



## DRILL STEM TEST REPORT

Prepared For: **Fourwinds Oil Corporation**

PO Box 1063  
Hays KS 67601

ATTN: Dan Windholz, Ken Veh

### **S&B #1**

### **28-4s-22w Norton, KS**

Start Date: 2016.11.14 @ 04:15:30

End Date: 2016.11.14 @ 11:27:24

Job Ticket #: 63541                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.11.18 @ 14:56:16



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63541

**DST#: 1**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.14 @ 04:15:30

## GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:30:25

Time Test Ended: 11:27:24

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 77

**Interval: 3449.00 ft (KB) To 3478.00 ft (KB) (TVD)**

Reference Elevations: 2279.00 ft (KB)

Total Depth: 3478.00 ft (KB) (TVD)

2271.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

## Serial #: 8018

Inside

Press@RunDepth: 131.89 psig @ 3450.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.11.14

End Date:

2016.11.14

Last Calib.:

2016.11.14

Start Time: 04:15:30

End Time:

11:27:24

Time On Btm:

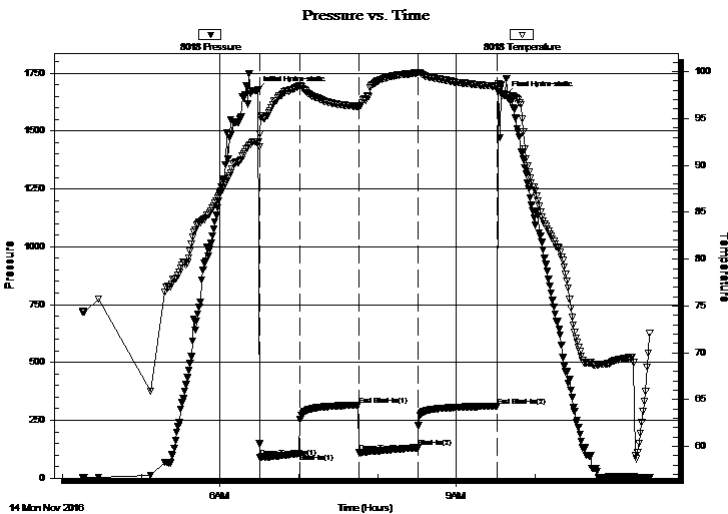
2016.11.14 @ 06:27:55

Time Off Btm:

2016.11.14 @ 09:36:54

TEST COMMENT: 30-IFP-w k to a fr bl 1" to 4" bl  
45-ISIP-no bl bk  
45-FFP-w k bl thru-out surface to 3" bl  
60-FSIP-no bl bk

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1674.57	92.55	Initial Hydro-static
3	88.25	93.32	Open To Flow (1)
33	107.79	98.52	Shut-In(1)
78	315.78	96.27	End Shut-In(1)
78	111.13	96.15	Open To Flow (2)
123	131.89	99.88	Shut-In(2)
184	311.31	98.39	End Shut-In(2)
189	1654.19	97.46	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	Water	0.65
110.00	SOCWM 1%O49%W50%M	1.54

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63541

**DST#: 1**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.14 @ 04:15:30

## Tool Information

Drill Pipe:	Length: 3323.00 ft	Diameter: 3.80 inches	Volume: 46.61 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 47.20 bbl</u>	Tool Chased 12.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3449.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	50.00 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			3429.00	
Shut In Tool	5.00			3434.00	
Hydraulic tool	5.00			3439.00	
Packer	5.00			3444.00	21.00 Bottom Of Top Packer
Packer	5.00			3449.00	
Stubb	1.00			3450.00	
Recorder	0.00	8018	Inside	3450.00	
Recorder	0.00	8700	Outside	3450.00	
Perforations	25.00			3475.00	
Bullnose	3.00			3478.00	29.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>50.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63541

**DST#: 1**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.14 @ 04:15:30

## 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:

85000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.91 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	Water	0.646
110.00	SOCWM 1%O49%W50%M	1.543

Total Length: 234.00 ft      Total Volume: 2.189 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: slid tool approx 12' to bottom after opened  
RW .09@70F

Serial #: 8018

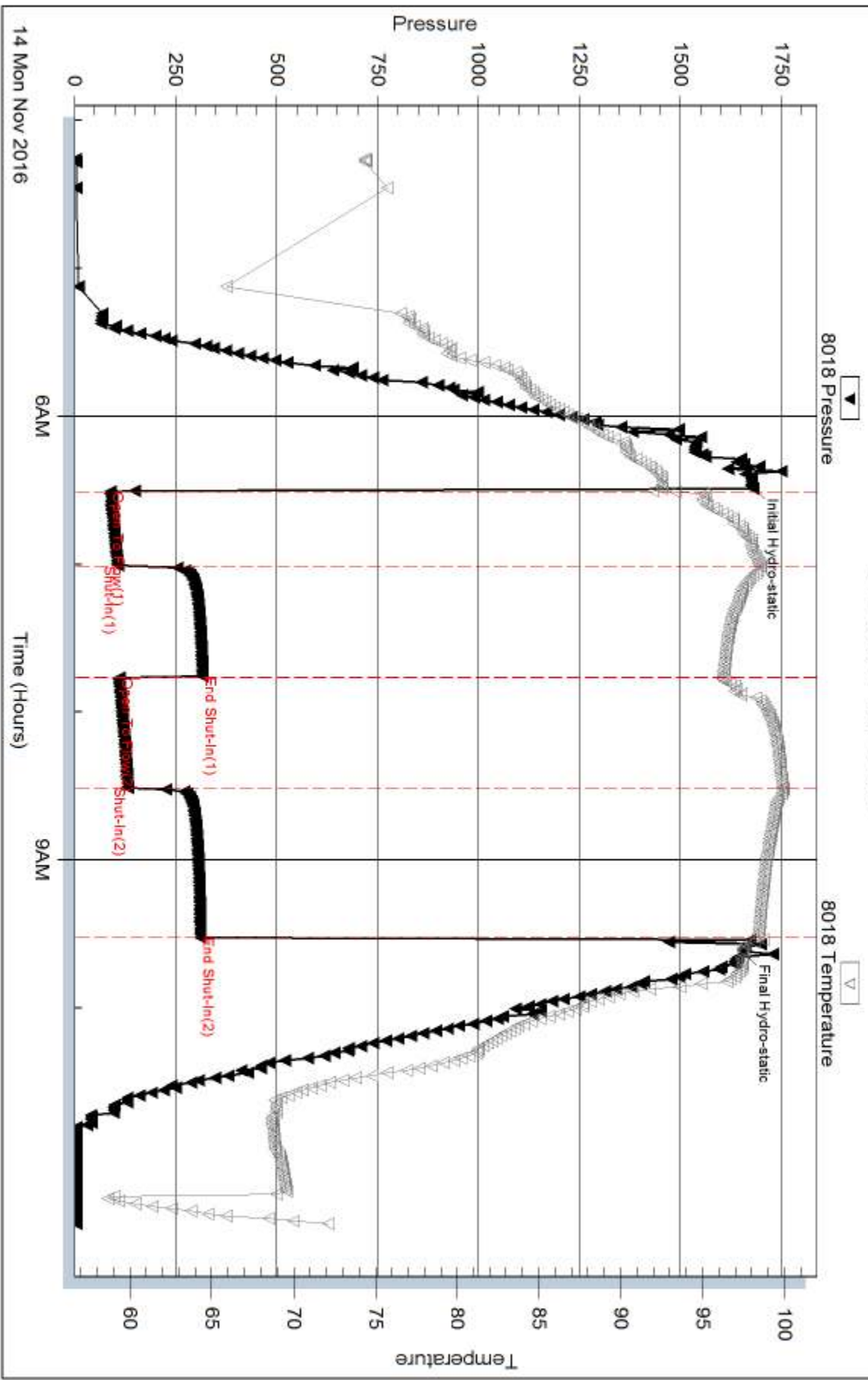
Inside

Fourwinds Oil Corporation

S&B #1

DST Test Number: 1

### Pressure vs. Time

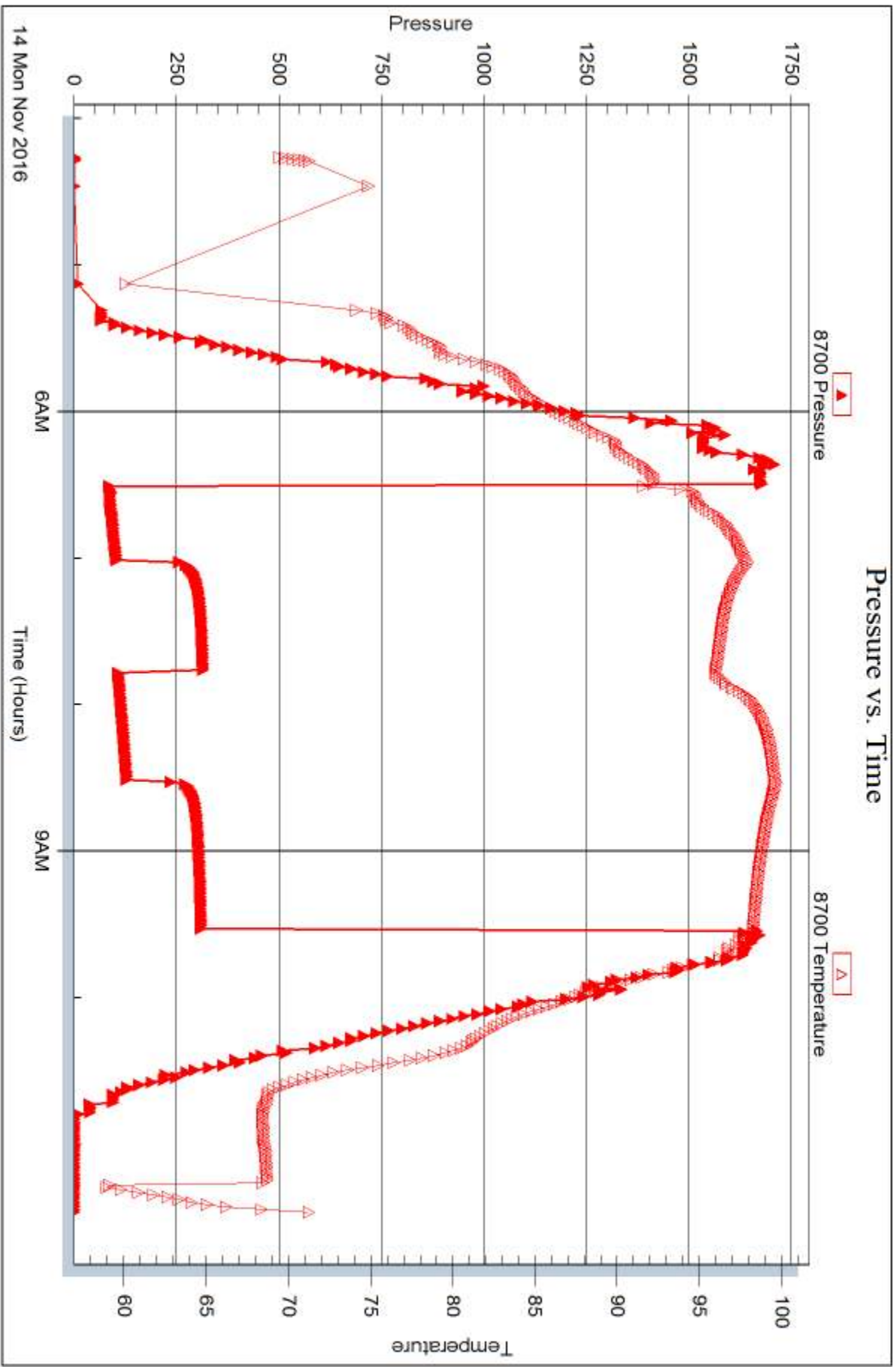


Serial #: 8700

Outside Fourwinds Oil Corporation

S&B #1

DST Test Number: 1



14 Mon Nov 2016

6AM

Time (Hours)

9AM



## DRILL STEM TEST REPORT

Prepared For: **Fourwinds Oil Corporation**

PO Box 1063  
Hays KS 67601

ATTN: Dan Windholz, Ken Veh

### **S&B #1**

### **28-4s-22w Norton, KS**

Start Date: 2016.11.14 @ 19:45:31

End Date: 2016.11.15 @ 00:12:55

Job Ticket #: 63542                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.11.18 @ 14:55:53





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Fourwinds Oil Corporation

**28-4s-22w Norton, KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63542

**DST#: 2**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.14 @ 19:45:31

## GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:33:56

Time Test Ended: 00:12:55

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 77

**Interval: 3476.00 ft (KB) To 3520.00 ft (KB) (TVD)**

Reference Elevations: 2279.00 ft (KB)

Total Depth: 3520.00 ft (KB) (TVD)

2271.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8018**

**Inside**

Press@RunDepth: 24.06 psig @ 3484.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.11.14

End Date:

2016.11.15

Last Calib.:

2016.11.15

Start Time: 19:45:31

End Time:

00:12:55

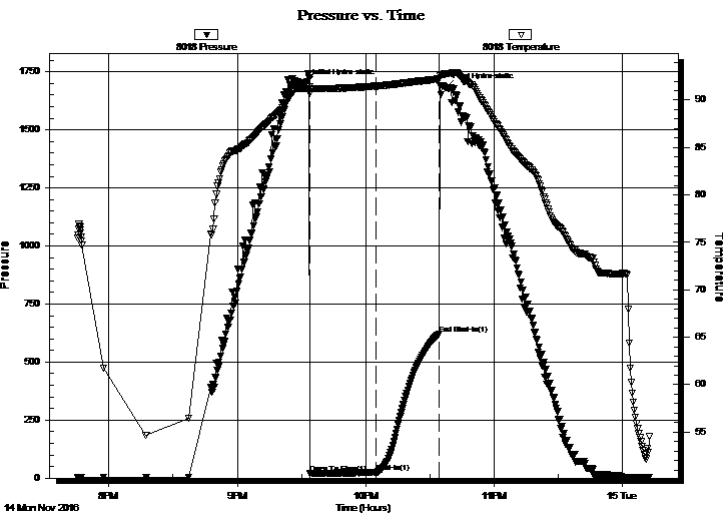
Time On Btm:

2016.11.14 @ 21:31:56

Time Off Btm:

2016.11.14 @ 22:37:26

TEST COMMENT: 30-IFP-w k surface bl ,died in 16 min  
30-ISIP-no bl



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1700.56	91.22	Initial Hydro-static
2	20.39	90.65	Open To Flow (1)
33	24.06	91.47	Shut-In(1)
63	619.65	92.22	End Shut-In(1)
66	1682.18	92.76	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**

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63542

**DST#: 2**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.14 @ 19:45:31

## Tool Information

Drill Pipe:	Length: 3355.00 ft	Diameter: 3.80 inches	Volume: 47.06 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 47.65 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3476.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	65.00 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			3456.00	
Shut In Tool	5.00			3461.00	
Hydraulic tool	5.00			3466.00	
Packer	5.00			3471.00	21.00 Bottom Of Top Packer
Packer	5.00			3476.00	
Stubb	1.00			3477.00	
Perforations	7.00			3484.00	
Recorder	0.00	8018	Inside	3484.00	
Recorder	0.00	8700	Outside	3484.00	
Blank Spacing	33.00			3517.00	
Bullnose	3.00			3520.00	44.00 Bottom Packers & Anchor

**Total Tool Length: 65.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63542

**DST#: 2**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.14 @ 19:45:31

## 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: 7.90 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 1.00 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:

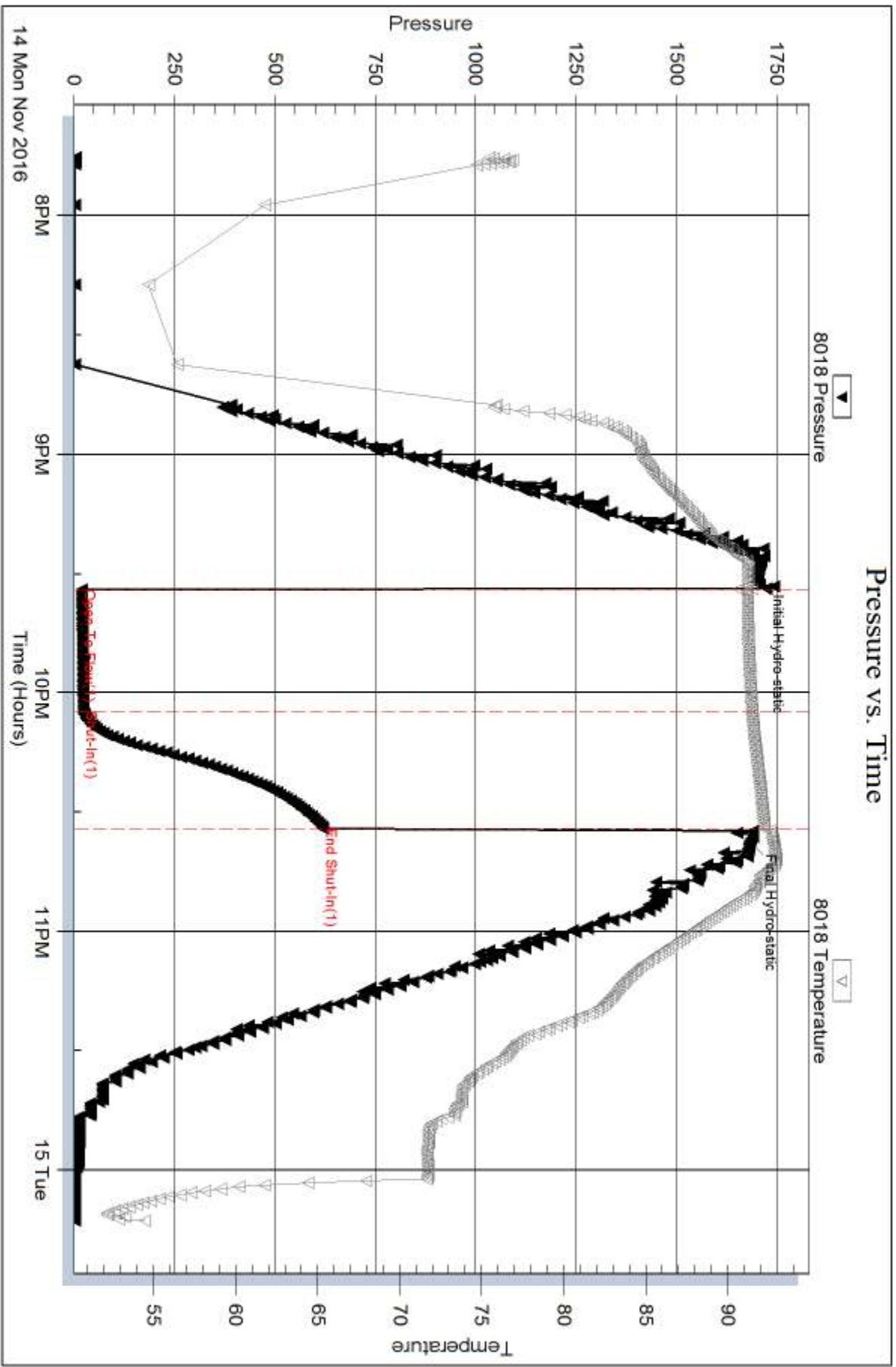
Serial #: 8018

Inside

Fourwinds Oil Corporation

S&B #1

DST Test Number: 2

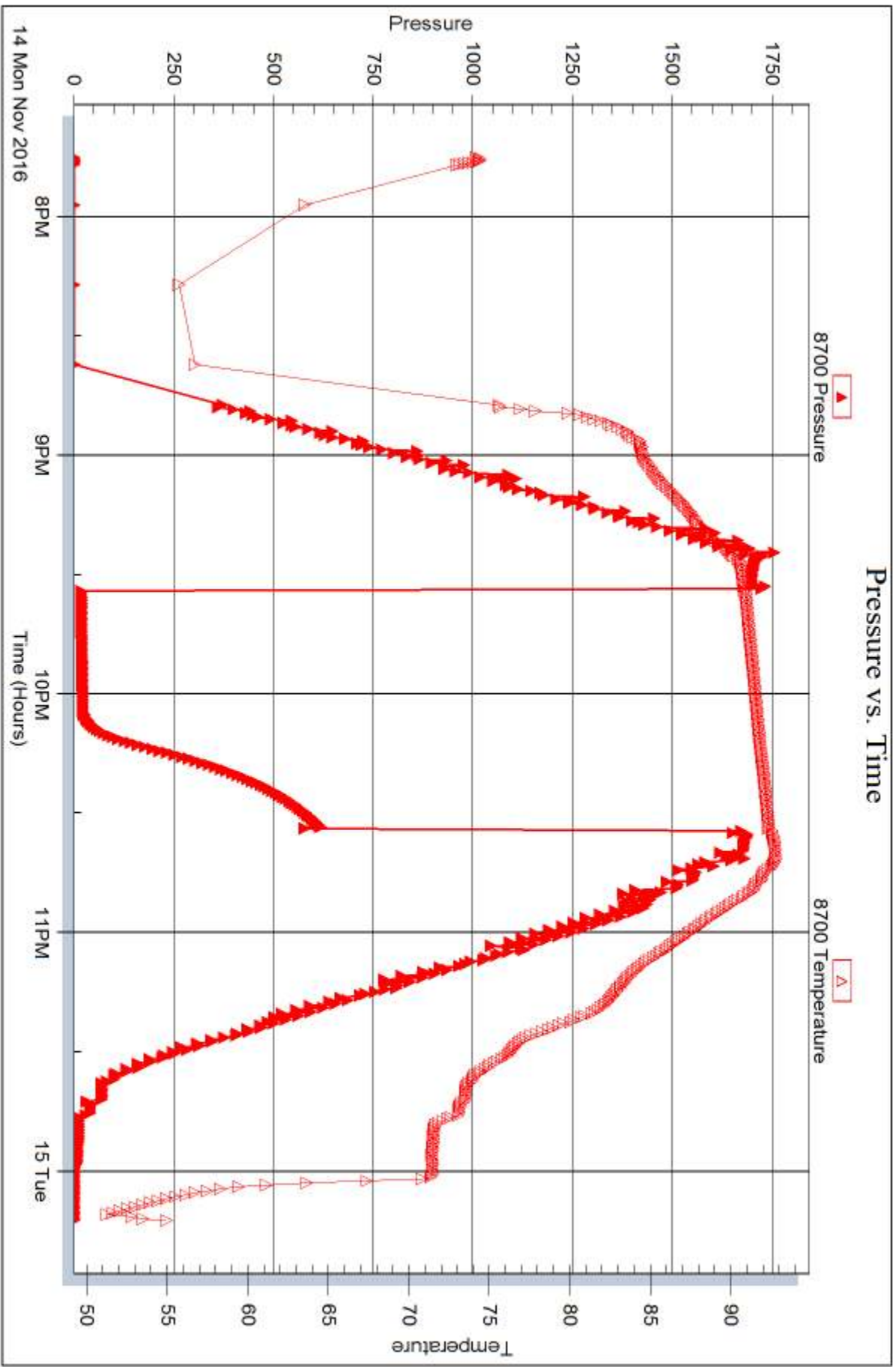


Serial #: 8700

Outside Fourwinds Oil Corporation

S&B #1

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Fourwinds Oil Corporation**

PO Box 1063  
Hays KS 67601

ATTN: Dan Windholz, Ken Veh

### **S&B #1**

### **28-4s-22w Norton, KS**

Start Date: 2016.11.15 @ 06:55:38

End Date: 2016.11.15 @ 13:21:02

Job Ticket #: 63543                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.11.18 @ 14:55:28



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Fourw inds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63543

**DST#: 3**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.15 @ 06:55:38

## GENERAL INFORMATION:

Formation: **LKC "G"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 08:41:33  
 Time Test Ended: 13:21:02  
 Interval: **3476.00 ft (KB) To 3540.00 ft (KB) (TVD)**  
 Total Depth: 3540.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Ray Schwager  
 Unit No: 77  
 Reference Elevations: 2279.00 ft (KB)  
 2271.00 ft (CF)  
 KB to GR/CF: 8.00 ft

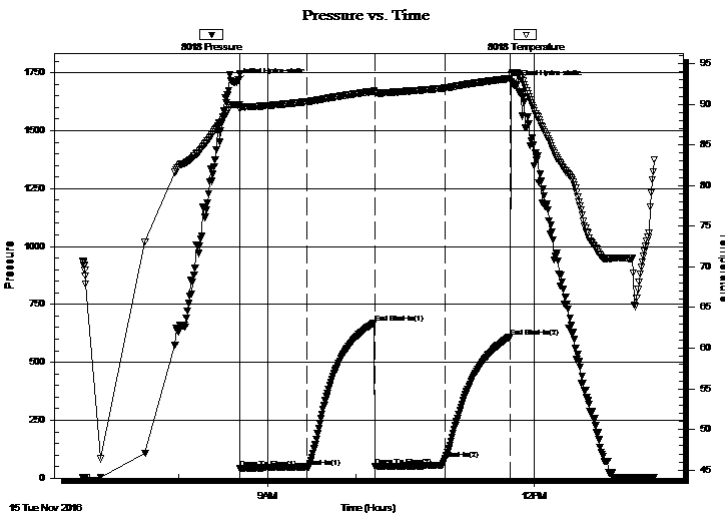
## Serial #: 8018

Inside

Press@RunDepth: 80.89 psig @ 3484.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2016.11.15 End Date: 2016.11.15 Last Calib.: 2016.11.15  
 Start Time: 06:55:38 End Time: 13:21:02 Time On Btm: 2016.11.15 @ 08:39:33  
 Time Off Btm: 2016.11.15 @ 11:46:32

TEST COMMENT: 45-IFP-w k bl thru-out 1/2" to 1 " bl  
 45-ISIP-no bl  
 45-FFP-no bl  
 45-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1707.15	89.93	Initial Hydro-static
2	41.59	89.39	Open To Flow (1)
47	48.54	90.30	Shut-In(1)
93	670.50	91.60	End Shut-In(1)
94	49.78	91.36	Open To Flow (2)
141	80.89	91.99	Shut-In(2)
184	609.31	93.15	End Shut-In(2)
187	1697.62	93.89	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	Oil specked mud less then 1%oil	0.30

\* Recovery from multiple tests

## Gas Rates

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





# DRILL STEM TEST REPORT

Fourwinds Oil Corporation

**28-4s-22w Norton, KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63543

**DST#: 3**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.15 @ 06:55:38

## GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:41:33

Time Test Ended: 13:21:02

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 77

**Interval: 3476.00 ft (KB) To 3540.00 ft (KB) (TVD)**

Reference Elevations: 2279.00 ft (KB)

Total Depth: 3540.00 ft (KB) (TVD)

2271.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 8.00 ft

**Serial #: 8700 Outside**

Press@RunDepth: psig @ 3484.00 ft (KB)

Start Date: 2016.11.15

End Date: 2016.11.15

Capacity: 8000.00 psig

Last Calib.: 2016.11.15

Start Time: 06:55:14

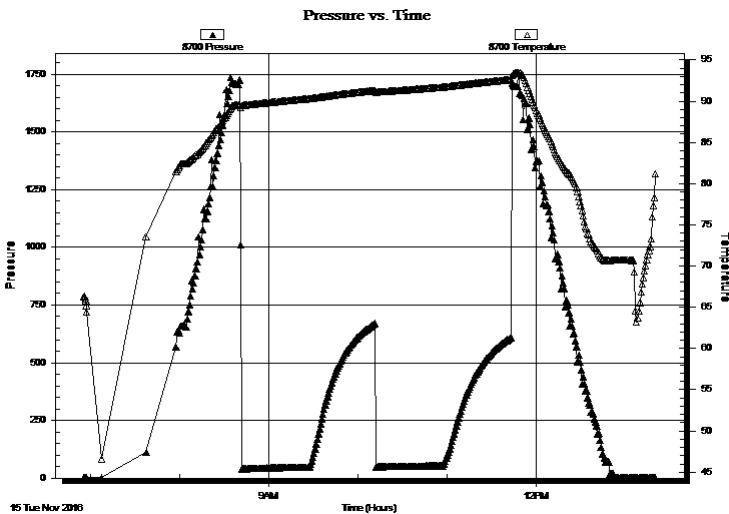
End Time: 13:20:38

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 45-IFP-w k bl thru-out 1/2" to 1" bl  
45-ISIP-no bl  
45-FFP-no bl  
45-FSIP-no bl

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	Oil specked mud less than 1%oil	0.30

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63543

**DST#: 3**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.15 @ 06:55:38

## Tool Information

Drill Pipe:	Length: 3355.00 ft	Diameter: 3.80 inches	Volume: 47.06 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 47.65 bbl</u>	Tool Chased 4.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3476.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	64.00 ft			
Tool Length:	85.00 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			3456.00	
Shut In Tool	5.00			3461.00	
Hydraulic tool	5.00			3466.00	
Packer	5.00			3471.00	21.00 Bottom Of Top Packer
Packer	5.00			3476.00	
Stubb	1.00			3477.00	
Perforations	7.00			3484.00	
Recorder	0.00	8018	Inside	3484.00	
Recorder	0.00	8700	Outside	3484.00	
Blank Spacing	33.00			3517.00	
Perforations	20.00			3537.00	
Bullnose	3.00			3540.00	64.00 Bottom Packers & Anchor

**Total Tool Length: 85.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63543

**DST#: 3**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.15 @ 06:55:38

## 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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.91 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	Oil specked mud less than 1%oil	0.305

Total Length: 62.00 ft      Total Volume: 0.305 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

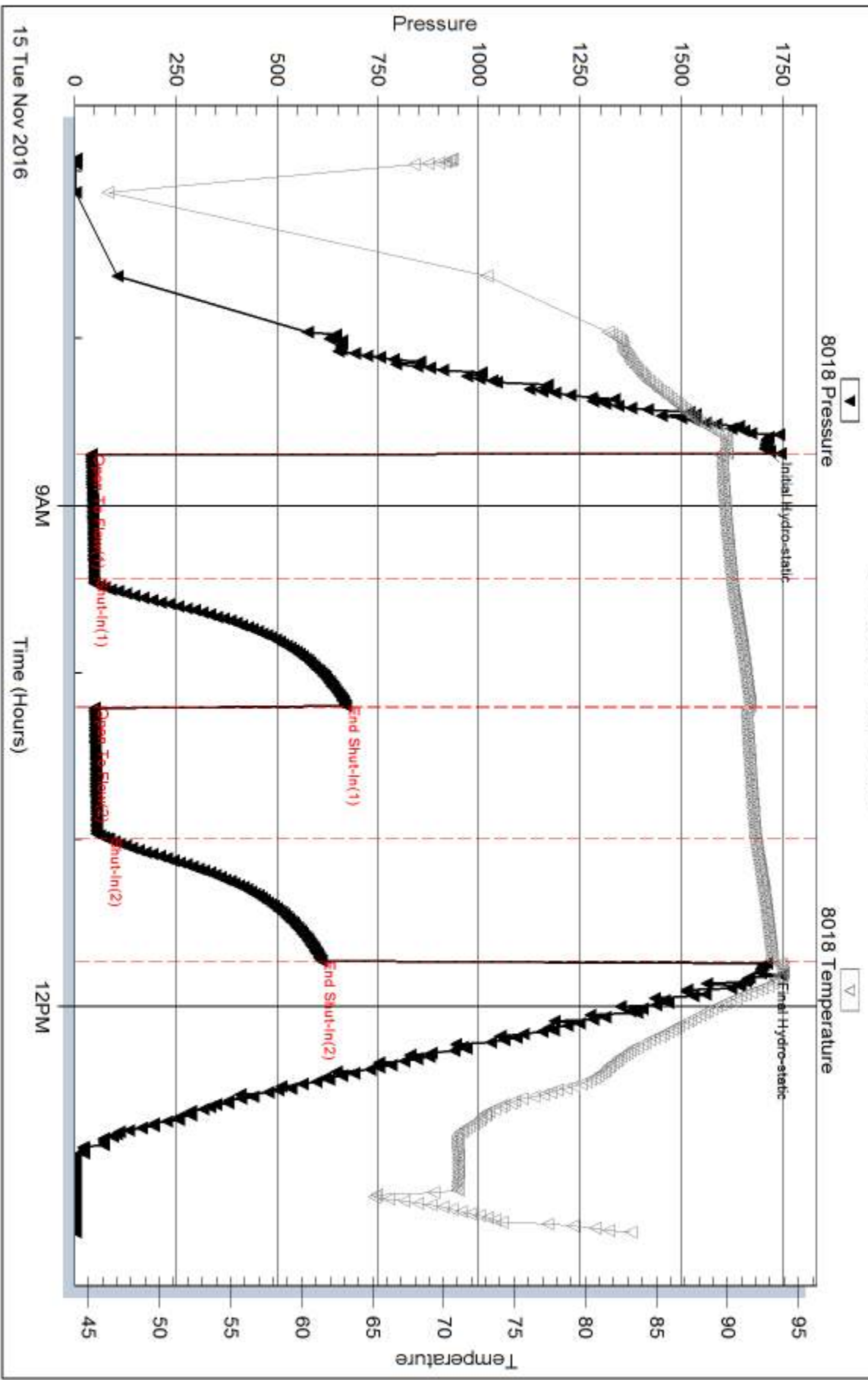
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

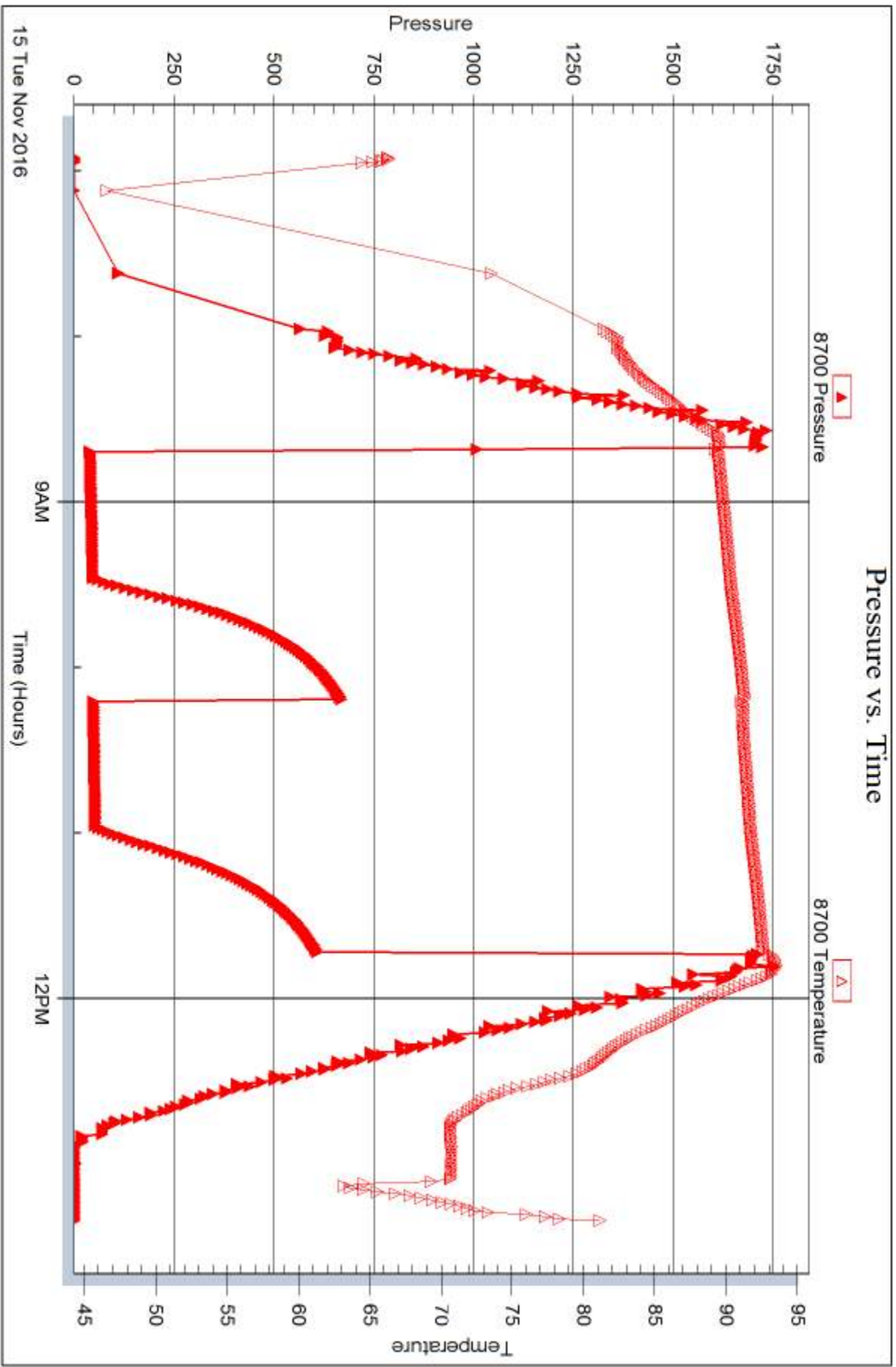


Serial #: 8700

Outside Fourwinds Oil Corporation

S&B #1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 63543

Printed: 2016.11.18 @ 14:55:30



## DRILL STEM TEST REPORT

Prepared For: **Fourwinds Oil Corporation**

PO Box 1063  
Hays KS 67601

ATTN: Dan Windholz, Ken Veh

**S&B #1**

**28-4s-22w Norton, KS**

Start Date: 2016.11.16 @ 09:40:35

End Date: 2016.11.16 @ 14:41:59

Job Ticket #: 63544                      DST #: 4

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

Printed: 2016.11.18 @ 14:52:33



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63544

**DST#: 4**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.16 @ 09:40:35

## GENERAL INFORMATION:

Formation: **Gorham Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:31:00

Time Test Ended: 14:41:59

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 77

**Interval: 3697.00 ft (KB) To 3723.00 ft (KB) (TVD)**

Reference Elevations: 2279.00 ft (KB)

Total Depth: 3723.00 ft (KB) (TVD)

2271.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8018**

**Inside**

Press@RunDepth: 20.55 psig @ 3702.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.11.16

End Date:

2016.11.16

Last Calib.:

2016.11.16

Start Time: 09:40:35

End Time:

14:41:59

Time On Btm:

2016.11.16 @ 11:29:15

Time Off Btm:

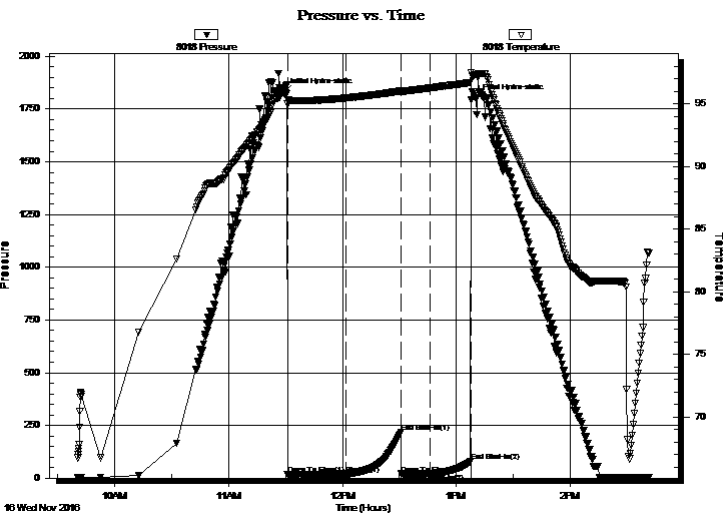
2016.11.16 @ 13:10:15

TEST COMMENT: 30-IFP-surface bl died in 10 min

30-ISIP-no bl

15-FFP-no bl

20-FSIP-no bl



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1826.12	96.04	Initial Hydro-static
2	18.61	94.99	Open To Flow (1)
33	19.22	95.48	Shut-In(1)
62	218.24	96.05	End Shut-In(1)
62	19.96	95.96	Open To Flow (2)
77	20.55	96.29	Shut-In(2)
99	78.83	96.71	End Shut-In(2)
101	1797.65	97.36	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud w/show of oil	0.01

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Fourwinds Oil Corporation

**28-4s-22w Norton, KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63544

**DST#: 4**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.16 @ 09:40:35

## GENERAL INFORMATION:

Formation: **Gorham Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:31:00

Time Test Ended: 14:41:59

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 77

**Interval: 3697.00 ft (KB) To 3723.00 ft (KB) (TVD)**

Reference Elevations: 2279.00 ft (KB)

Total Depth: 3723.00 ft (KB) (TVD)

2271.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8700 Outside**

Press@RunDepth: psig @ 3702.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.11.16

End Date:

2016.11.16

Last Calib.:

2016.11.16

Start Time: 09:40:49

End Time:

14:41:58

Time On Btm:

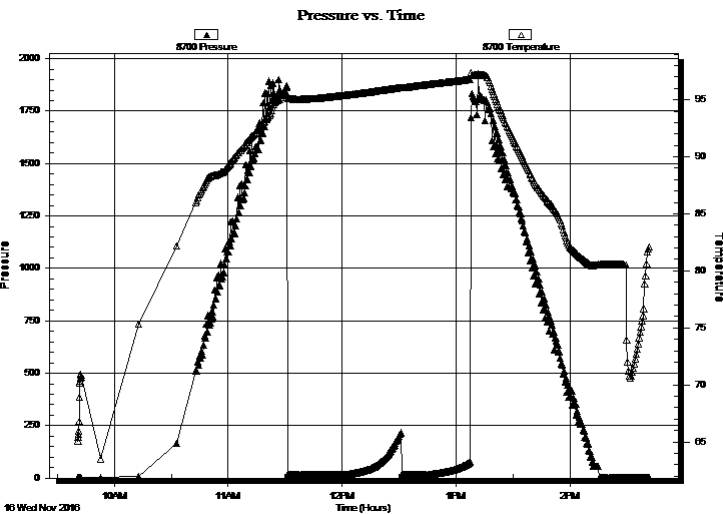
Time Off Btm:

TEST COMMENT: 30-IFP-surface bl died in 10 min

30-ISIP-no bl

15-FFP-no bl

20-FSIP-no bl



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud w/show of oil	0.01

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63544

**DST#: 4**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.16 @ 09:40:35

## Tool Information

Drill Pipe:	Length: 3572.00 ft	Diameter: 3.80 inches	Volume: 50.11 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 50.70 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3697.00 ft			Final	55000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	26.00 ft				
Tool Length:	47.00 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			3677.00	
Shut In Tool	5.00			3682.00	
Hydraulic tool	5.00			3687.00	
Packer	5.00			3692.00	21.00 Bottom Of Top Packer
Packer	5.00			3697.00	
Stubb	1.00			3698.00	
Perforations	4.00			3702.00	
Recorder	0.00	8018	Inside	3702.00	
Recorder	0.00	8700	Outside	3702.00	
Perforations	18.00			3720.00	
Bullnose	3.00			3723.00	26.00 Bottom Packers & Anchor

**Total Tool Length: 47.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63544

**DST#: 4**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.16 @ 09:40:35

## 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: 7.55 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud w/show of oil	0.010

Total Length: 2.00 ft      Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8018

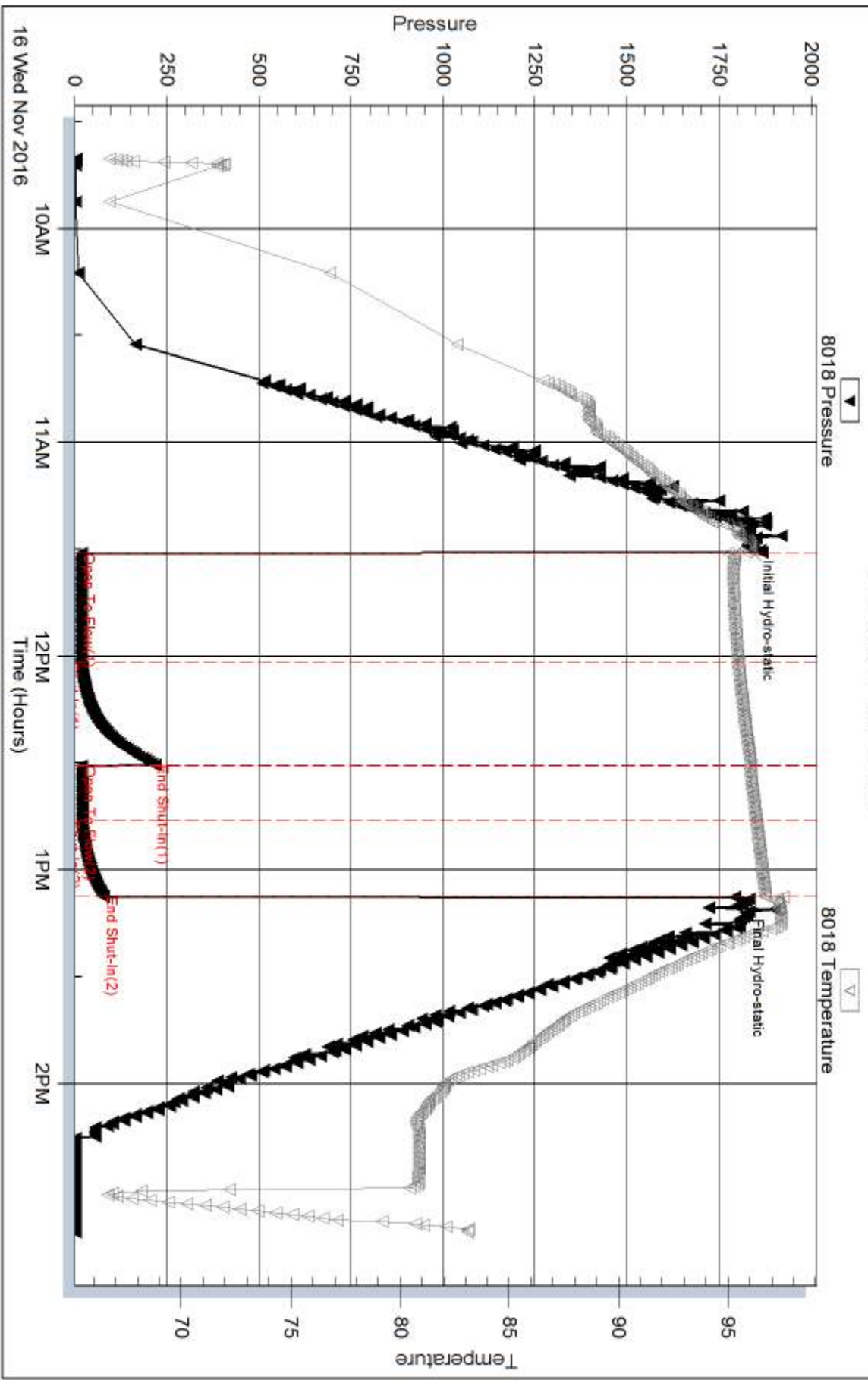
Inside

Fourwinds Oil Corporation

S&B #1

DST Test Number: 4

### Pressure vs. Time

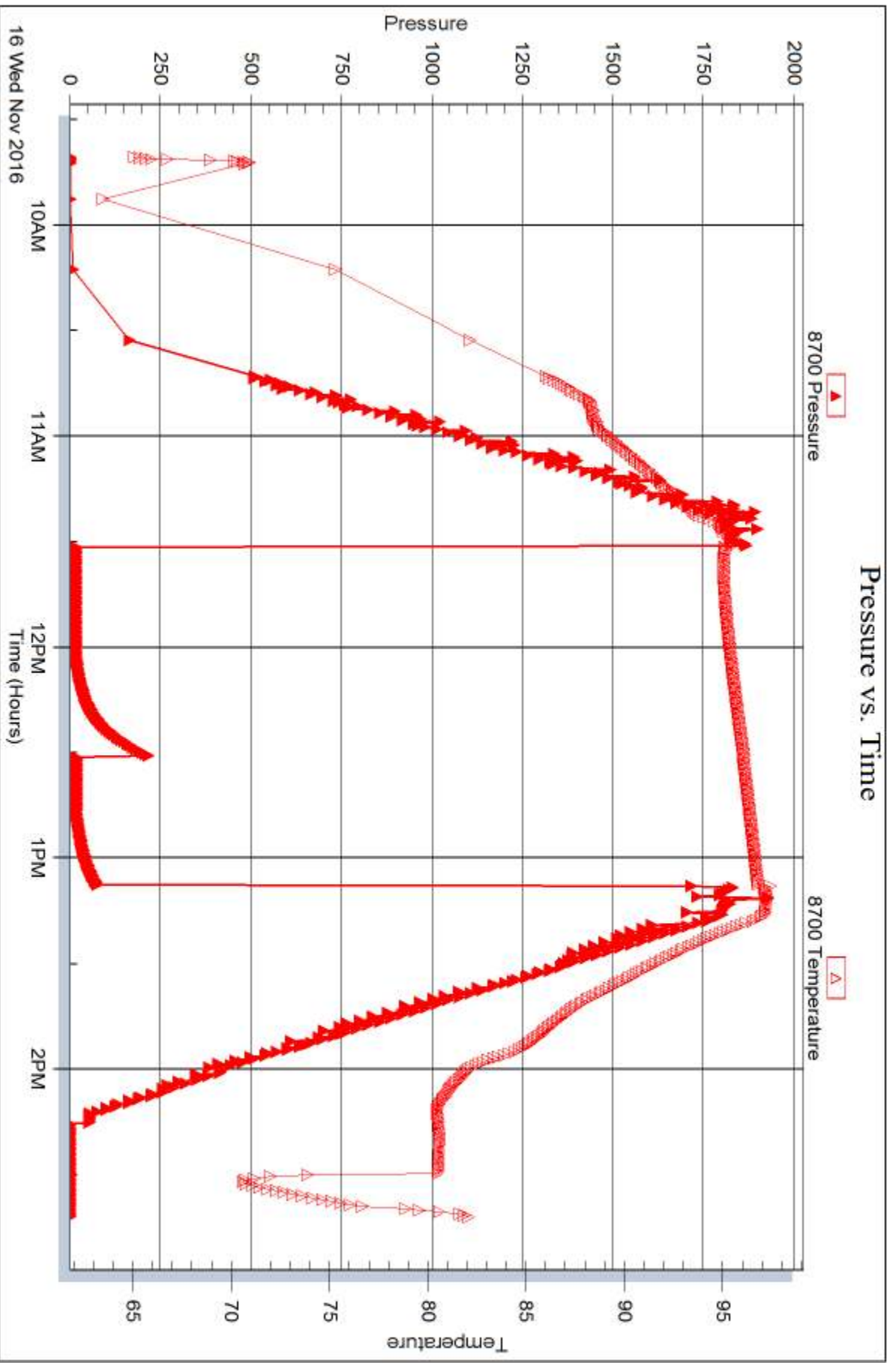


Serial #: 8700

Outside Fourwinds Oil Corporation

S&B #1

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 63544

Printed: 2016.11.18 @ 14:52:34



## DRILL STEM TEST REPORT

Prepared For: **Fourwinds Oil Corporation**

PO Box 1063  
Hays KS 67601

ATTN: Dan Windholz, Ken Veh

### **S&B #1**

### **28-4s-22w Norton, KS**

Start Date: 2016.11.17 @ 02:05:52

End Date: 2016.11.17 @ 06:39:31

Job Ticket #: 63545                      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.11.18 @ 14:52:12



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Fourwinds Oil Corporation

**28-4s-22w Norton, KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63545

**DST#: 5**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.17 @ 02:05:52

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:57:47

Time Test Ended: 06:39:31

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 77

**Interval: 3715.00 ft (KB) To 3732.00 ft (KB) (TVD)**

Reference Elevations: 2279.00 ft (KB)

Total Depth: 3732.00 ft (KB) (TVD)

2271.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8018**

**Inside**

Press@RunDepth: 15.92 psig @ 3716.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.11.17

End Date:

2016.11.17

Last Calib.:

2016.11.17

Start Time: 02:05:52

End Time:

06:39:31

Time On Btm:

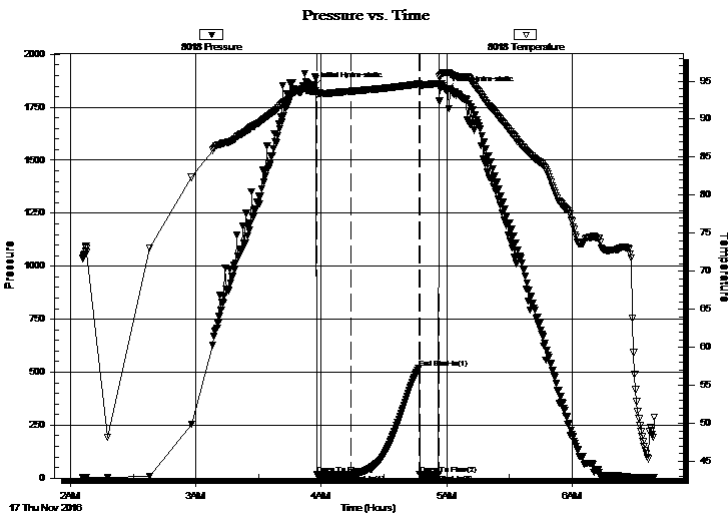
2016.11.17 @ 03:56:17

Time Off Btm:

2016.11.17 @ 04:59:47

**TEST COMMENT:** 15-IFP-surface bl, died in 10 min  
30-ISIP-no bl  
10-FFP-no bl  
pulled tool

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1848.82	93.68	Initial Hydro-static
2	15.97	93.26	Open To Flow (1)
18	15.92	93.65	Shut-In(1)
51	517.61	94.60	End Shut-In(1)
51	17.14	94.44	Open To Flow (2)
60	17.11	94.70	Shut-In(2)
64	1830.34	96.13	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	SOCM 4% O96%M	0.01
0.00	show of clean oil top of tool	0.00

\* Recovery from multiple tests

## Gas Rates

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



# DRILL STEM TEST REPORT

Fourwinds Oil Corporation

**28-4s-22w Norton, KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63545

**DST#: 5**

ATTN: Dan Windholz, Ken Veh

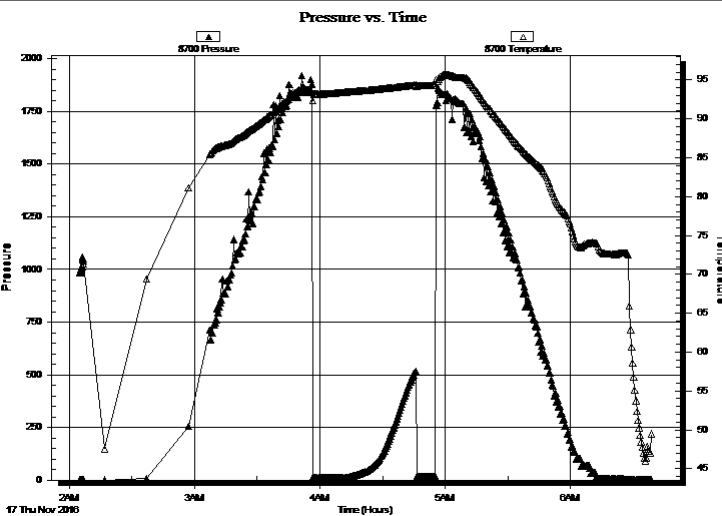
Test Start: 2016.11.17 @ 02:05:52

## GENERAL INFORMATION:

<b>Formation:</b> <b>Arbuckle</b>			<b>Test Type:</b> Conventional Bottom Hole (Reset)
<b>Deviated:</b> No Whipstock:	ft (KB)		<b>Tester:</b> Ray Schwager
<b>Time Tool Opened:</b> 03:57:47			<b>Unit No:</b> 77
<b>Time Test Ended:</b> 06:39:31			
<b>Interval:</b> <b>3715.00 ft (KB) To 3732.00 ft (KB) (TVD)</b>		<b>Reference Elevations:</b>	2279.00 ft (KB)
<b>Total Depth:</b> 3732.00 ft (KB) (TVD)			2271.00 ft (CF)
<b>Hole Diameter:</b> 7.88 inches	<b>Hole Condition:</b> Fair	<b>KB to GR/CF:</b>	8.00 ft

<b>Serial #: 8700</b>	<b>Outside</b>				<b>Capacity:</b>	8000.00 psig
<b>Press@RunDepth:</b>	psig @	3716.00 ft (KB)			<b>Last Calib.:</b>	2016.11.17
<b>Start Date:</b>	2016.11.17	<b>End Date:</b>	2016.11.17		<b>Time On Btm:</b>	
<b>Start Time:</b>	02:05:05	<b>End Time:</b>	06:38:44		<b>Time Off Btm:</b>	

**TEST COMMENT:** 15-IFP-surface bl, died in 10 min  
30-ISIP-no bl  
10-FFP-no bl  
pulled tool



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	SOCM 4% O 96% M	0.01
0.00	show of clean oil top of tool	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63545

**DST#: 5**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.17 @ 02:05:52

## Tool Information

Drill Pipe:	Length: 3604.00 ft	Diameter: 3.80 inches	Volume: 50.55 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 51.14 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3715.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	17.00 ft			
Tool Length:	38.00 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			3695.00	
Shut In Tool	5.00			3700.00	
Hydraulic tool	5.00			3705.00	
Packer	5.00			3710.00	21.00 Bottom Of Top Packer
Packer	5.00			3715.00	
Stubb	1.00			3716.00	
Recorder	0.00	8018	Inside	3716.00	
Recorder	0.00	8700	Outside	3716.00	
Perforations	13.00			3729.00	
Bullnose	3.00			3732.00	17.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>38.00</b>				





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63545

**DST#: 5**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.17 @ 02:05:52

## 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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.56 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	SOCM 4% O96%M	0.010
0.00	show of clean oil top of tool	0.000

Total Length: 2.00 ft      Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

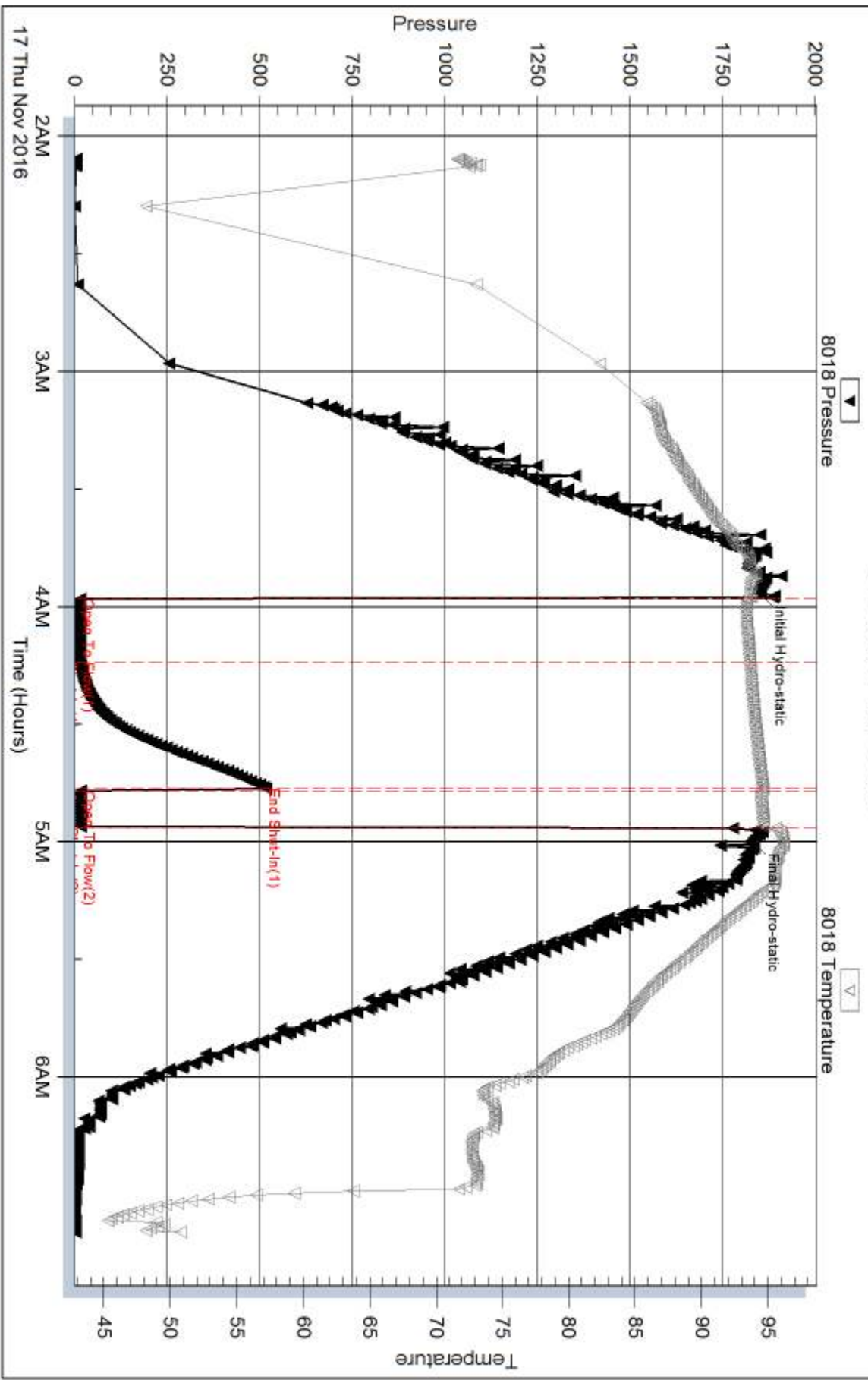
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

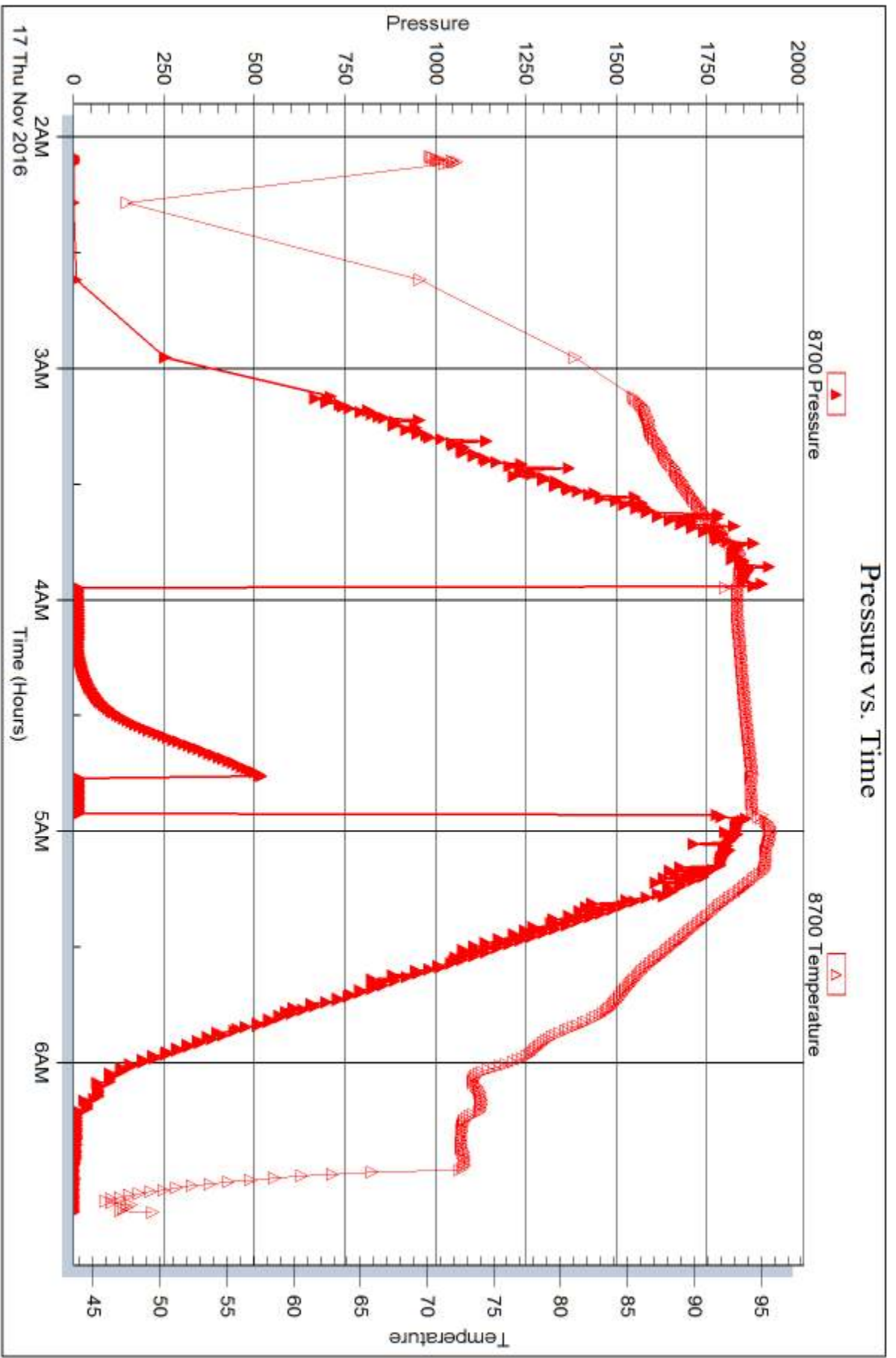


Serial #: 8700

Outside Fourwinds Oil Corporation

S&B #1

DST Test Number: 5





## DRILL STEM TEST REPORT

Prepared For: **Fourwinds Oil Corporation**

PO Box 1063  
Hays KS 67601

ATTN: Dan Windholz, Ken Veh

### **S&B #1**

### **28-4s-22w Norton, KS**

Start Date: 2016.11.17 @ 12:50:09

End Date: 2016.11.17 @ 18:59:18

Job Ticket #: 63546                      DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.11.18 @ 14:51:51



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Fourwinds Oil Corporation

**28-4s-22w Norton, KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63546

**DST#: 6**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.17 @ 12:50:09

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:39:04

Time Test Ended: 18:59:18

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 77

**Interval: 3715.00 ft (KB) To 3738.00 ft (KB) (TVD)**

Reference Elevations: 2279.00 ft (KB)

Total Depth: 3738.00 ft (KB) (TVD)

2271.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8018**

**Inside**

Press@RunDepth: 29.60 psig @ 3716.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.11.17

End Date:

2016.11.17

Last Calib.:

2016.11.17

Start Time: 12:50:09

End Time:

18:59:18

Time On Btm:

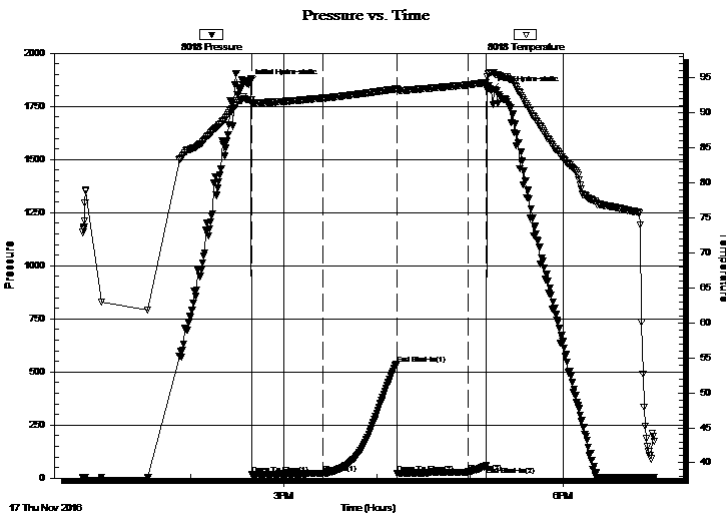
2016.11.17 @ 14:37:04

Time Off Btm:

2016.11.17 @ 17:13:48

TEST COMMENT: 45-IFP-w k bl thru-out 1/4" to 1/8" bl  
45-ISIP-no bl  
45-FFP-no bl  
15-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1855.57	91.88	Initial Hydro-static
2	16.92	91.30	Open To Flow (1)
49	21.84	92.10	Shut-In(1)
96	536.53	93.41	End Shut-In(1)
96	23.58	93.24	Open To Flow (2)
142	29.60	94.00	Shut-In(2)
154	57.61	94.33	End Shut-In(2)
157	1825.50	95.77	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	OCM 20% O80%M	0.10

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63546 **DST#: 6**

ATTN: Dan Windholz, Ken Veh

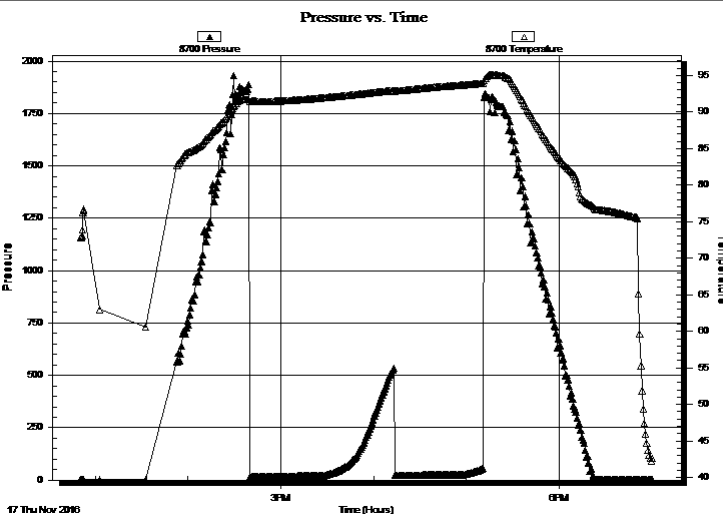
Test Start: 2016.11.17 @ 12:50:09

## GENERAL INFORMATION:

Formation: <b>Arbuckle</b>		
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 14:39:04		Tester: Ray Schwager
Time Test Ended: 18:59:18		Unit No: 77
<b>Interval: 3715.00 ft (KB) To 3738.00 ft (KB) (TVD)</b>		Reference Elevations: 2279.00 ft (KB)
Total Depth: 3738.00 ft (KB) (TVD)		2271.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 8.00 ft

<b>Serial #: 8700</b>	<b>Outside</b>	
Press@RunDepth: psig @ 3716.00 ft (KB)	Capacity: 8000.00 psig	
Start Date: 2016.11.17	End Date: 2016.11.17	Last Calib.: 2016.11.17
Start Time: 12:50:42	End Time: 19:00:36	Time On Btm:
		Time Off Btm:

**TEST COMMENT:** 45-IFP-w k bl thru-out 1/4" to 1/8" bl  
45-ISIP-no bl  
45-FFP-no bl  
15-FSIP-no bl



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

Recovery		
Length (ft)	Description	Volume (bbl)
20.00	OCM 20% O80%M	0.10

\* Recovery from multiple tests

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63546

**DST#: 6**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.17 @ 12:50:09

## Tool Information

Drill Pipe:	Length: 3604.00 ft	Diameter: 3.80 inches	Volume: 50.55 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 51.14 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	3715.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	23.00 ft				
Tool Length:	44.00 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			3695.00	
Shut In Tool	5.00			3700.00	
Hydraulic tool	5.00			3705.00	
Packer	5.00			3710.00	21.00 Bottom Of Top Packer
Packer	5.00			3715.00	
Stubb	1.00			3716.00	
Recorder	0.00	8018	Inside	3716.00	
Recorder	0.00	8700	Outside	3716.00	
Perforations	19.00			3735.00	
Bullnose	3.00			3738.00	23.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>44.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63546

**DST#: 6**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.17 @ 12:50:09

## 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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.91 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	OCM 20%O80%M	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 #: 8018

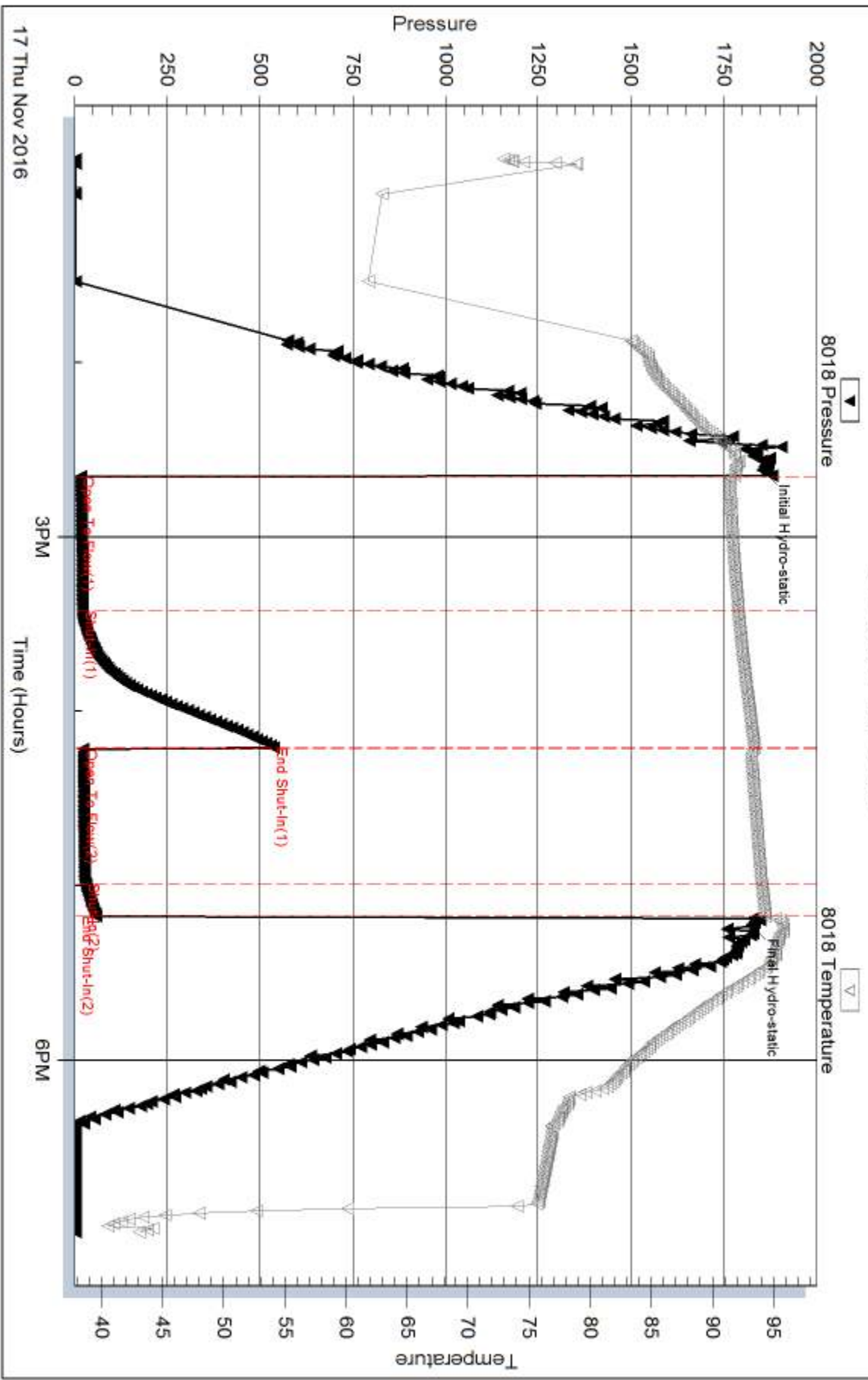
Inside

Fourwinds Oil Corporation

S&B #1

DST Test Number: 6

### Pressure vs. Time



17 Thu Nov 2016

Trilobite Testing, Inc

Ref. No: 63546

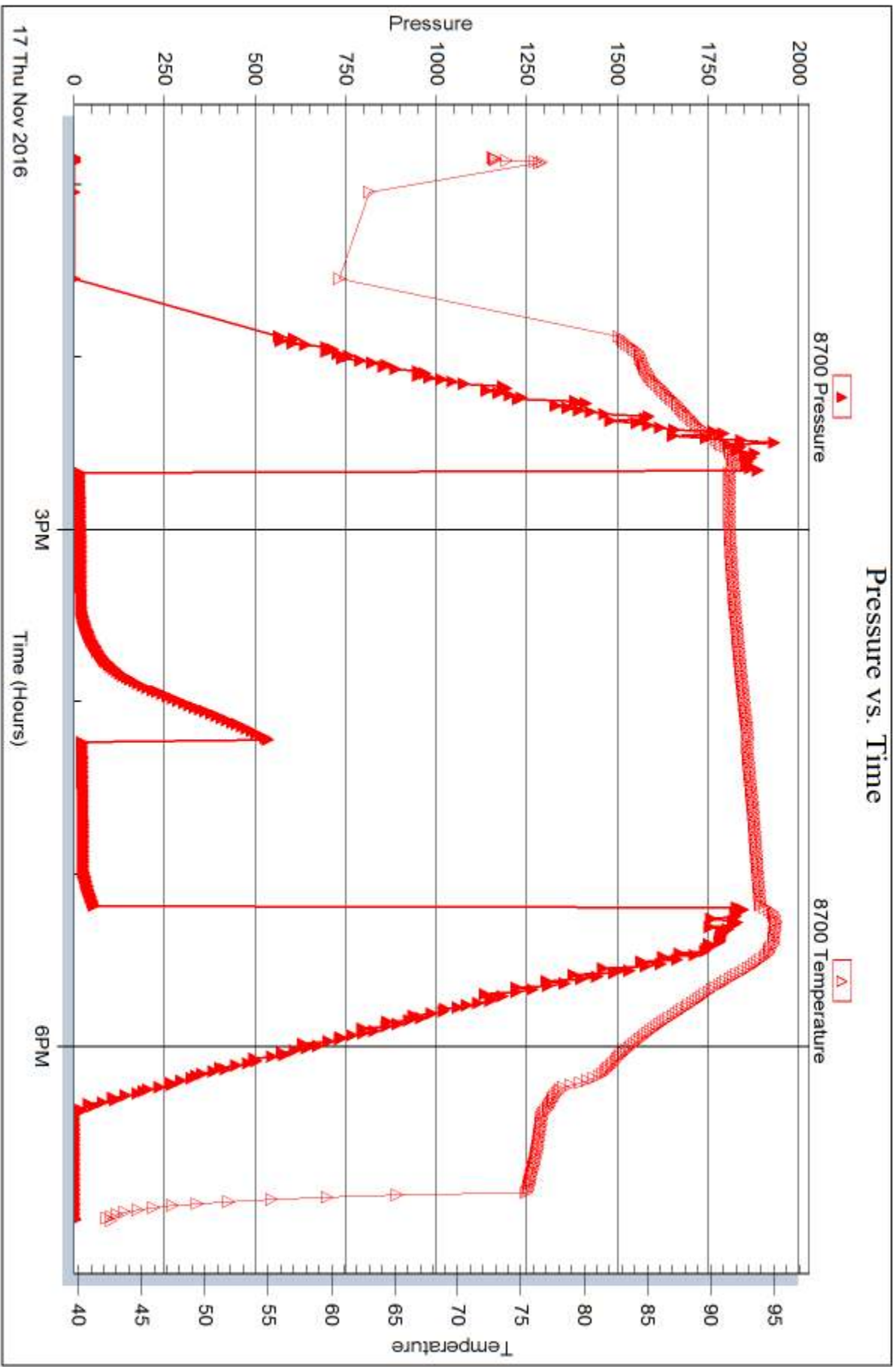
Printed: 2016.11.18 @ 14:51:52

Serial #: 8700

Outside Fourwinds Oil Corporation

S&B #1

DST Test Number: 6



17 Thu Nov 2016

Triobite Testing, Inc

Ref. No: 63546

Printed: 2016.11.18 @ 14:51:52



## DRILL STEM TEST REPORT

Prepared For: **Fourwinds Oil Corporation**

PO Box 1063  
Hays KS 67601

ATTN: Dan Windholz, Ken Veh

### **S&B #1**

### **28-4s-22w Norton, KS**

Start Date: 2016.11.17 @ 19:40:36

End Date: 2016.11.18 @ 02:23:30

Job Ticket #: 63547                      DST #: 7

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

Printed: 2016.11.18 @ 14:49:47



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Fourwinds Oil Corporation

**28-4s-22w Norton, KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63547

**DST#: 7**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.17 @ 19:40:36

## GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:41:16

Time Test Ended: 02:23:30

Test Type: Conventional Straddle (Reset)

Tester: Ray Schwager

Unit No: 77

**Interval: 3412.00 ft (KB) To 3472.00 ft (KB) (TVD)**

Reference Elevations: 2279.00 ft (KB)

Total Depth: 3738.00 ft (KB) (TVD)

2271.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8018**

**Inside**

Press@RunDepth: 161.95 psig @ 3425.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.11.17

End Date:

2016.11.18

Last Calib.:

2016.11.18

Start Time: 19:40:36

End Time:

02:23:30

Time On Btm:

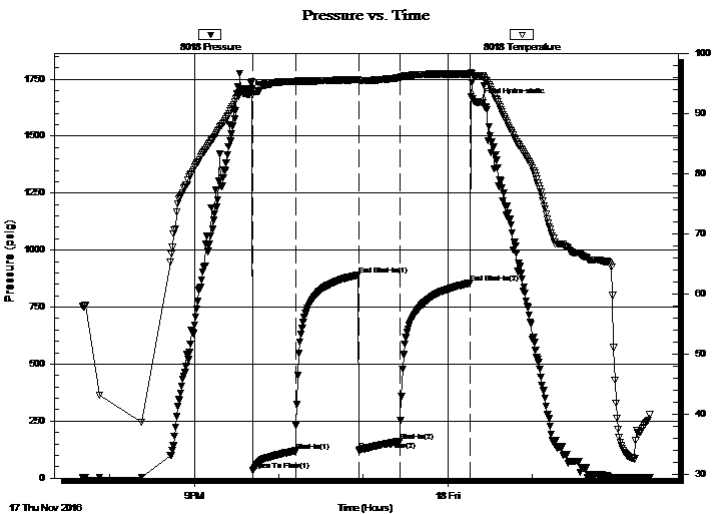
2016.11.17 @ 21:38:31

Time Off Btm:

2016.11.18 @ 00:20:45

**TEST COMMENT:** 30-IFP-w k to strg in 28 min  
45-ISIP-no bl  
45-FFP-w k to a fr bl surface to 4" bl  
60-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1682.82	94.10	Initial Hydro-static
3	33.04	93.26	Open To Flow (1)
34	119.68	95.37	Shut-In(1)
78	891.47	95.74	End Shut-In(1)
79	122.73	95.51	Open To Flow (2)
108	161.95	96.05	Shut-In(2)
158	856.43	96.65	End Shut-In(2)
163	1648.69	96.27	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	Water	0.65
124.00	MW 30%M70%W	1.74
55.00	WM 40%W60%M w/show of oil	0.77

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Fourwinds Oil Corporation

**28-4s-22w Norton, KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63547

**DST#: 7**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.17 @ 19:40:36

## GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:41:16

Time Test Ended: 02:23:30

Test Type: Conventional Straddle (Reset)

Tester: Ray Schwager

Unit No: 77

**Interval: 3412.00 ft (KB) To 3472.00 ft (KB) (TVD)**

Reference Elevations: 2279.00 ft (KB)

Total Depth: 3738.00 ft (KB) (TVD)

2271.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8700 Outside**

Press@RunDepth: psig @ 3425.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.11.17 End Date: 2016.11.18

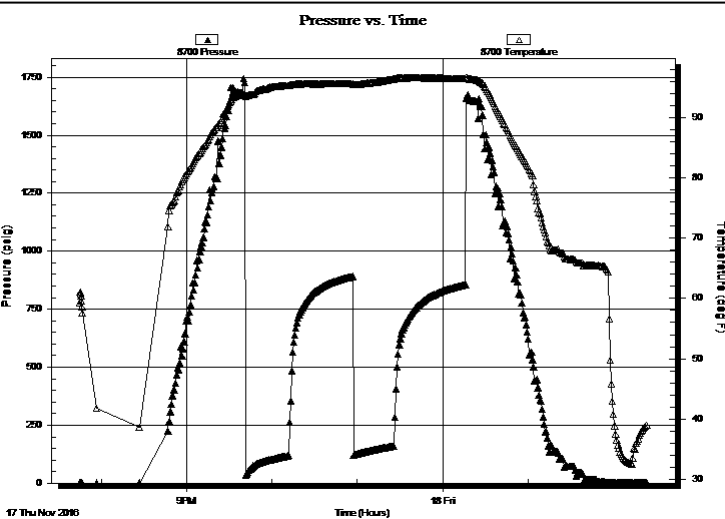
Last Calib.: 2016.11.18

Start Time: 19:44:35 End Time: 02:23:29

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IFP-w k to strg in 28 min  
45-ISIP-no bl  
45-FFP-w k to a fr bl surface to 4" bl  
60-FSIP-no bl



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	Water	0.65
124.00	MW 30%M70%W	1.74
55.00	WM 40%W60%M w/show of oil	0.77

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Fourwinds Oil Corporation

**28-4s-22w Norton, KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63547

**DST#: 7**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.17 @ 19:40:36

## GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:41:16

Time Test Ended: 02:23:30

Test Type: Conventional Straddle (Reset)

Tester: Ray Schwager

Unit No: 77

**Interval: 3412.00 ft (KB) To 3472.00 ft (KB) (TVD)**

Reference Elevations: 2279.00 ft (KB)

Total Depth: 3738.00 ft (KB) (TVD)

2271.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8374 Below (Straddle)**

Press@RunDepth: psig @ 3486.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.11.17 End Date: 2016.11.18

Last Calib.: 2016.11.18

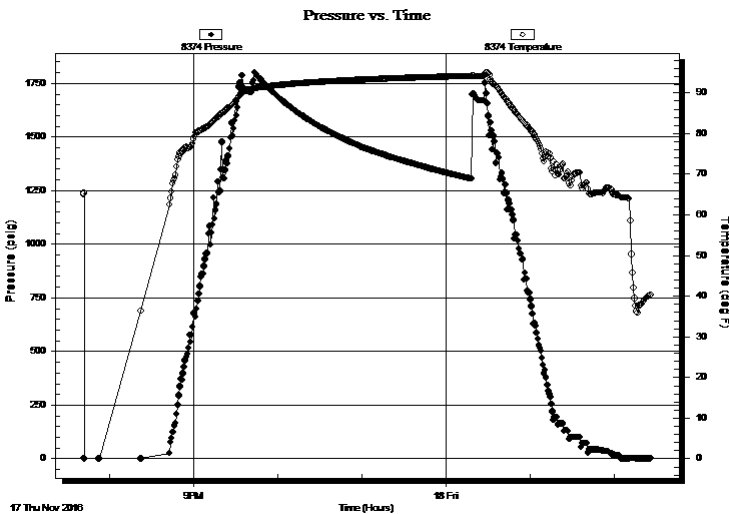
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Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IFP-w k to strg in 28 min  
45-ISIP-no bl  
45-FFP-w k to a fr bl surface to 4" bl  
60-FSIP-no bl

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	Water	0.65
124.00	MW 30%M70%W	1.74
55.00	WM 40%W60%M w/show of oil	0.77

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63547

**DST#: 7**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.17 @ 19:40:36

## Tool Information

Drill Pipe:	Length: 3287.00 ft	Diameter: 3.80 inches	Volume: 46.11 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 46.70 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3412.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	3472.00 ft			
Interval between Packers:	60.00 ft			
Tool Length:	351.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

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

Change Over Sub	1.00			3392.00	
Shut In Tool	5.00			3397.00	
Hydraulic tool	5.00			3402.00	
Packer	5.00			3407.00	21.00 Bottom Of Top Packer
Packer	5.00			3412.00	
Stubb	1.00			3413.00	
Perforations	12.00			3425.00	
Recorder	0.00	8018	Inside	3425.00	
Recorder	0.00	8700	Outside	3425.00	
Blank Spacing	33.00			3458.00	
Perforations	10.00			3468.00	
Blank Off Sub	1.00			3469.00	
Blank Spacing	3.00			3472.00	60.00 Tool Interval
Packer	5.00			3477.00	
Stubb	1.00			3478.00	
Perforations	8.00			3486.00	
Recorder	0.00	8374	Below	3486.00	
Blank Spacing	253.00			3739.00	
Bullnose	3.00			3742.00	270.00 Bottom Packers & Anchor

**Total Tool Length: 351.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Fourwinds Oil Corporation

**28-4s-22w Norton,KS**

PO Box 1063  
Hays KS 67601

**S&B #1**

Job Ticket: 63547

**DST#: 7**

ATTN: Dan Windholz, Ken Veh

Test Start: 2016.11.17 @ 19:40:36

### 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:

85000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	Water	0.646
124.00	MW 30%M70%W	1.739
55.00	WM 40%W60%M w /show of oil	0.772

Total Length: 303.00 ft      Total Volume: 3.157 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .09@70F



Serial #: 8018

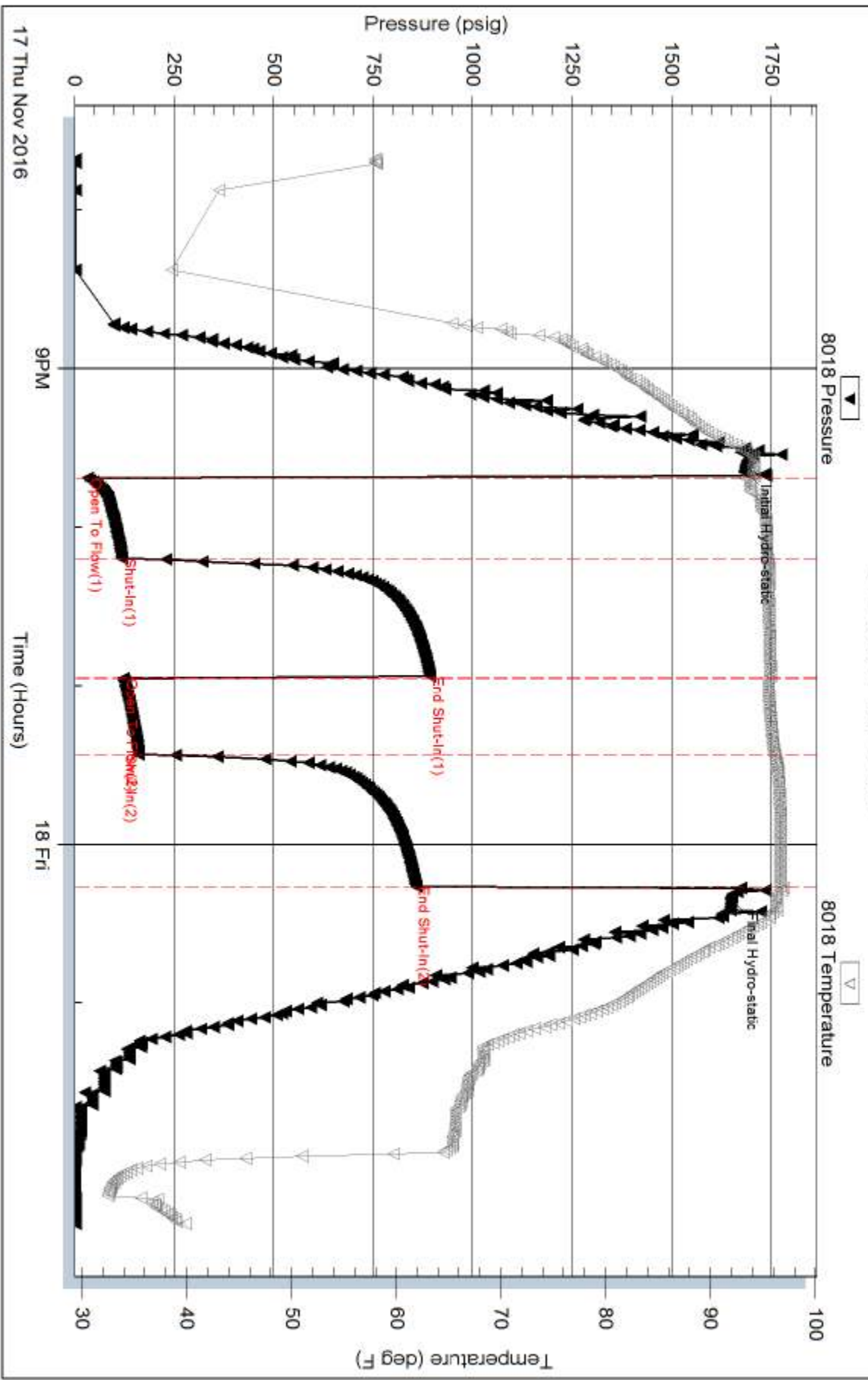
Inside

Fourwinds Oil Corporation

S&B #1

DST Test Number: 7

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 63547

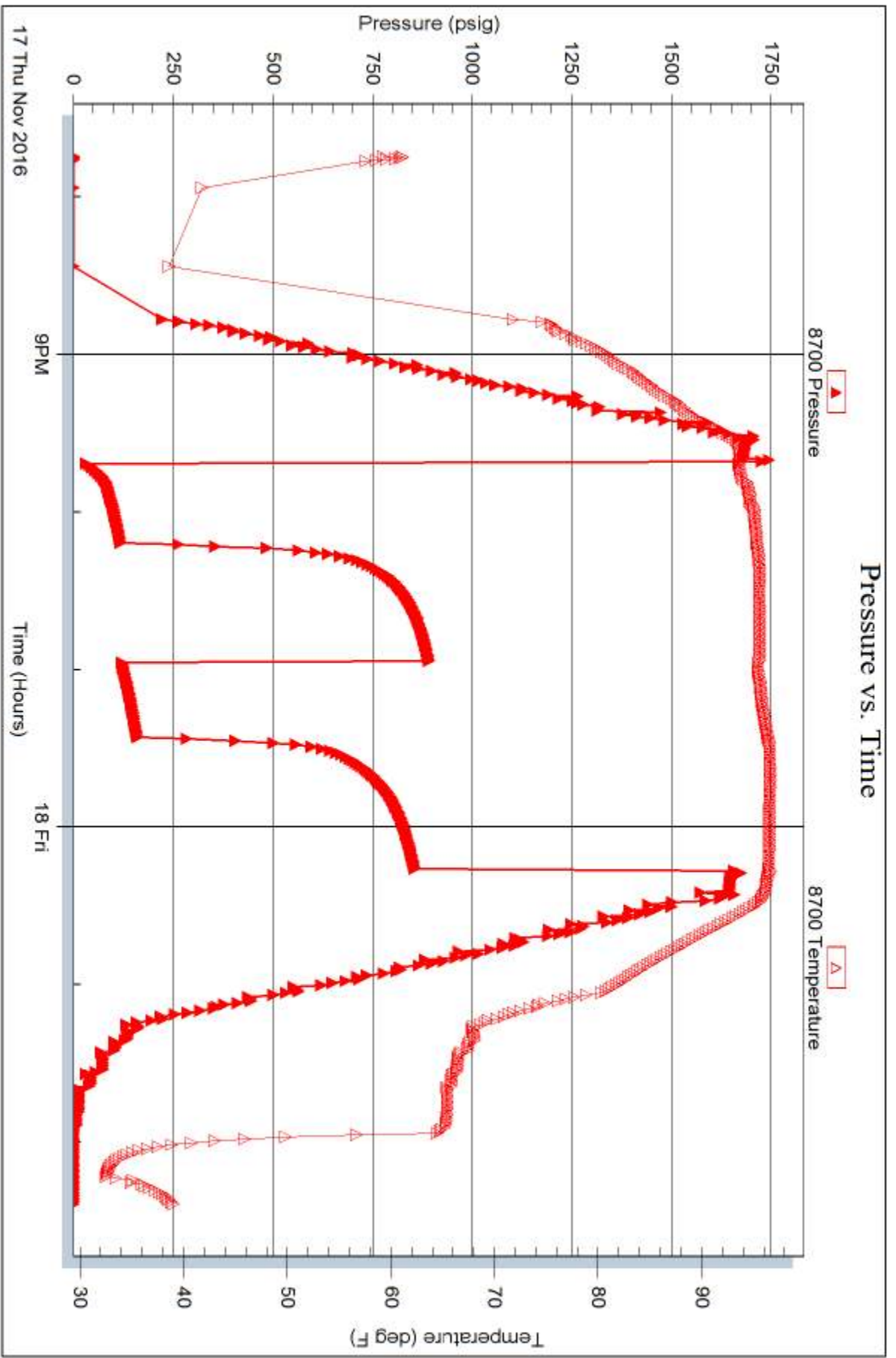
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Serial #: 8700

Outside Fourwinds Oil Corporation

S&B #1

DST Test Number: 7



Triobite Testing, Inc

Ref. No: 63547

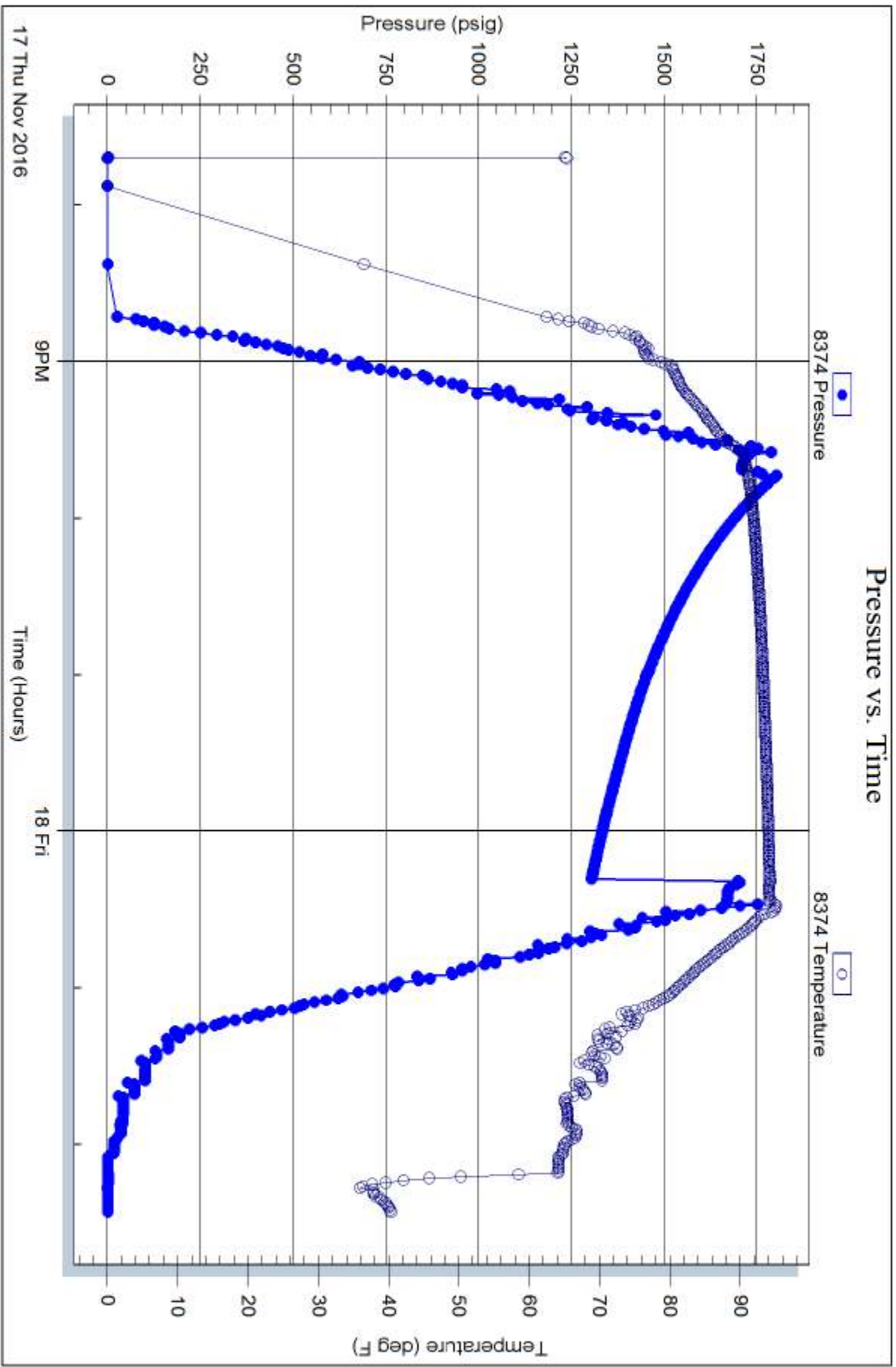
Printed: 2016.11.18 @ 14:49:49

Serial #: 8374

Below (Str Fiddler) inds Oil Corporation

S&B #1

DST Test Number: 7





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **63541**

Well Name & No. S+B#1 Test No. 1 Date 11-14-16  
 Company Fourwinds Oil Corporation Elevation 2279 KB 2271 GL  
 Address Po Box 1063 Hays, Ks 67601  
 Co. Rep / Geo. Ken Vegehe Rig WW rig 12  
 Location: Sec. 28 Twp. 4<sup>s</sup> Rge. 22<sup>w</sup> Co. NORTON State Ko

Interval Tested 3449-3478 Zone Tested LKC "A"  
 Anchor Length 29 Drill Pipe Run 3323 Mud Wt. 9.1  
 Top Packer Depth 3444 Drill Collars Run 120 Vis 55  
 Bottom Packer Depth 3449 Wt. Pipe Run — WL 8  
 Total Depth 3478 Chlorides 800 ppm System LCM 3#

Blow Description IFP - Weak To A Fair Blow 1" To 4" Blow  
ISIP - No Blow  
FFP - Weak Blow Thru-out, surface to 3" Blow  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>110</u>	<u>Feet of SOCWM</u>	<u>1</u>	<u>49</u>	<u>50</u>	
<u>124</u>	<u>Feet of WATER</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 234 BHT 98 Gravity — API RW .09 @ 70 ° F Chlorides 85000 ppm

(A) Initial Hydrostatic 1674  Test 1050 T-On Location 0130  
 (B) First Initial Flow 88  Jars T-Started 0415  
 (C) First Final Flow 107  Safety Joint T-Open 0630  
 (D) Initial Shut-In 315  Circ Sub T-Pulled 0930  
 (E) Second Initial Flow 111  Hourly Standby T-Out 1127  
 (F) Second Final Flow 131  Mileage 170 RT 99 rt 74.25 Comments Slid Tool Approx 12' To Bottom  
 (G) Final Shut-In 311  Sampler  
 (H) Final Hydrostatic 1654  Straddle  Ruined Shale Packer

Initial Open 30  Shale Packer  Ruined Packer  
 Initial Shut-In 45  Extra Packer  Extra Copies  
 Final Flow 45  Extra Recorder Sub Total 0  
 Final Shut-In 60  Day Standby Total 1124.25  
 Accessibility MP/DST Disc't  
 Sub Total 1124.25

Approved By \_\_\_\_\_ Our Representative Ray Schwager *Thank you*

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. 63542

Well Name & No. S+B #1 Test No. 2 Date 11-14-16  
 Company Fourwinds Oil Corporations Elevation 2279 KB 2271 GL  
 Address PO Box 1063 Hays, Ks 67601  
 Co. Rep / Geo. Ken Vegehe Rig WW rig 12  
 Location: Sec. 28 Twp. 4<sup>s</sup> Rge. 22<sup>w</sup> Co. NORTON State Ks

Interval Tested 3476-3520 Zone Tested LKC "0"  
 Anchor Length 44 Drill Pipe Run 3355 Mud Wt. 9.2  
 Top Packer Depth 3471 Drill Collars Run 120 Vis 50  
 Bottom Packer Depth 3476 Wt. Pipe Run - WL 8  
 Total Depth 3520 Chlorides 500 ppm System LCM 2#  
 Blow Description IFP - WEAK SURFACE BLOW, died in 16 min  
ISIP - No Blow  
FFP -  
FSTP -

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</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 92 Gravity - API RW - @ - ° F Chlorides - ppm  
 (A) Initial Hydrostatic 1700  Test 1050 T-On Location 1830  
 (B) First Initial Flow 20  Jars - T-Started 1945  
 (C) First Final Flow 24  Safety Joint - T-Open 2135  
 (D) Initial Shut-In 619  Circ Sub - T-Pulled 2235  
 (E) Second Initial Flow -  Hourly Standby - T-Out 0012  
 (F) Second Final Flow -  Mileage 74.25 Comments -  
 (G) Final Shut-In -  Sampler -  
 (H) Final Hydrostatic 1682  Straddle -  Ruined Shale Packer -  
 Shale Packer -  Ruined Packer -  
 Extra Packer -  Extra Copies -  
 Initial Open 30  Extra Recorder - Sub Total 0  
 Initial Shut-In 30  Day Standby - Total 1124.25  
 Final Flow -  Accessibility - MP/DST Disc't -  
 Final Shut-In - Sub Total 1124.25

Approved By \_\_\_\_\_ Our Representative Ray Schwager Thank you

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. **63543**

Well Name & No. 5 + 8 #1 Test No. 3 Date 11-15-16  
 Company Fourwinds Oil Corporations Elevation 2279 KB 2271 GL  
 Address PO Box 1063 Hays Ks 67601  
 Co. Rep / Geo. Ken Vegehe Rig WW Rig 12  
 Location: Sec. 28 Twp. 4<sup>s</sup> Rge. 22<sup>w</sup> Co. Norton State K

Interval Tested 3476-3540 Zone Tested LKC 'G'  
 Anchor Length 64 Drill Pipe Run 3355 Mud Wt. 9.2  
 Top Packer Depth 3471 Drill Collars Run 120 Vis 54  
 Bottom Packer Depth 3476 Wt. Pipe Run - WL 8  
 Total Depth 3540 Chlorides 500 ppm System LCM 2#

Blow Description IFP - Weak Blow thru-out 1/2" to 1" Blow  
ISTP - NO Blow  
FFP - NO Blow  
FSIP - NO Blow

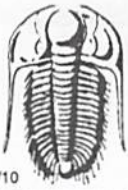
Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>oil specked mud</u>				
	<u>Less than 1%</u>				

Rec Total 62 BHT 93 Gravity - API RW - @ - ° F Chlorides - ppm  
 (A) Initial Hydrostatic 1707  Test 1050 T-On Location 0640  
 (B) First Initial Flow 41  Jars T-Started 0655  
 (C) First Final Flow 48  Safety Joint T-Open 0845  
 (D) Initial Shut-In 670  Circ Sub T-Pulled 1145  
 (E) Second Initial Flow 49  Hourly Standby T-Out 1321  
 (F) Second Final Flow 60  Mileage 74.25 Comments \_\_\_\_\_  
 (G) Final Shut-In 609  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1697  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1124.25 MP/DST Disc't \_\_\_\_\_

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

Approved By \_\_\_\_\_ Our Representative Ray Schwager Thank you

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **63544**

Well Name & No. 5+ B #1 Test No. 4 Date 11-16-16  
 Company Fourwinds Oil Corporation Elevation 2279 KB 2271 GL  
 Address PO Box 1063 Hays, KS 67601  
 Co. Rep / Geo. Ken Vegehe Rig WW rig 12  
 Location: Sec. 28 Twp. 4<sup>s</sup> Rge. 22<sup>w</sup> Co. Norton State Ks

Interval Tested 3697-3723 Zone Tested Gorham sd.  
 Anchor Length 26 Drill Pipe Run 3572 Mud Wt. 9.4  
 Top Packer Depth 3692 Drill Collars Run 120 Vis 62  
 Bottom Packer Depth 3697 Wt. Pipe Run - WL 7.6  
 Total Depth 3723 Chlorides 2006 ppm System LCM 2 1/2 #

Blow Description IFP - SURFACE Blow, dried in 10 min  
ISIP - NO Blow  
FFP - NO Blow  
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>Mud</u>				
	<u>w/ slow flow</u>				

Rec Total 2 BHT \_\_\_\_\_ Gravity - API RW - @ - °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1826  Test 1050 T-On Location 0840  
 (B) First Initial Flow 18  Jars \_\_\_\_\_ T-Started 0940  
 (C) First Final Flow 19  Safety Joint \_\_\_\_\_ T-Open 1130  
 (D) Initial Shut-In 218  Circ Sub \_\_\_\_\_ T-Pulled 1305  
 (E) Second Initial Flow 19  Hourly Standby \_\_\_\_\_ T-Out 1441  
 (F) Second Final Flow 20  Mileage 74.25 Comments \_\_\_\_\_  
 (G) Final Shut-In 78  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1797  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 30  Day Standby \_\_\_\_\_ Total 1124.25  
 Final Flow 15  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 20 Sub Total 1124.25

Approved By \_\_\_\_\_ Our Representative Ray Schwager *Thank you*

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **63545**

Well Name & No. 54841 Test No. 5 Date 11-17-16  
 Company Fourwinds Oil Corporations Elevation 2279 KB 2271 GL  
 Address PO Box 1063 Hays, Ks 67601  
 Co. Rep / Geo. Ken Degehe Rig WW rig 12  
 Location: Sec. 28 Twp. 4<sup>s</sup> Rge. 22<sup>w</sup> Co. NORTON State Ks

Interval Tested 3715-3732 Zone Tested Arbuckle  
 Anchor Length 17 Drill Pipe Run 3604 Mud Wt. 9.4  
 Top Packer Depth 3710 Drill Collars Run 120 Vis 53  
 Bottom Packer Depth 3715 Wt. Pipe Run - WL 2.6  
 Total Depth 3732 Chlorides 2000 ppm System LCM 2#  
 Blow Description IFP - SURFACE Blow, died in 10 min  
ISTP - NO Blow  
FFP - NO Blow  
~~FSTP -~~

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>SDCM</u>		<u>4</u>		<u>96</u>
Rec	Feet of <u>w/slow of clean oil</u>	%gas	%oil	%water	%mud
Rec	Feet of <u>Top of Tool</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 2 BHT 95 Gravity - API RW - @ - ° F Chlorides - ppm  
 (A) Initial Hydrostatic 1848  Test 1050 T-On Location 0135  
 (B) First Initial Flow 16  Jars - T-Started 0205  
 (C) First Final Flow 16  Safety Joint - T-Open 0355  
 (D) Initial Shut-In 517  Circ Sub - T-Pulled 0450  
 (E) Second Initial Flow 17  Hourly Standby - T-Out 0639  
 (F) Second Final Flow 17  Mileage 74.25 Comments -  
 (G) Final Shut-In -  Sampler -  
 (H) Final Hydrostatic 1800  Straddle -  Ruined Shale Packer -  
 Shale Packer -  Ruined Packer -  
 Extra Packer -  Extra Copies -  
 Initial Open 15  Extra Recorder - Sub Total 0  
 Initial Shut-In 30  Day Standby - Total 1124.25  
 Final Flow 10  Accessibility - MP/DST Disc't -  
 Final Shut-In out  Sub Total 1124.25

Approved By \_\_\_\_\_ Our Representative Ray Schwager *thank you*  
 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. **63546**

Well Name & No. 5 + B # 1 Test No. 6 Date 11-17-16  
 Company Fourwinds Oil Corporations Elevation 2279 KB 2271 GL  
 Address PO Box 1063 Hays, Ks 67601  
 Co. Rep / Geo. Ken Vegehe Rig WW rig 12  
 Location: Sec. 28 Twp. 4<sup>s</sup> Rge. 22<sup>w</sup> Co. NORTON State Ks

Interval Tested 3715-3738 Zone Tested Arbuckle  
 Anchor Length 23 Drill Pipe Run 3604 Mud Wt. 9.4  
 Top Packer Depth 3710 Drill Collars Run 120 Vis 53  
 Bottom Packer Depth 3715 Wt. Pipe Run - WL 7.6  
 Total Depth 3738 Chlorides 2000 ppm System LCM 2<sup>#</sup>  
 Blow Description I/FP - WEAK Blow thru-out 1/4" To 1/8" Blow  
I/SIP - NO Blow  
FFP - NO Blow  
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>OCM</u>	<u>20</u>		<u>80</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 94 Gravity - API RW - @ - ° F Chlorides - ppm  
 Test 1050 T-On Location 1200  
 Jars \_\_\_\_\_ T-Started 1250  
 Safety Joint \_\_\_\_\_ T-Open 1440  
 Circ Sub \_\_\_\_\_ T-Pulled 1710  
 Hourly Standby \_\_\_\_\_ T-Out 1859  
 Mileage 74.25 Comments \_\_\_\_\_  
 Sampler \_\_\_\_\_  
 Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1124.25

Initial Open 45  
 Initial Shut-In 45  
 Final Flow 45  
 Final Shut-In 15

Approved By \_\_\_\_\_ Our Representative Ray Schwager Thank you  
 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. **63547**

Well Name & No. S & B #1 Test No. 7 Date 11-17-16  
 Company Fourwinds Oil Corporations Elevation 2279 KB 2271 GL  
 Address PO Box 1063 Hays Ks 67601  
 Co. Rep / Geo. Ken Vegehe Rig WW rig 2  
 Location: Sec. 28 Twp. 4<sup>s</sup> Rge. 22<sup>w</sup> Co. NORTON State Ks

Interval Tested 3412-3472 Zone Tested Toronto  
 Anchor Length 60 Drill Pipe Run 3287 Mud Wt. 9.4  
 Top Packer Depth 3412-3407 Drill Collars Run 120 Vis 53  
 Bottom Packer Depth 3472 Wt. Pipe Run — WL 7.6  
 Total Depth 3738 Chlorides 2000 ppm System LCM 2#

Blow Description I FP - WEAK TO A STRONG BLOW IN 28 MIN  
ISIP - NO BLOW  
FFP - WEAK TO A FAIR BLOW, SURFACE TO 4" BLOW  
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>55</u>	<u>WM w/show of oil</u>		<u>40</u>	<u>60</u>	
<u>124</u>	<u>MW</u>		<u>70</u>	<u>30</u>	
<u>124</u>	<u>WATER</u>				

Rec Total 303 BHT 96 Gravity — API RW .09 @ 70 ° F Chlorides 85000 ppm  
 (A) Initial Hydrostatic 1682  Test 1050 T-On Location 1859  
 (B) First Initial Flow 33  Jars \_\_\_\_\_ T-Started 1940  
 (C) First Final Flow 119  Safety Joint \_\_\_\_\_ T-Open 2140  
 (D) Initial Shut-In 891  Circ Sub \_\_\_\_\_ T-Pulled 0040  
 (E) Second Initial Flow 122  Hourly Standby \_\_\_\_\_ T-Out 0223  
 (F) Second Final Flow 161  Mileage N/C Comments \_\_\_\_\_  
 (G) Final Shut-In 856  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1648  Straddle 600  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1650  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1650

Approved By \_\_\_\_\_ Our Representative Ray Schwaga *Thank you*

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