15-147-20625 35-1s-19w

TRILOBITE TESTING, INC.

# DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

**35 1S19W Phillips KS**

**Barbara #1**

Start Date: 2010.03.21 @ 00:51:13
End Date: 2010.03.21 @ 07:58:43
Job Ticket #: 38096 DST #: 1

Bach Oil Production Barbara #1 35 1S19W Phillips KS DST # 1 Toronto-LKC 2010.03.21

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

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AUG 05 2010
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# DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Bach Oil Production

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

**Barbara #1**

**35 1S19W Phillips KS**

Job Ticket: 38096 **DST#: 1**

Test Start: 2010.03.21 @ 00:51:13

## GENERAL INFORMATION:

Formation: **Toronto-LKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:55:43
Time Test Ended: 07:58:43

Test Type: Conventional Bottom Hole
Tester: Jason McLemore
Unit No: 32

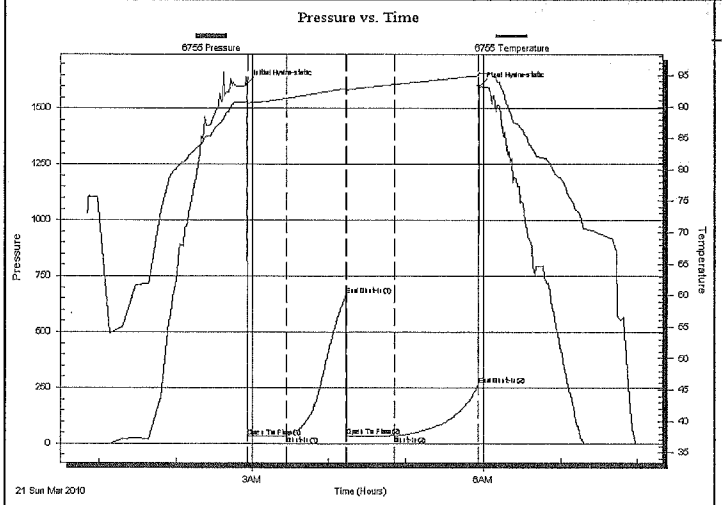
**Interval: 3330.00 ft (KB) To 3400.00 ft (KB) (TVD)**
Total Depth: 3400.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2206.00 ft (KB)
2199.00 ft (CF)
KB to GR/CF: 7.00 ft

**Serial #: 6755** **Inside**

| | | | | | |
|---|---|---|---|---|---|
| Press@RunDepth: | 36.25 psig @ | 3367.00 ft (KB) | | Capacity: | 8000.00 psig |
| Start Date: | 2010.03.21 | End Date: | 2010.03.21 | Last Calib.: | 2010.03.21 |
| Start Time: | 00:51:15 | End Time: | 07:58:43 | Time On Btm: | 2010.03.21 @ 02:55:13 |
| | | | | Time Off Btm: | 2010.03.21 @ 05:57:13 |

TEST COMMENT: IFP-Weak Blow ,Built from Surf. to 1"
ISI-Dead
FFP-Weak Blow ,Built from1/2"to 1-1/2"
FSI-Dead




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1608.09 | 90.83 | Initial Hydro-static |
| 1 | 31.76 | 90.17 | Open To Flow (1) |
| 32 | 34.16 | 91.34 | Shut-In(1) |
| 78 | 664.58 | 92.93 | End Shut-In(1) |
| 79 | 35.56 | 92.69 | Open To Flow (2) |
| 117 | 36.25 | 93.59 | Shut-In(2) |
| 182 | 264.79 | 94.96 | End Shut-In(2) |
| 182 | 1601.89 | 95.48 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 1.00 | Clean Oil | 0.01 |
| 14.00 | VSOCM-7%O-93%M | 0.20 |
| | | |
| | | |
| | | |
| | | |

## Gas Rates

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

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

TRILOBITE TESTING, INC

Bach Oil Production

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

**Barbara #1**

**35 1S19W Phillips KS**

Job Ticket: 38096 **DST#: 1**

Test Start: 2010.03.21 @ 00:51:13

## Tool Information

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Drill Pipe: | Length: | 3334.00 ft | Diameter: | 3.80 inches | Volume: | 46.77 bbl | Tool Weight: | | 2000.00 lb |
| Heavy Wt. Pipe: | Length: | 0.00 ft | Diameter: | 2.70 inches | Volume: | 0.00 bbl | Weight set on Packer: | | 25000.00 lb |
| Drill Collar: | Length: | 0.00 ft | Diameter: | 2.25 inches | Volume: | 0.00 bbl | Weight to Pull Loose: | | 46000.00 lb |
| | | | | | Total Volume: | 46.77 bbl | Tool Chased | | 0.00 ft |
| Drill Pipe Above KB: | | 32.00 ft | | | | | String Weight: | Initial | 44000.00 lb |
| Depth to Top Packer: | | 3330.00 ft | | | | | | Final | 44000.00 lb |
| Depth to Bottom Packer: | | ft | | | | | | | |
| Interval between Packers: | | 70.00 ft | | | | | | | |
| Tool Length: | | 98.00 ft | | | | | | | |
| Number of Packers: | | 2 | Diameter: | 6.75 inches | | | | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths | |
|---|---|---|---|---|---|---|
| Change Over Sub | 1.00 | | | 3303.00 | | |
| Shut In Tool | 5.00 | | | 3308.00 | | |
| Hydraulic tool | 5.00 | | | 3313.00 | | |
| Jars | 5.00 | | | 3318.00 | | |
| Safety Joint | 2.00 | | | 3320.00 | | |
| Packer | 5.00 | | | 3325.00 | 28.00 | Bottom Of Top Packer |
| Packer | 5.00 | | | 3330.00 | | |
| Stubb | 1.00 | | | 3331.00 | | |
| Perforations | 3.00 | | | 3334.00 | | |
| Change Over Sub | 1.00 | | | 3335.00 | | |
| Blank Spacing | 31.00 | | | 3366.00 | | |
| Change Over Sub | 1.00 | | | 3367.00 | | |
| Recorder | 0.00 | 6755 | Inside | 3367.00 | | |
| Recorder | 0.00 | 8360 | Outside | 3367.00 | | |
| Perforations | 30.00 | | | 3397.00 | | |
| Bullnose | 3.00 | | | 3400.00 | 70.00 | Bottom Packers & Anchor |
| **Total Tool Length:** | **98.00** | | | | | |

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

TRILOBITE TESTING, INC

Bach Oil Production

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

**Barbara #1**

**35 1S19W Phillips KS**

Job Ticket: 38096 **DST#: 1**

Test Start: 2010.03.21 @ 00:51:13

## 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: | bbl | | |
| Water Loss: | 5.99 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 600.00 ppm | | | | |
| Filter Cake: | inches | | | | |

## Recovery Information

Recovery Table

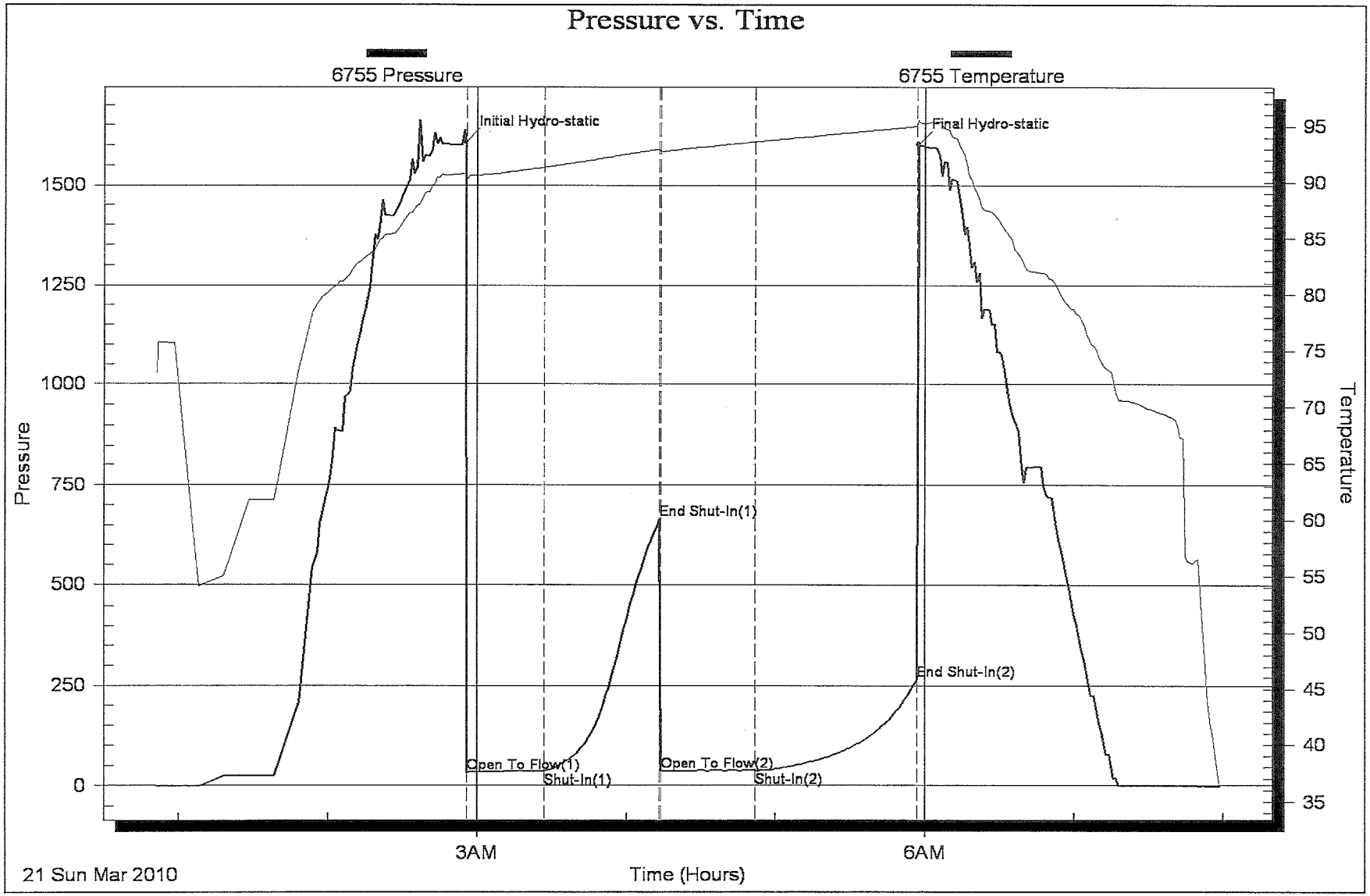
| Length ft | Description | Volume bbl |
|---|---|---|
| 1.00 | Clean Oil | 0.014 |
| 14.00 | VSOCM-7%O-93%M | 0.196 |

Total Length: 15.00 ft Total Volume: 0.210 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6755 Pressure
6755 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1500
1250
1000
750
500
250
0
95
90
85
80
75
70
65
60
55
50
45
40
35
3AM
6AM
21 Sun Mar 2010
Time (Hours)

TRILOBITE TESTING, INC.

# DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

**35 1S19W Phillips KS**

**Barbara #1**

Start Date: 2010.03.21 @ 18:31:28
End Date: 2010.03.22 @ 01:03:58
Job Ticket #: 38097 DST #: 2

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

# DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Bach Oil Production

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

**Barbara #1**

**35 1S19W Phillips KS**

Job Ticket: 38097 **DST#: 2**

Test Start: 2010.03.21 @ 18:31:28

## GENERAL INFORMATION:

Formation: "B-F"
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:06:58
Time Test Ended: 01:03:58

Test Type: Conventional Bottom Hole
Tester: Jason McLemore
Unit No: 32

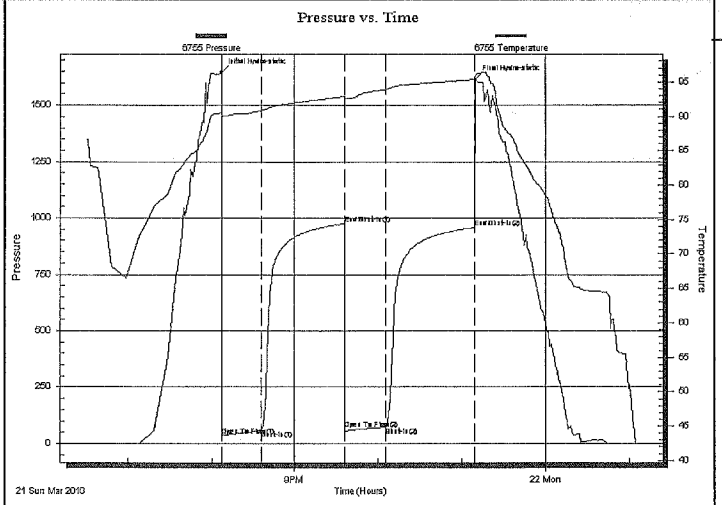
**Interval: 3397.00 ft (KB) To 3470.00 ft (KB) (TVD)**
Total Depth: 3470.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2206.00 ft (KB)
2199.00 ft (CF)
KB to GR/CF: 7.00 ft

**Serial #: 6755** **Inside**

| | | | | | |
|---|---|---|---|---|---|
| Press@RunDepth: | 72.12 psig @ | 3437.00 ft (KB) | | Capacity: | 8000.00 psig |
| Start Date: | 2010.03.21 | End Date: | 2010.03.22 | Last Calib.: | 2010.03.21 |
| Start Time: | 18:31:30 | End Time: | 01:03:58 | Time On Btm: | 2010.03.21 @ 20:06:28 |
| | | | | Time Off Btm: | 2010.03.21 @ 23:09:58 |

TEST COMMENT: IFP-Fair Blow ,Built to8-1/4"
ISI-Surface Blow back
FFP-Fair Blow ,Built to 8-1/2"
FSI-Dead




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1646.05 | 90.49 | Initial Hydro-static |
| 1 | 35.96 | 90.02 | Open To Flow (1) |
| 30 | 58.22 | 90.82 | Shut-In(1) |
| 90 | 974.65 | 92.88 | End Shut-In(1) |
| 90 | 65.63 | 92.45 | Open To Flow (2) |
| 120 | 72.12 | 93.92 | Shut-In(2) |
| 183 | 957.69 | 95.39 | End Shut-In(2) |
| 184 | 1615.11 | 95.96 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 20.00 | Clean Oil | 0.28 |
| 70.00 | HOCM-30%O-70%M | 0.98 |
| | | |
| | | |
| | | |
| | | |

## Gas Rates

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

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

TRILOBITE TESTING, INC

Bach Oil Production

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

**Barbara #1**

**35 1S19W Phillips KS**

Job Ticket: 38097 **DST#: 2**

Test Start: 2010.03.21 @ 18:31:28

## Tool Information

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Drill Pipe: | Length: | 3394.00 ft | Diameter: | 3.80 inches | Volume: | 47.61 bbl | Tool Weight: | | 2000.00 lb |
| Heavy Wt. Pipe: | Length: | 0.00 ft | Diameter: | 2.70 inches | Volume: | 0.00 bbl | Weight set on Packer: | | 25000.00 lb |
| Drill Collar: | Length: | 0.00 ft | Diameter: | 2.25 inches | Volume: | 0.00 bbl | Weight to Pull Loose: | | 60000.00 lb |
| | | | | | Total Volume: | 47.61 bbl | Tool Chased | | 0.00 ft |
| Drill Pipe Above KB: | | 25.00 ft | | | | | String Weight: | Initial | 44000.00 lb |
| Depth to Top Packer: | | 3397.00 ft | | | | | | Final | 45000.00 lb |
| Depth to Bottom Packer: | | ft | | | | | | | |
| Interval between Packers: | | 73.00 ft | | | | | | | |
| Tool Length: | | 101.00 ft | | | | | | | |
| Number of Packers: | | 2 | Diameter: | 6.75 inches | | | | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths | |
|---|---|---|---|---|---|---|
| Change Over Sub | 1.00 | | | 3370.00 | | |
| Shut In Tool | 5.00 | | | 3375.00 | | |
| Hydraulic tool | 5.00 | | | 3380.00 | | |
| Jars | 5.00 | | | 3385.00 | | |
| Safety Joint | 2.00 | | | 3387.00 | | |
| Packer | 5.00 | | | 3392.00 | 28.00 | Bottom Of Top Packer |
| Packer | 5.00 | | | 3397.00 | | |
| Stubb | 1.00 | | | 3398.00 | | |
| Perforations | 6.00 | | | 3404.00 | | |
| Change Over Sub | 1.00 | | | 3405.00 | | |
| Blank Spacing | 31.00 | | | 3436.00 | | |
| Change Over Sub | 1.00 | | | 3437.00 | | |
| Recorder | 0.00 | 6755 | Inside | 3437.00 | | |
| Recorder | 0.00 | 8360 | Outside | 3437.00 | | |
| Perforations | 30.00 | | | 3467.00 | | |
| Bullnose | 3.00 | | | 3470.00 | 73.00 | Bottom Packers & Anchor |
| **Total Tool Length:** | **101.00** | | | | | |

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

TRILOBITE TESTING, INC

Bach Oil Production

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

**Barbara #1**

**35 1S19W Phillips KS**

Job Ticket: 38097 **DST#: 2**

Test Start: 2010.03.21 @ 18:31:28

## Mud and Cushion Information

| | | | | | |
|---|---|---|---|---|---|
| Mud Type: | Gel Chem | Cushion Type: | | Oil API: | 34 deg API |
| Mud Weight: | 9.00 lb/gal | Cushion Length: | ft | Water Salinity: | ppm |
| Viscosity: | 56.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 5.99 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 700.00 ppm | | | | |
| Filter Cake: | inches | | | | |

## Recovery Information

Recovery Table

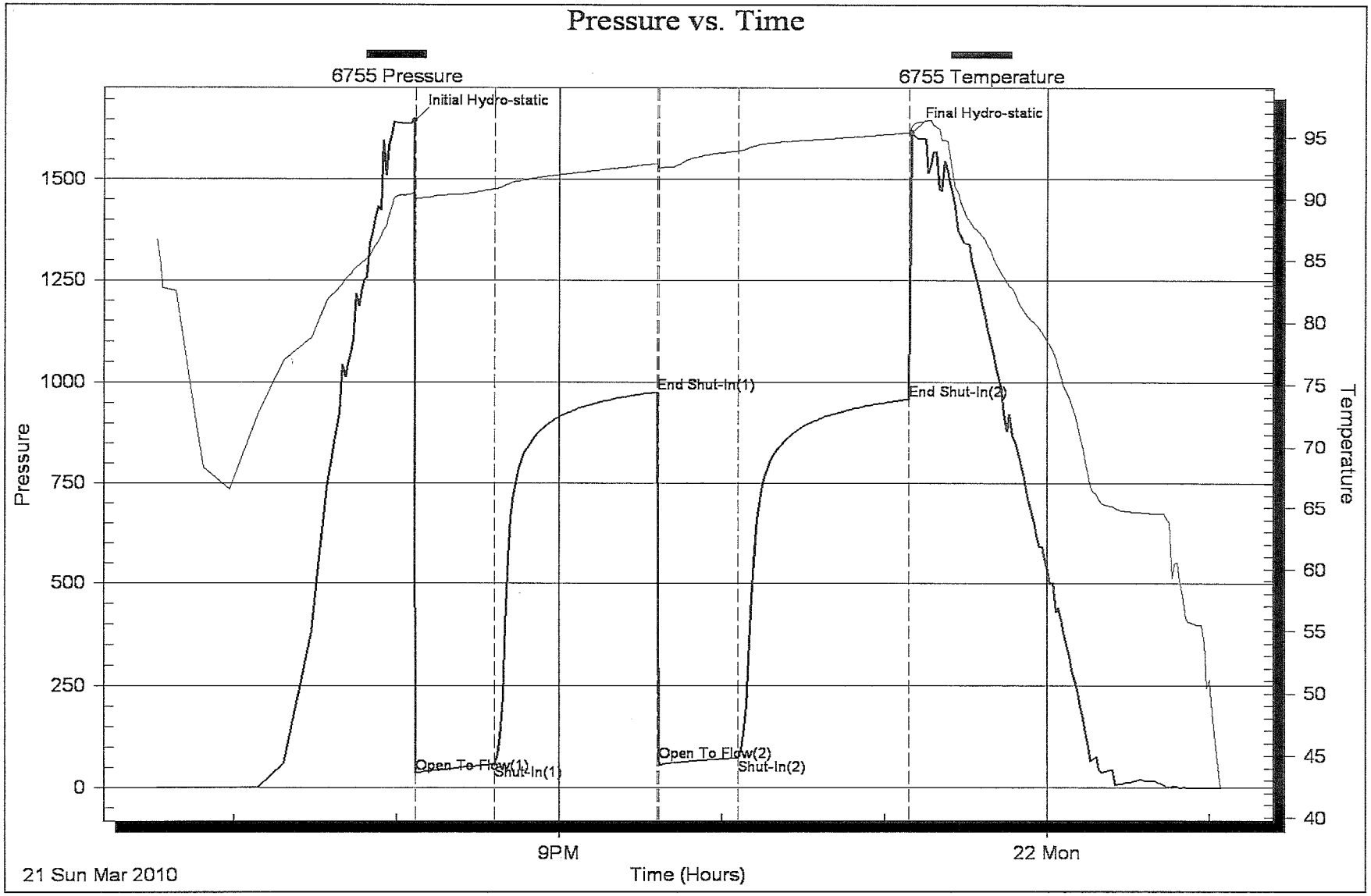
| Length ft | Description | Volume bbl |
|---|---|---|
| 20.00 | Clean Oil | 0.281 |
| 70.00 | HOCM-30%O-70%M | 0.982 |

Total Length: 90.00 ft Total Volume: 1.263 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6755 Pressure
6755 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1500
1250
1000
750
500
250
0
95
90
85
80
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70
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22 Mon
21 Sun Mar 2010
Time (Hours)