

**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Darrah Oil  
 225 N. Market, Ste 300  
 Wichita Ks. 67202  
 ATTN: Seth Evenson

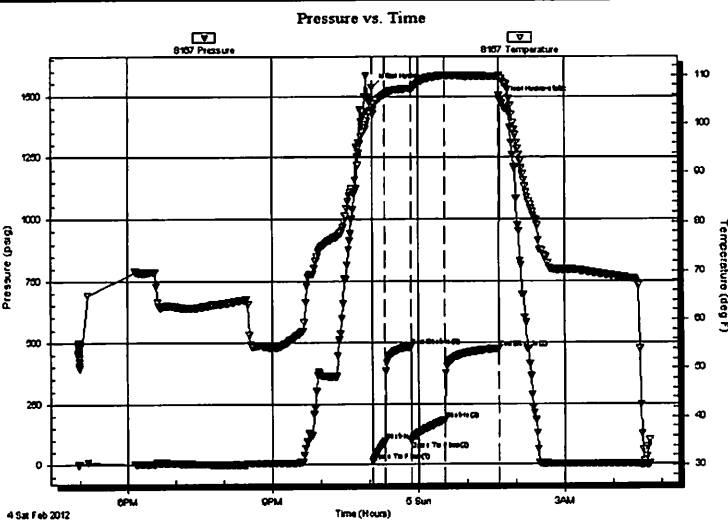
**6-19-9w Rice Ks.**  
**Willard A#5**  
 Job Ticket: 45729      **DST#: 1**  
 Test Start: 2012.02.04 @ 16:57:47

## GENERAL INFORMATION:

Formation: **Lans J**  
 Deviated: **No Whipstock:**                      ft (KB)  
 Time Tool Opened: 23:04:32  
 Time Test Ended: 04:46:02  
 Interval: **3066.00 ft (KB) To 3087.00 ft (KB) (TVD)**  
 Total Depth: **3087.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
 Test Type: **Conventional Bottom Hole (Initial)**  
 Tester: **Gary Pevoteaux**  
 Unit No: **56**  
 Reference Elevations: **1715.00 ft (KB)**  
    **1710.00 ft (CF)**  
 KB to GR/CF: **5.00 ft**

**Serial #: 8167      Inside**  
 Press@RunDepth: **184.33 psig @ 3067.00 ft (KB)**      Capacity: **8000.00 psig**  
 Start Date: **2012.02.04**      End Date: **2012.02.05**      Last Calib.: **2012.02.05**  
 Start Time: **16:57:48**      End Time: **04:46:02**      Time On Btm: **2012.02.04 @ 23:03:32**  
    **04:46:02**      Time Off Btm: **2012.02.05 @ 01:40:47**

**TEST COMMENT:** IF: Fair to strong blow . B.O.B. in 14 mins.  
 IS: Weak blow . (surface)  
 FF: Fair to strong blow . B.O.B. in 26 mins.  
 FS: No blow .



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1535.33	102.68	Initial Hydro-static
1	14.04	101.93	Open To Flow (1)
16	95.36	106.02	Shut-In(1)
48	482.70	107.23	End Shut-In(1)
48	96.20	107.04	Open To Flow (2)
90	184.33	109.92	Shut-In(2)
156	474.95	109.78	End Shut-In(2)
158	1484.05	109.37	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
308.00	SW/w few o specs /Rw .13ohms@41deg2.10	
82.00	MW/w o specs 19% m 81% w	1.15
0.00	40 ft. of GIP	0.00

## Gas Rates

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



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**FLUID SUMMARY**

Darrah Oil

6-19-9w Rice Ks.

225 N. Market, Ste 300  
Wichita Ks. 67202

Willard A#5

Job Ticket: 45729

DST#: 1

ATTN: Seth Evenson

Test Start: 2012.02.04 @ 16:57:47

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length:	Water Salinity:	103000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume:		
Water Loss: 9.19 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure:		
Salinity: 4000.00 ppm			
Filter Cake: 0.20 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
308.00	SW/w few o specs /Rw .13ohms@41deg	2.098
82.00	MW /w o specs 19%m 81%w	1.150
0.00	40 ft.of GIP	0.000

Total Length: 390.00 ft      Total Volume: 3.248 bbl

Num Fluid Samples: 0

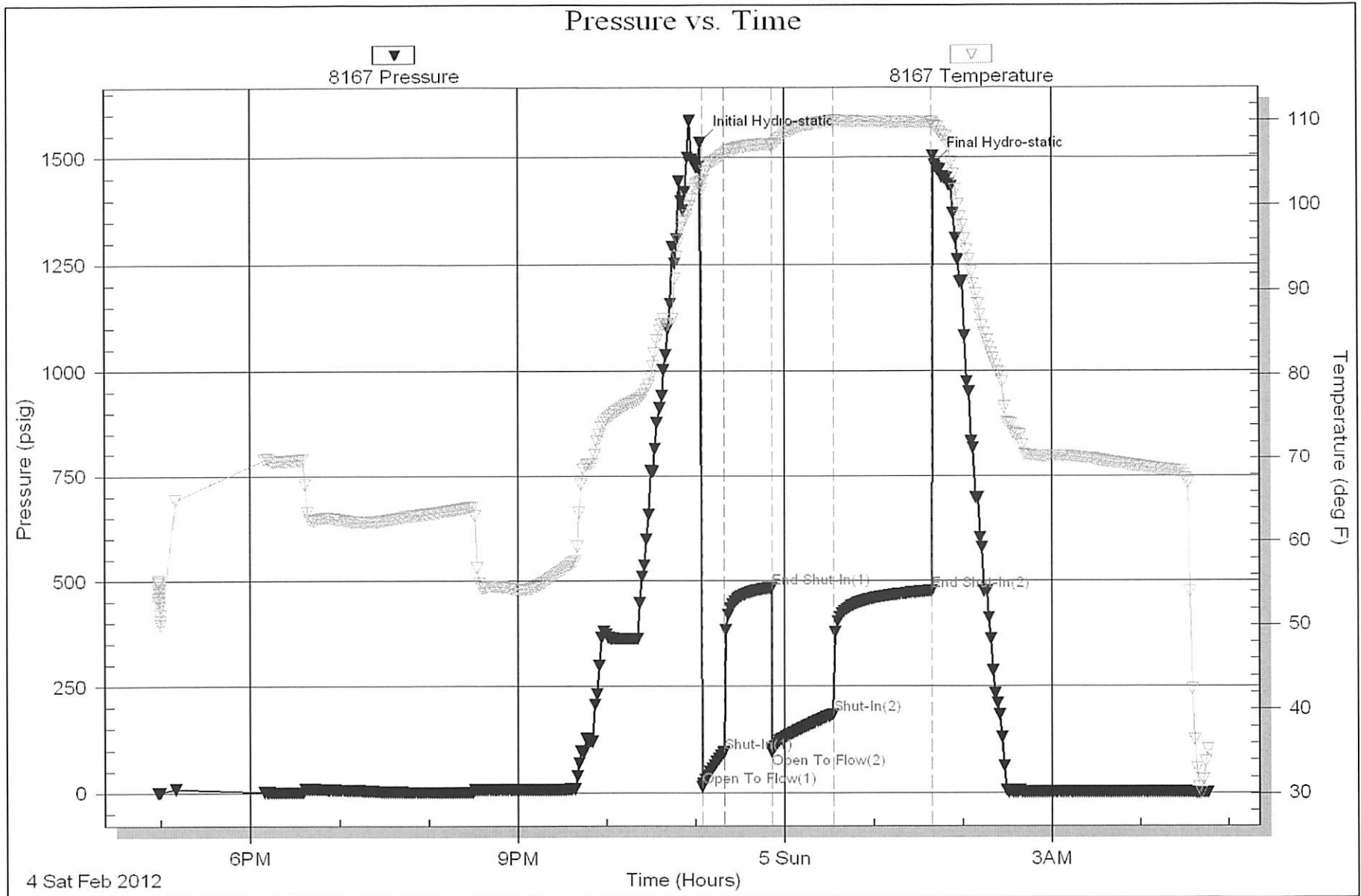
Num Gas Bombs: 0

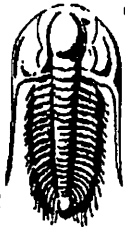
Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:





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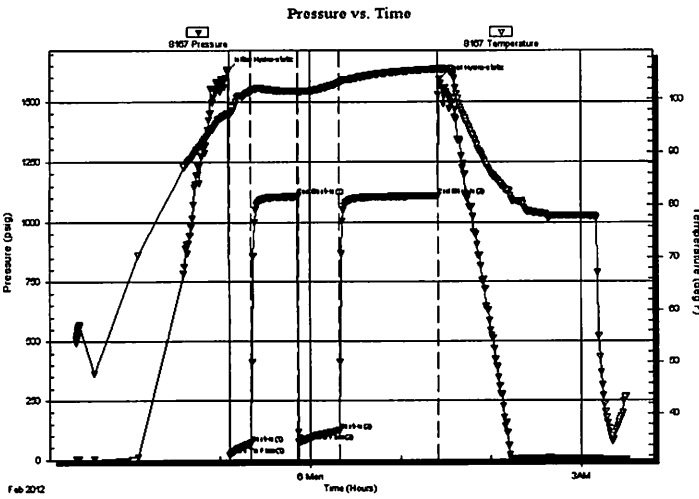
**6-19-9w Rice Ks.**  
**Willard A#5**  
 Job Ticket: 45730      DST#: 2  
 Test Start: 2012.02.05 @ 21:23:43

**GENERAL INFORMATION:**

Formation: **Arbuckle**  
 Deviated: **No** Whipstock: **ft (KB)**  
 Time Tool Opened: 23:06:28  
 Time Test Ended: 03:29:43  
 Interval: **3210.00 ft (KB) To 3245.00 ft (KB) (TVD)**  
 Total Depth: **3245.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
 Test Type: **Conventional Bottom Hole (Reset)**  
 Tester: **Gary Pevoteaux**  
 Unit No: **56**  
 Reference Elevations: **1715.00 ft (KB)**  
**1710.00 ft (CF)**  
 KB to GR/CF: **5.00 ft**

**Serial #: 8167** Inside  
 Press@RunDepth: **122.34 psig @ 3211.00 ft (KB)** Capacity: **8000.00 psig**  
 Start Date: **2012.02.05** End Date: **2012.02.06** Last Calib.: **2012.02.06**  
 Start Time: **21:23:44** End Time: **03:29:43** Time On Btm: **2012.02.05 @ 23:05:28**  
 Time Off Btm: **2012.02.06 @ 01:25:58**

**TEST COMMENT:** IF: Strong blow . B.O.B. in 14 mins.  
 IS: Weak blow . 1/2 - 2 1/2".  
 FF: Strong blow . B.O.B. in 8 mins.  
 FSI: Weak blow . 1 - 2 1/2".



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1630.61	97.24	Initial Hydro-static
1	19.52	96.79	Open To Flow (1)
16	69.70	101.49	Shut-In(1)
47	1106.38	101.60	End Shut-In(1)
47	75.02	101.38	Open To Flow (2)
74	122.34	103.08	Shut-In(2)
140	1107.23	105.73	End Shut-In(2)
141	1592.66	105.74	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
95.00	GOCM 14%g 21%o 65%m	0.47
180.00	CGO 20%g 80%o	1.17
0.00	560 ft.of GIP	0.00

\* Recovery from multiple tests

**Gas Rates**

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



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**FLUID SUMMARY**

Darrah Oil

**6-19-9w Rice Ks.**

225 N.Market, Ste 300  
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**Willard A#5**

Job Ticket: 45730

**DST#: 2**

ATTN: Seth Evenson

Test Start: 2012.02.05 @ 21:23:43

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 50.00 sec/qt  
Water Loss: 8.99 in<sup>3</sup>  
Resistivity: 0.00 ohm.m  
Salinity: 4500.00 ppm  
Filter Cake: 0.20 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: 38 deg API  
Water Salinity: 4500 ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
95.00	GOCM 14%g 21%o 65%m	0.467
180.00	CGO 20%g 80%o	1.168
0.00	560 ft.of GIP	0.000

Total Length: 275.00 ft      Total Volume: 1.635 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8167

Inside

Darrah Oil

Willard A#5

DST Test Number: 2

