside	4361.00	
Bullnose	5.00		4366.00	44.00 Bottom Packers & Anchor

Total Tool Length: 67.00



TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Pickrell Drilling Company

#4 Popp "A"

100 S Main Ste 505
Wichita KS 67202

24 17 26 Ness KS

Job Ticket: 28717

DST#: 2

ATTN: Jerry Smith

Test Start: 2007.08.02 @ 00:52:38

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: 9.30 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
330.00	100%M	4.629

Total Length: 330.00 ft

Total Volume: 4.629 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

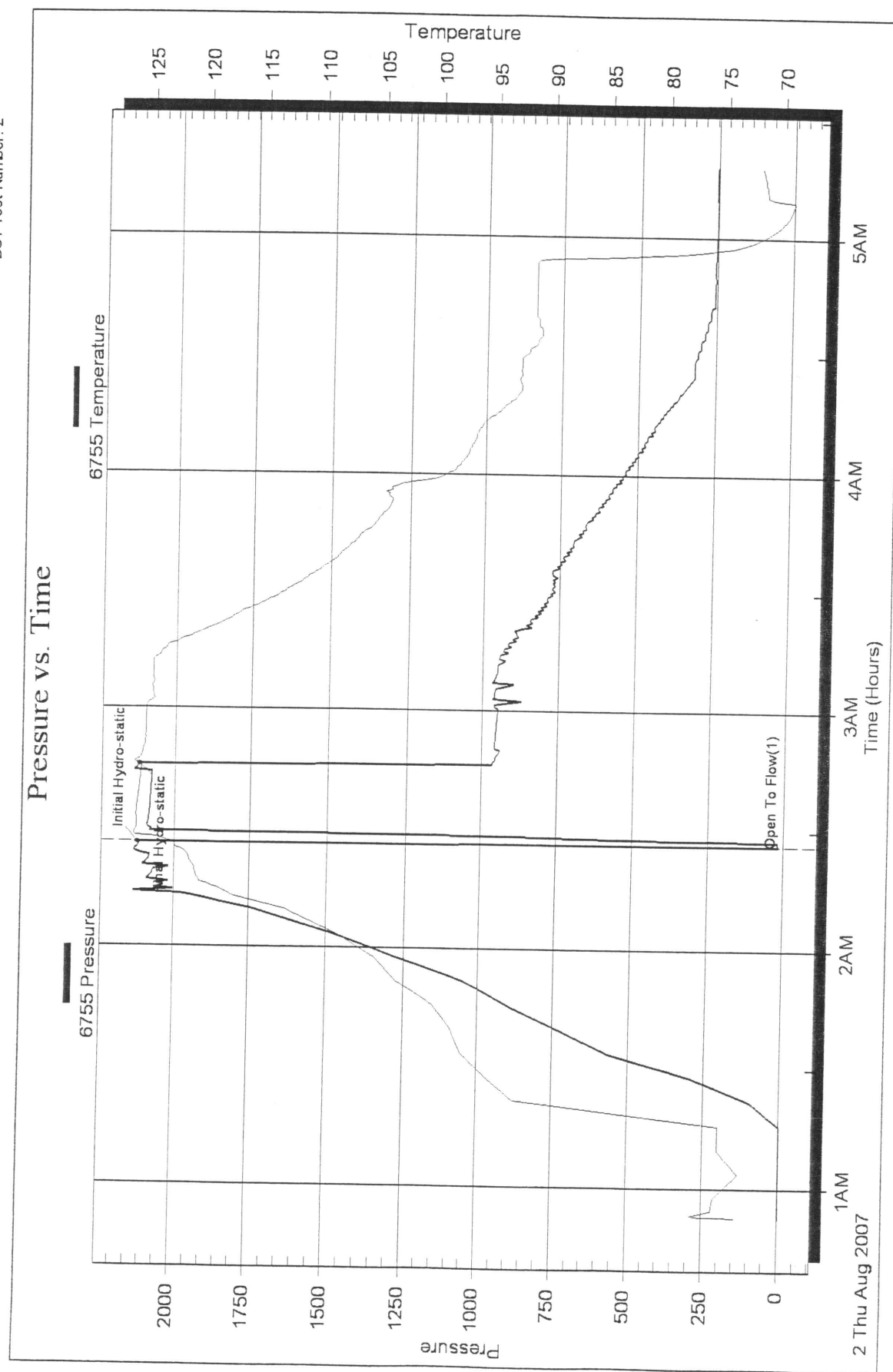
Serial #: 6755

Inside

Rickrell Drilling Company

24 17 26 Ness KS

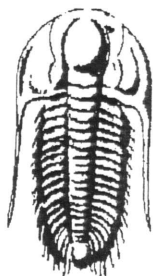
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 28717

Printed: 2007.08.08 @ 09:47:03 Page 5



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Pickrell Drilling Company**

100 S Main Ste 505
Wichita KS 67202

ATTN: Jerry Smith

24 17 26 Ness KS

#4 Popp "A"

Start Date: 2007.08.02 @ 14:42:10

End Date: 2007.08.02 @ 23:26:05

Job Ticket #: 28718 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Pickrell Drilling Company

100 S Main Ste 505
Wichita KS 67202

ATTN: Jerry Smith

#4 Popp "A"

24 17 26 Ness KS

Job Ticket: 28718

DST#: 3

Test Start: 2007.08.02 @ 14:42:10

GENERAL INFORMATION:

Formation: **Miss.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:12:05

Time Test Ended: 23:26:05

Interval: 4290.00 ft (KB) To 4366.00 ft (KB) (TVD)

Total Depth: 4366.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Brandon Domsch

Unit No: 25

Reference Elevations: 2422.00 ft (KB)

2417.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6667 Inside

Press@RunDepth: 99.19 psig @ 4291.00 ft (KB)

Start Date: 2007.08.02

End Date: 2007.08.02

Start Time: 14:42:10

End Time: 23:26:05

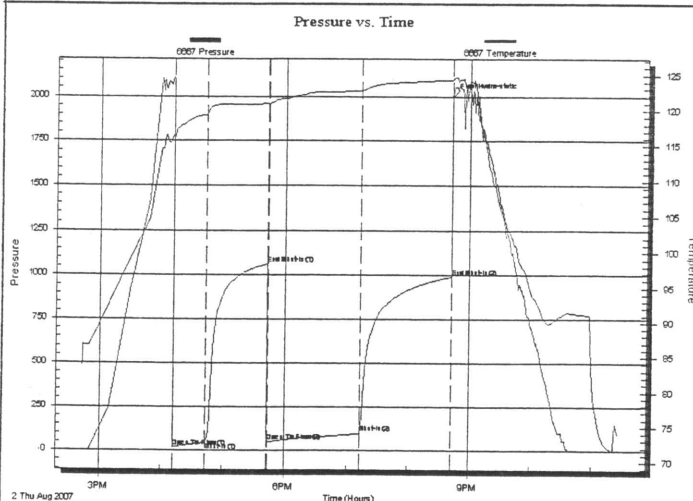
Capacity: 7000.00 psig

Last Calib.: 2007.08.02

Time On Btm:

Time Off Btm: 2007.08.02 @ 20:42:49

TEST COMMENT: IF Built to 7 1/2 inches.
IS No return
FF Built to BOB in 1 hr 15 mins.
FS No return



PRESSURE SUMMARY

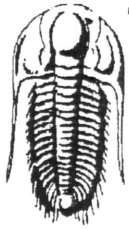
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	18.02	115.97	Open To Flow (1)
32	44.47	119.40	Shut-In (1)
90	1063.25	120.96	End Shut-In (1)
91	48.82	120.73	Open To Flow (2)
181	99.19	122.83	Shut-In (2)
271	993.11	124.35	End Shut-In (2)
271	1998.11	124.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	HM&GCO 25%G 35%O 40%M	0.84
60.00	M&GCO 20%G 50%O 30%M	0.84
60.00	M&GCO 10%G 60%O 30%M	0.84
20.00	100%O	0.28
0.00	GIP 100 ft	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Pickrell Drilling Company

100 S Main Ste 505
Wichita KS 67202

ATTN: Jerry Smith

#4 Popp "A"

24 17 26 Ness KS

Job Ticket: 28718

DST#: 3

Test Start: 2007.08.02 @ 14:42:10

Tool Information

Drill Pipe:	Length:	4294.00 ft	Diameter:	3.80 inches	Volume:	60.23 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:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	85000.00 lb
					Total Volume:	60.23 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		28.00 ft					String Weight: Initial	56000.00 lb
Depth to Top Packer:		4290.00 ft					Final	58000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		76.00 ft						
Tool Length:		100.00 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			4267.00	
Shut In Tool	5.00			4272.00	
Hydraulic tool	5.00			4277.00	
Safety Joint	3.00			4280.00	
Change Over Sub	1.00			4281.00	
Packer	5.00			4286.00	24.00 Bottom Of Top Packer
Packer	4.00			4290.00	
Stubb	1.00			4291.00	
Recorder	0.00	6667	Inside	4291.00	
Perforations	6.00			4297.00	
Change Over Sub	1.00			4298.00	
Drill Pipe	62.00			4360.00	
Change Over Sub	1.00			4361.00	
Recorder	0.00	2607	Inside	4361.00	
Bullnose	5.00			4366.00	76.00 Bottom Packers & Anchor

Total Tool Length: 100.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Pickrell Drilling Company

#4 Popp "A"

100 S Main Ste 505
Wichita KS 67202

24 17 26 Ness KS

Job Ticket: 28718

DST#: 3

ATTN: Jerry Smith

Test Start: 2007.08.02 @ 14:42:10

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: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.15 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	HM&GCO 25%G 35%O 40%M	0.842
60.00	M&GCO 20%G 50%O 30%M	0.842
60.00	M&GCO 10%G 60%O 30%M	0.842
20.00	100%O	0.281
0.00	GIP 100 ft	0.000

Total Length: 200.00 ft

Total Volume: 2.807 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6667 Inside Rickrell Drilling Company 24 17 26 Ness KS DST Test Number: 3

Pressure vs. Time

