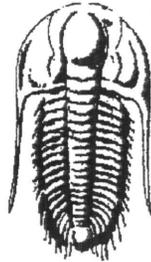


CONFIDENTIAL

ORIGINAL



**TRILOBITE
TESTING, INC.**

KCC
OCT 03 2005
CONFIDENTIAL

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water
Suite 300
Wichita, KS 67202

ATTN: Kim Shoemaker

5-32s-24w Clark KS

Morton #1-5

Start Date: 2005.07.30 @ 12:55:02

End Date: 2005.07.31 @ 07:36:17

Job Ticket #: 20775 DST #: 1

SE NW SE NW
1920 FNL 1880 FWL

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KCC WICHITA

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

Murfin Drilling Co.

Morton #1-5

5-32s-24w Clark KS

DST # 1

Simpson Sand

2005.07.30

15 - 025 - 21301



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N. Water
Suite 300
Wichita, KS 67202
ATTN: Kim Shoemaker

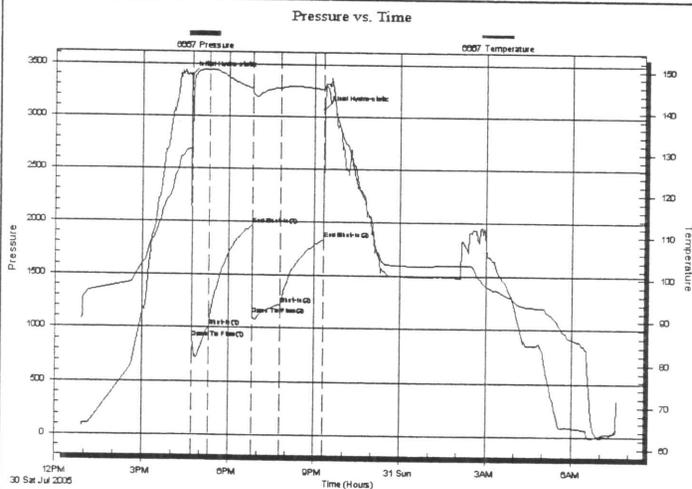
Morton #1-5
5-32s-24w Clark KS
Job Ticket: 20775 DST#: 1
Test Start: 2005.07.30 @ 12:55:02

GENERAL INFORMATION:

Formation: **Simpson Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:41:32
Time Test Ended: 07:36:17
Interval: **6735.00 ft (KB) To 6821.00 ft (KB) (TVD)**
Total Depth: 6821.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Jake Fahrenbruch
Unit No: 19
Reference Elevations: 2374.00 ft (KB)
2364.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6667 Inside
Press@RunDepth: 1221.52 psig @ 6736.00 ft (KB)
Start Date: 2005.07.30 End Date: 2005.07.31
Start Time: 12:55:07 End Time: 07:36:16
Capacity: 7000.00 psig
Last Calib.: 2005.07.31
Time On Btm: 2005.07.30 @ 16:40:47
Time Off Btm: 2005.07.30 @ 21:20:02

TEST COMMENT: IF: Strong blow, BOB 1min, GTS 13min.
IS: Bled off, Blow back @ BOB.
FF: Strong blow, BOB immediately.
FSI: Bled off, Blow back @ BOB.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	3389.03	131.00	Initial Hydro-static
1	892.62	130.83	Open To Flow (1)
37	1006.14	149.75	Shut-In(1)
128	1966.94	145.47	End Shut-In(1)
129	1119.63	144.71	Open To Flow (2)
188	1221.52	145.60	Shut-In(2)
279	1833.54	145.32	End Shut-In(2)
280	3073.57	145.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3225.00	Oil 100%oil	43.08
0.00	Gravity= 38 @ 70 deg F= 39 corrected	0.00
0.00	0	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	5.00	7.26
Last Gas Rate	0.13	11.00	9.51
Max. Gas Rate	0.13	15.00	11.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.
250 N. Water
Suite 300
Wichita, KS 67202
ATTN: Kim Shoemaker

Morton #1-5
5-32s-24w Clark KS
Job Ticket: 20775 **DST#: 1**
Test Start: 2005.07.30 @ 12:55:02

Tool Information

Drill Pipe:	Length: 6499.00 ft	Diameter: 3.80 inches	Volume: 91.16 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: 237.00 ft	Diameter: 2.25 inches	Volume: 1.17 bbl	Weight to Pull Loose: lb
		Total Volume: 92.33 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 104000.0 lb
Depth to Top Packer:	6735.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	86.00 ft			
Tool Length:	114.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

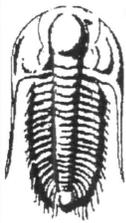
Tool Comments:

Dropped bar, reversed oil out of top. 8 hours of standby time.

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			6712.00	
Hydraulic tool	5.00			6717.00	
Jars	5.00			6722.00	
Safety Joint	3.00			6725.00	
Packer	5.00			6730.00	28.00 Bottom Of Top Packer
Packer	5.00			6735.00	
Stubb	1.00			6736.00	
Recorder	0.00	6667	Inside	6736.00	
Perforations	5.00			6741.00	
Change Over Sub	1.00			6742.00	
Blank Spacing	63.00			6805.00	
Change Over Sub	1.00			6806.00	
Perforations	12.00			6818.00	
Recorder	0.00	11019		6818.00	
Bullnose	3.00			6821.00	86.00 Bottom Packers & Anchor

Total Tool Length: 114.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.
250 N. Water
Suite 300
Wichita, KS 67202
ATTN: Kim Shoemaker

Morton #1-5
5-32s-24w Clark KS
Job Ticket: 20775 DST#: 1
Test Start: 2005.07.30 @ 12:55:02

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: 62.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3800.00 ppm			
Filter Cake: 0.04 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3225.00	Oil 100%oil	43.079
0.00	Gravity= 38 @ 70 deg F= 39 corrected	0.000
0.00	0	0.000

Total Length: 3225.00 ft Total Volume: 43.079 bbl
 Num Fluid Samples: 1 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Murfin Drilling Co.

Morton #1-5

250 N. Water
Suite 300
Wichita, KS 67202
ATTN: Kim Shoemaker

5-32s-24w Clark KS
Job Ticket: 20775 **DST#: 1**
Test Start: 2005.07.30 @ 12:55:02

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 ³ /d)
1	15	0.13	5.00	7.26
1	15	0.13	5.00	7.26
1	20	0.13	7.50	8.20
1	25	0.13	12.00	9.88
1	30	0.13	15.00	11.00
2	10	0.13	4.00	6.89
2	20	0.13	7.00	8.01
2	30	0.13	10.00	9.13
2	40	0.13	11.00	9.51
2	50	0.13	11.00	9.51
2	60	0.13	11.00	9.51

Serial #: 6667

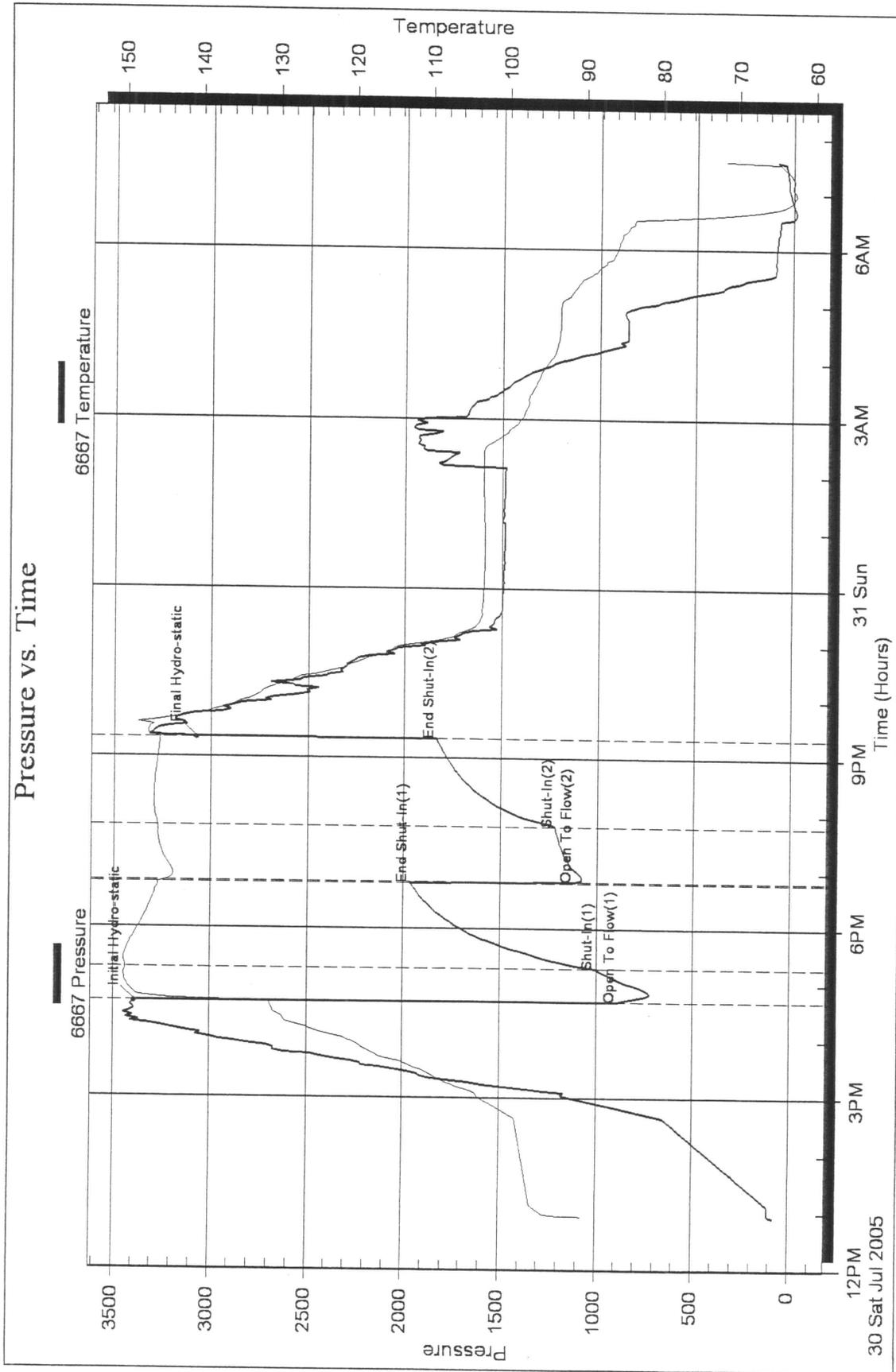
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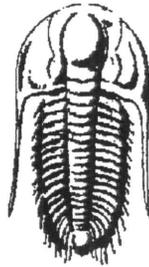
Murfin Drilling Co.

5-32s-24w Clark KS

DST Test Number: 1

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water
Suite 300
Wichita, KS 67202

ATTN: Kim Shoemaker

5-32s-24w Clark KS

Morton #1-5

Start Date: 2005.07.31 @ 18:16:46

End Date: 2005.08.01 @ 07:55:46

Job Ticket #: 21726 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Murfin Drilling Co.

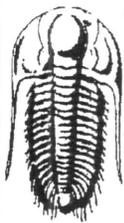
Morton #1-5

5-32s-24w Clark KS

DST # 2

Arbuckle

2005.07.31



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N. Water
Suite 300
Wichita, KS 67202
ATTN: Kim Shoemaker

Morton #1-5
5-32s-24w Clark KS
Job Ticket: 21726 DST#: 2
Test Start: 2005.07.31 @ 18:16:46

GENERAL INFORMATION:

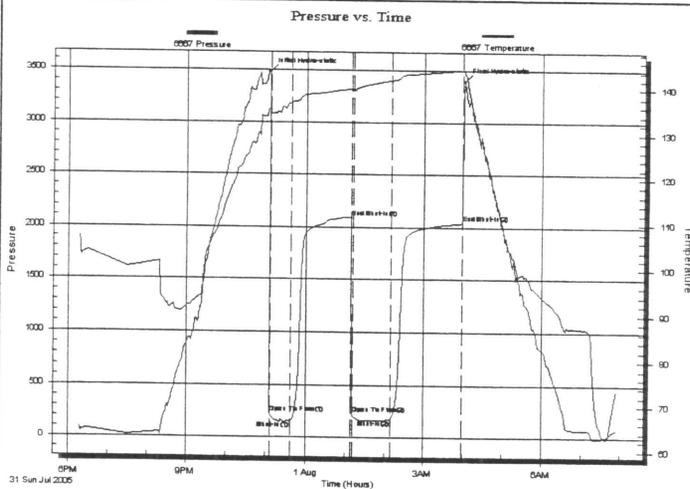
Formation: **Arbuckle**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 23:06:16
Time Test Ended: 07:55:46
Test Type: Conventional Bottom Hole
Tester: Jake Fahrenbruch
Unit No: 19
Interval: **6824.00 ft (KB) To 6846.00 ft (KB) (TVD)**
Total Depth: **6846.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: Fair
Reference Elevations: 2374.00 ft (KB)
2364.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6667

Inside

Press@RunDepth: 169.89 psig @ 6825.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2005.07.31 End Date: 2005.08.01 Last Calib.: 2005.08.01
Start Time: 18:16:51 End Time: 07:55:46 Time On Btm: 2005.07.31 @ 23:05:31
Time Off Btm: 2005.08.01 @ 04:01:01

TEST COMMENT: IF: Fair blow , building to 11".
IS: Bled off, no blow back.
FF: Fair blow , BOB 25 minutes.
FSI: Bled off, no blow back.



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	3480.39	135.69	Initial Hydro-static
1	221.96	134.84	Open To Flow (1)
32	152.84	136.99	Shut-In(1)
124	2090.57	140.22	End Shut-In(1)
125	225.94	139.98	Open To Flow (2)
184	169.89	142.06	Shut-In(2)
294	2037.09	144.35	End Shut-In(2)
296	3397.30	143.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	HGCWOCM25%g15%w15%o45%m	0.30
120.00	HGCOM25%g35%o40%m	0.59
0.00	0	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

Morton #1-5

250 N. Water
Suite 300
Wichita, KS 67202

5-32s-24w Clark KS

ATTN: Kim Shoemaker

Job Ticket: 21726

DST#: 2

Test Start: 2005.07.31 @ 18:16:46

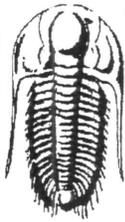
Tool Information

Drill Pipe:	Length: 6569.00 ft	Diameter: 3.80 inches	Volume: 92.15 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: 237.00 ft	Diameter: 2.25 inches	Volume: 1.17 bbl	Weight to Pull Loose: 140000.0 lb
			<u>Total Volume: 93.32 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 105000.0 lb
Depth to Top Packer:	6824.00 ft			Final 105000.0 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	50.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			6801.00	
Hydraulic tool	5.00			6806.00	
Jars	5.00			6811.00	
Safety Joint	3.00			6814.00	
Packer	5.00			6819.00	28.00 Bottom Of Top Packer
Packer	5.00			6824.00	
Stubb	1.00			6825.00	
Recorder	0.00	6667	Inside	6825.00	
Perforations	18.00			6843.00	
Recorder	0.00	11019		6843.00	
Bullnose	3.00			6846.00	22.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.
250 N. Water
Suite 300
Wichita, KS 67202
ATTN: Kim Shoemaker

Morton #1-5
5-32s-24w Clark KS
Job Ticket: 21726 DST#: 2
Test Start: 2005.07.31 @ 18:16:46

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: 79.00 sec/qt	Cushion Volume: bbl		
Water Loss: 0.60 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4800.00 ppm			
Filter Cake: 0.04 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	HGCWOCM 25%g 15%w 15%o 45%m	0.295
120.00	HGCOM 25%g 35%o 40%m	0.590
0.00	0	0.000

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:

Serial #: 6667

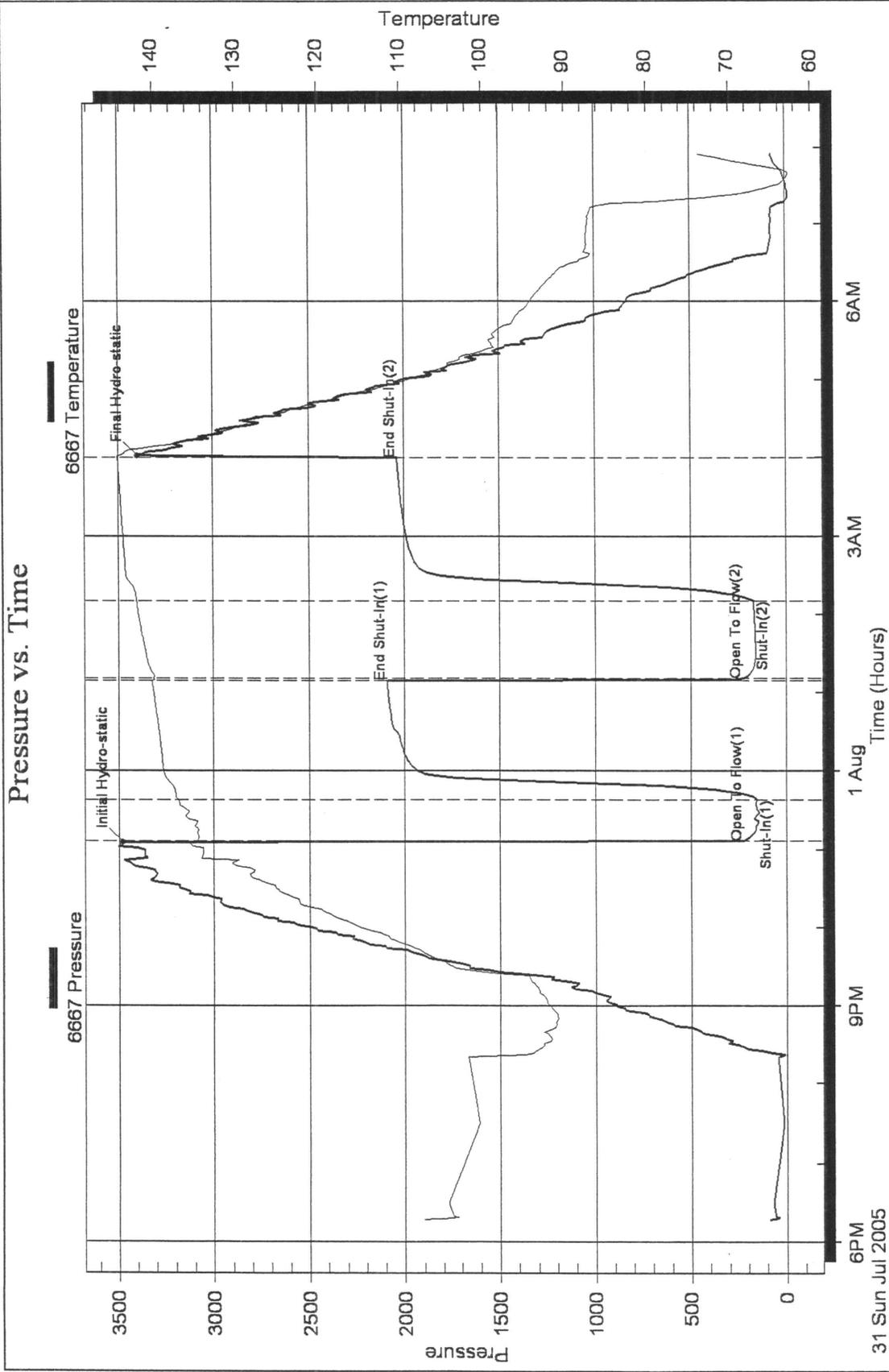
Inside

Murfin Drilling Co.

5-32s-24w Clark KS

DST Test Number: 2

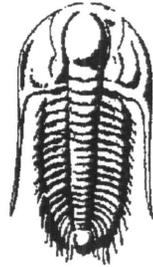
Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 21726

Printed: 2005.08.04 @ 11:32:26 Page 5



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water
Suite 300
Wichita, KS 67202

ATTN: Kim Shoemaker

5-32s-24w Clark KS

Morton #1-5

Start Date: 2005.08.01 @ 19:45:40

End Date: 2005.08.02 @ 07:55:10

Job Ticket #: 21727 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Murfin Drilling Co.

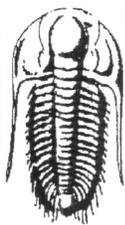
Morton #1-5

5-32s-24w Clark KS

DST # 3

Arbuckle

2005.08.01



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N. Water
Suite 300
Wichita, KS 67202
ATTN: Kim Shoemaker

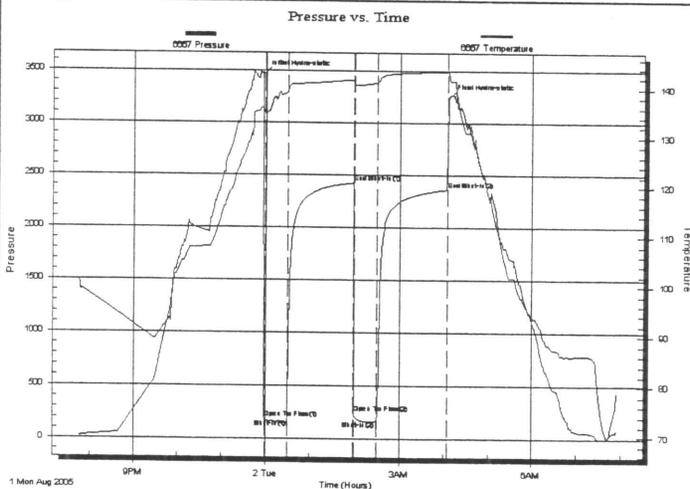
Morton #1-5
5-32s-24w Clark KS
Job Ticket: 21727 DST#: 3
Test Start: 2005.08.01 @ 19:45:40

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: **No Whipstock** ft (KB)
Time Tool Opened: 23:58:40
Time Test Ended: 07:55:10
Test Type: **Conventional Bottom Hole**
Tester: **Jake Fahrenbruch**
Unit No: **19**
Interval: **6844.00 ft (KB) To 6871.00 ft (KB) (TVD)**
Total Depth: **6871.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
Reference Elevations: **2374.00 ft (KB)**
2364.00 ft (CF)
KB to GR/CF: **10.00 ft**

Serial #: 6667 **Inside**
Press@RunDepth: **172.36 psig @ 6845.00 ft (KB)** Capacity: **7000.00 psig**
Start Date: **2005.08.01** End Date: **2005.08.02** Last Calib.: **2005.08.02**
Start Time: **19:45:45** End Time: **07:55:10** Time On Btrn: **2005.08.01 @ 23:57:25**
Time Off Btrn: **2005.08.02 @ 04:06:55**

TEST COMMENT: IF: Weak blow @ .5"
IS: Bled off, no blow back.
FF: Weak surface blow.
FS: Bled off, no blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	3470.70	136.12	Initial Hydro-static
2	192.43	134.98	Open To Flow (1)
33	184.49	139.44	Shut-In(1)
122	2426.77	141.76	End Shut-In(1)
123	248.73	140.85	Open To Flow (2)
152	172.36	141.18	Shut-In(2)
247	2364.84	143.45	End Shut-In(2)
250	3248.40	141.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Drig mud 100%m	0.10
120.00	MCW 20%m 80%w	0.59
0.00	RW= .16ohm@67degF=57,000ppm	0.00
0.00	0	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

Morton #1-5

250 N. Water
Suite 300
Wichita, KS 67202
ATTN: Kim Shoemaker

5-32s-24w Clark KS
Job Ticket: 21727 **DST#: 3**
Test Start: 2005.08.01 @ 19:45:40

Tool Information

Drill Pipe:	Length: 6597.00 ft	Diameter: 3.80 inches	Volume: 92.54 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: 237.00 ft	Diameter: 2.25 inches	Volume: 1.17 bbl	Weight to Pull Loose: 125000.0 lb
			<u>Total Volume: 93.71 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 105000.0 lb
Depth to Top Packer:	6844.00 ft			Final 105000.0 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

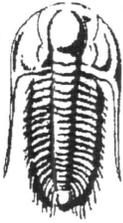
Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Shut In Tool	5.00			6821.00	
Hydraulic tool	5.00			6826.00	
Jars	5.00			6831.00	
Safety Joint	3.00			6834.00	
Packer	5.00			6839.00	28.00 Bottom Of Top Packer
Packer	5.00			6844.00	
Stubb	1.00			6845.00	
Recorder	0.00	6667	Inside	6845.00	
Perforations	23.00			6868.00	
Recorder	0.00	11019		6868.00	
Bullnose	3.00			6871.00	27.00 Bottom Packers & Anchor

Total Tool Length: 55.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

Morton #1-5

250 N. Water
Suite 300
Wichita, KS 67202
ATTN: Kim Shoemaker

5-32s-24w Clark KS

Job Ticket: 21727

DST#: 3

Test Start: 2005.08.01 @ 19:45:40

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 72.00 sec/qt
Water Loss: 9.59 in³
Resistivity: ohm.m
Salinity: 5300.00 ppm
Filter Cake: 0.04 inches

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

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Drig mud 100%m	0.098
120.00	MCW 20%m 80%w	0.590
0.00	RW=.16ohm@67degF=57,000ppm	0.000
0.00	0	0.000

Total Length: 140.00 ft Total Volume: 0.688 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6667

Inside

Murfin Drilling Co.

5-32s-24w Clark KS

DST Test Number: 3

