



DRILL STEM TEST REPORT

Prepared For: **Black Diamond Oil**

PO Box 641
Hays KS 67601

ATTN: Jeff Lawler

Glennemeier #1

4 5s 21w Norton KS

Start Date: 2014.04.15 @ 09:05:00

End Date: 2014.04.15 @ 13:39:30

Job Ticket #: 55052 DST #: 1

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

Printed: 2014.04.23 @ 15:03:49



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55052

DST#: 1

ATTN: Jeff Lawler

Test Start: 2014.04.15 @ 09:05:00

GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:25:00

Time Test Ended: 13:39:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3182.00 ft (KB) To 3220.00 ft (KB) (TVD)

Total Depth: 3220.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2022.00 ft (KB)

2017.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8791 Inside

Press@RunDepth: 21.19 psig @ 3185.00 ft (KB)

Start Date: 2014.04.15

End Date: 2014.04.15

Start Time: 09:05:01

End Time: 13:39:30

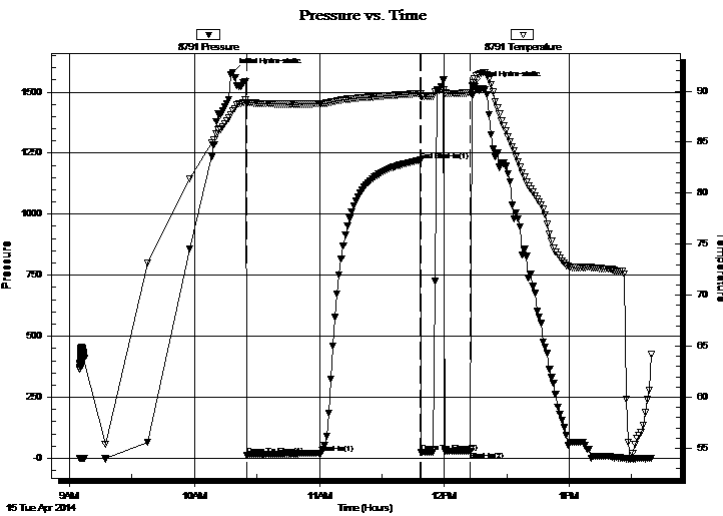
Capacity: 8000.00 psig

Last Calib.: 2014.04.15

Time On Btm: 2014.04.15 @ 10:18:30

Time Off Btm: 2014.04.15 @ 12:14:00

TEST COMMENT: IF: Weak surface blow over 30 mins.
IS: No blow back
FF: No blow. Flushed tool - Pulled tool 10 mins. afterwards



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1581.01 | 88.07 | Initial Hydro-static |
| 7 | 13.09 | 88.80 | Open To Flow (1) |
| 42 | 21.19 | 88.76 | Shut-In(1) |
| 90 | 1221.11 | 89.77 | End Shut-In(1) |
| 91 | 23.61 | 89.45 | Open To Flow (2) |
| 114 | 28.93 | 89.84 | Shut-In(2) |
| 116 | 1527.67 | 90.79 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------------|--------------|
| 20.00 | mud with oil specs | 0.10 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55052

DST#: 1

ATTN: Jeff Lawler

Test Start: 2014.04.15 @ 09:05:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3053.00 ft | Diameter: 3.80 inches | Volume: 42.83 bbl | Tool Weight: 2000.00 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: 122.00 ft | Diameter: 2.25 inches | Volume: 0.60 bbl | Weight to Pull Loose: 38000.00 lb |
| | | | <u>Total Volume: 43.43 bbl</u> | Tool Chased 2.00 ft |
| Drill Pipe Above KB: | 13.00 ft | | | String Weight: Initial 35000.00 lb |
| Depth to Top Packer: | 3182.00 ft | | | Final 35000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 38.00 ft | | | |
| Tool Length: | 58.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Shut In Tool | 5.00 | | | 3167.00 | |
| Hydraulic tool | 5.00 | | | 3172.00 | |
| Packer | 5.00 | | | 3177.00 | 20.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3182.00 | |
| Stubb | 1.00 | | | 3183.00 | |
| Perforations | 2.00 | | | 3185.00 | |
| Recorder | 0.00 | 8791 | Inside | 3185.00 | |
| Recorder | 0.00 | 8651 | Outside | 3185.00 | |
| Change Over Sub | 1.00 | | | 3186.00 | |
| Blank Spacing | 30.00 | | | 3216.00 | |
| Change Over Sub | 1.00 | | | 3217.00 | |
| Bullnose | 3.00 | | | 3220.00 | 38.00 Bottom Packers & Anchor |

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55052

DST#: 1

ATTN: Jeff Lawler

Test Start: 2014.04.15 @ 09:05:00

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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 750.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|---------------------|---------------|
| 20.00 | mud w ith oil specs | 0.098 |

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

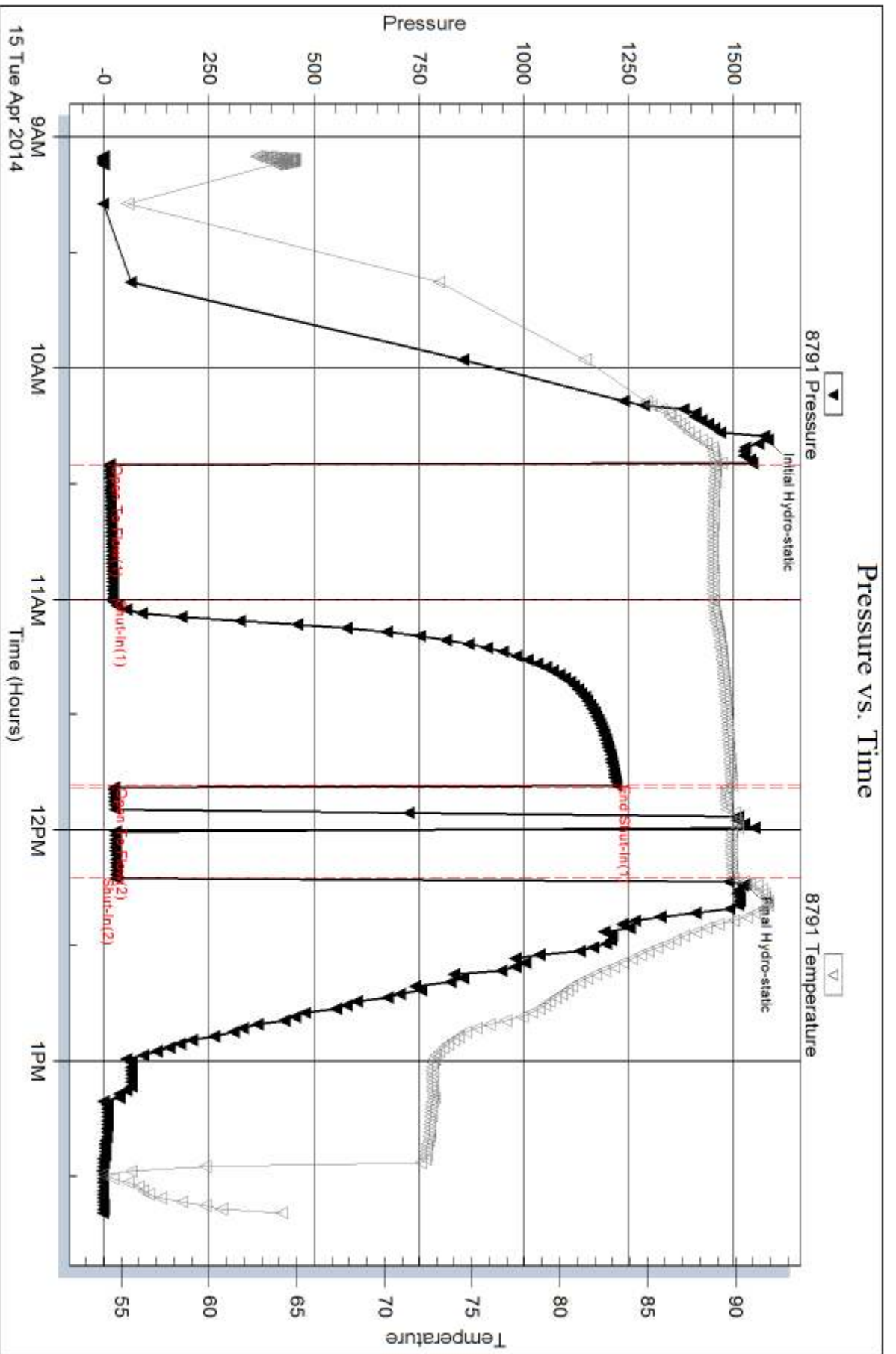
Serial #: 8791

Inside

Black Diamond Oil

Glennmeier #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Black Diamond Oil**

PO Box 641
Hays KS 67601

ATTN: Jeff Lawler

Glennemeier #1

4 5s 21w Norton KS

Start Date: 2014.04.15 @ 21:05:00

End Date: 2014.04.16 @ 02:29:30

Job Ticket #: 55053 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.23 @ 15:03:24



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55053

DST#: 2

ATTN: Jeff Lawler

Test Start: 2014.04.15 @ 21:05:00

GENERAL INFORMATION:

Formation: **LKC C-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:36:30

Time Test Ended: 02:29:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3242.00 ft (KB) To 3285.00 ft (KB) (TVD)

Reference Elevations: 2022.00 ft (KB)

Total Depth: 3285.00 ft (KB) (TVD)

2017.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8791

Inside

Press@RunDepth: 183.49 psig @ 3250.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.15

End Date:

2014.04.16

Last Calib.:

2014.04.16

Start Time:

21:05:01

End Time:

03:29:30

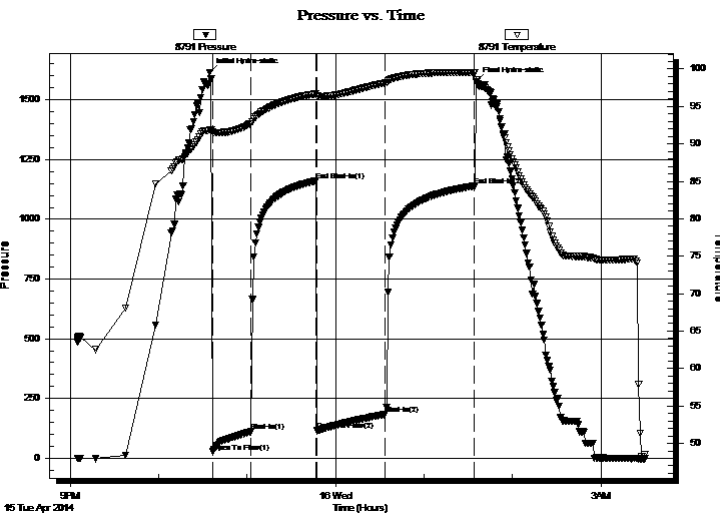
Time On Btm:

2014.04.15 @ 22:34:30

Time Off Btm:

2014.04.16 @ 01:35:30

TEST COMMENT: IF: Fair blow, Built to B.O.B in 12 mins.
IS: No blow back
FF: Fair blow, Built to B.O.B in 20 mins.
FS: No blow back



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1614.70 | 91.85 | Initial Hydro-static |
| 2 | 26.53 | 91.54 | Open To Flow (1) |
| 28 | 111.17 | 92.72 | Shut-In(1) |
| 72 | 1160.39 | 96.69 | End Shut-In(1) |
| 73 | 115.17 | 96.37 | Open To Flow (2) |
| 119 | 183.49 | 98.14 | Shut-In(2) |
| 180 | 1139.84 | 99.53 | End Shut-In(2) |
| 181 | 1576.13 | 98.53 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------|--------------|
| 186.00 | water-100% | 1.50 |
| 186.00 | MCW-20% m80%w | 2.61 |
| 62.00 | SOCWM-20% o30%w 50% m | 0.87 |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55053

DST#: 2

ATTN: Jeff Lawler

Test Start: 2014.04.15 @ 21:05:00

Tool Information

| | | | | | |
|---------------------------|---------------------|-----------------------|---------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 31013.00 ft | Diameter: 3.80 inches | Volume: 435.03 bbl | Tool Weight: | 2000.00 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: 122.00 ft | Diameter: 2.25 inches | Volume: 0.60 bbl | Weight to Pull Loose: | 40000.00 lb |
| | | | <u>Total Volume: 435.63 bbl</u> | Tool Chased | 2.00 ft |
| Drill Pipe Above KB: | 27913.00 ft | | | String Weight: Initial | 35000.00 lb |
| Depth to Top Packer: | 3242.00 ft | | | Final | 38000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 43.00 ft | | | | |
| Tool Length: | 63.00 ft | | | | |
| Number of Packers: | 2 | Diameter: | 6.75 inches | | |
| Tool Comments: | | | | | |

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Shut In Tool | 5.00 | | | 3227.00 | |
| Hydraulic tool | 5.00 | | | 3232.00 | |
| Packer | 5.00 | | | 3237.00 | 20.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3242.00 | |
| Stubb | 1.00 | | | 3243.00 | |
| Perforations | 7.00 | | | 3250.00 | |
| Recorder | 0.00 | 8791 | Inside | 3250.00 | |
| Recorder | 0.00 | 8651 | Outside | 3250.00 | |
| Change Over Sub | 1.00 | | | 3251.00 | |
| Blank Spacing | 30.00 | | | 3281.00 | |
| Change Over Sub | 1.00 | | | 3282.00 | |
| Bullnose | 3.00 | | | 3285.00 | 43.00 Bottom Packers & Anchor |

Total Tool Length: 63.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55053

DST#: 2

ATTN: Jeff Lawler

Test Start: 2014.04.15 @ 21:05:00

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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.96 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 750.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|--|---------------|
| 186.00 | water-100% | 1.498 |
| 186.00 | MCW-20% ^m 80% ^w | 2.609 |
| 62.00 | SOCWM-20% ^o 30% ^w 50% ^m | 0.870 |

Total Length: 434.00 ft Total Volume: 4.977 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

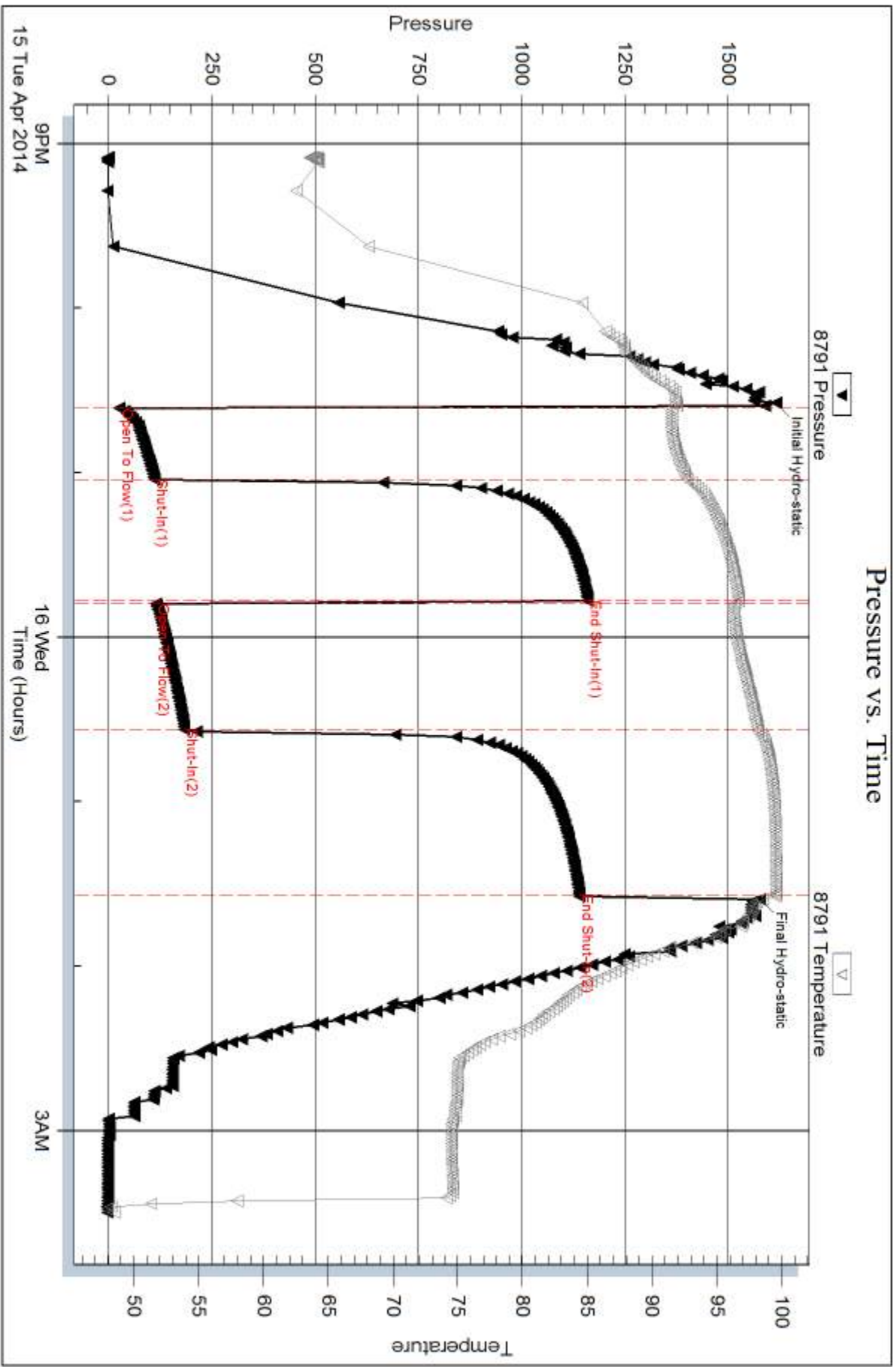
Serial #: 8791

Inside

Black Diamond Oil

Glennmeier #1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Black Diamond Oil**

PO Box 641
Hays KS 67601

ATTN: Jeff Lawler

Glennemeier #1

4 5s 21w Norton KS

Start Date: 2014.04.16 @ 09:10:00

End Date: 2014.04.16 @ 13:42:30

Job Ticket #: 55054 DST #: 3

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

Printed: 2014.04.23 @ 15:02:50

Black Diamond Oil
4 5s 21w Norton KS
Glennemeier #1
DST # 3
LKC-E
2014.04.16



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55054

DST#: 3

ATTN: Jeff Lawler

Test Start: 2014.04.16 @ 09:10:00

GENERAL INFORMATION:

Formation: **LKC-E**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:37:00

Time Test Ended: 13:42:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3285.00 ft (KB) To 3294.00 ft (KB) (TVD)

Reference Elevations: 2022.00 ft (KB)

Total Depth: 3294.00 ft (KB) (TVD)

2017.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8791

Inside

Press@RunDepth: 38.46 psig @ 3286.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.16

End Date:

2014.04.16

Last Calib.:

2014.04.16

Start Time: 09:10:01

End Time:

13:42:30

Time On Btm:

2014.04.16 @ 10:28:00

Time Off Btm:

2014.04.16 @ 12:45:00

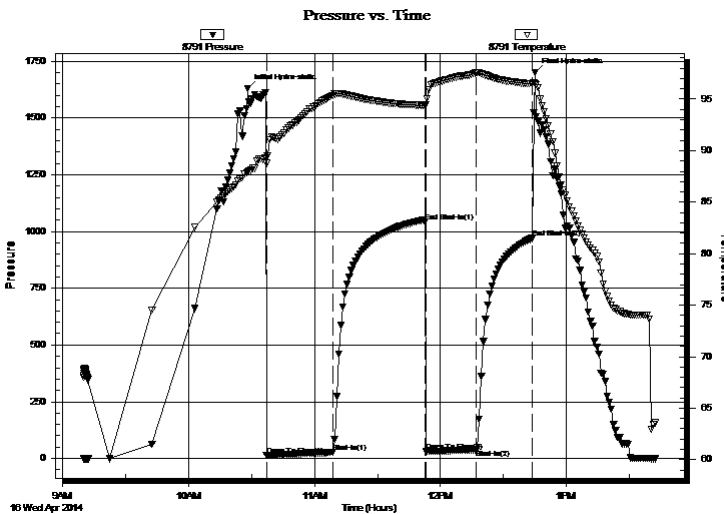
TEST COMMENT: IF: Weak blow surface over 30 mins.

IS: No blow back

FF: No blow

FS: No blow back

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1628.42 | 87.92 | Initial Hydro-static |
| 9 | 13.35 | 88.77 | Open To Flow (1) |
| 41 | 26.60 | 95.37 | Shut-In(1) |
| 85 | 1041.94 | 94.39 | End Shut-In(1) |
| 85 | 30.26 | 94.49 | Open To Flow (2) |
| 109 | 38.46 | 97.57 | Shut-In(2) |
| 136 | 970.40 | 96.48 | End Shut-In(2) |
| 137 | 1701.09 | 96.54 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------------------|--------------|
| 25.00 | mcw -35% m65% w -With good odor | 0.12 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55054

DST#: 3

ATTN: Jeff Lawler

Test Start: 2014.04.16 @ 09:10:00

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 3176.00 ft | Diameter: 3.80 inches | Volume: 44.55 bbl | Tool Weight: | 2000.00 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: 122.00 ft | Diameter: 2.25 inches | Volume: 0.60 bbl | Weight to Pull Loose: | 38000.00 lb |
| | | | <u>Total Volume: 45.15 bbl</u> | Tool Chased | 2.00 ft |
| Drill Pipe Above KB: | 33.00 ft | | | String Weight: Initial | 35000.00 lb |
| Depth to Top Packer: | 3285.00 ft | | | Final | 35000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 9.00 ft | | | | |
| Tool Length: | 29.00 ft | | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | | |
| Tool Comments: | | | | | |

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|---------------------------|--------------|------------|----------|------------|------------------------------|
| Shut In Tool | 5.00 | | | 3270.00 | |
| Hydraulic tool | 5.00 | | | 3275.00 | |
| Packer | 5.00 | | | 3280.00 | 20.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3285.00 | |
| Stubb | 1.00 | | | 3286.00 | |
| Recorder | 0.00 | 8791 | Inside | 3286.00 | |
| Recorder | 0.00 | 8651 | Outside | 3286.00 | |
| Perforations | 5.00 | | | 3291.00 | |
| Bullnose | 3.00 | | | 3294.00 | 9.00 Bottom Packers & Anchor |
| Total Tool Length: | 29.00 | | | | |



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55054

DST#: 3

ATTN: Jeff Lawler

Test Start: 2014.04.16 @ 09:10:00

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: 49.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.96 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 750.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------------------------|---------------|
| 25.00 | mcw -35% m65%w -Withgood odor | 0.123 |

Total Length: 25.00 ft Total Volume: 0.123 bbl

Num Fluid Samples: 0

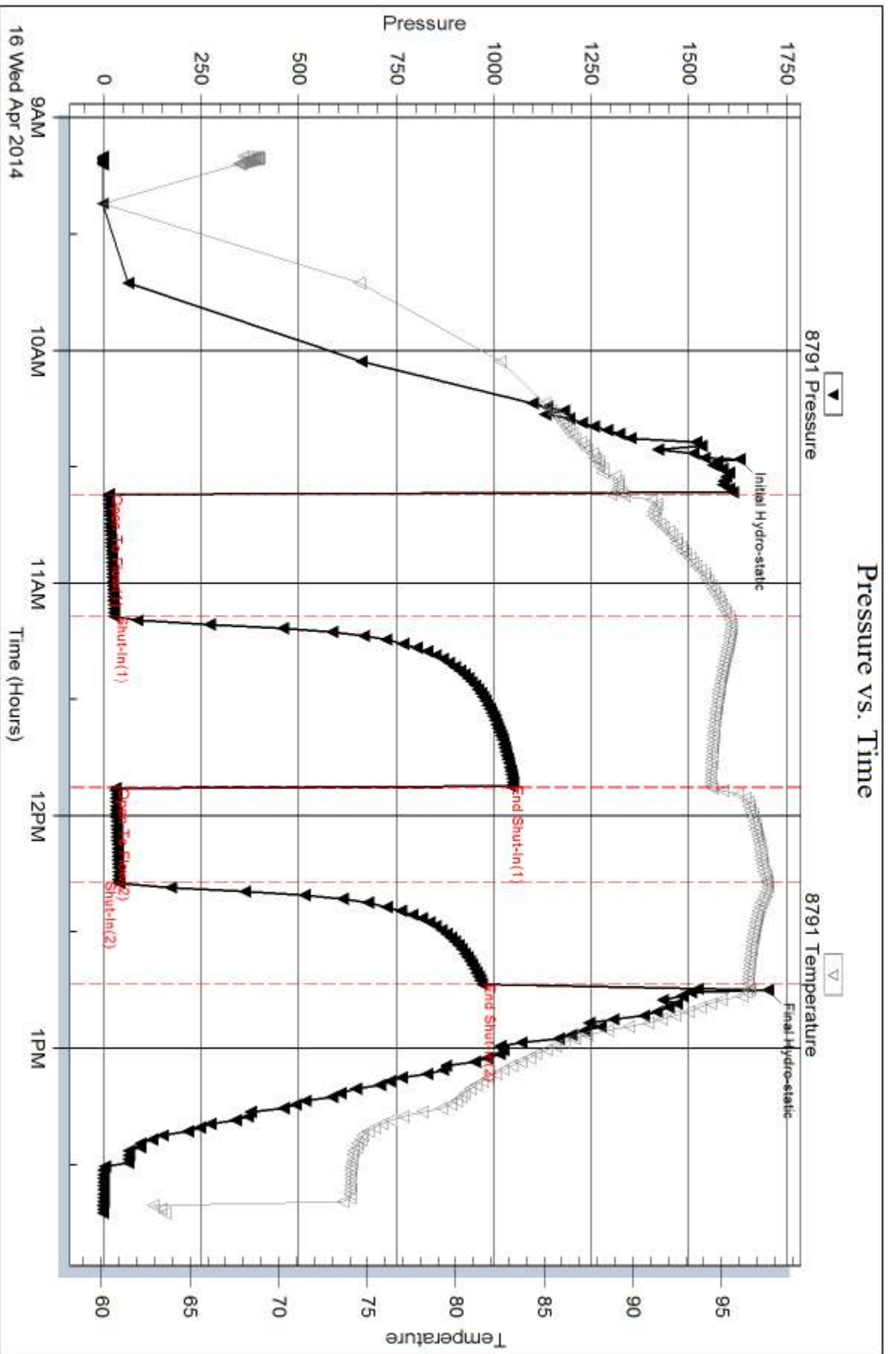
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

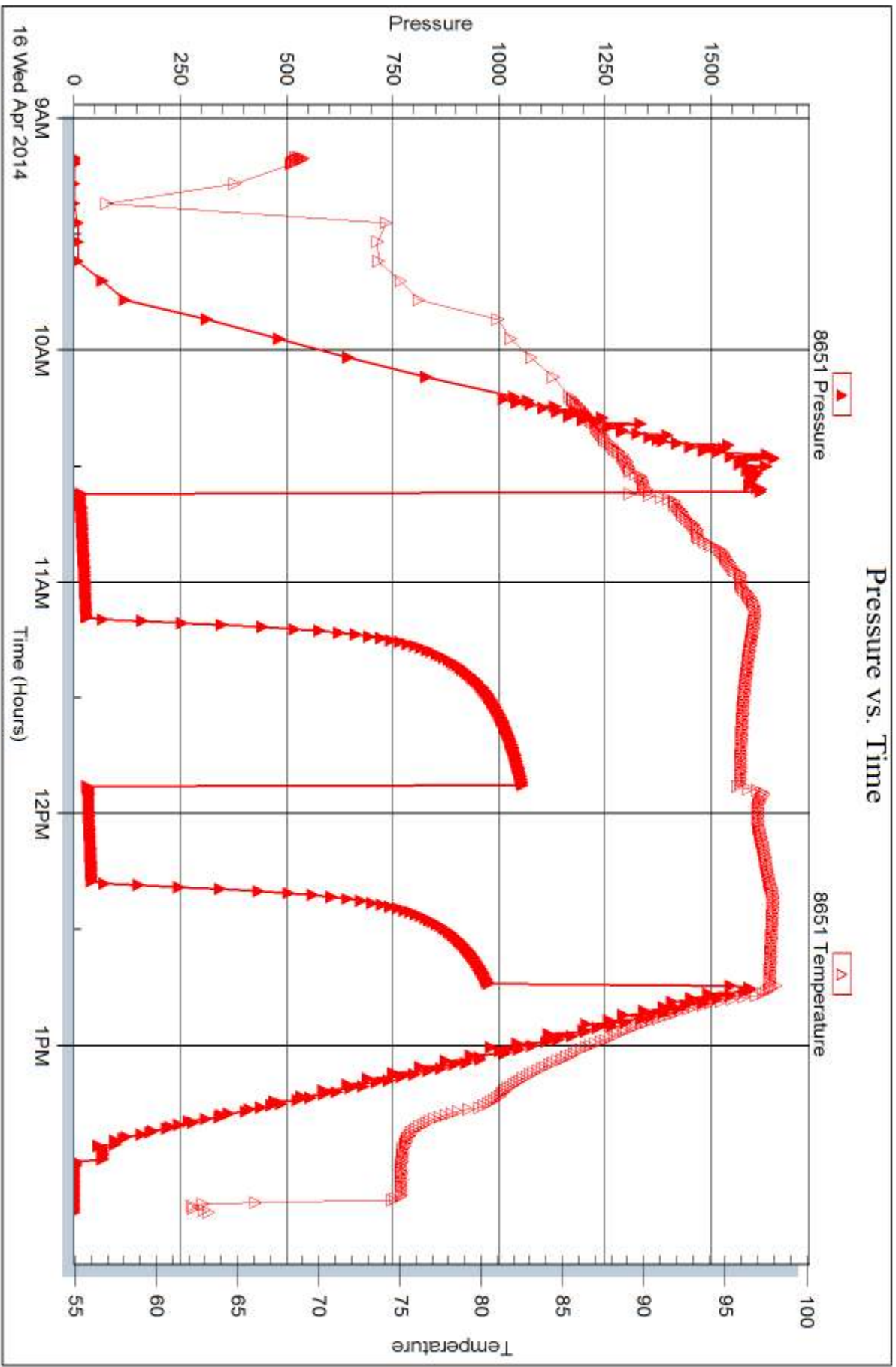


Serial #: 8651

Outside Black Diamond Oil

Glennmeier #1

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Black Diamond Oil**

PO Box 641
Hays KS 67601

ATTN: Jeff Lawler

Glennemeier #1

4 5s 21w Norton KS

Start Date: 2014.04.16 @ 19:20:00

End Date: 2014.04.16 @ 23:05:00

Job Ticket #: 55055 DST #: 4

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

Printed: 2014.04.23 @ 15:02:25



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55055

DST#: 4

ATTN: Jeff Lawler

Test Start: 2014.04.16 @ 19:20:00

GENERAL INFORMATION:

Formation: **LKC F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:39:00

Time Test Ended: 23:05:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3286.00 ft (KB) To 3302.00 ft (KB) (TVD)

Reference Elevations: 2022.00 ft (KB)

Total Depth: 3220.00 ft (KB) (TVD)

2017.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8791

Inside

Press@RunDepth: 27.19 psig @ 3289.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.16

End Date:

2014.04.16

Last Calib.:

2014.04.16

Start Time: 19:20:01

End Time:

23:05:00

Time On Btm:

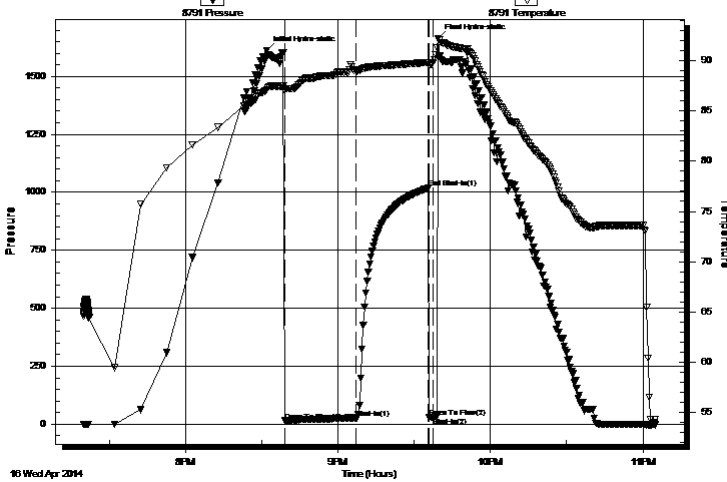
2014.04.16 @ 20:32:00

Time Off Btm:

2014.04.16 @ 21:39:30

TEST COMMENT: IF: Weak blow, Dead in 1 min
IS: No blow back
FF: No blow - Flushed and pull

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1611.24 | 87.13 | Initial Hydro-static |
| 7 | 14.35 | 87.04 | Open To Flow (1) |
| 35 | 27.19 | 88.99 | Shut-In(1) |
| 64 | 1017.85 | 89.84 | End Shut-In(1) |
| 64 | 29.31 | 89.53 | Open To Flow (2) |
| 66 | 30.33 | 89.82 | Shut-In(2) |
| 68 | 1664.14 | 92.22 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 5.00 | mud | 0.02 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55055

DST#: 4

ATTN: Jeff Lawler

Test Start: 2014.04.16 @ 19:20:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3176.00 ft | Diameter: 3.80 inches | Volume: 44.55 bbl | Tool Weight: 2000.00 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: 122.00 ft | Diameter: 2.25 inches | Volume: 0.60 bbl | Weight to Pull Loose: 38000.00 lb |
| | | | <u>Total Volume: 45.15 bbl</u> | Tool Chased 2.00 ft |
| Drill Pipe Above KB: | 32.00 ft | | | String Weight: Initial 35000.00 lb |
| Depth to Top Packer: | 3286.00 ft | | | Final 35000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 16.00 ft | | | |
| Tool Length: | 36.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|---------------------------|--------------|------------|----------|------------|-------------------------------|
| Shut In Tool | 5.00 | | | 3271.00 | |
| Hydraulic tool | 5.00 | | | 3276.00 | |
| Packer | 5.00 | | | 3281.00 | 20.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3286.00 | |
| Stubb | 1.00 | | | 3287.00 | |
| Perforations | 2.00 | | | 3289.00 | |
| Recorder | 0.00 | 8791 | Inside | 3289.00 | |
| Recorder | 0.00 | 8651 | Outside | 3289.00 | |
| Perforations | 10.00 | | | 3299.00 | |
| Bullnose | 3.00 | | | 3302.00 | 16.00 Bottom Packers & Anchor |
| Total Tool Length: | 36.00 | | | | |



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55055

DST#: 4

ATTN: Jeff Lawler

Test Start: 2014.04.16 @ 19:20:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 750.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 5.00 | mud | 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:

Serial #: 8791

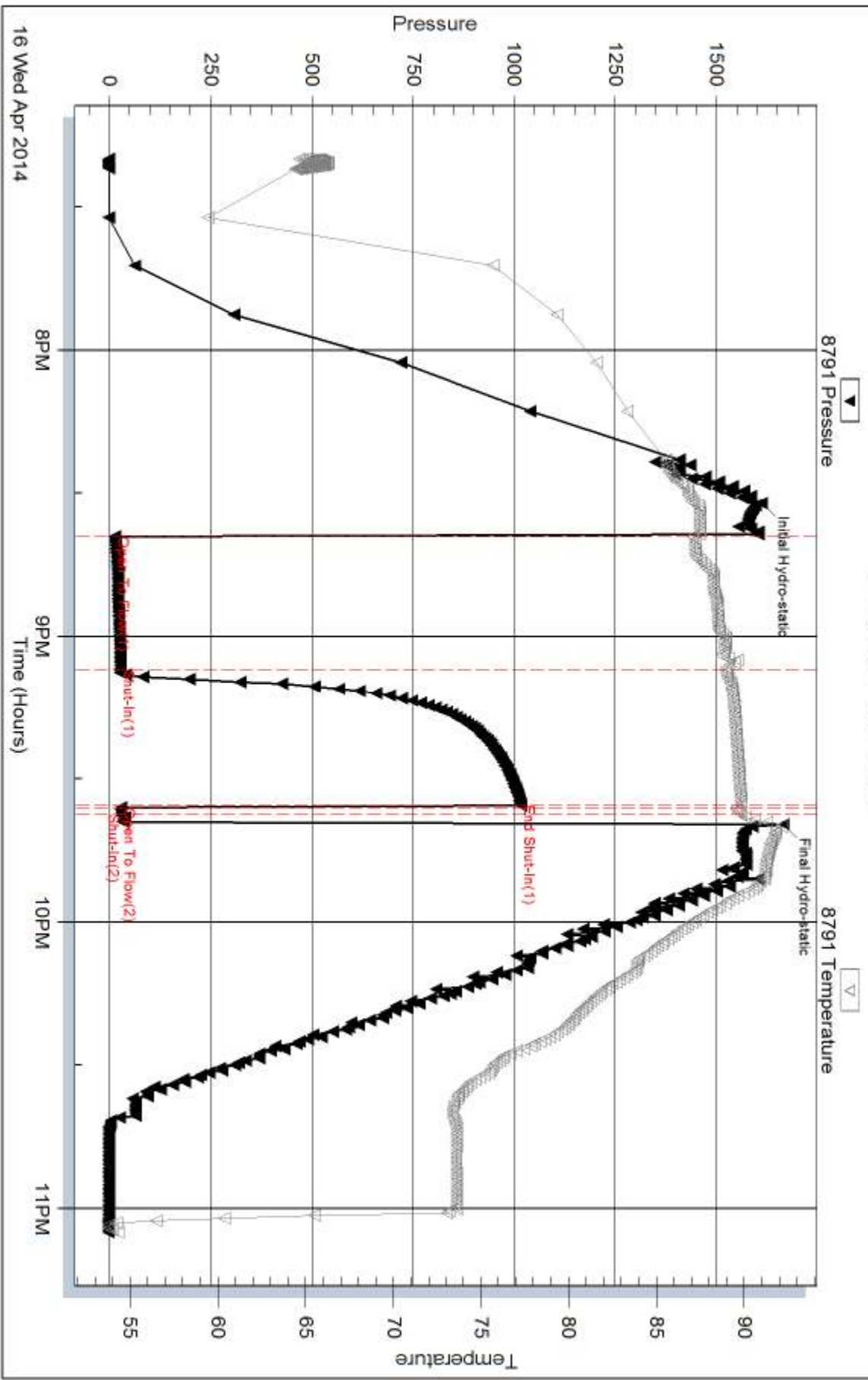
Inside

Black Diamond Oil

Glennmeier #1

DST Test Number: 4

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 55055

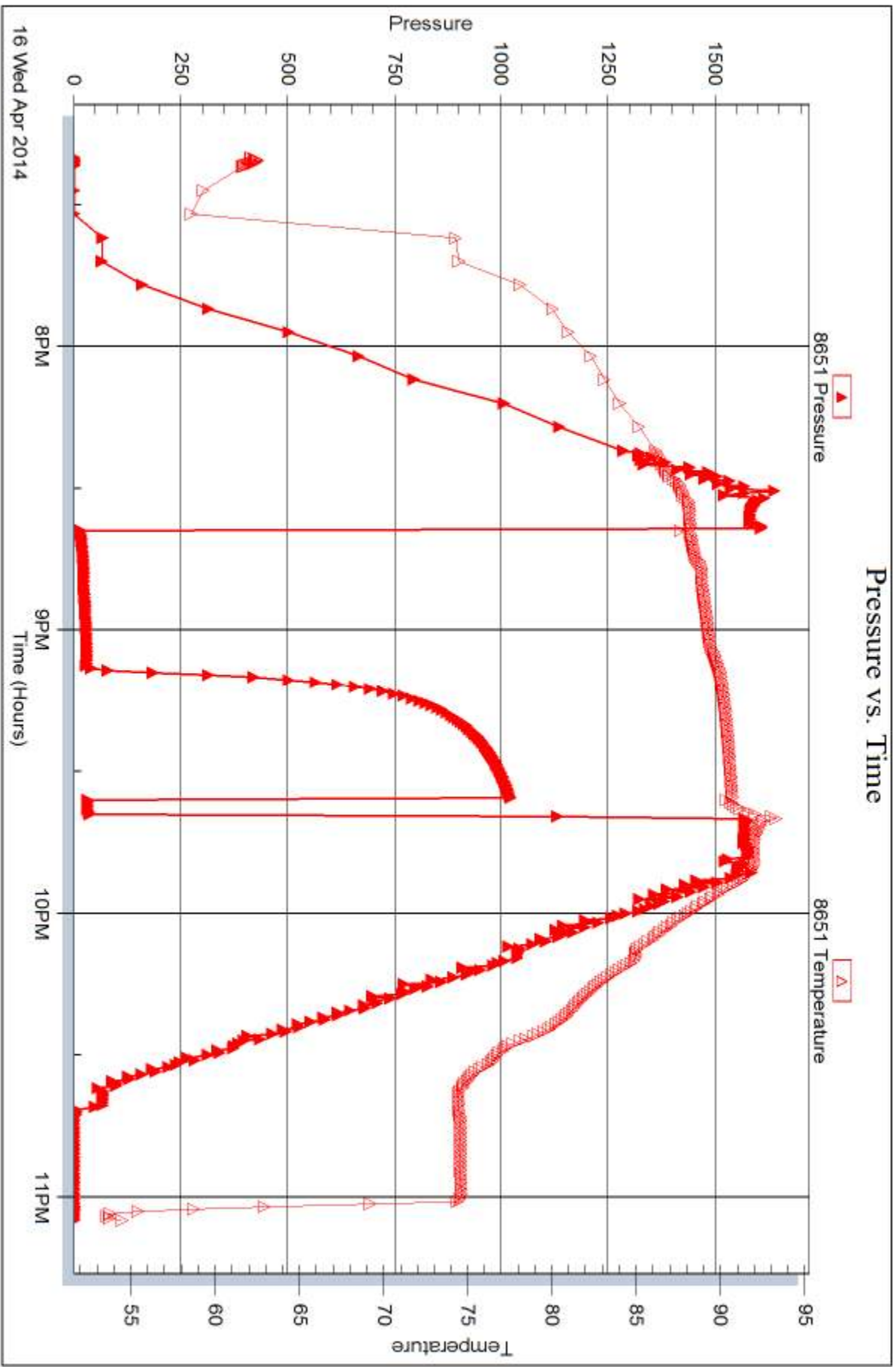
Printed: 2014.04.23 @ 15:02:26

Serial #: 8651

Outside Black Diamond Oil

Glennmeier #1

DST Test Number: 4



Tribble Testing, Inc

Ref. No: 55055

Printed: 2014.04.23 @ 15:02:26



DRILL STEM TEST REPORT

Prepared For: **Black Diamond Oil**

PO Box 641
Hays KS 67601

ATTN: Jeff Lawler

Glennemeier #1

4 5s 21w Norton KS

Start Date: 2014.04.17 @ 07:10:00

End Date: 2014.04.17 @ 12:10:30

Job Ticket #: 55056 DST #: 5

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

Printed: 2014.04.23 @ 15:01:44

Black Diamond Oil
4 5s 21w Norton KS
Glennemeier #1
DST # 5
LKC H-L
2014.04.17



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55056

DST#: 5

ATTN: Jeff Lawler

Test Start: 2014.04.17 @ 07:10:00

GENERAL INFORMATION:

Formation: **LKC H-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:26:30

Time Test Ended: 12:10:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3326.00 ft (KB) To 3370.00 ft (KB) (TVD)

Reference Elevations: 2022.00 ft (KB)

Total Depth: 3370.00 ft (KB) (TVD)

2017.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8791

Inside

Press@RunDepth: 30.69 psig @ 3335.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.17

End Date:

2014.04.17

Last Calib.: 2014.04.17

Start Time: 07:10:01

End Time:

12:10:30

Time On Btm: 2014.04.17 @ 08:25:30

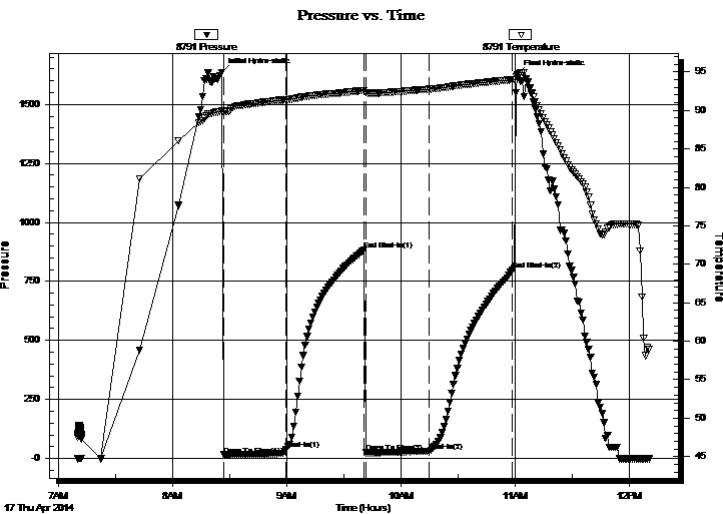
Time Off Btm: 2014.04.17 @ 11:01:00

TEST COMMENT: IF: Weak blow surface that died in 25 mins.

IS: No blow back

FF: no blow

FS: No blow, back



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1635.48 | 90.01 | Initial Hydro-static |
| 1 | 14.84 | 89.77 | Open To Flow (1) |
| 34 | 39.71 | 91.41 | Shut-In(1) |
| 75 | 883.10 | 92.60 | End Shut-In(1) |
| 76 | 24.11 | 92.31 | Open To Flow (2) |
| 109 | 30.69 | 92.76 | Shut-In(2) |
| 153 | 797.25 | 93.99 | End Shut-In(2) |
| 156 | 1624.66 | 94.69 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------|--------------|
| 25.00 | ocm-25%o75%m | 0.12 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

ATTN: Jeff Lawler

Job Ticket: 55056

DST#: 5

Test Start: 2014.04.17 @ 07:10:00

GENERAL INFORMATION:

Formation: **LKC H-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:26:30

Time Test Ended: 12:10:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3326.00 ft (KB) To 3370.00 ft (KB) (TVD)

Reference Elevations: 2022.00 ft (KB)

Total Depth: 3370.00 ft (KB) (TVD)

2017.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8651

Outside

Press@RunDepth: psig @ 3335.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.17

End Date:

2014.04.17

Last Calib.:

2014.04.17

Start Time: 07:10:05

End Time:

12:10:29

Time On Btm:

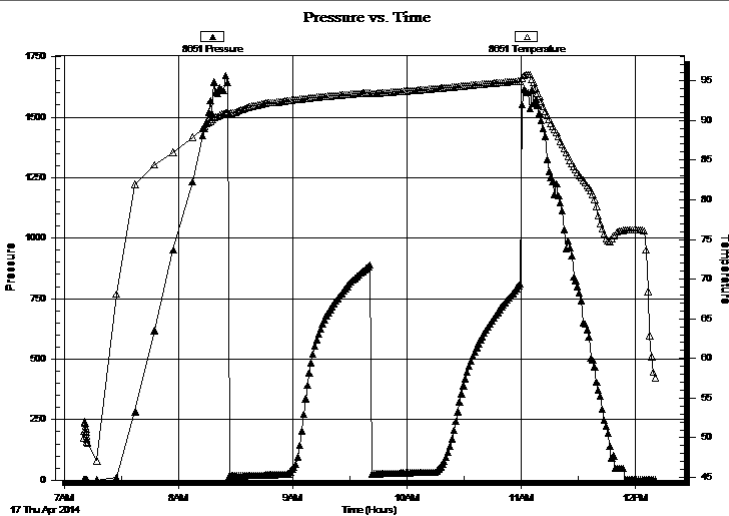
Time Off Btm:

TEST COMMENT: IF: Weak blow surface that died in 25 mins.

IS: No blow back

FF: no blow

FS: No blow, back



PRESSURE SUMMARY

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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------|--------------|
| 25.00 | ocm-25%o75%m | 0.12 |
| | | |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55056

DST#: 5

ATTN: Jeff Lawler

Test Start: 2014.04.17 @ 07:10:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3208.00 ft | Diameter: 3.80 inches | Volume: 45.00 bbl | Tool Weight: 2000.00 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: 122.00 ft | Diameter: 2.25 inches | Volume: 0.60 bbl | Weight to Pull Loose: 40000.00 lb |
| | | | <u>Total Volume: 45.60 bbl</u> | Tool Chased 2.00 ft |
| Drill Pipe Above KB: | 24.00 ft | | | String Weight: Initial 37000.00 lb |
| Depth to Top Packer: | 3326.00 ft | | | Final 37000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 44.00 ft | | | |
| Tool Length: | 64.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Shut In Tool | 5.00 | | | 3311.00 | |
| Hydraulic tool | 5.00 | | | 3316.00 | |
| Packer | 5.00 | | | 3321.00 | 20.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3326.00 | |
| Stubb | 1.00 | | | 3327.00 | |
| Perforations | 8.00 | | | 3335.00 | |
| Recorder | 0.00 | 8791 | Inside | 3335.00 | |
| Recorder | 0.00 | 8651 | Outside | 3335.00 | |
| Change Over Sub | 1.00 | | | 3336.00 | |
| Blank Spacing | 30.00 | | | 3366.00 | |
| Change Over Sub | 1.00 | | | 3367.00 | |
| Bullnose | 3.00 | | | 3370.00 | 44.00 Bottom Packers & Anchor |

Total Tool Length: 64.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55056

DST#: 5

ATTN: Jeff Lawler

Test Start: 2014.04.17 @ 07:10:00

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: 50.00 sec/qt

Cushion Volume:

bbf

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbf |
|--------------|--------------|---------------|
| 25.00 | ocm-25%o75%m | 0.123 |

Total Length: 25.00 ft Total Volume: 0.123 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8791

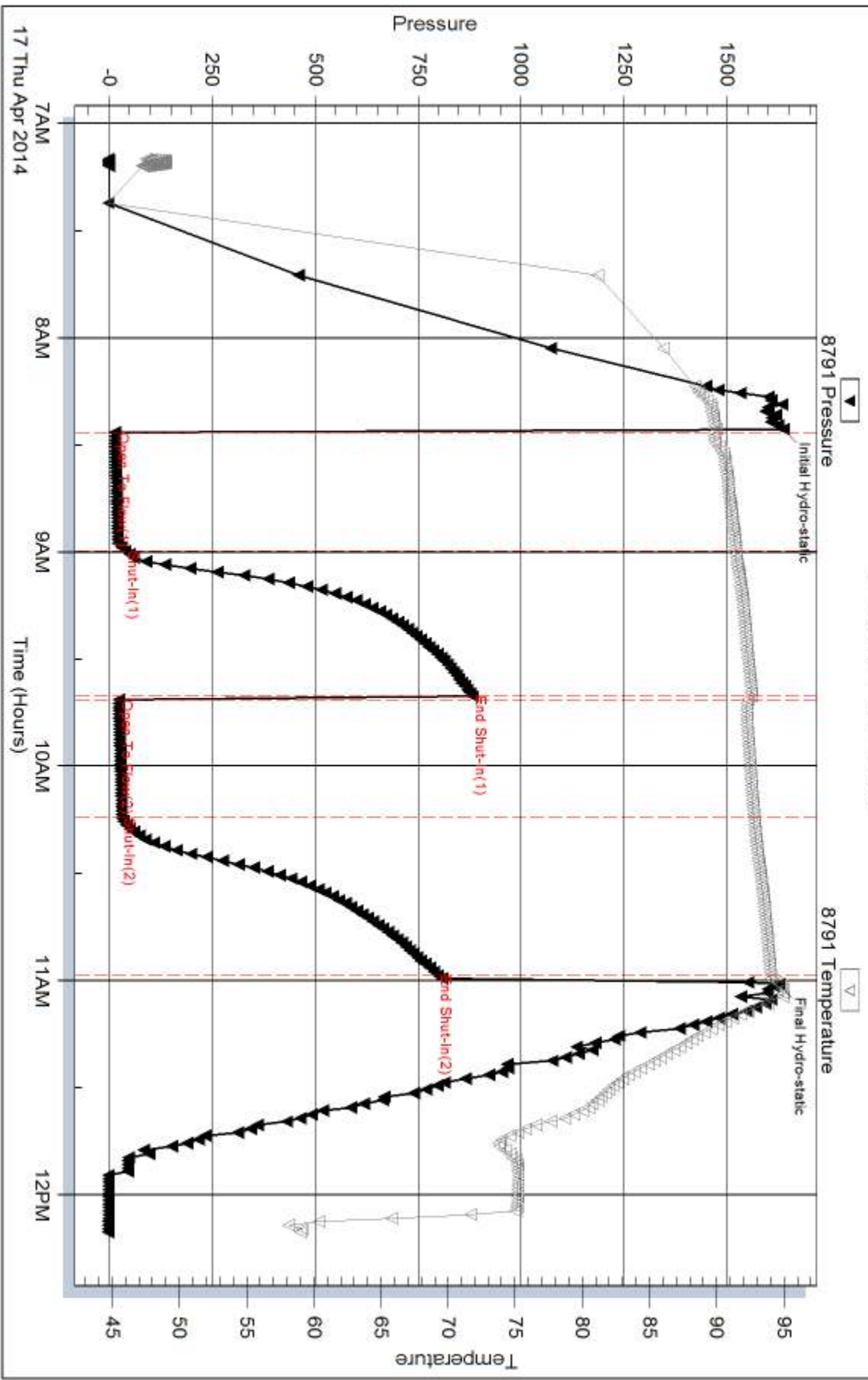
Inside

Black Diamond Oil

Glennmeier #1

DST Test Number: 5

Pressure vs. Time

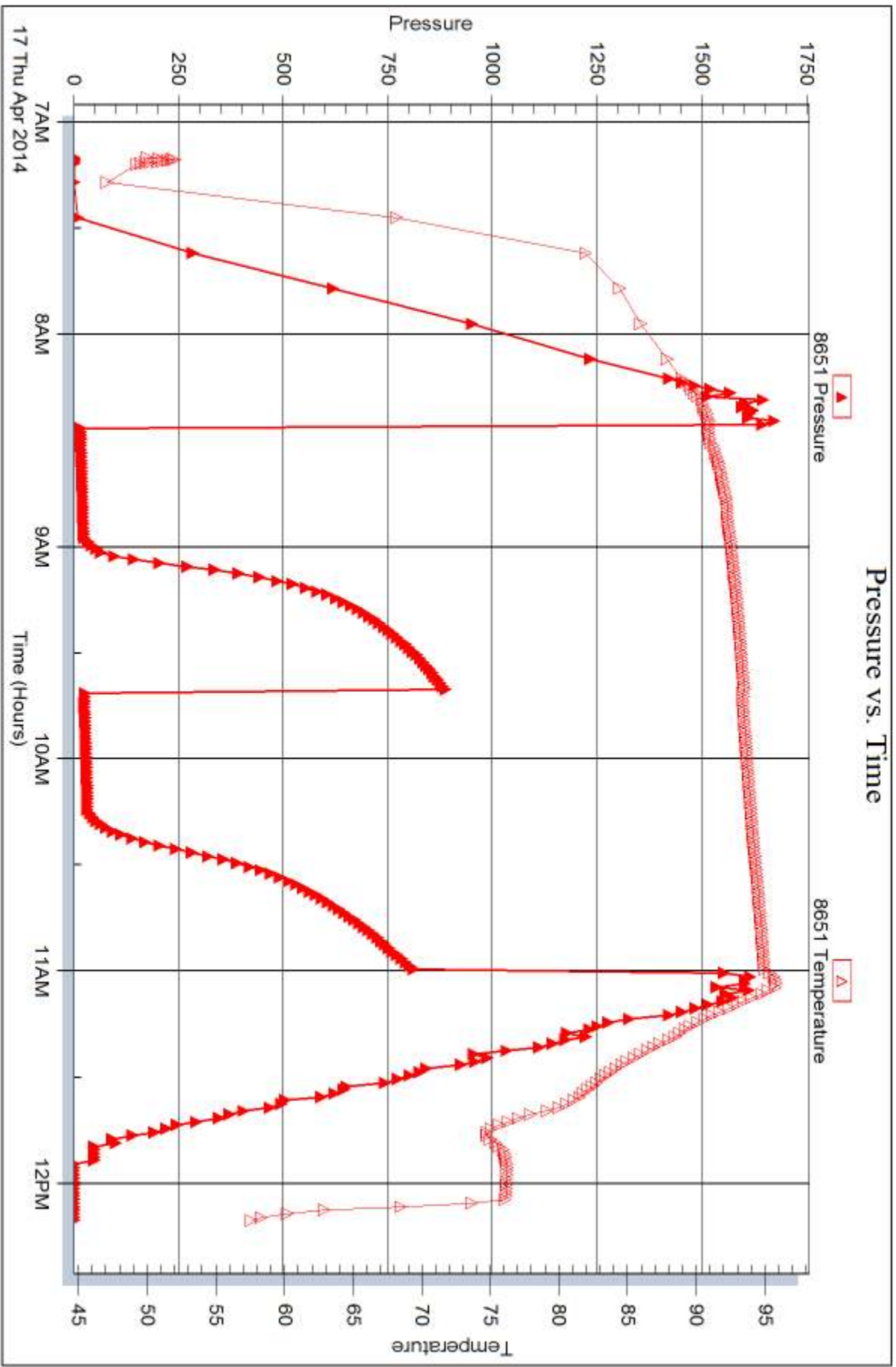


Serial #: 8651

Outside Black Diamond Oil

Glennmeier #1

DST Test Number: 5





DRILL STEM TEST REPORT

Prepared For: **Black Diamond Oil**

PO Box 641
Hays KS 67601

ATTN: Jeff Lawler

Glennemeier #1

4 5s 21w Norton KS

Start Date: 2014.04.17 @ 17:35:00

End Date: 2014.04.17 @ 22:53:00

Job Ticket #: 55057 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.23 @ 15:01:01



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55057

DST#: 6

ATTN: Jeff Lawler

Test Start: 2014.04.17 @ 17:35:00

GENERAL INFORMATION:

Formation: **LKC J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:02:30

Time Test Ended: 22:53:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3372.00 ft (KB) To 3387.00 ft (KB) (TVD)

Reference Elevations: 2022.00 ft (KB)

Total Depth: 3387.00 ft (KB) (TVD)

2017.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8651 Outside

Press@RunDepth: 15.06 psig @ 3374.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.17 End Date: 2014.04.17

Last Calib.: 2014.04.17

Start Time: 17:35:05 End Time: 22:52:59

Time On Btm: 2014.04.17 @ 19:01:30

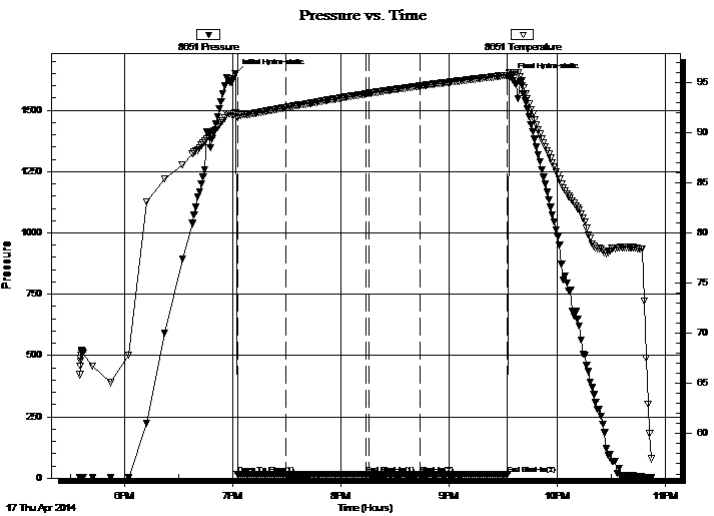
Time Off Btm: 2014.04.17 @ 21:34:30

TEST COMMENT: IF: Weak blow Died in 20 mins.

IS: No blow back

FF: No blow

FS: No blow back



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1650.87 | 91.93 | Initial Hydro-static |
| 1 | 14.36 | 91.48 | Open To Flow (1) |
| 28 | 14.89 | 92.48 | Shut-In(1) |
| 73 | 16.01 | 93.85 | End Shut-In(1) |
| 74 | 14.68 | 93.89 | Open To Flow (2) |
| 103 | 15.06 | 94.63 | Shut-In(2) |
| 151 | 15.24 | 95.70 | End Shut-In(2) |
| 153 | 1632.86 | 95.98 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------------|--------------|
| 5.00 | mud with oil specs | 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

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55057

DST#: 6

ATTN: Jeff Lawler

Test Start: 2014.04.17 @ 17:35:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3241.00 ft | Diameter: 3.80 inches | Volume: 45.46 bbl | Tool Weight: 2000.00 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: 122.00 ft | Diameter: 2.25 inches | Volume: 0.60 bbl | Weight to Pull Loose: 40000.00 lb |
| | | | <u>Total Volume: 46.06 bbl</u> | Tool Chased 2.00 ft |
| Drill Pipe Above KB: | 11.00 ft | | | String Weight: Initial 38000.00 lb |
| Depth to Top Packer: | 3372.00 ft | | | Final 38000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 15.00 ft | | | |
| Tool Length: | 35.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |
| Tool Comments: | | | | |

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|----------------|
|------------------|-------------|------------|----------|------------|----------------|

| | | | | | |
|---------------------------|--------------|------|---------|---------|-------------------------------|
| Shut In Tool | 5.00 | | | 3357.00 | |
| Hydraulic tool | 5.00 | | | 3362.00 | |
| Packer | 5.00 | | | 3367.00 | 20.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3372.00 | |
| Stubb | 1.00 | | | 3373.00 | |
| Perforations | 1.00 | | | 3374.00 | |
| Recorder | 0.00 | 8791 | Inside | 3374.00 | |
| Recorder | 0.00 | 8651 | Outside | 3374.00 | |
| Perforations | 10.00 | | | 3384.00 | |
| Bullnose | 3.00 | | | 3387.00 | 15.00 Bottom Packers & Anchor |
| Total Tool Length: | 35.00 | | | | |



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Diamond Oil

4 5s 21w Norton KS

PO Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55057

DST#: 6

ATTN: Jeff Lawler

Test Start: 2014.04.17 @ 17:35:00

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|---------------------|---------------|
| 5.00 | mud w ith oil specs | 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:

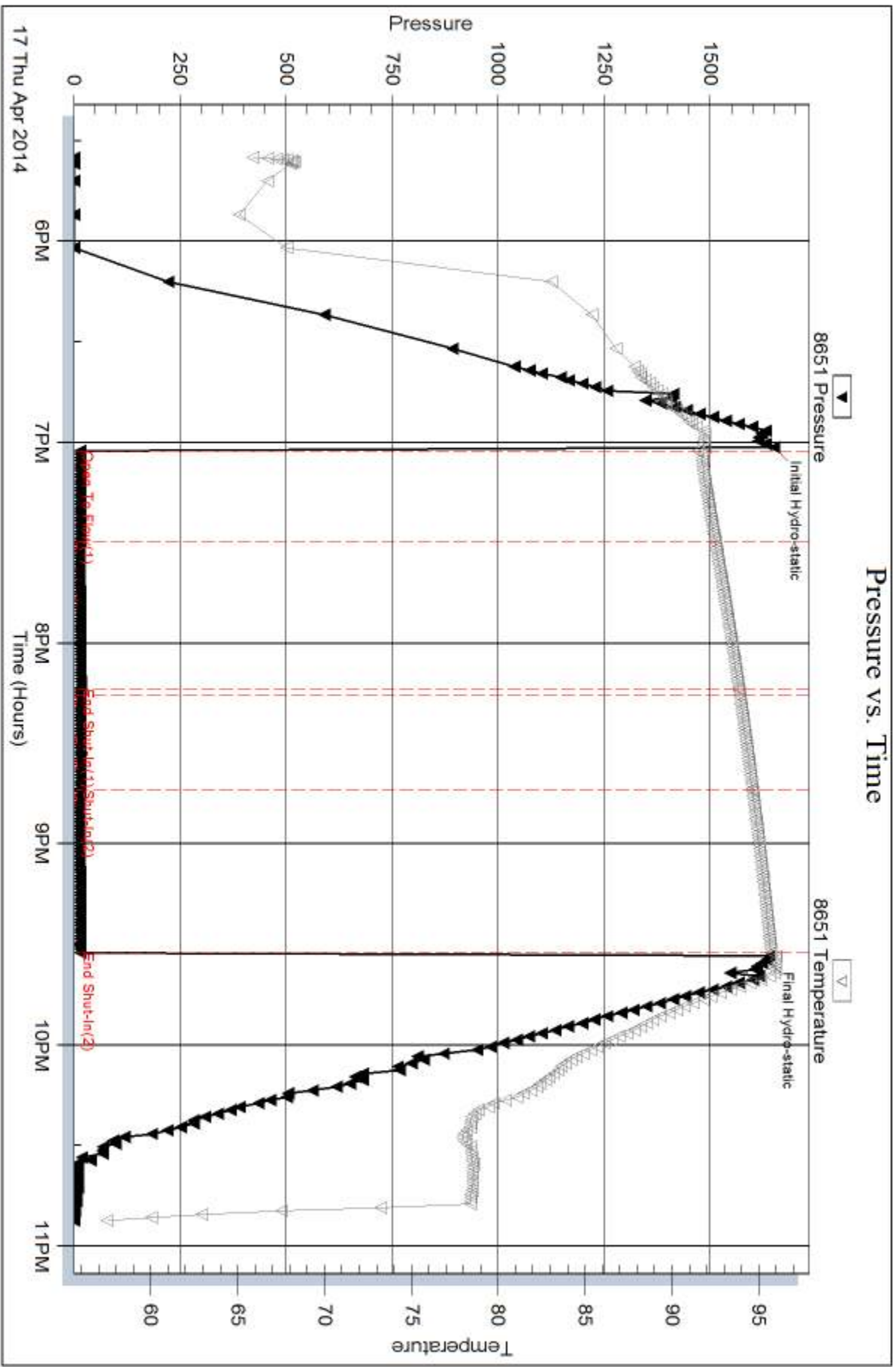
Recovery Comments:

Serial #: 8651

Outside Black Diamond Oil

Geonemeier #1

DST Test Number: 6





DRILL STEM TEST REPORT

Prepared For: **Black Diamond oil**

P.O.box 641
Hays KS 67601

ATTN: Jeff Lawler

Glennemeier #1

4 5 21w Norton KS

Start Date: 2014.04.18 @ 20:05:00

End Date: 2014.04.19 @ 02:43:00

Job Ticket #: 55058 DST #: 7

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

Printed: 2014.04.23 @ 14:59:09



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Black Diamond oil

4 5 21w Norton KS

P.O.box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55058

DST#: 7

ATTN: Jeff Lawler

Test Start: 2014.04.18 @ 20:05:00

GENERAL INFORMATION:

Formation: **LKC D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:34:30

Time Test Ended: 02:43:00

Test Type: Conventional Straddle (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3267.00 ft (KB) To 3305.00 ft (KB) (TVD)

Reference Elevations: 2022.00 ft (KB)

Total Depth: 3305.00 ft (KB) (TVD)

2017.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8960

Inside

Press@RunDepth: 77.02 psig @ 3268.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.18

End Date:

2014.04.19

Last Calib.:

2014.04.19

Start Time: 20:05:01

End Time:

02:43:00

Time On Btm:

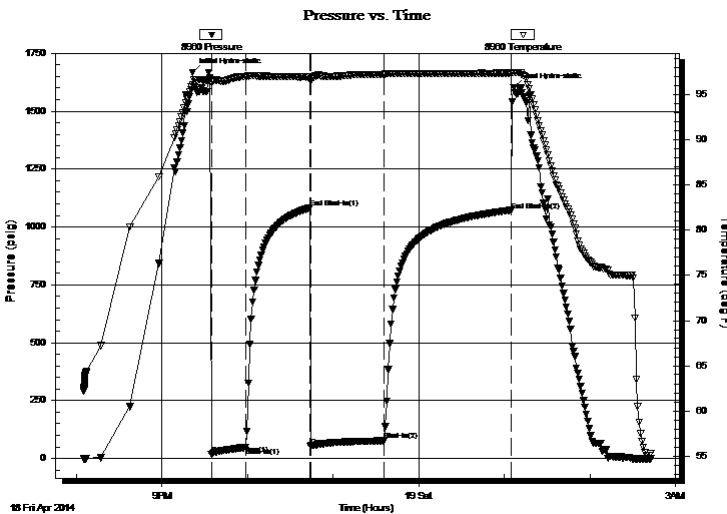
2014.04.18 @ 21:21:30

Time Off Btm:

2014.04.19 @ 01:06:30

TEST COMMENT: IF: Weak blow , Built to 2 1/4" over 30 mins.
IS: No blow back
FF: Weak blow , Built to 1/8" over 45 mins.
FS: No blow back.

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1667.83 | 96.10 | Initial Hydro-static |
| 13 | 18.97 | 96.43 | Open To Flow (1) |
| 37 | 49.61 | 97.02 | Shut-In(1) |
| 82 | 1082.49 | 97.00 | End Shut-In(1) |
| 83 | 53.34 | 96.55 | Open To Flow (2) |
| 134 | 77.02 | 97.27 | Shut-In(2) |
| 223 | 1071.68 | 97.40 | End Shut-In(2) |
| 225 | 1602.88 | 97.49 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------------------|--------------|
| 1.00 | free oil on top | 0.00 |
| 149.00 | mud-100%- With good odor | 0.99 |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Black Diamond oil

4 5 21w Norton KS

P.O.box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55058

DST#: 7

ATTN: Jeff Lawler

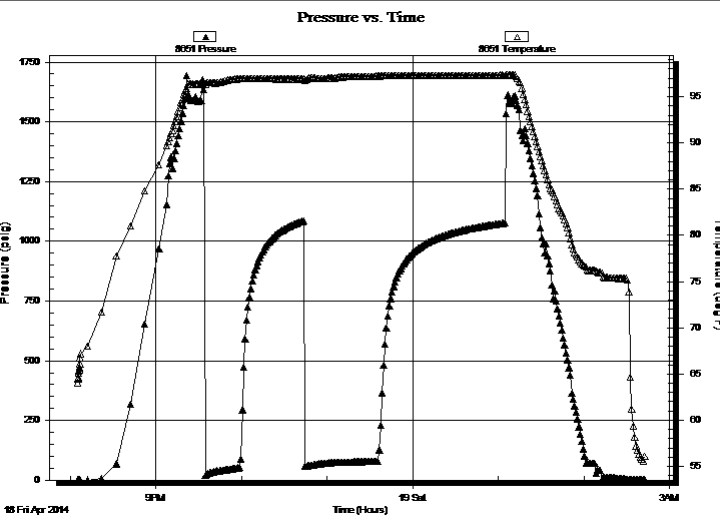
Test Start: 2014.04.18 @ 20:05:00

GENERAL INFORMATION:

| | |
|---|--|
| Formation: LKC D | Test Type: Conventional Straddle (Reset) |
| Deviated: No Whipstock: ft (KB) | Tester: Chuck Kreuzer Jr. |
| Time Tool Opened: 21:34:30 | Unit No: 61 |
| Time Test Ended: 02:43:00 | Reference Elevations: 2022.00 ft (KB) |
| Interval: 3267.00 ft (KB) To 3305.00 ft (KB) (TVD) | 2017.00 ft (CF) |
| Total Depth: 3305.00 ft (KB) (TVD) | KB to GR/CF: 5.00 ft |
| Hole Diameter: 7.88 inches | Hole Condition: Good |

| | | |
|--|------------------------|-------------------------|
| Serial #: 8651 | Outside | Capacity: 8000.00 psig |
| Press@RunDepth: psig @ 3268.00 ft (KB) | Start Date: 2014.04.18 | End Date: 2014.04.19 |
| Start Time: 20:05:05 | End Time: 02:42:59 | Last Calib.: 2014.04.19 |
| | | Time On Btm: |
| | | Time Off Btm: |

TEST COMMENT: IF: Weak blow , Built to 2 1/4" over 30 mins.
IS: No blow back
FF: Weak blow , Built to 1/8" over 45 mins.
FS: No blow back.



PRESSURE SUMMARY

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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------------------|--------------|
| 1.00 | free oil on top | 0.00 |
| 149.00 | mud-100%- With good odor | 0.99 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Black Diamond oil

4 5 21w Norton KS

P.O.Box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55058 **DST#: 7**

ATTN: Jeff Lawler

Test Start: 2014.04.18 @ 20:05:00

GENERAL INFORMATION:

Formation: **LKC D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:34:30

Time Test Ended: 02:43:00

Test Type: Conventional Straddle (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3267.00 ft (KB) To 3305.00 ft (KB) (TVD)

Reference Elevations: 2022.00 ft (KB)

Total Depth: 3305.00 ft (KB) (TVD)

2017.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8673 Below (Straddle)

Press@RunDepth: psig @ 3306.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.18 End Date: 2014.04.19

Last Calib.: 2014.04.19

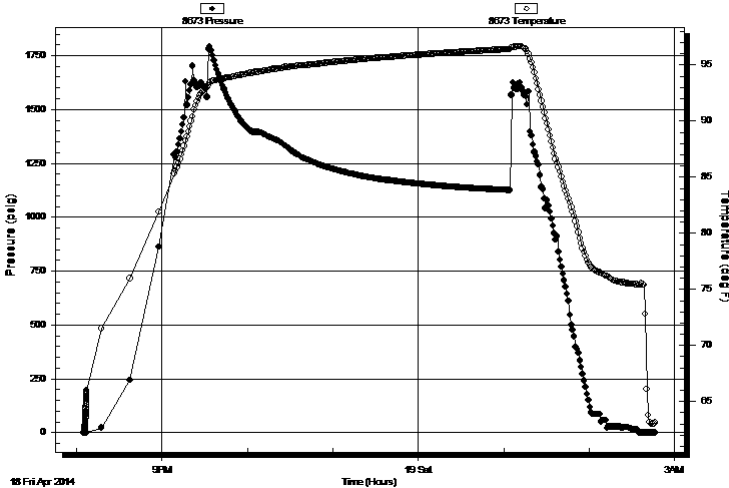
Start Time: 20:05:01 End Time: 02:46:30

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Weak blow , Built to 2 1/4" over 30 mins.
IS: No blow back
FF: Weak blow , Built to 1/8" over 45 mins.
FS: No blow back.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Gas Rates

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------------------|--------------|
| 1.00 | free oil on top | 0.00 |
| 149.00 | mud-100%- With good odor | 0.99 |
| | | |
| | | |
| | | |

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Diamond oil

4 5 21w Norton KS

P.O. box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55058

DST#: 7

ATTN: Jeff Lawler

Test Start: 2014.04.18 @ 20:05:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3136.00 ft | Diameter: 3.80 inches | Volume: 43.99 bbl | Tool Weight: 2000.00 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: 122.00 ft | Diameter: 2.25 inches | Volume: 0.60 bbl | Weight to Pull Loose: 40000.00 lb |
| | | | <u>Total Volume: 44.59 bbl</u> | Tool Chased 2.00 ft |
| Drill Pipe Above KB: | 21.00 ft | | | String Weight: Initial 38000.00 lb |
| Depth to Top Packer: | 3267.00 ft | | | Final 39000.00 lb |
| Depth to Bottom Packer: | 3305.00 ft | | | |
| Interval between Packers: | 38.00 ft | | | |
| Tool Length: | 296.00 ft | | | |
| Number of Packers: | 3 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

| | | | | | |
|-----------------|--------|------|---------|---------|--------------------------------|
| Shut In Tool | 5.00 | | | 3242.00 | |
| Sampler | 2.00 | | | 3244.00 | |
| Hydraulic tool | 5.00 | | | 3249.00 | |
| Jars | 5.00 | | | 3254.00 | |
| Safety Joint | 3.00 | | | 3257.00 | |
| Packer | 5.00 | | | 3262.00 | 30.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3267.00 | |
| Packer - Shale | 0.00 | | | 3267.00 | |
| Stubb | 1.00 | | | 3268.00 | |
| Recorder | 0.00 | 8960 | Inside | 3268.00 | |
| Recorder | 0.00 | 8651 | Outside | 3268.00 | |
| Perforations | 32.00 | | | 3300.00 | |
| Blank Off Sub | 1.00 | | | 3301.00 | |
| Blank Spacing | 4.00 | | | 3305.00 | 38.00 Tool Interval |
| Packer | 1.00 | | | 3306.00 | |
| Packer - Shale | 0.00 | | | 3306.00 | |
| Recorder | 0.00 | 8673 | Below | 3306.00 | |
| Change Over Sub | 1.00 | | | 3307.00 | |
| Blank Spacing | 219.00 | | | 3526.00 | |
| Change Over Sub | 1.00 | | | 3527.00 | |
| Perforations | 3.00 | | | 3530.00 | |
| Bullnose | 3.00 | | | 3533.00 | 228.00 Bottom Packers & Anchor |

Total Tool Length: 296.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Diamond oil

4 5 21w Norton KS

P.O.box 641
Hays KS 67601

Glennemeier #1

Job Ticket: 55058

DST#: 7

ATTN: Jeff Lawler

Test Start: 2014.04.18 @ 20:05:00

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: 50.00 sec/qt

Cushion Volume: bbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|--------------------------|---------------|
| 1.00 | free oil on top | 0.005 |
| 149.00 | mud-100%- With good odor | 0.988 |

Total Length: 150.00 ft Total Volume: 0.993 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

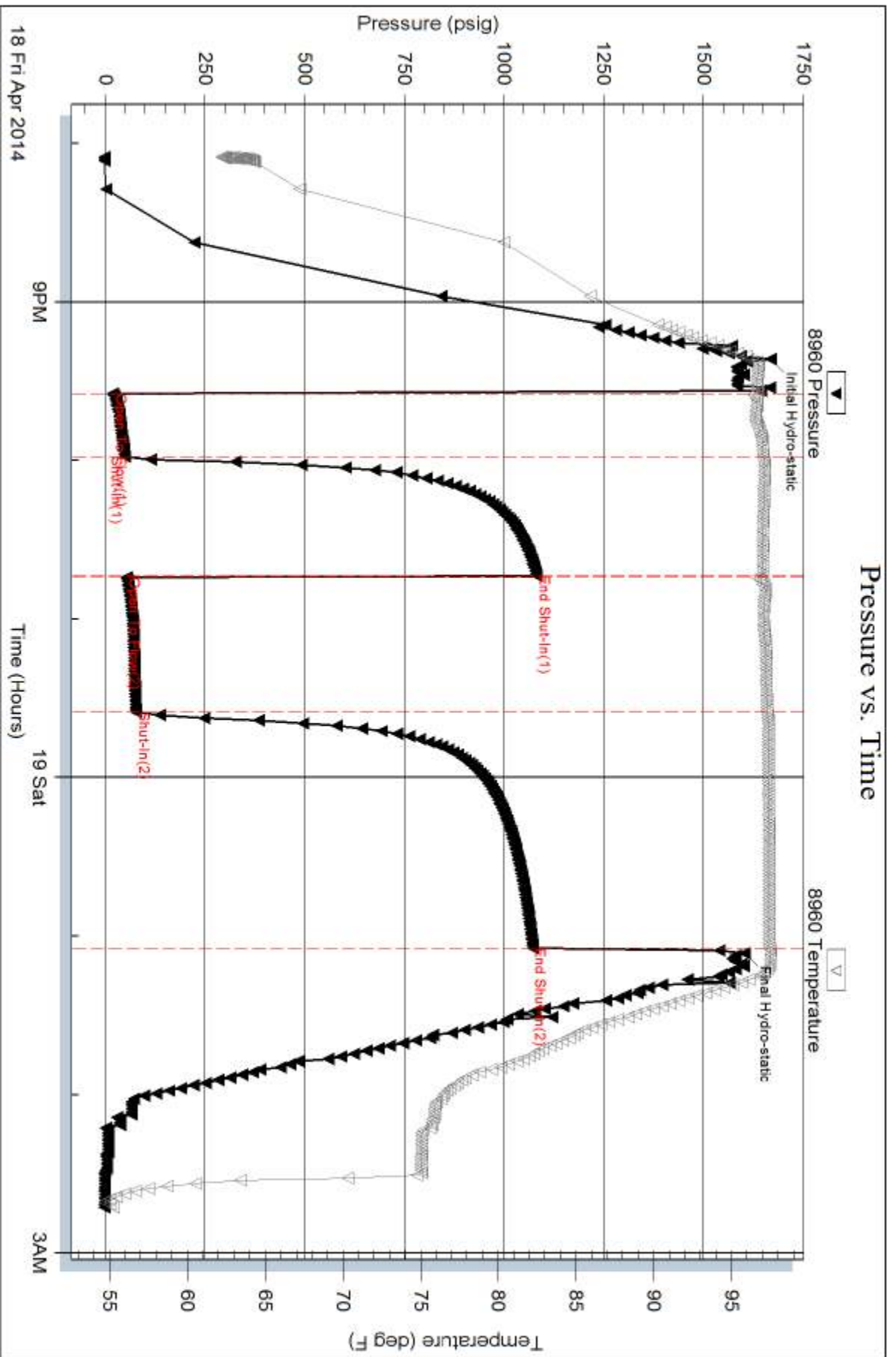
Serial #: 8960

Inside

Black Diamond oil

Glennmeier #1

DST Test Number: 7

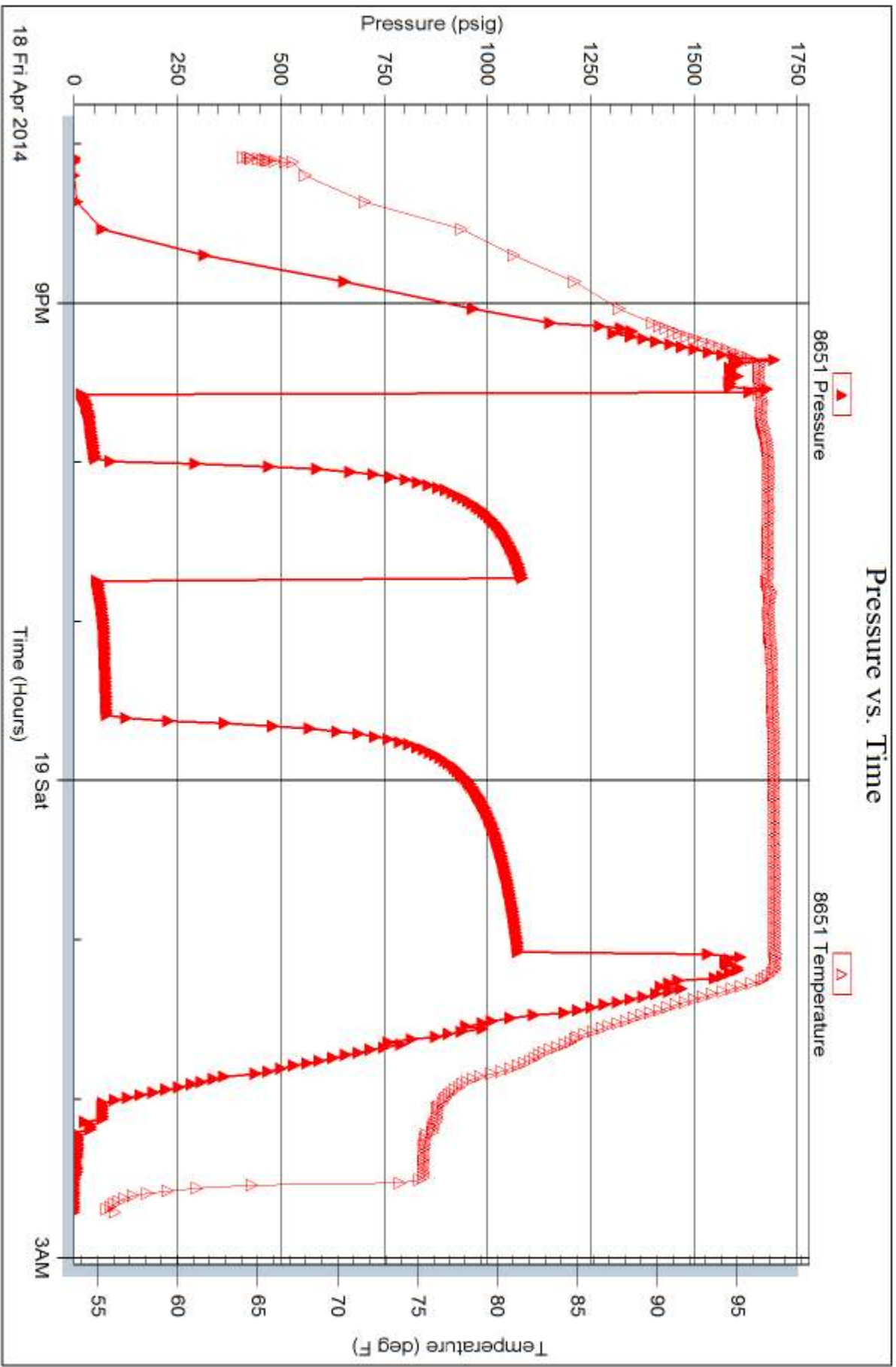


Serial #: 8651

Outside Black Diamond oil

Glennmeier #1

DST Test Number: 7

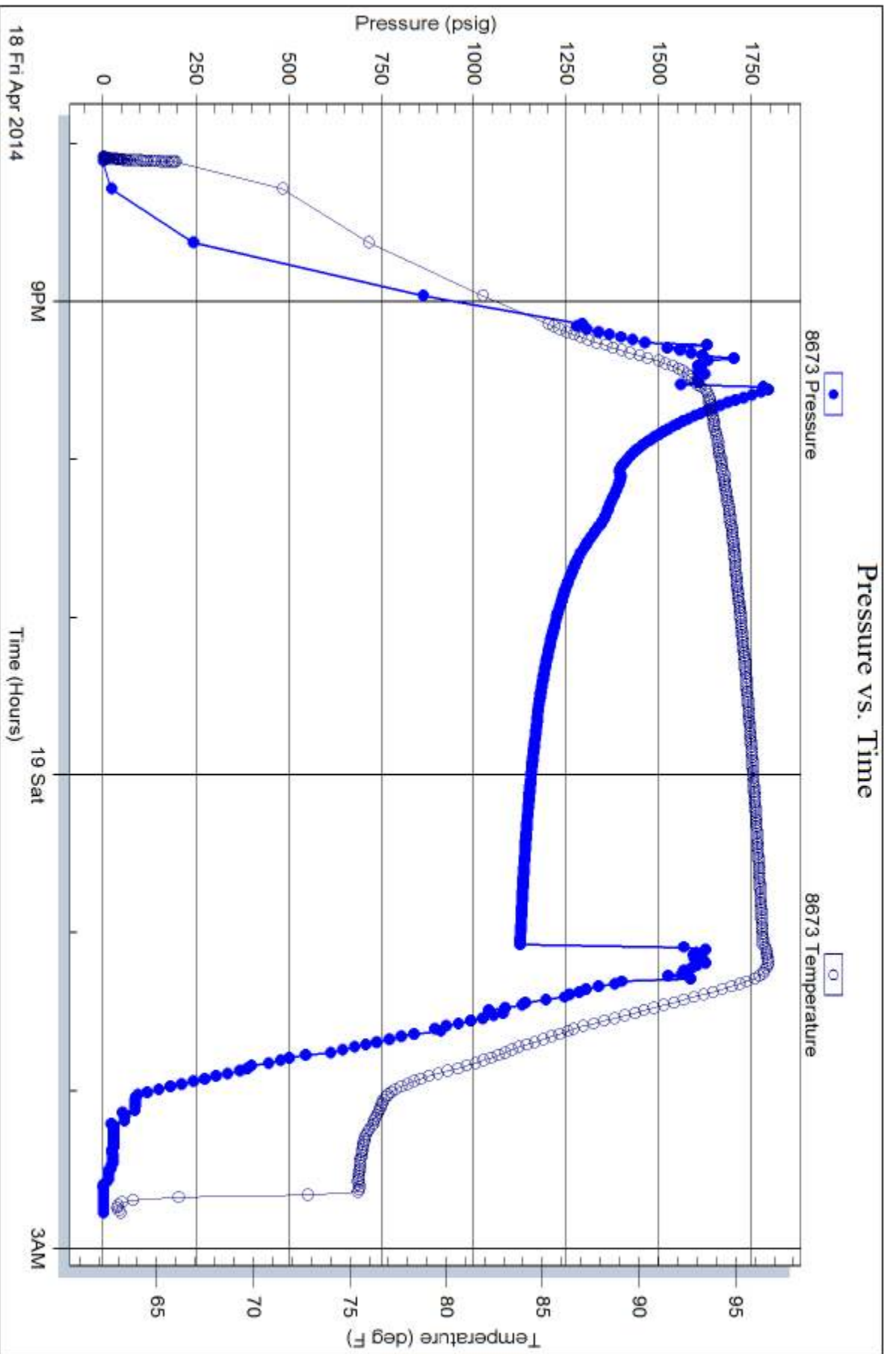


Serial #: 8673

Below (Stratfield) Diamond oil

Glennmeier #1

DST Test Number: 7





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55052**

Well Name & No. Glennemer #1 Test No. 1 Date 4-15-14
 Company Black Diamond Oil, Inc. Elevation 3022 KB 2017 GL
 Address P.O. Box 641 Hays Ks. 67601
 Co. Rep / Geo. JEFF Lowery Rig WV#6
 Location: Sec. 4 Twp. 5 Rge. 21W Co. Norton State Ks

Interval Tested 3182 3220 Zone Tested Toronto
 Anchor Length 38 Drill Pipe Run 3053 Mud Wt. 9.2
 Top Packer Depth 3177 Drill Collars Run 122 Vis 49
 Bottom Packer Depth 3182 Wt. Pipe Run -0' WL 8
 Total Depth 3220 Chlorides 750 ppm System LCM 2#

Blow Description IF: Weak blow, over 30 mins surface.

ISF: No blow back.

FF: Flushed tool - pulled tool

| Rec | Feet of | %gas | %oil | %water | %mud |
|-----------|----------------------------|------|------|--------|------|
| <u>20</u> | <u>mud with oil spect.</u> | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Rec Total 20 BHT 90 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1581 Test 1150 T-On Location 8:30
 (B) First Initial Flow 13 Jars _____ T-Started 9:05
 (C) First Final Flow 21 Safety Joint _____ T-Open 10:25
 (D) Initial Shut-In 1221 Circ Sub _____ T-Pulled 12:50
 (E) Second Initial Flow 24 Hourly Standby _____ T-Out 13:39
 (F) Second Final Flow 29 Mileage 60x2=120x1.55 186 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic 1528 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1336

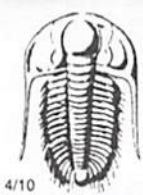
Initial Open 30
 Initial Shut-In 45
 Final Flow _____
 Final Shut-In _____

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1336
 MP/DST Disc't _____

Approved By _____

Our Representative Chris Myers

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55053**

Well Name & No. Glennemcier #1 Test No. 2 Date 4-15-2014
 Company Black Diamond oil, Inc Elevation 2022 KB 2017 GL
 Address P.O. Box 641 Hays Ks 67601
 Co. Rep / Geo. Jeff Lowery Rig wn #6
 Location: Sec. 4 Twp. 5 Rge. 21w Co. Norton State Ks

Interval Tested 3242 3285 Zone Tested LKC-C-D
 Anchor Length 43 Drill Pipe Run 31013 Mud Wt. 9.2
 Top Packer Depth 3237 Drill Collars Run 122 Vis 49
 Bottom Packer Depth 3242 Wt. Pipe Run -0- WL 8
 Total Depth 3285 Chlorides 750 ppm System LCM 2#

Blow Description IF: Fair blow, Built to B.O.B in 12 min.
ISI: No blow back
FF: Fair blow, built to B.O.B in 20 mins.
FSI: No blow back

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|--------------|------|-----------|------------|-----------|
| <u>62</u> | <u>SOCCM</u> | | <u>20</u> | <u>30</u> | <u>50</u> |
| <u>186</u> | <u>MCW</u> | | | <u>80</u> | <u>20</u> |
| <u>186</u> | <u>water</u> | | | <u>100</u> | |
| | | | | | |
| | | | | | |

Rec Total 434 BHT 98 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1615 Test 1150 T-On Location 20:40
 (B) First Initial Flow 27 Jars _____ T-Started 21:05
 (C) First Final Flow 111 Safety Joint _____ T-Open 22:36
 (D) Initial Shut-In 1160 Circ Sub _____ T-Pulled 1:35
 (E) Second Initial Flow 115 Hourly Standby _____ T-Out 3:29
 (F) Second Final Flow 183 Mileage 60x2=120x1.55= 186 Comments _____
 (G) Final Shut-In 1140 Sampler _____
 (H) Final Hydrostatic 1576 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 45 Day Standby _____ Total 1336
 Final Flow 45 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 60 Sub Total 1336

Approved By _____ Our Representative Chubky
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55054**

Well Name & No. Glennemair #1 Test No. 3 Date 4-16-2014
 Company Black Diamond oil, Inc. Elevation 2022 KB 2017 GL
 Address P.O. Box 641 Hays Ks. 67601
 Co. Rep / Geo. Jeff Lower Rig WW#6
 Location: Sec. 4 Twp. 5 Rge. 21 W Co. Norton State Ks

Interval Tested 3285 3294 Zone Tested LKC-E
 Anchor Length 9ft Drill Pipe Run 3176 Mud Wt. 9.2
 Top Packer Depth 3280 Drill Collars Run 122 Vis 49
 Bottom Packer Depth 3285 Wt. Pipe Run -0- WL 8
 Total Depth 3294 Chlorides 750 ppm System LCM 2#

Blow Description IF: Work surface over 30 mts.

ISI: No blow back

FF: No blow

FSI: No blow back

| Rec | Feet of | %gas | %oil | %water | %mud |
|-----------|---------------------------|------|------|-----------|-----------|
| <u>25</u> | <u>mcw with good odor</u> | | | <u>65</u> | <u>35</u> |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

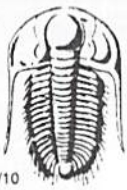
Rec Total 25 BHT 98 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1628 Test 1150 T-On Location 8:40
 (B) First Initial Flow 13 Jars _____ T-Started 9:10
 (C) First Final Flow 67 Safety Joint _____ T-Open 10:37
 (D) Initial Shut-In 1642 Circ Sub _____ T-Pulled 12:50
 (E) Second Initial Flow 30 Hourly Standby _____ T-Out 13:42
 (F) Second Final Flow 38 Mileage 60 x 2 = 120 x 1.55 = 186 Comments noted
 (G) Final Shut-In 970 Sampler _____
 (H) Final Hydrostatic 1701 Straddle _____

Initial Open 30 Ruined Shale Packer _____
 Initial Shut-In 45 Ruined Packer _____
 Final Flow 30 Extra Packer _____
 Final Shut-In 30 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1336
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1336

Approved By _____ Our Representative Chris Rogers

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55055**

4/10

Well Name & No. Glennemer #1 Test No. 4 Date 4-16-2014
 Company Black Diamond oil, Inc. Elevation 2022 KB 2017 GL
 Address P.O. Box 641 Hays KS 67601
 Co. Rep / Geo. Jeff Lower Rig ww#6
 Location: Sec. 4 Twp. S Rge. 21w Co. Norton State Ks

Interval Tested 3286 3302 Zone Tested LKC-F
 Anchor Length 16 Drill Pipe Run 3176 Mud Wt. 9.2
 Top Packer Depth 3281 Drill Collars Run 122 Vis 49
 Bottom Packer Depth 3286 Wt. Pipe Run -0- WL 8'
 Total Depth 3302 Chlorides 750 ppm System LCM 2#

Blow Description IF: Weak blow died in 1min.
IS: No blow back
FF: No blow, flush and pulled tool

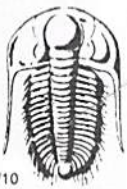
| Rec | Feet of | %gas | %oil | %water | %mud |
|----------|------------|------|------|------------|------|
| <u>5</u> | <u>Mud</u> | | | <u>100</u> | |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec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

Rec Total 5 BHT 98 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

| | | |
|-------------------------------------|---|--|
| (A) Initial Hydrostatic <u>1611</u> | <input checked="" type="checkbox"/> Test <u>1150</u> | T-On Location <u>18:45</u> |
| (B) First Initial Flow <u>14</u> | <input type="checkbox"/> Jars _____ | T-Started <u>19:20</u> |
| (C) First Final Flow <u>27</u> | <input type="checkbox"/> Safety Joint _____ | T-Open <u>20:39</u> |
| (D) Initial Shut-In <u>1618</u> | <input type="checkbox"/> Circ Sub _____ | T-Pulled <u>21:50</u> |
| (E) Second Initial Flow <u>29</u> | <input type="checkbox"/> Hourly Standby _____ | T-Out <u>23:05</u> |
| (F) Second Final Flow <u>30</u> | <input checked="" type="checkbox"/> Mileage <u>60x 2 = 120 x 1.55 = 186</u> | Comments <u>none</u> |
| (G) Final Shut-In _____ | <input type="checkbox"/> Sampler _____ | |
| (H) Final Hydrostatic <u>1664</u> | <input type="checkbox"/> Straddle _____ | |
| Initial Open <u>30</u> | <input type="checkbox"/> Shale Packer _____ | <input type="checkbox"/> Ruined Shale Packer _____ |
| Initial Shut-In <u>30</u> | <input type="checkbox"/> Extra Packer _____ | <input type="checkbox"/> Ruined Packer _____ |
| Final Flow _____ | <input type="checkbox"/> Extra Recorder _____ | <input type="checkbox"/> Extra Copies _____ |
| Final Shut-In _____ | <input type="checkbox"/> Day Standby _____ | Sub Total <u>0</u> |
| | <input type="checkbox"/> Accessibility _____ | Total <u>1336</u> |
| | Sub Total <u>1336</u> | MP/DST Disc't _____ |

Approved By _____ Our Representative Chad [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55056**

4/10

Well Name & No. Glennemore #1 Test No. 5 Date 4-17-2014
 Company Black Diamond Oil, Inc Elevation 2022 KB2017 GL
 Address P.O. Box 641 Hays KS 67601
 Co. Rep / Geo. Jeff Lowler Rig WWT# 6
 Location: Sec. 4 Twp. 5 Rge. 21w Co. Norton State KS

Interval Tested 3326 3370 Zone Tested LRC - H-L
 Anchor Length 44 Drill Pipe Run 3208 Mud Wt. 9.2
 Top Packer Depth 3321 Drill Collars Run 122 Vis 50
 Bottom Packer Depth 3326 Wt. Pipe Run -0- WL 9.6
 Total Depth 3370 Chlorides 500 ppm System LCM 2#

Blow Description IF: Weak blow, Surface over 25 mins.
FSI: No blow back
FF: No blow
FFI: No blow back.

| Rec | Feet of | %gas | %oil | %water | %mud |
|-----------|------------|------|-----------|--------|-----------|
| <u>25</u> | <u>0cm</u> | | <u>25</u> | | <u>75</u> |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

Rec Total 25 BHT 98 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

| | | |
|-------------------------------------|---|--|
| (A) Initial Hydrostatic <u>1635</u> | <input checked="" type="checkbox"/> Test <u>1150</u> | T-On Location <u>6:30</u> |
| (B) First Initial Flow <u>15</u> | <input type="checkbox"/> Jars _____ | T-Started <u>7:10</u> |
| (C) First Final Flow <u>40</u> | <input type="checkbox"/> Safety Joint _____ | T-Open <u>8:26</u> |
| (D) Initial Shut-In <u>883</u> | <input type="checkbox"/> Circ Sub _____ | T-Pulled <u>11:00</u> |
| (E) Second Initial Flow <u>24</u> | <input type="checkbox"/> Hourly Standby _____ | T-Out <u>12:00</u> |
| (F) Second Final Flow <u>31</u> | <input checked="" type="checkbox"/> Mileage <u>50x2 = 120x1.55</u> <u>186</u> | Comments <u>more</u> |
| (G) Final Shut-In <u>797</u> | <input type="checkbox"/> Sampler _____ | |
| (H) Final Hydrostatic <u>1625</u> | <input type="checkbox"/> Straddle _____ | |
| | <input type="checkbox"/> Shale Packer _____ | <input type="checkbox"/> Ruined Shale Packer _____ |
| | <input type="checkbox"/> Extra Packer _____ | <input type="checkbox"/> Ruined Packer _____ |
| Initial Open <u>30</u> | <input type="checkbox"/> Extra Recorder _____ | Sub Total <u>0</u> |
| Initial Shut-In <u>45</u> | <input type="checkbox"/> Day Standby _____ | Total <u>1336</u> |
| Final Flow <u>30</u> | <input type="checkbox"/> Accessibility _____ | MP/DST Disc't _____ |
| Final Shut-In <u>45</u> | | |

Sub Total 1336

Approved By _____ Our Representative Chub Dwyer

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55057**

Well Name & No. Glennemeir #1 Test No. 6 Date 4-17-14
 Company Black Diamond Oil Inc Elevation 2022 KB 2017 GL
 Address P.O. Box 641 Hays KS 67601
 Co. Rep / Geo. Jeff Lowler Rig ww#6
 Location: Sec. 4 Twp. 5 Rge. 21W Co. Norton State Ks

Interval Tested 3372 3387 Zone Tested LKC-5
 Anchor Length 15 Drill Pipe Run 3241 Mud Wt. 9.2
 Top Packer Depth 3367 Drill Collars Run 122 Vis 50
 Bottom Packer Depth 3372 Wt. Pipe Run -0- WL 9.6
 Total Depth 3387 Chlorides 500 ppm System LCM 2#

Blow Description IF: Weak blow Dead in 20 mins.

ISF: No blow back

FF: No blow

FSE: No blow back

| Rec | Feet of | %gas | %oil | %water | %mud |
|----------|----------------------|------|------|--------|------|
| <u>5</u> | <u>mud oil specs</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 5 BHT 98 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1657 Test 1150 T-On Location 17:30
 (B) First Initial Flow 14 Jars _____ T-Started 17:35
 (C) First Final Flow 15 Safety Joint _____ T-Open 14:02
 (D) Initial Shut-In 16 Circ Sub _____ T-Pulled 14:00
 (E) Second Initial Flow 15 Hourly Standby _____ T-Out 22:53
 (F) Second Final Flow 15 Mileage 60x2=120x1.55 186 Comments initial
 (G) Final Shut-In 15 Sampler _____
 (H) Final Hydrostatic 1633 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open _____ Ruined Shale Packer _____

Initial Shut-In _____ Ruined Packer _____

Final Flow _____ Extra Copies _____

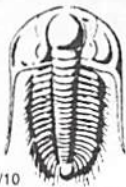
Final Shut-In _____ Sub Total 0

Sub Total 1336 Total 1336 MP/DST Disc't _____

Approved By _____

Our Representative Chad King

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55058

5460 8651 8240 8673

Well Name & No. Glenneneier #1 Test No. 7 Date 4-18-14
 Company Black Diamond oil INC Elevation 2022 KB 2017 GL
 Address P.O. BOX 641 Hays Ks. 67601
 Co. Rep / Geo. JEFF Lowery Rig ww#6
 Location: Sec. 4 Twp. 5 Rge. 21w Co. Norton State Ks

Interval Tested 3267 3305 Zone Tested LKC-0
 Anchor Length 38 Drill Pipe Run 3136 Mud Wt. 9.2
 Top Packer Depth 3262 Drill Collars Run 122 Vis 50
 Bottom Packer Depth 3305 Wt. Pipe Run 0 WL 9.6
 Total Depth 3531 Chlorides 500 ppm System LCM 2#

Blow Description IF: Weak blow, Built to 2 1/4 in. over 30
ISI: No blow back
FF: Weak blow, Built to 1/8 in. over 45 mins.
FSI: No blow back

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|--|------|------|--------|------|
| <u>150</u> | <u>Feet of mud with 1 ft. free oil on top Good order</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 150 BHT 98 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1668 Test 1150 T-On Location 17:30
 (B) First Initial Flow 19 Jars _____ T-Started 20:05
 (C) First Final Flow 50 Safety Joint _____ T-Open 21
 (D) Initial Shut-In 1082 Circ Sub _____ T-Pulled 103
 (E) Second Initial Flow 53 Hourly Standby _____ T-Out 2:43
 (F) Second Final Flow 77 Mileage 60x2 = 120x1.55 186
 (G) Final Shut-In 1072 Sampler _____
 (H) Final Hydrostatic 1603 Straddle 600 Ruined Shale Packer _____
 Shale Packer X.2 500 Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 45 Day Standby _____ Total 2436
 Final Flow 45 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 2436

Approved By _____ Our Representative Chet Meyer

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