

DRILL STEM TEST REPORT

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

ATTN: Rocky Milford

32-10s-18w-Ellis KS**M&A Unit #1-32**

Start Date: 2009.07.11 @ 23:35:44

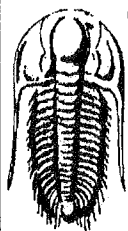
End Date: 2009.07.12 @ 07:23:14

Job Ticket #: 17196 DST #: 1

KCC
AUG 13 2009
CONFIDENTIAL

KANSAS CORPORATION COMMISSION

AUG 14 2009
RECEIVEDTrilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company, Inc.

250 N. Water
Suite 300
Wichita, Ks. 67202
ATTN: Rocky Milford

M&A Unit #1-32

32-10s-18w-Ellis KS

Job Ticket: 17196

DST#: 1

Test Start: 2009.07.11 @ 23:35:44

GENERAL INFORMATION:

Formation: **Toronto-**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:44:14

Time Test Ended: 07:23:14

Interval: **3263.00 ft (KB) To 3396.00 ft (KB) (TVD)**

Total Depth: 3396.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 32

Reference Elevations: 2048.00 ft (KB)

2043.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8360

Inside

Press@RunDepth: 164.60 psig @ 3268.00 ft (KB)

Start Date: 2009.07.11

End Date: 2009.07.12

Start Time: 23:35:46

End Time: 07:23:14

Capacity: 7000.00 psig

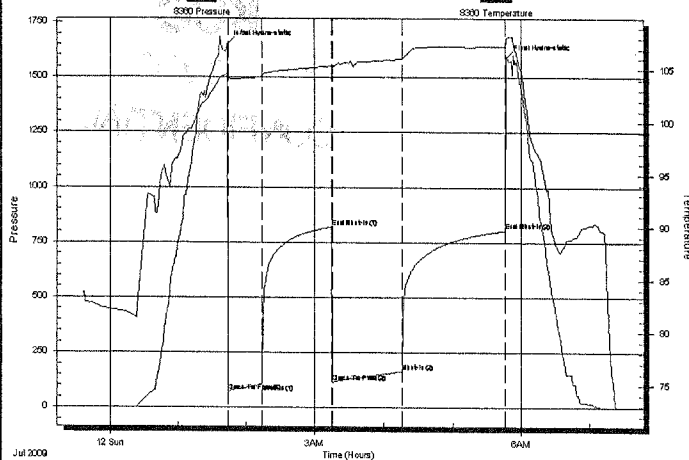
Last Calib.: 2009.07.12

Time On Btm: 2009.07.12 @ 01:43:44

Time Off Btm: 2009.07.12 @ 05:46:44

TEST COMMENT: IFP-Fair Blow ,Built to 8"
ISI-Dead
FFP-Fair Blow ,Built to 9"
FSI-Dead

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1649.16	104.64	Initial Hydro-static
1	70.36	104.00	Open To Flow (1)
31	107.77	104.43	Shut-In (1)
91	820.05	105.38	End Shut-In (1)
92	114.92	105.14	Open To Flow (2)
152	164.60	106.04	Shut-In (2)
242	803.72	107.26	End Shut-In (2)
243	1590.13	108.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
210.00	Mud W/Oil Scum	2.67

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company, Inc.

250 N. Water
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Wichita, Ks. 67202
ATTN: Rocky Milford

M&A Unit #1-32

32-10s-18w-Ellis KS

Job Ticket: 17196

DST#: 1

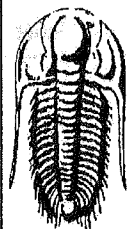
Test Start: 2009.07.11 @ 23:35:44

Tool Information

Drill Pipe:	Length: 3229.00 ft	Diameter: 3.80 inches	Volume: 45.29 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:	25000.00 lb	
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	43000.00 lb	
			Total Volume:	45.44 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial	41000.00 lb	
Depth to Top Packer:	3263.00 ft			Final	42000.00 lb	
Depth to Bottom Packer:	ft					
Interval between Packers:	133.00 ft					
Tool Length:	156.00 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			3241.00	
Shut In Tool	5.00			3246.00	
Hydraulic tool	5.00			3251.00	
Safety Joint	2.00			3253.00	
Packer	5.00			3258.00	23.00 Bottom Of Top Packer
Packer	5.00			3263.00	
Stubb	1.00			3264.00	
Perforations	4.00			3268.00	
Recorder	0.00	8360	Inside	3268.00	
Change Over Sub	1.00			3269.00	
Recorder	0.00	6755	Inside	3269.00	
Blank Spacing	93.00			3362.00	
Change Over Sub	1.00			3363.00	
Perforations	30.00			3393.00	
Bullnose	3.00			3396.00	133.00 Bottom Packers & Anchor
Total Tool Length:		156.00			



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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company, Inc.

M&A Unit #1-32

250 N. Water
Suite 300
Wichita, Ks. 67202
ATTN: Rocky Milford

32-10s-18w-Ellis KS

Job Ticket: 17196 **DST#: 1**

Test Start: 2009.07.11 @ 23:35:44

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 56.00 sec/qt

Water Loss: 6.79 in³

Resistivity: ohm.m

Salinity: 3800.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API: deg API

Water Salinity: 10500 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
210.00	Mud W/Oil Scum	2.672

Total Length: 210.00 ft Total Volume: 2.672 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

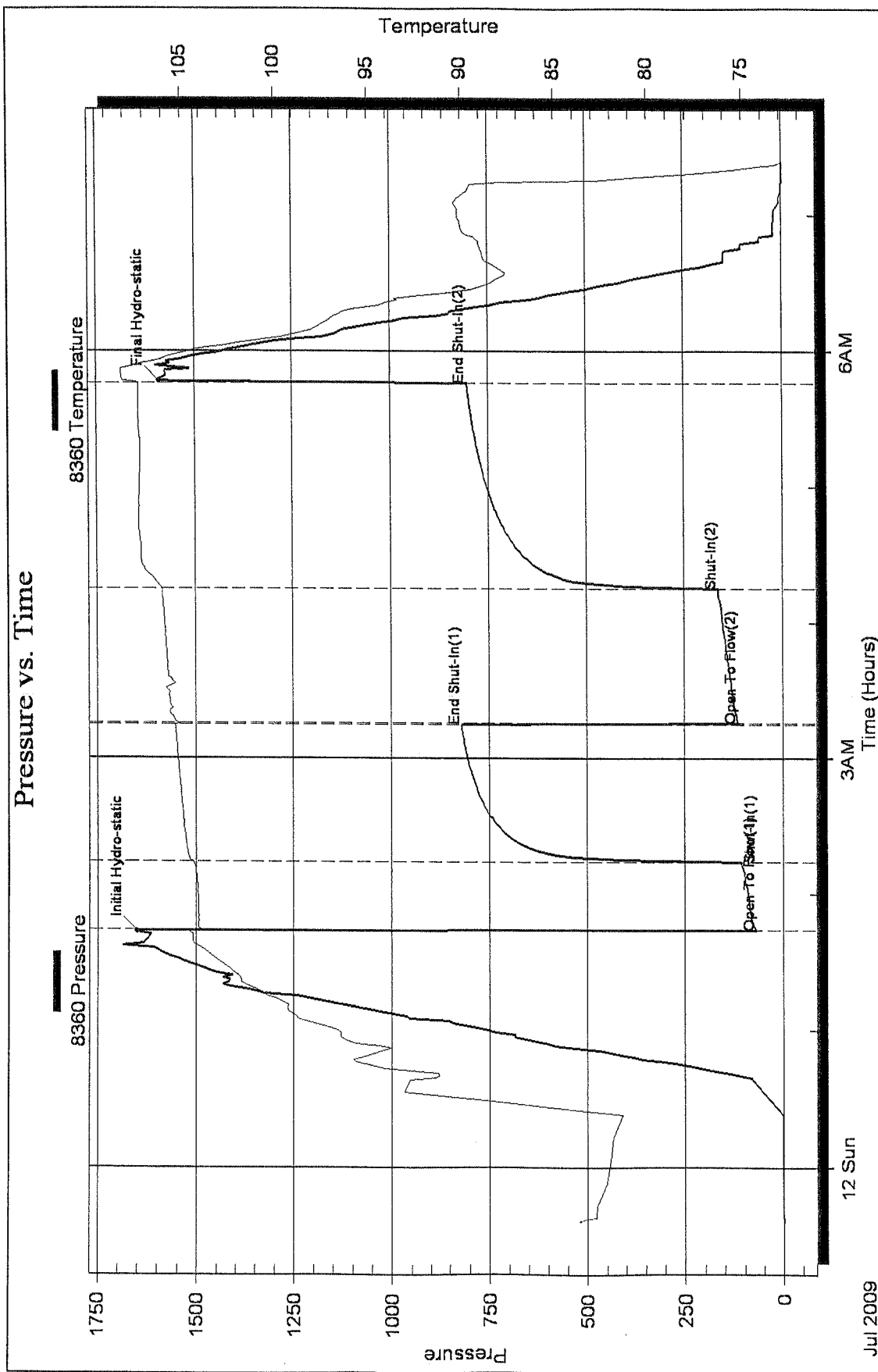
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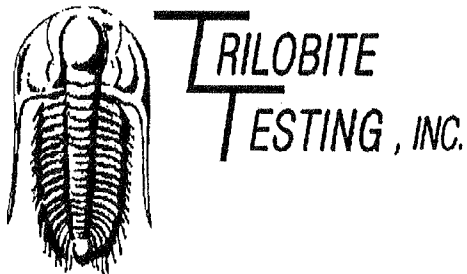
Laboratory Name:

Laboratory Location:

Recovery Comments: RW .635 @ 66F = 10500 ppm chlorides

Pressure vs. Time





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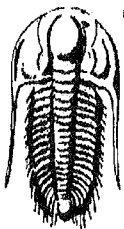
M&A Unit #1-32

Start Date: 2009.07.12 @ 20:34:39

End Date: 2009.07.13 @ 02:46:39

Job Ticket #: 17197 DST #: 2

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
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DRILL STEM TEST REPORT

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250 N. Water
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ATTN: Rocky Milford

M&A Unit #1-32

32-10s-18w-Ellis KS

Job Ticket: 17197

DST#: 2

Test Start: 2009.07.12 @ 20:34:39

GENERAL INFORMATION:

Formation: **LKC-"H-L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:09:39

Time Test Ended: 02:46:39

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 32

Interval: **3423.00 ft (KB) To 3533.00 ft (KB) (TVD)**

Total Depth: 3533.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2048.00 ft (KB)

2043.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8360

Inside

Press@RunDepth: 64.76 psig @ 3428.00 ft (KB)

Start Date: 2009.07.12

End Date:

2009.07.13

Capacity: 7000.00 psig

Last Calib.: 2009.07.13

Start Time: 20:34:41

End Time:

02:46:39

Time On Btm: 2009.07.12 @ 22:09:09

Time Off Btm: 2009.07.13 @ 01:07:39

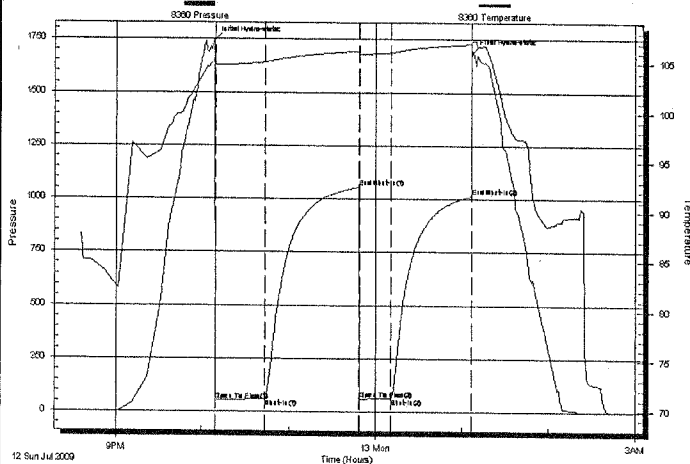
TEST COMMENT: IFP-Weak Blow,Built to 3/4",Died in 20 Min.

ISI-Dead

FFP-Dead

FSI-Dead

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1743.33	105.35	Initial Hydro-static
1	51.70	104.85	Open To Flow (1)
35	59.37	105.10	Shut-In(1)
99	1054.10	106.24	End Shut-In(1)
100	60.61	105.72	Open To Flow (2)
122	64.76	106.06	Shut-In(2)
178	1014.59	106.96	End Shut-In(2)
179	1689.06	107.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Drilling Mud	0.10

Gas Rates

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

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M&A Unit #1-32

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ATTN: Rocky Milford

32-10s-18w-Ellis KS

Job Ticket: 17197

DST#: 2

Test Start: 2009.07.12 @ 20:34:39

Tool Information

Drill Pipe:	Length: 3383.00 ft	Diameter: 3.80 inches	Volume: 47.45 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: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 50000.00 lb
		Total Volume: 47.60 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3423.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	110.00 ft			
Tool Length:	133.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

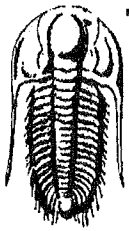
Tool Comments:

Tool Description

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

Change Over Sub	1.00			3401.00	
Shut In Tool	5.00			3406.00	
Hydraulic tool	5.00			3411.00	
Safety Joint	2.00			3413.00	
Packer	5.00			3418.00	23.00 Bottom Of Top Packer
Packer	5.00			3423.00	
Stubb	1.00			3424.00	
Perforations	4.00			3428.00	
Recorder	0.00	8360	Inside	3428.00	
Change Over Sub	1.00			3429.00	
Recorder	0.00	6755	Inside	3429.00	
Blank Spacing	93.00			3522.00	
Change Over Sub	1.00			3523.00	
Perforations	7.00			3530.00	
Bullnose	3.00			3533.00	110.00 Bottom Packers & Anchor

Total Tool Length: 133.00



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Job Ticket: 17197

DST#: 2

Test Start: 2009.07.12 @ 20:34:39

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 54.00 sec/qt

Water Loss: 7.19 in³

Resistivity: ohm.m

Salinity: 5100.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Drilling Mud	0.098

Total Length: 20.00 ft

Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

