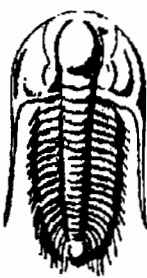


28-11-20W



**TRILOBITE
TESTING, INC.**

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DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co. Inc.**
250 N. Water Ste 300
Wichita, KS 67202

ATTN: C. Scott Robinson

28 11s 20w Ellis

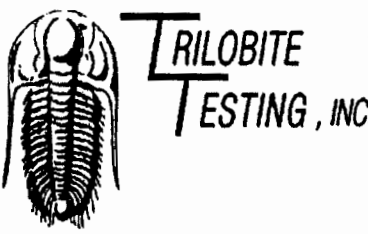
Dustin #1-28

Start Date: 2002.02.19 @ 03:44:06
End Date: 2002.02.19 @ 09:06:36
Job Ticket #: 15593 DST #: 1

CONFIDENTIAL

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

Murfin Drilling Co. Inc.
Dustin #1-28
28 11s 20w Ellis
DST # 1
L-KC-B,D&E,F
2002.02.19

	DRILL STEM TEST REPORT	
	Murfin Drilling Co. Inc. 250 N.Water Ste 300 Wichita, KS 67202 ATTN: C.Scott Robinson	Dustin #1-28 28 11s 20w Ellis Job Ticket: 15593 DST#: 1 Test Start: 2002.02.19 @ 03:44:06

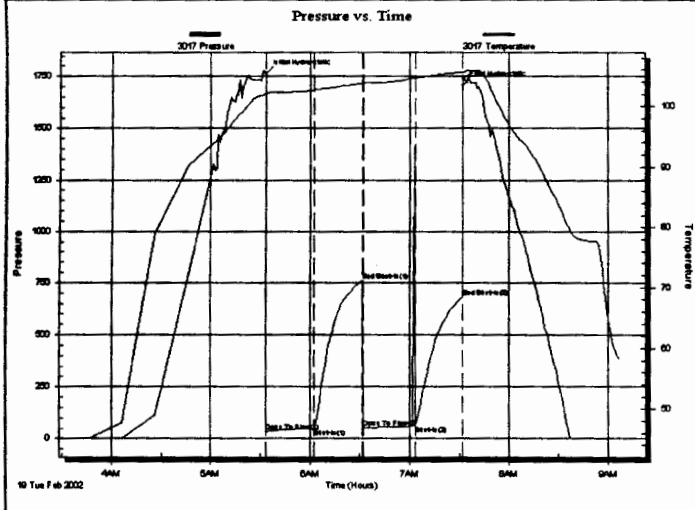
GENERAL INFORMATION:

Formation: L-Kc.-B,D&E,F Deviated: No Whipstock: ft (KB) Time Tool Opened: 05:33:36 Time Test Ended: 09:06:36 Interval: 3478.00 ft (KB) To 3545.00 ft (KB) (TVD) Total Depth: 3545.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Fair	Test Type: Conventional Bottom Hole Tester: John Schmidt Unit No: 18 Reference Elevations: 2147.00 ft (KB) 2142.00 ft (CF) KB to GR/CF: 5.00 ft
---	--

Serial #: 3017 Inside

Press@RunDepth: 63.83 psig @ 3514.01 ft (KB) Start Date: 2002.02.19 End Date: 2002.02.19 Start Time: 03:44:07 End Time: 09:06:36	Capacity: 7000.00 psig Last Calib.: 2002.02.19 Time On Btm: 2002.02.19 @ 05:33:06 Time Off Btm: 2002.02.19 @ 07:32:06
--	--

TEST COMMENT: F-Weak Dead in 25 min.
FF- Dead



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1767.03	102.00	Initial Hydro-static
1	34.29	102.10	Open To Flow (1)
30	49.39	102.65	Shut-In(1)
59	760.86	103.75	End Shut-In(1)
59	51.08	103.77	Open To Flow (2)
90	63.83	104.66	Shut-In(2)
119	680.65	105.63	End Shut-In(2)
119	1707.45	105.65	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
60.00	Drilling Mud W. oil Specks	0.30

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co. Inc.

Dustin #1-28

250 N. Water Ste 300
Wichita, KS 67202

28 11s 20w Ellis

Job Ticket: 15593

DST#: 1

ATTN: C.Scott Robinson

Test Start: 2002.02.19 @ 03:44:06

Tool Information

Drill Pipe:	Length: 3331.00 ft	Diameter: 3.80 inches	Volume: 46.73 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 143.00 ft	Diameter: 2.25 inches	Volume: 0.70 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 47.43 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3478.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	67.02 ft			
Tool Length:	89.02 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			3457.00	
S.I. Tool	5.00			3462.00	
HMV	5.00			3467.00	
Safety Joint	2.00			3469.00	
Packer	4.00			3473.00	22.00 Bottom Of Top Packer
Packer	5.00			3478.00	
Stubb	1.00			3479.00	
Perforations	2.00			3481.00	
C.O. Sub	1.00			3482.00	
Blank Spacing	31.00			3513.00	
C.O. Sub	1.00			3514.00	
Recorder	0.01	3017	Inside	3514.01	
Perforations	28.00			3542.01	
Recorder	0.01	13308	Outside	3542.02	
Bullnose	3.00			3545.02	67.02 Bottom Packers & Anchor

Total Tool Length: 89.02

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TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.

Dustin #1-28

250 N. Water Ste 300
Wichita, KS 67202

28 11s 20w Ellis

Job Ticket: 15593

DST#: 1

ATTN: C.Scott Robinson

Test Start: 2002.02.19 @ 03:44:06

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: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.58 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3600.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Drilling Mud W. oil Specks	0.295

Total Length: 60.00 ft Total Volume: 0.295 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 3017

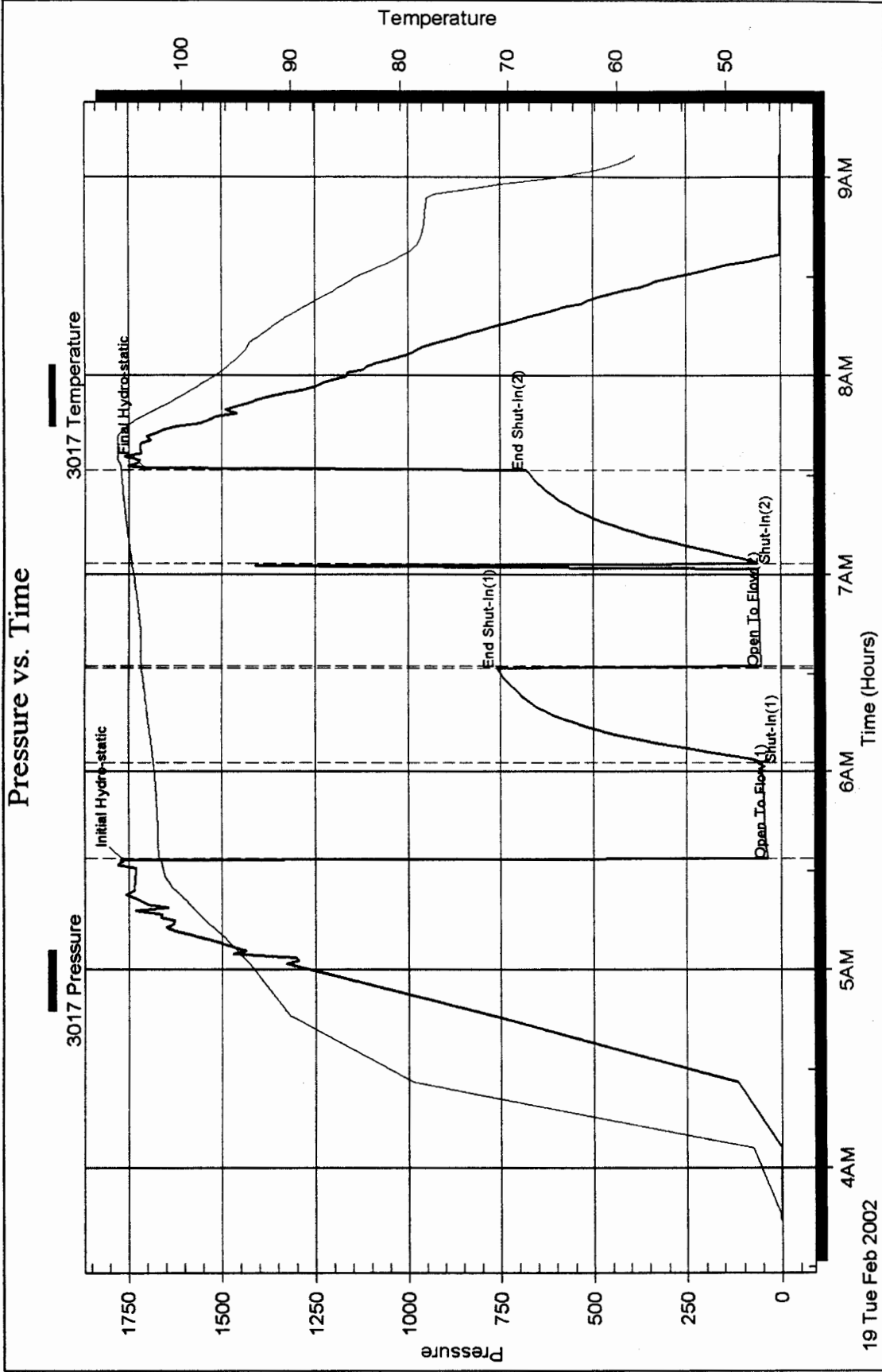
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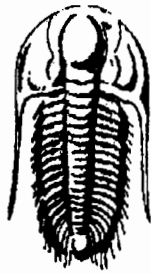
Murfin Drilling Co. Inc.

28 11s 20w Ellis

DST Test Number: 1

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co. Inc.**

250 N. Water Ste 300
Wichita, KS 67202

ATTN: C. Scott Robinson

28 11s 20w Ellis

Dustin #1-28

Start Date: 2002.02.19 @ 22:34:06


End Date: 2002.02.20 @ 03:43:06

Job Ticket #: 15594 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

Murfin Drilling Co. Inc. Dustin #1-28

250 N. Water Ste 300 28 11s 20w Ellis
Wichita, KS 67202

Job Ticket: 15594 DST#: 2

ATTN: C.Scott Robinson Test Start: 2002.02.19 @ 22:34:06

GENERAL INFORMATION:

Formation: **Kc.-H,I,J,K&L**
 Deviated: **No** Whipstock: **ft (KB)**
 Time Tool Opened: 00:20:36
 Time Test Ended: 03:43:06

Test Type: Conventional Bottom Hole
 Tester: John Schmidt
 Unit No: 18

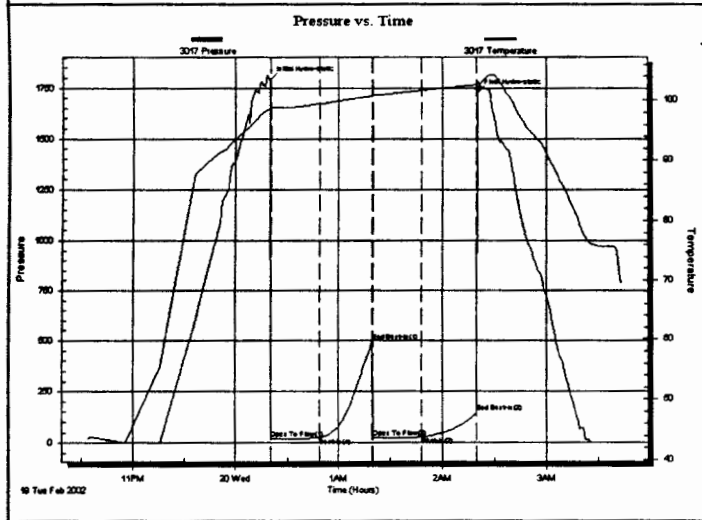
Interval: **3576.00 ft (KB) To 3676.00 ft (KB) (TVD)**
 Total Depth: **3676.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2147.00 ft (KB)**
2142.00 ft (CF)
 KB to GR/CF: **5.00 ft**

Serial #: 3017 **Inside**

Press@RunDepth: **27.26 psig @ 3580.01 ft (KB)** Capacity: **7000.00 psig**
 Start Date: **2002.02.19** End Date: **2002.02.20** Last Calib.: **2002.02.20**
 Start Time: **22:34:07** End Time: **03:43:06** Time On Btm: **2002.02.20 @ 00:20:06**
 Time Off Btm: **2002.02.20 @ 02:20:06**

TEST COMMENT: F-Weak Dead in 20 min.
 FF-Dead



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1788.98	98.59	Initial Hydro-static
1	18.37	98.69	Open To Flow (1)
29	22.88	99.46	Shut-in(1)
60	494.46	100.76	End Shut-in(1)
60	25.46	100.79	Open To Flow (2)
88	27.26	101.64	Shut-in(2)
120	147.55	102.60	End Shut-in(2)
120	1726.21	103.18	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
30.00	Mud W.oil Specks	0.15

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co. Inc.

Dustin #1-28

250 N. Water Ste 300
Wichita, KS 67202

28 11s 20w Ellis

Job Ticket: 15594

DST#: 2

ATTN: C.Scott Robinson

Test Start: 2002.02.19 @ 22:34:06

Tool Information

Drill Pipe:	Length: 3427.00 ft	Diameter: 3.80 inches	Volume: 48.07 bbl	Tool Weight: 3500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 143.00 ft	Diameter: 2.25 inches	Volume: 0.70 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 48.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3576.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	100.02 ft			
Tool Length:	122.02 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			3555.00	
S.I. Tool	5.00			3560.00	
HMV	5.00			3565.00	
Safety Joint	2.00			3567.00	
Packer	4.00			3571.00	22.00 Bottom Of Top Packer
Packer	5.00			3576.00	
Stubb	1.00			3577.00	
Perforations	2.00			3579.00	
C.O. Sub	1.00			3580.00	
Recorder	0.01	3017	Inside	3580.01	
Blank Spacing	61.00			3641.01	
C.O. Sub	1.00			3642.01	
Perforations	31.00			3673.01	
Recorder	0.01	13308	Outside	3673.02	
Bullnose	3.00			3676.02	100.02 Bottom Packers & Anchor

Total Tool Length: 122.02



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.

Dustin #1-28

250 N. Water Ste 300
Wichita, KS 67202

28 11s 20w Ellis

Job Ticket: 15594

DST#: 2

ATTN: C.Scott Robinson

Test Start: 2002.02.19 @ 22:34:06

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: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 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
30.00	Mud W.oil Specks	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

DST Test Number: 2

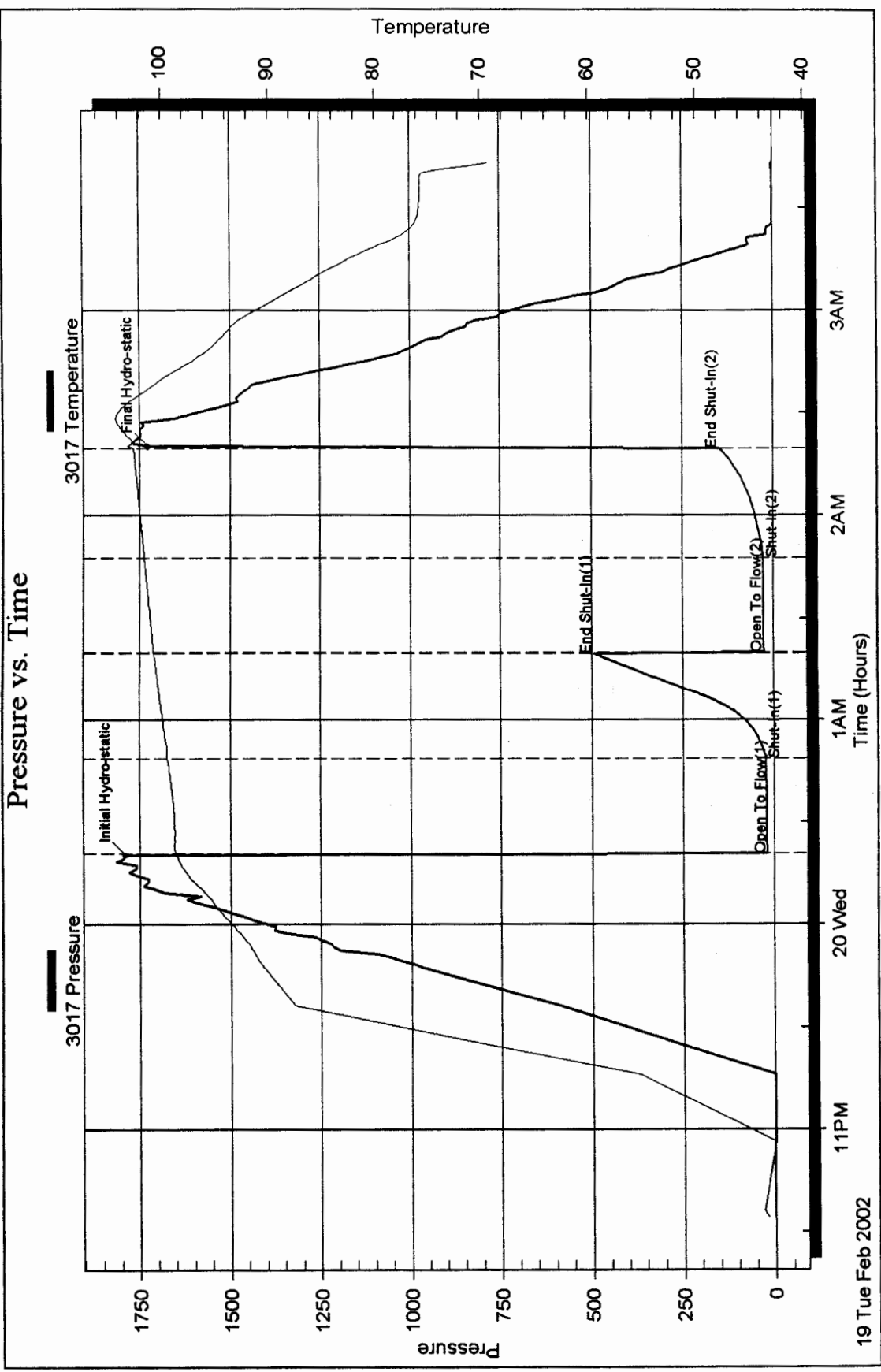
28 11s 20w Ellis

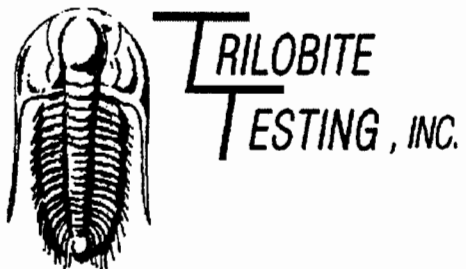
Murfin Drilling Co. Inc.

Inside

Serial #: 3017

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co. Inc.**

250 N. Water Ste 300
Wichita, KS 67202

ATTN: C. Scott Robinson

28 11s 20w Ellis

Dustin #1-28

Start Date: 2002.02.20 @ 13:50:37

End Date: 2002.02.20 @ 21:34:37

Job Ticket #: 15595 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Murfin Drilling Co. Inc.

Dustin #1-28

28 11s 20w Ellis

DST # 3

Arbuckle

2002.02.20



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.

Dustin #1-28

250 N. Water Ste 300
Wichita, KS 67202

28 11s 20w Ellis

Job Ticket: 15595

DST#: 3

ATTN: C.Scott Robinson

Test Start: 2002.02.20 @ 13:50:37

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: 15:34:37
Time Test Ended: 21:34:37

Test Type: Conventional Bottom Hole
Tester: John Schmidt
Unit No: 18

Interval: **3746.00 ft (KB) To 3771.00 ft (KB) (TVD)**
Total Depth: **3771.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2147.00 ft (KB)**
2142.00 ft (CF)
KB to GR/CF: **5.00 ft**

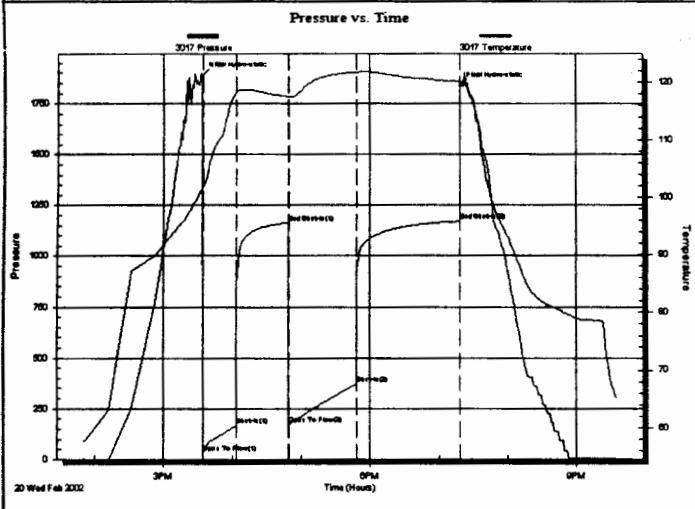
Serial #: 3017

Inside

Press@RunDepth: **371.70 psig @ 3748.01 ft (KB)**
Start Date: **2002.02.20** End Date: **2002.02.20**
Start Time: **13:50:38** End Time: **21:34:37**

Capacity: **7000.00 psig**
Last Calib.: **2002.02.20**
Time On Btm: **2002.02.20 @ 15:33:37**
Time Off Btm: **2002.02.20 @ 19:18:37**

TEST COMMENT: **IF-Strong B.O.B. 14min.** **IS-Weak Blow Back**
FF-Strong B.O.B. 14min **FSI-No Blow Back**



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1885.56	101.50	Initial Hydro-static
1	32.38	101.80	Open To Flow (1)
30	166.75	118.16	Shut-in(1)
75	1164.06	117.52	End Shut-in(1)
76	172.97	117.50	Open To Flow (2)
135	371.70	121.71	Shut-in(2)
225	1170.47	120.05	End Shut-in(2)
225	1835.26	120.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
500.00	salt water	5.71
60.00	O-M-C-W 10%O-10%M-80%W	0.84
110.00	O-W-C-M 10%O-10%W-80%M	1.54
140.00	Free Oil	1.96
50.00	gas in pipe	0.70

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co. Inc.

Dustin #1-28

250 N. Water Ste 300
Wichita, KS 67202

28 11s 20w Ellis

Job Ticket: 15595

DST#: 3

ATTN: C. Scott Robinson

Test Start: 2002.02.20 @ 13:50:37

Tool Information

Drill Pipe:	Length: 3611.00 ft	Diameter: 3.80 inches	Volume: 50.65 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 143.00 ft	Diameter: 2.25 inches	Volume: 0.70 bbl	Weight to Pull Loose: 54000.00 lb
			<u>Total Volume: 51.35 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3746.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.02 ft			
Tool Length:	47.02 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			3725.00	
S.I. Tool	5.00			3730.00	
HMV	5.00			3735.00	
Safety Joint	2.00			3737.00	
Packer	4.00			3741.00	22.00 Bottom Of Top Packer
Packer	5.00			3746.00	
Stubb	1.00			3747.00	
Perforations	1.00			3748.00	
Recorder	0.01	3017	Inside	3748.01	
Perforations	20.00			3768.01	
Recorder	0.01	13308	Outside	3768.02	
Bullnose	3.00			3771.02	25.02 Bottom Packers & Anchor

Total Tool Length: 47.02

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TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.
250 N. Water Ste 300
Wichita, KS 67202
ATTN: C. Scott Robinson

Dustin #1-28
28 11s 20w Ellis
Job Ticket: 15595 DST#: 3
Test Start: 2002.02.20 @ 13:50:37

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 38 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 30000 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: 3900.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
500.00	salt water	5.711
60.00	O-M-C-W 10%O-10%M-80%W	0.842
110.00	O-W-C-M 10%O-10%W-80%M	1.543
140.00	Free Oil	1.964
50.00	gas in pipe	0.701

Total Length: 860.00 ft Total Volume: 10.761 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW .35@48F

Serial #: 3017

Inside

Murfin Drilling Co. Inc.

28 11s 20w Ellis

DST Test Number: 3

Pressure vs. Time

