DRILL STEM TEST REPORT

DNOC

PO Box 372
Hays, Ks
67601
ATTN: Marc Dow ning

Pfaff-Toedman 1-24

24-16-23/Ness

Job Ticket: 41785 **DST#: 1**

Test Start: 2011.02.23 @ 05:05:54

GENERAL INFORMATION:

Formation: **Cherokee Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:44:23
Time Test Ended: 12:31:23

Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41

Interval: 4387.00 ft (KB) To 4430.00 ft (KB) (TVD)
Total Depth: 4430.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

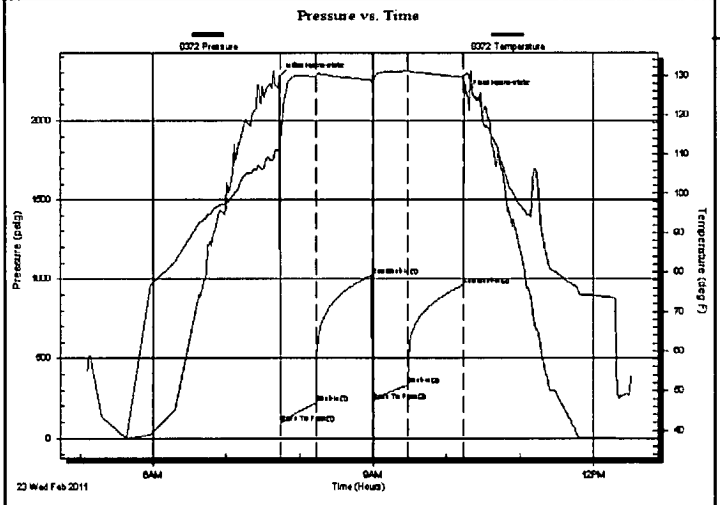
Reference Elevations: 2447.00 ft (KB)
2439.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8372 **Inside**

Press@RunDepth: 333.14 psig @ 4390.00 ft (KB)
Start Date: 2011.02.23 End Date: 2011.02.23
Start Time: 05:05:54 End Time: 12:31:23

Capacity: 8000.00 psig
Last Calib.: 2011.02.23
Time On Btm: 2011.02.23 @ 07:43:53
Time Off Btm: 2011.02.23 @ 10:16:23

TEST COMMENT: IFP - BOB 5 min
ISI - no blow back
FFP - BOB 9 min
FSI - no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2275.72	110.90	Initial Hydro-static
1	93.11	109.48	Open To Flow (1)
30	219.92	129.74	Shut-In(1)
75	1022.15	128.76	End Shut-In(1)
76	231.62	128.32	Open To Flow (2)
105	333.14	131.05	Shut-In(2)
150	961.82	129.48	End Shut-In(2)
153	2169.76	130.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	MUD 100%	0.05
330.00	MW 95%W, 5%M	4.43
315.00	WM 10%W, 90%M	4.42

Gas Rates

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

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FLUID SUMMARY

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Job Ticket: 41785 **DST#: 1**

Test Start: 2011.02.23 @ 05:05:54

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:	32000 ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.58 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

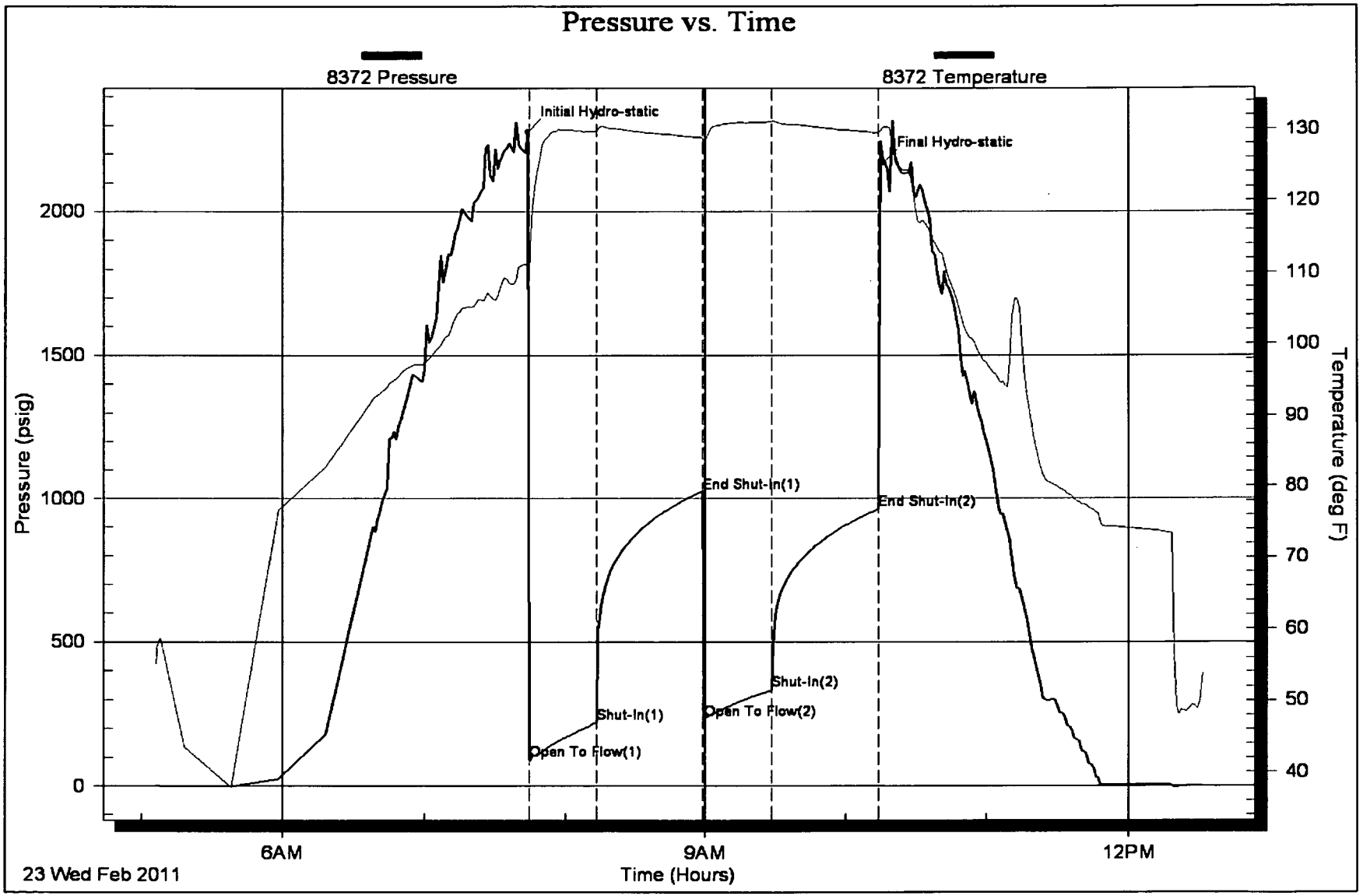
Length ft	Description	Volume bbl
10.00	MUD 100%	0.049
330.00	MW 95%W, 5%M	4.429
315.00	WM 10%W, 90%M	4.419

Total Length: 655.00 ft Total Volume: 8.897 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
8372 Pressure
8372 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
2000
1500
1000
500
0
130
120
110
100
90
80
70
60
50
40
6AM
9AM
12PM
23 Wed Feb 2011
Time (Hours)

DRILL STEM TEST REPORT

DNOC

PO Box 372
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67601
ATTN: Marc Dow ning

Pfaff-Toedman 1-24

24-16-23/Ness

Job Ticket: 41786 **DST#: 2**

Test Start: 2011.02.24 @ 01:46:51

GENERAL INFORMATION:

Formation: **Cong Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:57:50
Time Test Ended: 09:20:20

Test Type: Conventional Straddle
Tester: Brian Fairbank
Unit No: 41

Interval: 4443.00 ft (KB) To 4460.00 ft (KB) (TVD)
Total Depth: 4551.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

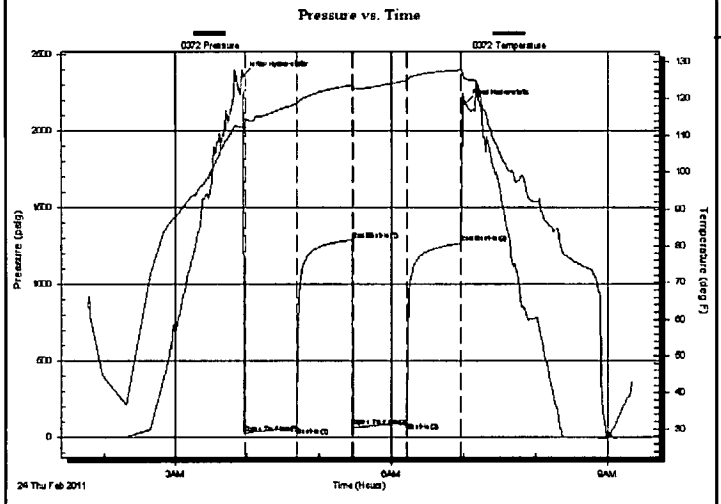
Reference Elevations: 2447.00 ft (KB)
2439.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8372 **Inside**

Press@RunDepth: 94.82 psig @ 4445.00 ft (KB)
Start Date: 2011.02.24 End Date: 2011.02.24
Start Time: 01:46:51 End Time: 09:20:20

Capacity: 8000.00 psig
Last Calib.: 2011.02.24
Time On Btm: 2011.02.24 @ 03:56:20
Time Off Btm: 2011.02.24 @ 07:01:20

TEST COMMENT: IFP - w eak to good blow - 1/2" - 7"
ISI - no blow back
FFP - w eak to fair blow sur - 5 1/2"
FSI - no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2360.73	112.15	Initial Hydro-static
2	25.47	114.31	Open To Flow (1)
45	62.37	118.78	Shut-In(1)
91	1288.11	123.72	End Shut-In(1)
92	67.50	123.08	Open To Flow (2)
136	94.82	125.00	Shut-In(2)
182	1266.73	127.85	End Shut-In(2)
185	2180.19	125.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
155.00	MW 90%W, 10%M	1.88

Gas Rates

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

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24-16-23/Ness

Job Ticket: 41786 **DST#: 2**

Test Start: 2011.02.24 @ 01:46:51

GENERAL INFORMATION:

Formation: **Cong Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:57:50
Time Test Ended: 09:20:20

Test Type: Conventional Straddle
Tester: Brian Fairbank
Unit No: 41

Interval: 4443.00 ft (KB) To 4460.00 ft (KB) (TVD)
Total Depth: 4551.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

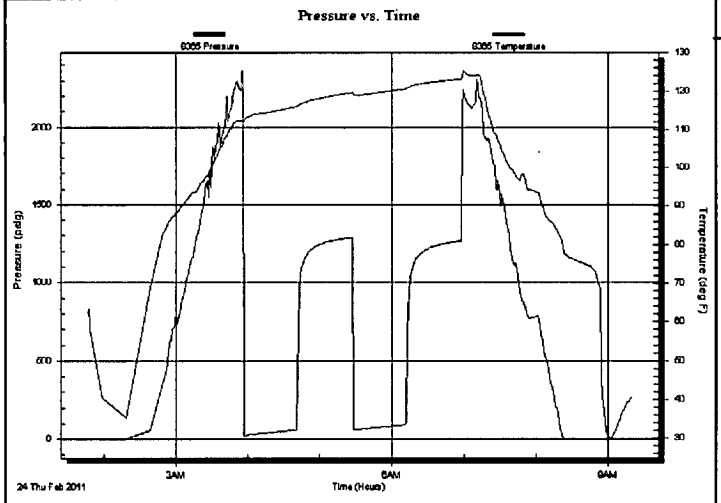
Reference Elevations: 2447.00 ft (KB)
2439.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8365 **Outside**

Press@RunDepth: psig @ 4445.00 ft (KB)
Start Date: 2011.02.24 End Date: 2011.02.24
Start Time: 01:46:45 End Time: 09:19:44

Capacity: 8000.00 psig
Last Calib.: 2011.02.24
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP - w eak to good blow - 1/2" - 7"
ISI - no blow back
FFP - w eak to fair blow sur - 5 1/2"
FSI - no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
155.00	MW 90%W, 10%M	1.88

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

DNOC

PO Box 372
Hays, Ks
67601

ATTN: Marc Dow ning

Pfaff-Toedman 1-24

24-16-23/Ness

Job Ticket: 41786 **DST#: 2**

Test Start: 2011.02.24 @ 01:46:51

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	10.00 lb/gal	Cushion Length:	ft	Water Salinity:	41000 ppm
Viscosity:	57.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	10.38 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

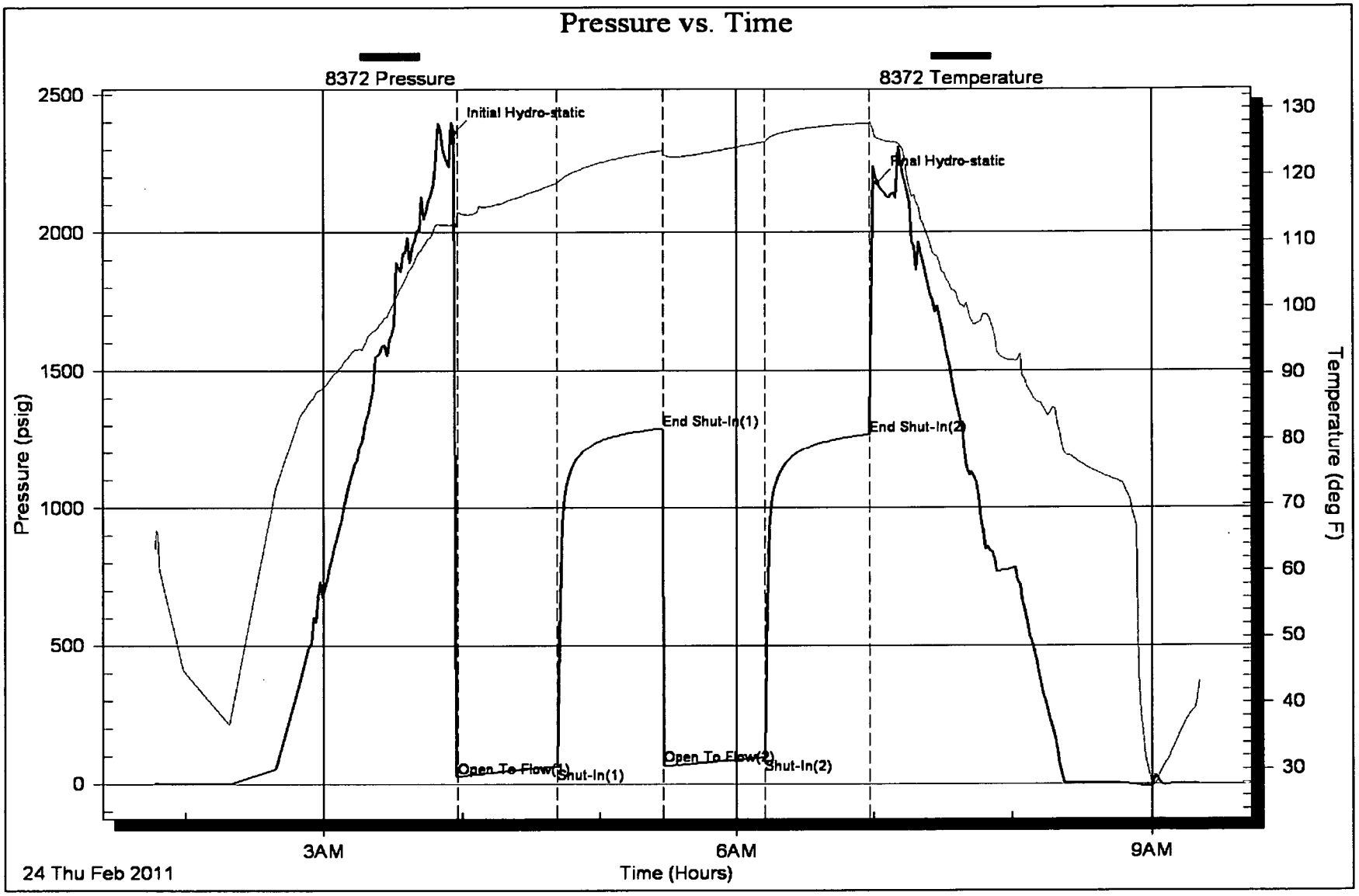
Length ft	Description	Volume bbl
155.00	MW 90%W, 10%M	1.883

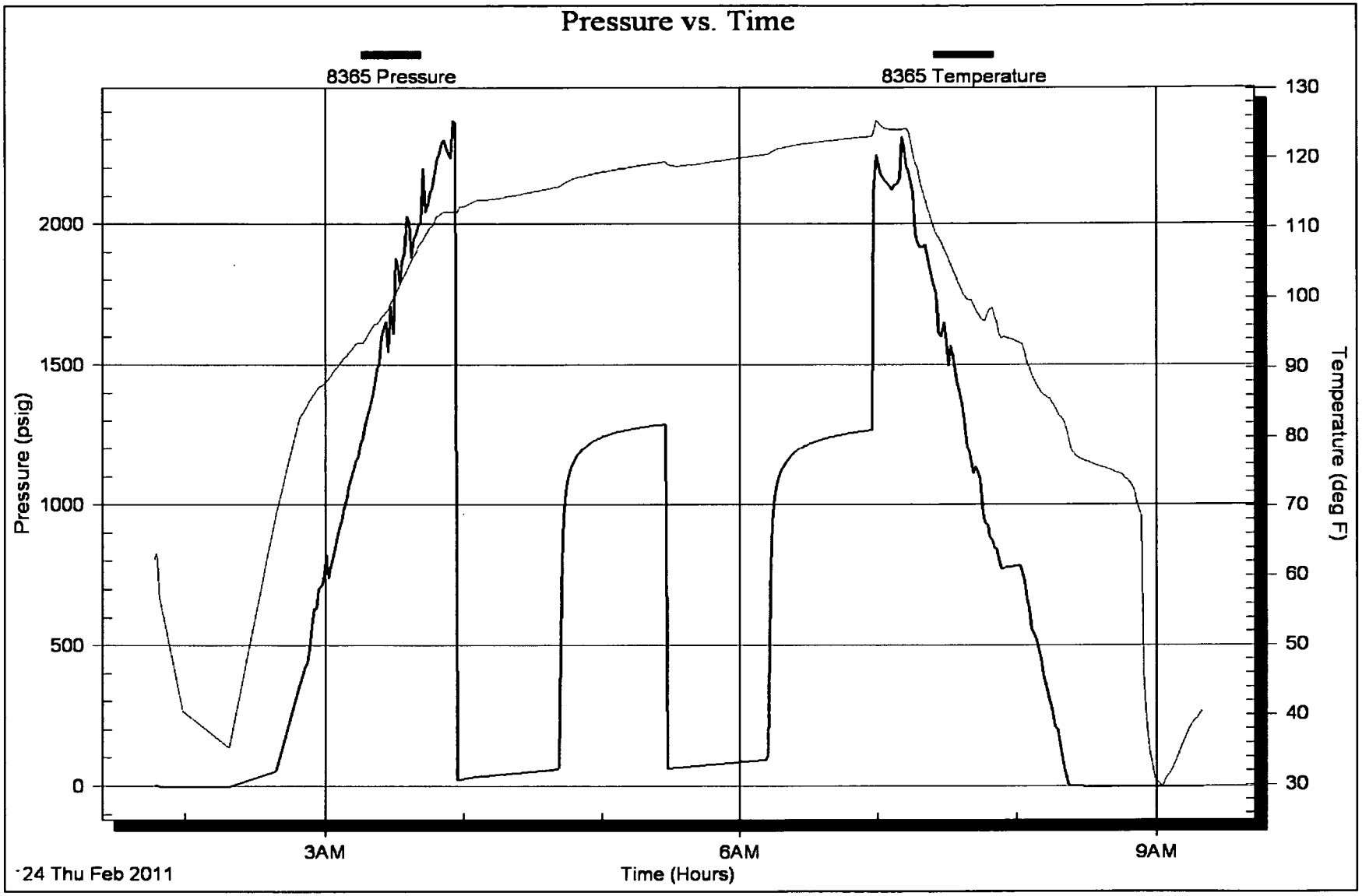
Total Length: 155.00 ft Total Volume: 1.883 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
8372 Pressure
8372 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 (psig)
Temperature (deg F)
Time (Hours)
3AM
6AM
9AM
24 Thu Feb 2011
2500
2000
1500
1000
500
0
130
120
110
100
90
80
70
60
50
40
30


Pressure vs. Time
8365 Pressure
8365 Temperature
Pressure (psig)
Temperature (deg F)
2000
1500
1000
500
0
130
120
110
100
90
80
70
60
50
40
30
3AM
6AM
9AM
24 Thu Feb 2011
Time (Hours)

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 041785 15446

Well Name & No. Pfaff-Toedman 1-24 Test No. 1 Date 2-23-11

Company DNOC Elevation 2447 KB 2439 GL

Address PO Box 372 Hays, Ks 67601

Co. Rep / Geo. Marc Downing Rig Disco 3

Location: Sec. 24 Twp. 16 Rge. 23 Co. Ness State Ks

Interval Tested 4387-4430 Zone Tested Cherokee Sand

Anchor Length 43 Drill Pipe Run 4332 Mud Wt. 9.4

Top Packer Depth 4382 Drill Collars Run 32 Vis 55

Bottom Packer Depth 4387 Wt. Pipe Run — WL 9.6

Total Depth 4430 Chlorides 4000 ppm System LCM

Blow Description IFP- BOB 5 min

ISI- no blow back

FFP- BOB 9 min

FSI- no blow back

Rec 315	Feet of WM	%gas	%oil	10 %water	90 %mud	
Rec 330	Feet of MW	%gas	%oil	95 %water	5 %mud	
Rec 10	Feet of mud	%gas	%oil	%water	100 %mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 655 BHT 130 Gravity — API RW .268 @ 53 °F Chlorides 32,000 ppm

(A) Initial Hydrostatic	2276	☐ Test	1225	T-On Location	0253
(B) First Initial Flow	93	☐ Jars	250	T-Started	0505
(C) First Final Flow	220	☐ Safety Joint	75	T-Open	0743
(D) Initial Shut-In	1022	☐ Circ Sub		T-Pulled	1013
(E) Second Initial Flow	232	☐ Hourly Standby		T-Out	1230
(F) Second Final Flow	333	☐ Mileage	101 RT 126.25	Comments	
(G) Final Shut-In	962	☐ Sampler			
(H) Final Hydrostatic	2170	☐ Straddle		☐ Ruined Shale Packer	
		☐ Shale Packer		☐ Ruined Packer	
Initial Open	30	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	45	☐ Extra Recorder		Sub Total	8
Final Flow	30	☐ Day Standby		Total	1676.25
Final Shut-In	45	☐ Accessibility		MP/DST Disc't	
		Sub Total	1676.25		

Approved By — Our Representative Brian Fairbank

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.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 041786

Well Name & No. Pfaff - Toedman 1-24 Test No. 2 Date 2-24-11

Company ONOC Elevation 2447 KB 2439 GL

Address

Co. Rep / Geo. Marc Downing Rig Disco 3

Location: Sec. 24 Twp. 16 Rge. 23 Co. Ness State Ks

Interval Tested 4443 - 4460 Zone Tested Cong Sand

Anchor Length 17 Drill Pipe Run 4394 Mud Wt. 9.5

Top Packer Depth 4438 Drill Collars Run 32 Vis 57

Bottom Packer Depth 4443 Wt. Pipe Run — WL 10.4

Total Depth 4551 Chlorides 4000 ppm System LCM

Blow Description IFP - weak to Good blow ½" - 7"

ISI - no blow back

FFP - weak to fair blow surf - 5½"

FSI - no blow back

Rec 155	Feet of MW	%gas	%oil 90	%water 10	%mud
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 155 BHT 128 Gravity API RW .300 @ 43 °F Chlorides 41,000 ppm

(A) Initial Hydrostatic	2361	☐ Test	1225	T-On Location	0051
(B) First Initial Flow	26	☐ Jars	250	T-Started	0146
(C) First Final Flow	62	☑ Safety Joint	75	T-Open	0357
(D) Initial Shut-In	1288	☐ Circ Sub		T-Pulled	0657
(E) Second Initial Flow	68	☐ Hourly Standby		T-Out	0920
(F) Second Final Flow	95	☑ Mileage	101 RT 126.25	Comments	
(G) Final Shut-In	1267	☐ Sampler			
(H) Final Hydrostatic	2180	☐ Straddle	600		
		☐ Shale Packer	250	☐ Ruined Shale Packer	
Initial Open	45	☐ Extra Packer		☐ Ruined Packer	
Initial Shut-In	45	☐ Extra Recorder		☐ Extra Copies	
Final Flow	45	☐ Day Standby		Sub Total	0
Final Shut-In	45	☐ Accessibility		Total	2526.25
		Sub Total	2526.25	MP/DST Disc't	

Approved By Our Representative Brian Fairbank

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