



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Robert Hendrix

Gassmann #1-25

25 5s 26w Decatur,KS

Start Date: 2013.06.04 @ 10:20:00

End Date: 2013.06.04 @ 18:16:00

Job Ticket #: 51135 DST #: 1

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

Printed: 2013.06.11 @ 10:30:34



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling
 250 N. Water Ste 300
 Wichita KS 67202
 ATTN: Robert Hendrix

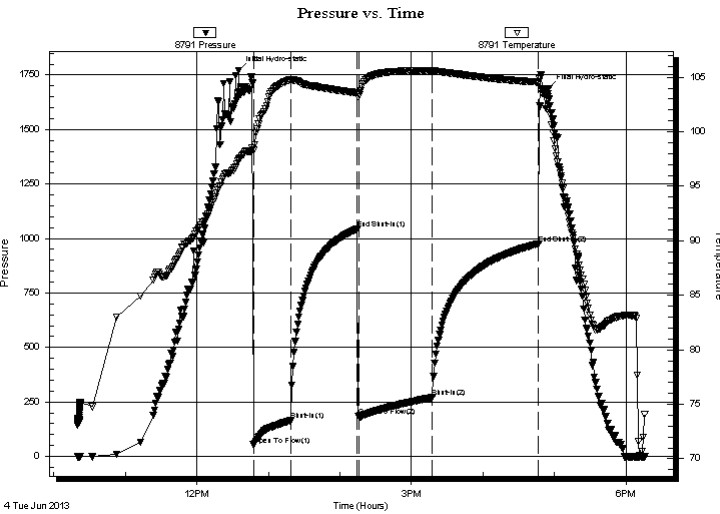
25 5s 26w Decatur, KS
Gassmann #1-25
 Job Ticket: 51135 **DST#: 1**
 Test Start: 2013.06.04 @ 10:20:00

GENERAL INFORMATION:

Formation: **Toronto-LKC A**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:47:30
 Time Test Ended: 18:16:00
 Interval: **3500.00 ft (KB) To 3553.00 ft (KB) (TVD)**
 Total Depth: 3553.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Chuck Kreuzer Jr.
 Unit No: 61
 Reference Elevations: 2469.00 ft (KB)
 2458.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8791 Inside
 Press @ Run Depth: 270.78 psig @ 3501.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.04 End Date: 2013.06.04 Last Calib.: 2013.06.04
 Start Time: 10:20:01 End Time: 18:16:00 Time On Btm: 2013.06.04 @ 12:35:00
 Time Off Btm: 2013.06.04 @ 16:55:00

TEST COMMENT: IF: Fair blow , Built to B.O.B in 10 mins.
 IS: No blow back
 FF: Fair blow , Built to B.O.B in 15 mins.
 FS: No blow back



PRESSURE SUMMARY

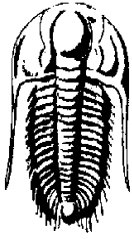
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1771.34	97.41	Initial Hydro-static
13	53.10	98.29	Open To Flow (1)
44	164.31	104.78	Shut-In(1)
100	1043.91	103.56	End Shut-In(1)
101	183.89	103.19	Open To Flow (2)
163	270.78	105.63	Shut-In(2)
252	976.83	104.54	End Shut-In(2)
260	1689.13	102.95	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
240.00	MCW-10%M 90%W	1.24
120.00	MCW-30%M 70%W	1.75
120.00	WCM- 20%W 80%W	1.75

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling
 250 N. Water Ste 300
 Wichita KS 67202
 ATTN: Robert Hendrix

25 5s 26w Decatur, KS
Gassmann #1-25
 Job Ticket: 51135 **DST#: 1**
 Test Start: 2013.06.04 @ 10:20:00

GENERAL INFORMATION:

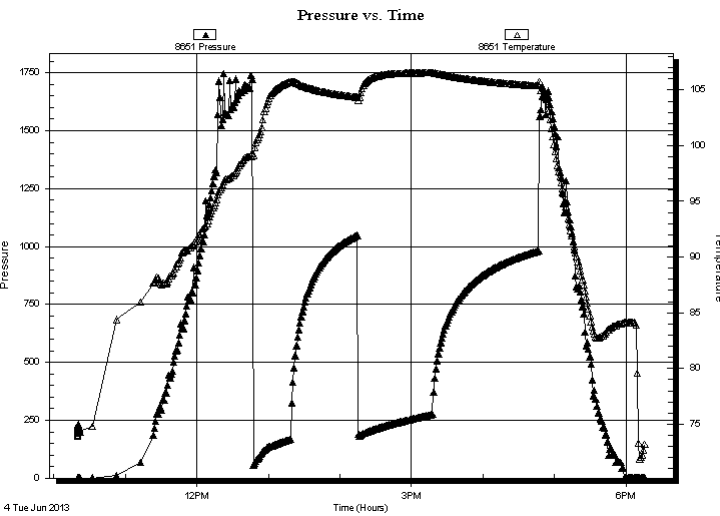
Formation: Toronto-LKC A	Deviated: No	Whipstock: ft (KB)	Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 12:47:30	Time Test Ended: 18:16:00		Tester: Chuck Kreutzer Jr.
Interval: 3500.00 ft (KB) To 3553.00 ft (KB) (TVD)			Unit No: 61
Total Depth: 3553.00 ft (KB) (TVD)	Reference Elevations: 2469.00 ft (KB) 2458.00 ft (CF)		
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 11.00 ft	

Serial #: 8651

Outside

Press @ Run Depth: psig @ 3501.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2013.06.04	End Date: 2013.06.04
Start Time: 10:20:01	End Time: 18:16:00
	Last Calib.: 2013.06.04
	Time On Btm:
	Time Off Btm:

TEST COMMENT: IF: Fair blow , Built to B.O.B in 10 mins.
 IS: No blow back
 FF: Fair blow , Built to B.O.B in 15 mins.
 FS: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
240.00	MCW-10%M 90%W	1.24
120.00	MCW-30%M 70%W	1.75
120.00	WCM- 20%W 80%W	1.75

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling

25 5s 26w Decatur, KS

250 N. Water Ste 300
Wichita KS 67202

Gassmann #1-25

Job Ticket: 51135

DST#: 1

ATTN: Robert Hendrix

Test Start: 2013.06.04 @ 10:20:00

Tool Information

Drill Pipe:	Length: 3249.00 ft	Diameter: 3.88 inches	Volume: 47.51 bbl	Tool Weight: 26000.00 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: 65000.00 lb
			<u>Total Volume: 48.66 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3500.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.00 ft			
Tool Length:	81.00 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			3477.00	
Hydraulic tool	5.00			3482.00	
Jars	5.00			3487.00	
Safety Joint	3.00			3490.00	
Packer	5.00			3495.00	28.00 Bottom Of Top Packer
Packer	5.00			3500.00	
Stubb	1.00			3501.00	
Recorder	0.00	8791	Inside	3501.00	
Recorder	0.00	8651	Outside	3501.00	
Perforations	1.00			3502.00	
change Over Sub	1.00			3503.00	
Drill Pipe	31.00			3534.00	
Change Over Sub	1.00			3535.00	
Perforations	15.00			3550.00	
Bullnose	3.00			3553.00	53.00 Bottom Packers & Anchor

Total Tool Length: 81.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling

25 5s 26w Decatur,KS

250 N. Water Ste 300
Wichita KS 67202

Gassmann #1-25

Job Ticket: 51135

DST#: 1

ATTN: Robert Hendrix

Test Start: 2013.06.04 @ 10:20:00

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.18 in³

Gas Cushion Type:

Resistivity: 0.09 ohm.m

Gas Cushion Pressure:

psig

Salinity: 90000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
240.00	MCW-10%M 90%W	1.239
120.00	MCW-30%M 70%W	1.755
120.00	WCM- 20%W 80%W	1.755

Total Length: 480.00 ft Total Volume: 4.749 bbl

Num Fluid Samples: 0

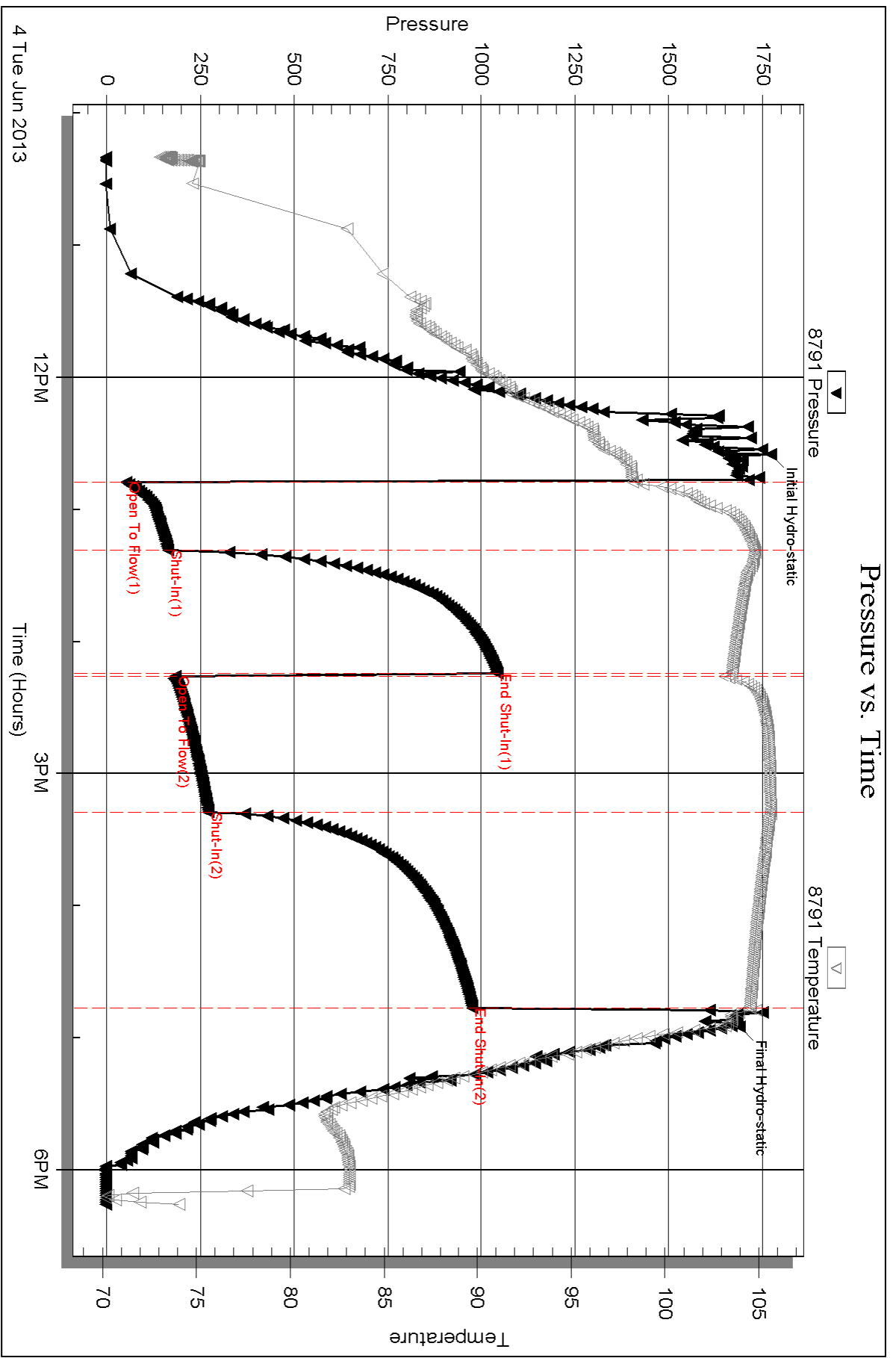
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

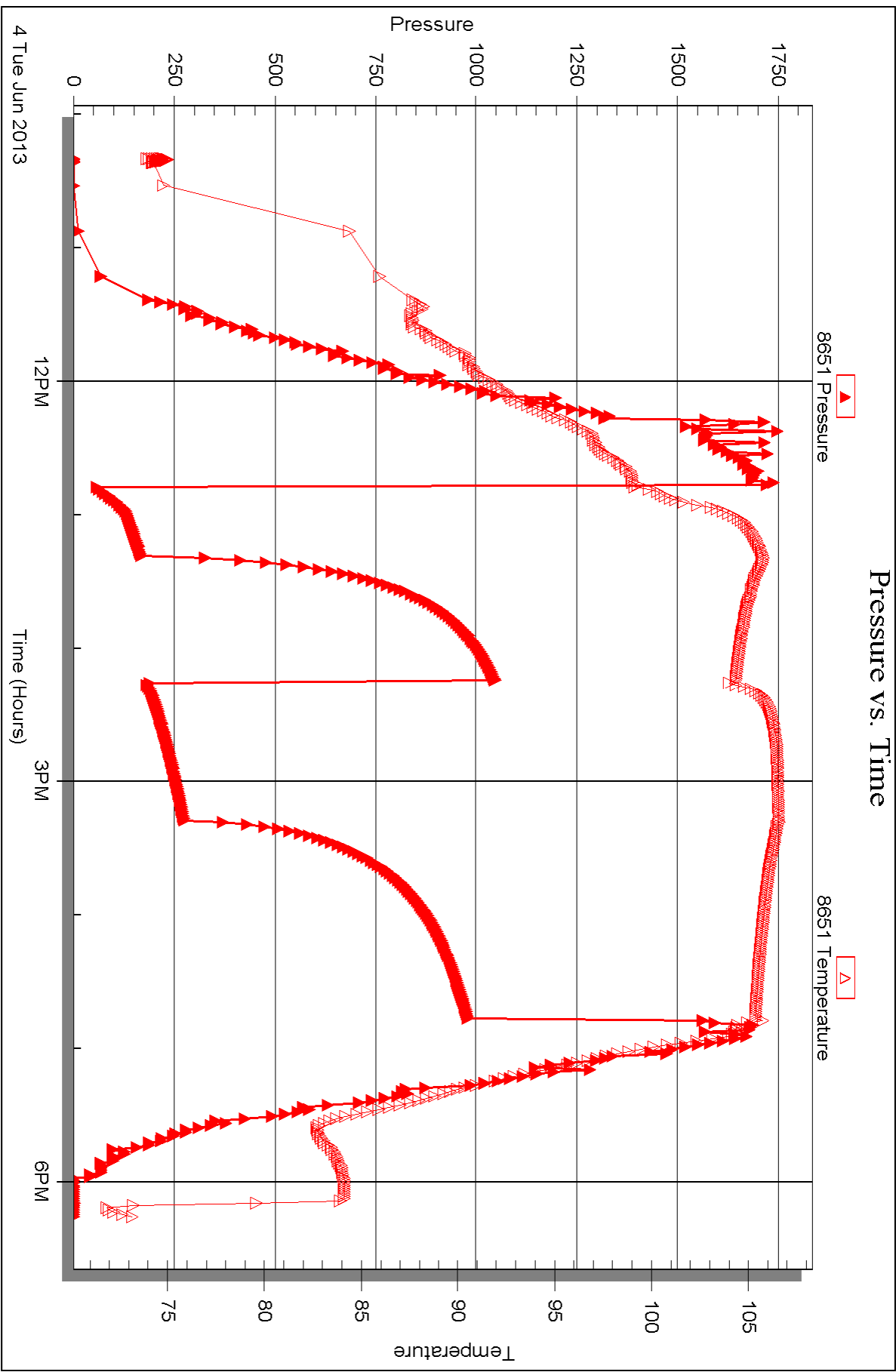


Serial #: 8651

Outside Murfin Drilling

Gassmann #1-25

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Robert Hendrix

Gassmann #1-25

25 5s 26w Decatur,KS

Start Date: 2013.06.05 @ 02:22:00

End Date: 2013.06.05 @ 08:50:30

Job Ticket #: 51136 DST #: 2

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

Printed: 2013.06.11 @ 10:29:42



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling
 250 N. Water Ste 300
 Wichita KS 67202
 ATTN: Robert Hendrix

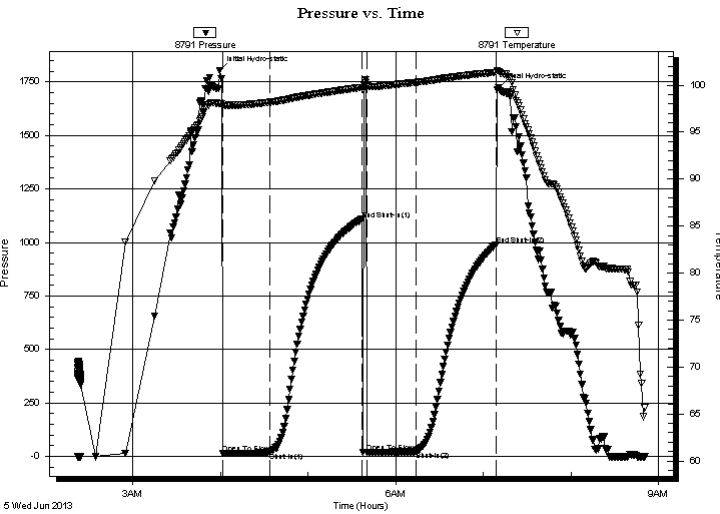
25 5s 26w Decatur, KS
Gassmann #1-25
 Job Ticket: 51136 **DST#: 2**
 Test Start: 2013.06.05 @ 02:22:00

GENERAL INFORMATION:

Formation: **LKC B-D**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:01:30
 Time Test Ended: 08:50:30
Interval: 3556.00 ft (KB) To 3587.00 ft (KB) (TVD)
 Total Depth: 3587.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Kreuzer Jr.
 Unit No: 61
 Reference Elevations: 2469.00 ft (KB)
 2458.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8791 Inside
 Press @ Run Depth: 25.19 psig @ 3557.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.05 End Date: 2013.06.05 Last Calib.: 2013.06.05
 Start Time: 02:22:01 End Time: 08:50:30 Time On Btm: 2013.06.05 @ 03:59:30
 Time Off Btm: 2013.06.05 @ 07:10:30

TEST COMMENT: IF: Weak blow , Dead in 2 mins.
 ISI: No blow back
 FF: Flushed tool, Weak blow dead in 20 secs.
 FSI No blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1804.32	98.06	Initial Hydro-static
2	14.92	97.68	Open To Flow (1)
34	21.61	98.18	Shut-In(1)
97	1107.68	99.75	End Shut-In(1)
101	19.67	99.83	Open To Flow (2)
135	25.19	100.30	Shut-In(2)
189	989.71	101.37	End Shut-In(2)
191	1725.29	101.45	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
25.00	mud-100%m	0.12

* Recovery from multiple tests

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling

25 5s 26w Decatur,KS

250 N. Water Ste 300
Wichita KS 67202

Gassmann #1-25

Job Ticket: 51136 **DST#: 2**

ATTN: Robert Hendrix

Test Start: 2013.06.05 @ 02:22:00

GENERAL INFORMATION:

Formation: **LKC B-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:01:30

Time Test Ended: 08:50:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3556.00 ft (KB) To 3587.00 ft (KB) (TVD)

Reference Elevations: 2469.00 ft (KB)

Total Depth: 3587.00 ft (KB) (TVD)

2458.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8651 Outside

Press @ Run Depth: psig @ 3557.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.06.05 End Date: 2013.06.05

Last Calib.: 2013.06.05

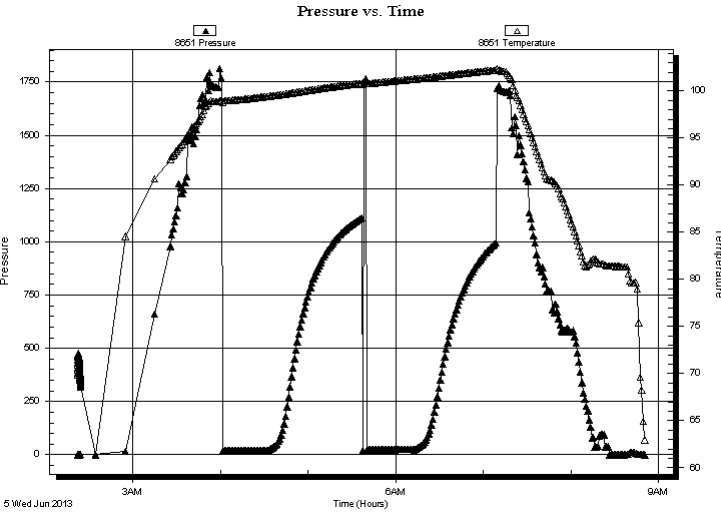
Start Time: 02:22:01 End Time: 08:50:30

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Weak blow , Dead in 2 mins.
ISI: No blow back
FF: Flushed tool, Weak blow dead in 20 secs.
FSI No blow back

PRESSURE SUMMARY



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

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
25.00	mud-100%m	0.12

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling

25 5s 26w Decatur, KS

250 N. Water Ste 300
Wichita KS 67202

Gassmann #1-25

Job Ticket: 51136

DST#: 2

ATTN: Robert Hendrix

Test Start: 2013.06.05 @ 02:22:00

Tool Information

Drill Pipe:	Length: 3310.00 ft	Diameter: 3.88 inches	Volume: 48.41 bbl	Tool Weight: 26000.00 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: 65000.00 lb
			<u>Total Volume: 49.56 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3556.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	59.00 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			3533.00	
Hydraulic tool	5.00			3538.00	
Jars	5.00			3543.00	
Safety Joint	3.00			3546.00	
Packer	5.00			3551.00	28.00 Bottom Of Top Packer
Packer	5.00			3556.00	
Stubb	1.00			3557.00	
Recorder	0.00	8791	Inside	3557.00	
Recorder	0.00	8651	Outside	3557.00	
Perforations	1.00			3558.00	
Perforations	26.00			3584.00	
Bullnose	3.00			3587.00	31.00 Bottom Packers & Anchor

Total Tool Length: 59.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling

25 5s 26w Decatur, KS

250 N. Water Ste 300
Wichita KS 67202

Gassmann #1-25

Job Ticket: 51136

DST#: 2

ATTN: Robert Hendrix

Test Start: 2013.06.05 @ 02:22:00

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: 0.09 ohm.m

Gas Cushion Pressure:

psig

Salinity: 90000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	mud-100%m	0.123

Total Length: 25.00 ft Total Volume: 0.123 bbl

Num Fluid Samples: 0

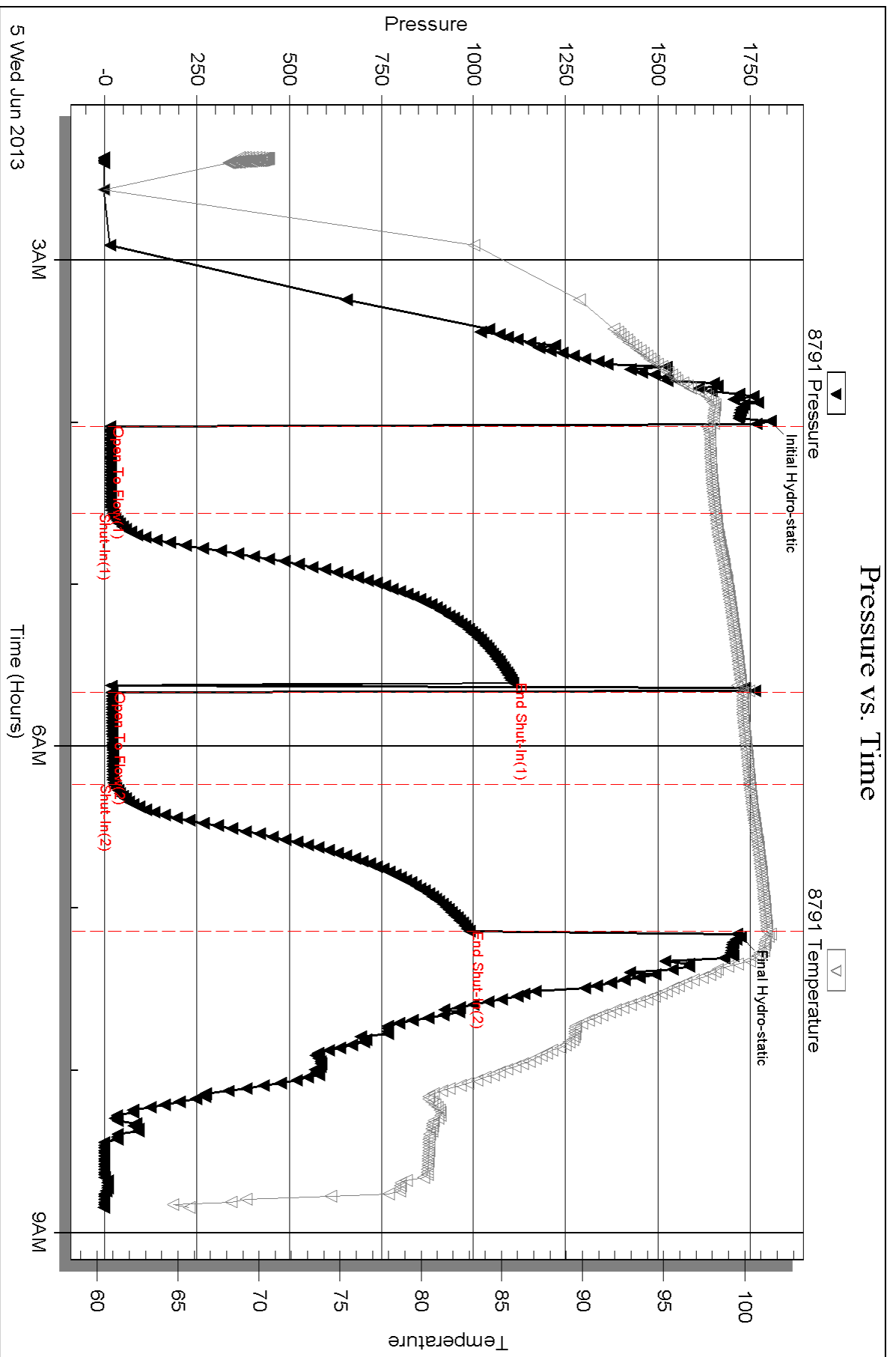
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

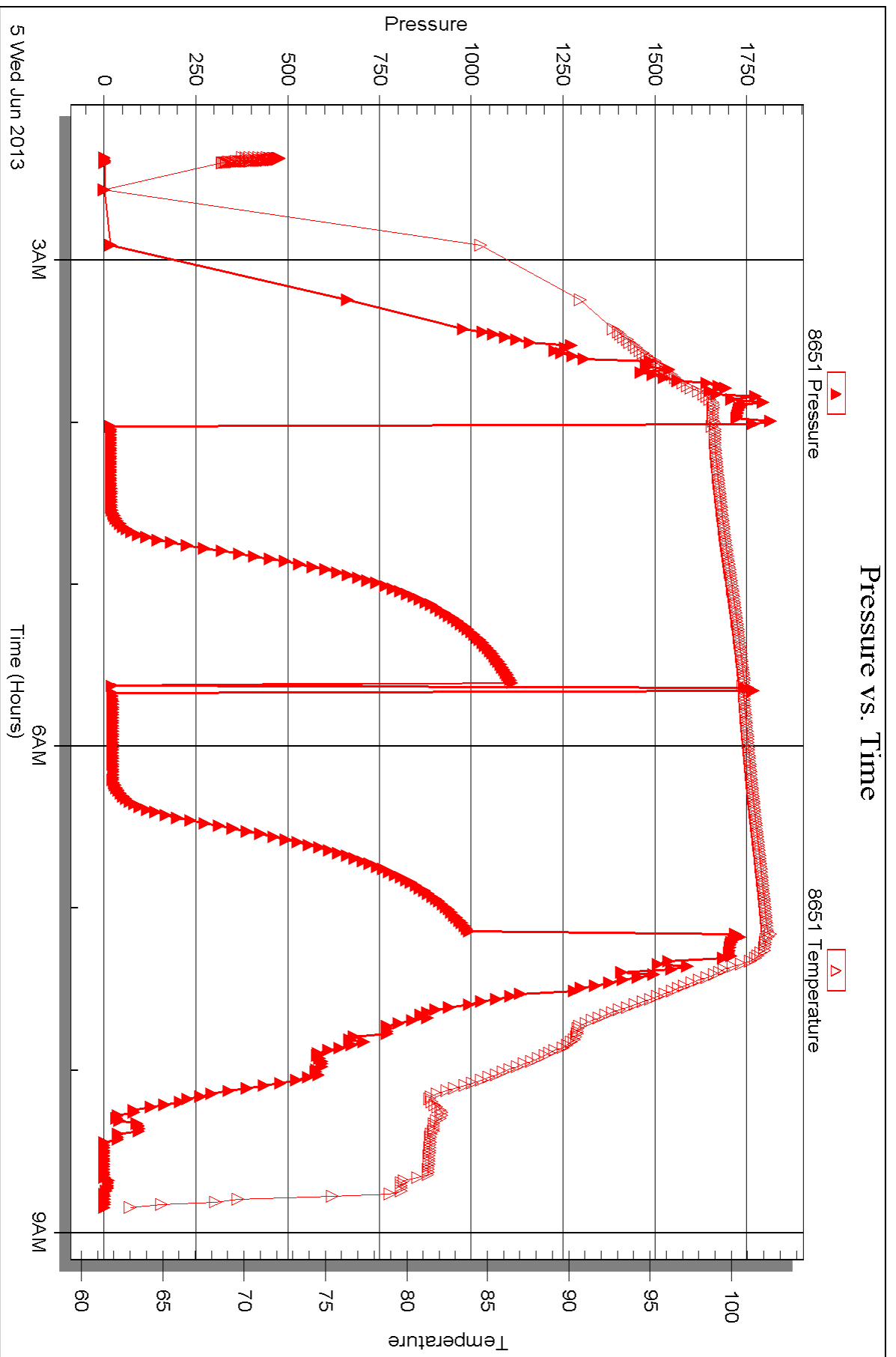


Serial #: 8651

Outside Murfin Drilling

Gassmann #1-25

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Robert Hendrix

Gassmann #1-25

25 5s 26w Decatur,KS

Start Date: 2013.06.05 @ 17:20:00

End Date: 2013.06.06 @ 01:06:30

Job Ticket #: 51137 DST #: 3

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

Printed: 2013.06.11 @ 10:28:53

Murfin Drilling
25 5s 26w Decatur,KS
Gassmann #1-25
DST # 3
LKC-
2013.06.05



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling
 250 N. Water Ste 300
 Wichita KS 67202
 ATTN: Robert Hendrix

25 5s 26w Decatur, KS
Gassmann #1-25
 Job Ticket: 51137 **DST#: 3**
 Test Start: 2013.06.05 @ 17:20:00

GENERAL INFORMATION:

Formation: **LKC-**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 19:32:30 Tester: Chuck Kreuzer Jr.
 Time Test Ended: 01:06:30 Unit No: 61
 Interval: **3593.00 ft (KB) To 3632.00 ft (KB) (TVD)** Reference Elevations: 2469.00 ft (KB)
 Total Depth: 3632.00 ft (KB) (TVD) 2458.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

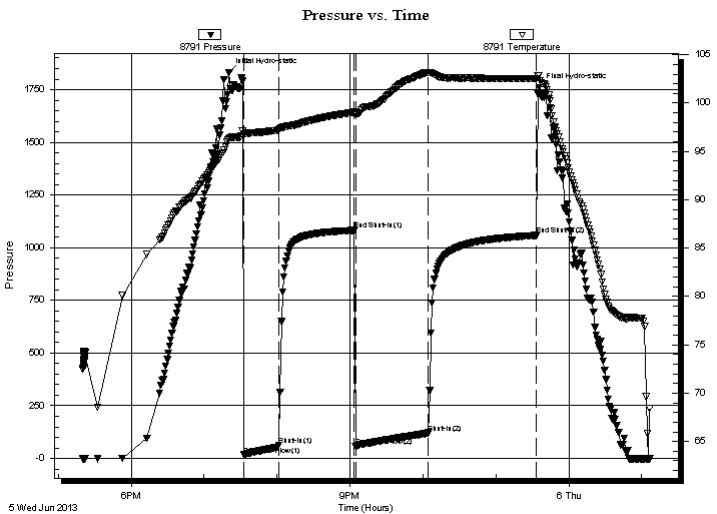
Serial #: 8791

Inside

Press @ Run Depth: 121.10 psig @ 3594.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.05 End Date: 2013.06.06 Last Calib.: 2013.06.06
 Start Time: 17:20:01 End Time: 01:06:30 Time On Btm: 2013.06.05 @ 19:20:30
 Time Off Btm: 2013.06.05 @ 23:35:30

TEST COMMENT: IF: Weak blow, Built to 2 in. over 30 mins.
 IS: No blow back
 FF: Weak blow, Built to 5 in. over 60 mins.
 FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1832.05	96.33	Initial Hydro-static
12	17.32	96.85	Open To Flow (1)
41	62.31	97.22	Shut-In(1)
103	1083.05	99.06	End Shut-In(1)
104	59.27	98.82	Open To Flow (2)
164	121.10	103.18	Shut-In(2)
253	1059.09	102.55	End Shut-In(2)
255	1760.24	102.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
200.00	mud-1`00%m	0.98

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling

25 5s 26w Decatur, KS

250 N. Water Ste 300
Wichita KS 67202

Gassmann #1-25

Job Ticket: 51137

DST#: 3

ATTN: Robert Hendrix

Test Start: 2013.06.05 @ 17:20:00

Tool Information

Drill Pipe:	Length: 3347.00 ft	Diameter: 3.88 inches	Volume: 48.95 bbl	Tool Weight: 26000.00 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: 65000.00 lb
			<u>Total Volume: 50.10 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3593.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 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
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Shut In Tool	5.00			3570.00	
Hydraulic tool	5.00			3575.00	
Jars	5.00			3580.00	
Safety Joint	3.00			3583.00	
Packer	5.00			3588.00	28.00 Bottom Of Top Packer
Packer	5.00			3593.00	
Stubb	1.00			3594.00	
Recorder	0.00	8791	Inside	3594.00	
Recorder	0.00	8651	Outside	3594.00	
Perforations	1.00			3595.00	
Perforations	34.00			3629.00	
Bullnose	3.00			3632.00	39.00 Bottom Packers & Anchor

Total Tool Length: 67.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling

25 5s 26w Decatur,KS

250 N. Water Ste 300
Wichita KS 67202

Gassmann #1-25

Job Ticket: 51137

DST#: 3

ATTN: Robert Hendrix

Test Start: 2013.06.05 @ 17:20:00

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: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
200.00	mud-1'00% _m	0.984

Total Length: 200.00 ft Total Volume: 0.984 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8791

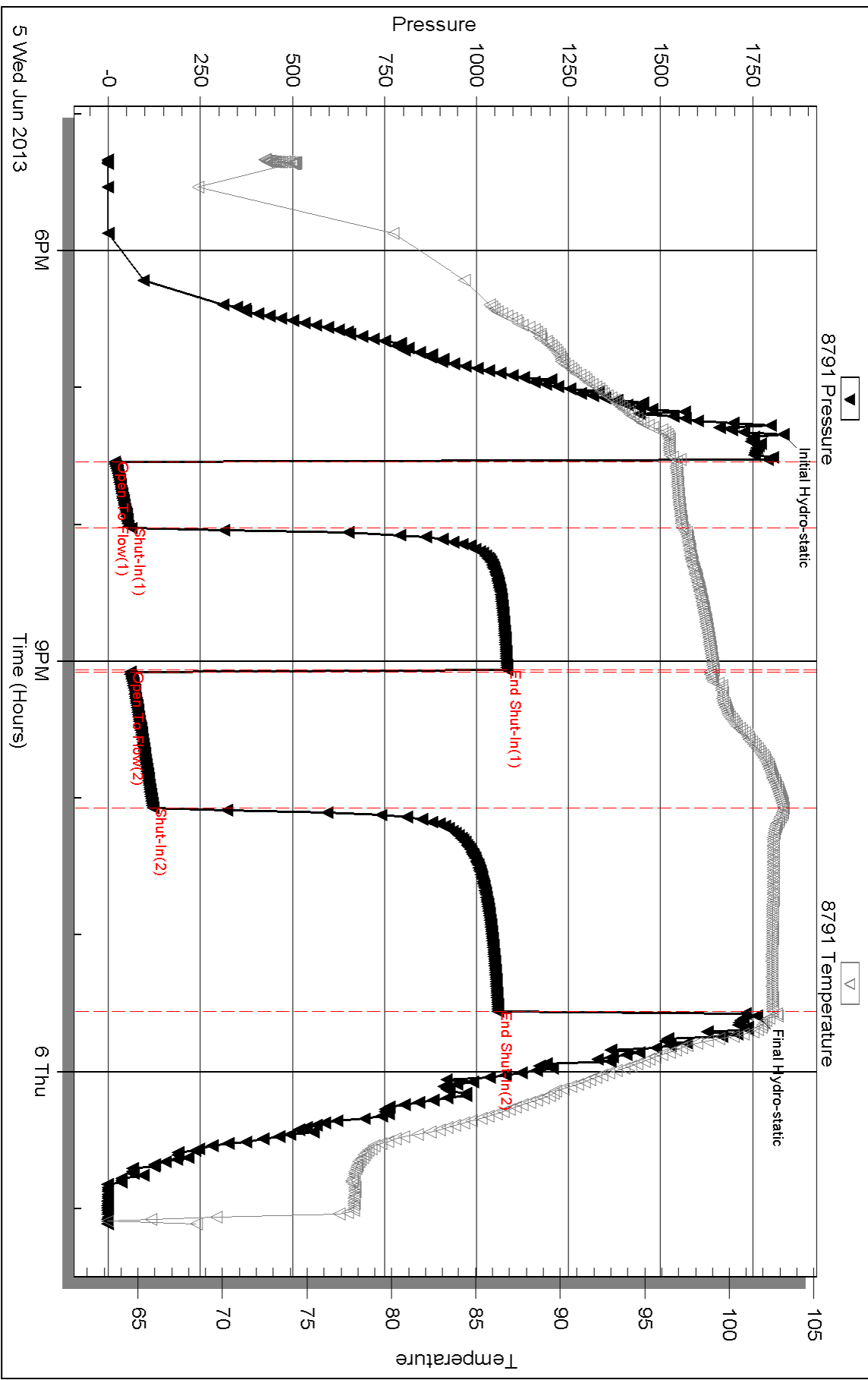
Inside

Murfin Drilling

Gassmann #1-25

DST Test Number: 3

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 51137

Printed: 2013.06.11 @ 10:28:56



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Robert Hendrix

Gassmann #1-25

25 5s 26w Decatur,KS

Start Date: 2013.06.06 @ 12:15:00

End Date: 2013.06.06 @ 18:39:00

Job Ticket #: 51138 DST #: 4

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

Printed: 2013.06.11 @ 10:05:11



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling
 250 N. Water Ste 300
 Wichita KS 67202
 ATTN: Robert Hendrix

25 5s 26w Decatur, KS
Gassmann #1-25
 Job Ticket: 51138 **DST#: 4**
 Test Start: 2013.06.06 @ 12:15:00

GENERAL INFORMATION:

Formation: **LKC-H,K**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 14:08:30 Tester: Chuck Kreuzer Jr.
 Time Test Ended: 18:39:00 Unit No: 61
 Interval: **3640.00 ft (KB) To 3715.00 ft (KB) (TVD)** Reference Elevations: 2469.00 ft (KB)
 Total Depth: 3715.00 ft (KB) (TVD) 2458.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

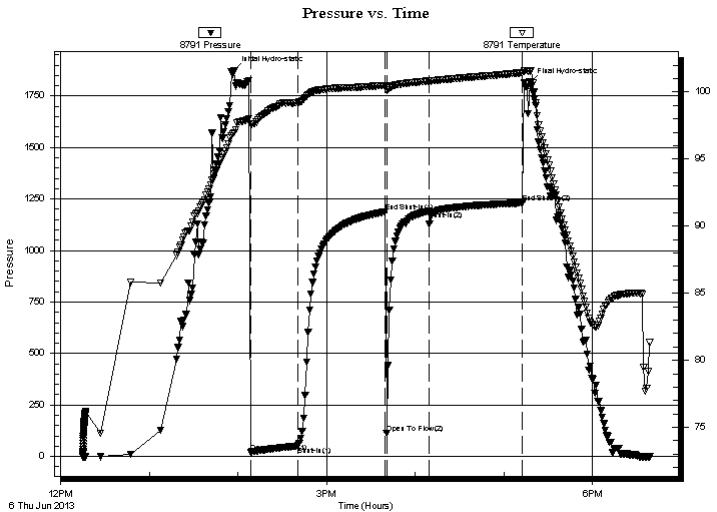
Serial #: 8791

Inside

Press @ Run Depth: 1191.19 psig @ 3641.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.06 End Date: 2013.06.06 Last Calib.: 2013.06.06
 Start Time: 12:15:01 End Time: 18:39:00 Time On Btm: 2013.06.06 @ 13:57:30
 Time Off Btm: 2013.06.06 @ 17:17:30

TEST COMMENT: IF: Weak blow , 3 in. over 30 mins.
 IS: No blow back
 FF: Weak blow , Died in 12 mins.
 FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1874.31	96.99	Initial Hydro-static
11	20.79	97.61	Open To Flow (1)
43	50.84	99.22	Shut-In(1)
102	1187.65	100.51	End Shut-In(1)
103	114.07	100.16	Open To Flow (2)
132	1191.19	100.83	Shut-In(2)
195	1230.91	101.43	End Shut-In(2)
200	1817.24	101.52	Final Hydro-static

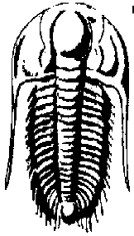
Recovery

Length (ft)	Description	Volume (bbl)
60.00	10/90 OCM 10% Oil 90% M	0.30
60.00	20/80 OCM 20% O 80% M	0.30

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling
 250 N. Water Ste 300
 Wichita KS 67202
 ATTN: Robert Hendrix

25 5s 26w Decatur, KS
Gassmann #1-25
 Job Ticket: 51138 **DST#: 4**
 Test Start: 2013.06.06 @ 12:15:00

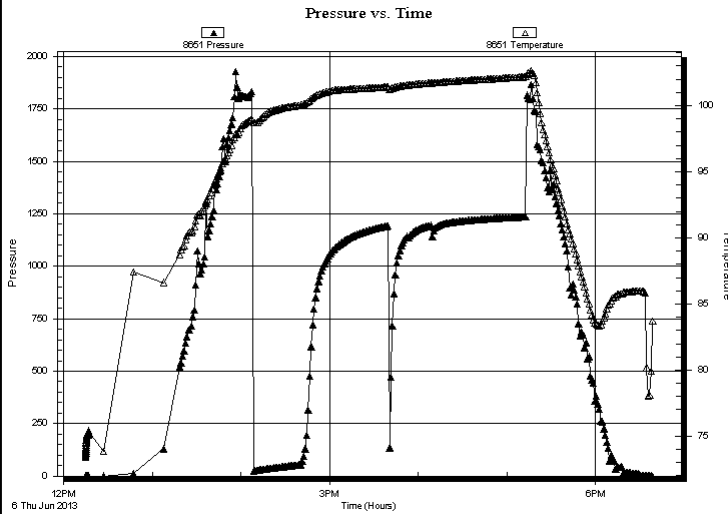
GENERAL INFORMATION:

Formation: **LKC-H,K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:08:30
 Time Test Ended: 18:39:00
 Interval: **3640.00 ft (KB) To 3715.00 ft (KB) (TVD)**
 Total Depth: 3715.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Kreuzer Jr.
 Unit No: 61
 Reference Elevations: 2469.00 ft (KB)
 2458.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8651 Outside

Press @ Run Depth: psig @ 3641.00 ft (KB)
 Start Date: 2013.06.06 End Date: 2013.06.06
 Start Time: 12:15:01 End Time: 18:39:00
 Capacity: 8000.00 psig
 Last Calib.: 2013.06.06
 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Weak blow, 3 in. over 30 mins.
 IS: No blow back
 FF: Weak blow, Died in 12 mins.
 FS: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	10/90 OCM 10% Oil 90% M	0.30
60.00	20/80 OCM 20% O 80% M	0.30

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling

25 5s 26w Decatur, KS

250 N. Water Ste 300
Wichita KS 67202

Gassmann #1-25

Job Ticket: 51138

DST#: 4

ATTN: Robert Hendrix

Test Start: 2013.06.06 @ 12:15:00

Tool Information

Drill Pipe:	Length: 3404.00 ft	Diameter: 3.88 inches	Volume: 49.78 bbl	Tool Weight: 26000.00 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: 65000.00 lb
			<u>Total Volume: 50.93 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3640.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	75.00 ft			
Tool Length:	103.00 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			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	8791	Inside	3641.00	
Recorder	0.00	8651	Outside	3641.00	
Perforations	1.00			3642.00	
change Over Sub	1.00			3643.00	
Drill Pipe	31.00			3674.00	
Change Over Sub	1.00			3675.00	
Perforations	37.00			3712.00	
Bullnose	3.00			3715.00	75.00 Bottom Packers & Anchor

Total Tool Length: 103.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling

25 5s 26w Decatur, KS

250 N. Water Ste 300
Wichita KS 67202

Gassmann #1-25

Job Ticket: 51138

DST#: 4

ATTN: Robert Hendrix

Test Start: 2013.06.06 @ 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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	10/90 OCM 10% Oil 90% M	0.295
60.00	20/80 OCM 20% O 80% M	0.295

Total Length: 120.00 ft

Total Volume: 0.590 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

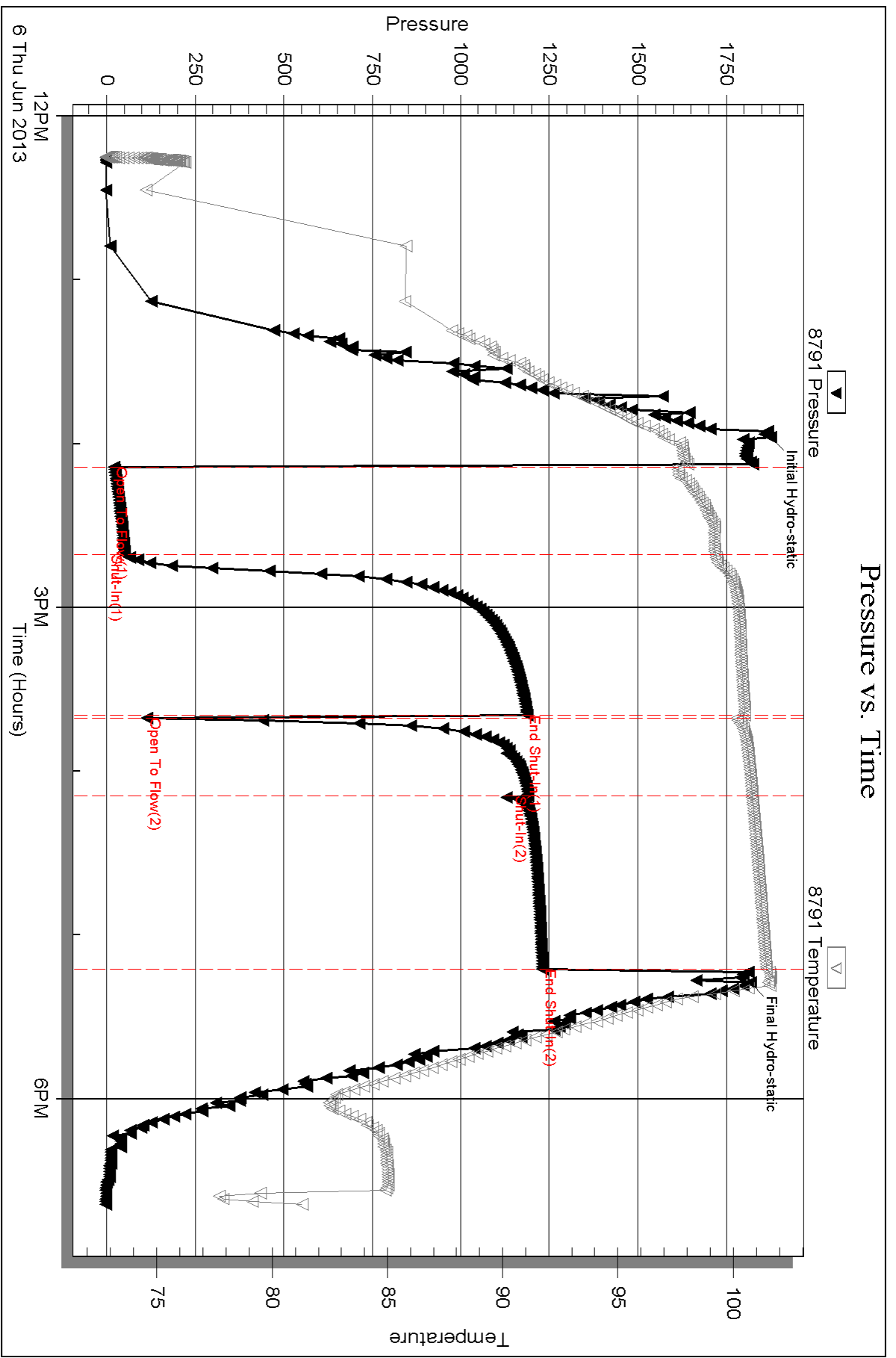
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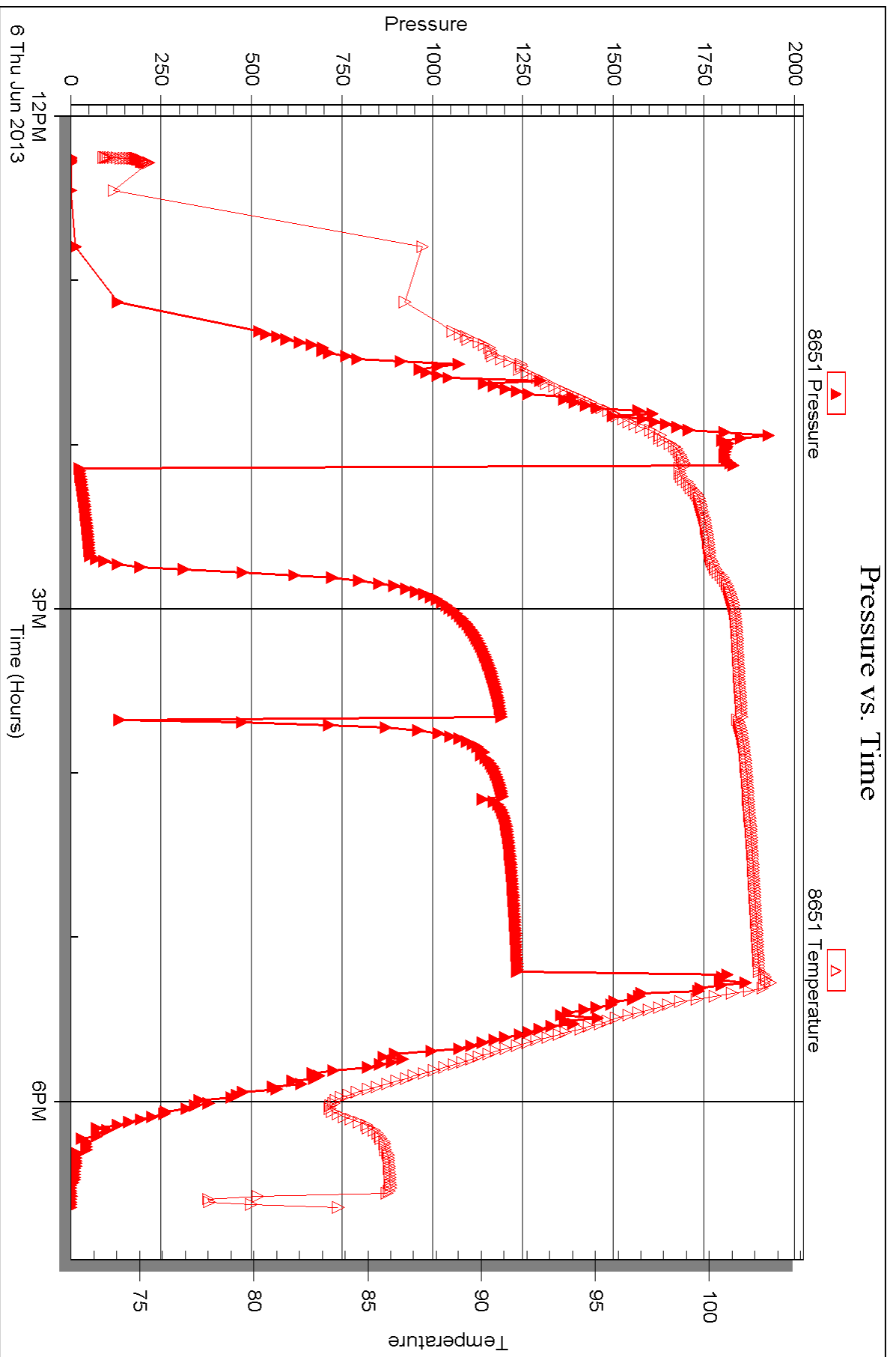
Inside

Murfin Drilling

Gassmann #1-25

DST Test Number: 4







DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Robert Hendrix

Gassmann #1-25

25 5s 26w Decatur,KS

Start Date: 2013.06.07 @ 01:00:00

End Date: 2013.06.07 @ 08:47:00

Job Ticket #: 51139 DST #: 5

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

Printed: 2013.06.11 @ 10:04:26



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling
 250 N. Water Ste 300
 Wichita KS 67202
 ATTN: Robert Hendrix

25 5s 26w Decatur, KS
Gassmann #1-25
 Job Ticket: 51139 **DST#: 5**
 Test Start: 2013.06.07 @ 01:00:00

GENERAL INFORMATION:

Formation: **LKC-K,L**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 02:57:00
 Time Test Ended: 08:47:00
 Interval: **3693.00 ft (KB) To 3735.00 ft (KB) (TVD)**
 Total Depth: 3735.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Kreuzer Jr.
 Unit No: 61
 Reference Elevations: 2469.00 ft (KB)
 2458.00 ft (CF)
 KB to GR/CF: 11.00 ft

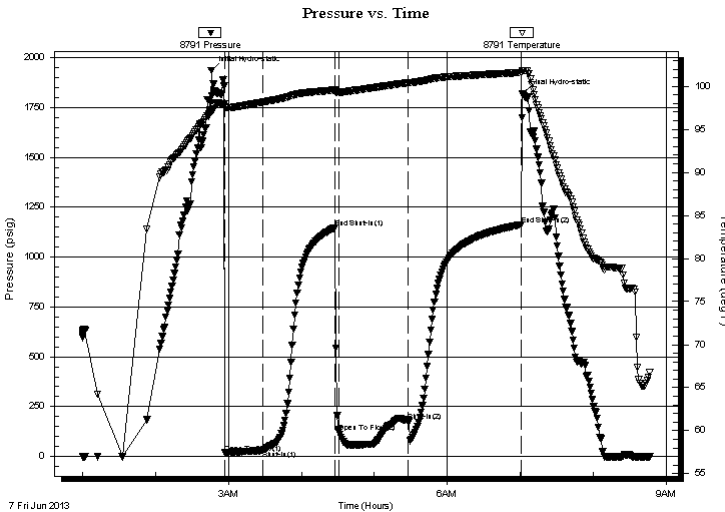
Serial #: 8791

Inside

Press @ Run Depth: 174.73 psig @ 3694.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.07 End Date: 2013.06.07 Last Calib.: 2013.06.07
 Start Time: 01:00:01 End Time: 08:47:00 Time On Btm: 2013.06.07 @ 02:46:00
 Time Off Btm: 2013.06.07 @ 07:02:00

TEST COMMENT: IF: Weak blow, Surface over 30 mins.
 IS: No blow back over 60 mins.
 FF: Weak blow, Built to 1 1/4 in. over 60 mins.
 FS: No blow back over 90 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1936.32	97.04	Initial Hydro-static
11	18.49	97.47	Open To Flow (1)
42	30.71	98.16	Shut-In(1)
102	1147.64	99.56	End Shut-In(1)
105	121.38	99.29	Open To Flow (2)
162	174.73	100.40	Shut-In(2)
255	1162.60	101.60	End Shut-In(2)
256	1819.96	101.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	gw cmo-20%g10%w 20%m50%o	0.59
0.00	180 ft. gas in pipe	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling

25 5s 26w Decatur, KS

250 N. Water Ste 300
Wichita KS 67202

Gassmann #1-25

Job Ticket: 51139

DST#: 5

ATTN: Robert Hendrix

Test Start: 2013.06.07 @ 01:00:00

GENERAL INFORMATION:

Formation: **LKC-K,L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:57:00

Time Test Ended: 08:47:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3693.00 ft (KB) To 3735.00 ft (KB) (TVD)

Reference Elevations: 2469.00 ft (KB)

Total Depth: 3735.00 ft (KB) (TVD)

2458.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8651

Outside

Press @ Run Depth: psig @ 3694.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.06.07

End Date:

2013.06.07

Last Calib.:

2013.06.07

Start Time: 01:00:01

End Time:

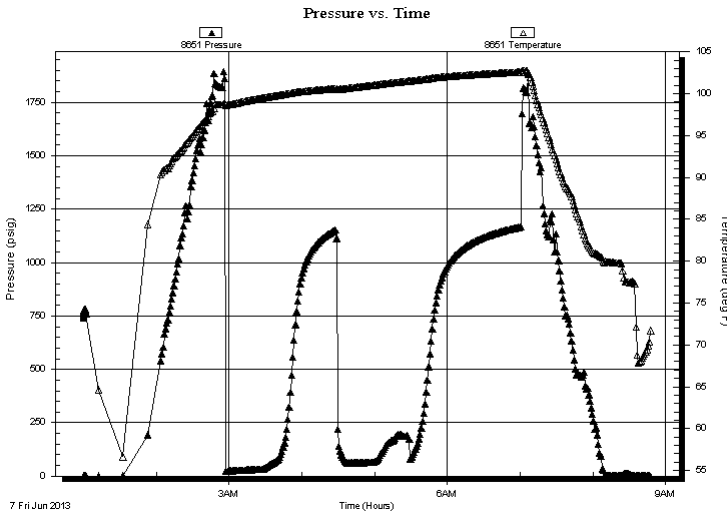
08:47:30

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Weak blow, Surface over 30 mins.
IS: No blow back over 60 mins.
FF: Weak blow, Built to 1 1/4 in. over 60 mins.
FS: No blow back over 90 mins.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
120.00	gw cmo-20%g10%w 20%m50%o	0.59
0.00	180 ft. gas in pipe	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling

25 5s 26w Decatur, KS

250 N. Water Ste 300
Wichita KS 67202

Gassmann #1-25

Job Ticket: 51139

DST#: 5

ATTN: Robert Hendrix

Test Start: 2013.06.07 @ 01:00:00

Tool Information

Drill Pipe:	Length: 3437.00 ft	Diameter: 3.88 inches	Volume: 50.26 bbl	Tool Weight: 26000.00 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: 65000.00 lb
			<u>Total Volume: 51.41 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3693.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	42.00 ft			
Tool Length:	70.00 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			3670.00	
Hydraulic tool	5.00			3675.00	
Jars	5.00			3680.00	
Safety Joint	3.00			3683.00	
Packer	5.00			3688.00	28.00 Bottom Of Top Packer
Packer	5.00			3693.00	
Stubb	1.00			3694.00	
Recorder	0.00	8791	Inside	3694.00	
Recorder	0.00	8651	Outside	3694.00	
Perforations	1.00			3695.00	
Perforations	37.00			3732.00	
Bullnose	3.00			3735.00	42.00 Bottom Packers & Anchor

Total Tool Length: 70.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling

25 5s 26w Decatur, KS

250 N. Water Ste 300
Wichita KS 67202

Gassmann #1-25

Job Ticket: 51139

DST#: 5

ATTN: Robert Hendrix

Test Start: 2013.06.07 @ 01:00:00

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	gw cmo-20%g10%w 20%m50%o	0.590
0.00	180 ft. gas in pipe	0.000

Total Length: 120.00 ft Total Volume: 0.590 bbl

Num Fluid Samples: 0

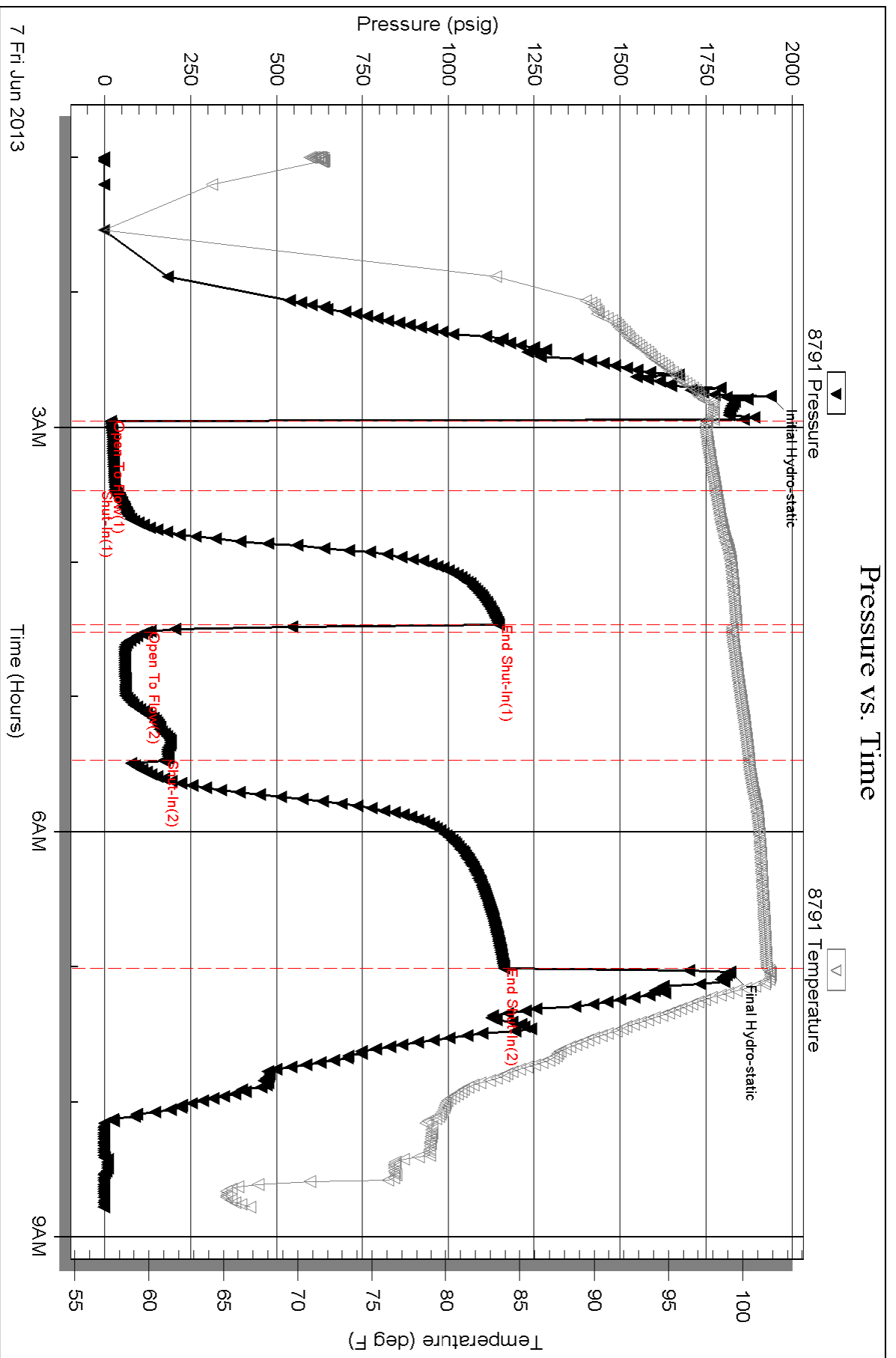
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

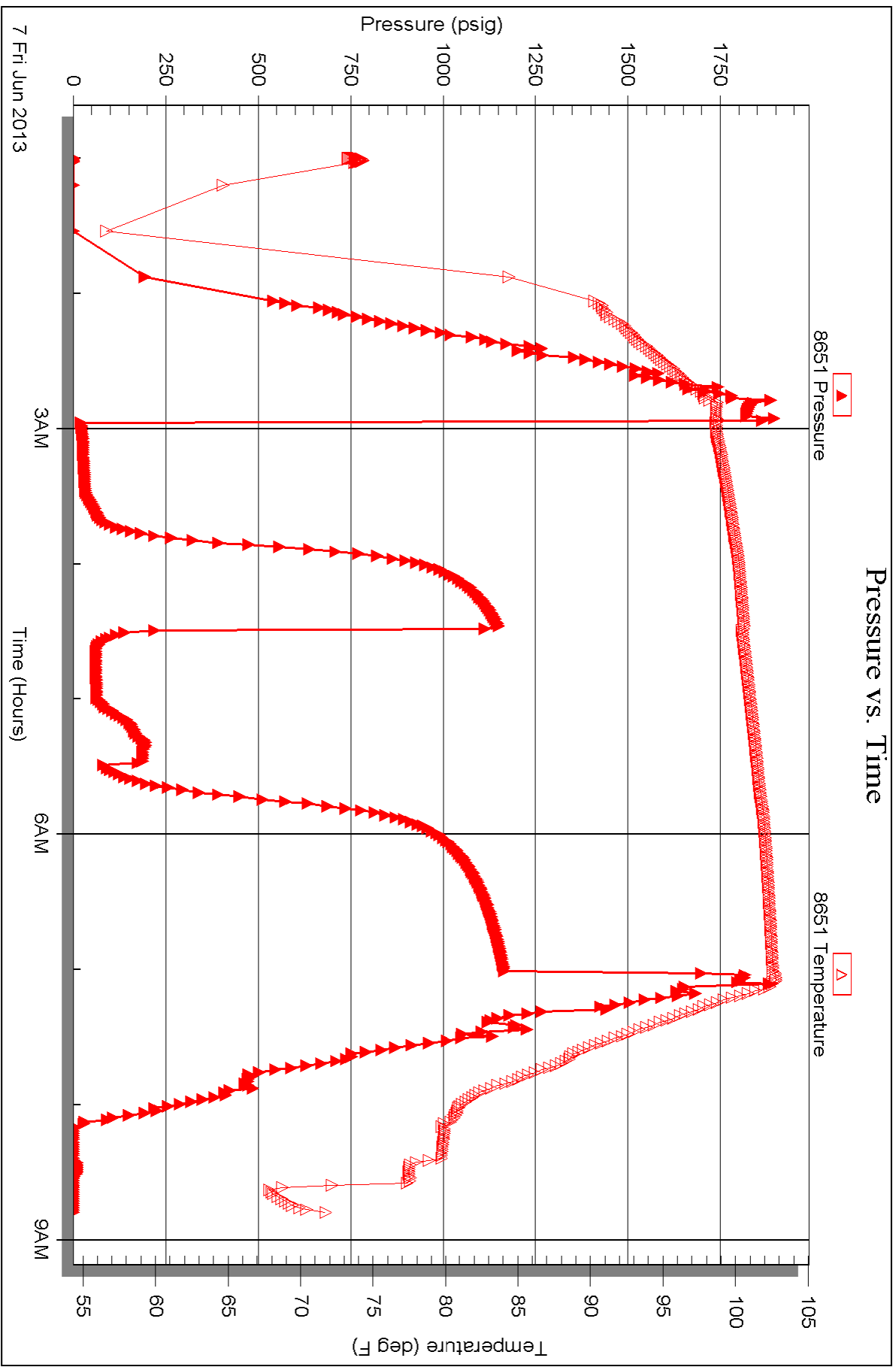


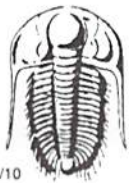
Serial #: 8651

Outside Murfin Drilling

Gassmann #1-25

DST Test Number: 5





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51135

4/10

Well Name & No. Gassmann # 1-25 Test No. 1 Date 6-4-2013
 Company MurFin Drilling Co. Elevation 2469 KB 2458 GL
 Address 250 N. Water Ste 300 Wichita KS
 Co. Rep / Geo. Robert Hendrix Rig MurFin #2
 Location: Sec. 25 Twp. 5S Rge. 26W Co. Decatur State KS

Interval Tested 3500 3553 Zone Tested Toronto - LRC-A
 Anchor Length 53 Drill Pipe Run 3249 Mud Wt. 9.1
 Top Packer Depth 3495 Drill Collars Run 234 Vis 57
 Bottom Packer Depth 3500 Wt. Pipe Run -0- WL 5.2
 Total Depth 3553 Chlorides 800 ppm System LCM 0

Blow Description IF! Fair blow, Built to B.O.B in 10 mins.
ISF! NO blow back

FF: Fair blow, Built to B.O.B in 15 mins.

FSF! NO blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>WCM</u>			<u>20</u>	<u>80</u>
<u>120</u>	<u>MCW</u>			<u>70</u>	<u>30</u>
<u>240</u>	<u>MCW</u>			<u>90</u>	<u>10</u>

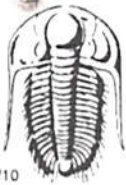
Rec Total 480 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides 90,000 ppm

(A) Initial Hydrostatic <u>1771</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>9:30</u>
(B) First Initial Flow <u>53</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>10:20</u>
(C) First Final Flow <u>164</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>12:47</u>
(D) Initial Shut-In <u>1044</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>16:45</u>
(E) Second Initial Flow <u>783</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>18:16</u>
(F) Second Final Flow <u>271</u>	<input checked="" type="checkbox"/> Mileage <u>50X2 = 100X1.55 = 155</u>	Comments _____
(G) Final Shut-In <u>977</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1689</u>	<input type="checkbox"/> Straddle _____	

Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility _____	Total <u>1630</u>
	Sub Total <u>1630</u>	MP/DST Disc't _____

Approved By _____ Our Representative Chuck King

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. 51136

4/10

Well Name & No. Gassmann # 125 Test No. 2 Date 6-5-2013
 Company Murfin Drilling Co. Elevation 2469 KB 2458 GL
 Address 250. N. water st. 300 Wichita Ks
 Co. Rep / Geo. Robert Hadrix Rig Murfin #2
 Location: Sec. 25 Twp. SS Rge. 26 W Co. Decatur State Ks

Interval Tested 3556 3587 Zone Tested LKC B-0
 Anchor Length 31 Drill Pipe Run 3310 Mud Wt. 9.1
 Top Packer Depth 3551 Drill Collars Run 234 Vis 57
 Bottom Packer Depth 3556 Wt. Pipe Run -0- WL 5.2
 Total Depth 3587 Chlorides 800 ppm System LCM 0

Blow Description IF: Weak blow 0:ed in 2mts.
ISI: No blow back
FF: Flushed tool with Blow Dead in 20secs.
FSE No blow back

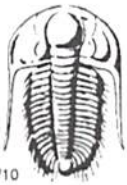
Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>Mud</u>				<u>100</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 25 BHT 160 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1804</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>215</u>
(B) First Initial Flow <u>15</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>222</u>
(C) First Final Flow <u>22</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>4:01</u>
(D) Initial Shut-In <u>1108</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>7:10</u>
(E) Second Initial Flow <u>20</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>8:58</u>
(F) Second Final Flow <u>25</u>	<input checked="" type="checkbox"/> Mileage <u>50x2=100x155</u> 155	Comments _____
(G) Final Shut-In <u>990</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1725</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1630</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1630</u>	

Approved By _____ Our Representative [Signature]

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. 51137

4/10

Well Name & No. Gassmann # 1-25 Test No. 3 Date 6-5-2013
 Company Murfin Drilling Elevation 2469 KB 2458 GL
 Address 250 N. Water ste 300 Wichita Ks.
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 25 Twp. 5S Rge. 26W Co. DeCATur State KS

Interval Tested 3593 3630 Zone Tested LKC-
 Anchor Length 39 Drill Pipe Run 3347 Mud Wt. 9.1
 Top Packer Depth 3588 Drill Collars Run 234 Vis 6.6
 Bottom Packer Depth 3593 Wt. Pipe Run - 0 WL 6.4
 Total Depth 3632 Chlorides 2,200 ppm System LCM 4#

Blow Description IF: Weak blow, bit 14 2 in over 30
FSI: No blow back

FF: Weak blow 5 in. over 60 mts.

FSI: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>200</u>	<u>mud</u>				

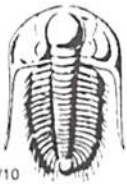
Rec Total 200 BHT 103 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1832 Test 1150 T-On Location 17:00
 (B) First Initial Flow 17 Jars 250 T-Started 17:20
 (C) First Final Flow 62 Safety Joint 75 T-Open 19:32
 (D) Initial Shut-In 1083 Circ Sub _____ T-Pulled 23:35
 (E) Second Initial Flow 54 Hourly Standby _____ T-Out 1:06
 (F) Second Final Flow 121 Mileage 50x2 = 100x1.55 155 Comments _____
 (G) Final Shut-In 1054 Sampler _____
 (H) Final Hydrostatic 1760 Straddle _____
 Shale Packer _____
 Ruined Shale Packer _____

Initial Open 30 Extra Packer _____ Ruined Packer _____
 Initial Shut-In 60 Extra Recorder _____ Sub Total 0
 Final Flow 60 Day Standby _____ Total 1630
 Final Shut-In 40 Accessibility _____ MP/DST Disc't _____
 Sub Total 1630

Approved By _____ Our Representative [Signature]

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. 51138

4/10

Well Name & No. Gassman # 1-25 Test No. 4 Date 6-6-2013
 Company Murfin Drilling Co. Elevation 2464 KB 2458 GL
 Address 250 N. water ste. 300 Wichita Ks.
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 25 Twp. 5S Rge. 26W Co. Decatur State Ks.

Interval Tested 3640 3715 Zone Tested LKC-H-K
 Anchor Length 75 Drill Pipe Run 3404 Mud Wt. 9.1
 Top Packer Depth 3635 Drill Collars Run 234 Vis 57
 Bottom Packer Depth 3640 Wt. Pipe Run -0- WL 5.2
 Total Depth 3715 Chlorides 2,200 ppm System LCM #4

Blow Description IF: Weak blow, Built to 3 in. over 30 mins.
 ISF: No blow back

FF: Weak blow Dried in 12 mins

FSF: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>OCM</u>	<u>20</u>	<u>80</u>	<u>0</u>	<u>0</u>
<u>60</u>	<u>OCM</u>	<u>10</u>	<u>90</u>	<u>0</u>	<u>0</u>

Rec Total 120 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1874 Test 950 T-On Location 12:13
 (B) First Initial Flow 21 Jars 250 T-Started 12:15
 (C) First Final Flow 51 Safety Joint 75 T-Open 14:08
 (D) Initial Shut-In 1188 Circ Sub _____ T-Pulled 17:20
 (E) Second Initial Flow 114 Hourly Standby _____ T-Out 18:39
 (F) Second Final Flow 1141 Mileage 50x2 = 100x1.55 = 155 Comments _____
 (G) Final Shut-In 1231 Sampler _____
 (H) Final Hydrostatic 1817 Straddle _____

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30 Extra Packer _____
 Initial Shut-In 60 Extra Recorder _____ Sub Total 0
 Final Flow 30 Day Standby _____ Total 1430
 Final Shut-In 60 Accessibility _____ MP/DST Disc't _____
 Sub Total 1430

Approved By _____ Our Representative Chris Skye

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51139

Well Name & No. Gassman #1-25 Test No. 5 Date 6-7-2013
 Company Murfin Drilling Co. Elevation 2469 KB 2458 GL
 Address 250 N. Water St. 300 Wichita Ks.
 Co. Rep / Geo. Robert Hatrix Rig Murfin #2
 Location: Sec. 25 Twp. 5S Rge. 26W Co. Decatur State Ks.

Interval Tested 3693 3735 Zone Tested LKC R-2
 Anchor Length 42 Drill Pipe Run 3437 Mud Wt. 9.1
 Top Packer Depth 3688 Drill Collars Run 234 Vis 57
 Bottom Packer Depth 3693 Wt. Pipe Run - 0 - WL 5.2
 Total Depth 3735 Chlorides 2,200 ppm System LCM 4#

Blow Description IF: Weak blow, Surface over 30 mins.
IS: No blow back
FF: Weak blow after 5 mins Built to 1 1/2 in. over 60 mins.
FS: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	<u>180 ft gas in pipe</u>				
<u>120</u>	<u>gwcmo</u>	<u>20</u>	<u>50</u>	<u>10</u>	<u>20</u>

Rec Total 120 BHT 100 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1936</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>00:40</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0:00</u>
(C) First Final Flow <u>31</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2:57</u>
(D) Initial Shut-In <u>1148</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>7:00</u>
(E) Second Initial Flow <u>121</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>8:47</u>
(F) Second Final Flow <u>175</u>	<input checked="" type="checkbox"/> Mileage <u>50x2 = 100x1.55</u> <u>155</u>	Comments _____
(G) Final Shut-In <u>1163</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1820</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1630</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1630</u>	

Approved By _____ Our Representative Chad Hays

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