

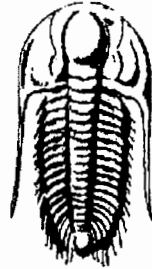
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KCC
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FROM
CONFIDENTIAL



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**
250 N Water Suite 300
Wichita, Ks 67202

ATTN: Scott Robinson

33-10-19-Rooks-Ks

Palmberg 1-33

Start Date: 2003.08.01 @ 12:12:44
End Date: 2003.08.01 @ 07:40:44
Job Ticket #: 17271 DST #: 1

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

Murfin Drilling Co Inc

Palmberg 1-33

33-10-19-Rooks-Ks

DST # 1

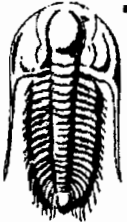
Tor-A-B-LKC

2003.08.01

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ORIGINAL

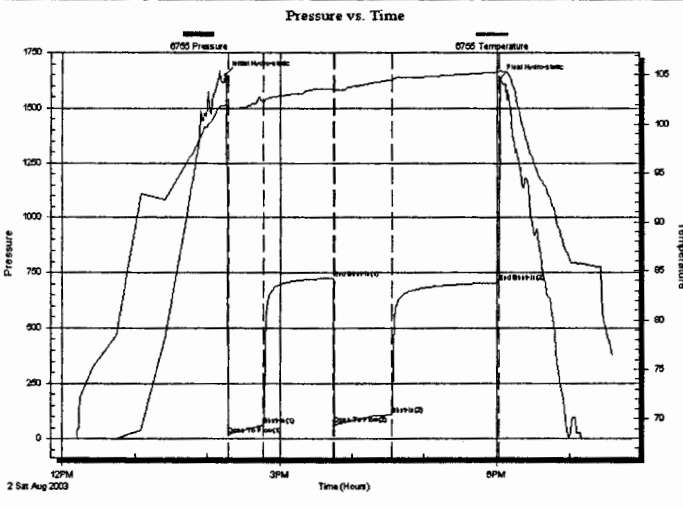
 <p>TRILOBITE TESTING, INC.</p>	DRILL STEM TEST REPORT	
	Murfin Drilling Co Inc 250 N Water Suite 300 Wichita, Ks 67202 ATTN: Scott Robinson	Palmberg 1-33 33-10-19-Rooks-Ks Job Ticket: 17271 DST#: 1 Test Start: 2003.08.01 @ 12:12:44

GENERAL INFORMATION:

Formation: Tor-A-B- LKC	<p>KCC AUG 15 2003 CONFIDENTIAL</p>	Test Type: Conventional Bottom Hole
Deviated: No Whipstock: ft (KB)		Tester: Dan Bangle
Time Tool Opened: 02:15:44		Unit No: 21
Time Test Ended: 07:40:44		
Interval: 3334.00 ft (KB) To 3422.00 ft (KB) (TVD)	Reference Elevations: 2120.00 ft (KB)	
Total Depth: 3422.00 ft (KB) (TVD)	2115.00 ft (CF)	
Hole Diameter: 7.88 inches Hole Condition: Good	KB to GR/CF: 5.00 ft	

Serial #: 6755	Inside				
Press@RunDepth: 110.02 psig @ 3340.00 ft (KB)	Capacity: 7000.00 psig				
Start Date: 2003.08.02	End Date: 2003.08.02	2003.08.02	Last Calib.: 2003.08.02		
Start Time: 12:12:45	End Time: 19:35:44	19:35:44	Time On Btm: 2003.08.02 @ 14:14:44		
			Time Off Btm: 2003.08.02 @ 18:02:44		


TEST COMMENT: IF-Weak building to 1/2"
 FF-Weak steady surface blow
 Times-30-60-45-90



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1649.36	102.07	Initial Hydro-static
2	17.12	101.78	Open To Flow (1)
32	63.63	102.38	Shut-in(1)
90	726.04	103.64	End Shut-in(1)
91	64.62	103.38	Open To Flow (2)
139	110.02	104.49	Shut-in(2)
227	705.50	105.30	End Shut-in(2)
228	1632.52	105.45	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
180.00	Mdy Wtr 40% m 60% w Rw .18 @ 80f	0.89

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

 <p>TRILOBITE TESTING, INC.</p>	DRILL STEM TEST REPORT		TOOL DIAGRAM
	Murfin Drilling Co Inc 250 N Water Suite 300 Wichita, Ks 67202 ATTN: Scott Robinson	Palmberg 1-33 33-10-19-Rooks-Ks Job Ticket: 17271 Test Start: 2003.08.01 @ 12:12:44	

Tool Information

Drill Pipe:	Length: 3155.00 ft	Diameter: 3.80 inches	Volume: 44.26 bbl	Tool Weight: 2000.00 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: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 40000.00 lb
			Total Volume: 45.16 bbl	Tool Chased: 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3334.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	88.00 ft			
Tool Length:	112.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

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Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			3311.00		
S.I. Tool	5.00			3316.00		
HMV	5.00			3321.00		
Safety Joint	3.00			3324.00		
Packer	5.00			3329.00	24.00	Bottom Of Top Packer
Packer	5.00			3334.00		
Stubb	1.00			3335.00		
Perforations	4.00			3339.00		
C.O. Sub	1.00			3340.00		
Recorder	0.00	6755	Inside	3340.00		
Blank Spacing	63.00			3403.00		
C.O. Sub	1.00			3404.00		
Recorder	0.00	13254	Outside	3404.00		
Perforations	15.00			3419.00		
Bullnose	3.00			3422.00	88.00	Bottom Packers & Anchor

Total Tool Length: 112.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water Suite 300
Wichita, Ks 67202
ATTN: Scott Robinson

Palmberg 1-33
33-10-19-Rooks-Ks
Job Ticket: 17271 **DST#: 1**
Test Start: 2003.08.01 @ 12:12:44

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:	36000 ppm
Viscosity: 47.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.57 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3900.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	Mdy Wtr 40%m 60%w Rw .18 @ 80f	0.885

Total Length: 180.00 ft Total Volume: 0.885 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

DST Test Number: 1

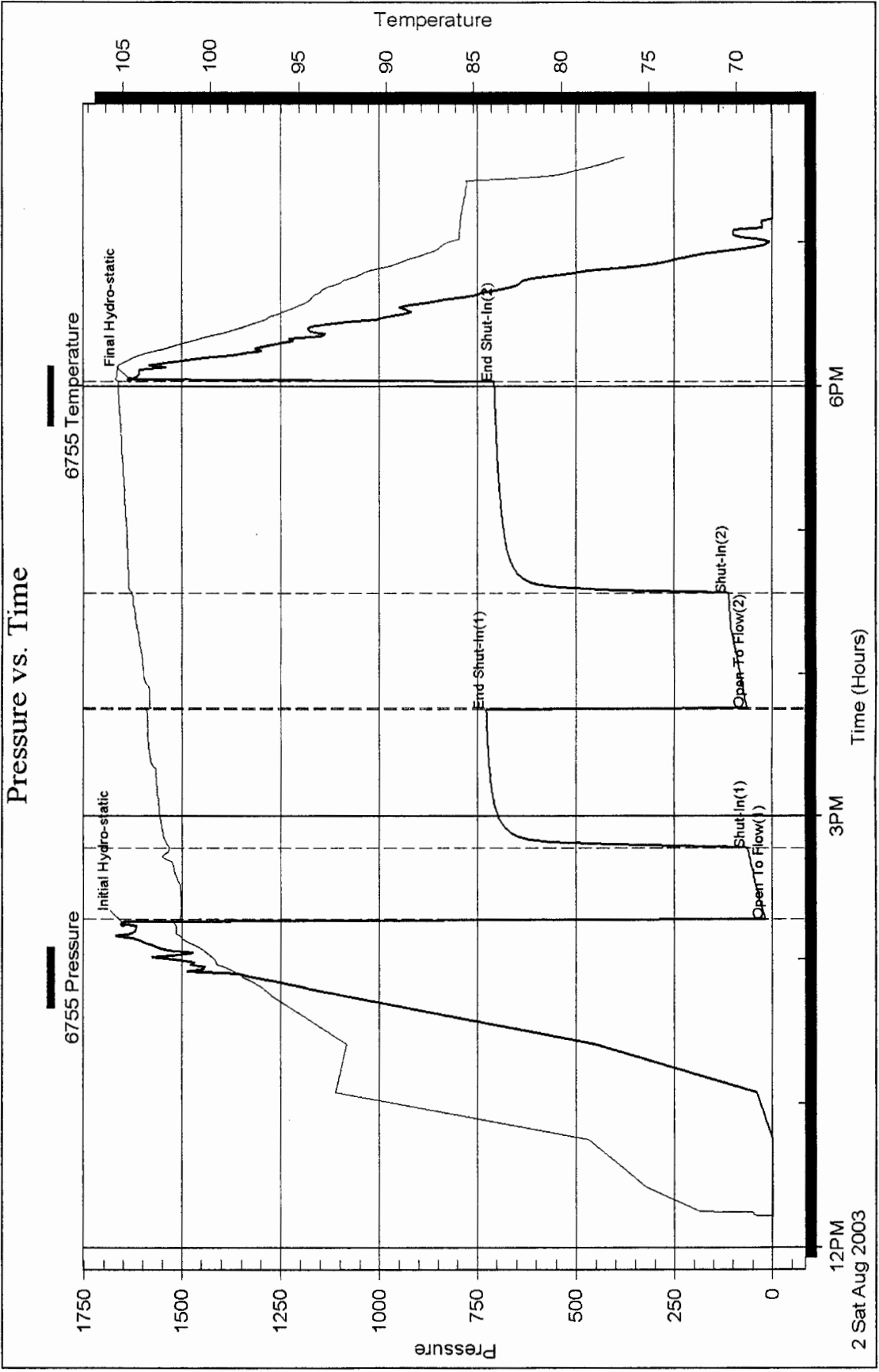
33-10-19-Rooks-Ks

Murfin Drilling Co Inc

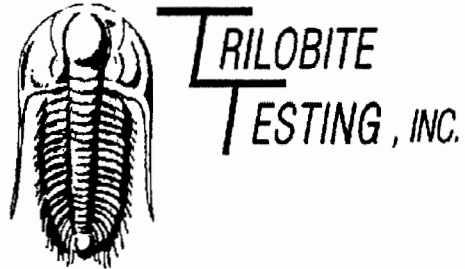
Inside

Serial #: 6755

Pressure vs. Time



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DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Suite 300
Wichita, Ks 67202

ATTN: Scott Robinson

33-10-19-Rooks-Ks

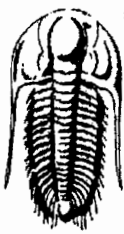
Palmberg 1-33

Start Date: 2003.08.02 @ 14:40:38

End Date: 2003.08.02 @ 22:02:08

Job Ticket #: 17272 DST #: 2

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

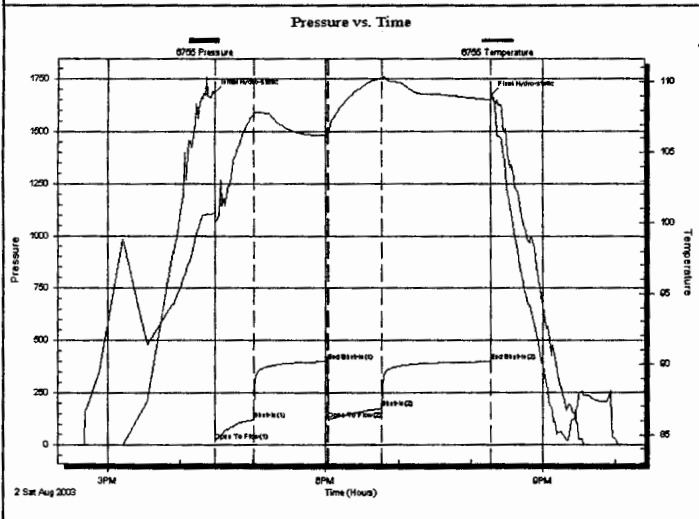
 <p>TRILOBITE TESTING, INC.</p>	DRILL STEM TEST REPORT	
	Murfin Drilling Co Inc 250 N Water Suite 300 Wichita, Ks 67202 ATTN: Scott Robinson	Palmberg 1-33 33-10-19-Rooks-Ks Job Ticket: 17272 DST#: 2 Test Start: 2003.08.02 @ 14:40:38

GENERAL INFORMATION:

Formation: C-D-E-F-	Deviated: No Whipstock: ft (KB)	Test Type: Conventional Bottom Hole
Time Tool Opened: 16:29:08	Time Test Ended: 22:02:08	Tester: Dan Bangle
Interval: 3422.00 ft (KB) To 3457.00 ft (KB) (TVD)	Total Depth: 3457.00 ft (KB) (TVD)	Unit No: 21
Hole Diameter: 7.88 inches	Hole Condition: Good	Reference Elevations: 2120.00 ft (KB) 2115.00 ft (CF)
		KB to GR/CF: 5.00 ft

Serial #: 6755	Inside				
Press@RunDepth: 174.23 psig @ 3423.00 ft (KB)	Capacity: 7000.00 psig				
Start Date: 2003.08.02	End Date: 2003.08.02	Start Time: 14:40:39	End Time: 22:02:08	Last Calib.: 2003.08.02	Time On Btm: 2003.08.02 @ 16:27:38
				Time Off Btm: 2003.08.02 @ 20:17:08	

TEST COMMENT: IF-Weak building to fair-BOB in 30 min
 FF-Weak building to 6"
 Times-30-60-45-90



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1683.67	100.66	Initial Hydro-static
2	19.15	100.25	Open To Flow (1)
33	120.67	107.73	Shut-In(1)
94	398.34	106.21	End Shut-In(1)
95	121.89	106.20	Open To Flow (2)
139	174.23	110.29	Shut-In(2)
229	397.78	108.72	End Shut-In(2)
230	1674.00	108.88	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
335.00	Mdy Wtr 20% m 80% w R _w .24 @80f	3.02

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Palmberg 1-33

250 N Water Suite 300
Wichita, Ks 67202

33-10-19-Rooks-Ks

Job Ticket: 17272

DST#: 2

ATTN: Scott Robinson

Test Start: 2003.08.02 @ 14:40:38


Tool Information

Drill Pipe:	Length: 3216.00 ft	Diameter: 3.80 inches	Volume: 45.11 bbl	Tool Weight: 2300.00 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: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 46.01 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3422.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	35.00 ft			
Tool Length:	59.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3399.00	
S.I. Tool	5.00			3404.00	
HMV	5.00			3409.00	
Safety Joint	3.00			3412.00	
Packer	5.00			3417.00	24.00 Bottom Of Top Packer
Packer	5.00			3422.00	
Stubb	1.00			3423.00	
Recorder	0.00	6755	Inside	3423.00	
Perforations	31.00			3454.00	
Recorder	0.00	13254	Outside	3454.00	
Bullnose	3.00			3457.00	35.00 Bottom Packers & Anchor

Total Tool Length: 59.00

 <p style="font-size: 2em; font-weight: bold; margin: 0;">TRILOBITE TESTING, INC.</p>	DRILL STEM TEST REPORT		FLUID SUMMARY
	Murfin Drilling Co Inc	Palmberg 1-33	
	250 N Water Suite 300 Wichita, Ks 67202	33-10-19-Rooks-Ks	
ATTN: Scott Robinson	Job Ticket: 17272	DST#: 2	
	Test Start: 2003.08.02 @ 14:40:38		

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:	28000 ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.59 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5600.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
335.00	Mdy Wtr 20%m 80%w Rw .24 @80f	3.023

Total Length: 335.00 ft Total Volume: 3.023 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 6755

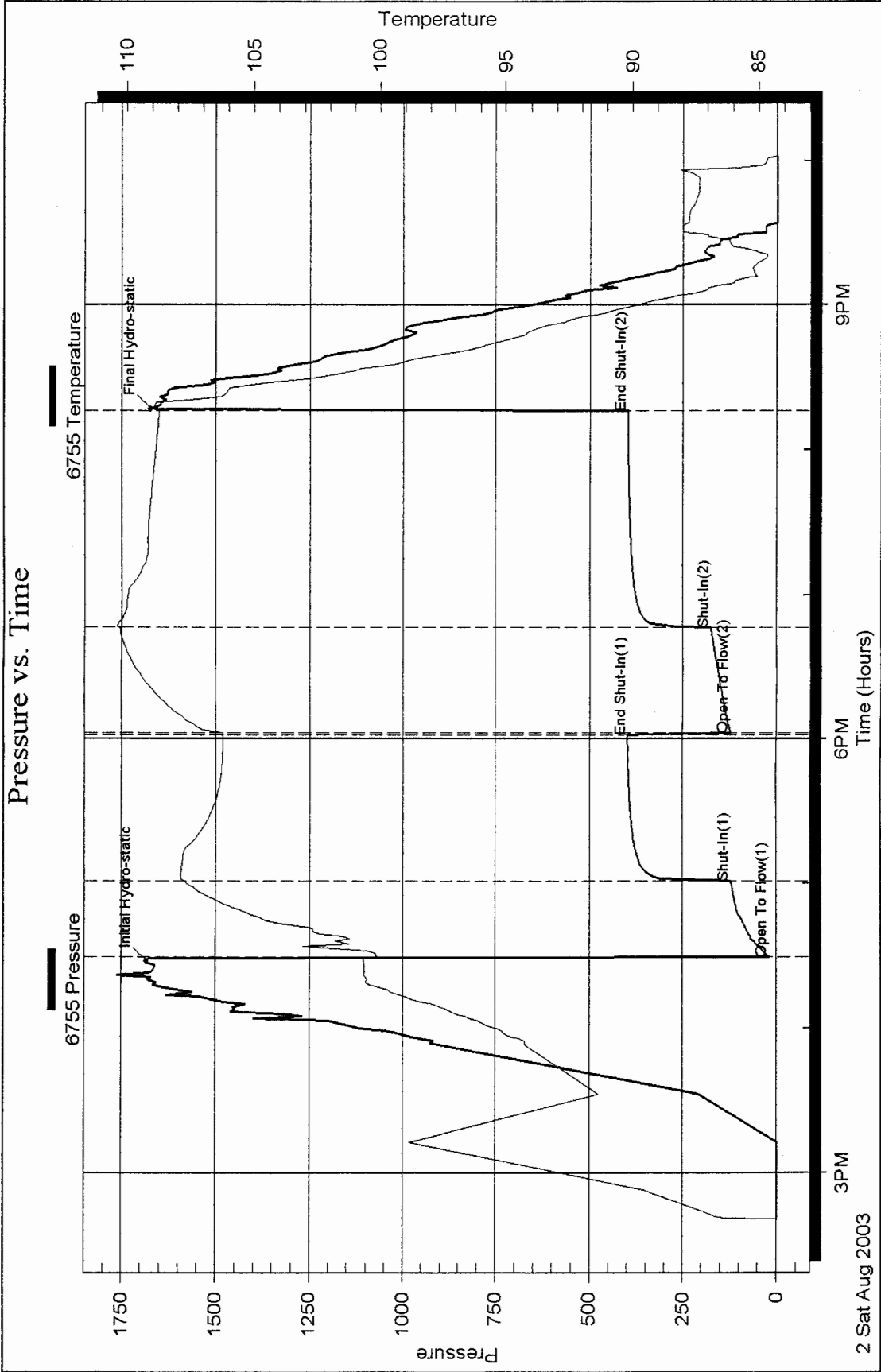
Inside

Murfin Drilling Co Inc

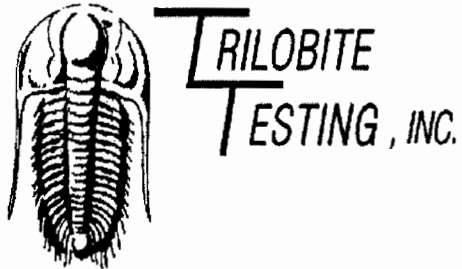
33-10-19-Rooks-Ks

DST Test Number: 2

Pressure vs. Time



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DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Suite 300
Wichita, Ks 67202

ATTN: Scott Robinson

33-10-19-Rooks-Ks

Palmberg 1-33

Start Date: 2003.08.03 @ 05:33:05

End Date: 2003.08.03 @ 12:37:05

Job Ticket #: 17273 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

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N Water Suite 300
Wichita, Ks 67202
ATTN: Scott Robinson

Palmberg 1-33
33-10-19-Rooks-Ks
Job Ticket: 17273 **DST#: 3**
Test Start: 2003.08.03 @ 05:33:05


Tool Information

Drill Pipe:	Length: 3279.00 ft	Diameter: 3.80 inches	Volume: 46.00 bbl	Tool Weight: 2200.00 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: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 46.90 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3457.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.00 ft			
Tool Length:	77.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3434.00	
S.I. Tool	5.00			3439.00	
HMV	5.00			3444.00	
Safety Joint	3.00			3447.00	
Packer	5.00			3452.00	24.00 Bottom Of Top Packer
Packer	5.00			3457.00	
Stubb	1.00			3458.00	
Perforations	4.00			3462.00	
C.O. Sub	1.00			3463.00	
Recorder	0.00	6755	Inside	3463.00	
Blank Spacing	29.00			3492.00	
C.O. Sub	1.00			3493.00	
Recorder	0.00	13254	Outside	3493.00	
Perforations	14.00			3507.00	
Bullnose	3.00			3510.00	53.00 Bottom Packers & Anchor

Total Tool Length: 77.00

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT		FLUID SUMMARY
	Murfin Drilling Co Inc 250 N Water Suite 300 Wichita, Ks 67202 ATTN: Scott Robinson	Palmberg 1-33 33-10-19-Rooks-Ks Job Ticket: 17273 Test Start: 2003.08.03 @ 05:33:05	

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:	65000 ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.57 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5600.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
350.00	Mdy Wtr 10%m 90%w Rw .31 @ 82f	3.233

Total Length: 350.00 ft Total Volume: 3.233 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

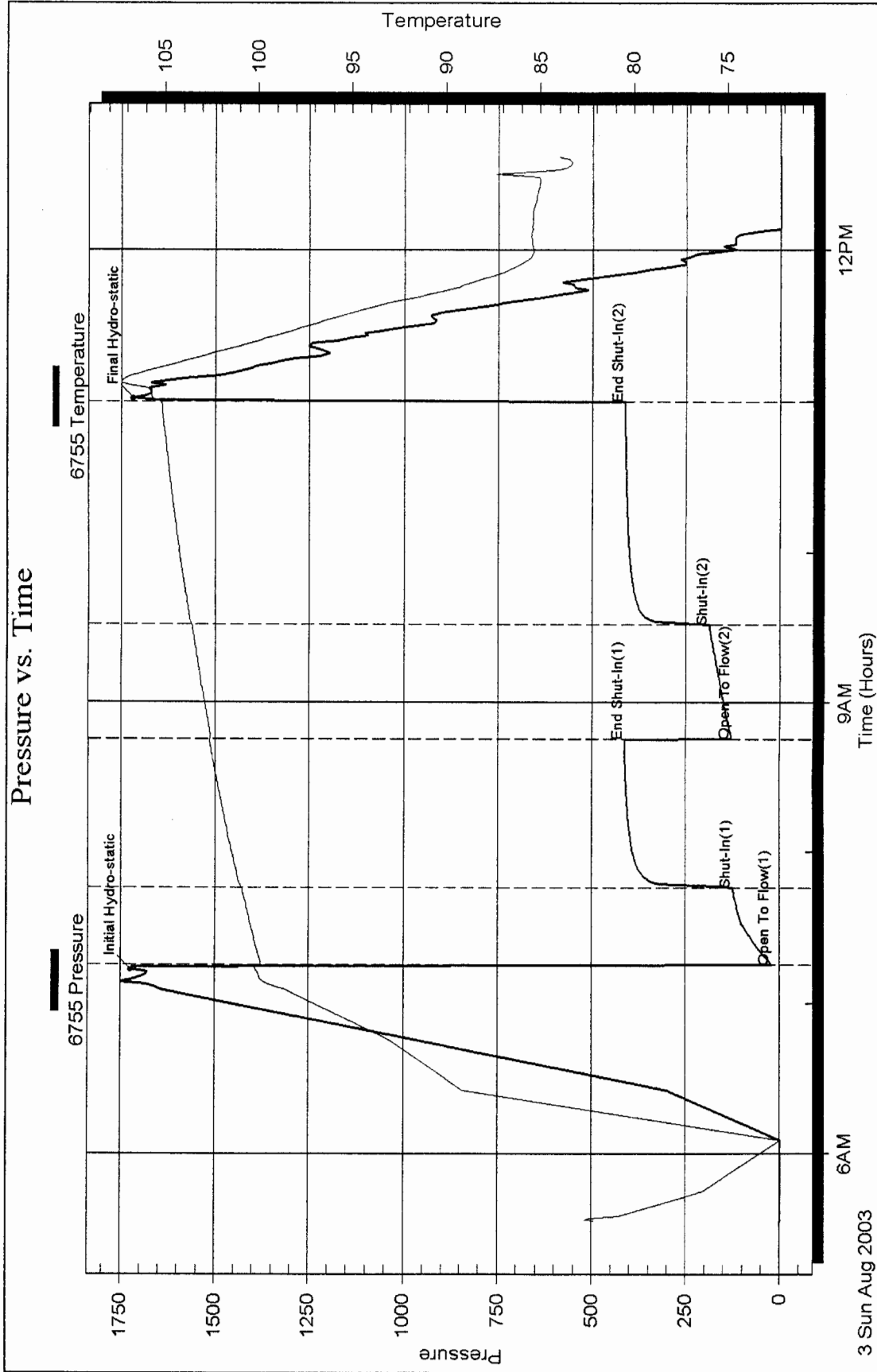
Serial #: 6755

Inside

Murfin Drilling Co Inc

33-10-19-Rocks-Ks

DST Test Number: 3



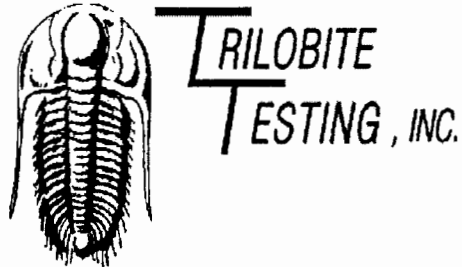
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6AM

9AM

12PM

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DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Suite 300
Wichita, Ks 67202

ATTN: Scott Robinson

33-10-19-Rooks-Ks

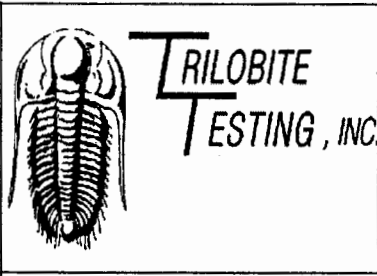
Palmberg 1-33

Start Date: 2003.08.03 @ 21:55:19

End Date: 2003.08.04 @ 05:36:19

Job Ticket #: 17274 DST #: 4

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



DRILL STEM TEST REPORT

Murfin Drilling Co Inc

Palmberg 1-33

250 N Water Suite 300
Wichita, Ks 67202

33-10-19-Rooks-Ks

Job Ticket: 17274

DST#: 4

ATTN: Scott Robinson

Test Start: 2003.08.03 @ 21:55:19

GENERAL INFORMATION:

Formation: **I-L LKC**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:41:19
 Time Test Ended: 05:36:19

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

Interval: **3520.00 ft (KB) To 3590.00 ft (KB) (TVD)**
 Total Depth: 3590.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2120.00 ft (KB)
 2115.00 ft (CF)
 KB to GR/CF: 5.00 ft

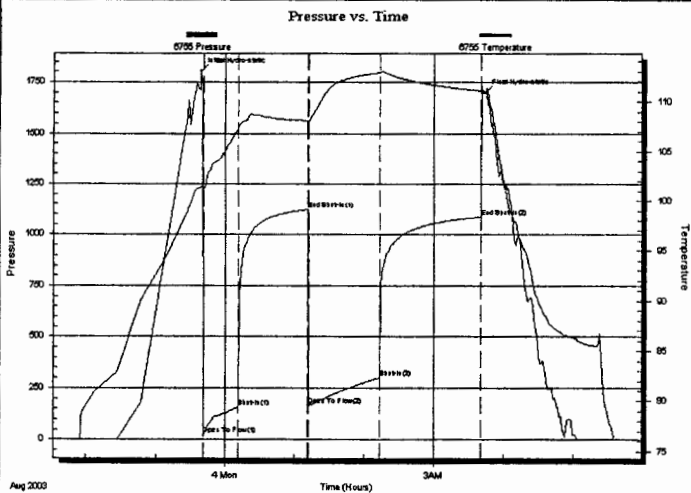
Serial #: 6755

Inside

Press@RunDepth: 302.01 psig @ 3526.00 ft (KB)
 Start Date: 2003.08.03 End Date: 2003.08.04
 Start Time: 21:55:20 End Time: 05:36:19

Capacity: 7000.00 psig
 Last Calib.: 2003.08.04
 Time On Btm: 2003.08.03 @ 23:38:49
 Time Off Btm: 2003.08.04 @ 03:43:19

TEST COMMENT: IF-Strong BOB in 17 min
 FF-Weak building to strong BOB in 20 min
 Times-30-60-60-90



PRESSURE SUMMARY

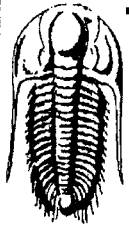
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1802.48	101.42	Initial Hydro-static
3	26.75	101.21	Open To Flow (1)
33	157.27	107.30	Shut-In(1)
93	1122.99	108.15	End Shut-In(1)
94	164.71	107.97	Open To Flow (2)
155	302.01	112.89	Shut-In(2)
242	1087.03	111.11	End Shut-In(2)
245	1700.66	111.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
615.00	Mdy Wtr 20% m 80% w show of oil on top	6.95
0.00	in tool Rw .40 @ 86f	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Palmberg 1-33

250 N Water Suite 300
Wichita, Ks 67202

33-10-19-Rooks-Ks

Job Ticket: 17274

DST#: 4

ATTN: Scott Robinson

Test Start: 2003.08.03 @ 21:55:19


Tool Information

Drill Pipe:	Length: 3340.00 ft	Diameter: 3.80 inches	Volume: 46.85 bbl	Tool Weight: 2800.00 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: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 47.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 39000.00 lb
Depth to Top Packer:	3520.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	70.00 ft			
Tool Length:	94.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3497.00	
S.I. Tool	5.00			3502.00	
HMV	5.00			3507.00	
Safety Joint	3.00			3510.00	
Packer	5.00			3515.00	24.00 Bottom Of Top Packer
Packer	5.00			3520.00	
Stubb	1.00			3521.00	
Perforations	4.00			3525.00	
C.O. Sub	1.00			3526.00	
Recorder	0.00	6755	Inside	3526.00	
Blank Spacing	28.00			3554.00	
C.O. Sub	1.00			3555.00	
Recorder	0.00	13254	Outside	3555.00	
Perforations	32.00			3587.00	
Bullnose	3.00			3590.00	70.00 Bottom Packers & Anchor
Total Tool Length:		94.00			

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 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT		FLUID SUMMARY
	Murfin Drilling Co Inc 250 N Water Suite 300 Wichita, Ks 67202 ATTN: Scott Robinson	Palmberg 1-33 33-10-19-Rooks-Ks Job Ticket: 17274 Test Start: 2003.08.03 @ 21:55:19	

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length:	Water Salinity:	70000 ppm
Viscosity: 46.00 sec/qt	Cushion Volume:		
Water Loss: 7.60 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure:		
Salinity: 6900.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
615.00	Mdy Wtr 20%m 80%w show of oil on top &	6.951
0.00	in tool Rw .40 @ 86f	0.000

Total Length: 615.00 ft Total Volume: 6.951 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Serial #: 6755

Inside

Murfin Drilling Co Inc

33-10-19-Rooks-Ks

DST Test Number: 4

Pressure vs. Time

