



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202-1216

ATTN: Rocky Milford

Ruder A #3-1

1-11s-24w Trego,KS

Start Date: 2013.06.21 @ 17:27:51

End Date: 2013.06.22 @ 01:38:21

Job Ticket #: 53871 DST #: 1

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

Printed: 2013.06.28 @ 09:19:39

Murfin Drilling Co Inc
1-11s-24w Trego,KS
Ruder A #3-1
DST # 1
LKC A-D
2013.06.21



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Rocky Milford

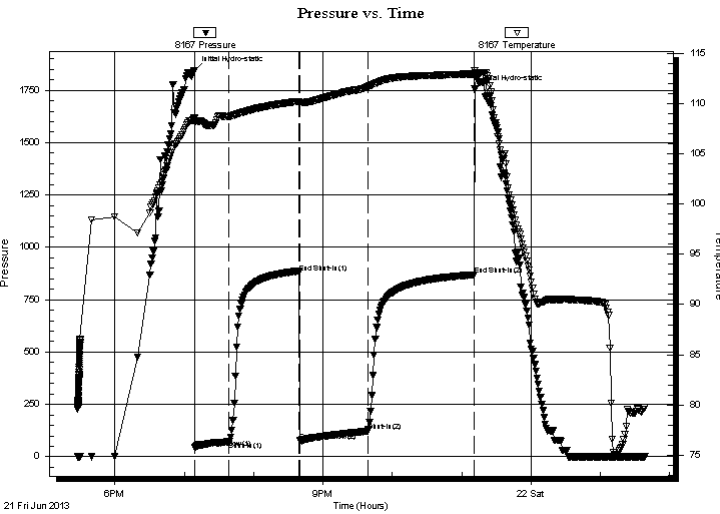
1-11s-24w Trego,KS
Ruder A #3-1
Job Ticket: 53871 **DST#: 1**
Test Start: 2013.06.21 @ 17:27:51

GENERAL INFORMATION:

Formation: **LKC A-D**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 19:09:21
Time Test Ended: 01:38:21
Interval: **3649.00 ft (KB) To 3720.00 ft (KB) (TVD)**
Total Depth: 3720.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Initial)
Tester: Jeff Brown
Unit No: 67
Reference Elevations: 2303.00 ft (KB)
2298.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8167 Inside
Press @ Run Depth: 122.55 psig @ 3688.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.06.21 End Date: 2013.06.22 Last Calib.: 2013.06.22
Start Time: 17:27:52 End Time: 01:38:21 Time On Btm: 2013.06.21 @ 19:08:51
Time Off Btm: 2013.06.21 @ 23:11:21

TEST COMMENT: IFP=Good blow BOB in 19 min
ISI=Weak blow built to 1 1/8" Died back to a surface blow
FFP=Good blow BOB in 9 min
FSI=Weak blow back built to 2 1/2" died back to 1 1/2"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1844.68	108.53	Initial Hydro-static
1	42.53	108.18	Open To Flow (1)
30	72.91	108.71	Shut-In(1)
91	879.08	110.20	End Shut-In(1)
91	75.61	110.05	Open To Flow (2)
150	122.55	111.64	Shut-In(2)
242	869.12	112.93	End Shut-In(2)
243	1754.92	113.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
61.00	OCGWM 15%G 15%O 10%W 60%M	0.59
63.00	OCGM 15%G 15%O 70%M	0.88
94.00	Gassy Oil 20%G 80%O	1.32
0.00	661=GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Rocky Milford

1-11s-24w Trego,KS
Ruder A #3-1
Job Ticket: 53871 **DST#: 1**
Test Start: 2013.06.21 @ 17:27:51

Tool Information

Drill Pipe:	Length: 3614.00 ft	Diameter: 3.80 inches	Volume: 50.69 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 64000.00 lb
			<u>Total Volume: 50.83 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3649.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	71.00 ft			
Tool Length:	99.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3622.00	
Shut In Tool	5.00			3627.00	
Hydraulic tool	5.00			3632.00	
Jars	5.00			3637.00	
Safety Joint	3.00			3640.00	
Packer	4.00			3644.00	28.00 Bottom Of Top Packer
Packer	5.00			3649.00	
Stubb	1.00			3650.00	
Perforations	5.00			3655.00	
Change Over Sub	1.00			3656.00	
Drill Pipe	31.00			3687.00	
Change Over Sub	1.00			3688.00	
Recorder	0.00	6625	Outside	3688.00	
Recorder	0.00	8167	Inside	3688.00	
Perforations	29.00			3717.00	
Bullnose	3.00			3720.00	71.00 Bottom Packers & Anchor
Total Tool Length:	99.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Rocky Milford

1-11s-24w Trego,KS
Ruder A #3-1
Job Ticket: 53871 **DST#: 1**
Test Start: 2013.06.21 @ 17:27:51

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 29 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.58 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 3200.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
61.00	OCGWM 15%G 15%O 10%W 60%M	0.591
63.00	OCGM 15%G 15%O 70%M	0.884
94.00	Gassy Oil 20%G 80%O	1.319
0.00	661=GIP	0.000

Total Length: 218.00 ft Total Volume: 2.794 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

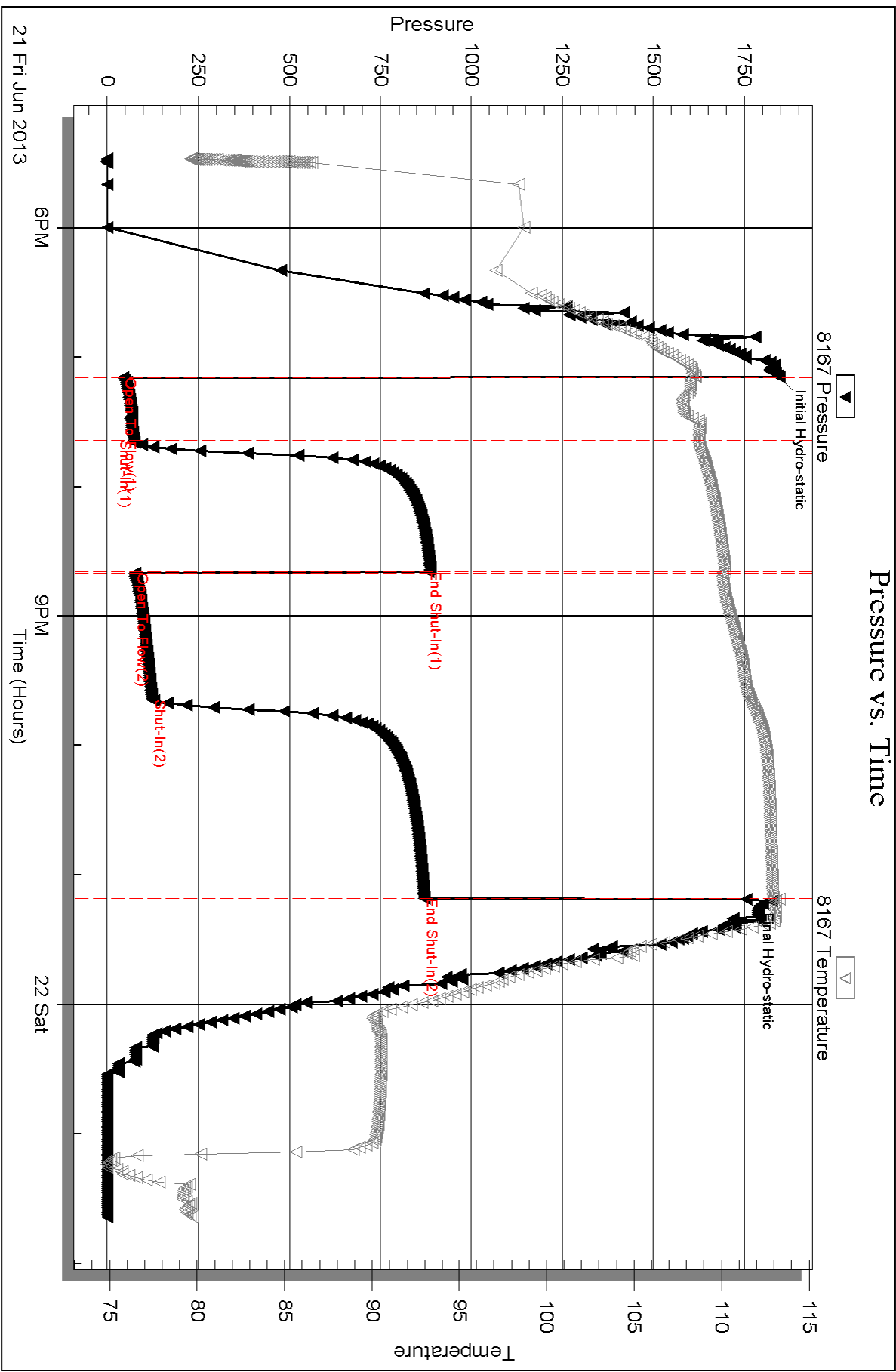
Serial #: 8167

Inside

Murfin Drilling Co Inc

Ruder A#3-1

DST Test Number: 1

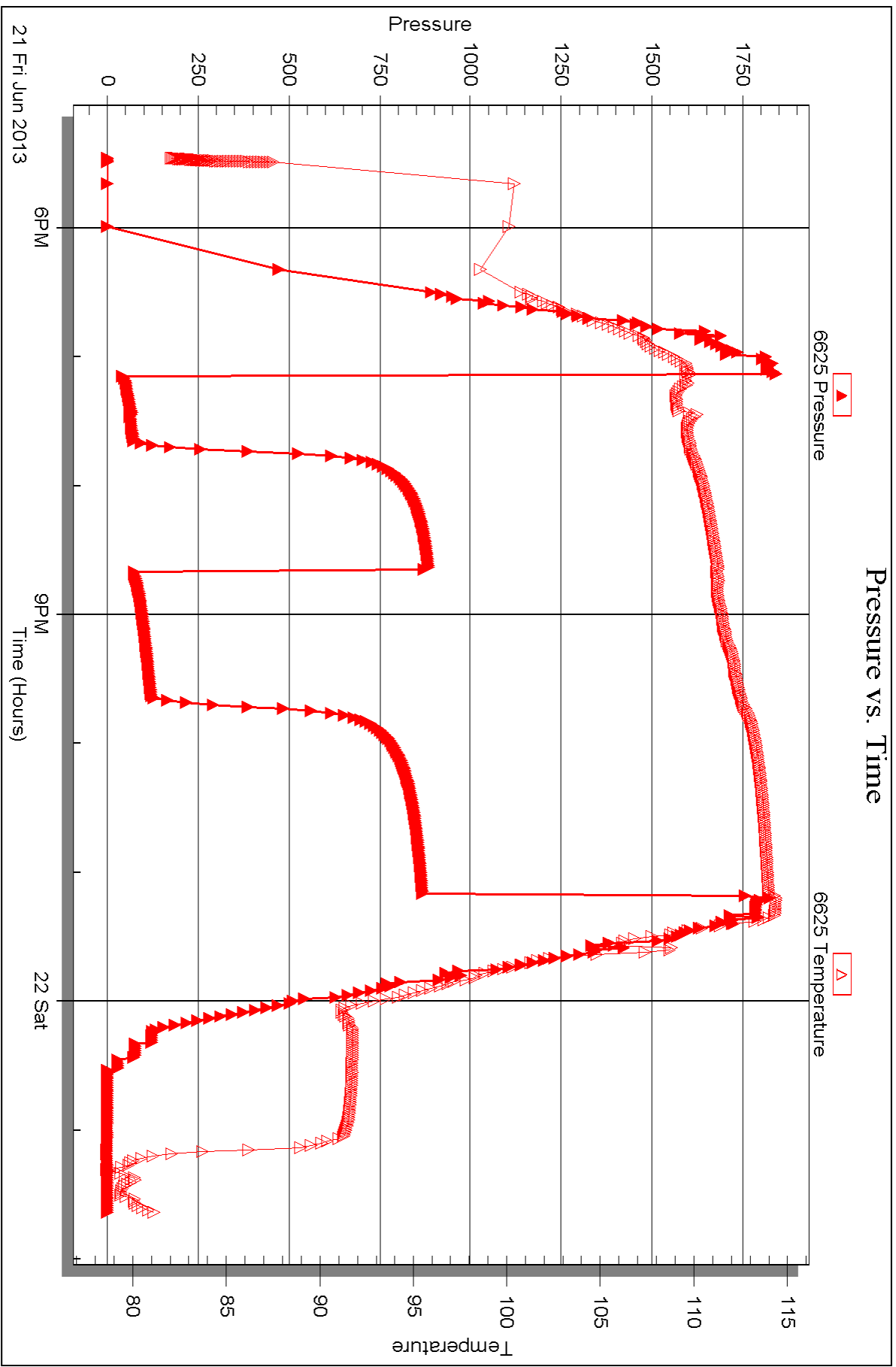


Serial #: 6625

Outside Murfin Drilling Co Inc

Ruder A#3-1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202-1216

ATTN: Rocky Milford

Ruder A #3-1

1-11s-24w Trego,KS

Start Date: 2013.06.22 @ 09:00:19

End Date: 2013.06.22 @ 16:20:19

Job Ticket #: 53872 DST #: 2

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

Printed: 2013.06.28 @ 09:18:57



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water Ste 300
 Wichita KS 67202-1216
 ATTN: Rocky Milford

1-11s-24w Trego,KS
Ruder A #3-1
 Job Ticket: 53872 **DST#: 2**
 Test Start: 2013.06.22 @ 09:00:19

GENERAL INFORMATION:

Formation: **LKC E-F**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:42:19
 Time Test Ended: 16:20:19
 Interval: **3718.00 ft (KB) To 3748.00 ft (KB) (TVD)**
 Total Depth: 3748.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jeff Brown
 Unit No: 67
 Reference Elevations: 2303.00 ft (KB)
 2298.00 ft (CF)
 KB to GR/CF: 5.00 ft

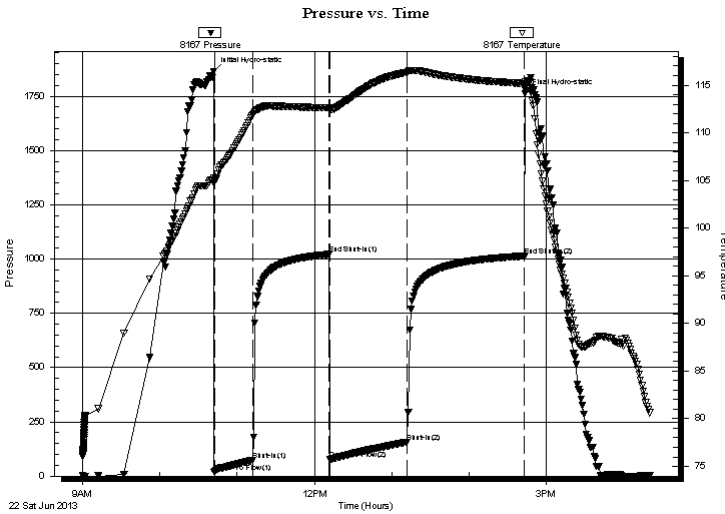
Serial #: 8167

Inside

Press @ Run Depth: 157.08 psig @ 3721.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.22 End Date: 2013.06.22 Last Calib.: 2013.06.22
 Start Time: 09:00:20 End Time: 16:20:19 Time On Btm: 2013.06.22 @ 10:41:49
 Time Off Btm: 2013.06.22 @ 14:43:19

TEST COMMENT: IFP=Good blow BOB in 25 min
 ISI=Dead no blow back
 FFP=Good blow BOB in 29 min
 FSI=Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1864.52	105.30	Initial Hydro-static
1	16.77	104.74	Open To Flow (1)
31	73.53	111.84	Shut-In(1)
90	1021.84	112.61	End Shut-In(1)
90	78.35	112.32	Open To Flow (2)
150	157.08	116.35	Shut-In(2)
241	1012.88	115.16	End Shut-In(2)
242	1763.01	115.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
303.00	MW with oil spots 30%M 70%W	3.99

* 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 Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Rocky Milford

1-11s-24w Trego,KS
Ruder A #3-1
Job Ticket: 53872 **DST#: 2**
Test Start: 2013.06.22 @ 09:00:19

Tool Information

Drill Pipe:	Length: 3677.00 ft	Diameter: 3.80 inches	Volume: 51.58 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose:	69000.00 lb
			<u>Total Volume: 51.72 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial	57000.00 lb
Depth to Top Packer:	3718.00 ft			Final	59000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	30.00 ft				
Tool Length:	50.00 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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Change Over Sub	1.00			3699.00	
Shut In Tool	5.00			3704.00	
Hydraulic tool	5.00			3709.00	
Packer	4.00			3713.00	20.00 Bottom Of Top Packer
Packer	5.00			3718.00	
Stubb	1.00			3719.00	
Perforations	2.00			3721.00	
Recorder	0.00	6625	Outside	3721.00	
Recorder	0.00	8167	Inside	3721.00	
Perforations	24.00			3745.00	
Bullnose	3.00			3748.00	30.00 Bottom Packers & Anchor

Total Tool Length: 50.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Rocky Milford

1-11s-24w Trego,KS
Ruder A #3-1
Job Ticket: 53872 **DST#: 2**
Test Start: 2013.06.22 @ 09:00:19

Mud and Cushion Information

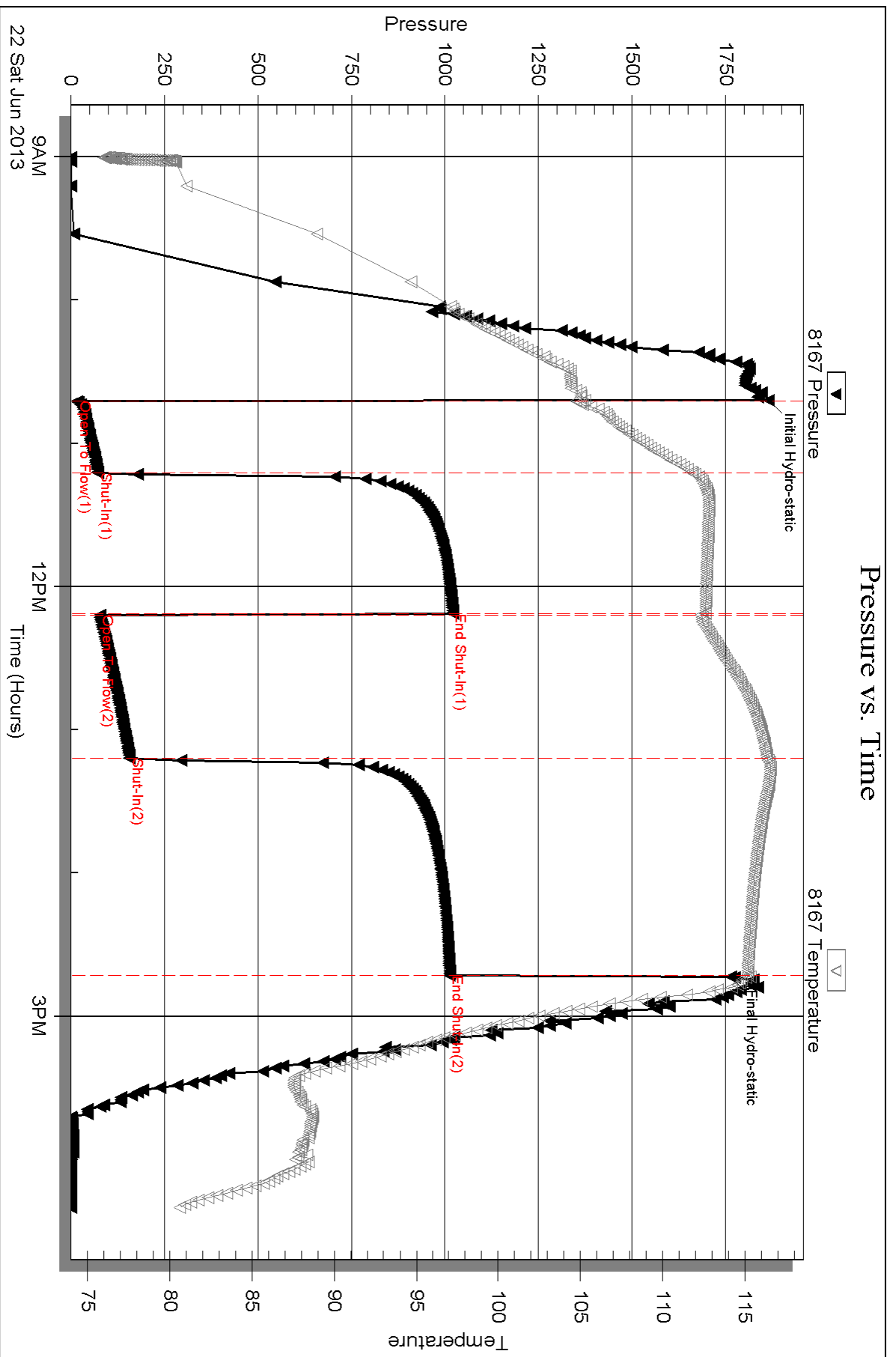
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.57 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3200.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
303.00	MW w ith oil spots 30%M 70%W	3.986

Total Length: 303.00 ft Total Volume: 3.986 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

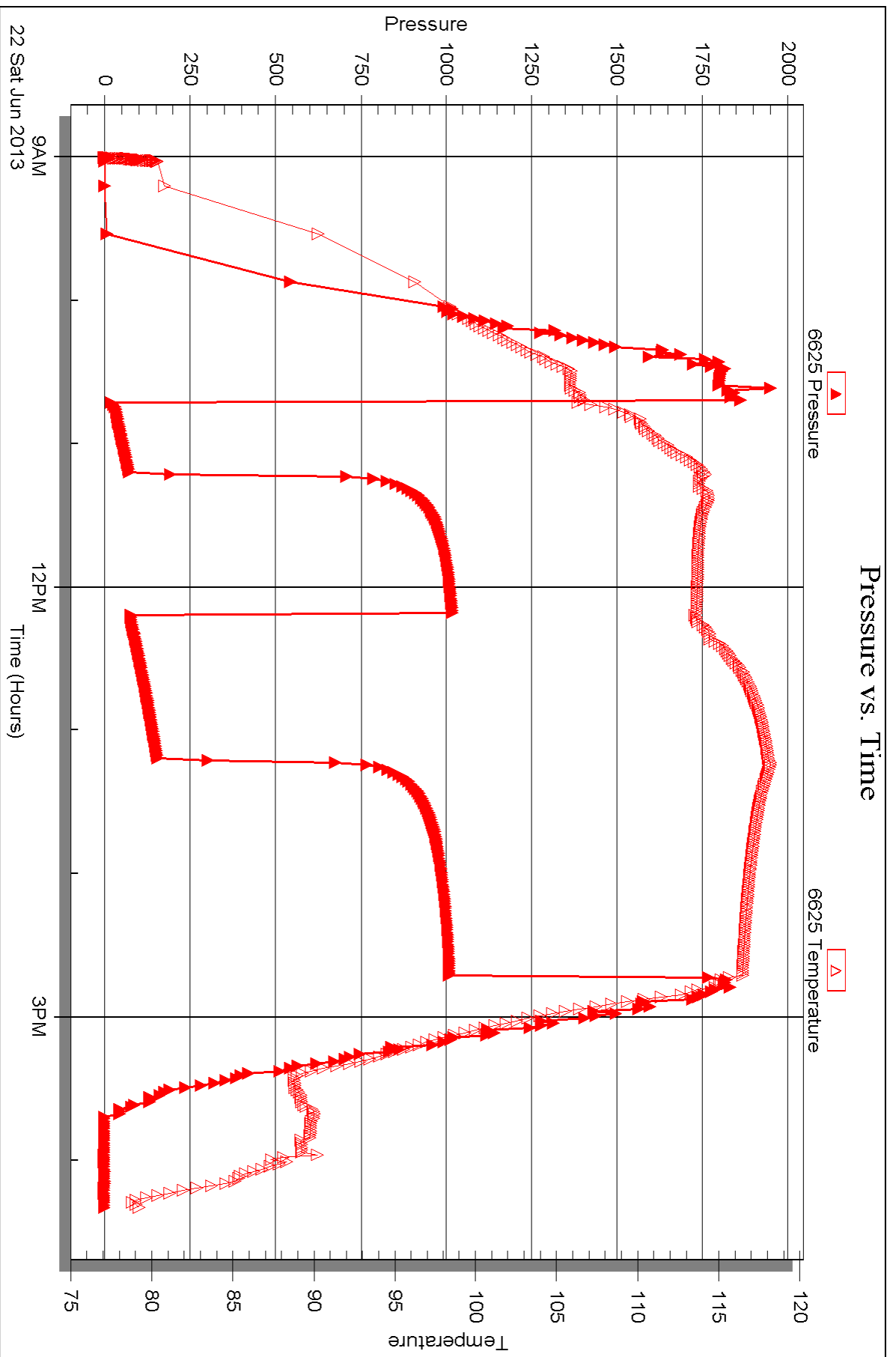


Serial #: 6625

Outside Murfin Drilling Co Inc

Ruder A#3-1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202-1216

ATTN: Rocky Milford

Ruder A #3-1

1-11s-24w Trego,KS

Start Date: 2013.06.23 @ 06:57:34

End Date: 2013.06.23 @ 14:48:31

Job Ticket #: 53873 DST #: 3

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

Printed: 2013.06.28 @ 09:18:17



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water Ste 300
 Wichita KS 67202-1216
 ATTN: Rocky Milford

1-11s-24w Trego,KS
Ruder A #3-1
 Job Ticket: 53873 **DST#: 3**
 Test Start: 2013.06.23 @ 06:57:34

GENERAL INFORMATION:

Formation: **LKC H-K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:48:31
 Time Test Ended: 14:48:31
 Interval: **3777.00 ft (KB) To 3870.00 ft (KB) (TVD)**
 Total Depth: 3870.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jeff Brown
 Unit No: 67
 Reference Elevations: 2303.00 ft (KB)
 2298.00 ft (CF)
 KB to GR/CF: 5.00 ft

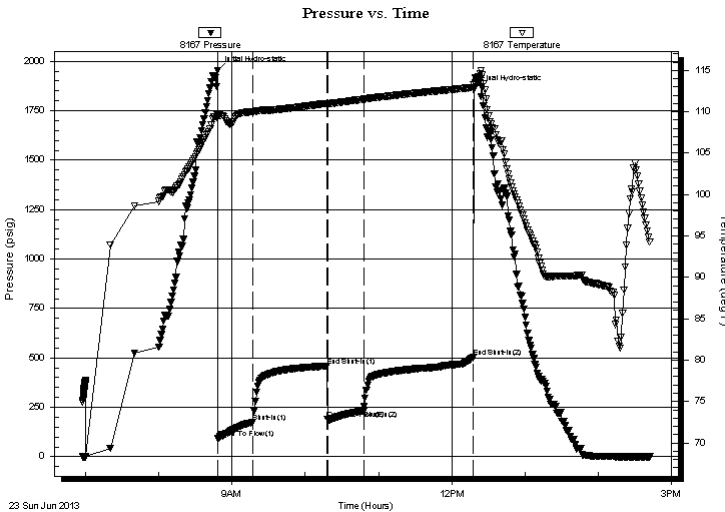
Serial #: 8167

Inside

Press @ Run Depth: 233.65 psig @ 3847.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.23 End Date: 2013.06.23 Last Calib.: 2013.06.23
 Start Time: 06:57:35 End Time: 14:42:30 Time On Btm: 2013.06.23 @ 08:48:01
 Time Off Btm: 2013.06.23 @ 12:18:01

TEST COMMENT: IFP=Strong blow BOB in 3 min
 ISI=Weak blow back built to 2 3/4" died back to 2"
 FFP=Strong Blow BOB in 4 min
 FSI=Good blow back BOB in 40 min

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1953.67	109.68	Initial Hydro-static
1	94.04	109.42	Open To Flow (1)
29	173.78	110.00	Shut-In(1)
90	458.60	111.01	End Shut-In(1)
90	189.77	110.95	Open To Flow (2)
120	233.65	111.50	Shut-In(2)
210	501.82	112.93	End Shut-In(2)
211	1858.81	113.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
497.00	GMO 50%G 35%O 15%M	6.71
0.00	1107' GIP	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 Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Rocky Milford

1-11s-24w Trego,KS
Ruder A #3-1
Job Ticket: 53873 **DST#: 3**
Test Start: 2013.06.23 @ 06:57:34

Tool Information

Drill Pipe:	Length: 3741.00 ft	Diameter: 3.80 inches	Volume: 52.48 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 69000.00 lb
			<u>Total Volume: 52.62 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3777.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	93.00 ft			
Tool Length:	121.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3750.00	
Shut In Tool	5.00			3755.00	
Hydraulic tool	5.00			3760.00	
Jars	5.00			3765.00	
Safety Joint	3.00			3768.00	
Packer	4.00			3772.00	28.00 Bottom Of Top Packer
Packer	5.00			3777.00	
Stubb	1.00			3778.00	
Perforations	4.00			3782.00	
Change Over Sub	1.00			3783.00	
Drill Pipe	63.00			3846.00	
Change Over Sub	1.00			3847.00	
Recorder	0.00	6625	Outside	3847.00	
Recorder	0.00	8167	Inside	3847.00	
Perforations	20.00			3867.00	
Bullnose	3.00			3870.00	93.00 Bottom Packers & Anchor
Total Tool Length:	121.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Rocky Milford

1-11s-24w Trego,KS
Ruder A #3-1
Job Ticket: 53873 **DST#: 3**
Test Start: 2013.06.23 @ 06:57:34

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: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.58 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2900.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
497.00	GMO 50%G 35%O 15%M	6.707
0.00	1107' GIP	0.000

Total Length: 497.00 ft Total Volume: 6.707 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

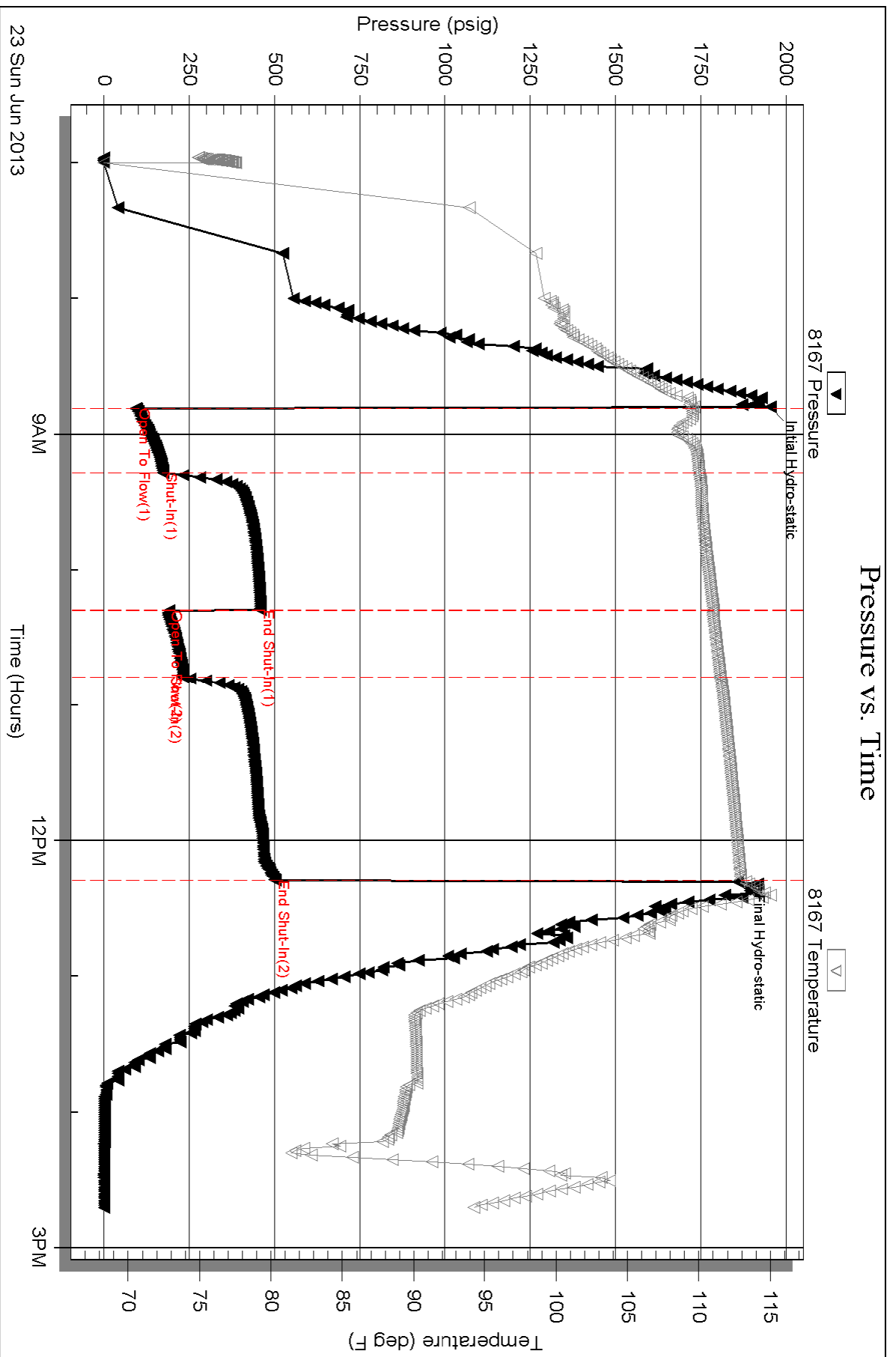
Serial #: 8167

Inside

Murfin Drilling Co Inc

Ruder A#3-1

DST Test Number: 3

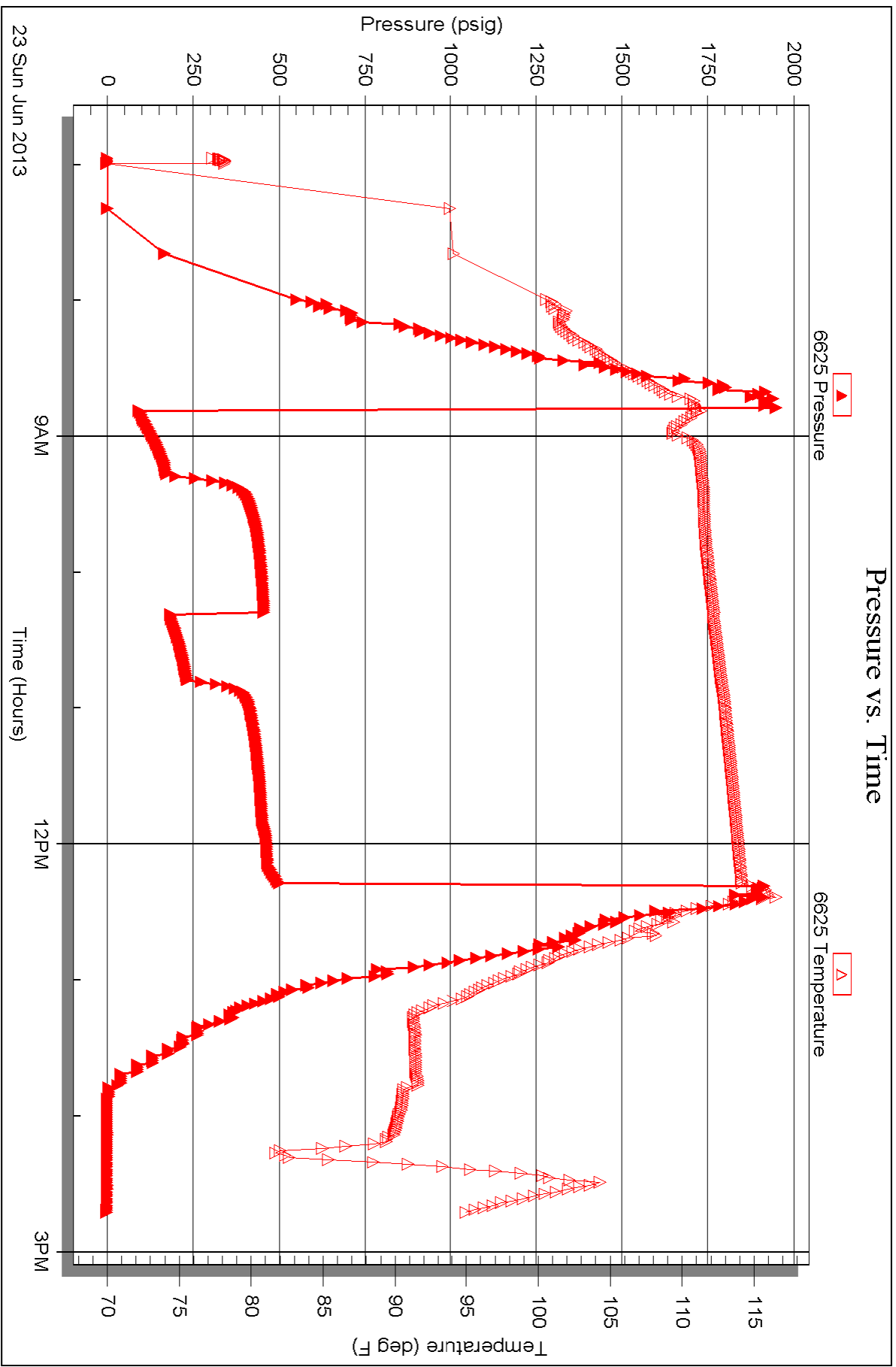


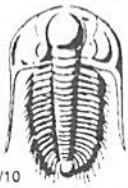
Serial #: 6625

Outside Murfin Drilling Co Inc

Ruder A #3-1

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53871

Well Name & No. Ruder 'A' #3-1 Test No. 1 Date 6-21-13
 Company Murfin Drilling Co Inc Elevation 2303 KB 2298 GL
 Address 250 N WATER STE 300 WICHITA KS 67202 + 1216
 Co. Rep / Geo. Rocky M: Ford Rig Murfin #16
 Location: Sec. 1 Twp. 11S Rge. 24W Co. Trego State KS

Interval Tested 3649 - 3720 Zone Tested LANS A-D
 Anchor Length 71 Drill Pipe Run 3614 Mud Wt. 9.1
 Top Packer Depth 3644 Drill Collars Run 29 Vis 50
 Bottom Packer Depth 3649 Wt. Pipe Run 0 WL 7.6
 Total Depth 3720 Chlorides 3200 ppm System LCM 0

Blow Description IP - Good Blow BOB IN 19 min
BT - Weak Blow Back TO 1 1/8 IN Died back TO 9 Surface Blow
FP - Good Blow BOB IN 9 min
FST - Weak Blow Back Built TO 2 1/2 IN Died Back TO 1 1/2 IN

Rec	Feet of	%gas	%oil	%water	%mud
<u>41</u>	<u>OC Cam</u>	<u>15</u>	<u>15</u>	<u>10</u>	<u>60</u>
<u>43</u>	<u>OC Cam</u>	<u>15</u>	<u>15</u>	<u>70</u>	<u>70</u>
<u>94</u>	<u>Gassy Oil</u>	<u>20</u>	<u>80</u>		
	<u>1601-GIP</u>				

Rec Total 218 BHT 113 Gravity 29 API RW 203 @ 78.2° F Chlorides 31,000 ppm
 (A) Initial Hydrostatic 1845 Test 1150 T-On Location 17:00
 (B) First Initial Flow 43 Jars 250 T-Started 17:27
 (C) First Final Flow 73 Safety Joint 75 T-Open 19:08
 (D) Initial Shut-In 879 Circ Sub _____ T-Pulled 23:08
 (E) Second Initial Flow 76 Hourly Standby _____ T-Out 18:38
 (F) Second Final Flow 123 Mileage 90 RT 139.50 Comments _____
 (G) Final Shut-In 869 Sampler _____
 (H) Final Hydrostatic 1755 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1614.50
 Accessibility _____ MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Sub Total 1614.50

Approved By _____ Our Representative Jeff Brown

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. 53872

4/10

Well Name & No. Ryder 'A' #3-1 Test No. 2 Date 6-22-13
 Company Muffin Drilling Co INC Elevation 2303 KB 2298 GL
 Address 250 N WATER STE 300 WICHITA KS 67202 +1214
 Co. Rep / Geo. Rocky Milford Rig Muffin 1L
 Location: Sec. 1 Twp. 11S Rge. 24W Co. Trego State Ks

Interval Tested 3718-3748 Zone Tested Lansing - E - F
 Anchor Length 30 Drill Pipe Run 3677 Mud Wt. 9.1
 Top Packer Depth 3713 Drill Collars Run 29 Vis 50
 Bottom Packer Depth 3718 Wt. Pipe Run 0 WL 7.6
 Total Depth 3748 Chlorides 3200 ppm System LCM 0

Blow Description Full Good Blow Bob IN 25 min
1st Dead NO Blow Back
Full Good Blow Bob IN 29 min
1st Dead NO Blow Back

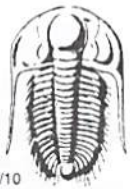
Rec	Feet of	%gas	%oil	%water	%mud
<u>303</u>	<u>MW WITH OIL SPOTS</u>		<u>70</u>	<u>30</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 303 BHT 115 Gravity _____ API RW .118 @ 92.4° F Chlorides 43000 ppm
 (A) Initial Hydrostatic 1865 Test 1150 T-On Location 8:07
 (B) First Initial Flow 17 Jars _____ T-Started 9:00
 (C) First Final Flow 74 Safety Joint _____ T-Open 10:42
 (D) Initial Shut-In 1022 Circ Sub _____ T-Pulled 19:42
 (E) Second Initial Flow 78 Hourly Standby _____ T-Out 16:20
 (F) Second Final Flow 157 Mileage 139.50 Comments _____
 (G) Final Shut-In 1013 Sampler _____
 (H) Final Hydrostatic 1763 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1289.50
 Accessibility _____ MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 40
 Final Flow 400
 Final Shut-In 90
 Sub Total 1289.50

Approved By _____ Our Representative Jeff Brown

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. 53873

Well Name & No. Ruder 'A' #3-1 Test No. 3 Date 6-23-13
 Company Murfin Drilling Co INC Elevation 2303 KB 2298 GL
 Address 250 N Water Ste 300 Wichita KS 67202 + 1216
 Co. Rep / Geo. Rocky Milford Rig Murfin #16
 Location: Sec. 1 Twp. 11 S Rge. 24 W Co. Trego State KS

Interval Tested 3777 - 3870 Zone Tested Lansing - H-K
 Anchor Length 93 Drill Pipe Run 3741 Mud Wt. 9.2
 Top Packer Depth 3772 Drill Collars Run 29 Vis 50
 Bottom Packer Depth 3777 Wt. Pipe Run 0 WL 8.0
 Total Depth 3870 Chlorides 2900 ppm System LCM 1

Blow Description FP-Strong Blow BoB IN 3 min
ISI-Weak Blow Back Built To
FP-Strong Blow BoB IN 4 min
ISI-Good Blow Back BoB IN 40 min

Rec	Feet of	%gas	%oil	%water	%mud
<u>497</u>	<u>Hoe GA G M O</u>	<u>50</u>	<u>35</u>	<u>15</u>	
	<u>1107 - GEP</u>				

Rec Total 497 BHT 113 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1954</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>6:35</u>
(B) First Initial Flow <u>94</u>	<input type="checkbox"/> Jars _____	T-Started <u>6:57</u>
(C) First Final Flow <u>174</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>8:49</u>
(D) Initial Shut-In <u>459</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>12:19</u>
(E) Second Initial Flow <u>190</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>14:48</u>
(F) Second Final Flow <u>234</u>	<input checked="" type="checkbox"/> Mileage <u>139.50</u>	Comments _____
(G) Final Shut-In <u>502</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1859</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 30
 Final Shut-In 90

Sub Total 1289.50

Approved By _____ Our Representative Jeff Brown

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