



DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67206

ATTN: Rocky Milford

O'Niell #1-14

14-3s-32w Rawlins,KS

Start Date: 2015.06.12 @ 23:00:00

End Date: 2015.06.13 @ 06:38:30

Job Ticket #: 53432 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.06.16 @ 10:02:50



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc
 250 N Water STE #300
 Wichita, KS 67206
 ATTN: Rocky Milford

14-3s-32w Rawlins,KS

O'Niell #1-14

Job Ticket: 53432

DST#: 1

Test Start: 2015.06.12 @ 23:00:00

GENERAL INFORMATION:

Formation: **LKC "A-D"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:23:00
 Time Test Ended: 06:38:30
 Interval: **3907.00 ft (KB) To 3962.00 ft (KB) (TVD)**
 Total Depth: 3962.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Kevin Mack
 Unit No: 82
 Reference Elevations: 2918.00 ft (KB)
 2913.00 ft (CF)
 KB to GR/CF: 5.00 ft

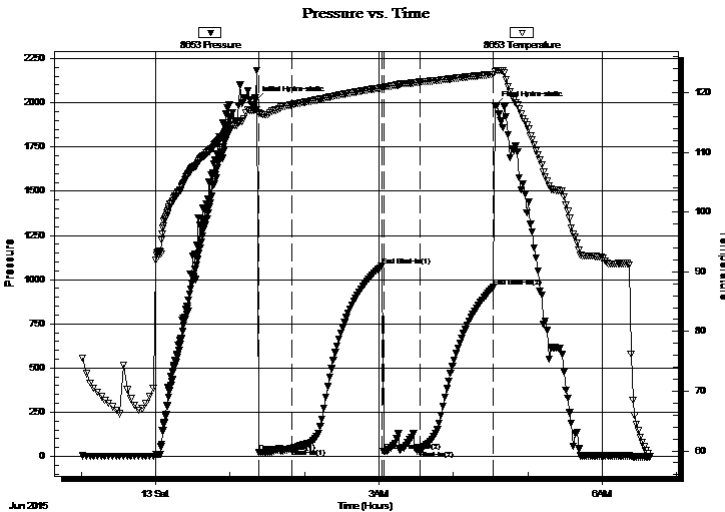
Serial #: 8653

Outside

Press@RunDepth: 33.63 psig @ 3908.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.06.12 End Date: 2015.06.13 Last Calib.: 2015.06.13
 Start Time: 23:01:00 End Time: 06:38:30 Time On Btm: 2015.06.13 @ 01:20:30
 Time Off Btm: 2015.06.13 @ 04:33:30

TEST COMMENT: 30 - IF- 1/4" Blow built to 1"
 60 - IS- No Return
 30 - FF- No Blow
 60 - FS- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2012.41	117.18	Initial Hydro-static
3	22.38	116.66	Open To Flow (1)
30	46.07	118.00	Shut-In(1)
102	1075.64	120.80	End Shut-In(1)
103	27.74	120.89	Open To Flow (2)
133	33.63	121.79	Shut-In(2)
192	956.13	123.08	End Shut-In(2)
193	1981.19	123.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud 100M	0.07

Gas Rates

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



DRILL STEM TEST REPORT

Murfin Drilling Co., Inc

14-3s-32w Rawlins, KS

250 N Water STE #300
Wichita, KS 67206

O'Niell #1-14

Job Ticket: 53432

DST#: 1

ATTN: Rocky Milford

Test Start: 2015.06.12 @ 23:00:00

GENERAL INFORMATION:

Formation: **LKC "A-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:23:00

Time Test Ended: 06:38:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 82

Interval: **3907.00 ft (KB) To 3962.00 ft (KB) (TVD)**

Reference Elevations: 2918.00 ft (KB)

Total Depth: 3962.00 ft (KB) (TVD)

2913.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: **8874** Inside

Press@RunDepth: psig @ 3908.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.06.12

End Date:

2015.06.13

Last Calib.:

2015.06.13

Start Time: 23:01:00

End Time:

06:40:00

Time On Btm:

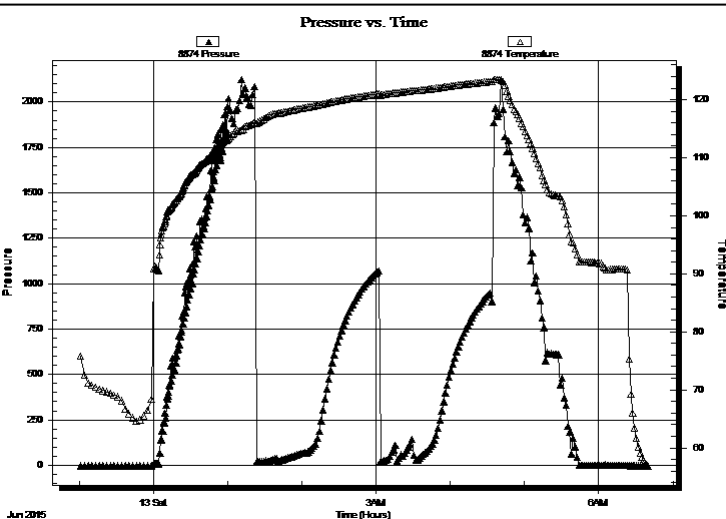
Time Off Btm:

TEST COMMENT: 30 - IF- 1/4" Blow built to 1"

60 - ISI- No Return

30 - FF- No Blow

60 - FS- No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud 100M	0.07

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 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS
O'Niell #1-14
Job Ticket: 53432 **DST#: 1**
Test Start: 2015.06.12 @ 23:00:00

Tool Information

Drill Pipe:	Length: 3639.00 ft	Diameter: 3.80 inches	Volume: 51.05 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 52.27 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3907.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	83.00 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			3880.00	
Shut In Tool	5.00			3885.00	
Hydraulic tool	5.00			3890.00	
Jars	5.00			3895.00	
Safety Joint	3.00			3898.00	
Packer	5.00			3903.00	28.00 Bottom Of Top Packer
Packer	4.00			3907.00	
Stubb	1.00			3908.00	
Recorder	0.00	8653	Outside	3908.00	
Recorder	0.00	8874	Inside	3908.00	
Perforations	15.00			3923.00	
Change Over Sub	1.00			3924.00	
Drill Pipe	32.00			3956.00	
Change Over Sub	1.00			3957.00	
Bullnose	5.00			3962.00	55.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS
O'Niell #1-14
Job Ticket: 53432 **DST#: 1**
Test Start: 2015.06.12 @ 23:00:00

Mud and Cushion Information

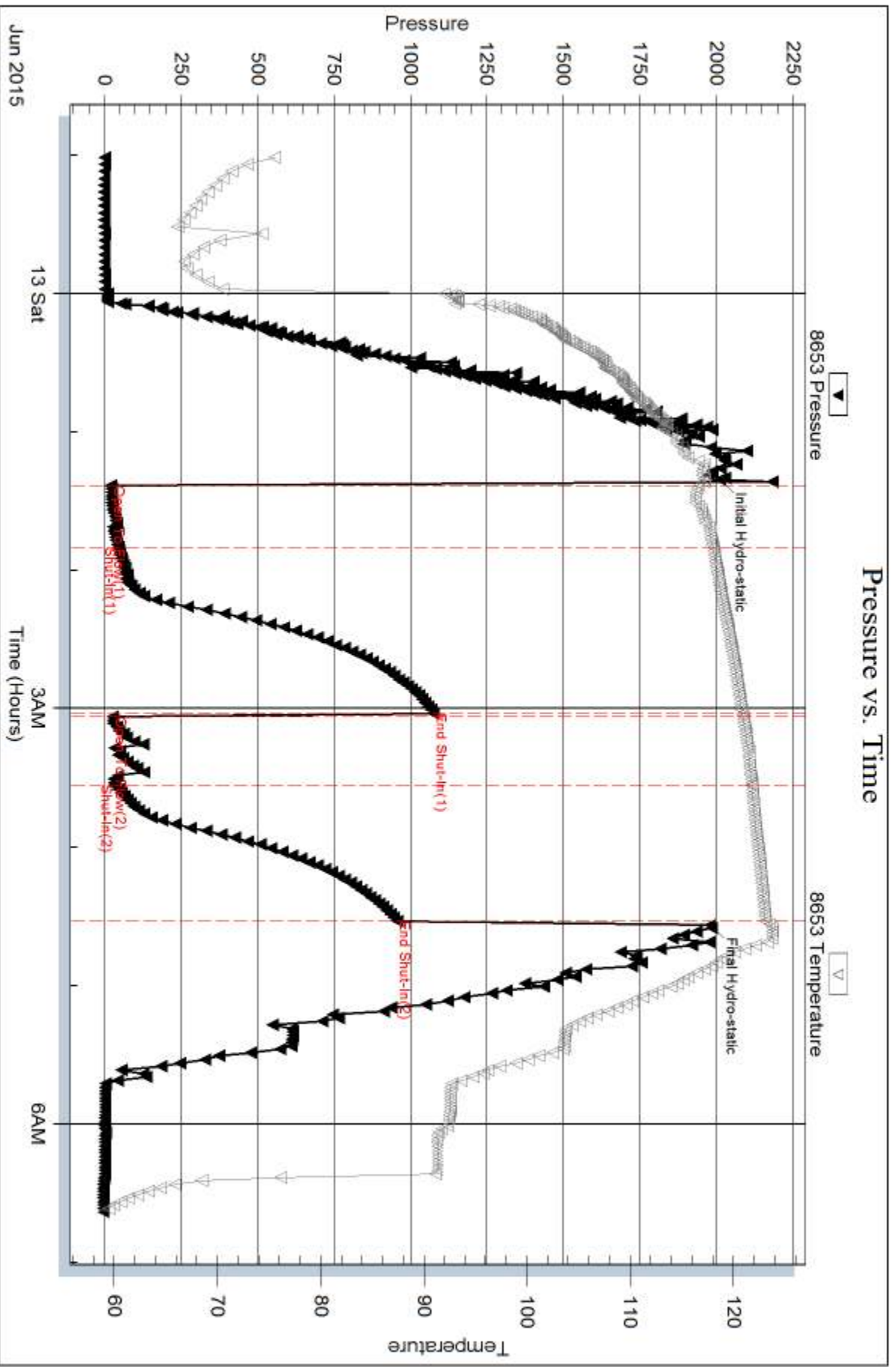
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.19 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 1000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Mud 100M	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:



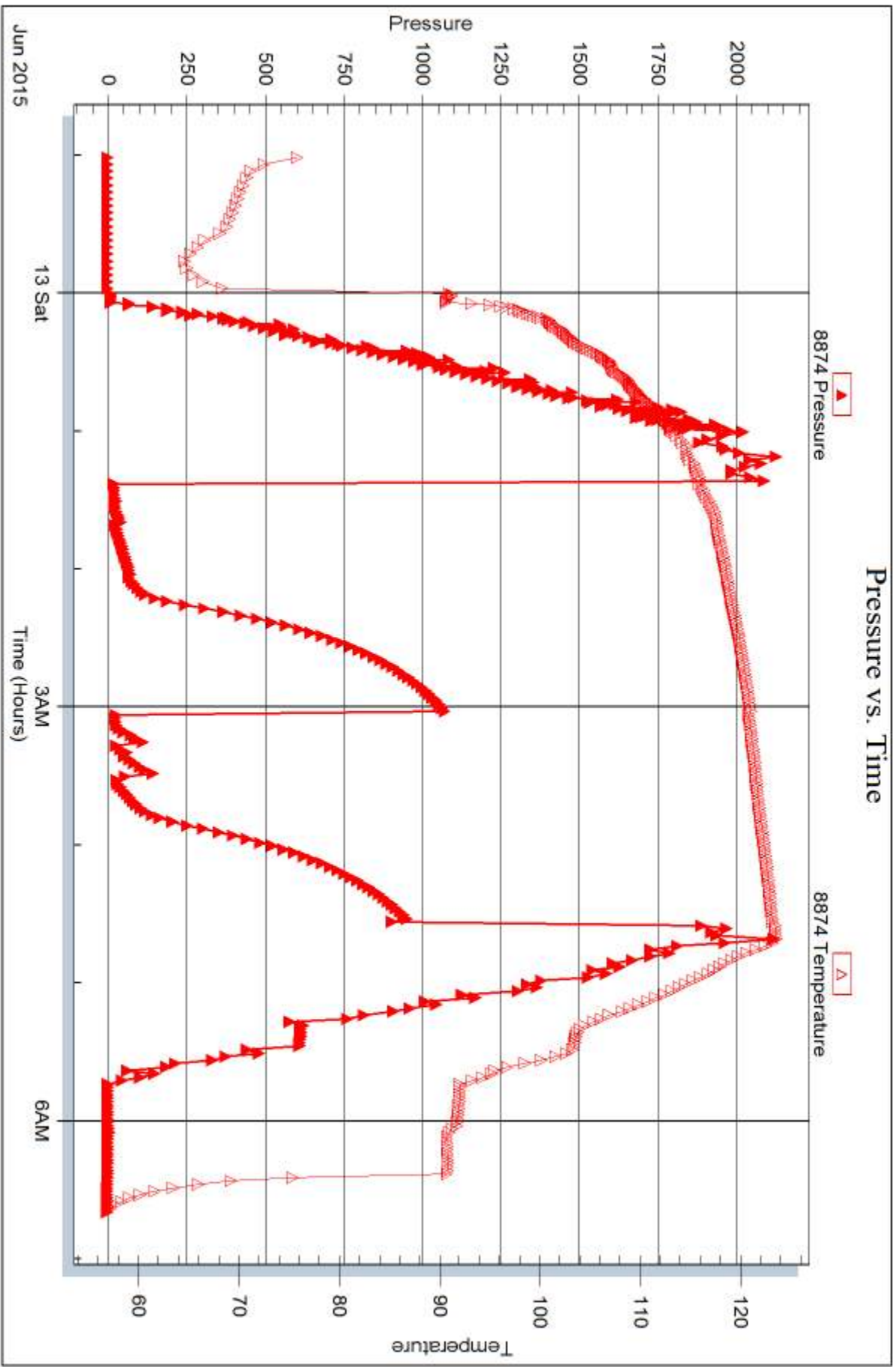
Serial #: 8874

Inside

Murfin Drilling Co., Inc

O'Neil #1-14

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 53432

Printed: 2015.06.16 @ 10:02:52



DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67206

ATTN: Rocky Milford

O'Niell #1-14

14-3s-32w Rawlins,KS

Start Date: 2015.06.13 @ 13:41:00

End Date: 2015.06.13 @ 22:05:30

Job Ticket #: 53433 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.06.16 @ 10:02:26



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS

O'Niell #1-14

Job Ticket: 53433

DST#: 2

Test Start: 2015.06.13 @ 13:41:00

GENERAL INFORMATION:

Formation: **LKC "G"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 16:05:30
 Tester: Kevin Mack
 Time Test Ended: 22:05:30
 Unit No: 82
 Interval: **3956.00 ft (KB) To 4005.00 ft (KB) (TVD)**
 Reference Elevations: 2918.00 ft (KB)
 Total Depth: 4005.00 ft (KB) (TVD)
 2913.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Good
 KB to GR/CF: 5.00 ft

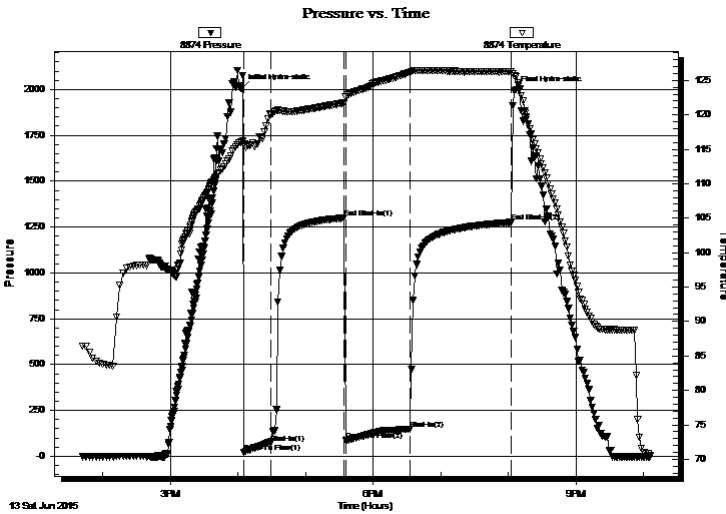
Serial #: 8874

Inside

Press@RunDepth: 149.18 psig @ 3957.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.06.13 End Date: 2015.06.13 Last Calib.: 2015.06.13
 Start Time: 13:42:00 End Time: 22:05:30 Time On Btm: 2015.06.13 @ 16:03:00
 Time Off Btm: 2015.06.13 @ 20:05:30

TEST COMMENT: 30 - IF- 1/4" Blow built to 4 3/4"
 60 - IS- No Return
 60 - FF- Surface Blow started at 4 min. Built 5 1/4"
 90 - FS- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2004.42	116.06	Initial Hydro-static
3	23.51	115.80	Open To Flow (1)
26	73.20	120.07	Shut-In(1)
91	1300.09	121.70	End Shut-In(1)
93	86.93	122.55	Open To Flow (2)
150	149.18	126.16	Shut-In(2)
240	1276.52	126.30	End Shut-In(2)
243	1994.91	125.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MW 50M 50W	0.30
60.00	MW 20M 80W	0.30
150.00	WM 30W 70M	0.94

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc
 250 N Water STE #300
 Wichita, KS 67206
 ATTN: Rocky Milford

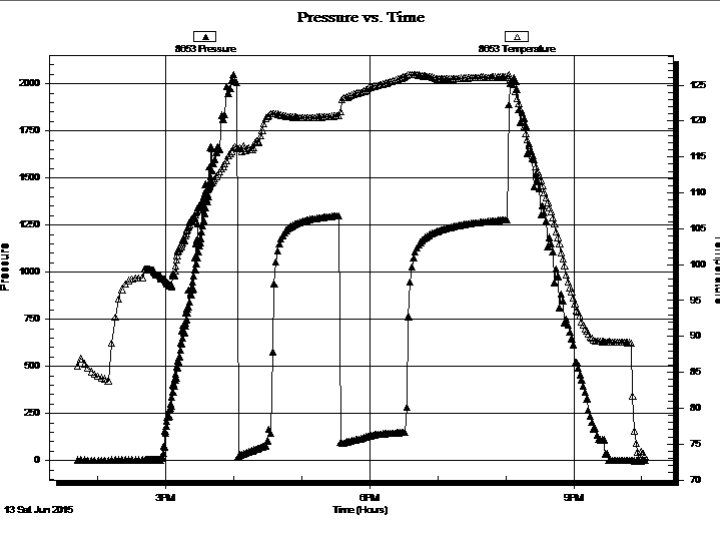
14-3s-32w Rawlins,KS
O'Niell #1-14
 Job Ticket: 53433 **DST#: 2**
 Test Start: 2015.06.13 @ 13:41:00

GENERAL INFORMATION:

Formation: **LKC "G"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:05:30
 Time Test Ended: 22:05:30
 Interval: **3956.00 ft (KB) To 4005.00 ft (KB) (TVD)**
 Total Depth: 4005.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Kevin Mack
 Unit No: 82
 Reference Elevations: 2918.00 ft (KB)
 2913.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8653 Outside
 Press@RunDepth: psig @ 3957.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.06.13 End Date: 2015.06.13 Last Calib.: 2015.06.13
 Start Time: 13:42:00 End Time: 22:03:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30 - IF- 1/4" Blow built to 4 3/4"
 60 - IS- No Return
 60 - FF- Surface Blow started at 4 min. Built 5 1/4"
 90 - FS- No Return



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

Recovery		
Length (ft)	Description	Volume (bbl)
60.00	MW 50M 50W	0.30
60.00	MW 20M 80W	0.30
150.00	WM 30W 70M	0.94

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 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS
O'Niell #1-14
Job Ticket: 53433 **DST#: 2**
Test Start: 2015.06.13 @ 13:41:00

Tool Information

Drill Pipe:	Length: 3705.00 ft	Diameter: 3.80 inches	Volume: 51.97 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 53.19 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3956.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	49.00 ft			
Tool Length:	77.00 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			3929.00	
Shut In Tool	5.00			3934.00	
Hydraulic tool	5.00			3939.00	
Jars	5.00			3944.00	
Safety Joint	3.00			3947.00	
Packer	5.00			3952.00	28.00 Bottom Of Top Packer
Packer	4.00			3956.00	
Stubb	1.00			3957.00	
Recorder	0.00	8653	Outside	3957.00	
Recorder	0.00	8874	Inside	3957.00	
Perforations	9.00			3966.00	
Change Over Sub	1.00			3967.00	
Drill Pipe	32.00			3999.00	
Change Over Sub	1.00			4000.00	
Bullnose	5.00			4005.00	49.00 Bottom Packers & Anchor

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS
O'Niell #1-14
Job Ticket: 53433 **DST#: 2**
Test Start: 2015.06.13 @ 13:41:00

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:	50000 ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.19 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 1200.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

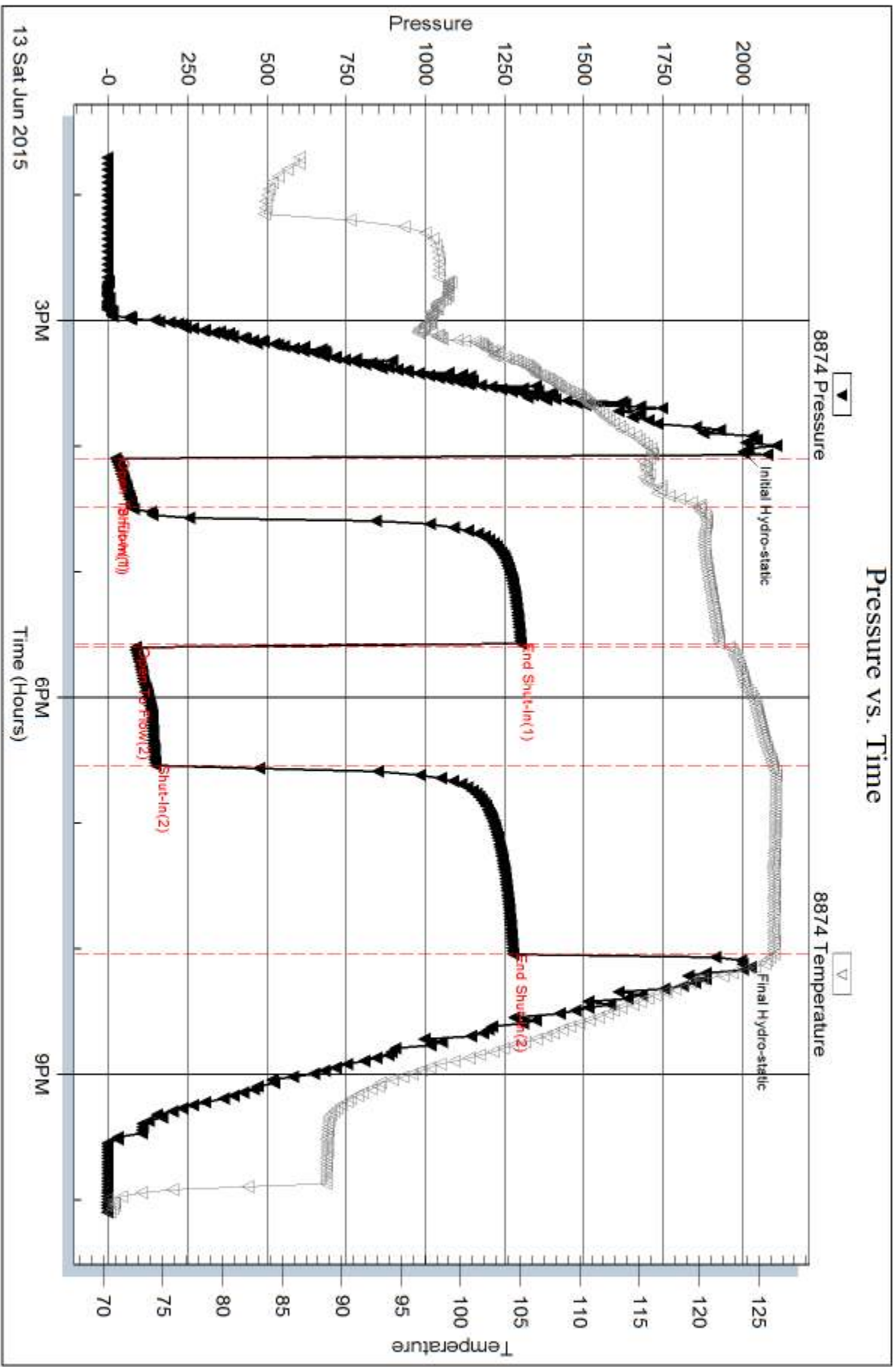
Length ft	Description	Volume bbl
60.00	MW 50M 50W	0.295
60.00	MW 20M 80W	0.295
150.00	WM 30W 70M	0.938

Total Length: 270.00 ft Total Volume: 1.528 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW .14 @ 76 deg = 50000ppm



13 Sat Jun 2015

3PM

6PM

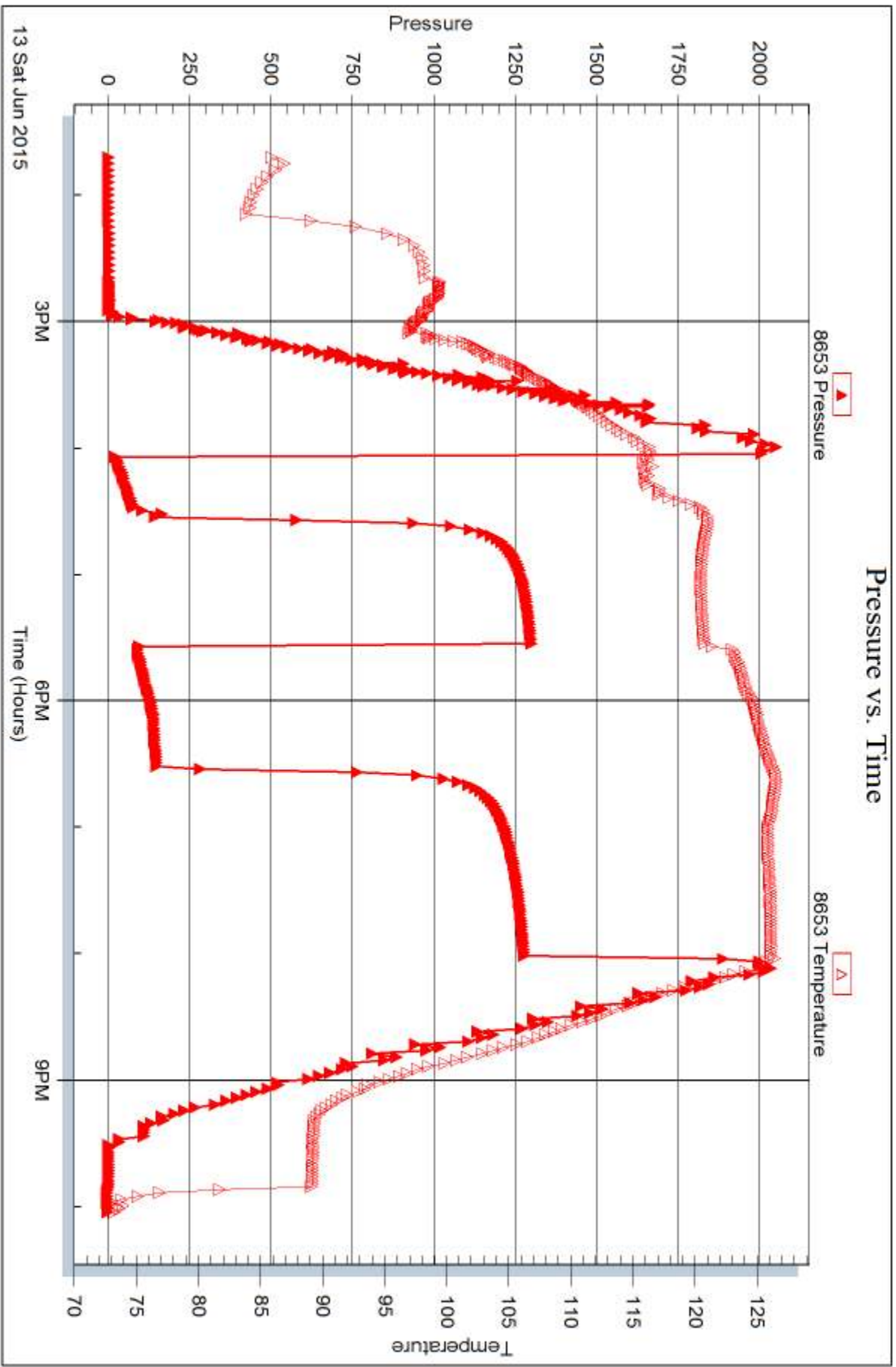
9PM

Serial #: 8653

Outside Murfin Drilling Co., Inc

O'Neill #1-14

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 53433

Printed: 2015.06.16 @ 10:02:28



DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67206

ATTN: Rocky Milford

O'Niell #1-14

14-3s-32w Rawlins,KS

Start Date: 2015.06.14 @ 10:07:00

End Date: 2015.06.14 @ 18:18:00

Job Ticket #: 53434 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.06.16 @ 09:54:27



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS

O'Niell #1-14

Job Ticket: 53434

DST#: 3

Test Start: 2015.06.14 @ 10:07:00

GENERAL INFORMATION:

Formation: **LKC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:06:10

Time Test Ended: 18:18:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 82

Interval: 4003.00 ft (KB) To 4085.00 ft (KB) (TVD)

Reference Elevations: 2918.00 ft (KB)

Total Depth: 4085.00 ft (KB) (TVD)

2913.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8874

Inside

Press@RunDepth: 204.69 psig @ 4004.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.06.14

End Date:

2015.06.14

Last Calib.:

2015.06.14

Start Time: 10:08:00

End Time:

18:18:00

Time On Btm:

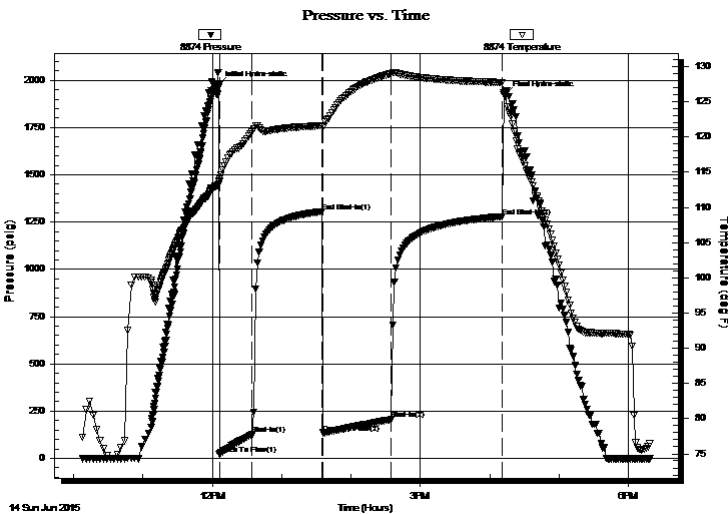
2015.06.14 @ 12:05:50

Time Off Btm:

2015.06.14 @ 16:13:30

TEST COMMENT: 30 - IF- 1/4" Blow built to 9"
60 - IS- No Return
60 - FF- Surface Blow built to BoB in 45 min.
90 - FS- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1974.90	113.76	Initial Hydro-static
1	21.80	113.63	Open To Flow (1)
29	125.19	120.76	Shut-In(1)
89	1305.12	121.58	End Shut-In(1)
91	134.47	121.49	Open To Flow (2)
149	204.69	129.01	Shut-In(2)
245	1279.17	127.74	End Shut-In(2)
248	1921.61	125.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud (Heavy) 100M	0.02
306.00	OSMW 5M 95W (oil spots)	2.08
93.00	OCMW 5o 40M 55W	1.30
2.00	Free Oil 100o	0.03

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS

O'Niell #1-14

Job Ticket: 53434

DST#: 3

Test Start: 2015.06.14 @ 10:07:00

GENERAL INFORMATION:

Formation: **LKC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:06:10

Time Test Ended: 18:18:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 82

Interval: 4003.00 ft (KB) To 4085.00 ft (KB) (TVD)

Total Depth: 4085.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2918.00 ft (KB)

2913.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press@RunDepth: psig @ 4004.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.06.14

End Date: 2015.06.14

Last Calib.: 2015.06.14

Start Time: 10:08:00

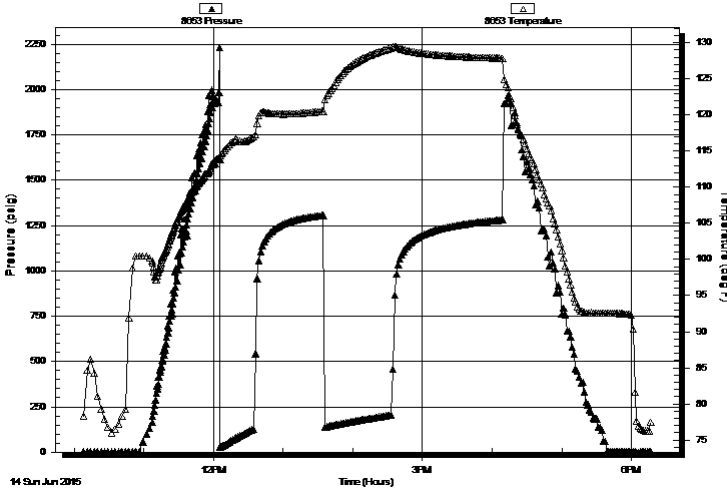
End Time: 18:16:30

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF- 1/4" Blow built to 9"
60 - IS- No Return
60 - FF- Surface Blow built to BoB in 45 min.
90 - FS- No Return

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud (Heavy) 100M	0.02
306.00	OSMW 5M 95W (oil spots)	2.08
93.00	OCMW 5o 40M 55W	1.30
2.00	Free Oil 100o	0.03

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 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS
O'Niell #1-14
Job Ticket: 53434 **DST#: 3**
Test Start: 2015.06.14 @ 10:07:00

Tool Information

Drill Pipe:	Length: 3733.00 ft	Diameter: 3.80 inches	Volume: 52.36 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 53.58 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4003.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	82.00 ft			
Tool Length:	110.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3976.00	
Shut In Tool	5.00			3981.00	
Hydraulic tool	5.00			3986.00	
Jars	5.00			3991.00	
Safety Joint	3.00			3994.00	
Packer	5.00			3999.00	28.00 Bottom Of Top Packer
Packer	4.00			4003.00	
Stubb	1.00			4004.00	
Recorder	0.00	8653	Outside	4004.00	
Recorder	0.00	8874	Inside	4004.00	
Perforations	11.00			4015.00	
Change Over Sub	1.00			4016.00	
Drill Pipe	63.00			4079.00	
Change Over Sub	1.00			4080.00	
Bullnose	5.00			4085.00	82.00 Bottom Packers & Anchor

Total Tool Length: 110.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS
O'Niell #1-14
Job Ticket: 53434 **DST#: 3**
Test Start: 2015.06.14 @ 10:07:00

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:	48000 ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.59 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 1300.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

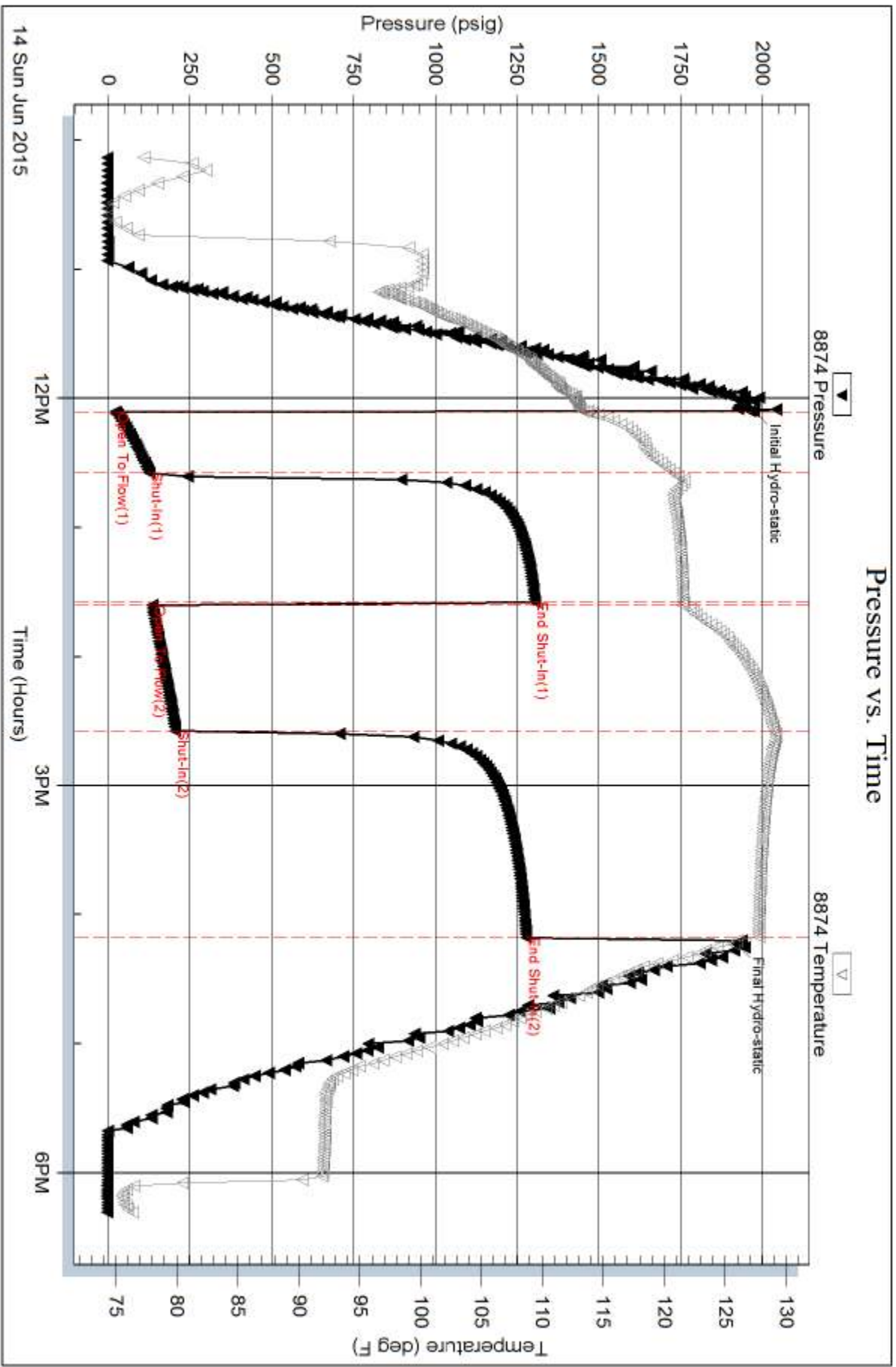
Length ft	Description	Volume bbl
5.00	Mud (Heavy) 100M	0.025
306.00	OSMW 5M 95W (oil spots)	2.079
93.00	OCMW 5o 40M 55W	1.305
2.00	Free Oil 100o	0.028

Total Length: 406.00 ft Total Volume: 3.437 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW = .13 @ 86 deg = 48000ppm

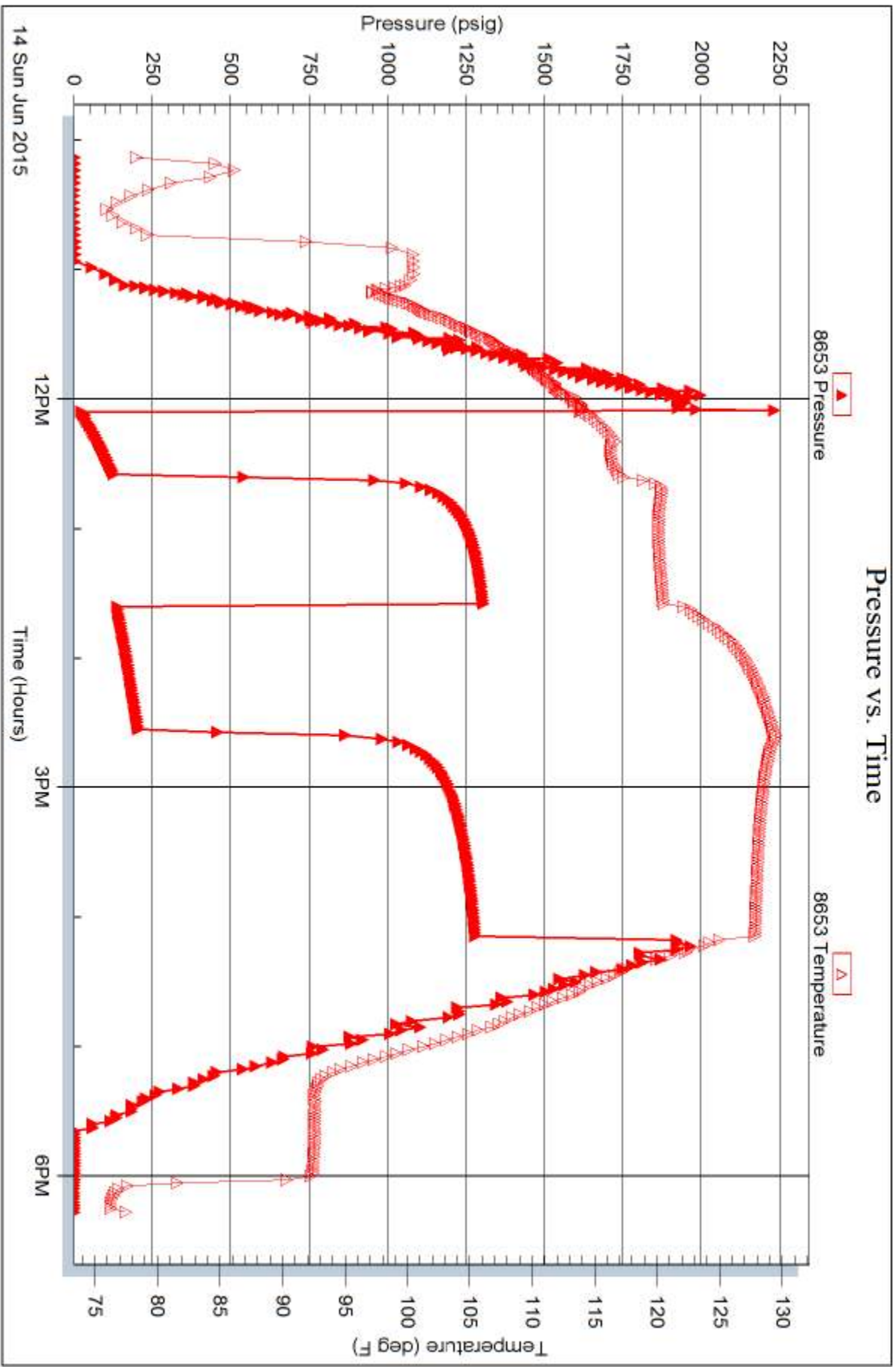


Serial #: 8653

Outside Murfin Drilling Co., Inc

O'Neill #1-14

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 53434

Printed: 2015.06.16 @ 09:54:28



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53432

Well Name & No. O'Niell #1-14 Test No. 1 Date 6-12-15
 Company Murfin Drilling Co., Inc Elevation 2918 KB 2913 GL
 Address 250 N Water STE #300 Wichita, KS 67206
 Co. Rep / Geo. Rocky Milford Rig Murfin #7
 Location: Sec. 14 Twp. 3S Rge. 32W Co. Rawlins State KS

Interval Tested 3907-3962 Zone Tested LKC "B-D"
 Anchor Length 55 Drill Pipe Run 3639' Mud Wt. 9.2
 Top Packer Depth 3903 Drill Collars Run 248' Vis 55
 Bottom Packer Depth 3907 Wt. Pipe Run 0 WL 7.2
 Total Depth 3962 Chlorides 1,0000 ppm System LCM 4#

Blow Description IF- 1/4" Blow built to 1"
ISI- No Return
FF- NO Blow
FSI- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</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 Total 15 BHT 123 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 2012 Test 1050 T-On Location 9:55 pm
 (B) First Initial Flow 22 Jars 250 T-Started 11:00 pm
 (C) First Final Flow 46 Safety Joint 75 T-Open 1:22 AM
 (D) Initial Shut-In 1075 Circ Sub _____ T-Pulled 4:22 AM
 (E) Second Initial Flow 27 Hourly Standby _____ T-Out 6:46 AM
 (F) Second Final Flow 33 Mileage 44 RT 44
 (G) Final Shut-In 956 Sampler _____
 (H) Final Hydrostatic 1981 Straddle _____

Initial Open 30 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 60 Shale Packer _____ Ruined Packer _____
 Final Flow 30 Extra Packer _____ Extra Copies _____
 Final Shut-In 60 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1419
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1419

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. 53433

Well Name & No. O'Neill #1-14 Test No. 2 Date 6-13-15
 Company Murfin Drilling Co., Inc. Elevation 2918 KB 2913 GL
 Address 250 N Water STE #3000 Wichita, KS 67206
 Co. Rep / Geo. Rocky Milford Rig Murfin #7
 Location: Sec. 14 Twp. 3S Rge. 32 W Co. Rawlins State KS

Interval Tested 3956-4005 Zone Tested LKC "G"
 Anchor Length 49' Drill Pipe Run 3705 Mud Wt. 9.2
 Top Packer Depth 3952 Drill Collars Run 248' Vis 56
 Bottom Packer Depth 3956 Wt. Pipe Run 0 WL 7.2
 Total Depth 4005 Chlorides 1200 ppm System LCM 4#

Blow Description IF - 1/4" Blow built to 4 3/4"
ISI - no Return
FF - Surface Blow started at 4 min. Built to 5 1/4"
FSI - no Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>150</u>	<u>WM</u>		<u>30</u>	<u>70</u>	
<u>60</u>	<u>MW</u>		<u>80</u>	<u>20</u>	
<u>60</u>	<u>MW</u>		<u>50</u>	<u>50</u>	

Rec Total 270 BHT 126 Gravity - API RW 14 @ 76 °F Chlorides 500000 ppm

(A) Initial Hydrostatic <u>2004</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1:20 PM</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1:41 PM</u>
(C) First Final Flow <u>73</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>4:05 PM</u>
(D) Initial Shut-In <u>1300</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>8:05 PM</u>
(E) Second Initial Flow <u>86</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>10:05 PM</u>
(F) Second Final Flow <u>149</u>	<input checked="" type="checkbox"/> Mileage <u>44 RT 44</u>	Comments
(G) Final Shut-In <u>1276</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1994</u>	<input type="checkbox"/> Straddle	

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

Sub Total 0
 Total 1519
 MP/DST Disc't

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53434

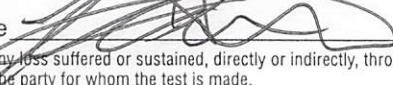
4/10

Well Name & No. O'Neill #1-14 Test No. 2 Date 6-14-15
 Company Murfin Drilling Co., Inc. Elevation 2918 KB 2913 GL
 Address 250 N Water STE #300 Wichita, KS 67206
 Co. Rep / Geo. Rocky Milford Rig Murfin #7
 Location: Sec. 17 Twp. 35 Rge. 32W Co. Rawlins State KS

Interval Tested 4003 - 4085 Zone Tested LSC "H-J"
 Anchor Length 82' Drill Pipe Run 3733' Mud Wt. 9.1
 Top Packer Depth 3999 Drill Collars Run 248' Vis 58
 Bottom Packer Depth 4003 Wt. Pipe Run 0 WL 7.6
 Total Depth 4085 Chlorides 1,300 ppm System LCM 4#
 Blow Description IF - 1/4" Blow built to 9"
ISI - No Return
FF - Surface Blow built to BoB in 45 min.
FSI - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	Feet of <u>Free Oil</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>93</u>	Feet of <u>CX MW</u>	<u>5</u>	<u>55</u>	<u>40</u>	<u>0</u>
<u>306</u>	Feet of <u>CS MW</u>	<u>SPOTS</u>	<u>95</u>	<u>5</u>	<u>0</u>
<u>5</u>	Feet of <u>Mud (heavy)</u>	<u>0</u>	<u>0</u>	<u>100</u>	<u>0</u>
<u> </u>	Feet of <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Rec Total 4006 BHT 128 Gravity - API RW 13 @ 88 °F Chlorides 48,000 ppm
 (A) Initial Hydrostatic 1974 Test 1150 T-On Location 9:45 AM
 (B) First Initial Flow 21 Jars 250 T-Started 10:07 AM
 (C) First Final Flow 125 Safety Joint 75 T-Open 12:05 PM
 (D) Initial Shut-In 1305 Circ Sub T-Pulled 4:05 PM
 (E) Second Initial Flow 134 Hourly Standby T-Out 6:18 PM
 (F) Second Final Flow 204 Mileage 44 RT X 2 44 Comments 100000 tools
 (G) Final Shut-In 1279 Sampler 6:30 PM 6-15-15
 (H) Final Hydrostatic 1921 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1563
 Accessibility MP/DST Disc't
 Sub Total 1563

Approved By _____ Our Representative 

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