



DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67202

ATTN: Ken Wallace

Carolyn #1-3

3-1s-37w Cheyenne,KS

Start Date: 2014.02.10 @ 00:43:00

End Date: 2014.02.10 @ 06:43:30

Job Ticket #: 53388 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.02.19 @ 14:03:51



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
250 N Water STE #300
Wichita, KS 67202
ATTN: Ken Wallace

3-1s-37w Cheyenne,KS

Carolyn #1-3

Job Ticket: 53388

DST#: 1

Test Start: 2014.02.10 @ 00:43:00

GENERAL INFORMATION:

Formation: **Foraker**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:47:30

Time Test Ended: 06:43:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 3575.00 ft (KB) To 3627.00 ft (KB) (TVD)

Reference Elevations: 3087.00 ft (KB)

Total Depth: 3627.00 ft (KB) (TVD)

3077.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 10.00 ft

Serial #: 8874 Inside

Press@RunDepth: 129.66 psig @ 3576.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.10

End Date: 2014.02.10

Last Calib.: 2014.02.10

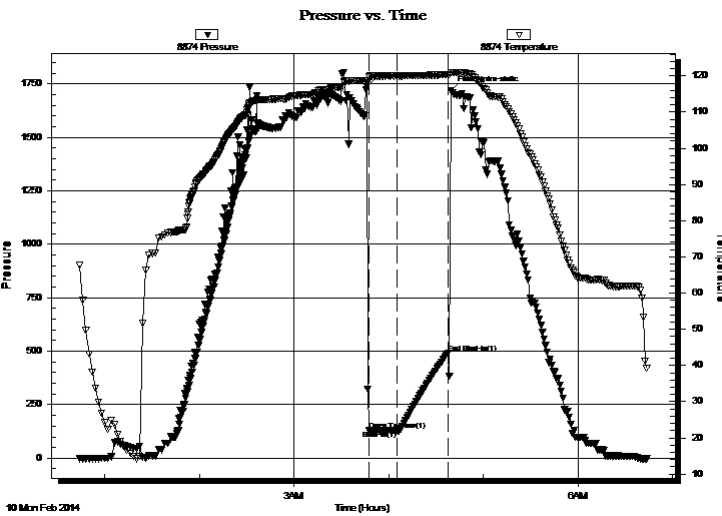
Start Time: 00:44:00

End Time: 06:43:30

Time On Btm: 2014.02.10 @ 03:46:00

Time Off Btm: 2014.02.10 @ 04:39:30

TEST COMMENT: 30 - IF- Bed off initial surge - Weak surface Blow did not build or die
30 - ISI- Weak Surface Return did not build or die



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1739.41 | 118.79 | Initial Hydro-static |
| 2 | 129.67 | 119.85 | Open To Flow (1) |
| 19 | 129.66 | 120.02 | Shut-In(1) |
| 52 | 491.05 | 120.35 | End Shut-In(1) |
| 54 | 1718.08 | 120.88 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 315.00 | Mud 100M | 2.72 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

3-1s-37w Cheyenne,KS

250 N Water STE #300
Wichita, KS 67202

Carolyn #1-3

Job Ticket: 53388

DST#: 1

ATTN: Ken Wallace

Test Start: 2014.02.10 @ 00:43:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3371.00 ft | Diameter: 3.80 inches | Volume: 47.29 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: 186.00 ft | Diameter: 2.25 inches | Volume: 0.91 bbl | Weight to Pull Loose: 90000.00 lb |
| | | | <u>Total Volume: 48.20 bbl</u> | Tool Chased 20.00 ft |
| Drill Pipe Above KB: | 10.00 ft | | | String Weight: Initial 62000.00 lb |
| Depth to Top Packer: | 3575.00 ft | | | Final 62000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 52.00 ft | | | |
| Tool Length: | 80.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments: tool hit several bridges and tight spots starting approx 30' above bottom. had to make a connection in mousehole in order to chase tool another 20' to bottom through bridges.

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 3548.00 | |
| Shut In Tool | 5.00 | | | 3553.00 | |
| Hydraulic tool | 5.00 | | | 3558.00 | |
| Jars | 5.00 | | | 3563.00 | |
| Safety Joint | 3.00 | | | 3566.00 | |
| Packer | 5.00 | | | 3571.00 | 28.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3575.00 | |
| Stubb | 1.00 | | | 3576.00 | |
| Recorder | 0.00 | 8653 | Outside | 3576.00 | |
| Recorder | 0.00 | 8874 | Inside | 3576.00 | |
| Perforations | 12.00 | | | 3588.00 | |
| Change Over Sub | 1.00 | | | 3589.00 | |
| Drill Pipe | 32.00 | | | 3621.00 | |
| Change Over Sub | 1.00 | | | 3622.00 | |
| Bullnose | 5.00 | | | 3627.00 | 52.00 Bottom Packers & Anchor |

Total Tool Length: 80.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

3-1s-37w Cheyenne,KS

250 N Water STE #300
Wichita, KS 67202

Carolyn #1-3

Job Ticket: 53388

DST#: 1

ATTN: Ken Wallace

Test Start: 2014.02.10 @ 00:43:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 315.00 | Mud 100M | 2.724 |

Total Length: 315.00 ft Total Volume: 2.724 bbl

Num Fluid Samples: 0

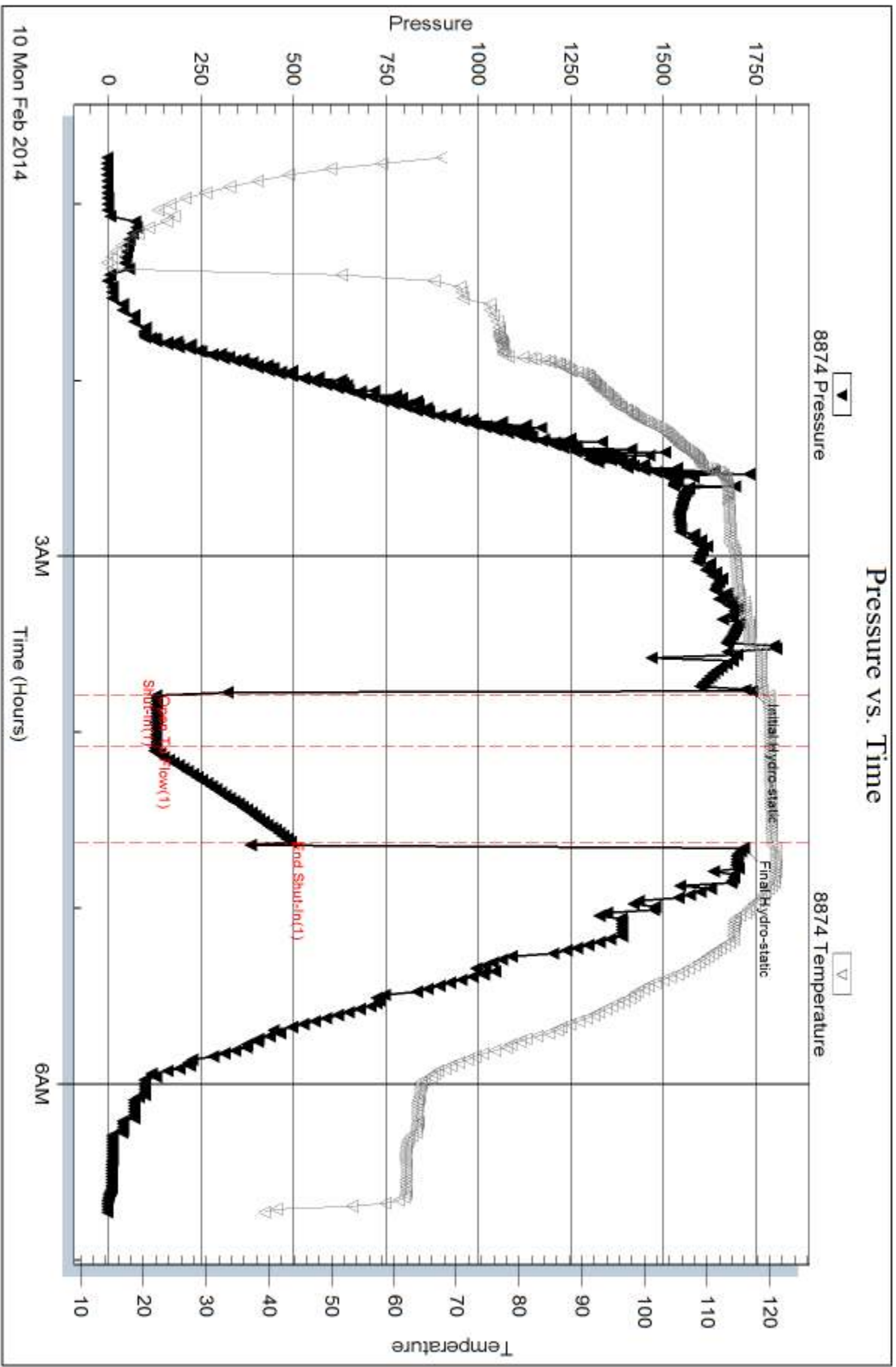
Num Gas Bombs: 0

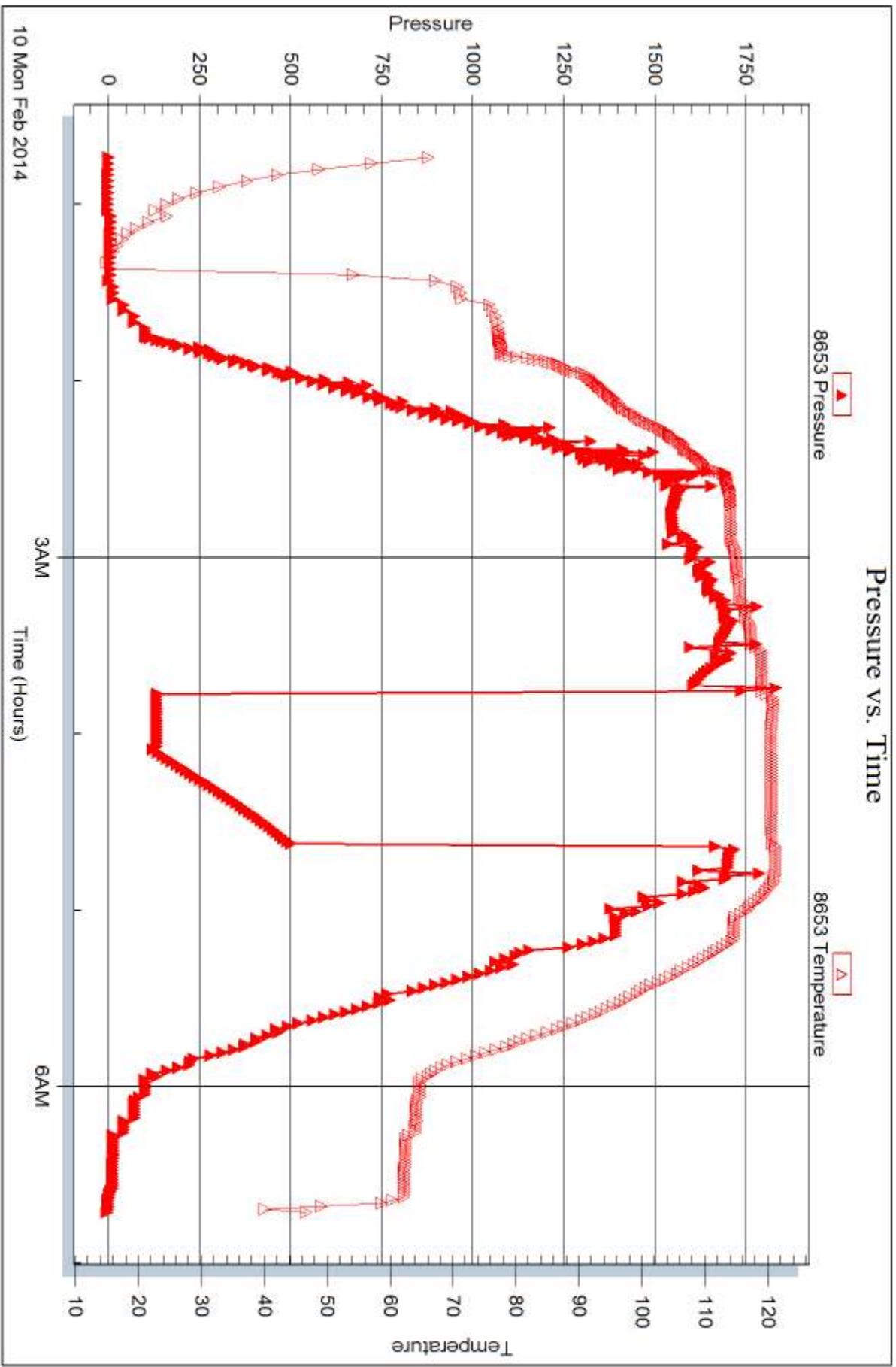
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67202

ATTN: Ken Wallace

Carolyn #1-3

3-1s-37w Cheyenne,KS

Start Date: 2014.02.10 @ 14:01:01

End Date: 2014.02.10 @ 21:16:31

Job Ticket #: 53389 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.02.19 @ 14:03:28



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

3-1s-37w Cheyenne,KS

250 N Water STE #300
Wichita, KS 67202

Carolyn #1-3

Job Ticket: 53389

DST#: 2

ATTN: Ken Wallace

Test Start: 2014.02.10 @ 14:01:01

GENERAL INFORMATION:

Formation: **Foraker**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:15:01

Time Test Ended: 21:16:31

Test Type: Conventional Bottom Hole (Reset)

Tester: Kevin Mack

Unit No: 66

Interval: 3575.00 ft (KB) To 3627.00 ft (KB) (TVD)

Reference Elevations: 3087.00 ft (KB)

Total Depth: 3627.00 ft (KB) (TVD)

3077.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8653 Outside

Press@RunDepth: 19.07 psig @ 3576.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.10

End Date:

2014.02.10

Last Calib.:

2014.02.10

Start Time: 14:02:01

End Time:

21:16:31

Time On Btm:

2014.02.10 @ 16:13:01

Time Off Btm:

2014.02.10 @ 19:30:31

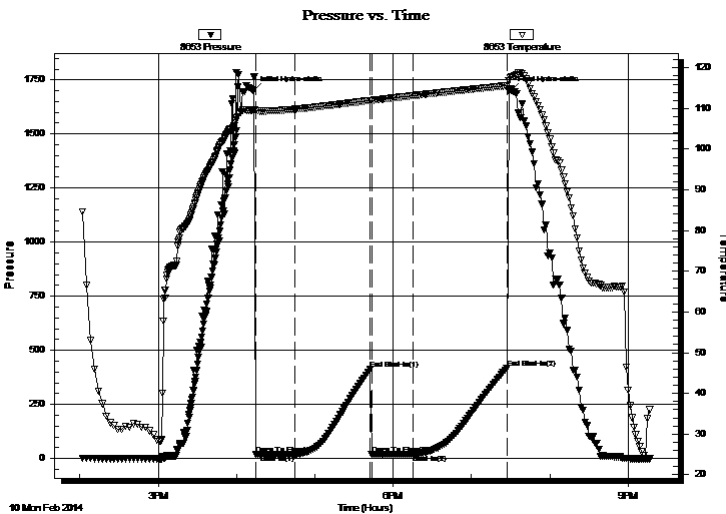
TEST COMMENT: 30 - IF - 1/2" Blow built to 3/4" then died back to 1/2"

60 - ISI - No Return

30 - FF - No Blow

60 - FSI - No Return

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1701.22 | 109.59 | Initial Hydro-static |
| 2 | 17.93 | 109.47 | Open To Flow (1) |
| 32 | 18.17 | 109.83 | Shut-In(1) |
| 89 | 410.98 | 111.97 | End Shut-In(1) |
| 91 | 18.80 | 112.00 | Open To Flow (2) |
| 122 | 19.07 | 113.14 | Shut-In(2) |
| 194 | 419.26 | 115.61 | End Shut-In(2) |
| 198 | 1701.92 | 117.78 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 5.00 | Mud 100M | 0.02 |
| | | |
| | | |
| | | |
| | | |

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 Co., Inc.

3-1s-37w Cheyenne,KS

250 N Water STE #300
Wichita, KS 67202

Carolyn #1-3

Job Ticket: 53389

DST#: 2

ATTN: Ken Wallace

Test Start: 2014.02.10 @ 14:01:01

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3371.00 ft | Diameter: 3.80 inches | Volume: 47.29 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: 186.00 ft | Diameter: 2.25 inches | Volume: 0.91 bbl | Weight to Pull Loose: 65000.00 lb |
| | | | <u>Total Volume: 48.20 bbl</u> | Tool Chased ft |
| Drill Pipe Above KB: | 10.00 ft | | | String Weight: Initial 62000.00 lb |
| Depth to Top Packer: | 3575.00 ft | | | Final 62000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 52.00 ft | | | |
| Tool Length: | 80.00 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 | | | 3548.00 | |
| Shut In Tool | 5.00 | | | 3553.00 | |
| Hydraulic tool | 5.00 | | | 3558.00 | |
| Jars | 5.00 | | | 3563.00 | |
| Safety Joint | 3.00 | | | 3566.00 | |
| Packer | 5.00 | | | 3571.00 | 28.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3575.00 | |
| Stubb | 1.00 | | | 3576.00 | |
| Recorder | 0.00 | 8653 | Outside | 3576.00 | |
| Recorder | 0.00 | 8874 | Inside | 3576.00 | |
| Perforations | 12.00 | | | 3588.00 | |
| Change Over Sub | 1.00 | | | 3589.00 | |
| Drill Pipe | 32.00 | | | 3621.00 | |
| Change Over Sub | 1.00 | | | 3622.00 | |
| Bullnose | 5.00 | | | 3627.00 | 52.00 Bottom Packers & Anchor |

Total Tool Length: 80.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

3-1s-37w Cheyenne,KS

250 N Water STE #300
Wichita, KS 67202

Carolyn #1-3

Job Ticket: 53389

DST#: 2

ATTN: Ken Wallace

Test Start: 2014.02.10 @ 14:01:01

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 5.00 | Mud 100M | 0.025 |

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

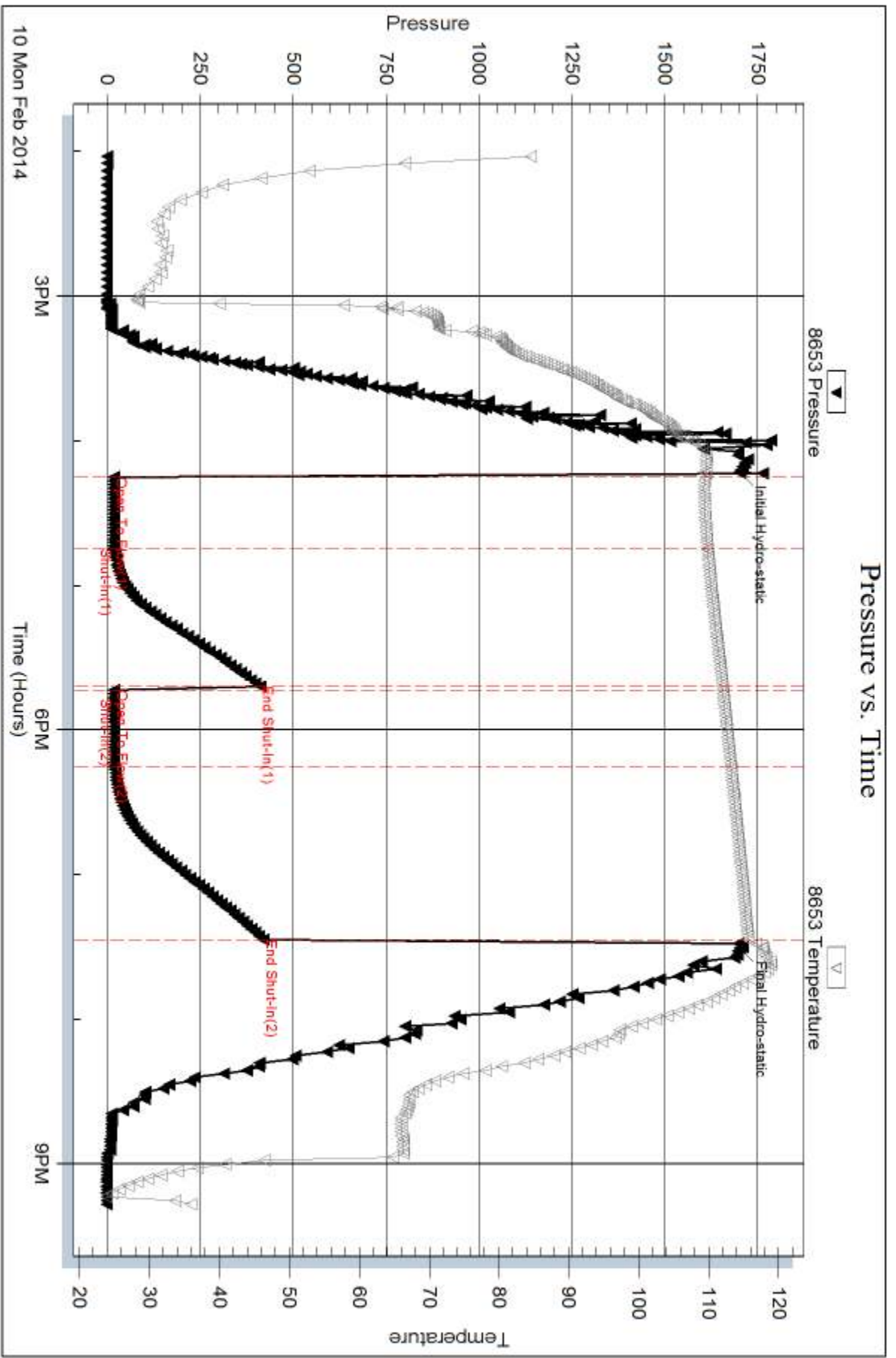
Num Gas Bombs: 0

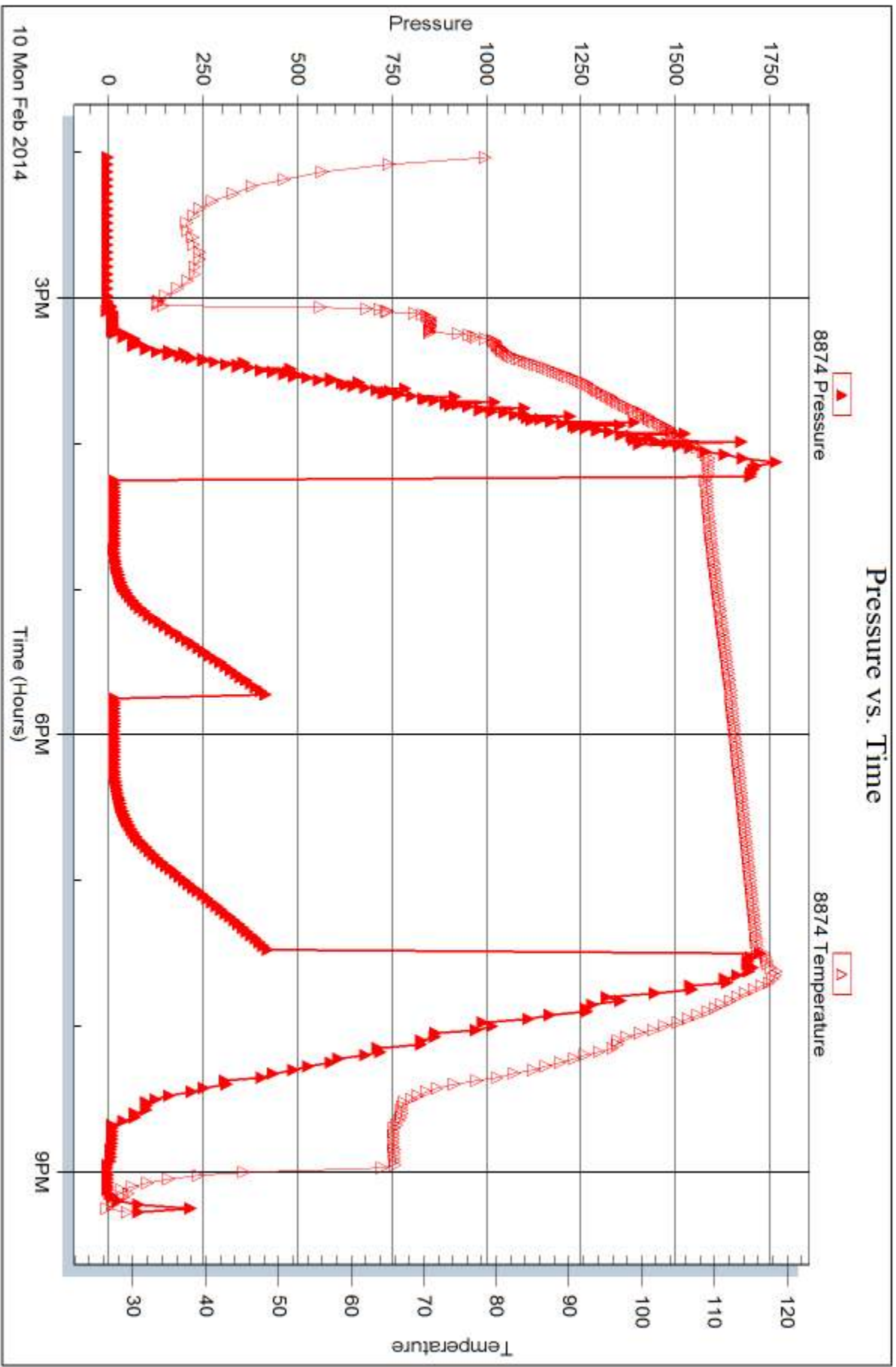
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





10 Mon Feb 2014



DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67202

ATTN: Ken Wallace

Carolyn #1-3

3-1s-37w Cheyenne,KS

Start Date: 2014.02.12 @ 20:39:00

End Date: 2014.02.13 @ 04:59:00

Job Ticket #: 53390 DST #: 3

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

Printed: 2014.02.19 @ 14:03:04



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

3-1s-37w Cheyenne, KS

250 N Water STE #300
Wichita, KS 67202

Carolyn #1-3

Job Ticket: 53390

DST#: 3

ATTN: Ken Wallace

Test Start: 2014.02.12 @ 20:39:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:22:50

Time Test Ended: 04:59:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 3996.00 ft (KB) To 4118.00 ft (KB) (TVD)

Reference Elevations: 3087.00 ft (KB)

Total Depth: 4118.00 ft (KB) (TVD)

3077.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8874 Inside

Press@RunDepth: 153.43 psig @ 3997.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.12

End Date:

2014.02.13

Last Calib.:

2014.02.13

Start Time: 20:40:00

End Time:

04:59:00

Time On Btm:

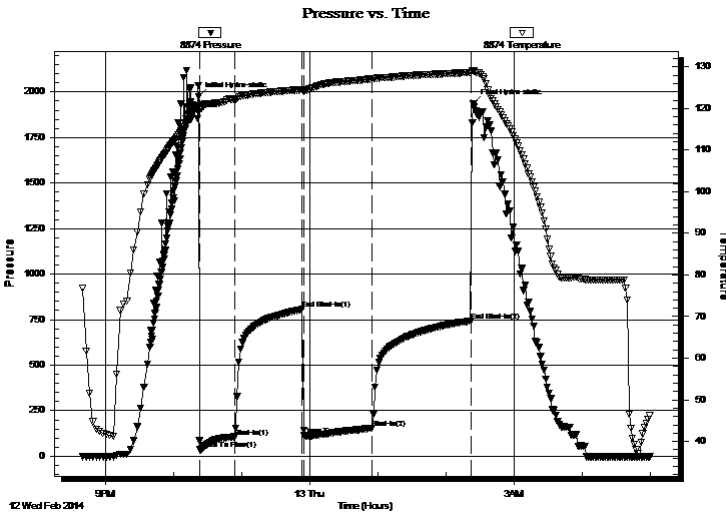
2014.02.12 @ 22:22:20

Time Off Btm:

2014.02.13 @ 02:24:00

TEST COMMENT: 30 - IF- 1/2" Blow built to BoB in 17 min.
60 - IS- Surface Return started at min. Built to 1 1/2"
60 - FF- Surface Blow built to BoB in 12 min.
90 - FS- Surface Return built to 7"

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1976.67 | 120.25 | Initial Hydro-static |
| 1 | 35.99 | 119.80 | Open To Flow (1) |
| 32 | 106.06 | 122.25 | Shut-In(1) |
| 91 | 806.49 | 124.51 | End Shut-In(1) |
| 93 | 113.42 | 124.35 | Open To Flow (2) |
| 153 | 153.43 | 127.09 | Shut-In(2) |
| 240 | 744.12 | 128.63 | End Shut-In(2) |
| 242 | 1936.16 | 129.05 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------------------|--------------|
| 120.00 | OCM 10o 90M | 0.59 |
| 91.00 | GOCM 5G 25o 70M | 0.68 |
| 123.00 | Clean Gassy Oil 10G 90o | 1.73 |
| 0.00 | 400' 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.

3-1s-37w Cheyenne,KS

250 N Water STE #300
Wichita, KS 67202

Carolyn #1-3

Job Ticket: 53390

DST#: 3

ATTN: Ken Wallace

Test Start: 2014.02.12 @ 20:39:00

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 3790.00 ft | Diameter: 3.80 inches | Volume: 53.16 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: 186.00 ft | Diameter: 2.25 inches | Volume: 0.91 bbl | Weight to Pull Loose: | 75000.00 lb |
| | | | <u>Total Volume: 54.07 bbl</u> | Tool Chased | ft |
| Drill Pipe Above KB: | 8.00 ft | | | String Weight: Initial | 70000.00 lb |
| Depth to Top Packer: | 3996.00 ft | | | Final | 72000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 122.00 ft | | | | |
| Tool Length: | 150.00 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 | | | 3969.00 | |
| Shut In Tool | 5.00 | | | 3974.00 | |
| Hydraulic tool | 5.00 | | | 3979.00 | |
| Jars | 5.00 | | | 3984.00 | |
| Safety Joint | 3.00 | | | 3987.00 | |
| Packer | 5.00 | | | 3992.00 | 28.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3996.00 | |
| Stubb | 1.00 | | | 3997.00 | |
| Recorder | 0.00 | 8653 | Outside | 3997.00 | |
| Recorder | 0.00 | 8874 | Inside | 3997.00 | |
| Perforations | 21.00 | | | 4018.00 | |
| Change Over Sub | 1.00 | | | 4019.00 | |
| Drill Pipe | 93.00 | | | 4112.00 | |
| Change Over Sub | 1.00 | | | 4113.00 | |
| Bullnose | 5.00 | | | 4118.00 | 122.00 Bottom Packers & Anchor |

Total Tool Length: 150.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

3-1s-37w Cheyenne,KS

250 N Water STE #300
Wichita, KS 67202

Carolyn #1-3

Job Ticket: 53390

DST#: 3

ATTN: Ken Wallace

Test Start: 2014.02.12 @ 20:39:00

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: 90.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------------------|---------------|
| 120.00 | OCM 10o 90M | 0.590 |
| 91.00 | GOCM 5G 25o 70M | 0.675 |
| 123.00 | Clean Gassy Oil 10G 90o | 1.725 |
| 0.00 | 400' GIP | 0.000 |

Total Length: 334.00 ft Total Volume: 2.990 bbl

Num Fluid Samples: 0

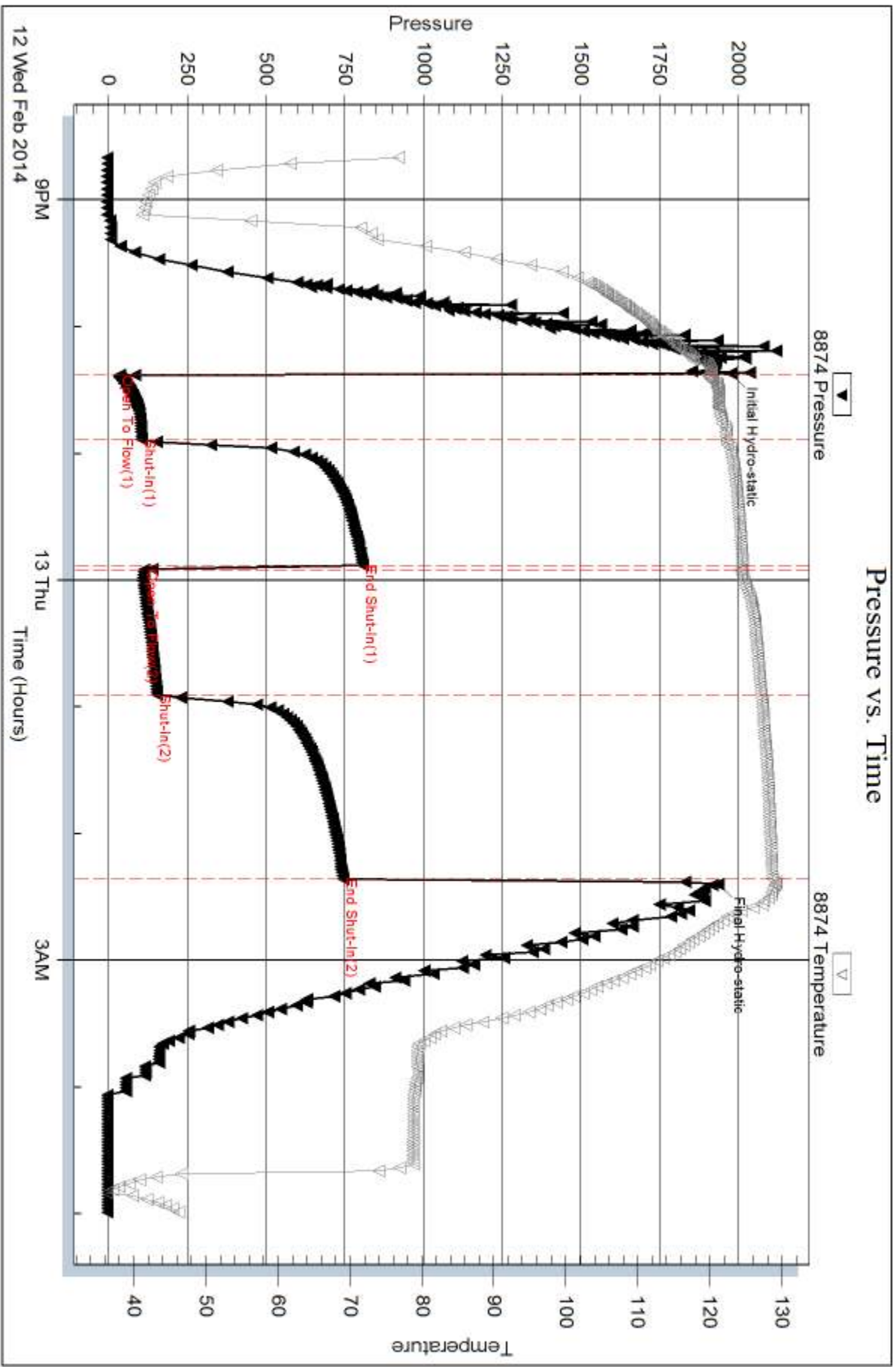
Num Gas Bombs: 0

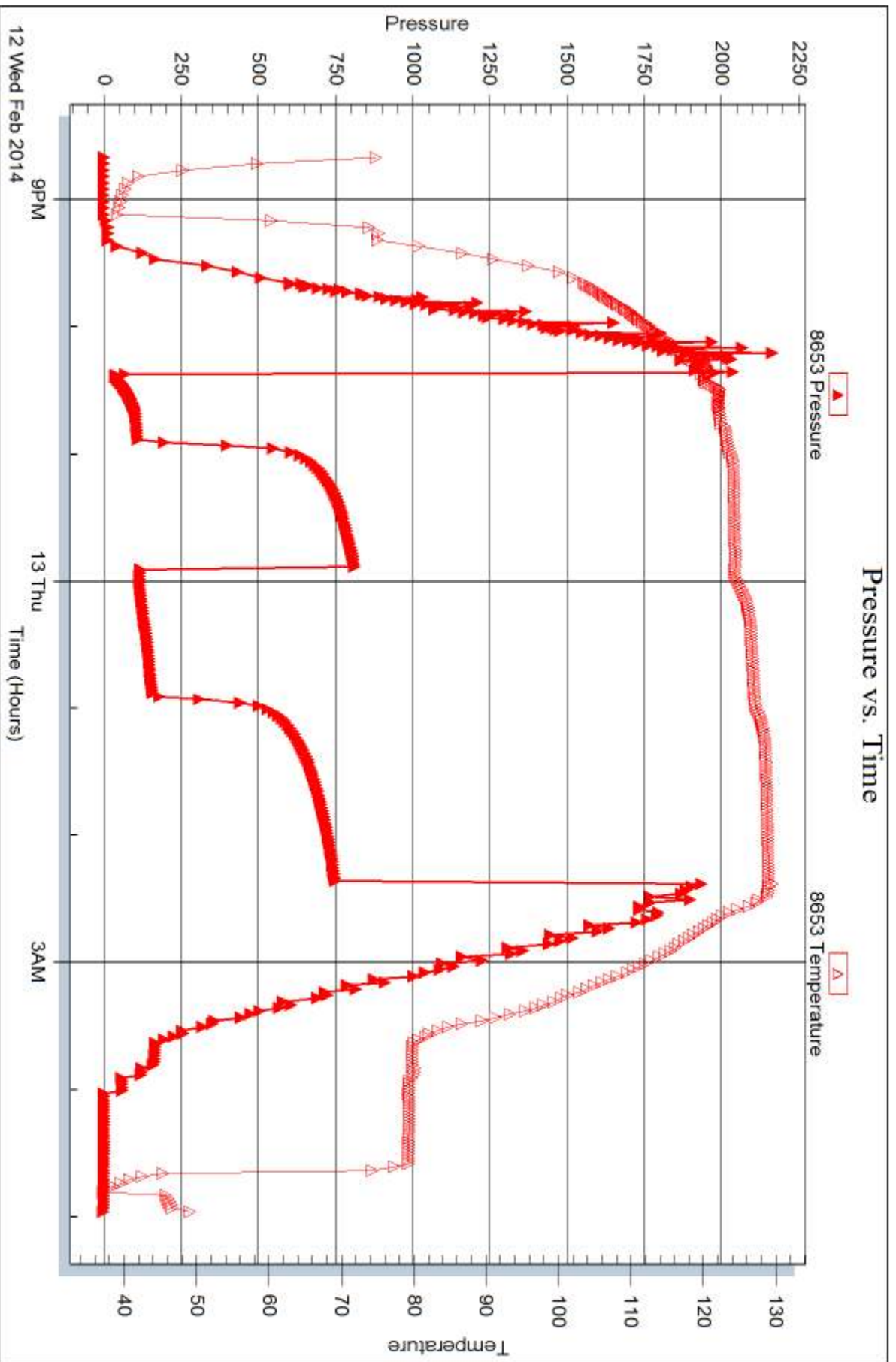
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Oil API = 28 @ 50 deg = 29 corrected







DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67202

ATTN: Ken Wallace

Carolyn #1-3

3-1s-37w Cheyenne,KS

Start Date: 2014.02.13 @ 15:50:00

End Date: 2014.02.13 @ 22:21:00

Job Ticket #: 53391 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.02.19 @ 14:02:36



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

3-1s-37w Cheyenne,KS

250 N Water STE #300
Wichita, KS 67202

Carolyn #1-3

Job Ticket: 53391

DST#: 4

ATTN: Ken Wallace

Test Start: 2014.02.13 @ 15:50:00

GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:28:40

Time Test Ended: 22:21:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 4130.00 ft (KB) To 4175.00 ft (KB) (TVD)

Reference Elevations: 3087.00 ft (KB)

Total Depth: 4175.00 ft (KB) (TVD)

3077.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8874

Inside

Press@RunDepth: 17.19 psig @ 4131.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.13

End Date:

2014.02.13

Last Calib.:

2014.02.13

Start Time: 15:51:00

End Time:

22:21:00

Time On Btm:

2014.02.13 @ 17:28:30

Time Off Btm:

2014.02.13 @ 20:33:00

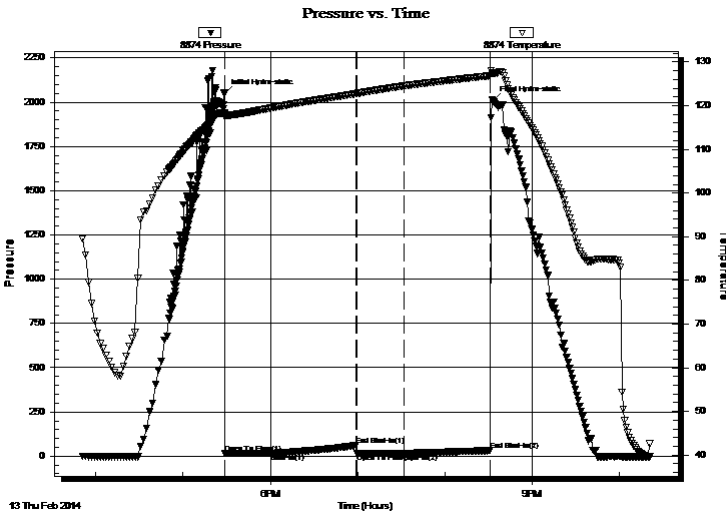
TEST COMMENT: 30 - IF- 1/4" Blow built to 1/2" then died back to 1/4"

60 - IS- No Return

30 - FF- No Blow

60 - FS- No Return

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2050.84 | 118.29 | Initial Hydro-static |
| 1 | 14.91 | 117.37 | Open To Flow (1) |
| 32 | 15.71 | 119.44 | Shut-In(1) |
| 90 | 60.13 | 122.71 | End Shut-In(1) |
| 91 | 16.42 | 122.78 | Open To Flow (2) |
| 123 | 17.19 | 124.50 | Shut-In(2) |
| 183 | 32.00 | 126.85 | End Shut-In(2) |
| 185 | 2007.14 | 127.42 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------------|--------------|
| 5.00 | OSM 100M (oil spots) | 0.02 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

3-1s-37w Cheyenne,KS

250 N Water STE #300
Wichita, KS 67202

Carolyn #1-3

Job Ticket: 53391

DST#: 4

ATTN: Ken Wallace

Test Start: 2014.02.13 @ 15:50:00

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 3949.00 ft | Diameter: 3.80 inches | Volume: 55.39 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: 186.00 ft | Diameter: 2.25 inches | Volume: 0.91 bbl | Weight to Pull Loose: | 72000.00 lb |
| | | | <u>Total Volume: 56.30 bbl</u> | Tool Chased | ft |
| Drill Pipe Above KB: | 33.00 ft | | | String Weight: Initial | 68000.00 lb |
| Depth to Top Packer: | 4130.00 ft | | | Final | 68000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 45.00 ft | | | | |
| Tool Length: | 73.00 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 | | | 4103.00 | |
| Shut In Tool | 5.00 | | | 4108.00 | |
| Hydraulic tool | 5.00 | | | 4113.00 | |
| Jars | 5.00 | | | 4118.00 | |
| Safety Joint | 3.00 | | | 4121.00 | |
| Packer | 5.00 | | | 4126.00 | 28.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4130.00 | |
| Stubb | 1.00 | | | 4131.00 | |
| Recorder | 0.00 | 8653 | Outside | 4131.00 | |
| Recorder | 0.00 | 8874 | Inside | 4131.00 | |
| Perforations | 6.00 | | | 4137.00 | |
| Change Over Sub | 1.00 | | | 4138.00 | |
| Drill Pipe | 31.00 | | | 4169.00 | |
| Change Over Sub | 1.00 | | | 4170.00 | |
| Bullnose | 5.00 | | | 4175.00 | 45.00 Bottom Packers & Anchor |

Total Tool Length: 73.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

3-1s-37w Cheyenne,KS

250 N Water STE #300
Wichita, KS 67202

Carolyn #1-3

Job Ticket: 53391

DST#: 4

ATTN: Ken Wallace

Test Start: 2014.02.13 @ 15:50:00

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|----------------------|---------------|
| 5.00 | OSM 100M (oil spots) | 0.025 |

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

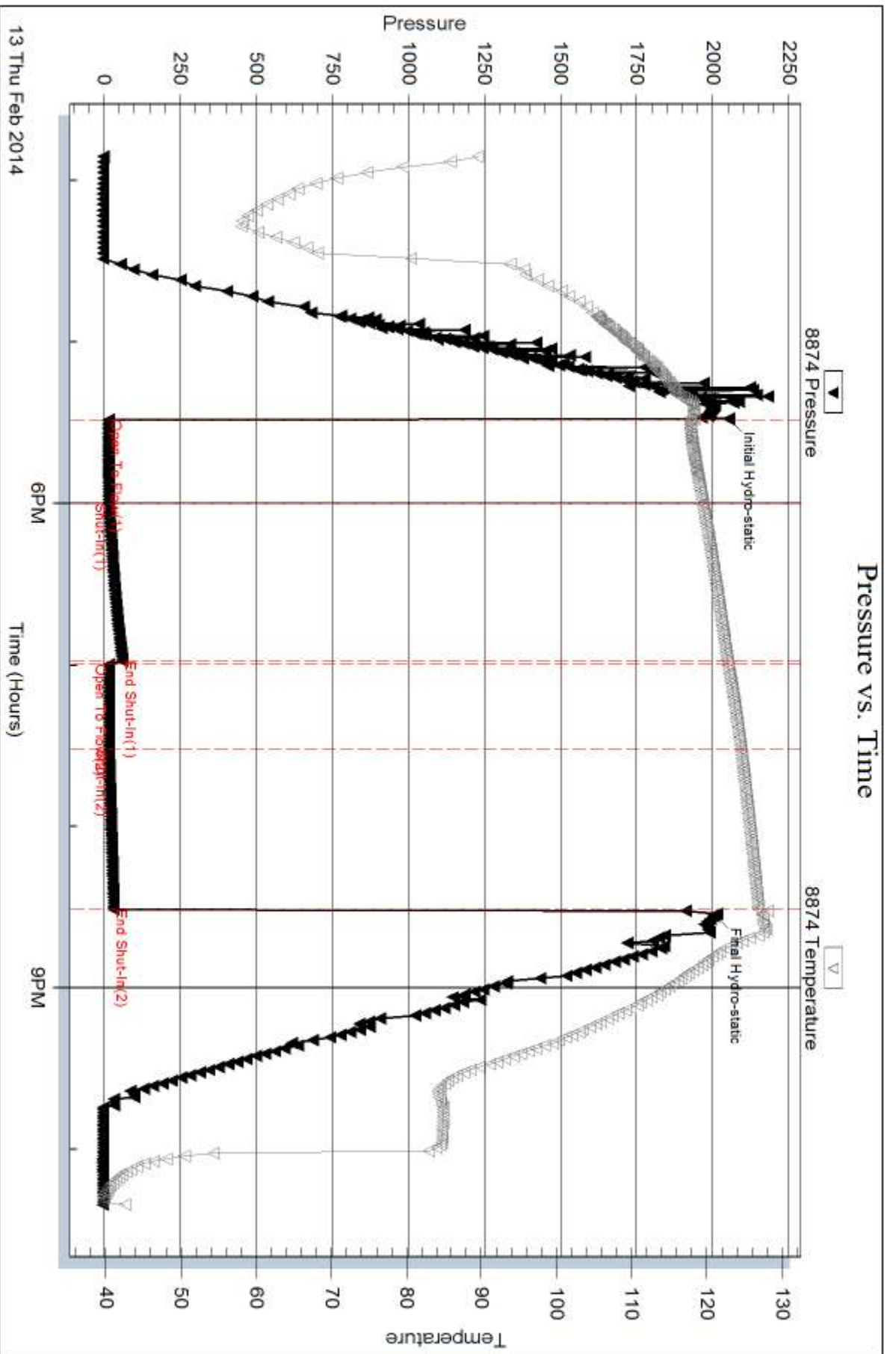
Num Gas Bombs: 0

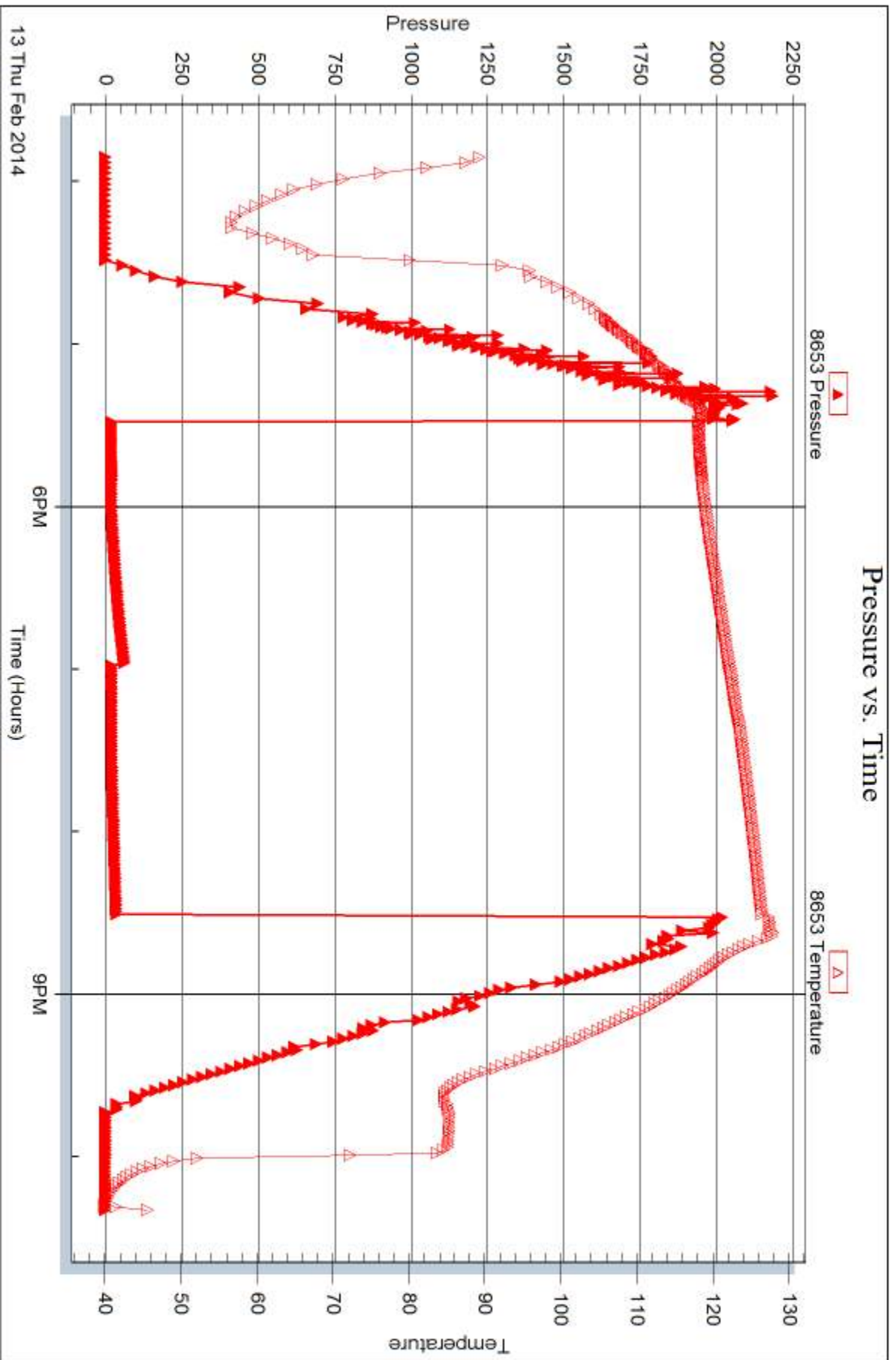
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67202

ATTN: Ken Wallace

Carolyn #1-3

3-1s-37w Cheyenne,KS

Start Date: 2014.02.15 @ 05:41:54

End Date: 2014.02.15 @ 13:32:54

Job Ticket #: 56751 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.02.19 @ 14:02:03



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

3-1s-37w Cheyenne, KS

250 N Water STE #300
Wichita, KS 67202

Carolyn #1-3

Job Ticket: 56751

DST#: 5

ATTN: Ken Wallace

Test Start: 2014.02.15 @ 05:41:54

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:06:24

Time Test Ended: 13:32:54

Test Type: Conventional Bottom Hole (Reset)

Tester: Robert Zodrow

Unit No: 66

Interval: 4419.00 ft (KB) To 4464.00 ft (KB) (TVD)

Reference Elevations: 3087.00 ft (KB)

Total Depth: 4464.00 ft (KB) (TVD)

3077.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8874 Inside

Press@RunDepth: 19.51 psig @ 4420.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.15

End Date:

2014.02.15

Last Calib.:

2014.02.15

Start Time: 05:42:54

End Time:

13:32:54

Time On Btm:

2014.02.15 @ 08:05:54

Time Off Btm:

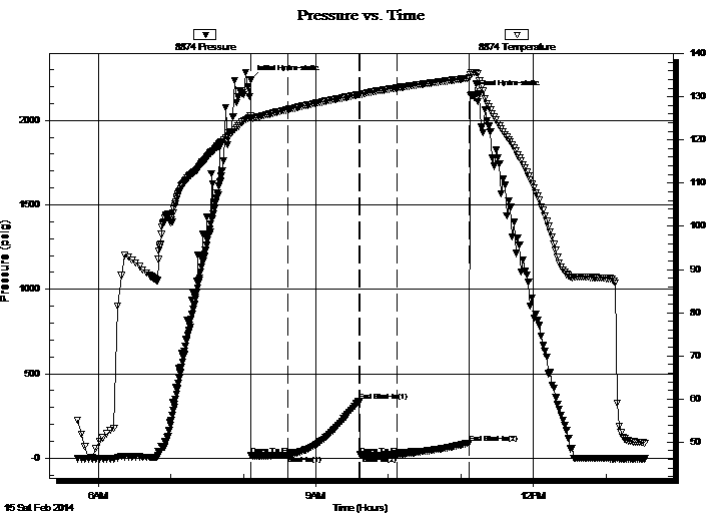
2014.02.15 @ 11:08:54

TEST COMMENT: 30-IS- Blow Built To 1/4"

60-IS- No Return

30-FF- No Blow

60-FS- No Return



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2239.46 | 125.50 | Initial Hydro-static |
| 1 | 15.39 | 124.97 | Open To Flow (1) |
| 31 | 16.62 | 127.05 | Shut-In(1) |
| 90 | 335.10 | 130.48 | End Shut-In(1) |
| 91 | 19.63 | 130.51 | Open To Flow (2) |
| 121 | 19.51 | 132.05 | Shut-In(2) |
| 181 | 89.96 | 134.31 | End Shut-In(2) |
| 183 | 2152.23 | 135.48 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------------|--------------|
| 18.00 | MCO 54%o 45%m 1%g | 0.09 |
| 2.00 | oil 99%o 1%g | 0.01 |
| | | |
| | | |
| | | |

* 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.

3-1s-37w Cheyenne,KS

250 N Water STE #300
Wichita, KS 67202

Carolyn #1-3

Job Ticket: 56751

DST#: 5

ATTN: Ken Wallace

Test Start: 2014.02.15 @ 05:41:54

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 4223.00 ft | Diameter: 3.80 inches | Volume: 59.24 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: 186.00 ft | Diameter: 2.25 inches | Volume: 0.91 bbl | Weight to Pull Loose: | 70000.00 lb |
| | | | <u>Total Volume: 60.15 bbl</u> | Tool Chased | ft |
| Drill Pipe Above KB: | 18.00 ft | | | String Weight: Initial | 66000.00 lb |
| Depth to Top Packer: | 4419.00 ft | | | Final | 66000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 45.00 ft | | | | |
| Tool Length: | 73.00 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 | | | 4392.00 | |
| Shut In Tool | 5.00 | | | 4397.00 | |
| Hydraulic tool | 5.00 | | | 4402.00 | |
| Jars | 5.00 | | | 4407.00 | |
| Safety Joint | 3.00 | | | 4410.00 | |
| Packer | 5.00 | | | 4415.00 | 28.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4419.00 | |
| Stubb | 1.00 | | | 4420.00 | |
| Recorder | 0.00 | 8653 | Outside | 4420.00 | |
| Recorder | 0.00 | 8874 | Inside | 4420.00 | |
| Perforations | 6.00 | | | 4426.00 | |
| Change Over Sub | 1.00 | | | 4427.00 | |
| Drill Pipe | 31.00 | | | 4458.00 | |
| Change Over Sub | 1.00 | | | 4459.00 | |
| Bullnose | 5.00 | | | 4464.00 | 45.00 Bottom Packers & Anchor |

Total Tool Length: 73.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

3-1s-37w Cheyenne,KS

250 N Water STE #300
Wichita, KS 67202

Carolyn #1-3

Job Ticket: 56751

DST#: 5

ATTN: Ken Wallace

Test Start: 2014.02.15 @ 05:41:54

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: 75.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------------|---------------|
| 18.00 | MCO 54%o 45%m 1%g | 0.089 |
| 2.00 | oil 99%o 1%g | 0.010 |

Total Length: 20.00 ft Total Volume: 0.099 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8874

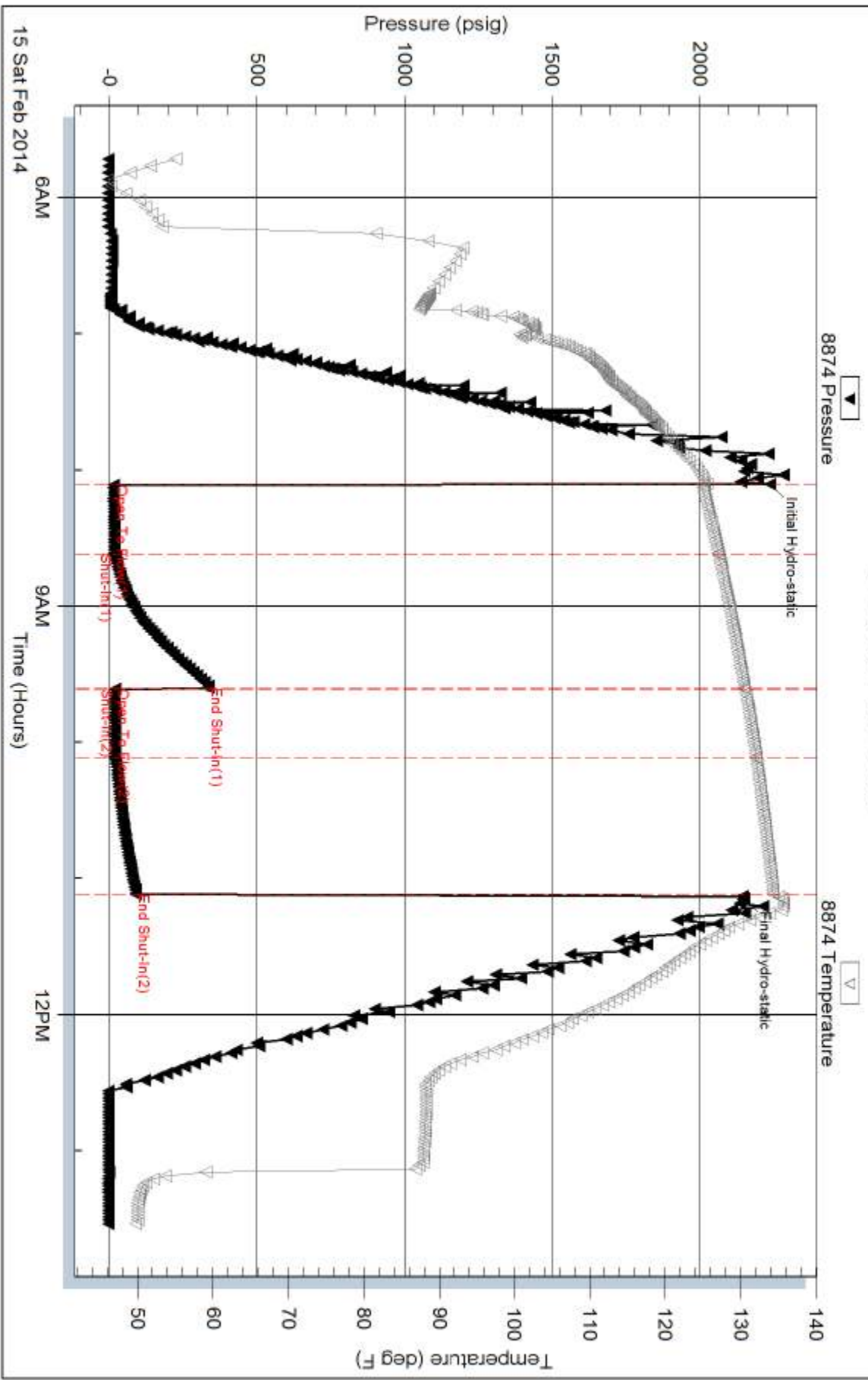
Inside

Murfin Drilling Co., Inc.

Carohn #1-3

DST Test Number: 5

Pressure vs. Time



15 Sat Feb 2014

Trilobite Testing, Inc

Ref. No: 56751

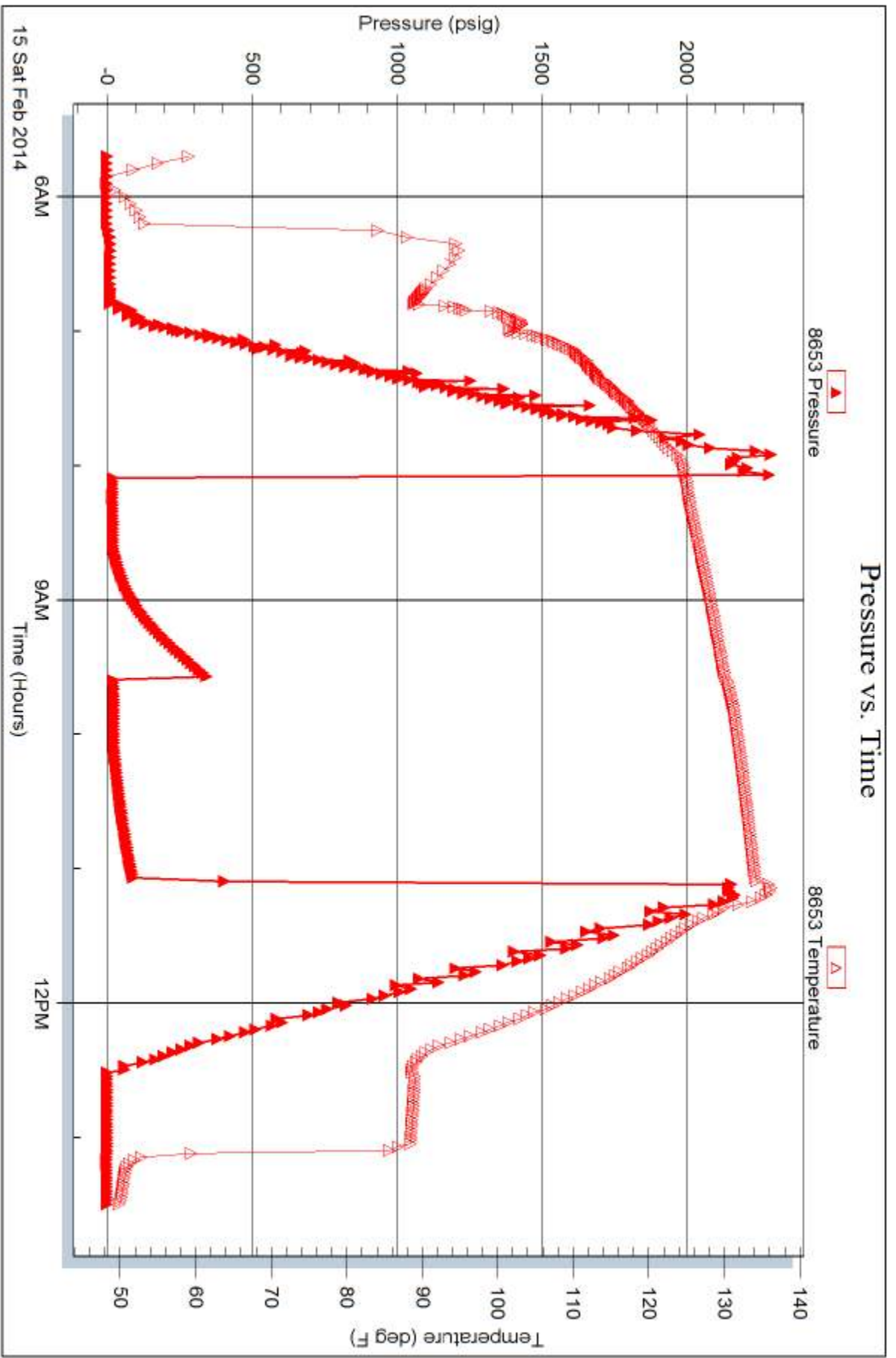
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Serial #: 8653

Outside Murfin Drilling Co., Inc.

Carohn #1-3

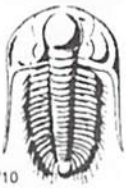
DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 56751

Printed: 2014.02.19 @ 14:02:05



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53388

4/10

Well Name & No. Carolyn #1-3 Test No. 1 Date 2-10-14
 Company Murfin Drilling Co., Inc. Elevation 3087 KB 3077 GL
 Address 250 N Water STE #300 Wichita, KS 67202
 Co. Rep / Geo. Ken Wallace Rig Murfin #20
 Location: Sec. 3 Twp. 1S Rge. 37W Co. Cheyenne State KS

Interval Tested 3575-3627 Zone Tested Foraker
 Anchor Length 52' Drill Pipe Run 3371' Mud Wt. 8.8
 Top Packer Depth 3571 Drill Collars Run 186' Vis 54
 Bottom Packer Depth 3575 Wt. Pipe Run Ø WL 5.6
 Total Depth 3627 Chlorides 800 ppm System LCM 4#

Blow Description IF- Bled-off initial surge - weak surface blow did not build or die
ISI- weak surface return did not build or die
FF- Pulled tools after initial shut in.
FSC-

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|------------|------|------|-------------|------|
| <u>315</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 |

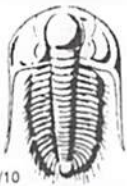
Rec Total 315 BHT 120 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1739 Test 1150 T-On Location 12:00 AM
 (B) First Initial Flow 129 Jars 250 T-Started 12:43 AM
 (C) First Final Flow 129 Safety Joint 75 T-Open 3:35 AM
 (D) Initial Shut-In 491 Circ Sub N/C T-Pulled 4:35 AM
 (E) Second Initial Flow - Hourly Standby - T-Out 6:45 AM
 (F) Second Final Flow - Mileage ~~1000~~ 162 RT 251.10 Comments Tool hit several
 (G) Final Shut-In - Sampler - bridges starting approx
 (H) Final Hydrostatic 1718 Straddle - 30' above bottom (chased tool
 Shale Packer - approx 20' to bottom.
 Ruined Shale Packer -
 Ruined Packer -
 Extra Copies -

Initial Open 30 Sub Total 0
 Initial Shut-In 30 Total 1726.10
 Final Flow - MP/DST Disc't -
 Final Shut-In - Sub Total 1726.10

Approved By _____ Our Representative

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53389

Well Name & No. Carolyn #1-3 Test No. 2 Date 2-10-14
 Company Murfin Drilling Co., Inc Elevation 3087 KB 3077 GL
 Address 250 N Water STE #300 Wichita, KS 67202
 Co. Rep / Geo. Ken Wallace Rig Murfin #20
 Location: Sec. 3 Twp. 1S Rge. 37W Co. Cheyenne State KS

Interval Tested 3575-3627 Zone Tested Foraker
 Anchor Length 52 Drill Pipe Run 3371 Mud Wt. 8.8
 Top Packer Depth 3571 Drill Collars Run 186 Vis 54
 Bottom Packer Depth 3575 Wt. Pipe Run 0 WL 5.6
 Total Depth 3627 Chlorides 800 ppm System LCM 4#
 Blow Description IF- 1/2" Blow built to 3/4" Then died back to 1/2"
ISI- No Return
FF- No Blow
FSI- No Return

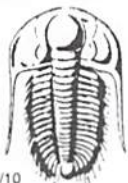
| Rec | Feet of | %gas | %oil | %water | %mud |
|----------|------------|------|------|-------------|------|
| <u>5</u> | <u>mud</u> | | | <u>100%</u> | |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

Rec Total 5 BHT 116 Gravity - API RW - @ - ° F Chlorides - ppm

| | | |
|-------------------------------------|--|--|
| (A) Initial Hydrostatic <u>1701</u> | <input checked="" type="checkbox"/> Test <u>1150</u> | T-On Location <u>12:00 AM</u> |
| (B) First Initial Flow <u>17</u> | <input checked="" type="checkbox"/> Jars <u>250</u> | T-Started <u>2:01 PM</u> |
| (C) First Final Flow <u>18</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>4:25 PM</u> |
| (D) Initial Shut-In <u>410</u> | <input checked="" type="checkbox"/> Circ Sub <u>N/C</u> | T-Pulled <u>7:15 PM</u> |
| (E) Second Initial Flow <u>18</u> | <input type="checkbox"/> Hourly Standby | T-Out <u>9:20 PM</u> |
| (F) Second Final Flow <u>19</u> | <input checked="" type="checkbox"/> Mileage <u>162 RT</u> | Comments |
| (G) Final Shut-In | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic | <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>1475</u> |
| | <input type="checkbox"/> Accessibility | MP/DST Disc't |
| | Sub Total <u>1475</u> | |

Approved By _____ Our Representative

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53390

Well Name & No. Carolyn #1-3 Test No. 3 Date 2-12-14
 Company Murfin Drilling Co., Inc Elevation 3087 KB 3077 GL
 Address 250 N Water STE #300 Wichita, KS 67202
 Co. Rep / Geo. Ken Wallace Rig Murfin #20
 Location: Sec. 3 Twp. 1S Rge. 37W Co. Cheyenne State KS

Interval Tested 3996-4118 Zone Tested LKL "A-D"
 Anchor Length 122' Drill Pipe Run 3790 Mud Wt. 9.3
 Top Packer Depth 3992 Drill Collars Run 186 Vis 90
 Bottom Packer Depth 3996 Wt. Pipe Run 0 WL 5.2
 Total Depth 4118 Chlorides 400 ppm System LCM 6#

Blow Description IF - 1/2" Blow built to B.O.B in 17 min.
ISI - Surface Return built to 1 1/2"
FF - Surface Blow built to BoB in 12 min.
FSI - Surface Return built to 7"

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|-----------------------------|-----------|-------------------------|-------------------------|-----------|
| <u>123</u> | <u>Clean Gassy Oil</u> | <u>10</u> | <u>90</u> | | |
| <u>91</u> | <u>GOCM GOCM</u> | <u>5</u> | <u>25 25</u> | <u>70 70</u> | |
| <u>120</u> | <u>GOCM OCM</u> | | <u>10</u> | | <u>90</u> |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

Rec Total 334 BHT 129 Gravity 29 API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1976 Test 1250 T-On Location 8:30 PM
 (B) First Initial Flow 35 Jars 250 T-Started 8:39 PM
 (C) First Final Flow 106 Safety Joint 75 T-Open 10:25 PM
 (D) Initial Shut-In 806 Circ Sub NIC T-Pulled 2:25 AM
 (E) Second Initial Flow 113 Hourly Standby _____ T-Out 5:00 AM
 (F) Second Final Flow 153 Mileage 162 RT 251.10 Comments 400' GIP
 (G) Final Shut-In 744 Sampler _____
 (H) Final Hydrostatic 1936 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

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

Day Standby 1d 23.25
 Accessibility _____
 Sub Total 1826.10

Sub Total 775
 Total 2601.10
 MP/DST Disc't _____

Approved By _____ Our Representative

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53391

Well Name & No. Carolyn #1-3 Test No. 4 Date 2-13-14
 Company Murfin Drilling Co., Inc. Elevation 3087 KB 3077 GL
 Address 250 N Water STE #300 Wichita, KS 67202
 Co. Rep / Geo. Ken Wallace Rig Murfin #20
 Location: Sec. 3 Twp. 1S Rge. 37 W Co. Cherokee State KS

Interval Tested 4130-4175 Zone Tested LKC "G"
 Anchor Length 45' Drill Pipe Run 3949 Mud Wt. 9.4
 Top Packer Depth 4126 Drill Collars Run 186 Vis 60
 Bottom Packer Depth 4130 Wt. Pipe Run 0 WL 6.0
 Total Depth 4175 Chlorides 400 ppm System LCM 7#

Blow Description IF - 1/4" Blow built to 1/2" then died back to 1/4"
ISF - No Return
FF - No Blow
FSL - No Return

| Rec | Feet of | %gas | spots | %oil | %water | %mud |
|-----|---------|------|-------|------|--------|------|
| 5 | OSM | | | | 1000 | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

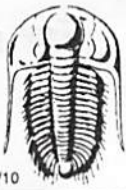
Rec Total 5 BHT 127 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 2050 Test 1250 T-On Location 2:45 PM
 (B) First Initial Flow 14 Jars 250 T-Started 3:50 PM
 (C) First Final Flow 15 Safety Joint 75 T-Open 5:30 PM
 (D) Initial Shut-In 60 Circ Sub NIC T-Pulled 8:30 PM
 (E) Second Initial Flow 16 Hourly Standby _____ T-Out 10:30 PM
 (F) Second Final Flow 17 Mileage 162 RT 251.10
 (G) Final Shut-In 32 Sampler _____
 (H) Final Hydrostatic 2007 Straddle _____

Initial Open 30 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 60 Extra Packer _____ Ruined Packer _____
 Final Flow 30 Extra Recorder _____ Sub Total 0
 Final Shut-In 60 Day Standby _____ Total 1826.10
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1826.10

Approved By _____ Our Representative

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56751

4/10

Well Name & No. Carolyn #1-3 Test No. 5 Date 2-15-14
 Company Murfin Drilling CO, Inc. Elevation 3087 KB 3077 GL
 Address 250 N Water STE #300 Wichita, KS 67202
 Co. Rep / Geo. Ken Wallace Rig Murfin #20
 Location: Sec. 3 Twp. 15 Rge. 37W Co. Cheyenne State KS

Interval Tested 4419 - 4464 Zone Tested Pownee
 Anchor Length 45 Drill Pipe Run 4223 Mud Wt. 9.4
 Top Packer Depth 4419 Drill Collars Run 186 Vis 75
 Bottom Packer Depth 4419 Wt. Pipe Run 0 WL 6.4
 Total Depth 4464 Chlorides 500 ppm System LCM 8
 Blow Description IF - blow built to 1/4"
ISI - no return
FF - no blow
FSI - no return

| Rec | Feet of | %gas | %oil | %water | %mud |
|-----------|------------|----------|-----------|--------|-----------|
| <u>2</u> | <u>OIL</u> | <u>1</u> | <u>99</u> | | |
| <u>18</u> | <u>MCO</u> | <u>1</u> | <u>54</u> | | <u>45</u> |
| | | | | | |
| | | | | | |
| | | | | | |

Rec Total 20 BHT 134 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2239 Test 1250 T-On Location 5:30 AM
 (B) First Initial Flow 15 Jars 250 T-Started 5:41 AM
 (C) First Final Flow 16 Safety Joint 75 T-Open 8:05 AM
 (D) Initial Shut-In 335 Circ Sub NIC T-Pulled 11:05 AM
 (E) Second Initial Flow 20 Hourly Standby _____ T-Out 1:30 PM
 (F) Second Final Flow 20 Mileage 162 RT 251.10 Comments _____
 (G) Final Shut-In 90 Sampler _____
 (H) Final Hydrostatic 2152 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 300
 Day Standby _____ Total 2126.10
 Accessibility 1d 9h MP/DST Disc't _____
 Sub Total 1826.10

Approved By Ken Wallace Our Representative Robert Zedeno

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