

15-109-20834

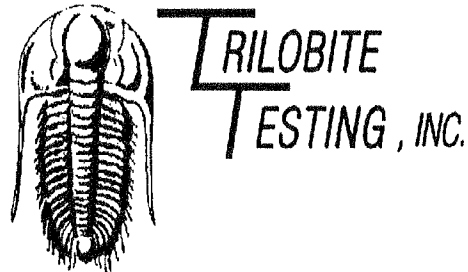
36-12s-33w

IND

CONFIDENTIAL

JUN 25 2009

KCC



DRILL STEM TEST REPORT

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

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

36 12 33 Logan KS

Badger Blagg Unit 1-36

Start Date: 2009.03.10 @ 12:15:00

End Date: 2009.03.10 @ 15:20:30

Job Ticket #: 31059 DST #: 1

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KCC WICHITA

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Murfin Dilling Co. Inc.

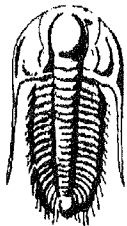
Badger Blagg Unit 1-36

36 12 33 Logan KS

DST # 1

E-F

2009.03.10



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

Badger Blagg Unit 1-36

36 12 33 Logan KS

Job Ticket: 31059

DST#: 1

Test Start: 2009.03.10 @ 12:15:00

GENERAL INFORMATION:

Formation: **E-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended: 15:20:30

Test Type: Conventional Bottom Hole

Tester: Harley Davidson

Unit No: 33

Interval: 4139.00 ft (KB) To 4167.00 ft (KB) (TVD)

Total Depth: 4167.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 3103.00 ft (KB)

3094.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 8355 Inside

Press@RunDepth: psig @ 4140.00 ft (KB)

Start Date: 2009.03.10

End Date: 2009.03.10

Start Time: 12:15:01

End Time: 15:20:30

Capacity: 7000.00 psig

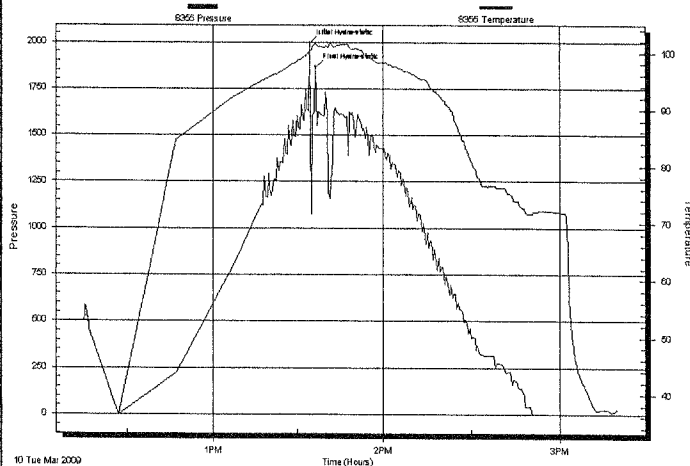
Last Calib.: 2009.03.10

Time On Btm: 2009.03.10 @ 13:34:15

Time Off Btm: 2009.03.10 @ 13:36:15

TEST COMMENT: Miss Run, Hit bridge 8 stands from bottom.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1993.74	100.51	Initial Hydro-static
2	1864.77	101.66	Final Hydro-static

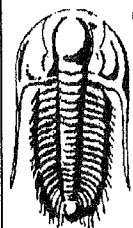
Recovery

Length (ft)	Description	Volume (bbl)

Gas Rates

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

JUN 25 2009


TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

KCC

TOOL DIAGRAM

Murfin Drilling Co. Inc.

Badger Blagg Unit 1-36

250 N Water Ste. 300
Wichita KS 67202+1216

36 12 33 Logan KS

Job Ticket: 31059

DST#: 1

ATTN: Tom Funk

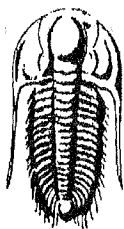
Test Start: 2009.03.10 @ 12:15:00

Tool Information

Drill Pipe:	Length: 3586.00 ft	Diameter: 3.80 inches	Volume: 50.30 bbl	Tool Weight: 1800.00 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: 544.00 ft	Diameter: 2.25 inches	Volume: 2.68 bbl	Weight to Pull Loose: 105000.0 lb
		Total Volume:	52.98 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4139.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	48.00 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			4124.00	
Hydraulic tool	5.00			4129.00	
Packer	5.00			4134.00	20.00 Bottom Of Top Packer
Packer	5.00			4139.00	
Stubb	1.00			4140.00	
Recorder	0.00	6751	Inside	4140.00	
Recorder	0.00	8355	Inside	4140.00	
Perforations	23.00			4163.00	
Bullnose	4.00			4167.00	28.00 Bottom Packers & Anchor
Total Tool Length:	48.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.

Badger Blagg Unit 1-36

250 N Water Ste. 300
Wichita KS 67202+1216

36 12 33 Logan KS

Job Ticket: 31059

DST#: 1

ATTN: Tom Funk

Test Start: 2009.03.10 @ 12:15:00

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: 68.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.97 in³

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

Total Length:

ft

Total Volume:

bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

JUN 25 2009

KCC

DST Test Number: 1

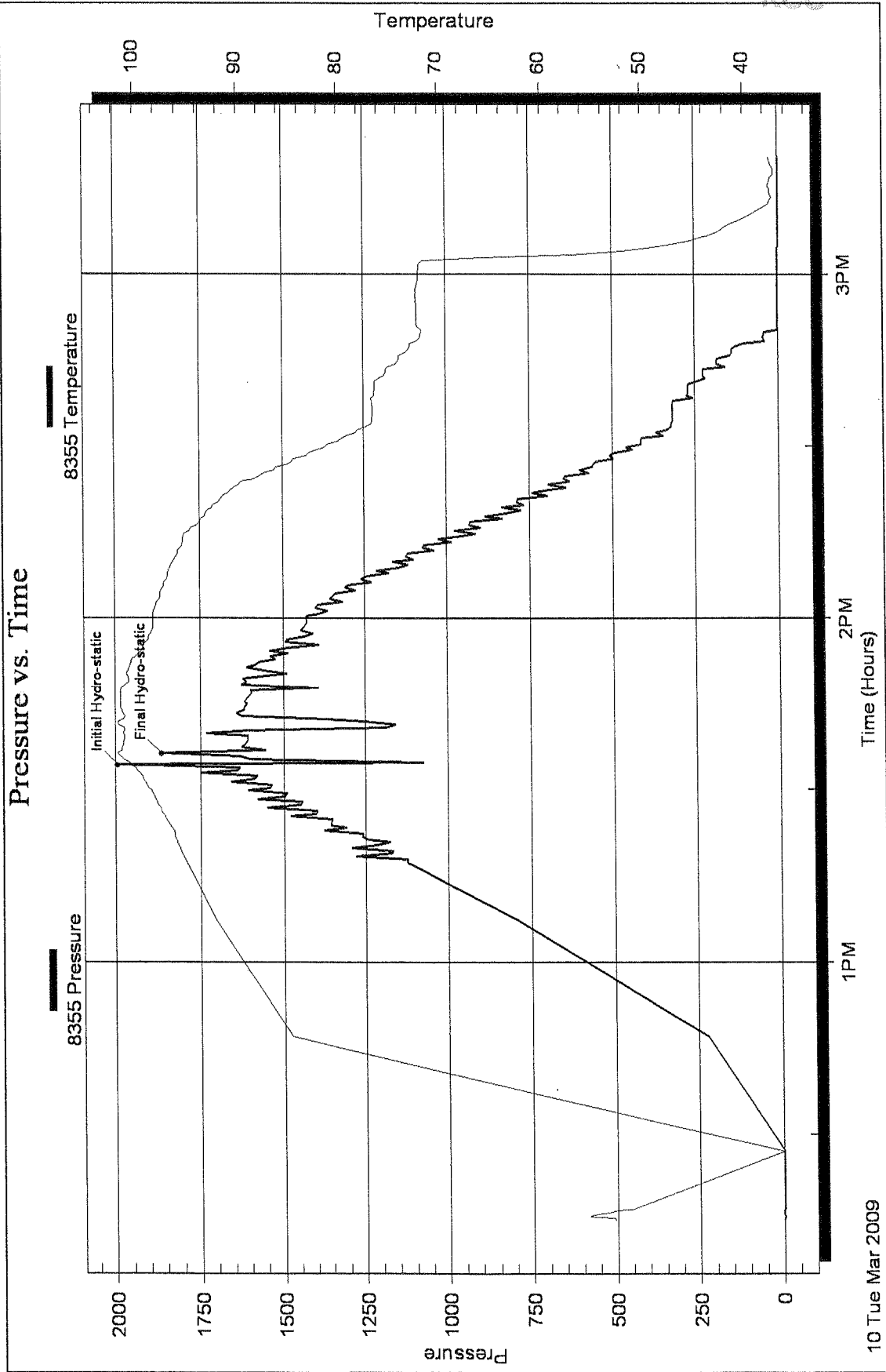
36 12 33 Logan KS

Murfin Drilling Co. Inc.

Inside

Serial #: 8355

Pressure vs. Time



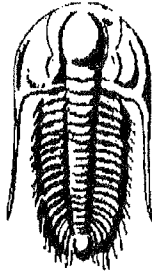
Ref. No: 31059

Trilobite Testing, Inc

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JUN 25 2009

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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

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

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

36 12 33 Logan KS

Badger Blagg Unit 1-36

Start Date: 2009.03.10 @ 19:30:00

End Date: 2009.03.11 @ 04:24:30

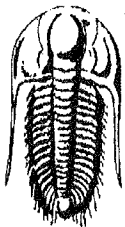
Job Ticket #: 31060 DST #: 2

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

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KCC WICHITA



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Dilling Co. Inc.

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

Badger Blagg Unit 1-36

36 12 33 Logan KS

Job Ticket: 31060

DST#: 2

Test Start: 2009.03.10 @ 19:30:00

GENERAL INFORMATION:

Formation: E-F

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:30:00

Time Test Ended: 04:24:30

Test Type: Conventional Bottom Hole

Tester: Harley Davidson

Unit No: 33

Interval: 4139.00 ft (KB) To 4167.00 ft (KB) (TVD)

Total Depth: 4167.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 3103.00 ft (KB)

3094.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 6751

Inside

Press@RunDepth: 317.94 psig @ 4140.00 ft (KB)

Start Date: 2009.03.10

End Date:

2009.03.11

Capacity: 7000.00 psig

Last Calib.: 2009.03.11

Start Time: 19:30:01

End Time:

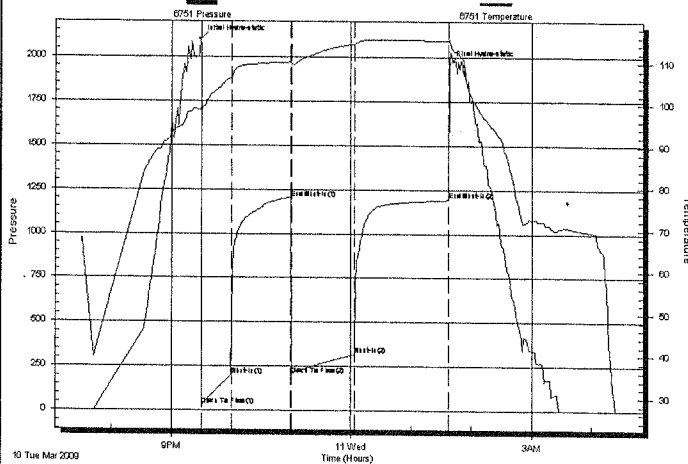
04:24:30

Time On Btm: 2009.03.10 @ 21:28:45

Time Off Btm: 2009.03.11 @ 01:38:15

TEST COMMENT: IF- Good blow BOB, 9min.
IS- Weak blow back, 1in. into bucket.
FF- Good blow BOB 15min.
FS- Weak blow back, 1in. into bucket.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2097.42	98.75	Initial Hydro-static
2	26.66	97.91	Open To Flow (1)
31	199.06	106.36	Shut-In(1)
91	1201.10	110.08	End Shut-In(1)
92	202.38	109.50	Open To Flow (2)
155	317.94	114.42	Shut-In(2)
249	1191.08	115.22	End Shut-In(2)
250	1960.54	115.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	90%oil 5%mud 5%w ater	0.10
820.00	100% Oil with Trace of Gas	6.73

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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JUN 25 2009


TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

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TOOL DIAGRAM

Murfin Drilling Co. Inc.

Badger Blagg Unit 1-36

 250 N Water Ste. 300
 Wichita KS 67202+1216

36 12 33 Logan KS

Job Ticket: 31060

DST#: 2

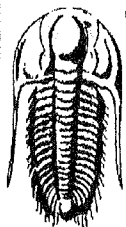
ATTN: Tom Funk

Test Start: 2009.03.10 @ 19:30:00

Tool Information

Drill Pipe:	Length: 3585.00 ft	Diameter: 3.80 inches	Volume: 50.29 bbl	Tool Weight:	1800.00 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: 544.00 ft	Diameter: 2.25 inches	Volume: 2.68 bbl	Weight to Pull Loose:	90000.00 lb
		Total Volume:	52.97 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	82000.00 lb
Depth to Top Packer:	4139.00 ft			Final	84000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	28.00 ft				
Tool Length:	48.00 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			4124.00	
Hydraulic tool	5.00			4129.00	
Packer	5.00			4134.00	20.00 Bottom Of Top Packer
Packer	5.00			4139.00	
Stubb	1.00			4140.00	
Recorder	0.00	6751	Inside	4140.00	
Recorder	0.00	8355	Inside	4140.00	
Perforations	23.00			4163.00	
Bullnose	4.00			4167.00	28.00 Bottom Packers & Anchor
Total Tool Length:	48.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.

Badger Blagg Unit 1-36

250 N Water Ste. 300
Wichita KS 67202+1216

36 12 33 Logan KS

Job Ticket: 31060

DST#: 2

ATTN: Tom Funk

Test Start: 2009.03.10 @ 19:30:00

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: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	90%oil 5%mud 5%water	0.098
820.00	100% Oil with Trace of Gas	6.729

Total Length: 840.00 ft

Total Volume: 6.827 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

JUN 25 2009

DST Test Number: 2

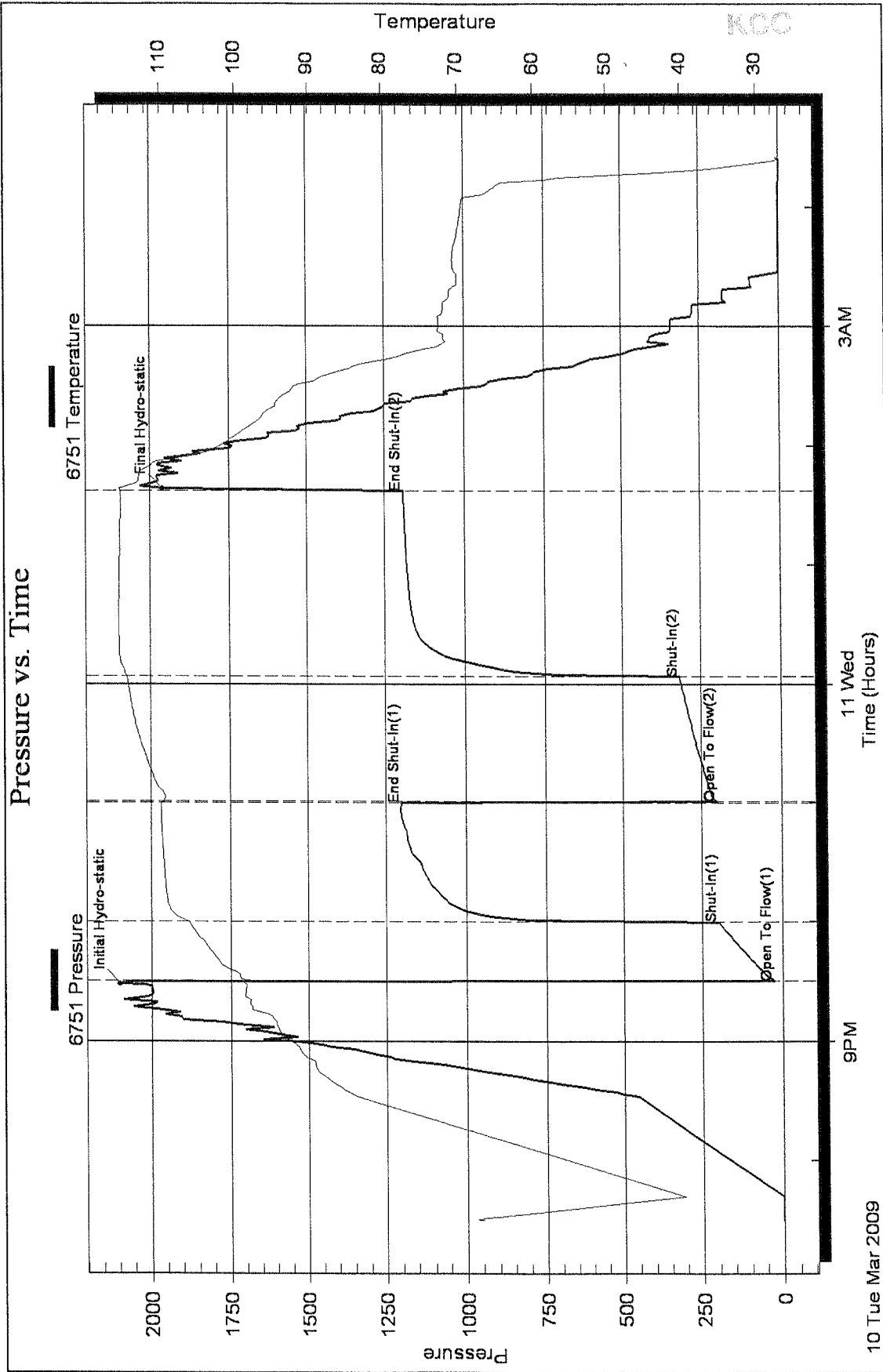
36 12 33 Logan KS

Murfin Dilling Co. Inc.

Inside

Serial #: 6751

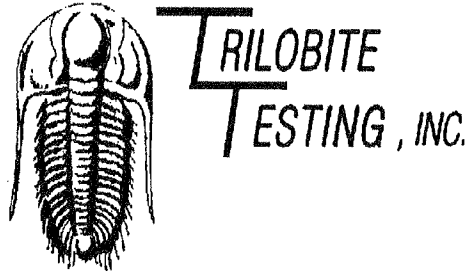
Pressure vs. Time



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JUN 25 2009

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DRILL STEM TEST REPORT

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

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

36 12 33 Logan KS

Badger Blagg Unit 1-36

Start Date: 2009.03.11 @ 19:00:00

End Date: 2009.03.12 @ 03:41:45

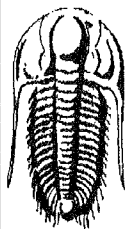
Job Ticket #: 31061 DST #: 3

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KCC WICHITA

Trilobite 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 Co. Inc.

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

Badger Blagg Unit 1-36

36 12 33 Logan KS

Job Ticket: 31061

DST#: 3

Test Start: 2009.03.11 @ 19:00:00

GENERAL INFORMATION:

Formation: **H I J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:53:15

Time Test Ended: 03:41:45

Test Type: Conventional Bottom Hole

Tester: Harley Davidson

Unit No: 33

Interval: **4200.00 ft (KB) To 4290.00 ft (KB) (TVD)**

Total Depth: 4290.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 3103.00 ft (KB)

3094.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 6751

Inside

Press@RunDepth: 291.45 psig @ 4201.00 ft (KB)

Start Date: 2009.03.11

End Date:

2009.03.12

Capacity: 7000.00 psig

Last Calib.: 2009.03.12

Start Time: 19:00:01

End Time:

03:41:45

Time On Btm: 2009.03.11 @ 20:51:45

Time Off Btm: 2009.03.12 @ 01:03:30

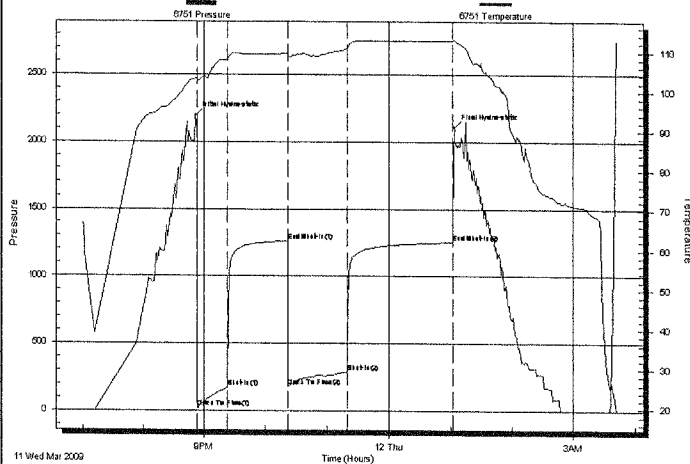
TEST COMMENT: IF- Good blow BOB 12min.

ISI- Weak surface blow.

FF- Good blow BOB 15min.

FSI- Weak surface blow.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2190.59	103.28	Initial Hydro-static
2	22.30	102.84	Open To Flow (1)
31	176.38	108.03	Shut-In (1)
90	1261.68	109.60	End Shut-In (1)
91	184.36	109.21	Open To Flow (2)
149	291.45	110.90	Shut-In (2)
251	1250.21	112.91	End Shut-In (2)
252	2105.36	113.13	Final Hydro-static

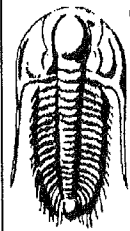
Recovery

Length (ft)	Description	Volume (bbl)
700.00	20% gas 80% oil trace of mud	4.86

Gas Rates

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

JUN 25 2009


**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co. Inc.

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

Badger Blagg Unit 1-36

36 12 33 Logan KS

Job Ticket: 31061

DST#: 3

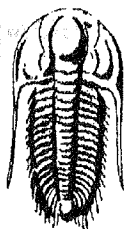
Test Start: 2009.03.11 @ 19:00:00

Tool Information

Drill Pipe:	Length: 3640.00 ft	Diameter: 3.80 inches	Volume: 51.06 bbl	Tool Weight:	1800.00 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: 544.00 ft	Diameter: 2.25 inches	Volume: 2.68 bbl	Weight to Pull Loose:	85000.00 lb
		Total Volume:	53.74 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial	84000.00 lb
Depth to Top Packer:	4200.00 ft			Final	84000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	90.00 ft				
Tool Length:	110.00 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			4185.00	
Hydraulic tool	5.00			4190.00	
Packer	5.00			4195.00	20.00 Bottom Of Top Packer
Packer	5.00			4200.00	
Stubb	1.00			4201.00	
Recorder	0.00	6751	Inside	4201.00	
Recorder	0.00	8355	Inside	4201.00	
Change Over Sub	1.00			4202.00	
Drill Pipe	62.00			4264.00	
Change Over Sub	1.00			4265.00	
Perforations	21.00			4286.00	
Bullnose	4.00			4290.00	90.00 Bottom Packers & Anchor

Total Tool Length: 110.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Dilling Co. Inc.

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

Badger Blagg Unit 1-36

36 12 33 Logan KS

Job Ticket: 31061

DST#: 3

Test Start: 2009.03.11 @ 19:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 56.00 sec/qt

Water Loss: 6.38 in³

Resistivity: ohm.m

Salinity: 4500.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

32 deg API

ppm

ft
bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
700.00	20%gas 80% oil trace of mud	4.864

Total Length: 700.00 ft

Total Volume: 4.864 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

JUN 25 2009

DST Test Number: 3

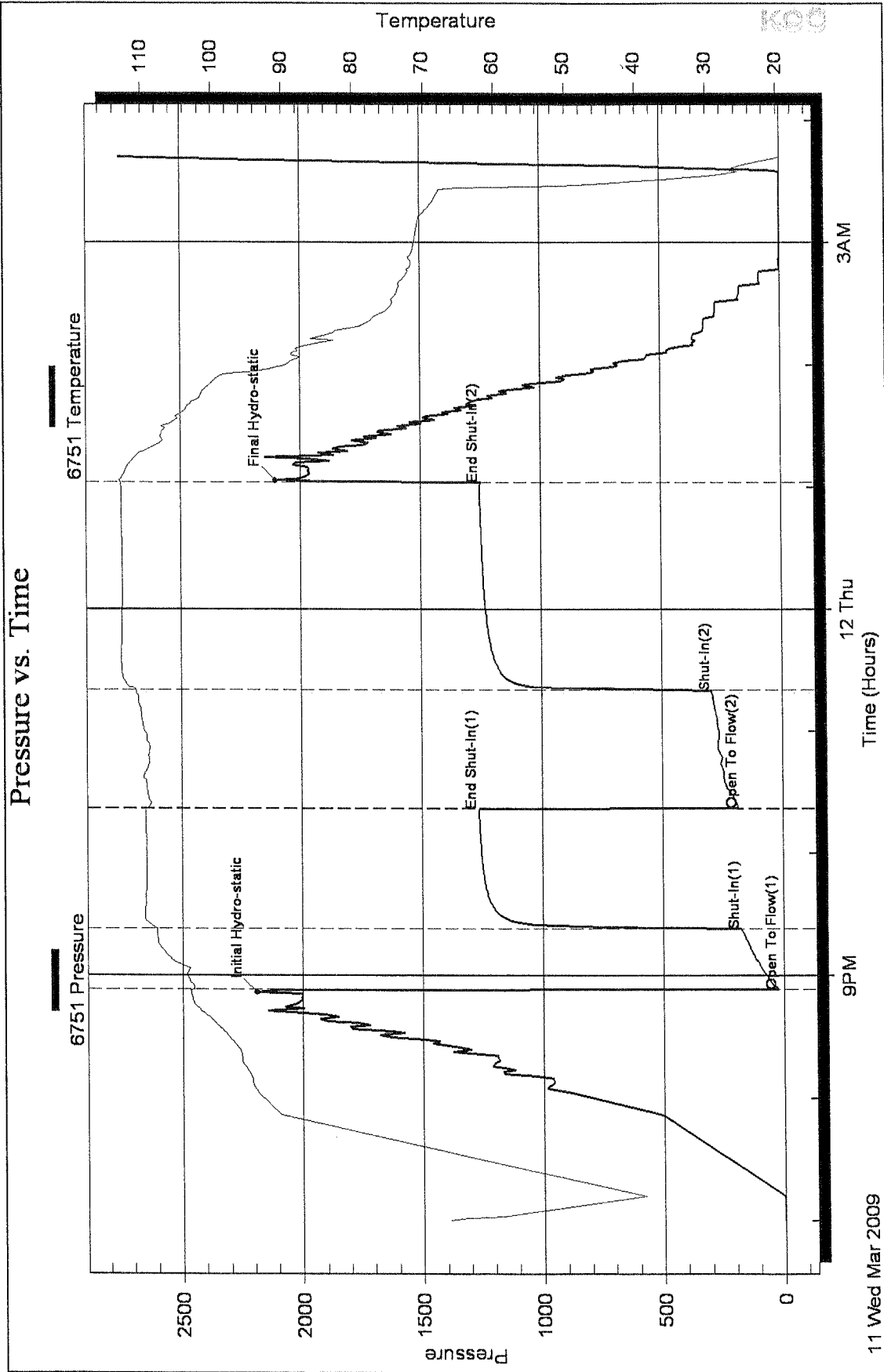
36 12 33 Logan KS

Murfin Dilling Co. Inc.

Inside

Serial #: 6751

Pressure vs. Time



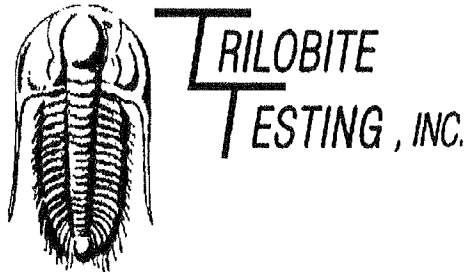
Ref. No: 31061

Trilobite Testing, Inc

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JUN 25 2009

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DRILL STEM TEST REPORT

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

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

36 12 33 Logan KS

Badger Blagg Unit 1-36

Start Date: 2009.03.12 @ 12:30:00

End Date: 2009.03.12 @ 20:11:15

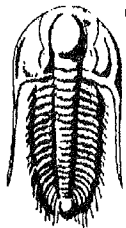
Job Ticket #: 31062 DST #: 4

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Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Dilling Co. Inc.

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

Badger Blagg Unit 1-36

36 12 33 Logan KS

Job Ticket: 31062

DST#: 4

Test Start: 2009.03.12 @ 12:30:00

GENERAL INFORMATION:

Formation: **K**

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

Time Tool Opened: 14:23:45

Time Test Ended: 20:11:15

Test Type: **Conventional Bottom Hole**

Tester: **Harley Davidson**

Unit No: **33**

Interval: **4292.00 ft (KB) To 4320.00 ft (KB) (TVD)**

Total Depth: **4320.00 ft (KB) (TVD)**

Hole Diameter: **7.78 inches** Hole Condition: **Fair**

Reference Elevations: **3103.00 ft (KB)**

3094.00 ft (CF)

KB to GR/CF: **9.00 ft**

Serial #: 6751 **Inside**

Press@RunDepth: **279.97 psig @ 4293.00 ft (KB)**

Start Date: **2009.03.12**

End Date:

2009.03.12

Start Time: **12:30:01**

End Time:

20:11:15

Capacity: **7000.00 psig**

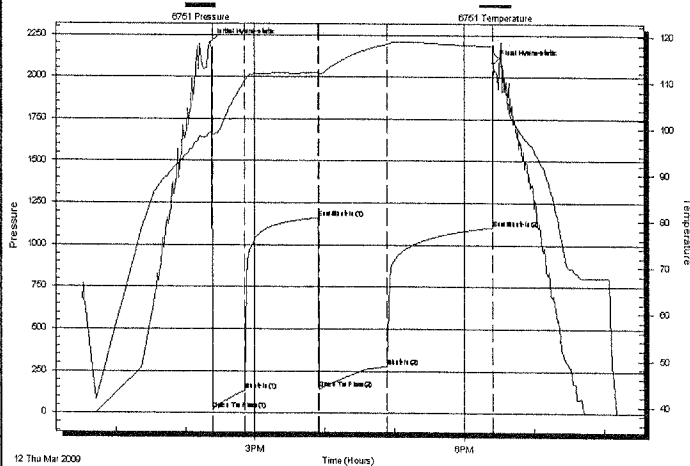
Last Calib.: **2009.03.12**

Time On Btm: **2009.03.12 @ 14:21:45**

Time Off Btm: **2009.03.12 @ 18:25:15**

TEST COMMENT: IF- Weak building blow BOB, 27min.
IS- No blow back.
FF- Weak building blow BOB, 40min.
FS- No blow back.

Pressure vs. Time



PRESSURE SUMMARY

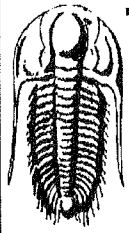
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2198.96	99.23	Initial Hydro-static
2	19.74	98.68	Open To Flow (1)
30	135.56	110.34	Shut-In (1)
93	1160.67	112.10	End Shut-In (1)
93	143.27	111.49	Open To Flow (2)
152	279.97	118.28	Shut-In (2)
243	1105.08	117.87	End Shut-In (2)
244	2082.29	118.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
650.00	50% mud 50% water with trace of oil.	4.16

Gas Rates

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


**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

JUN 25 2009

TOOL DIAGRAM

Murfin Dilling Co. Inc.

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

Badger Blagg Unit 1-36

36 12 33 Logan KS

Job Ticket: 31062

DST#: 4

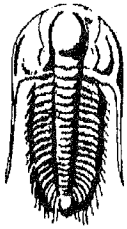
Test Start: 2009.03.12 @ 12:30:00

Tool Information

Drill Pipe:	Length: 3738.00 ft	Diameter: 3.80 inches	Volume: 52.43 bbl	Tool Weight:	1800.00 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: 544.00 ft	Diameter: 2.25 inches	Volume: 2.68 bbl	Weight to Pull Loose:	85000.00 lb
		Total Volume:	55.11 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	84000.00 lb
Depth to Top Packer:	4292.00 ft			Final	84000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	28.00 ft				
Tool Length:	48.00 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			4277.00	
Hydraulic tool	5.00			4282.00	
Packer	5.00			4287.00	20.00 Bottom Of Top Packer
Packer	5.00			4292.00	
Stubb	1.00			4293.00	
Recorder	0.00	6751	Inside	4293.00	
Recorder	0.00	8355	Inside	4293.00	
Perforations	23.00			4316.00	
Bullnose	4.00			4320.00	28.00 Bottom Packers & Anchor
Total Tool Length:	48.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Dilling Co. Inc.

Badger Blagg Unit 1-36

250 N Water Ste. 300
Wichita KS 67202+1216

36 12 33 Logan KS

Job Ticket: 31062

DST#: 4

ATTN: Tom Funk

Test Start: 2009.03.12 @ 12:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 56.00 sec/qt

Water Loss: 6.38 in³

Resistivity: ohm.m

Salinity: 4500.00 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
650.00	50% mud 50% water with trace of oil.	4.162

Total Length: 650.00 ft

Total Volume: 4.162 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

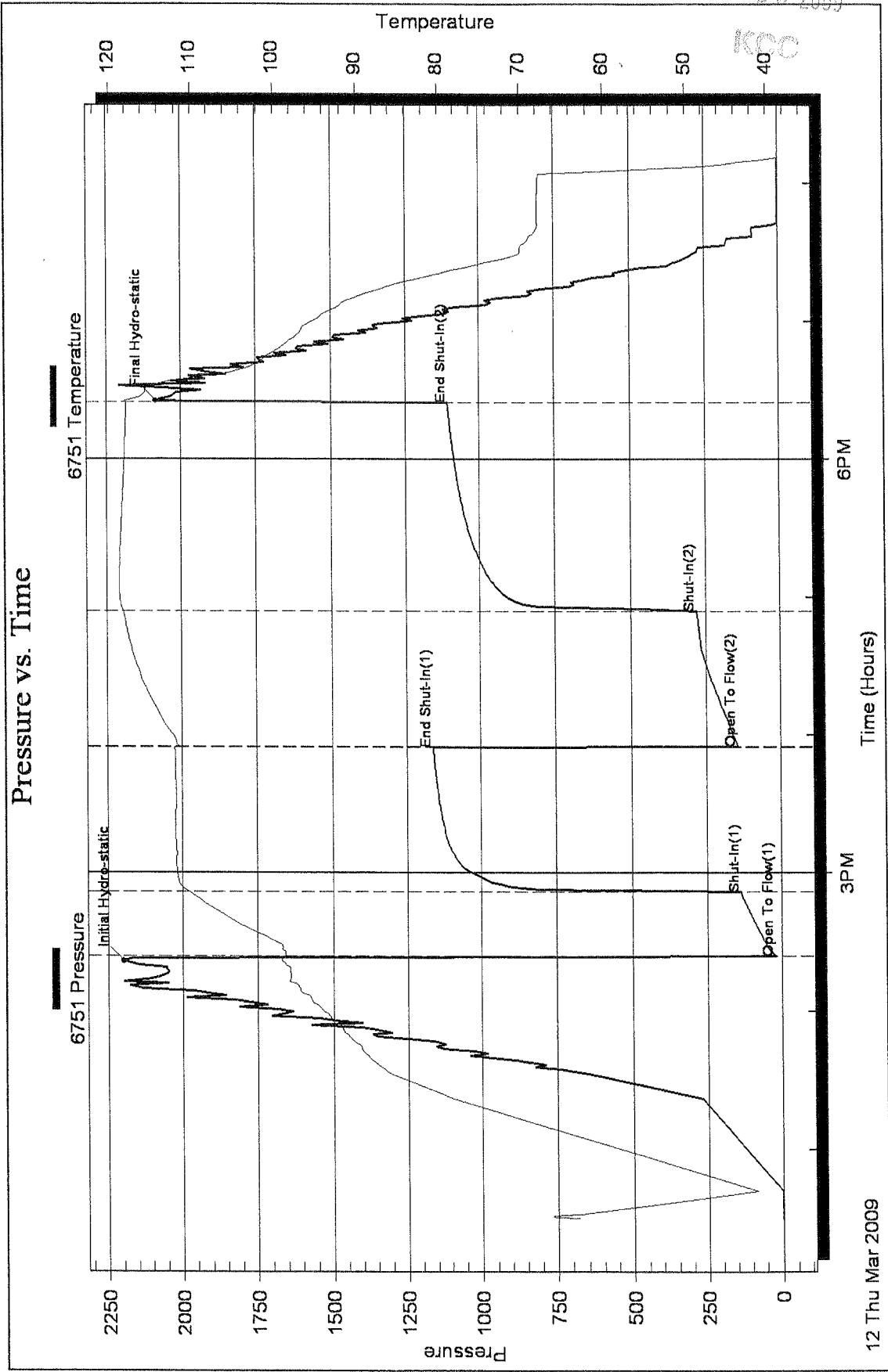
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

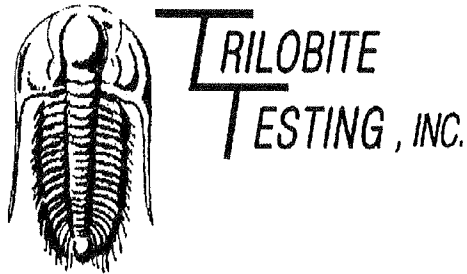


CONFIDENTIAL
JUN 25 2009
KSC

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JUN 25 2009

KCC



DRILL STEM TEST REPORT

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

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

36 12 33 Logan KS

Badger Blagg Unit 1-36

Start Date: 2009.03.13 @ 15:00:00

End Date: 2009.03.13 @ 23:01:15

Job Ticket #: 31063 DST #: 5

RECEIVED

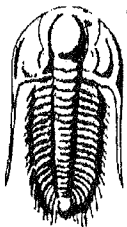
JUN 26 2009

KCC WICHITA

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Dilling Co. Inc.

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

Badger Blagg Unit 1-36

36 12 33 Logan KS

Job Ticket: 31063

DST#: 5

Test Start: 2009.03.13 @ 15:00:00

GENERAL INFORMATION:

Formation: **Marm, Alt, Pawn.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:02:45

Time Test Ended: 23:01:15

Test Type: Conventional Bottom Hole

Tester: Harley Davidson

Unit No: 33

Interval: 4346.00 ft (KB) To 4508.00 ft (KB) (TVD)

Total Depth: 4508.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 3103.00 ft (KB)

3094.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 6751 Inside

Press@RunDepth: 292.77 psig @ 4347.00 ft (KB)

Start Date: 2009.03.13

End Date: 2009.03.13

Start Time: 15:00:01

End Time: 23:01:15

Capacity: 7000.00 psig

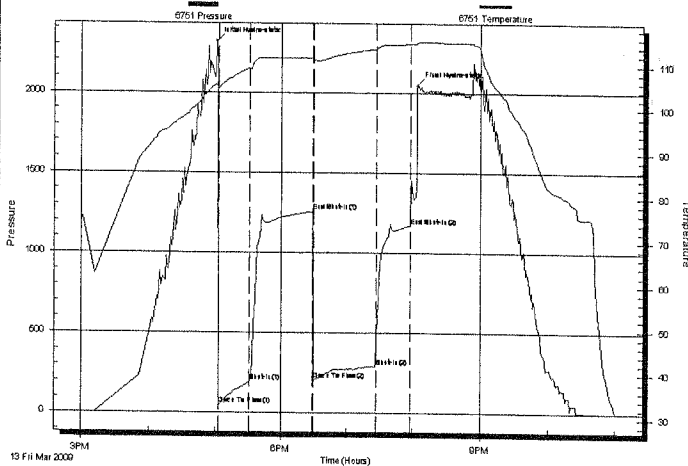
Last Calib.: 2009.03.13

Time On Btm: 2009.03.13 @ 17:01:15

Time Off Btm: 2009.03.13 @ 20:04:15

TEST COMMENT: IF- Weak building blow BOB 18min.
IS- No blow back.
FF- Weak building blow BOB 27min.
FS- No blow back.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2316.29	105.62	Initial Hydro-static
2	49.01	104.68	Open To Flow (1)
31	195.01	109.37	Shut-In (1)
88	1256.31	111.74	End Shut-In (1)
89	204.57	111.38	Open To Flow (2)
146	292.77	113.70	Shut-In (2)
177	1170.03	114.85	End Shut-In (2)
183	2044.59	115.16	Final Hydro-static

Recovery

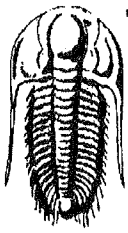
Length (ft)	Description	Volume (bbl)
540.00	5% mud 40% gas 55% oil	2.66
100.00	5% oil 95% mud	1.37

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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JUN 25 2009

TOOL DIAGRAM


TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Dilling Co. Inc.

 250 N Water Ste. 300
 Wichita KS 67202+1216

ATTN: Tom Funk

Badger Blagg Unit 1-36

36 12 33 Logan KS

Job Ticket: 31063

DST#: 5

Test Start: 2009.03.13 @ 15:00:00

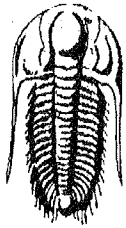
Tool Information

Drill Pipe:	Length: 3807.00 ft	Diameter: 3.80 inches	Volume: 53.40 bbl	Tool Weight: 1800.00 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: 544.00 ft	Diameter: 2.25 inches	Volume: 2.68 bbl	Weight to Pull Loose: 85000.00 lb
		Total Volume:	56.08 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 85000.00 lb
Depth to Top Packer:	4346.00 ft			Final 85000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	162.00 ft			
Tool Length:	182.00 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			4331.00	
Hydraulic tool	5.00			4336.00	
Packer	5.00			4341.00	20.00 Bottom Of Top Packer
Packer	5.00			4346.00	
Stubb	1.00			4347.00	
Recorder	0.00	6751	Inside	4347.00	
Recorder	0.00	8355	Inside	4347.00	
Change Over Sub	1.00			4348.00	
Drill Pipe	124.00			4472.00	
Change Over Sub	1.00			4473.00	
Perforations	31.00			4504.00	
Bullnose	4.00			4508.00	162.00 Bottom Packers & Anchor

Total Tool Length: 182.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.

Badger Blagg Unit 1-36

250 N Water Ste. 300
Wichita KS 67202+1216

36 12 33 Logan KS

Job Ticket: 31063

DST#: 5

ATTN: Tom Funk

Test Start: 2009.03.13 @ 15:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 55.00 sec/qt

Water Loss: 6.79 in³

Resistivity: ohm.m

Salinity: 7400.00 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: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
540.00	5% mud 40% gas 55% oil	2.656
100.00	5% oil 95% mud	1.366

Total Length: 640.00 ft

Total Volume: 4.022 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 5

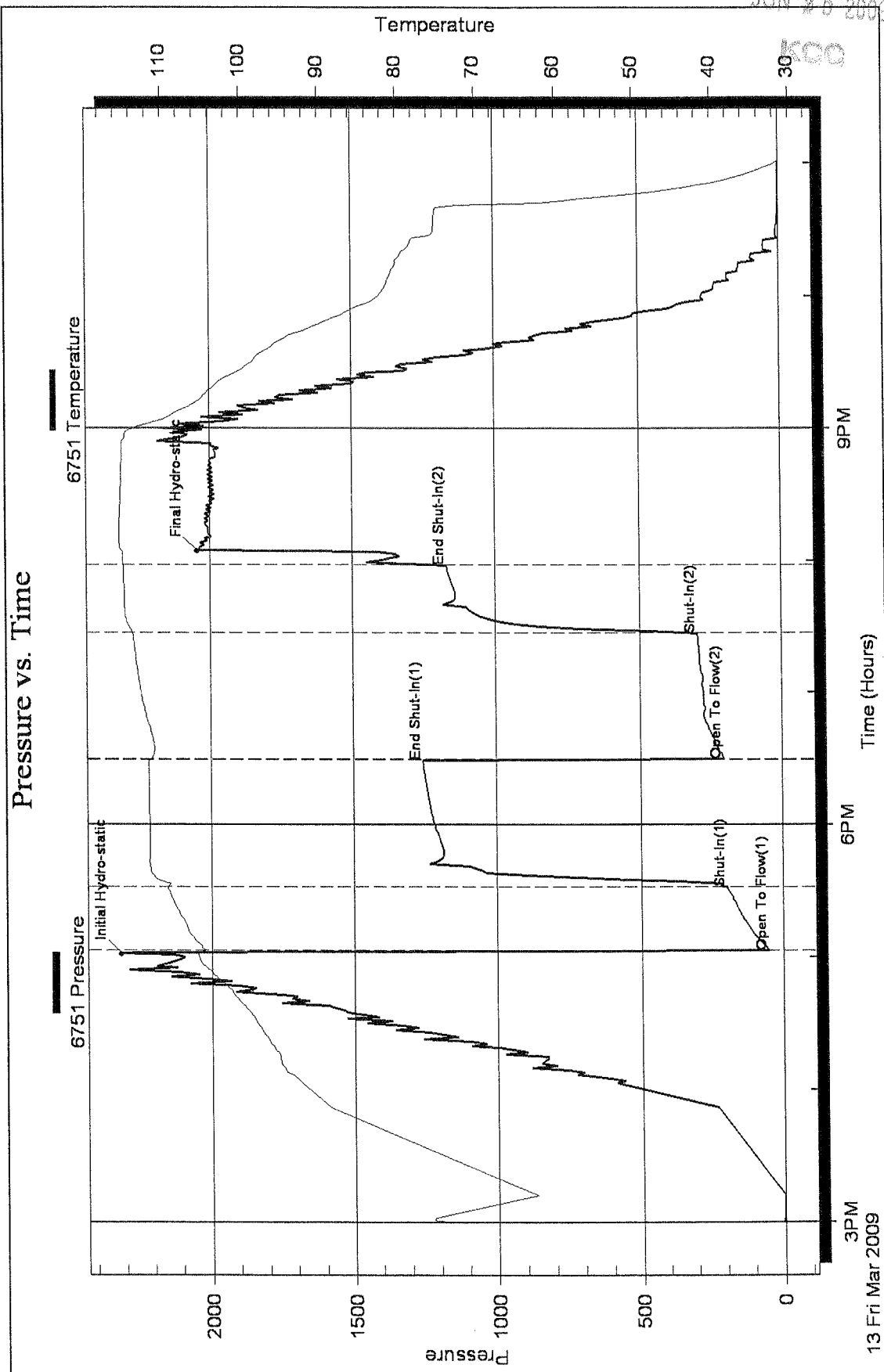
36 12 33 Logan KS

Murfin Dilling Co. Inc.

Inside

Serial #: 6751

Pressure vs. Time



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JUN 25 2009

Printed: 2009.03.19 @ 10:18:04 Page 5

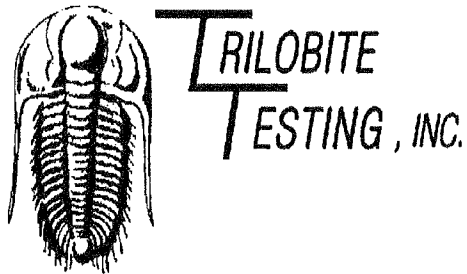
Ref. No: 31063

Trilobite Testing, Inc

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JUN 25 2009

KCC



DRILL STEM TEST REPORT

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

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

36 12 33 Logan KS

Badger Blagg Unit 1-36

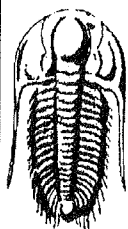
Start Date: 2009.03.14 @ 14:00:00

End Date: 2009.03.14 @ 22:39:00

Job Ticket #: 31064 DST #: 6

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

RECEIVED
JUN 26 2009
KCC WICHITA



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

Badger Blagg Unit 1-36

36 12 33 Logan KS

Job Ticket: 31064

DST#: 6

Test Start: 2009.03.14 @ 14:00:00

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:59:15

Time Test Ended: 22:39:00

Test Type: Conventional Bottom Hole

Tester: Harley Davidson

Unit No: 33

Interval: 4598.00 ft (KB) To 4645.00 ft (KB) (TVD)

Total Depth: 4645.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 3103.00 ft (KB)

3094.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 6751

Inside

Press@RunDepth: 961.00 psig @ 4599.00 ft (KB)

Start Date: 2009.03.14

End Date:

2009.03.14

Start Time: 14:00:01

End Time:

22:39:00

Capacity: 7000.00 psig

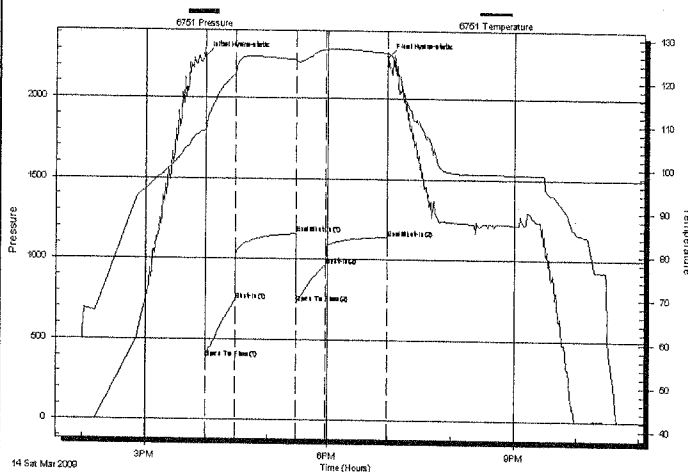
Last Calib.: 2009.03.14

Time On Btm: 2009.03.14 @ 15:58:45

Time Off Btm: 2009.03.14 @ 18:59:15

TEST COMMENT: IF- Strong blow BOB 1min.
ISI- BOB blow back.
FF- Strong blow BOB ASAO.
FSI- 3 to 4 in. of blow back.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2255.21	108.67	Initial Hydro-static
1	380.30	108.46	Open To Flow (1)
30	739.68	121.49	Shut-In(1)
90	1156.40	124.99	End Shut-In(1)
91	725.16	124.87	Open To Flow (2)
120	961.00	127.31	Shut-In(2)
180	1131.83	126.63	End Shut-In(2)
181	2259.55	126.68	Final Hydro-static

Recovery

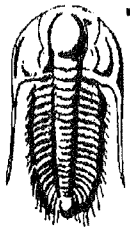
Length (ft)	Description	Volume (bbl)
0.00	1400 GIP	0.00
2690.00	30% gas 70% oil.	32.78

Gas Rates

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

JUN 25 2009

TOOL DIAGRAM


**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfine Drilling Co. Inc.

250 N Water Ste. 300
Wichita KS 67202+1216

ATTN: Tom Funk

Badger Blagg Unit 1-36

36 12 33 Logan KS

Job Ticket: 31064

DST#: 6

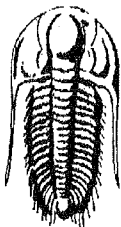
Test Start: 2009.03.14 @ 14:00:00

Tool Information

Drill Pipe:	Length: 4059.00 ft	Diameter: 3.80 inches	Volume: 56.94 bbl	Tool Weight: 1800.00 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: 544.00 ft	Diameter: 2.25 inches	Volume: 2.68 bbl	Weight to Pull Loose: 85000.00 lb
		Total Volume: 59.62 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 85000.00 lb
Depth to Top Packer:	4598.00 ft			Final 86000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.00 ft			
Tool Length:	67.00 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			4583.00	
Hydraulic tool	5.00			4588.00	
Packer	5.00			4593.00	20.00 Bottom Of Top Packer
Packer	5.00			4598.00	
Stubb	1.00			4599.00	
Recorder	0.00	6751	Inside	4599.00	
Recorder	0.00	8355	Inside	4599.00	
Change Over Sub	1.00			4600.00	
Drill Pipe	31.00			4631.00	
Change Over Sub	1.00			4632.00	
Perforations	9.00			4641.00	
Bullnose	4.00			4645.00	47.00 Bottom Packers & Anchor

Total Tool Length: 67.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Dilling Co. Inc.

Badger Blagg Unit 1-36

250 N Water Ste. 300
Wichita KS 67202+1216

36 12 33 Logan KS

Job Ticket: 31064

DST#: 6

ATTN: Tom Funk

Test Start: 2009.03.14 @ 14:00:00

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: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6700.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	1400 GIP	0.000
2690.00	30% gas 70% oil.	32.778

Total Length: 2690.00 ft

Total Volume: 32.778 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

JUN 25 2009

DST Test Number: 6

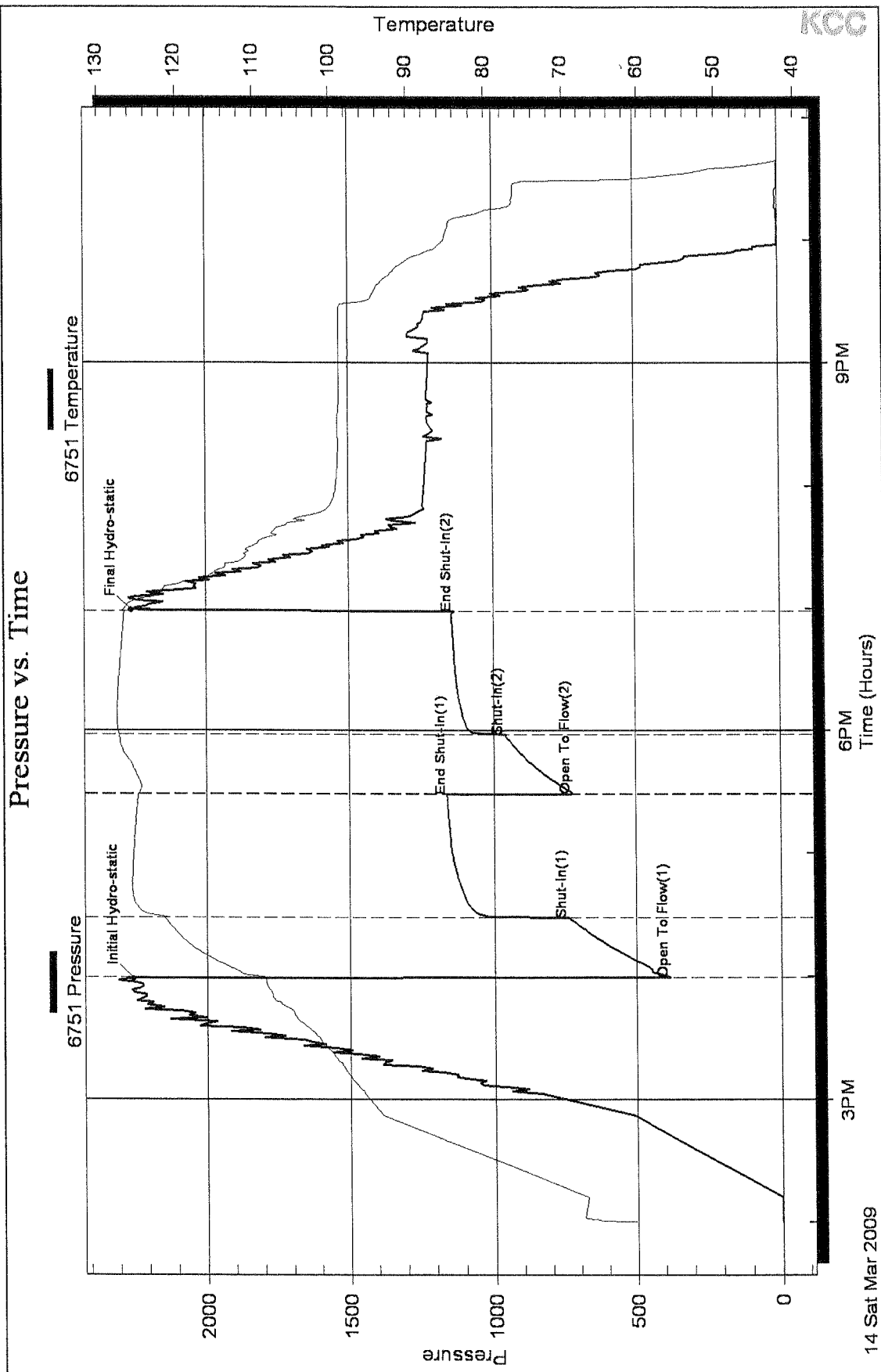
36 12 33 Logan KS

Murfin Drilling Co. Inc.

Inside

Serial #: 6751

Pressure vs. Time



Ref. No: 31064

Trilobite Testing, Inc