



DRILL STEM TEST REPORT

Prepared For: **Bach Oil Productions**

PO Box 723
Alma NE 68920

ATTN: Bob Petersen

Sherlyn #1

10-2s-19w Phillips KS

Start Date: 2013.10.08 @ 02:48:00

End Date: 2013.10.08 @ 08:55:09

Job Ticket #: 55132 DST #: 1

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

Printed: 2013.10.09 @ 11:20:39



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Bach Oil Productions

10-2s-19w Phillips KS

PO Box 723
Alma NE 68920

Sherlyn #1

Job Ticket: 55132

DST#: 1

ATTN: Bob Petersen

Test Start: 2013.10.08 @ 02:48:00

GENERAL INFORMATION:

Formation: **LKC " I "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:33:20

Time Test Ended: 08:55:09

Test Type: Conventional Straddle (Initial)

Tester: Ryan Nichols / Royal

Unit No: 41

Interval: 3538.00 ft (KB) To 3563.00 ft (KB) (TVD)

Reference Elevations: 2230.00 ft (KB)

Total Depth: 3780.00 ft (KB) (TVD)

2225.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8322 Outside

Press @ RunDepth: 22.24 psig @ 3539.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.08

End Date:

2013.10.08

Last Calib.: 2013.10.08

Start Time: 02:48:01

End Time:

08:55:10

Time On Btm: 2013.10.08 @ 04:33:10

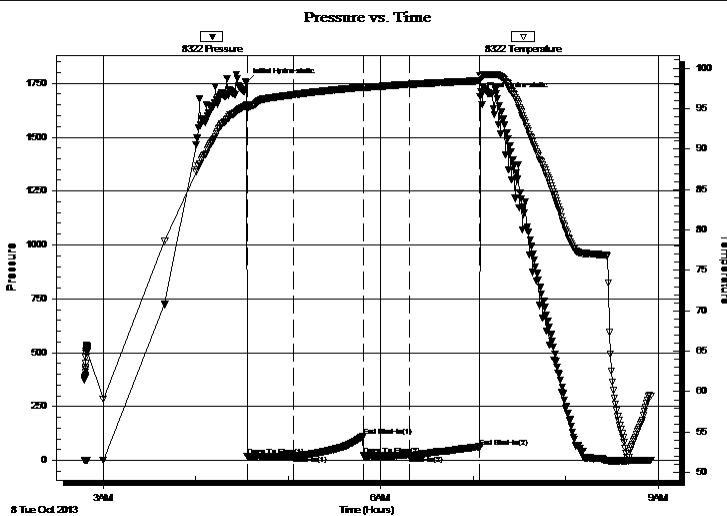
Time Off Btm: 2013.10.08 @ 07:04:20

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

45 ISI - No return

30 FF - No blow

45 FSI - No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1754.69	95.51	Initial Hydro-static
1	19.02	94.95	Open To Flow (1)
31	21.51	96.70	Shut-In(1)
76	110.33	97.62	End Shut-In(1)
76	21.80	97.60	Open To Flow (2)
106	22.24	98.00	Shut-In(2)
151	61.79	98.43	End Shut-In(2)
152	1687.47	99.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w/oil spots	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Productions

10-2s-19w Phillips KS

PO Box 723
Alma NE 68920

Sherlyn #1

Job Ticket: 55132

DST#: 1

ATTN: Bob Petersen

Test Start: 2013.10.08 @ 02:48:00

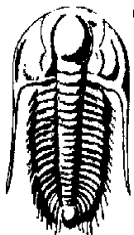
Tool Information

Drill Pipe:	Length: 3416.00 ft	Diameter: 3.80 inches	Volume: 47.92 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 116.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 48.49 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3538.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	3581.00 ft			
Interval between Packers:	43.00 ft			
Tool Length:	290.00 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			3512.00	
Shut In Tool	5.00			3517.00	
Hydraulic tool	5.00			3522.00	
Jars	5.00			3527.00	
Safety Joint	2.00			3529.00	
Packer	5.00			3534.00	27.00 Bottom Of Top Packer
Packer	4.00			3538.00	
Stubb	1.00			3539.00	
Recorder	0.00	6752	Inside	3539.00	
Recorder	0.00	8322	Outside	3539.00	
Perforations	4.00			3543.00	
Blank Spacing	33.00			3576.00	
Blank Off Sub	1.00			3577.00	
Blank Spacing	4.00			3581.00	43.00 Tool Interval
Packer	4.00			3585.00	
Stubb	1.00			3586.00	
Change Over Sub	1.00			3587.00	
Drill Pipe	187.00			3774.00	
Change Over Sub	1.00			3775.00	
Recorder	0.00	8734	Below	3775.00	
Perforations	23.00			3798.00	
Bullnose	3.00			3801.00	220.00 Bottom Packers & Anchor
Total Tool Length:	290.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Productions

10-2s-19w Phillips KS

PO Box 723
Alma NE 68920

Sherlyn #1

Job Ticket: 55132

DST#: 1

ATTN: Bob Petersen

Test Start: 2013.10.08 @ 02:48:00

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: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 250.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud w /oil spots	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

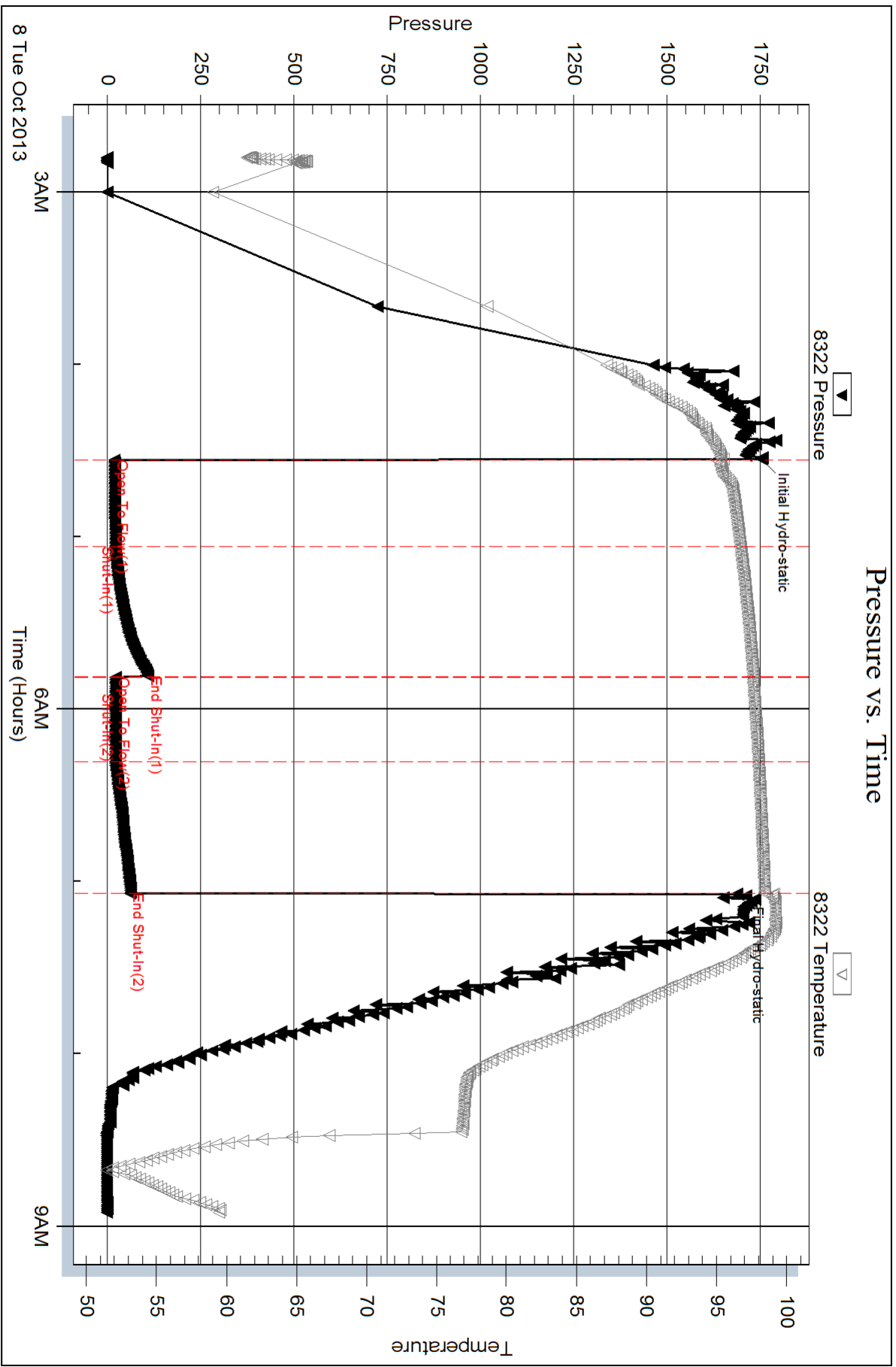
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



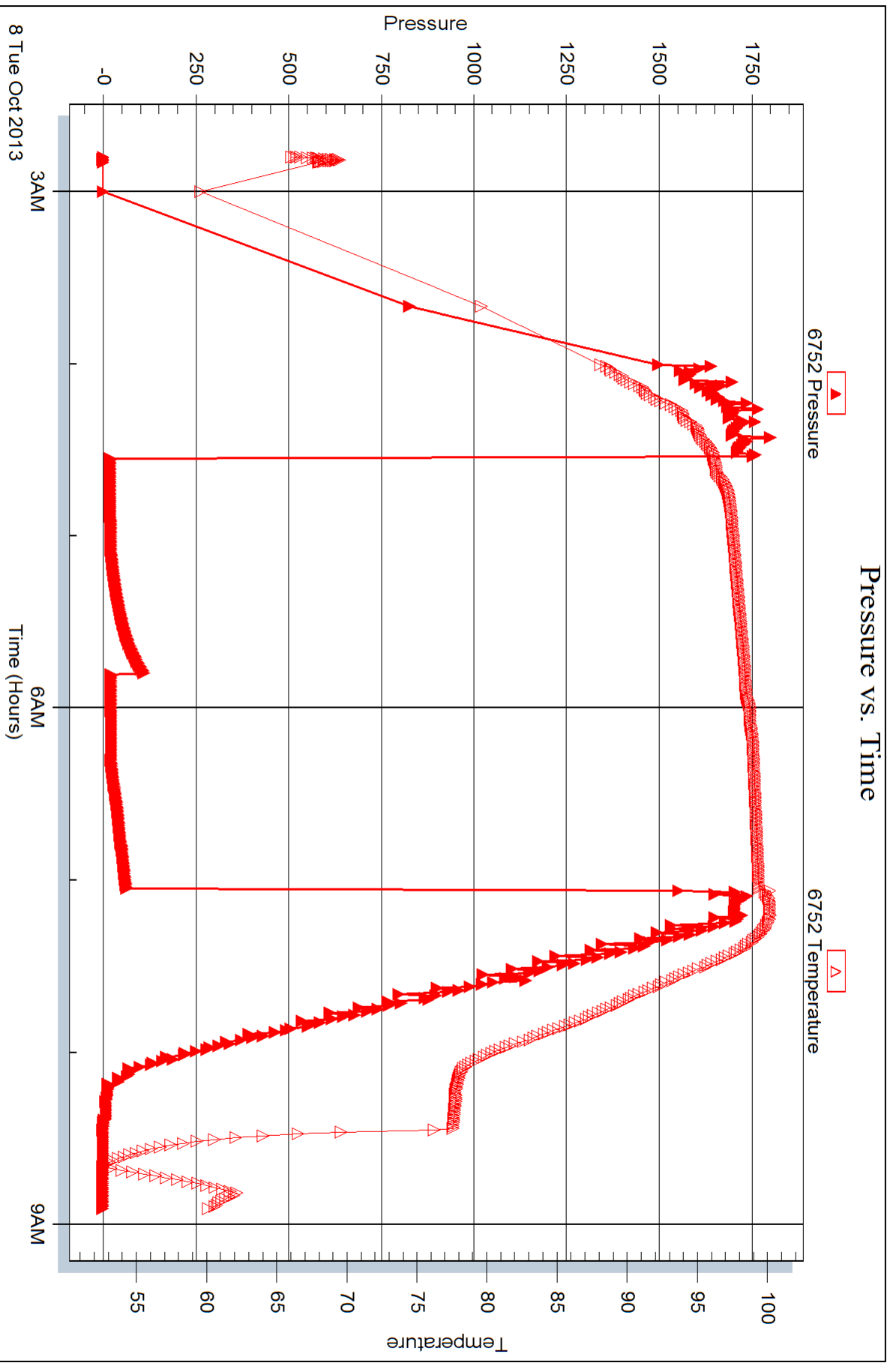
Serial #: 6752

Inside

Bach Oil Productions

Sherlyn #1

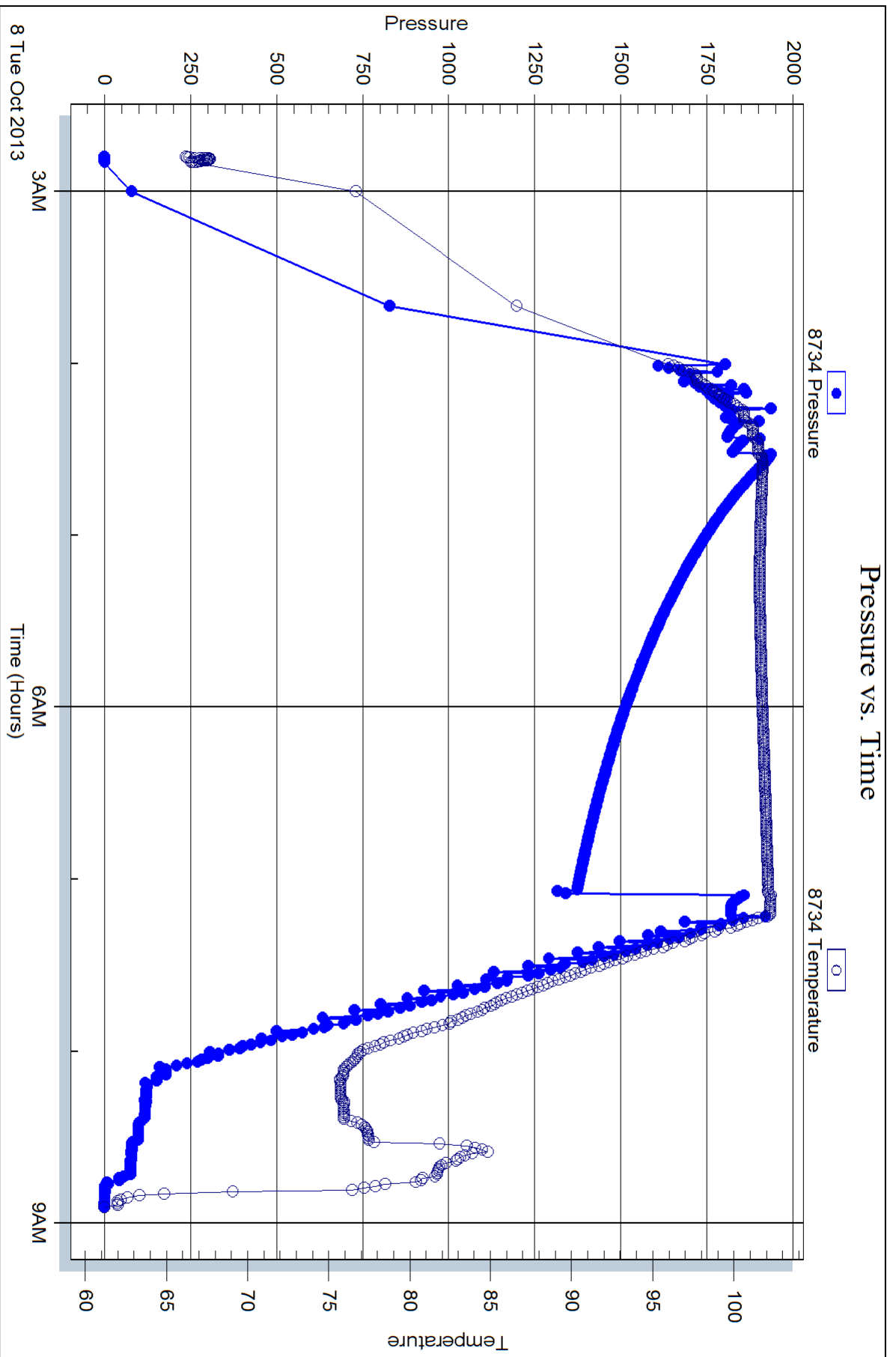
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 55132

Printed: 2013.10.09 @ 11:20:41





DRILL STEM TEST REPORT

Prepared For: **Bach Oil Productions**

PO Box 723
Alma NE 68920

ATTN: Bob Petersen

Sherlyn #1

10-2s-19w Phillips KS

Start Date: 2013.10.08 @ 09:33:00

End Date: 2013.10.08 @ 16:32:09

Job Ticket #: 55133 DST #: 2

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

Printed: 2013.10.09 @ 11:19:52



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Bach Oil Productions

10-2s-19w Phillips KS

PO Box 723
Alma NE 68920

Sherlyn #1

Job Ticket: 55133

DST#: 2

ATTN: Bob Petersen

Test Start: 2013.10.08 @ 09:33:00

GENERAL INFORMATION:

Formation: **LKC " C - F "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:22:00

Time Test Ended: 16:32:09

Test Type: Conventional Straddle (Reset)

Tester: Ryan Nichols / Royal

Unit No: 41

Interval: 3420.00 ft (KB) To 3490.00 ft (KB) (TVD)

Total Depth: 3780.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2230.00 ft (KB)

2225.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8322 Outside

Press @ RunDepth: 82.39 psig @ 3421.00 ft (KB)

Start Date: 2013.10.08

End Date: 2013.10.08

Start Time: 09:33:01

End Time: 16:32:10

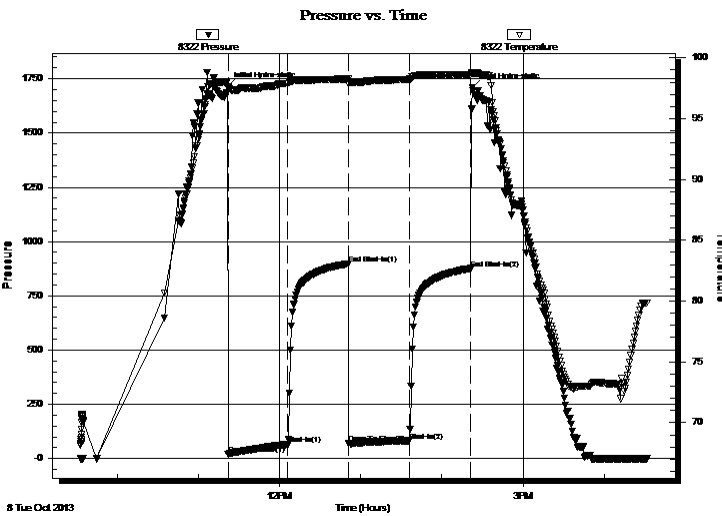
Capacity: 8000.00 psig

Last Calib.: 2013.10.08

Time On Btm: 2013.10.08 @ 11:21:40

Time Off Btm: 2013.10.08 @ 14:22:39

TEST COMMENT: 45 IF - Surface blow built to 4"
45 ISI - No return
45 FF - Surface blow started @ 2 mins built to 3"
45 FSI - No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1715.55	98.05	Initial Hydro-static
1	21.27	97.58	Open To Flow (1)
45	64.42	97.89	Shut-In(1)
90	897.88	98.25	End Shut-In(1)
90	69.21	97.83	Open To Flow (2)
135	82.39	98.22	Shut-In(2)
180	876.17	98.62	End Shut-In(2)
181	1710.93	98.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
150.00	MCW - 50%M - 50%W	1.05

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Productions

10-2s-19w Phillips KS

PO Box 723
Alma NE 68920

Sherlyn #1

Job Ticket: 55133

DST#: 2

ATTN: Bob Petersen

Test Start: 2013.10.08 @ 09:33:00

Tool Information

Drill Pipe:	Length: 3304.00 ft	Diameter: 3.80 inches	Volume: 46.35 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 116.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose:	560000.0 lb
			<u>Total Volume: 46.92 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	52000.00 lb
Depth to Top Packer:	3420.00 ft			Final	53000.00 lb
Depth to Bottom Packer:	3490.00 ft				
Interval between Packers:	70.00 ft				
Tool Length:	390.00 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			3394.00	
Shut In Tool	5.00			3399.00	
Hydraulic tool	5.00			3404.00	
Jars	5.00			3409.00	
Safety Joint	2.00			3411.00	
Packer	5.00			3416.00	27.00 Bottom Of Top Packer
Packer	4.00			3420.00	
Stubb	1.00			3421.00	
Recorder	0.00	6752	Inside	3421.00	
Recorder	0.00	8322	Outside	3421.00	
Perforations	31.00			3452.00	
Blank Spacing	33.00			3485.00	
Blank Off Sub	1.00			3486.00	
Blank Spacing	4.00			3490.00	70.00 Tool Interval
Packer	4.00			3494.00	
Stubb	1.00			3495.00	
Change Over Sub	1.00			3496.00	
Drill Pipe	279.00			3775.00	
Change Over Sub	1.00			3776.00	
Recorder	0.00	8734	Below	3776.00	
Perforations	4.00			3780.00	
Bullnose	3.00			3783.00	293.00 Bottom Packers & Anchor
Total Tool Length:	390.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Productions

10-2s-19w Phillips KS

PO Box 723
Alma NE 68920

Sherlyn #1

Job Ticket: 55133

DST#: 2

ATTN: Bob Petersen

Test Start: 2013.10.08 @ 09:33:00

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: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 250.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
150.00	MCW - 50%M - 50%W	1.047

Total Length: 150.00 ft Total Volume: 1.047 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

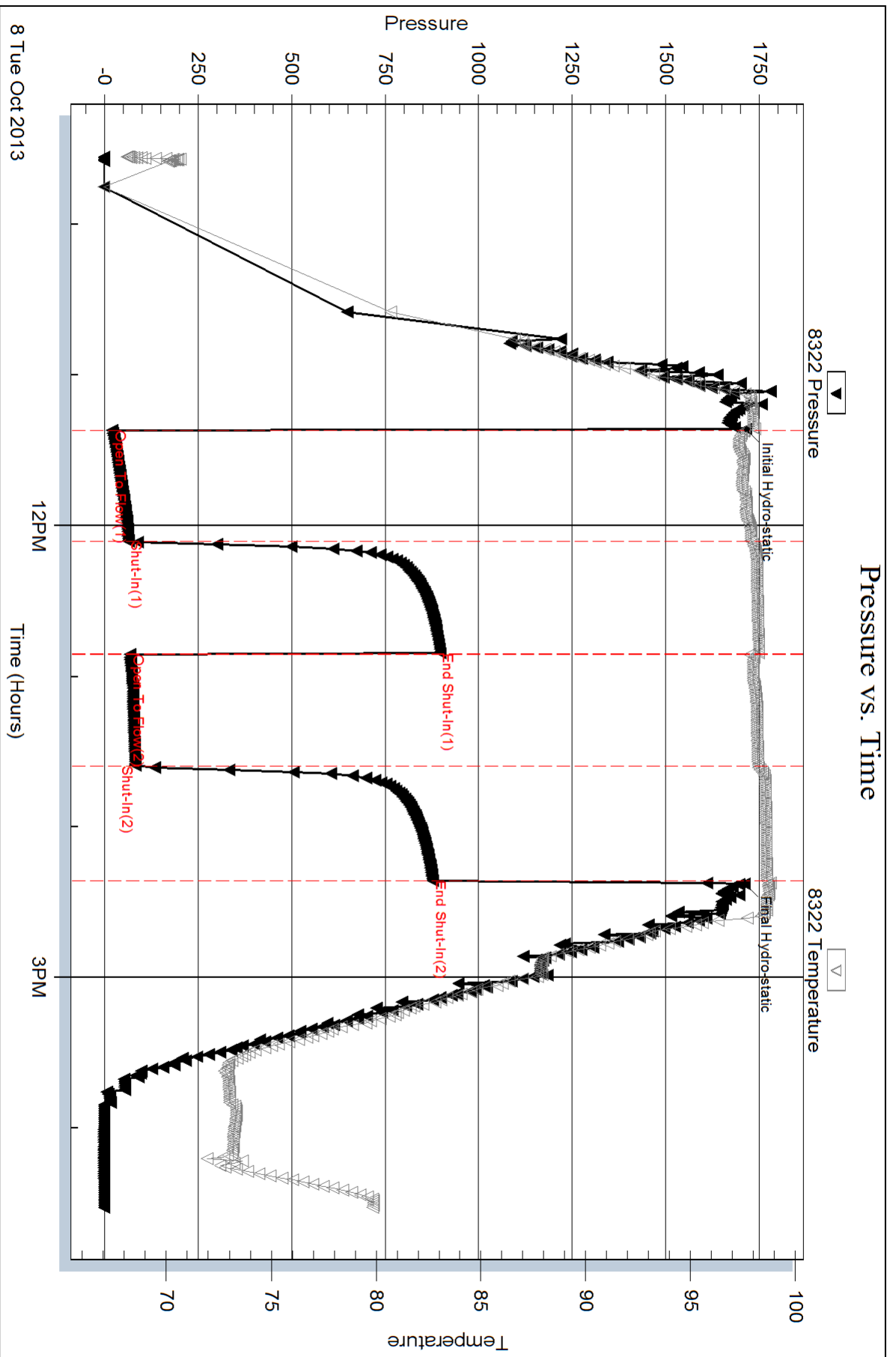
Recovery Comments:

Serial #: 8322

Outside Bach Oil Productions

Sherlyn #1

DST Test Number: 2



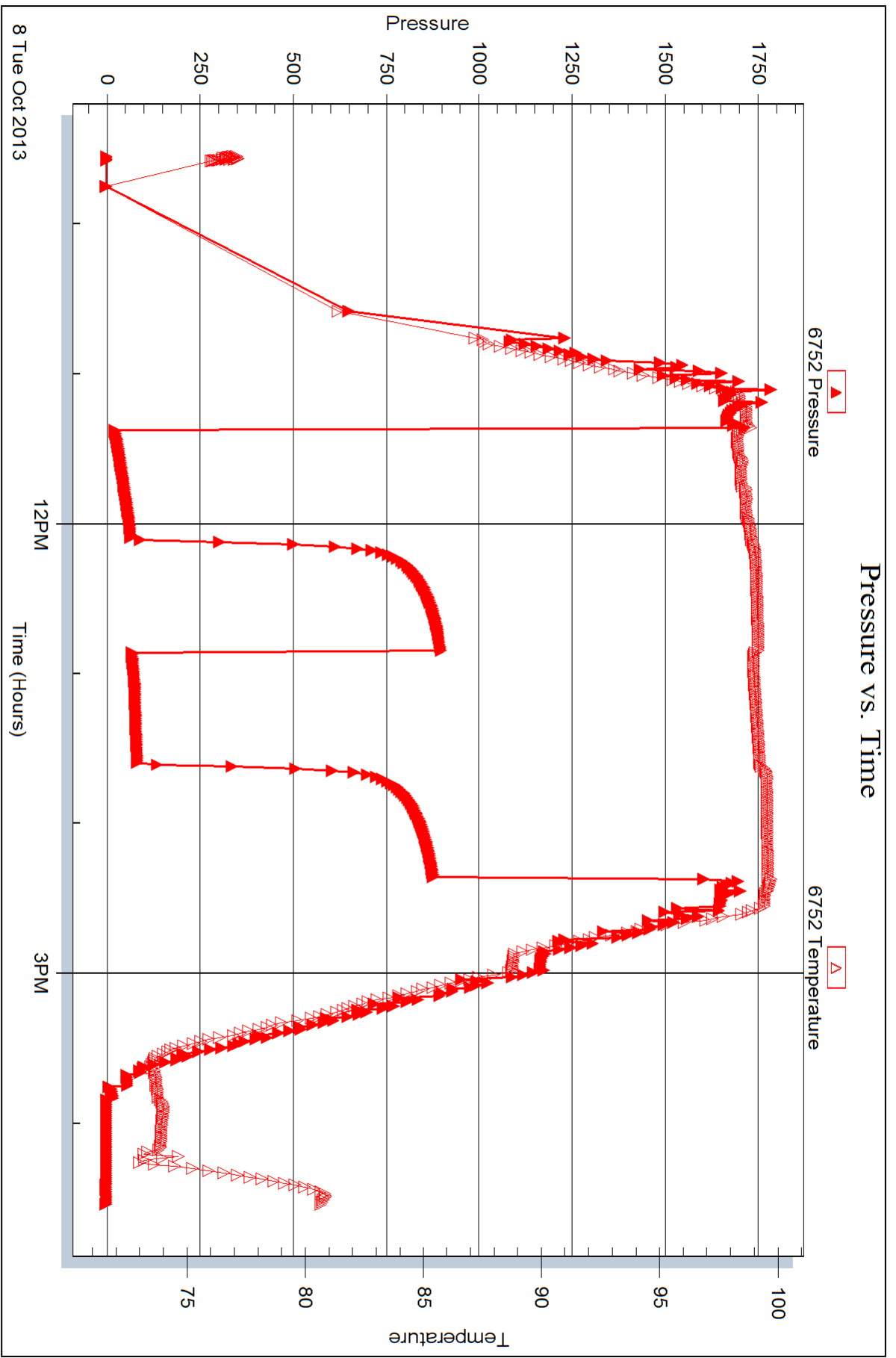
Serial #: 6752

Inside

Bach Oil Productions

Sherlyn #1

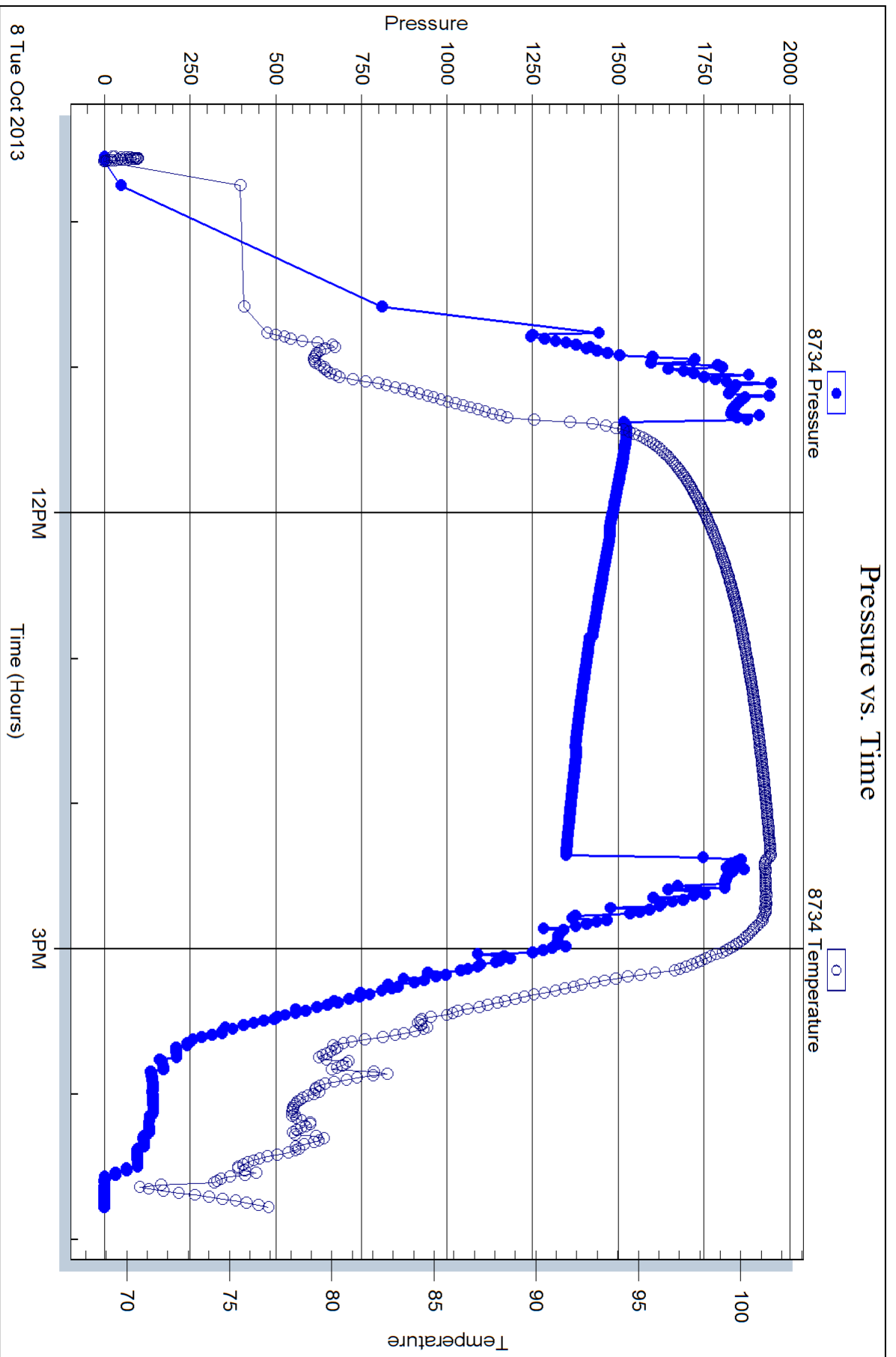
DST Test Number: 2

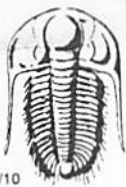


Trilobite Testing, Inc

Ref. No: 55133

Printed: 2013.10.09 @ 11:19:54





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55132

Well Name & No. Sherlyn #1 Test No. 1 Date 10/8/13
 Company Bach Oil Productions Elevation 2230 KB 2225 GL
 Address P.O. Box 723 Alma NE 68920
 Co. Rep / Geo. Bob Petersen Rig Murfin #24
 Location: Sec. 10 Twp. 25 Rge. 19 W Co. Phillips State KS

Interval Tested 3538-3563 Zone Tested LKC "I"
 Anchor Length 25' Drill Pipe Run ~~3020~~ 3416 Mud Wt. 9.1
 Top Packer Depth 3533 Drill Collars Run 116' Vis 62
 Bottom Packer Depth 3538 3563 shale Wt. Pipe Run 0' WL 5.6
 Total Depth 3780 217' tail Chlorides 250 ppm System LCM 1
 Blow Description IF - Surface blow built to 1/4"
ISI - No return
FF - No blow
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
5'	Mud w/oil spots			100	

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

(A) Initial Hydrostatic <u>1755</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>01:30</u>
(B) First Initial Flow <u>19</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>02:48</u>
(C) First Final Flow <u>22</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>04:34</u>
(D) Initial Shut-In <u>110</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>07:04</u>
(E) Second Initial Flow <u>22</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>08:55</u>
(F) Second Final Flow <u>22</u>	<input checked="" type="checkbox"/> Mileage <u>130 RT</u> 201.50	Comments _____
(G) Final Shut-In <u>62</u>	<input type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>1687</u>	<input checked="" type="checkbox"/> Straddle 600	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby _____	Total <u>2276.50</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't <u>75% / 25%</u>
	Sub Total <u>2276.50</u>	

Approved By _____ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55133**

Well Name & No. Sherlyn #1 Test No. 2 Date 10/8/13
 Company Bach Oil Productions Elevation 2230 KB 2225 GL
 Address P.O. Box 723 Alma NE 68920
 Co. Rep / Geo. Bob Peterson Rig Murfin #24
 Location: Sec. 10 Twp. 25 Rge. 19W Co. Phillips State KS

Interval Tested 3420-3490 Zone Tested LKC "C-F"
 Anchor Length 70' Drill Pipe Run 3304' Mud Wt. 9.1
 Top Packer Depth 3415 Drill Collars Run 116' Vis 62
 Bottom Packer Depth 3420 3490' shale Wt. Pipe Run 0' WL 5.6
 Total Depth 3780 290' tail Chlorides 250 ppm System LCM 1
 Blow Description FF - Surface blow built to 4"

IST - No return
FF - Surface blow started @ 2 mins built to 3"
FST -

Rec	Feet of	%gas	%oil	%water	%mud
<u>150'</u>	<u>MCW</u>		<u>50</u>	<u>50</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 99 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1716</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>08:55</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>09:33</u>
(C) First Final Flow <u>64</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>11:22</u>
(D) Initial Shut-In <u>898</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>14:22</u>
(E) Second Initial Flow <u>69</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>16:32</u>
(F) Second Final Flow <u>82</u>	<input checked="" type="checkbox"/> Mileage <u>130 RT</u>	Comments _____
(G) Final Shut-In <u>876</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>1711</u>	<input checked="" type="checkbox"/> Straddle <u>600</u>	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>45</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Total <u>2075</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	<u>759</u> <u>258</u>
	Sub Total <u>2075</u>	

Approved By _____ Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.