



## DRILL STEM TEST REPORT

Prepared For: **Baird Oil Company LLC**

PO Box 428  
Logan, KS 67646

ATTN: Rich Bell

**David Worcester 2-24**

**24- 7s-22w Graham,KS**

Start Date: 2014.05.22 @ 15:26:06

End Date: 2014.05.22 @ 20:56:36

Job Ticket #: 59233                      DST #: 1

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

Printed: 2014.05.28 @ 08:28:11



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Baird Oil Company LLC

**24- 7s-22w Graham,KS**

PO Box 428  
Logan, KS 67646

**David Worcester 2-24**

ATTN: Rich Bell

Job Ticket: 59233

**DST#: 1**

Test Start: 2014.05.22 @ 15:26:06

## GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:35:06

Time Test Ended: 20:56:36

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan L

Unit No: 48

**Interval: 3440.00 ft (KB) To 3460.00 ft (KB) (TVD)**

Reference Elevations: 2163.00 ft (KB)

Total Depth: 3460.00 ft (KB) (TVD)

2156.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 8372**

**Inside**

Press@RunDepth: 151.68 psig @ 3457.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.22

End Date:

2014.05.22

Last Calib.:

2014.05.22

Start Time: 15:26:07

End Time:

20:56:36

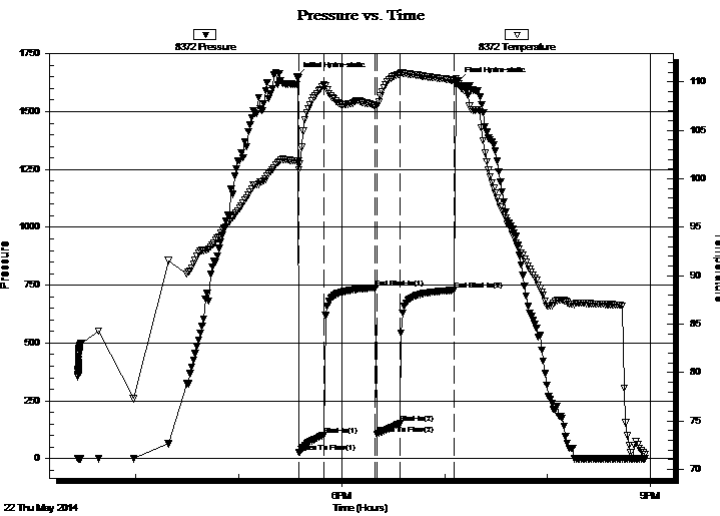
Time On Btm:

2014.05.22 @ 17:34:06

Time Off Btm:

2014.05.22 @ 19:07:36

**TEST COMMENT:** 15- IF- BOB 10 mins  
30- IS- No blow  
15- FF- BOB 12 mins  
30- FS- No blow



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1651.96         | 101.84       | Initial Hydro-static |
| 1           | 28.94           | 100.91       | Open To Flow (1)     |
| 16          | 102.93          | 109.75       | Shut-In(1)           |
| 46          | 738.20          | 107.55       | End Shut-In(1)       |
| 47          | 106.18          | 107.55       | Open To Flow (2)     |
| 60          | 151.68          | 110.82       | Shut-In(2)           |
| 92          | 728.41          | 110.17       | End Shut-In(2)       |
| 94          | 1631.92         | 110.18       | Final Hydro-static   |

## Recovery

| Length (ft) | Description                 | Volume (bbl) |
|-------------|-----------------------------|--------------|
| 300.00      | MW w / oil spots, 30%M 70%W | 3.04         |
|             |                             |              |
|             |                             |              |
|             |                             |              |
|             |                             |              |

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Baird Oil Company LLC

**24- 7s-22w Graham,KS**

PO Box 428  
Logan, KS 67646

**David Worcester 2-24**

Job Ticket: 59233

**DST#: 1**

ATTN: Rich Bell

Test Start: 2014.05.22 @ 15:26:06

## Tool Information

|                           |                    |                       |                      |                        |             |
|---------------------------|--------------------|-----------------------|----------------------|------------------------|-------------|
| Drill Pipe:               | Length: 3329.00 ft | Diameter: 3.75 inches | Volume: 45.48 bbl    | Tool Weight:           | 2000.00 lb  |
| Heavy Wt. Pipe:           | Length: ft         | Diameter: 2.75 inches | Volume: - bbl        | Weight set on Packer:  | 25000.00 lb |
| Drill Collar:             | Length: 121.00 ft  | Diameter: 2.25 inches | Volume: 0.60 bbl     | Weight to Pull Loose:  | 70000.00 lb |
|                           |                    |                       | <u>Total Volume:</u> | Tool Chased            | 0.00 ft     |
|                           |                    |                       | - bbl                | String Weight: Initial | 52000.00 lb |
| Drill Pipe Above KB:      | 30.00 ft           |                       |                      | Final                  | 54000.00 lb |
| Depth to Top Packer:      | 3440.00 ft         |                       |                      |                        |             |
| Depth to Bottom Packer:   | ft                 |                       |                      |                        |             |
| Interval between Packers: | 20.00 ft           |                       |                      |                        |             |
| Tool Length:              | 40.00 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         |            |          | 3421.00    |                               |
| Shut In Tool              | 5.00         |            |          | 3426.00    |                               |
| Hydraulic tool            | 5.00         |            |          | 3431.00    |                               |
| Packer                    | 5.00         |            |          | 3436.00    | 20.00 Bottom Of Top Packer    |
| Packer                    | 4.00         |            |          | 3440.00    |                               |
| Stubb                     | 1.00         |            |          | 3441.00    |                               |
| Perforations              | 16.00        |            |          | 3457.00    |                               |
| Recorder                  | 0.00         | 8372       | Inside   | 3457.00    |                               |
| Recorder                  | 0.00         | 8321       | Outside  | 3457.00    |                               |
| Bullnose                  | 3.00         |            |          | 3460.00    | 20.00 Bottom Packers & Anchor |
| <b>Total Tool Length:</b> | <b>40.00</b> |            |          |            |                               |



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Baird Oil Company LLC

**24- 7s-22w Graham,KS**

PO Box 428  
Logan, KS 67646

**David Worcester 2-24**

Job Ticket: 59233

**DST#: 1**

ATTN: Rich Bell

Test Start: 2014.05.22 @ 15:26:06

## 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:

7000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1300.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

| Length<br>ft | Description                 | Volume<br>bbl |
|--------------|-----------------------------|---------------|
| 300.00       | MW w / oil spots, 30%M 70%W | 3.040         |

Total Length: 300.00 ft

Total Volume: 3.040 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

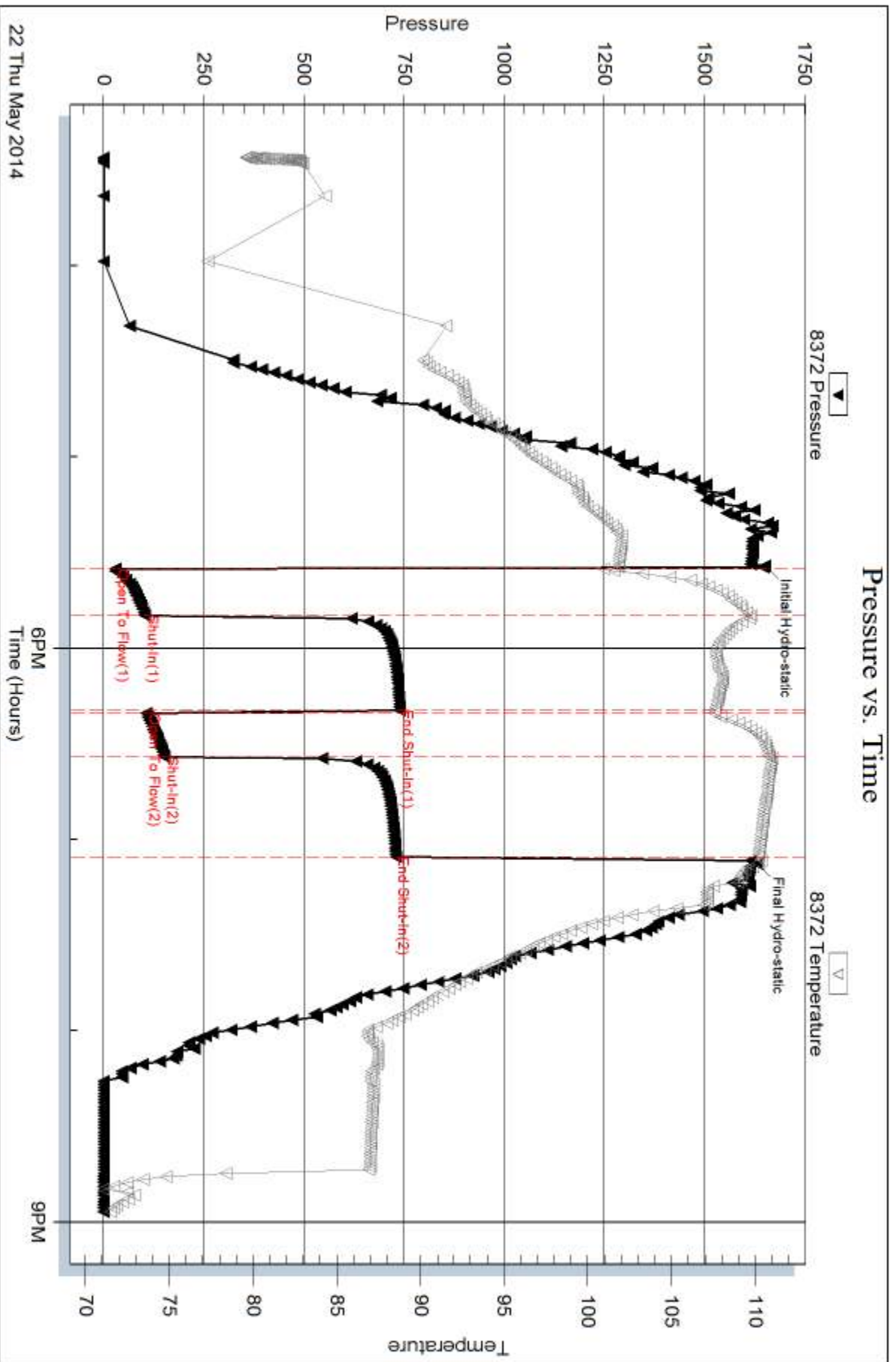
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

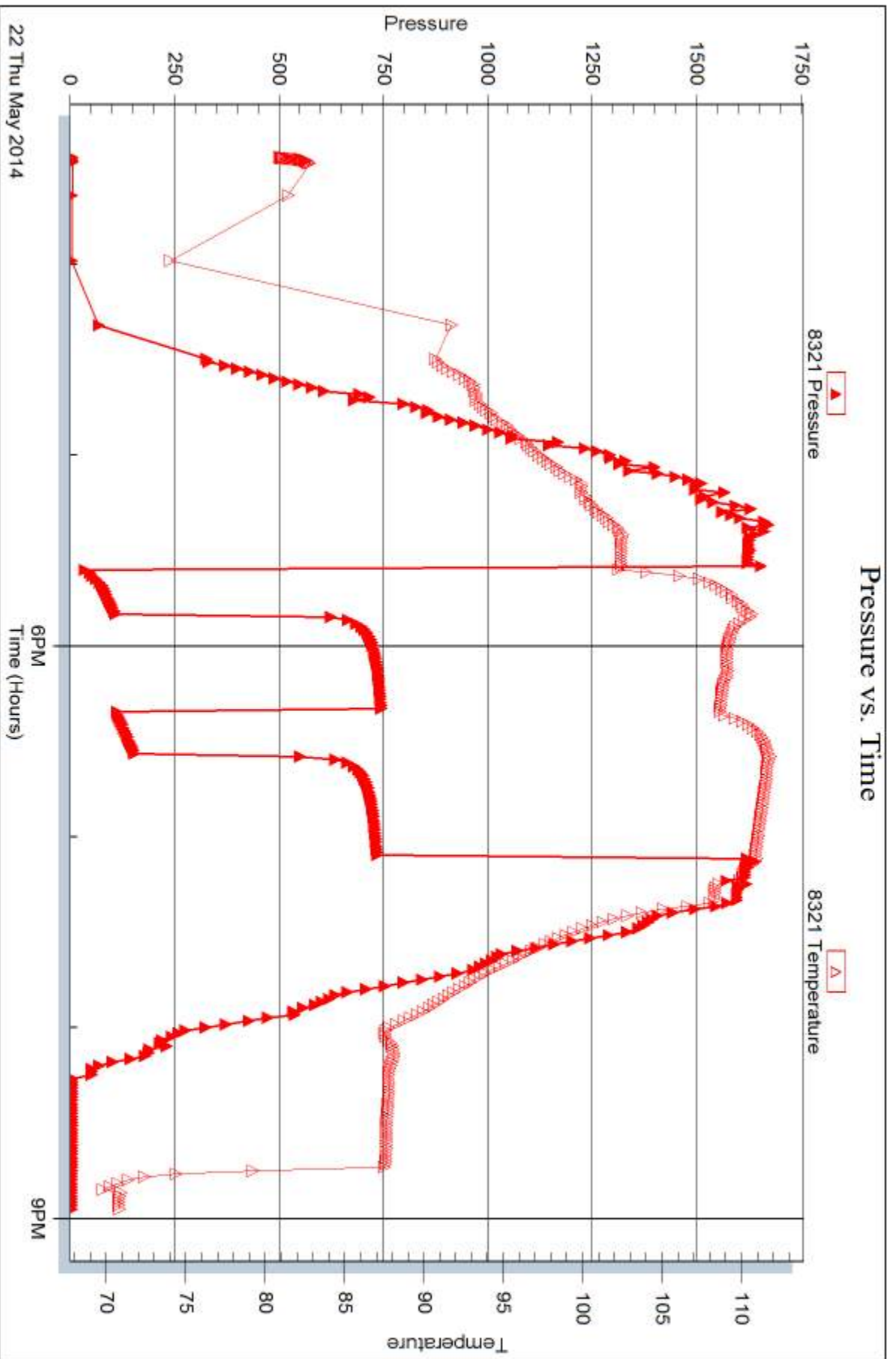


Serial #: 8321

Outside Baird Oil Company LLC

David Worcester 2-24

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 59233

Printed: 2014 05 28 @ 08:28:13



## DRILL STEM TEST REPORT

Prepared For: **Baird Oil Company LLC**

PO Box 428  
Logan, KS 67646

ATTN: Rich Bell

**David Worcester 2-24**

**24- 7s-22w Graham,KS**

Start Date: 2014.05.23 @ 02:36:44

End Date: 2014.05.23 @ 10:11:14

Job Ticket #: 59234                      DST #: 2

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

Printed: 2014.05.28 @ 08:27:18





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Baird Oil Company LLC

**24- 7s-22w Graham,KS**

PO Box 428  
Logan, KS 67646

**David Worcester 2-24**

ATTN: Rich Bell

Job Ticket: 59234

**DST#: 2**

Test Start: 2014.05.23 @ 02:36:44

## GENERAL INFORMATION:

Formation: **LKC "F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:19:14

Time Test Ended: 10:11:14

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan L

Unit No: 48

**Interval: 3459.00 ft (KB) To 3479.00 ft (KB) (TVD)**

Reference Elevations: 2163.00 ft (KB)

Total Depth: 3479.00 ft (KB) (TVD)

2156.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

## Serial #: 8372

Inside

Press@RunDepth: 65.59 psig @ 3476.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.23

End Date:

2014.05.23

Last Calib.:

2014.05.23

Start Time:

02:36:45

End Time:

10:11:14

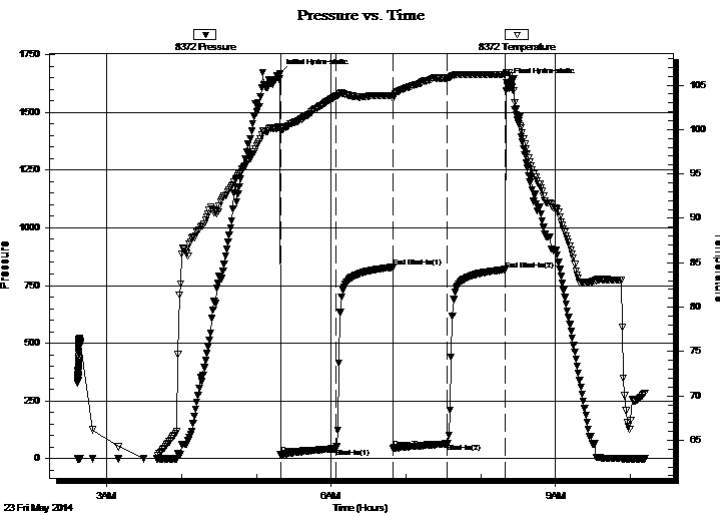
Time On Btm:

2014.05.23 @ 05:18:44

Time Off Btm:

2014.05.23 @ 08:20:44

TEST COMMENT: 45- IF- Built very slow ly to 3 1/2"  
45- IS- No blow  
45- FF- Built very slow ly to 1 1/2"  
45- FS- No blow



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1666.53         | 100.29       | Initial Hydro-static |
| 1           | 17.30           | 100.05       | Open To Flow (1)     |
| 45          | 44.41           | 103.76       | Shut-In(1)           |
| 91          | 828.97          | 103.84       | End Shut-In(1)       |
| 91          | 46.24           | 103.42       | Open To Flow (2)     |
| 135         | 65.59           | 105.79       | Shut-In(2)           |
| 181         | 819.02          | 106.18       | End Shut-In(2)       |
| 182         | 1630.37         | 106.43       | Final Hydro-static   |

## Recovery

| Length (ft) | Description    | Volume (bbl) |
|-------------|----------------|--------------|
| 100.00      | OCM, 15%O 85%M | 0.49         |
|             |                |              |
|             |                |              |
|             |                |              |
|             |                |              |

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Baird Oil Company LLC

**24- 7s-22w Graham,KS**

PO Box 428  
Logan, KS 67646

**David Worcester 2-24**

Job Ticket: 59234

**DST#: 2**

ATTN: Rich Bell

Test Start: 2014.05.23 @ 02:36:44

## Tool Information

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 3329.00 ft | Diameter: 3.75 inches | Volume: 45.48 bbl              | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 2.75 inches | Volume: 0.00 bbl               | Weight set on Packer: 25000.00 lb  |
| Drill Collar:             | Length: 121.00 ft  | Diameter: 2.25 inches | Volume: 0.60 bbl               | Weight to Pull Loose: 58000.00 lb  |
|                           |                    |                       | <u>Total Volume: 46.08 bbl</u> | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 11.00 ft           |                       |                                | String Weight: Initial 55000.00 lb |
| Depth to Top Packer:      | 3459.00 ft         |                       |                                | Final 55000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 20.00 ft           |                       |                                |                                    |
| Tool Length:              | 40.00 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         |            |          | 3440.00    |                               |
| Shut In Tool              | 5.00         |            |          | 3445.00    |                               |
| Hydraulic tool            | 5.00         |            |          | 3450.00    |                               |
| Packer                    | 5.00         |            |          | 3455.00    | 20.00 Bottom Of Top Packer    |
| Packer                    | 4.00         |            |          | 3459.00    |                               |
| Stubb                     | 1.00         |            |          | 3460.00    |                               |
| Perforations              | 16.00        |            |          | 3476.00    |                               |
| Recorder                  | 0.00         | 8372       | Inside   | 3476.00    |                               |
| Recorder                  | 0.00         | 8321       | Outside  | 3476.00    |                               |
| Bullnose                  | 3.00         |            |          | 3479.00    | 20.00 Bottom Packers & Anchor |
| <b>Total Tool Length:</b> | <b>40.00</b> |            |          |            |                               |



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Baird Oil Company LLC

**24- 7s-22w Graham,KS**

PO Box 428  
Logan, KS 67646

**David Worcester 2-24**

Job Ticket: 59234

**DST#: 2**

ATTN: Rich Bell

Test Start: 2014.05.23 @ 02:36:44

## 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: 6.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1300.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

| Length<br>ft | Description    | Volume<br>bbl |
|--------------|----------------|---------------|
| 100.00       | OCM, 15%O 85%M | 0.492         |

Total Length: 100.00 ft      Total Volume: 0.492 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

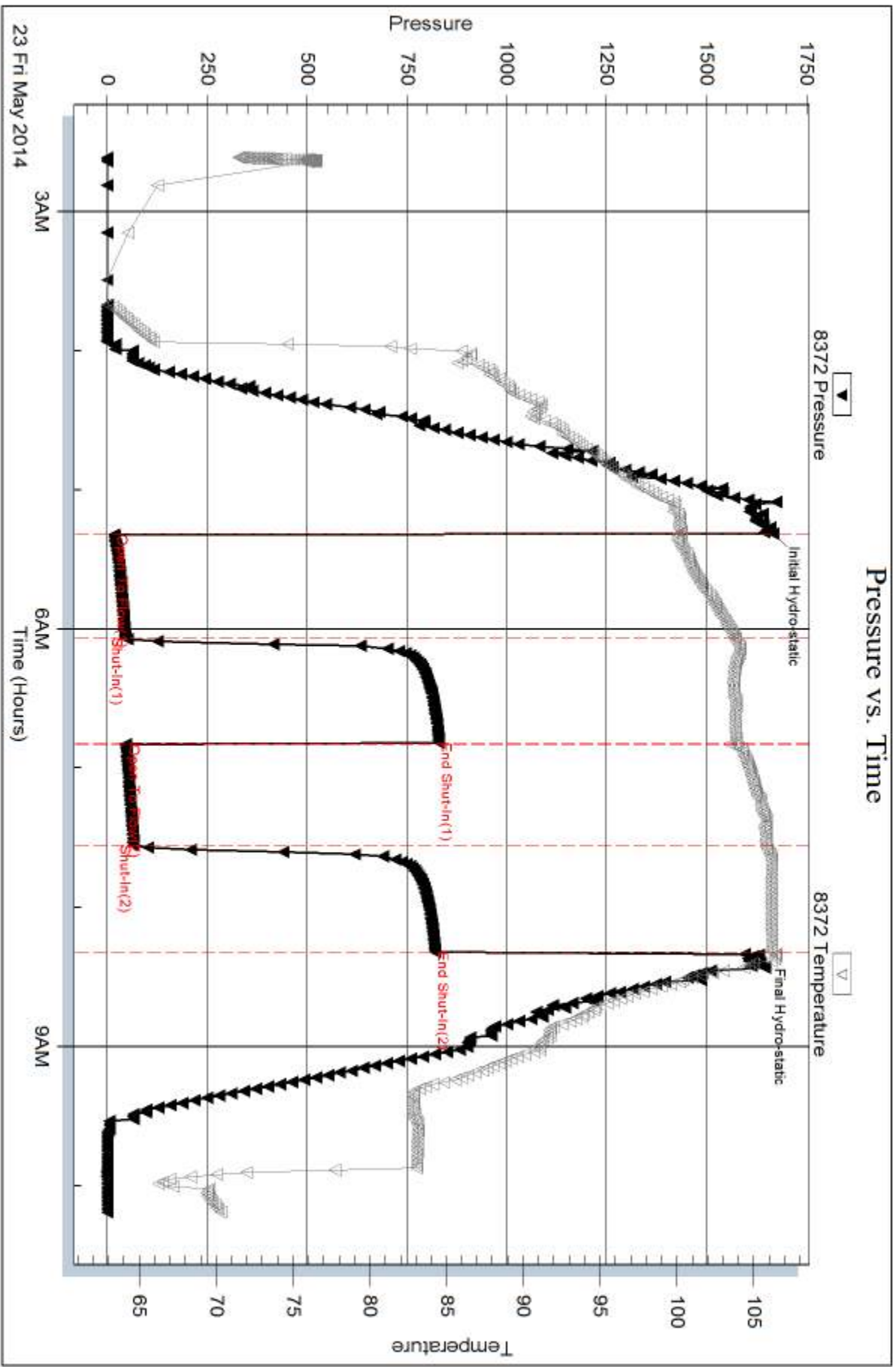
Serial #: 8372

Inside

Baird Oil Company LLC

David Worcester 2-24

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 59234

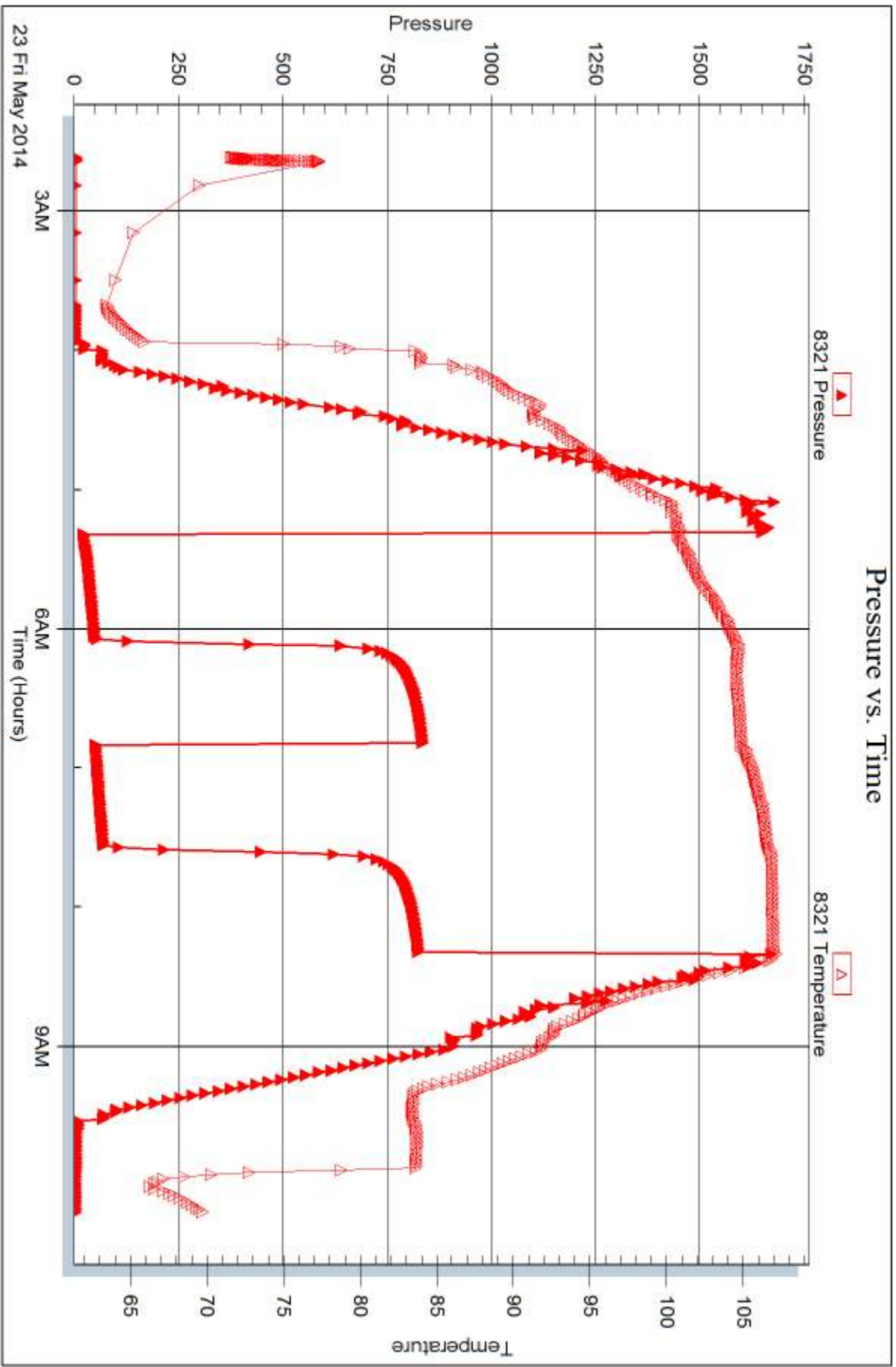
Printed: 2014.05.28 @ 08:27:19

Serial #: 8321

Outside Baird Oil Company LLC

David Worcester 2-24

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 59234

Printed: 2014.05.28 @ 08:27:19



## DRILL STEM TEST REPORT

Prepared For: **Baird Oil Company LLC**

PO Box 428  
Logan, KS 67646

ATTN: Rich Bell

**David Worcester 2-24**

**24- 7s-22w Graham,KS**

Start Date: 2014.05.24 @ 10:34:30

End Date: 2014.05.24 @ 17:01:30

Job Ticket #: 59235                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.05.28 @ 08:26:41

Baird Oil Company LLC

24- 7s-22w Graham,KS

David Worcester 2-24

DST # 3

Arbuckle

2014.05.24



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Baird Oil Company LLC

**24- 7s-22w Graham,KS**

PO Box 428  
Logan, KS 67646

**David Worcester 2-24**

ATTN: Rich Bell

Job Ticket: 59235

**DST#: 3**

Test Start: 2014.05.24 @ 10:34:30

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:40:30

Time Test Ended: 17:01:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan L / Tate Lan

Unit No: 48

**Interval: 3666.00 ft (KB) To 3727.00 ft (KB) (TVD)**

Reference Elevations: 2163.00 ft (KB)

Total Depth: 3727.00 ft (KB) (TVD)

2156.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 8372**

**Inside**

Press@RunDepth: 201.33 psig @ 3690.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.24

End Date:

2014.05.24

Last Calib.: 2014.05.24

Start Time: 10:34:31

End Time:

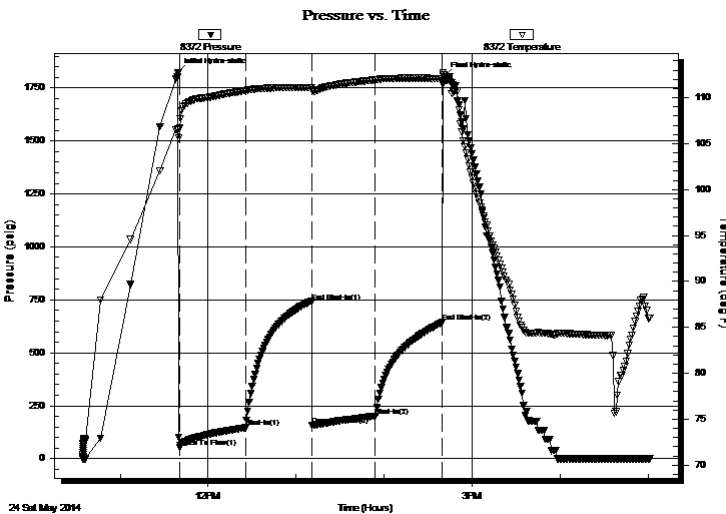
17:01:30

Time On Btm: 2014.05.24 @ 11:39:30

Time Off Btm: 2014.05.24 @ 14:40:30

**TEST COMMENT:** Fair blow built to 5 1/2" died back to 1 1/2"  
Dead no blow back  
Weak surface blow built to 3" died back to 1/2"  
Dead no blow back

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1823.46         | 106.56       | Initial Hydro-static |
| 1           | 54.37           | 106.67       | Open To Flow (1)     |
| 46          | 146.69          | 110.77       | Shut-In(1)           |
| 91          | 739.94          | 111.07       | End Shut-In(1)       |
| 92          | 159.06          | 110.84       | Open To Flow (2)     |
| 135         | 201.33          | 111.93       | Shut-In(2)           |
| 180         | 643.29          | 112.12       | End Shut-In(2)       |
| 181         | 1801.31         | 112.54       | Final Hydro-static   |

## Recovery

| Length (ft) | Description   | Volume (bbl) |
|-------------|---------------|--------------|
| 60.00       | OCM 30%O 70%M | 0.30         |
| 412.00      | Oil 100%O     | 5.09         |
|             |               |              |
|             |               |              |
|             |               |              |

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Baird Oil Company LLC

**24- 7s-22w Graham,KS**

PO Box 428  
Logan, KS 67646

**David Worcester 2-24**

Job Ticket: 59235

**DST#: 3**

ATTN: Rich Bell

Test Start: 2014.05.24 @ 10:34:30

## Tool Information

|                           |                    |                       |                      |                        |             |
|---------------------------|--------------------|-----------------------|----------------------|------------------------|-------------|
| Drill Pipe:               | Length: 3548.00 ft | Diameter: 3.75 inches | Volume: 48.47 bbl    | Tool Weight:           | 2000.00 lb  |
| Heavy Wt. Pipe:           | Length: ft         | Diameter: 2.75 inches | Volume: - bbl        | Weight set on Packer:  | 25000.00 lb |
| Drill Collar:             | Length: 121.00 ft  | Diameter: 2.25 inches | Volume: 0.60 bbl     | Weight to Pull Loose:  | 70000.00 lb |
|                           |                    |                       | <u>Total Volume:</u> | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 23.00 ft           |                       |                      | String Weight: Initial | 56000.00 lb |
| Depth to Top Packer:      | 3666.00 ft         |                       |                      | Final                  | 56000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                      |                        |             |
| Interval between Packers: | 61.00 ft           |                       |                      |                        |             |
| Tool Length:              | 81.00 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        |            |          | 3647.00    |                               |
| Shut In Tool     | 5.00        |            |          | 3652.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 3657.00    |                               |
| Packer           | 5.00        |            |          | 3662.00    | 20.00 Bottom Of Top Packer    |
| Packer           | 4.00        |            |          | 3666.00    |                               |
| Stubb            | 1.00        |            |          | 3667.00    |                               |
| Perforations     | 23.00       |            |          | 3690.00    |                               |
| Recorder         | 0.00        | 8372       | Inside   | 3690.00    |                               |
| Recorder         | 0.00        | 8321       | Outside  | 3690.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3691.00    |                               |
| Drill Pipe       | 32.00       |            |          | 3723.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3724.00    |                               |
| Bullnose         | 3.00        |            |          | 3727.00    | 61.00 Bottom Packers & Anchor |

**Total Tool Length: 81.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Baird Oil Company LLC

**24- 7s-22w Graham,KS**

PO Box 428  
Logan, KS 67646

**David Worcester 2-24**

Job Ticket: 59235

**DST#: 3**

ATTN: Rich Bell

Test Start: 2014.05.24 @ 10:34:30

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

25 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1300.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

| Length<br>ft | Description   | Volume<br>bbbl |
|--------------|---------------|----------------|
| 60.00        | OCM 30%O 70%M | 0.295          |
| 412.00       | Oil 100%O     | 5.095          |

Total Length: 472.00 ft

Total Volume: 5.390 bbl

Num Fluid Samples: 0

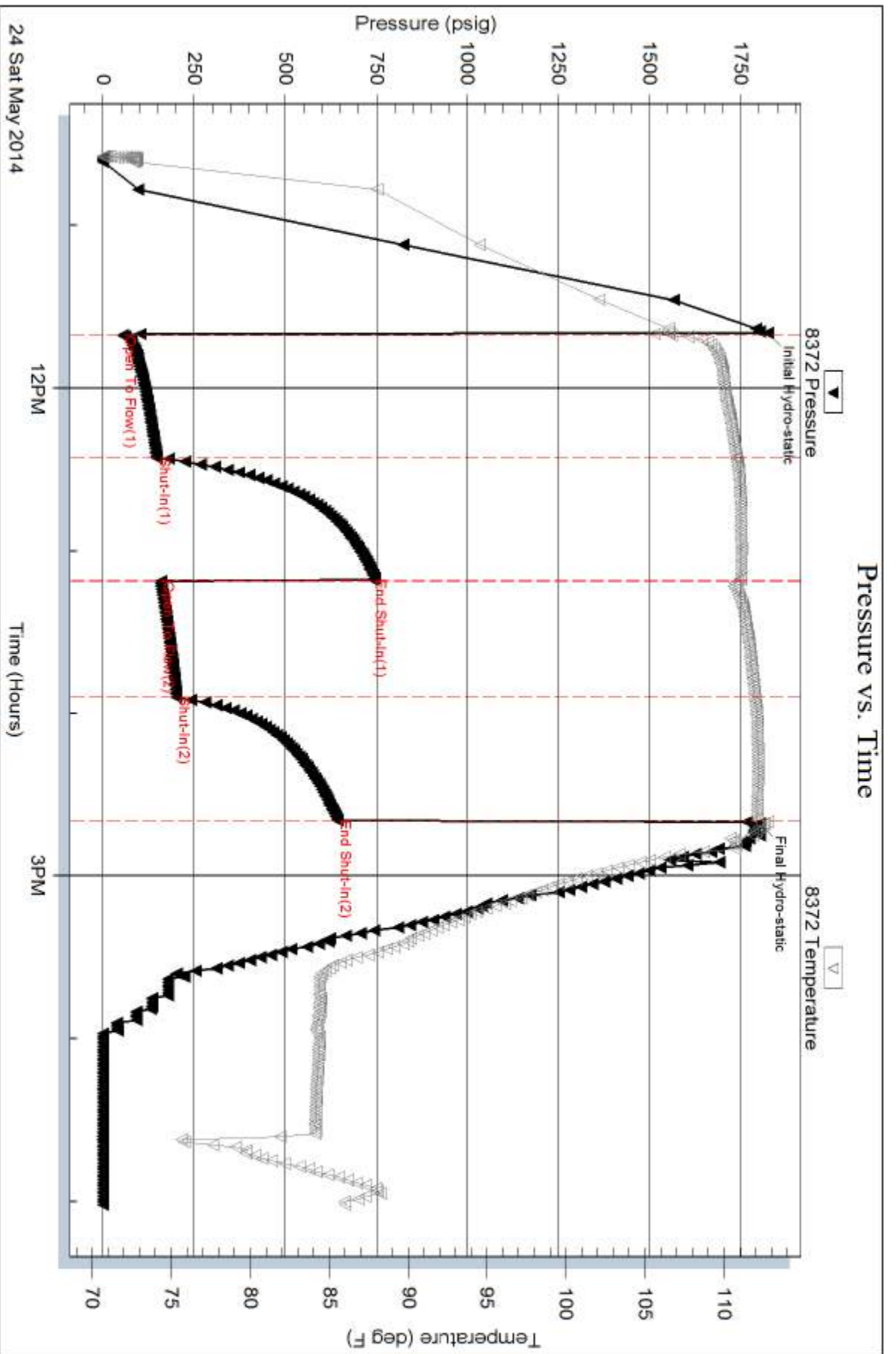
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

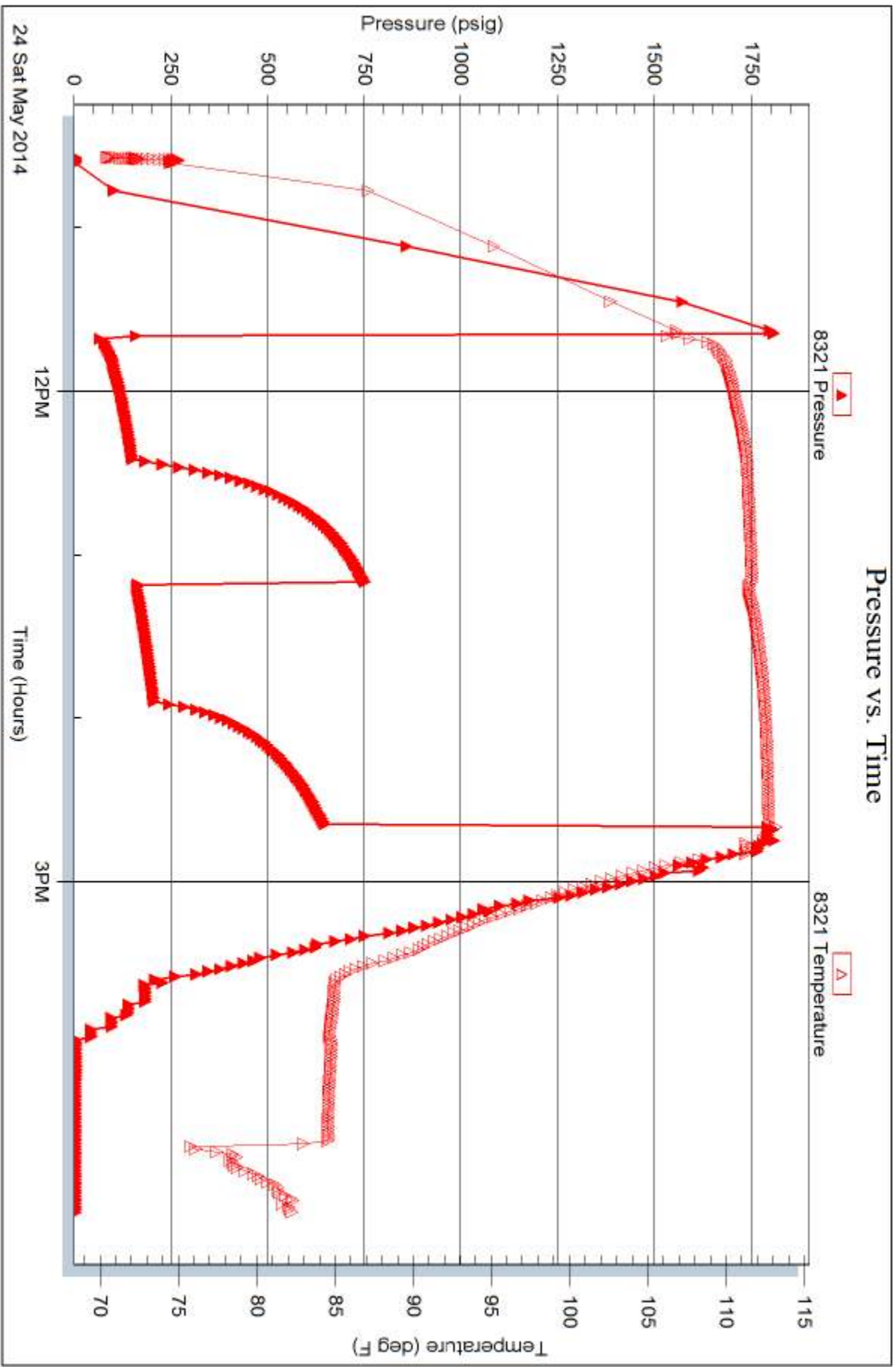


Serial #: 8321

Outside Baird Oil Company LLC

David Worcester 2-24

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 59235

Printed: 2014.05.28 @ 08:26:42



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 59233

Well Name & No. David Worcester #2-24 Test No. 1 Date 5/22/14  
 Company Barad Oil Company LLC Elevation 2163 KB 2156 GL  
 Address 113 W. Main PO Box 428 Logan, KS 67464  
 Co. Rep / Geo. Rich Bell Rig WW #12  
 Location: Sec. 24 Twp. 7S Rge. 22W Co. Crawham State KS

Interval Tested 3440 - 3460 Zone Tested LKC "C"  
 Anchor Length 20' Drill Pipe Run 3329 Mud Wt. 8.9  
 Top Packer Depth 3435 Drill Collars Run 121 Vis 57  
 Bottom Packer Depth 3440 Wt. Pipe Run — WL 6.8  
 Total Depth 3460 Chlorides 1,300 ppm System LCM 1/2#

Blow Description IF - BOB 10 mins  
ISI - No blow  
FF - BOB 12 mins  
FSTI - No blow

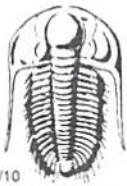
| Rec        | Feet of                | %gas | %oil | %water    | %mud      |
|------------|------------------------|------|------|-----------|-----------|
| <u>300</u> | <u>MW w/ oil spots</u> |      |      | <u>70</u> | <u>30</u> |
| Rec        | Feet of                | %gas | %oil | %water    | %mud      |
| Rec        | Feet of                | %gas | %oil | %water    | %mud      |
| Rec        | Feet of                | %gas | %oil | %water    | %mud      |
| Rec        | Feet of                | %gas | %oil | %water    | %mud      |

Rec Total 300' BHT 110° Gravity — API RW .9 @ 72° F Chlorides 7,200 ppm  
 (A) Initial Hydrostatic 1652  Test 1150 T-On Location 1524  
 (B) First Initial Flow 29  Jars — T-Started 1526  
 (C) First Final Flow 103  Safety Joint — T-Open 1735  
 (D) Initial Shut-In 738  Circ Sub — T-Pulled 1905  
 (E) Second Initial Flow 106  Hourly Standby — T-Out 2057  
 (F) Second Final Flow 152  Mileage 134 RT 207.70 Comments —  
 (G) Final Shut-In 728  Sampler —  
 (H) Final Hydrostatic 1632  Straddle —  
 Shale Packer —  Ruined Shale Packer —  
 Extra Packer —  Ruined Packer —  
 Extra Recorder —  Extra Copies —

Initial Open 15  
 Initial Shut-In 30  
 Final Flow 15  
 Final Shut-In 30  
 Sub Total 1357.70  
 Total 1357.70  
 MP/DST Disc't —

Approved By \_\_\_\_\_ Our Representative Brannan L

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. 59234

Well Name & No. David Worcester #2-24 Test No. 2 Date 5/23/14  
 Company Burd Oil Company LLC Elevation 2163 KB 2156 GL  
 Address 113 W. Main PO Box 428 Logan, KS 67646  
 Co. Rep / Geo. Rich Bell Rig WW #12  
 Location: Sec. 24 Twp. 7S Rge. 22W Co. Graham State KS

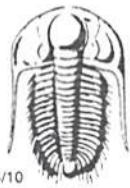
Interval Tested 3459-3479 Zone Tested LKC ~F"  
 Anchor Length 20' Drill Pipe Run 3329 Mud Wt. 8.9  
 Top Packer Depth 3454 Drill Collars Run 122 Vis 57  
 Bottom Packer Depth 3459 Wt. Pipe Run          WL 6.8  
 Total Depth 3479 Chlorides 1300 ppm System LCM 1/2"  
 Blow Description IF - Built very slowly to 3 1/2"  
ISI - No flow  
FF - Built very slowly to 1 1/2"  
FSI - No blow

| Rec        | Feet of    | %gas      | %oil | %water    | %mud |
|------------|------------|-----------|------|-----------|------|
| <u>100</u> | <u>OCM</u> | <u>15</u> |      | <u>85</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 100' BHT 106° Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1667  Test 1150 T-On Location 0234  
 (B) First Initial Flow 17  Jars \_\_\_\_\_ T-Started 0237  
 (C) First Final Flow 44  Safety Joint \_\_\_\_\_ T-Open 0519  
 (D) Initial Shut-In 829  Circ Sub \_\_\_\_\_ T-Pulled 0819  
 (E) Second Initial Flow 46  Hourly Standby \_\_\_\_\_ T-Out 1011  
 (F) Second Final Flow 66  Mileage 134 RT 207.70 Comments \_\_\_\_\_  
 (G) Final Shut-In 819  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1630  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 45  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 45  Day Standby \_\_\_\_\_ Total 1357.70  
 Final Flow 45  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 45 Sub Total 1357.70

Approved By \_\_\_\_\_ Our Representative Brannen L  
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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 59235

Well Name & No. David Worcester #2-24 Test No. 3 Date 5/24/14  
 Company Barnd Oil Company LLC Elevation 2163 KB 2156 GL  
 Address 113 W. Main PO Box 428 Logan, KS 67646  
 Co. Rep / Geo. Rich Bell Rig WW #12  
 Location: Sec. 24 Twp. 7S Rge. 22W Co. Graham State KS

Interval Tested 3666-3727 Zone Tested Airbuckle  
 Anchor Length 61' Drill Pipe Run 3548 Mud Wt. 8.9  
 Top Packer Depth 3661 Drill Collars Run 121 Vis 50  
 Bottom Packer Depth 3666 Wt. Pipe Run \_\_\_\_\_ WL 6.8  
 Total Depth 3727 Chlorides 2000 ppm System LCM 2#

Blow Description Fair blow built to 5 1/2 died back to 1 1/2 in  
Dead no blow back  
Weak surface blow built to 3 in died back to 1/2 in  
Dead no blow back

| Rec            | Feet of            | %gas | %oil           | %water | %mud           |
|----------------|--------------------|------|----------------|--------|----------------|
| Rec <u>60</u>  | Feet of <u>OCM</u> | %gas | <u>30</u> %oil | %water | <u>70</u> %mud |
| Rec <u>412</u> | Feet of <u>Oil</u> | %gas | <u>10</u> %oil | %water | %mud           |
| Rec _____      | Feet of _____      | %gas | %oil           | %water | %mud           |
| Rec _____      | Feet of _____      | %gas | %oil           | %water | %mud           |

Rec Total 472 BHT 112 Gravity 25 API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1823  Test 1150 T-On Location 0930  
 (B) First Initial Flow 54  Jars \_\_\_\_\_ T-Started 1034  
 (C) First Final Flow 147  Safety Joint \_\_\_\_\_ T-Open 1140  
 (D) Initial Shut-In 740  Circ Sub \_\_\_\_\_ T-Pulled 1440  
 (E) Second Initial Flow 159  Hourly Standby \_\_\_\_\_ T-Out 1701  
 (F) Second Final Flow 201  Mileage 134 RT 207.70 Comments Loaded after Test  
 (G) Final Shut-In Cell 3  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1801  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1357.70  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1357.70

Approved By \_\_\_\_\_ Our Representative Brannon L. [Signature]

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