



## DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

PO Box 723  
Alma, NE 68920-0723

ATTN: Jason Bach

### **Knape #1**

#### **18-1s-18w Phillips,KS**

Start Date: 2011.09.20 @ 17:01:04

End Date: 2011.09.20 @ 19:09:29

Job Ticket #: 44559                      DST #: 1

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

Printed: 2011.10.24 @ 12:45:39



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Bach Oil Production  
 PO Box 723  
 Alma, NE 68920-0723  
 ATTN: Jason Bach

**18-1s-18w Phillips,KS**

**Knape #1**

Job Ticket: 44559

**DST#: 1**

Test Start: 2011.09.20 @ 17:01:04

## GENERAL INFORMATION:

Formation: **LKC C-D**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 19:09:29  
 Interval: **3295.00 ft (KB) To 3345.00 ft (KB) (TVD)**  
 Total Depth: 3345.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ray Schwager  
 Unit No: 42  
 Reference Elevations: 2255.00 ft (KB)  
 2250.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 6625**

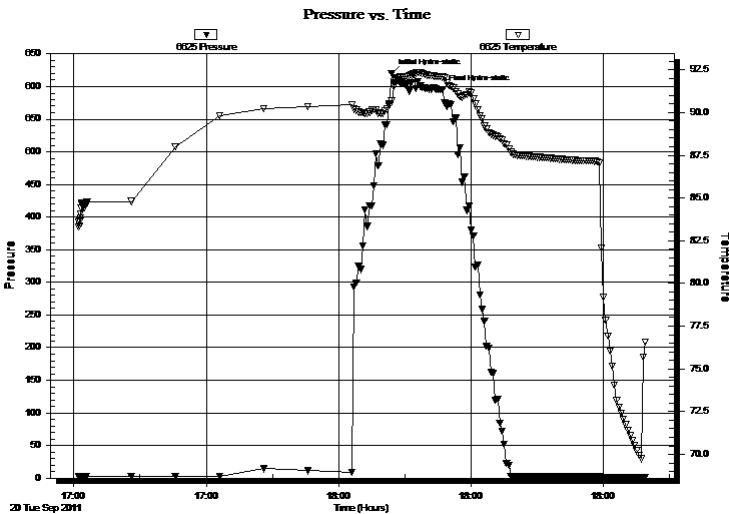
**Inside**

Press@RunDepth: psig @ 3297.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2011.09.20 End Date: 2011.09.20 Last Calib.: 2011.09.20  
 Start Time: 17:01:04 End Time: 19:09:29 Time On Btm: 2011.09.20 @ 18:11:59  
 Time Off Btm: 2011.09.20 @ 18:23:29

**TEST COMMENT:** Hit Bridge @ Approx 1825"  
 would not go thru , pulled tool  
 missrun

## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	620.18	90.68	Initial Hydro-static
12	594.97	92.08	Final Hydro-static



## Recovery

Length (ft)	Description	Volume (bbl)

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bach Oil Production  
PO Box 723  
Alma, NE 68920-0723  
ATTN: Jason Bach

**18-1s-18w Phillips,KS**  
**Knape #1**  
Job Ticket: 44559      **DST#: 1**  
Test Start: 2011.09.20 @ 17:01:04

**Tool Information**

Drill Pipe:	Length: 3263.00 ft	Diameter: 3.80 inches	Volume: 45.77 bbl	Tool Weight:	2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	lb
			<u>Total Volume: 45.92 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial	lb
Depth to Top Packer:	3295.00 ft			Final	lb
Depth to Bottom Packer:	ft				
Interval between Packers:	50.00 ft				
Tool Length:	78.00 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			3268.00	
Shut In Tool	5.00			3273.00	
Hydraulic tool	5.00			3278.00	
Jars	5.00			3283.00	
Safety Joint	2.00			3285.00	
Packer	5.00			3290.00	28.00      Bottom Of Top Packer
Packer	5.00			3295.00	
Stubb	1.00			3296.00	
Perforations	1.00			3297.00	
Recorder	0.00	6625	Inside	3297.00	
Recorder	0.00	8700	Outside	3297.00	
Blank Spacing	33.00			3330.00	
Perforations	12.00			3342.00	
Bullnose	3.00			3345.00	50.00      Bottom Packers & Anchor

**Total Tool Length:      78.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Bach Oil Production  
PO Box 723  
Alma, NE 68920-0723  
ATTN: Jason Bach

**18-1s-18w Phillips,KS**  
**Knape #1**  
Job Ticket: 44559      **DST#: 1**  
Test Start: 2011.09.20 @ 17:01:04

## 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: 64.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.95 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1000.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl

Total Length:                      ft      Total Volume:                      bbl  
Num Fluid Samples: 0                      Num Gas Bombs:      0                      Serial #:  
Laboratory Name:                      Laboratory Location:  
Recovery Comments:

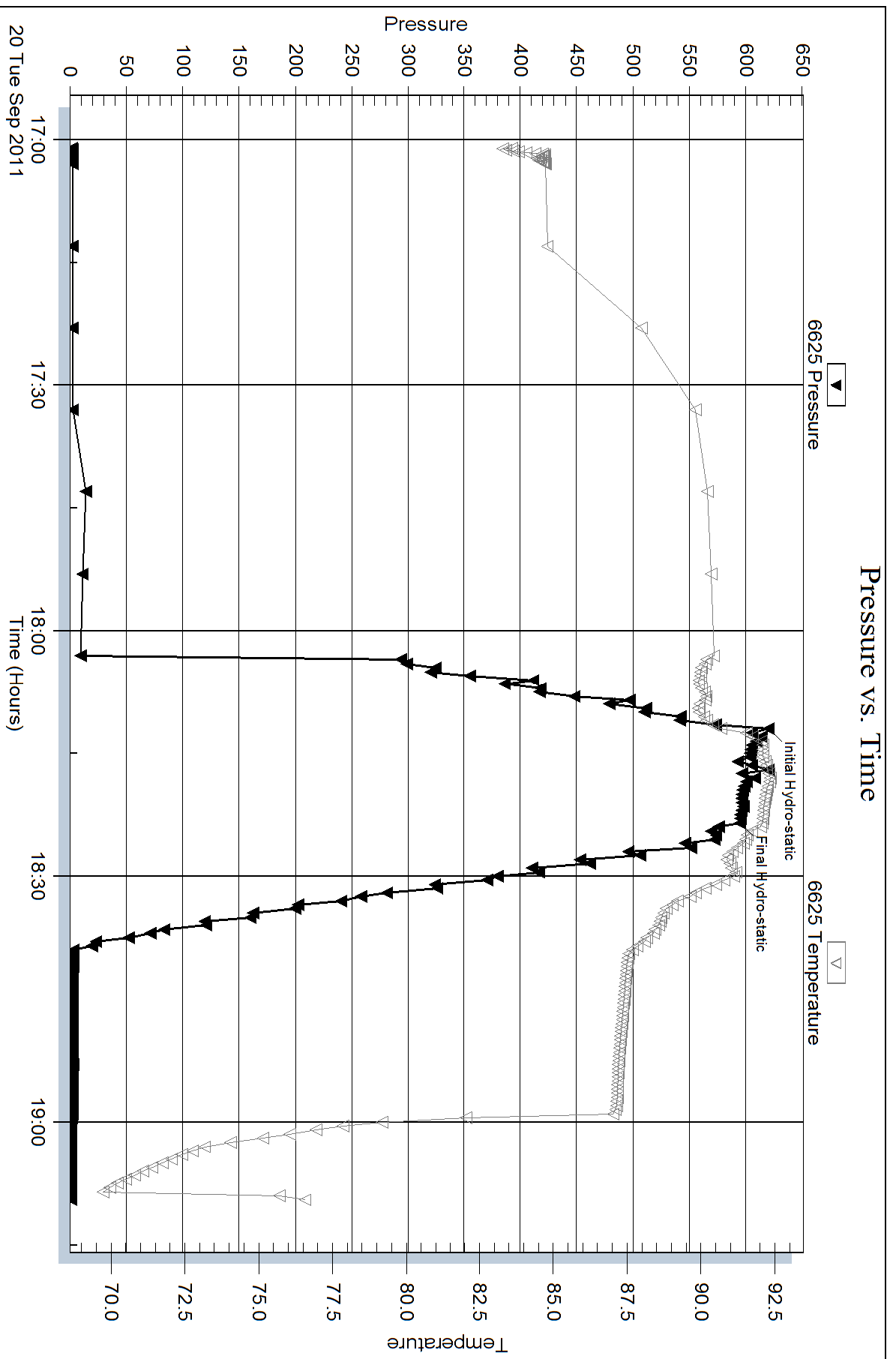
Serial #: 6625

Inside

Bach Oil Production

Knape #1

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

PO Box 723  
Alma, NE 68920-0723

ATTN: Jason Bach

### **Knape #1**

#### **18-1s-18w Phillips,KS**

Start Date: 2011.09.21 @ 03:05:29

End Date: 2011.09.21 @ 10:09:53

Job Ticket #: 44560                      DST #: 2

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

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# DRILL STEM TEST REPORT

Bach Oil Production  
 PO Box 723  
 Alma, NE 68920-0723  
 ATTN: Jason Bach

**18-1s-18w Phillips,KS**  
**Knappe #1**  
 Job Ticket: 44560      **DST#: 2**  
 Test Start: 2011.09.21 @ 03:05:29

## GENERAL INFORMATION:

Formation: **LKC C-F**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:36:24  
 Time Test Ended: 10:09:53  
 Interval: **3295.00 ft (KB) To 3368.00 ft (KB) (TVD)**  
 Total Depth: 3368.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Ray Schwager  
 Unit No: 42  
 Reference Elevations: 2255.00 ft (KB)  
 2250.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 6625

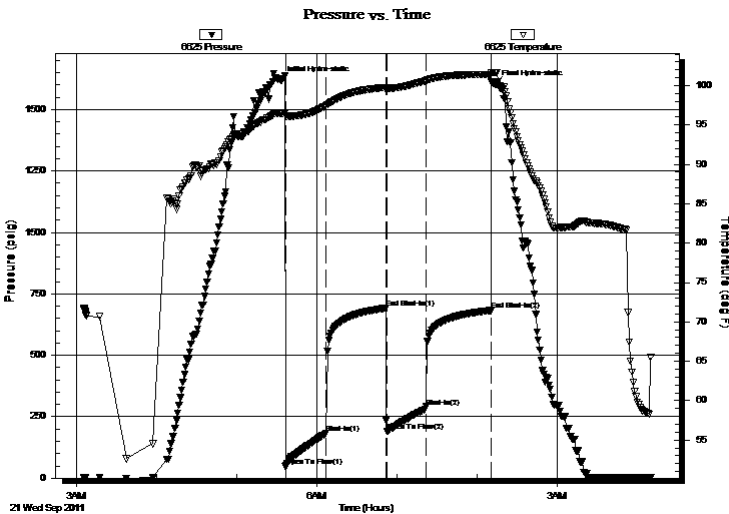
Inside

Press@RunDepth: 290.46 psig @ 3301.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2011.09.21      End Date: 2011.09.21      Last Calib.: 2011.09.21  
 Start Time: 03:05:29      End Time: 10:09:53      Time On Btm: 2011.09.21 @ 05:32:54  
 Time Off Btm: 2011.09.21 @ 08:13:23

TEST COMMENT: 30-IFP-w k to strg in 8 min  
 45-ISIP-no bl  
 30-FFP-w k to a fr bl 1/2" to 4"bl  
 45-FSIP-no bl

## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1619.68	96.46	Initial Hydro-static
4	46.53	96.18	Open To Flow (1)
34	182.51	97.45	Shut-In(1)
79	691.34	99.76	End Shut-In(1)
80	190.22	99.65	Open To Flow (2)
109	290.46	100.62	Shut-In(2)
158	682.61	101.40	End Shut-In(2)
161	1603.39	101.68	Final Hydro-static



## Recovery

Length (ft)	Description	Volume (bbl)
124.00	Water w/show of oil	1.47
124.00	OCMW 5%O10%M85%W	1.74
62.00	HO&GCWM 5%G20%O25%W50%M	0.87
290.00	HO&GCM 5%G25%O10%W60%M	4.07
20.00	CO	0.28

\* Recovery from multiple tests

## Gas Rates

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



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# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bach Oil Production  
PO Box 723  
Alma, NE 68920-0723  
ATTN: Jason Bach

**18-1s-18w Phillips,KS**  
**Knape #1**  
Job Ticket: 44560      **DST#: 2**  
Test Start: 2011.09.21 @ 03:05:29

**Tool Information**

Drill Pipe:	Length: 3265.00 ft	Diameter: 3.80 inches	Volume: 45.80 bbl	Tool Weight:	2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	55000.00 lb
			<u>Total Volume: 45.95 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	39000.00 lb
Depth to Top Packer:	3295.00 ft			Final	41000.00 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:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
Change Over Sub	1.00			3268.00	
Shut In Tool	5.00			3273.00	
Hydraulic tool	5.00			3278.00	
Jars	5.00			3283.00	
Safety Joint	2.00			3285.00	
Packer	5.00			3290.00	28.00      Bottom Of Top Packer
Packer	5.00			3295.00	
Stubb	1.00			3296.00	
Perforations	5.00			3301.00	
Recorder	0.00	6625	Inside	3301.00	
Recorder	0.00	8700	Outside	3301.00	
Blank Spacing	64.00			3365.00	
Bullnose	3.00			3368.00	73.00      Bottom Packers & Anchor

**Total Tool Length: 101.00**





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ATTN: Jason Bach

**18-1s-18w Phillips,KS**  
**Knape #1**  
Job Ticket: 44560      **DST#: 2**  
Test Start: 2011.09.21 @ 03:05:29

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 36 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 67000 ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.95 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1000.00 ppm		
Filter Cake: 1.00 inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	Water w/show of oil	1.466
124.00	OCMW 5%O10%M85%W	1.739
62.00	HO&GCWM 5%G20%O25%W50%M	0.870
290.00	HO&GCM 5%G25%O10%W60%M	4.068
20.00	CO	0.281

Total Length: 620.00 ft      Total Volume: 8.424 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: hit bridge @ approx 1800'  
RW .12 @ 67F

Serial #: 6625

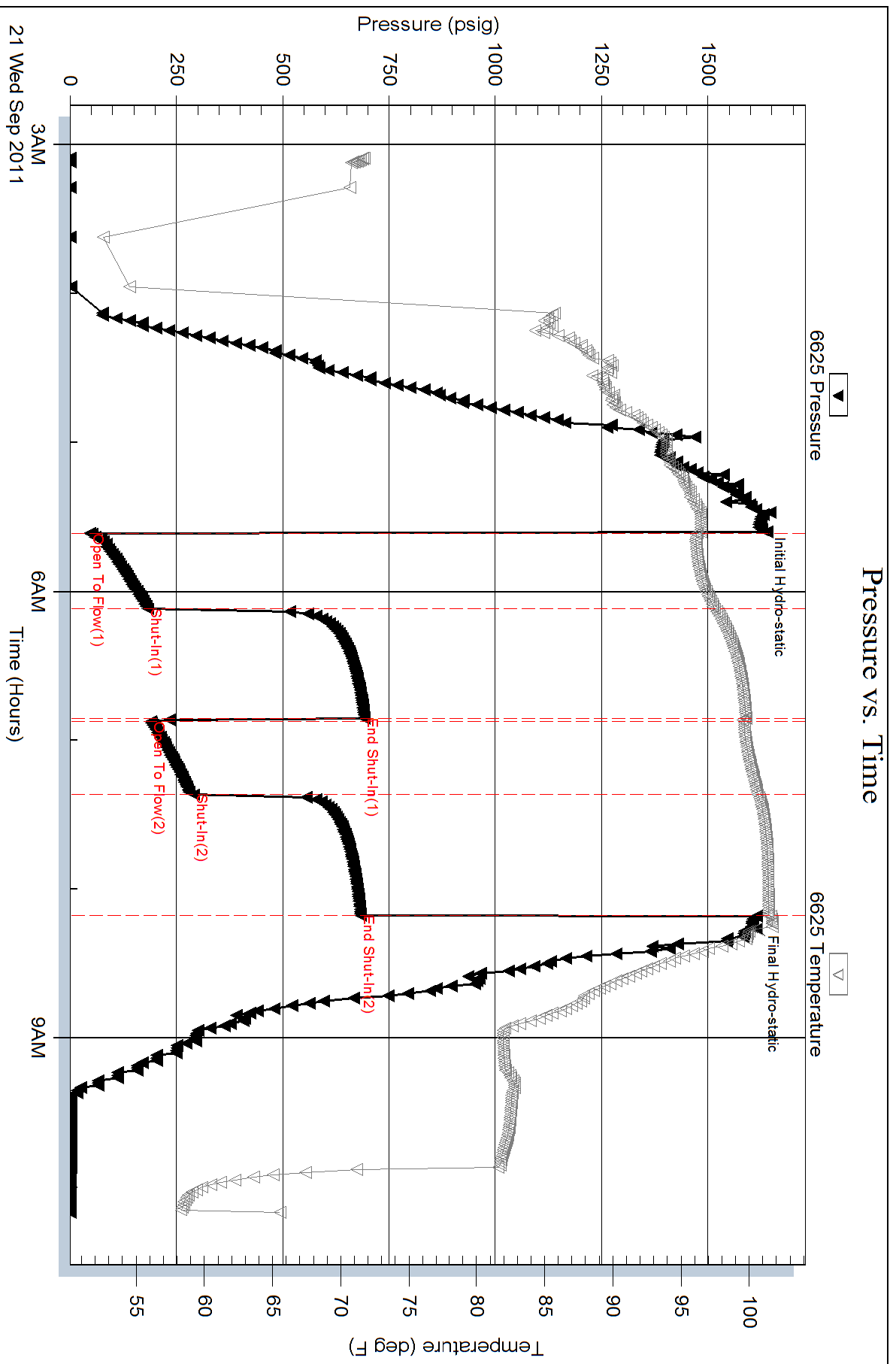
Inside

Bach Oil Production

Knape #1

DST Test Number: 2

### Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 44560

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