

DRILL STEM TEST REPORT

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

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

Ryser #1-24

24-5s-29w Decatur KS

Start Date: 2013.05.26 @ 19:58:00

End Date: 2013.05.27 @ 02:23:15

Job Ticket #: 52613 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.06.05 @ 11:07:36

Murfin Drilling Co., Inc.

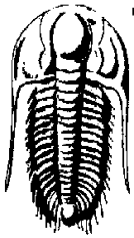
24-5s-29w Decatur KS

Ryser #1-24

DST # 1

Toronto - LKC "B"

2013.05.26



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

24-5s-29w Decatur KS

Ryser #1-24

Job Ticket: 52613

DST#: 1

Test Start: 2013.05.26 @ 19:58:00

GENERAL INFORMATION:

Formation: **Toronto - LKC "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:38:30

Time Test Ended: 02:23:15

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: 3503.00 ft (KB) To 3577.00 ft (KB) (TVD)

Total Depth: 3577.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2468.00 ft (KB)

2457.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8671 Inside

Press@RunDepth: 32.36 psig @ 3504.00 ft (KB)

Start Date: 2013.05.26

End Date:

2013.05.27

Start Time: 19:58:05

End Time:

02:23:14

Capacity: 8000.00 psig

Last Calib.: 2013.05.27

Time On Btm: 2013.05.26 @ 21:38:00

Time Off Btm: 2013.05.27 @ 00:38:00

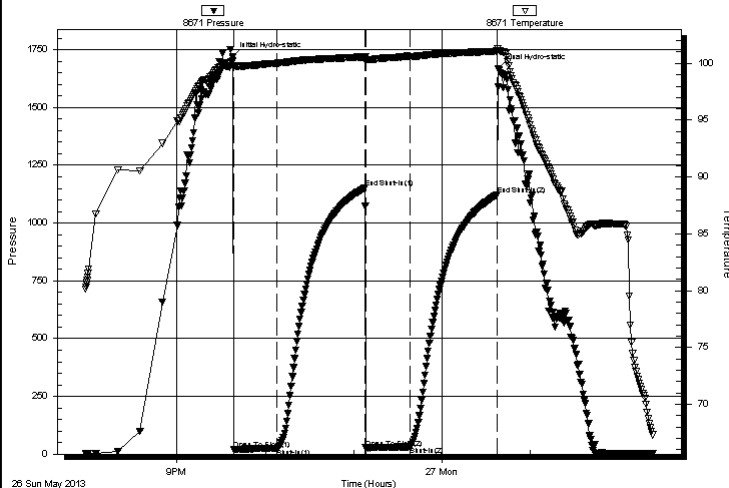
TEST COMMENT: 30 - IF: Blow built to 1/2" then died back, dead at 23 min.

60 - IS: No blow back

30 - FF: No blow

60 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

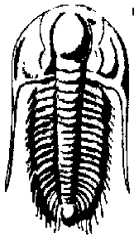
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1720.96	100.23	Initial Hydro-static
1	20.00	99.62	Open To Flow (1)
30	25.38	100.01	Shut-In(1)
90	1151.40	100.58	End Shut-In(1)
90	27.19	100.17	Open To Flow (2)
121	32.36	100.61	Shut-In(2)
180	1121.80	101.08	End Shut-In(2)
180	1669.20	101.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud w /trace oil 100% m	0.10

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

24-5s-29w Decatur KS

Ryser #1-24

Job Ticket: 52613

DST#: 1

Test Start: 2013.05.26 @ 19:58:00

GENERAL INFORMATION:

Formation: **Toronto - LKC "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:38:30

Time Test Ended: 02:23:15

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: 3503.00 ft (KB) To 3577.00 ft (KB) (TVD)

Total Depth: 3577.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2468.00 ft (KB)

2457.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8320 Outside

Press@RunDepth: psig @ 3504.00 ft (KB)

Start Date: 2013.05.26

End Date:

2013.05.27

Start Time: 19:58:05

End Time:

02:23:59

Capacity: 8000.00 psig

Last Calib.:

2013.05.27

Time On Btm:

Time Off Btm:

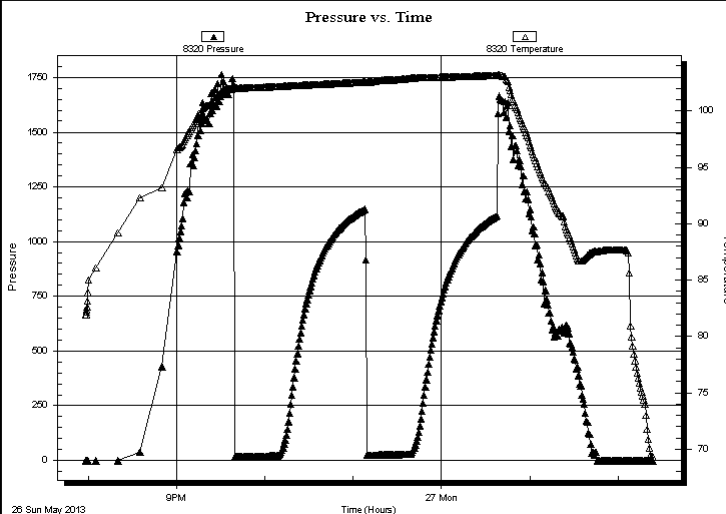
TEST COMMENT: 30 - IF: Blow built to 1/2" then died back, dead at 23 min.

60 - IS: No blow back

30 - FF: No blow

60 - FS: No blow back

PRESSURE SUMMARY



Time
(Min.)

Pressure
(psig)

Temp
(deg F)

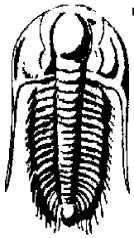
Annotation

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud w /trace oil 100% m	0.10

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

24-5s-29w Decatur KS

250 N. Water Suite 300
Wichita, KS 67202

Ryser #1-24

Job Ticket: 52613

DST#: 1

ATTN: Robert Hendrix

Test Start: 2013.05.26 @ 19:58:00

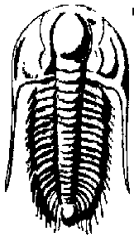
Tool Information

Drill Pipe:	Length:	3248.00 ft	Diameter:	3.80 inches	Volume:	45.56 bbl	Tool Weight:	2500.00 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:	234.00 ft	Diameter:	2.25 inches	Volume:	1.15 bbl	Weight to Pull Loose:	78000.00 lb
					Total Volume:	46.71 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		7.00 ft					String Weight: Initial	60000.00 lb
Depth to Top Packer:		3503.00 ft					Final	60000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		74.00 ft						
Tool Length:		102.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3480.00	
Hydraulic tool	5.00			3485.00	
Jars	5.00			3490.00	
Safety Joint	3.00			3493.00	
Packer	5.00			3498.00	28.00 Bottom Of Top Packer
Packer	5.00			3503.00	
Stubb	1.00			3504.00	
Recorder	0.00	8671	Inside	3504.00	
Recorder	0.00	8320	Outside	3504.00	
Perforations	5.00			3509.00	
Blank Spacing	64.00			3573.00	
Perforations	1.00			3574.00	
Bullnose	3.00			3577.00	74.00 Bottom Packers & Anchor

Total Tool Length: 102.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

24-5s-29w Decatur KS

250 N. Water Suite 300
Wichita, KS 67202

Ryser #1-24

Job Ticket: 52613

DST#: 1

ATTN: Robert Hendrix

Test Start: 2013.05.26 @ 19:58:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 69.00 sec/qt

Water Loss: 5.17 in³

Resistivity: ohm.m

Salinity: 1000.00 ppm

Filter Cake: 2.00 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	Mud w /trace oil 100%m	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:

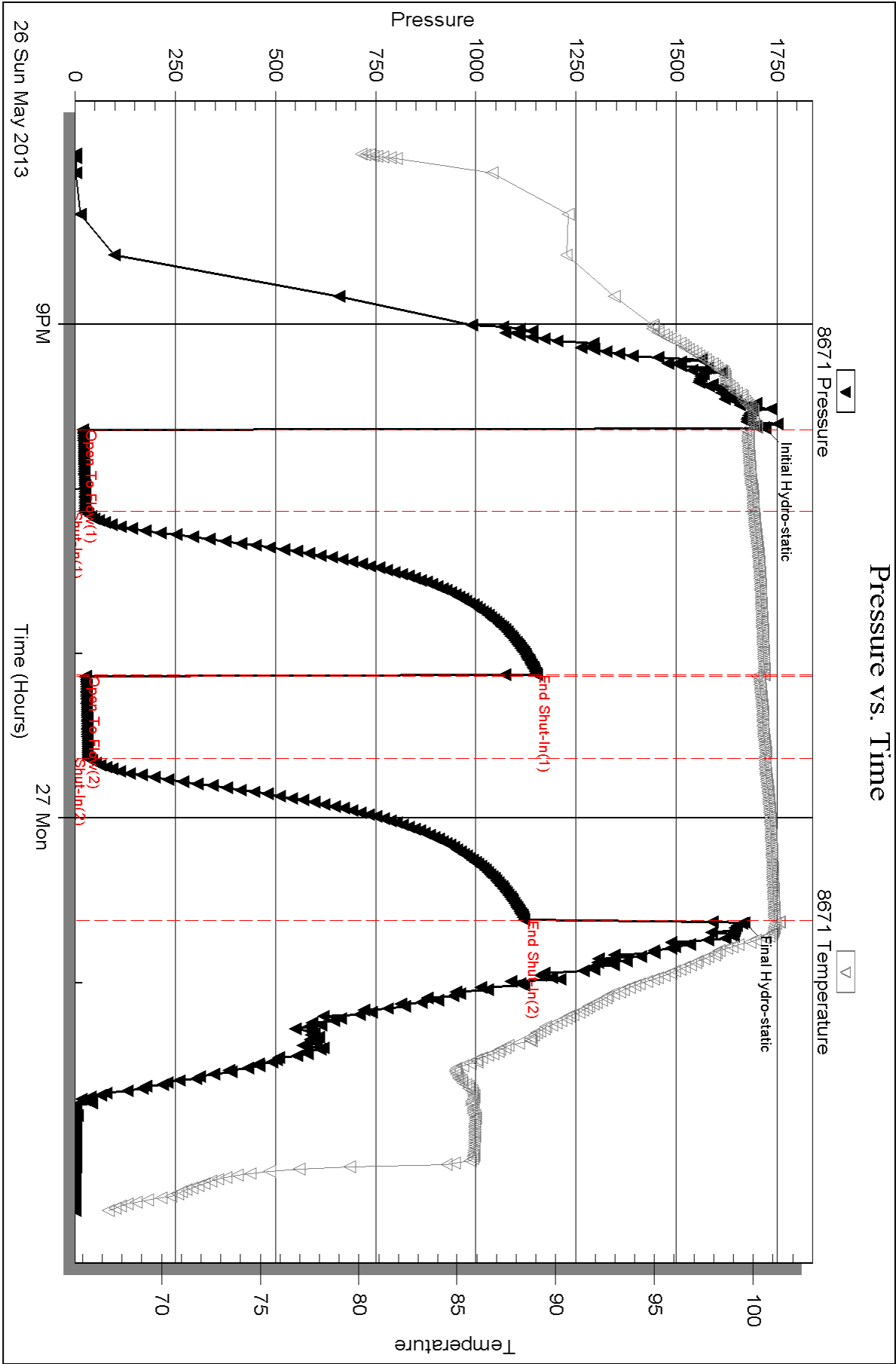
Serial #: 8671

Inside

Murfin Drilling Co., Inc.

Ryser #1-24

DST Test Number: 1

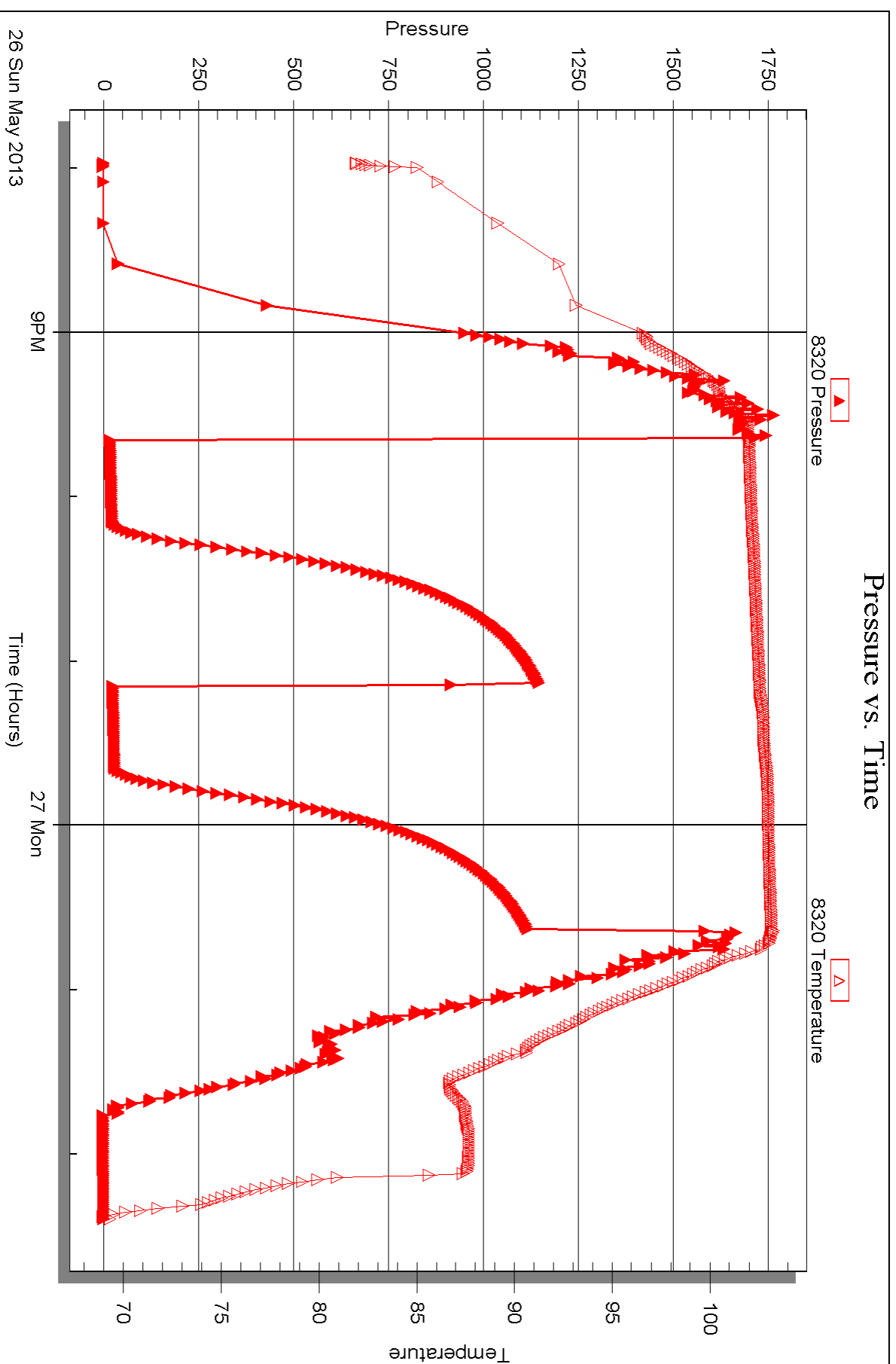


Serial #: 8320

Outside **Murfin Drilling Co., Inc.**

Ryser #1-24

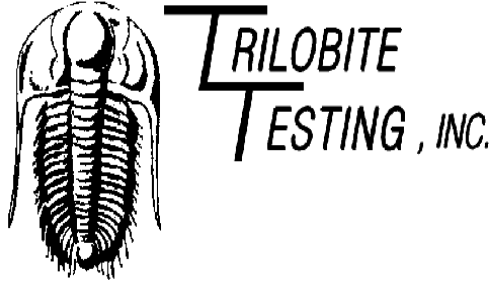
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 52613

Printed: 2013.06.05 @ 11:07:40



DRILL STEM TEST REPORT

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

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

Ryser #1-24

24-5s-29w Decatur KS

Start Date: 2013.05.27 @ 10:55:00

End Date: 2013.05.27 @ 17:07:00

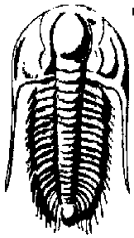
Job Ticket #: 52614 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.06.05 @ 11:07:01



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

24-5s-29w Decatur KS

Ryser #1-24

Job Ticket: 52614

DST#: 2

Test Start: 2013.05.27 @ 10:55:00

GENERAL INFORMATION:

Formation: **Lans. "F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:42:15

Time Test Ended: 17:07:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3592.00 ft (KB) To 3616.00 ft (KB) (TVD)

Total Depth: 3616.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2468.00 ft (KB)

2457.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8671 Inside

Press@RunDepth: 22.67 psig @ 3593.00 ft (KB)

Start Date: 2013.05.27

End Date:

2013.05.27

Start Time: 10:55:05

End Time:

17:06:59

Capacity: 8000.00 psig

Last Calib.: 2013.05.27

Time On Btm: 2013.05.27 @ 12:42:00

Time Off Btm: 2013.05.27 @ 15:44:30

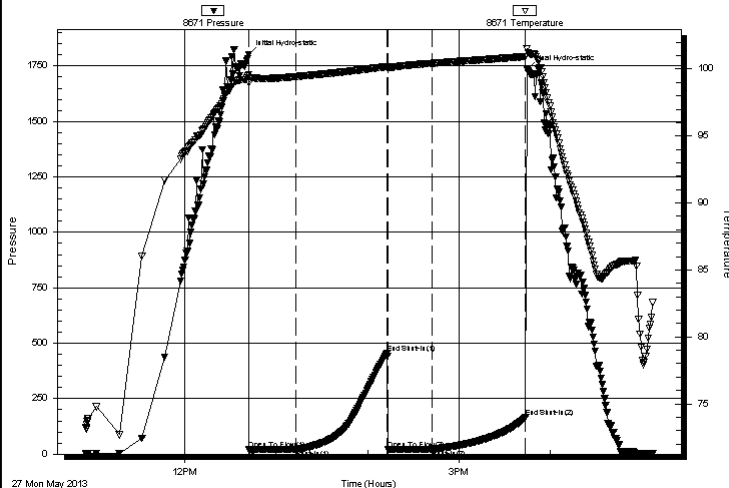
TEST COMMENT: 30 - IF: Weak surface blow , dead in 10 min.

60 - IS: No blow back

30 - FF: No blow

60 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1800.51	99.60	Initial Hydro-static
1	19.63	98.98	Open To Flow (1)
31	21.20	99.44	Shut-In(1)
91	456.20	100.18	End Shut-In(1)
92	22.08	100.01	Open To Flow (2)
120	22.67	100.44	Shut-In(2)
182	166.98	100.94	End Shut-In(2)
183	1735.42	101.55	Final Hydro-static

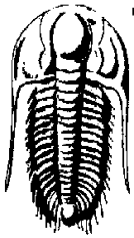
Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud w /trace oil 100% m	0.01

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
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DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

24-5s-29w Decatur KS

Ryser #1-24

Job Ticket: 52614

DST#: 2

Test Start: 2013.05.27 @ 10:55:00

GENERAL INFORMATION:

Formation: **Lans. "F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:42:15

Time Test Ended: 17:07:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3592.00 ft (KB) To 3616.00 ft (KB) (TVD)

Total Depth: 3616.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2468.00 ft (KB)

2457.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8320 Outside

Press@RunDepth: psig @ 3593.00 ft (KB)

Start Date: 2013.05.27

End Date:

2013.05.27

Start Time: 10:55:05

End Time:

17:07:29

Capacity: 8000.00 psig

Last Calib.: 2013.05.27

Time On Btm:

Time Off Btm:

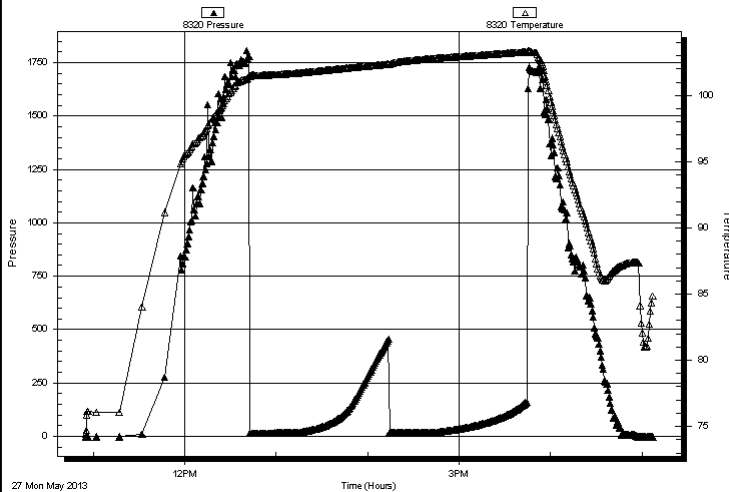
TEST COMMENT: 30 - IF: Weak surface blow, dead in 10 min.

60 - IS: No blow back

30 - FF: No blow

60 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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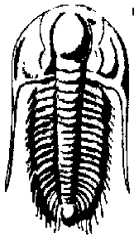
Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud w /trace oil 100% m	0.01

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

24-5s-29w Decatur KS

250 N. Water Suite 300
Wichita, KS 67202

Ryser #1-24

Job Ticket: 52614

DST#: 2

ATTN: Robert Hendrix

Test Start: 2013.05.27 @ 10:55:00

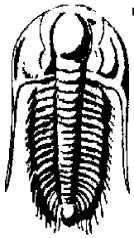
Tool Information

Drill Pipe:	Length:	3343.00 ft	Diameter:	3.80 inches	Volume:	46.89 bbl	Tool Weight:	2500.00 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:	234.00 ft	Diameter:	2.25 inches	Volume:	1.15 bbl	Weight to Pull Loose:	80000.00 lb
					Total Volume:	48.04 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		13.00 ft					String Weight: Initial	60000.00 lb
Depth to Top Packer:		3592.00 ft					Final	60000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		24.00 ft						
Tool Length:		52.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3569.00	
Hydraulic tool	5.00			3574.00	
Jars	5.00			3579.00	
Safety Joint	3.00			3582.00	
Packer	5.00			3587.00	28.00 Bottom Of Top Packer
Packer	5.00			3592.00	
Stubb	1.00			3593.00	
Recorder	0.00	8671	Inside	3593.00	
Recorder	0.00	8320	Outside	3593.00	
Perforations	20.00			3613.00	
Bullnose	3.00			3616.00	24.00 Bottom Packers & Anchor

Total Tool Length: 52.00



TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

24-5s-29w Decatur KS

250 N. Water Suite 300
Wichita, KS 67202

Ryser #1-24

Job Ticket: 52614

DST#: 2

ATTN: Robert Hendrix

Test Start: 2013.05.27 @ 10:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 72.00 sec/qt

Water Loss: 5.57 in³

Resistivity: ohm.m

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud w /trace oil 100%m	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

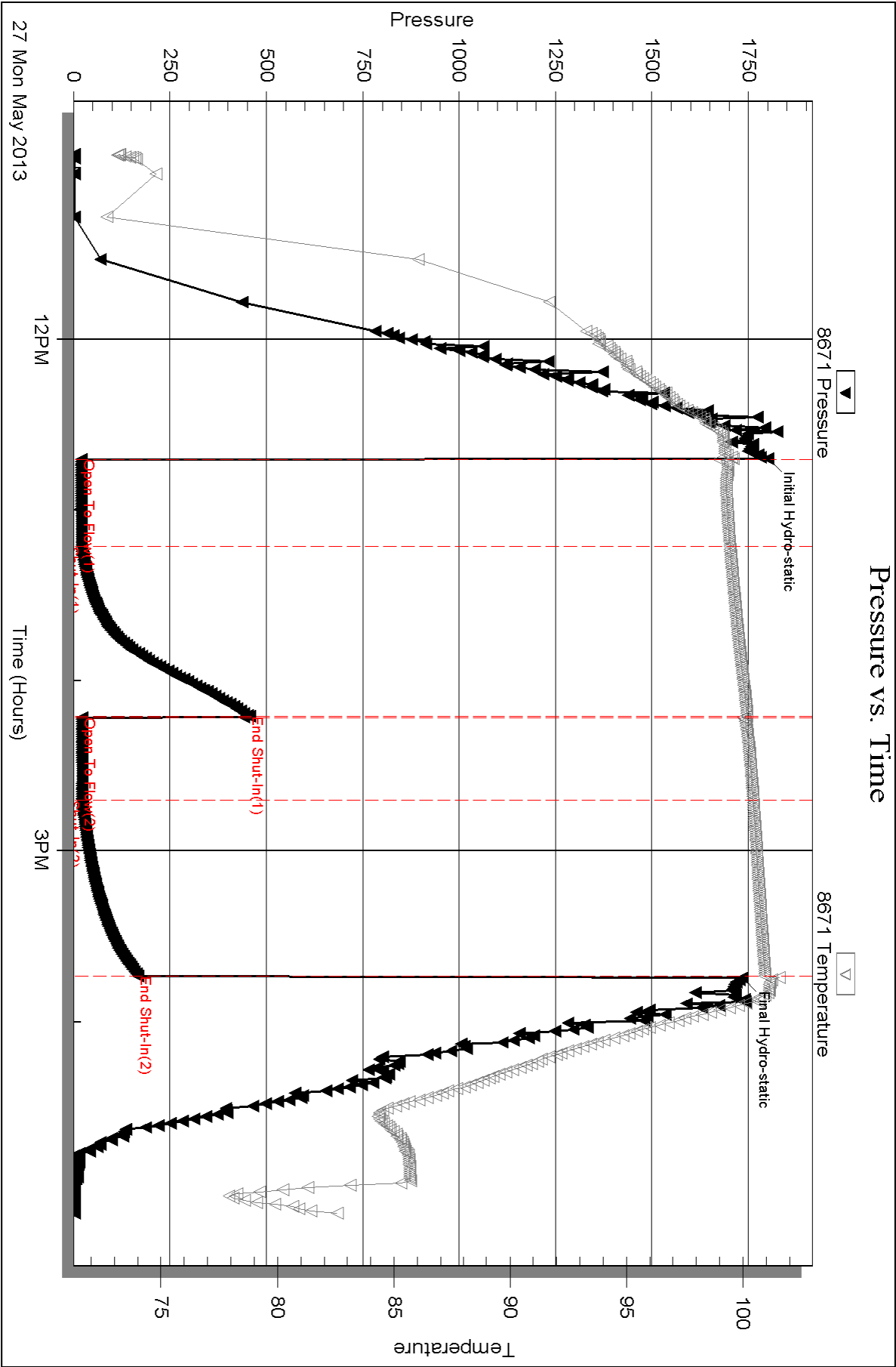
Serial #: 8671

Inside

Murfin Drilling Co., Inc.

Ryser #1-24

DST Test Number: 2

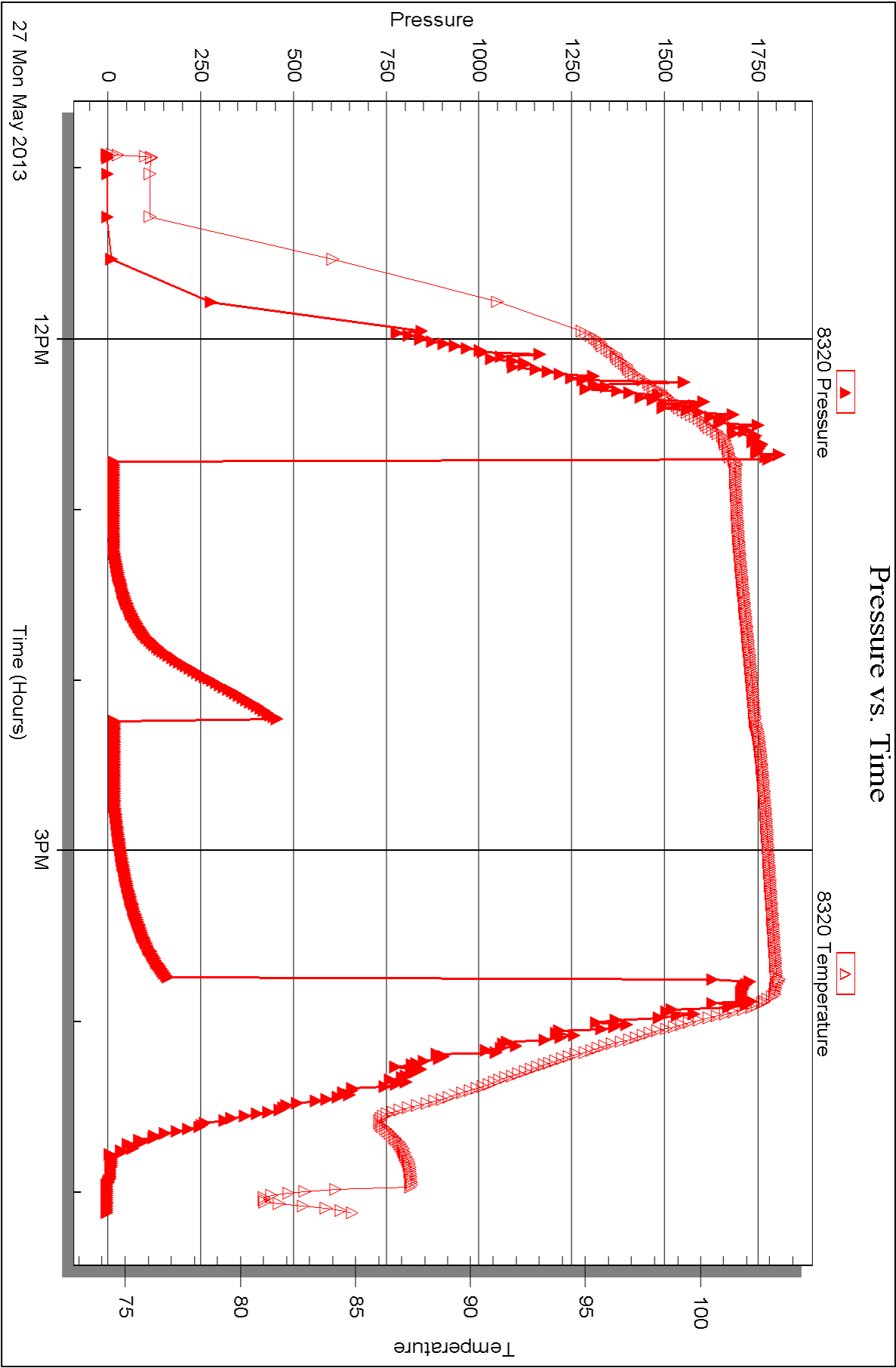


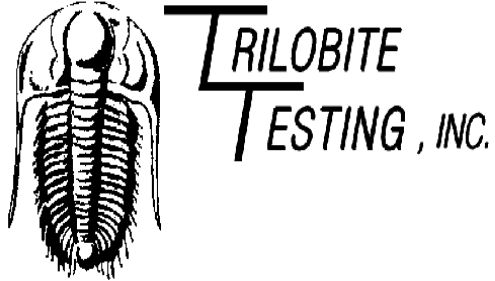
Serial #: 8320

Outside Murfin Drilling Co., Inc.

Ryser #1-24

DST Test Number: 2





DRILL STEM TEST REPORT

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

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

Ryser #1-24

24-5s-29w Decatur KS

Start Date: 2013.05.28 @ 08:55:00

End Date: 2013.05.28 @ 16:40:30

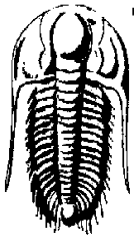
Job Ticket #: 52615 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.06.05 @ 11:06:19



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

24-5s-29w Decatur KS

Ryser #1-24

Job Ticket: 52615

DST#: 3

Test Start: 2013.05.28 @ 08:55:00

GENERAL INFORMATION:

Formation: **Lans. "H - K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:54:00

Time Test Ended: 16:40:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3640.00 ft (KB) To 3714.00 ft (KB) (TVD)

Reference Elevations: 2468.00 ft (KB)

Total Depth: 3714.00 ft (KB) (TVD)

2457.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8671 Inside

Press@RunDepth: 125.90 psig @ 3641.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.28

End Date:

2013.05.28

Last Calib.: 2013.05.28

Start Time: 08:55:05

End Time:

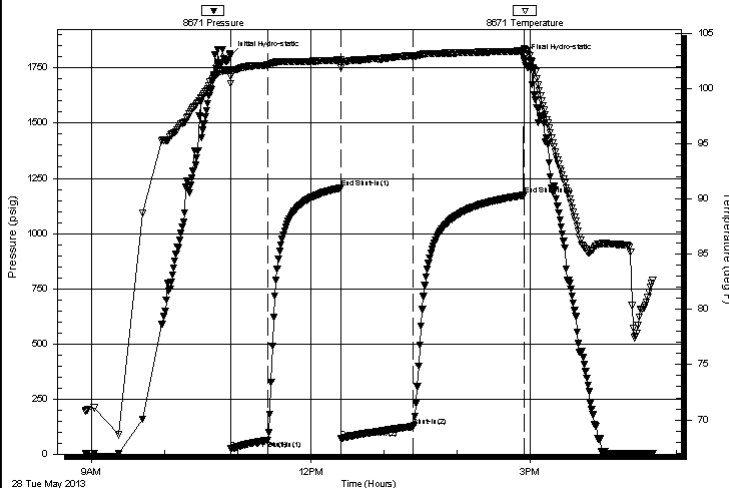
16:40:29

Time On Btm: 2013.05.28 @ 10:53:45

Time Off Btm: 2013.05.28 @ 14:55:00

TEST COMMENT: 30 - IF: Blow built to 5"
60 - IS: No blow back
60 - FF: Blow built to 6"
90 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1807.80	101.71	Initial Hydro-static
1	23.74	100.49	Open To Flow (1)
31	64.28	102.15	Shut-In(1)
91	1206.08	102.61	End Shut-In(1)
91	70.52	101.86	Open To Flow (2)
151	125.90	102.95	Shut-In(2)
241	1173.39	103.43	End Shut-In(2)
242	1793.54	103.67	Final Hydro-static

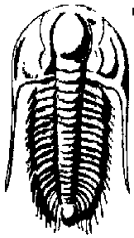
Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOWCM 82% _m , 10% _g , 6% _w , 2% _o	0.30
145.00	OCM 81% _m , 12% _o , 7% _g	0.71
0.00	GIP = 30'	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

24-5s-29w Decatur KS

Ryser #1-24

Job Ticket: 52615

DST#: 3

Test Start: 2013.05.28 @ 08:55:00

GENERAL INFORMATION:

Formation: **Lans. "H - K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:54:00

Time Test Ended: 16:40:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3640.00 ft (KB) To 3714.00 ft (KB) (TVD)

Total Depth: 3714.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2468.00 ft (KB)

2457.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8320 Outside

Press@RunDepth: psig @ 3641.00 ft (KB)

Start Date: 2013.05.28

End Date:

2013.05.28

Start Time: 08:55:05

End Time:

16:41:29

Capacity: 8000.00 psig

Last Calib.:

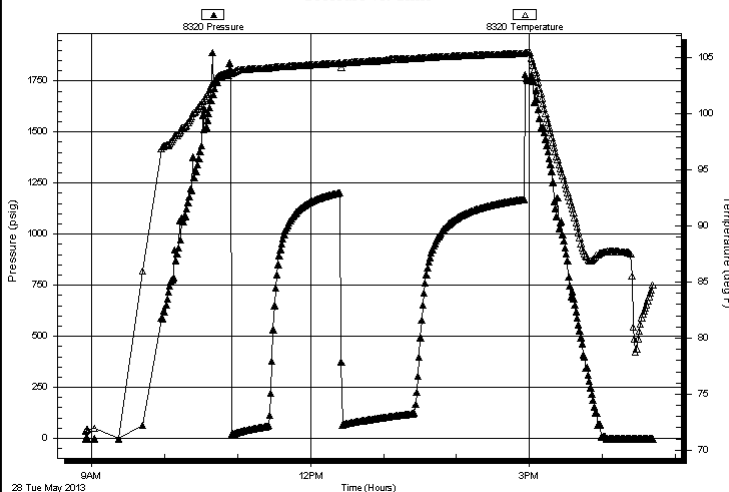
2013.05.28

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 5"
60 - IS: No blow back
60 - FF: Blow built to 6"
90 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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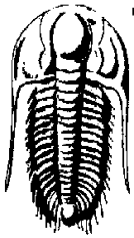
Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOWCM 82% _m , 10% _g , 6% _w , 2% _o	0.30
145.00	OCM 81% _m , 12% _o , 7% _g	0.71
0.00	GIP = 30'	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

24-5s-29w Decatur KS

250 N. Water Suite 300
Wichita, KS 67202

Ryser #1-24

Job Ticket: 52615

DST#: 3

ATTN: Robert Hendrix

Test Start: 2013.05.28 @ 08:55:00

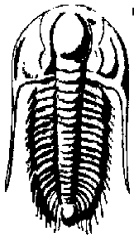
Tool Information

Drill Pipe:	Length:	3406.00 ft	Diameter:	3.80 inches	Volume:	47.78 bbl	Tool Weight:	2500.00 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:	234.00 ft	Diameter:	2.25 inches	Volume:	1.15 bbl	Weight to Pull Loose:	66000.00 lb
					Total Volume:	48.93 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		28.00 ft					String Weight: Initial	60000.00 lb
Depth to Top Packer:		3640.00 ft					Final	61000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		74.00 ft						
Tool Length:		102.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3617.00	
Hydraulic tool	5.00			3622.00	
Jars	5.00			3627.00	
Safety Joint	3.00			3630.00	
Packer	5.00			3635.00	28.00 Bottom Of Top Packer
Packer	5.00			3640.00	
Stubb	1.00			3641.00	
Recorder	0.00	8671	Inside	3641.00	
Recorder	0.00	8320	Outside	3641.00	
Perforations	5.00			3646.00	
Blank Spacing	64.00			3710.00	
Perforations	1.00			3711.00	
Bullnose	3.00			3714.00	74.00 Bottom Packers & Anchor

Total Tool Length: 102.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

24-5s-29w Decatur KS

250 N. Water Suite 300
Wichita, KS 67202

Ryser #1-24

Job Ticket: 52615

DST#: 3

ATTN: Robert Hendrix

Test Start: 2013.05.28 @ 08:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 69.00 sec/qt

Water Loss: 5.59 in³

Resistivity: ohm.m

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GOWCM 82%m, 10%g, 6%w , 2%o	0.295
145.00	OCM 81%m, 12%o, 7%g	0.713
0.00	GIP = 30'	0.000

Total Length: 205.00 ft

Total Volume: 1.008 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

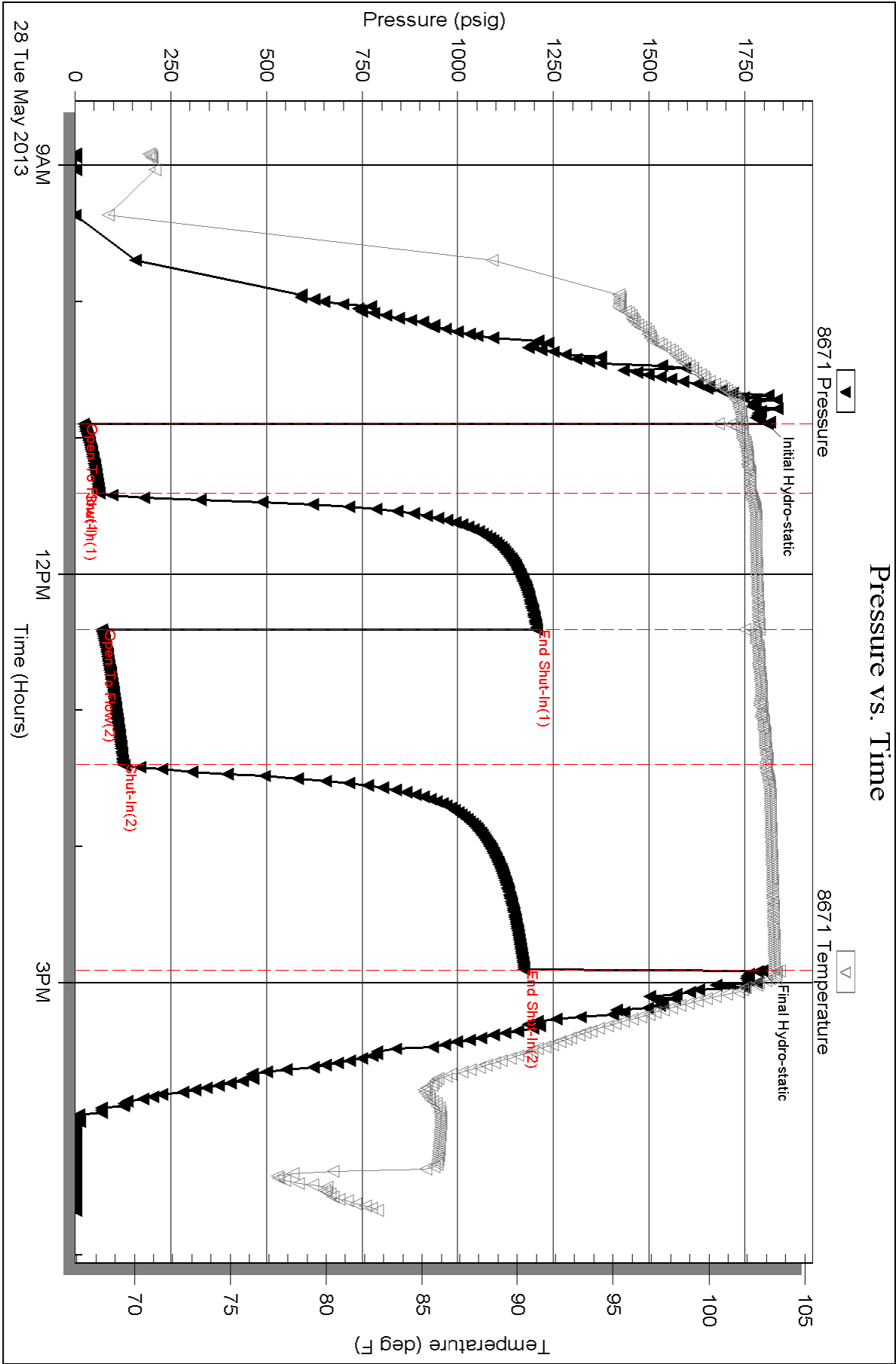
Serial #: 8671

Inside

Murfin Drilling Co., Inc.

Ryser #1-24

DST Test Number: 3

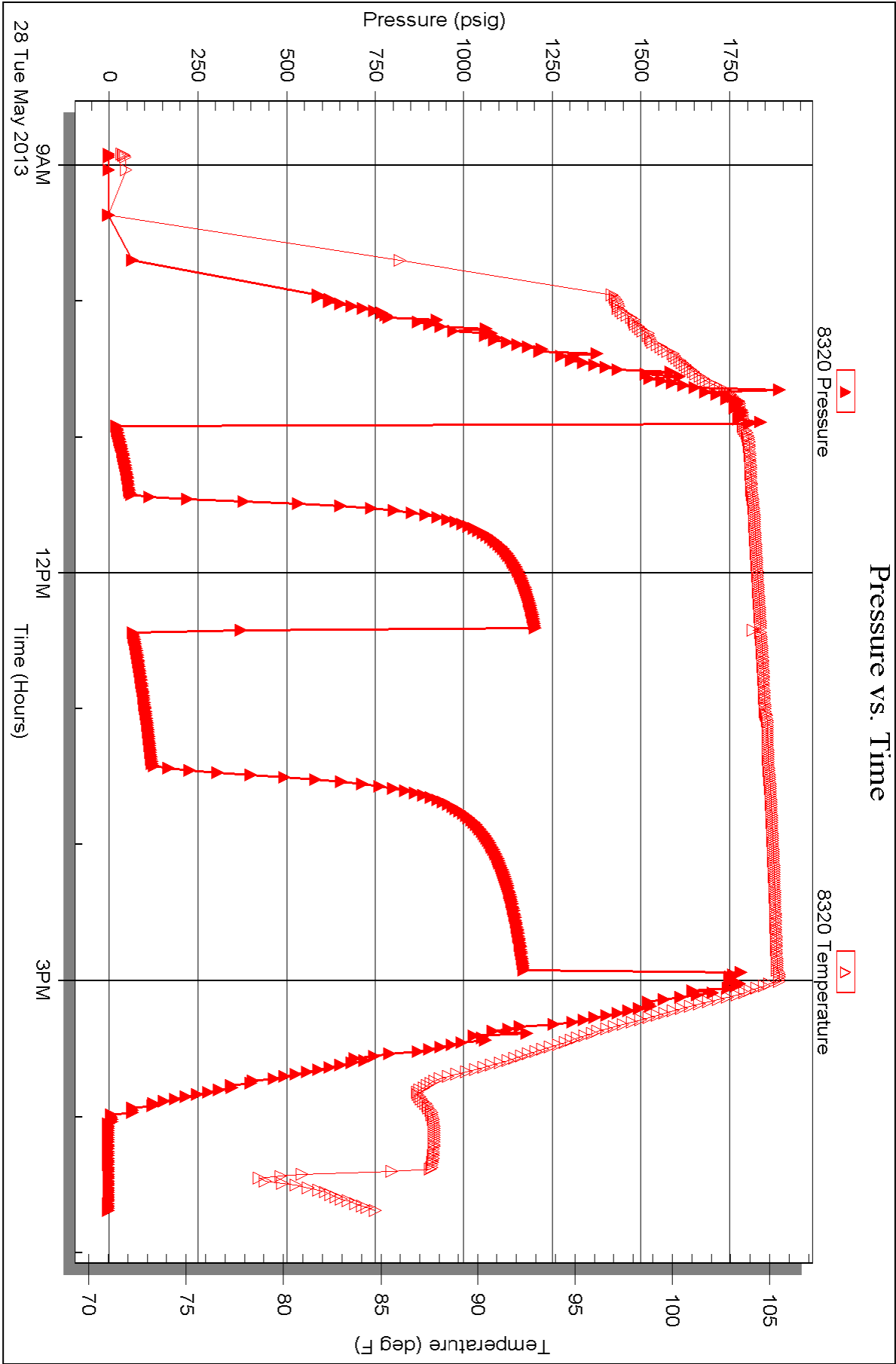


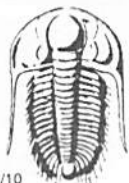
Serial #: 8320

Outside Murfin Drilling Co., Inc.

Ryser #1-24

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52613

Well Name & No. Ryser #1-24 Test No. 1 Date 5-26-13
 Company Murfin Drilling Co. Inc Elevation 2468 KB 2457 GL
 Address 250 N. Water Suite 300 Wichita KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 24 Twp. 5s Rge. 29w Co. Decatur State KS

Interval Tested 3503 - 3577 Zone Tested Toronto - LKC "B"
 Anchor Length 74 Drill Pipe Run 3248 Mud Wt. 8.9
 Top Packer Depth 3498 Drill Collars Run 234 Vis 69
 Bottom Packer Depth 3503 Wt. Pipe Run - WL 5.2
 Total Depth 3577 Chlorides 1000 ppm System LCM 3

Blow Description IF: Blow built to 1/2" then died back, dead at 23 min.

ISI: No blowback

FF: No blow

FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>mud w/trace of oil</u>	<u>trace</u>	<u>-</u>	<u>100</u>	<u>-</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 101 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1721</u>	☐ Test <u>1150</u>	T-On Location <u>19:00 5/26</u>
(B) First Initial Flow <u>20</u>	☐ Jars <u>250</u>	T-Started <u>19:58</u>
(C) First Final Flow <u>25</u>	☐ Safety Joint <u>75</u>	T-Open <u>21:38</u>
(D) Initial Shut-In <u>1151</u>	☒ Circ Sub <u>NA</u>	T-Pulled <u>00:37</u>
(E) Second Initial Flow <u>27</u>	☒ Hourly Standby	T-Out <u>2:15 5/27</u>
(F) Second Final Flow <u>32</u>	☐ Mileage <u>80RT</u> <u>124</u>	Comments
(G) Final Shut-In <u>1122</u>	☒ Sampler	
(H) Final Hydrostatic <u>1669</u>	☒ Straddle	☒ Ruined Shale Packer

Initial Open <u>30</u>	☒ Shale Packer	☒ Ruined Packer
Initial Shut-In <u>60</u>	☒ Extra Packer	☒ Extra Copies
Final Flow <u>30</u>	☒ Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	☒ Day Standby	Total <u>1599</u>
	☒ Accessibility	MP/DST Disc't
	Sub Total <u>1599</u>	

Approved By ADL Our Representative James Windsor

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52614

Well Name & No. Ryser #1-24 Test No. 2 Date 5-27-13
 Company Murfin Drilling Co. Inc Elevation 2468 KB 2457 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 24 Twp. 5s Rge. 29w Co. Decatur State KS

Interval Tested 3592 - 3616 Zone Tested Lans. "F"
 Anchor Length 24 Drill Pipe Run 3343 Mud Wt. 9.1
 Top Packer Depth 3587 Drill Collars Run 234 Vis 72
 Bottom Packer Depth 3592 Wt. Pipe Run - WL 5.6
 Total Depth 3616 Chlorides 1000 ppm System LCM 4

Blow Description IF: Weak surface blow, dead in 10 min.

ISI: No blowback

FF: No blow

FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>mud w/trace of oil</u>	<u>trace</u>		<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 2 BHT 101 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1801
 (B) First Initial Flow 20
 (C) First Final Flow 21
 (D) Initial Shut-In 456
 (E) Second Initial Flow 22
 (F) Second Final Flow 23
 (G) Final Shut-In 167
 (H) Final Hydrostatic 1735

☐ Test 1150
☐ Jars 250
☐ Safety Joint 75
☒ Circ Sub *NA
☒ Hourly Standby
☐ Mileage 80RT 124
☒ Sampler
☒ Straddle
☒ Shale Packer
☒ Extra Packer
☒ Extra Recorder
☒ Day Standby
☒ Accessibility
 Sub Total 1599

T-On Location 10:45
 T-Started 10:55
 T-Open 12:42
 T-Pulled 15:43
 T-Out 17:05

Comments

☒ Ruined Shale Packer
☒ Ruined Packer
☒ Extra Copies

Sub Total 0

Total 1599

MP/DST Disc't

Initial Open 30
 Initial Shut-In 60
 Final Flow 30
 Final Shut-In 60

Approved By [Signature]

Our Representative James Winder

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52615

Well Name & No. Ryser # 1-24 Test No. 3 Date 5-28-13
 Company Murfin Drilling Co. Inc Elevation 2468 KB 2457 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 24 Twp. 5s Rge. 29w Co. Decatur State KS

Interval Tested 3640 - 3714 Zone Tested Lans. "H-K"
 Anchor Length 74 Drill Pipe Run 3406 Mud Wt. 9.1
 Top Packer Depth 3635 Drill Collars Run 234 Vis 69
 Bottom Packer Depth 3640 Wt. Pipe Run - WL 5.6
 Total Depth 3714 Chlorides 1000 ppm System LCM 4

Blow Description IF: Blow built to 5"
ISI: No blowback
FF: Blow built to 6"
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>145</u>	<u>OCM</u>	<u>7</u>	<u>12</u>	<u>-</u>	<u>81</u>
<u>60</u>	<u>5000 GOWCM</u>	<u>10</u>	<u>2</u>	<u>6</u>	<u>82</u>
	<u>GIP = 30'</u>				

Rec Total 205 BHT 103 Gravity - API RW - @ - ° F Chlorides - ppm
 (A) Initial Hydrostatic 1808 ☐ Test 1150 T-On Location 8:45
 (B) First Initial Flow 24 ☐ Jars 250 T-Started 8:55
 (C) First Final Flow 64 ☐ Safety Joint 75 T-Open 10:54
 (D) Initial Shut-In 1206 ☒ Circ Sub NA T-Pulled 14:54
 (E) Second Initial Flow 71 ☒ Hourly Standby NA T-Out 16:30
 (F) Second Final Flow 126 ☐ Mileage 80RTX2 248 Comments loaded tools 11:30 5/29
 (G) Final Shut-In 1173 ☒ Sampler -
 (H) Final Hydrostatic 1794 ☒ Straddle -

Initial Open 30 ☒ Shale Packer - ☒ Ruined Shale Packer -
 Initial Shut-In 60 ☒ Shale Packer - ☒ Ruined Packer -
 Final Flow 60 ☒ Extra Packer - ☒ Extra Copies -
 Final Shut-In 90 ☒ Extra Recorder - Sub Total 0
☒ Day Standby - Total 1723
☒ Accessibility - MP/DST Disc't -
 Sub Total 1723

Approved By [Signature] Our Representative James Winder
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.