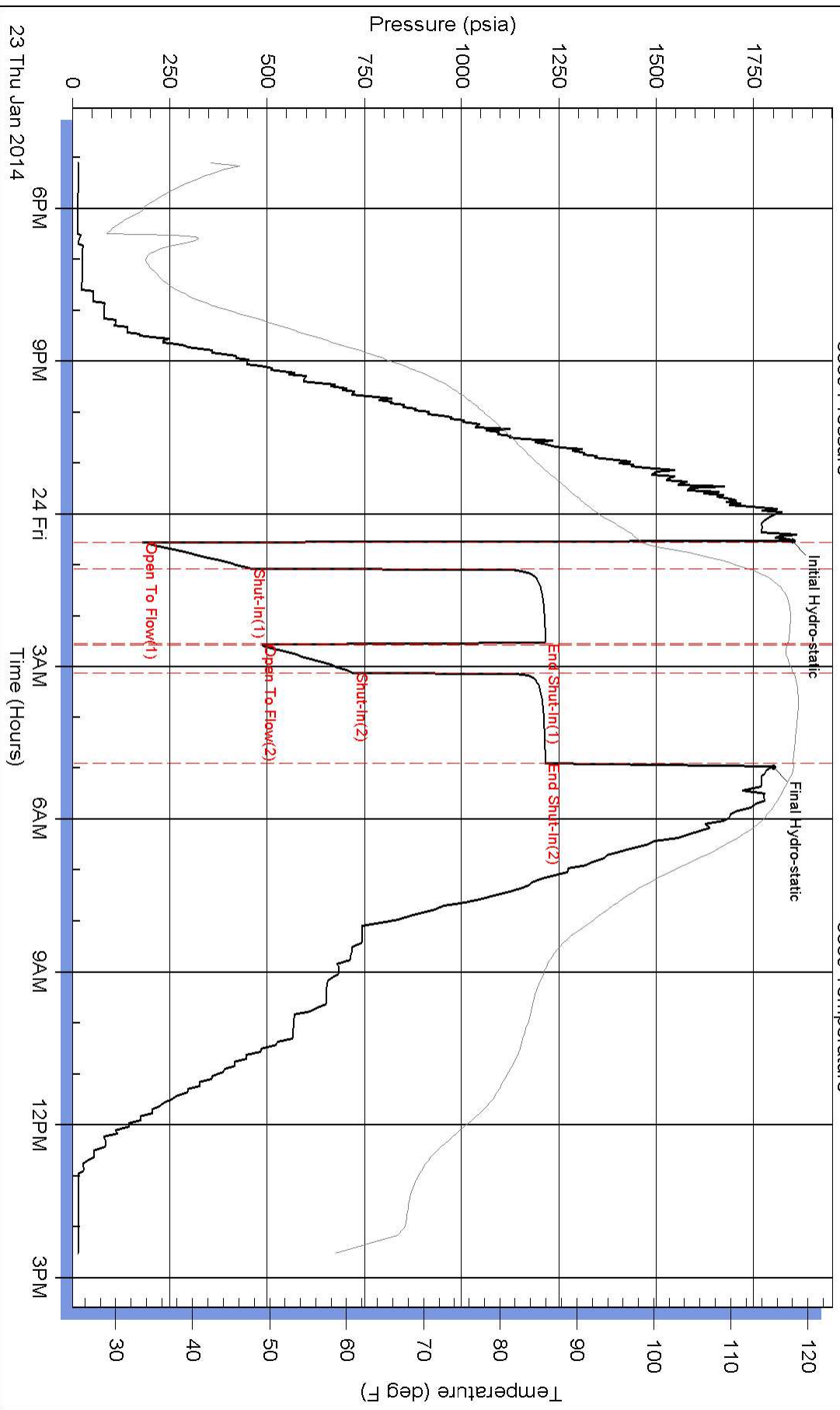
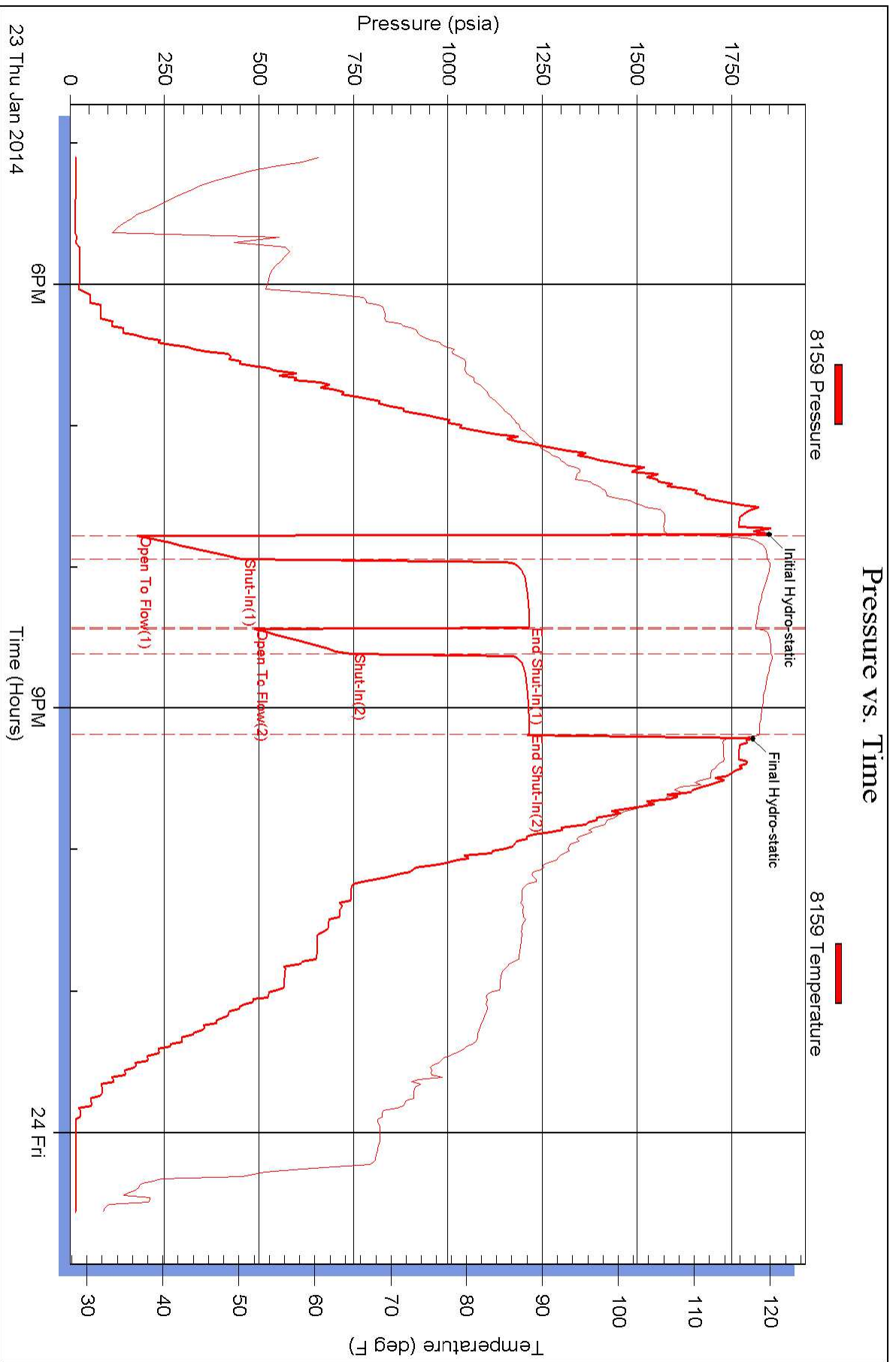


### Pressure vs. Time



# Pressure vs. Time





# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Werth Exploration Trust  
1308 Schwaller Avenue  
Hays, Kansas 67601  
ATTN: Herb Deines

**7/11S/20W/Ellis**  
**Walz-Mustang SOL #11**  
Job Ticket: 19192      **DST#: 2**  
Test Start: 2014.01.23 @ 17:05:00

## 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: 45.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 5000.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1426.00	Mud cut Water with show of oil	18.637
0.00	Mud 3% Water 97%	0.000
0.00	Recov. Chlorides 32,000 ppm	0.000
0.00	Recov. Resist .28 ohms @ 50 deg	0.000

Total Length: 1426.00 ft      Total Volume: 18.637 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Werth Exploration Trust  
 1308 Schwaller Avenue  
 Hays, Kansas 67601  
 ATTN: Herb Deines

**7/11S/20W/Ellis**  
**Walz-Mustang SOL #11**  
 Job Ticket: 19192 **DST#: 2**  
 Test Start: 2014.01.23 @ 17:05:00

**Tool Information**

Drill Pipe:	Length: 3495.00 ft	Diameter: 3.80 inches	Volume: 49.03 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 150.00 ft	Diameter: 2.25 inches	Volume: 0.74 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 49.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.85 ft			String Weight: Initial 49000.00 lb
Depth to Top Packer:	3657.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	3723.88 ft			
Interval between Packers:	66.88 ft			
Tool Length:	83.73 ft			
Number of Packers:	3	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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Shut-In Tool	5.00			3645.15	
Hydraulic Tool	5.00			3650.15	
Packer	5.00			3655.15	16.85 Bottom Of Top Packer
Packer	1.85			3657.00	
Handling Sub	5.00			3662.00	
Perforations	7.00			3669.00	
Recorder	0.00	8159	Inside	3669.00	
Recorder	0.00	6839	Inside	3669.00	
Blank Off Sub	0.75			3669.75	
Travel Collar	1.82			3671.57	
Packer Anchor side	1.85			3673.42	
Packer Tail Side	1.74			3675.16	
Perforations	13.00			3688.16	
Change Over Sub	0.71			3688.87	
Drill Pipe	31.33			3720.20	
Change Over Sub	0.68			3720.88	
Recorder	0.00	6806	Below	3720.88	
Bullnose	3.00			3723.88	66.88 Bottom Packers & Anchor

**Total Tool Length: 83.73**



# DRILL STEM TEST REPORT

Werth Exploration Trust  
 1308 Schw aller Avenue  
 Hays, Kansas 67601  
 ATTN: Herb Deines

**7/11S/20W/Ellis**  
**Walz-Mustang SOL #11**  
 Job Ticket: 19192 **DST#: 2**  
 Test Start: 2014.01.23 @ 17:05:00

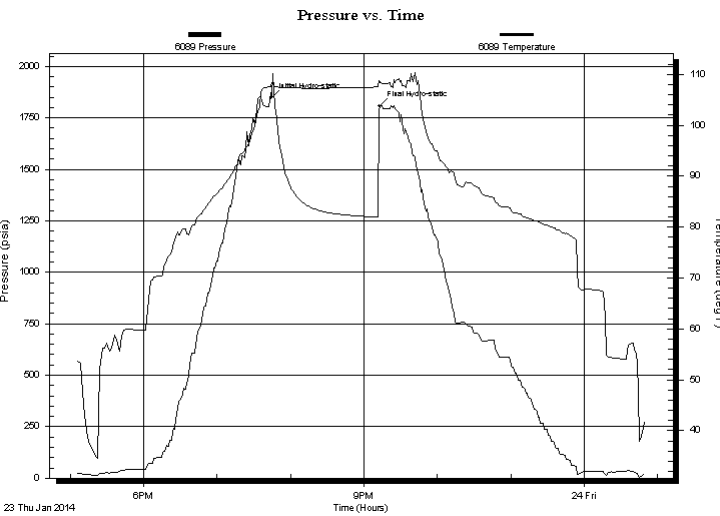
## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Straddle (Initial)  
 Time Tool Opened: 19:46:30 Tester: Ken Swinney  
 Time Test Ended: 00:34:00 Unit No: 3330 Hays/50  
 Interval: **3657.00 ft (KB) To 3675.00 ft (KB) (TVD)** Reference Elevations: 2062.00 ft (KB)  
 Total Depth: 3675.00 ft (KB) (TVD) 2055.00 ft (CF)  
 Hole Diameter: 7.80 inches Hole Condition: Fair KB to GR/CF: 7.00 ft

## Serial #: 6089

Press @ Run Depth: psia @ ft (KB) Capacity: 5000.00 psia  
 Start Date: 2014.01.23 End Date: 2014.01.24 Last Calib.: 2014.01.22  
 Start Time: 17:05:00 End Time: 00:49:30 Time On Btm: 2014.01.23 @ 19:44:30  
 Time Off Btm: 2014.01.23 @ 21:13:00

**TEST COMMENT:** 1ST Open 10 Minutes/Strong blow /Blow built to bottom of bucket of diesel in 50 seconds  
 1ST Shut In 30 Minutes/Blow back built to 1/2 inch  
 2ND Open 10 Minutes/Strong blow /Blow built to bottom of bucket of diesel in 45 seconds  
 2ND Shut In 30 Minutes/No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1847.38	108.29	Initial Hydro-static
89	1807.21	108.48	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1426.00	Mud cut Water with show of oil	18.64
0.00	Mud 3% Water 97%	0.00
0.00	Recov. Chlorides 32,000 ppm	0.00
0.00	Recov. Resist .28 ohms @ 50 deg	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

Werth Exploration Trust  
 1308 Schwaller Avenue  
 Hays, Kansas 67601  
 ATTN: Herb Deines

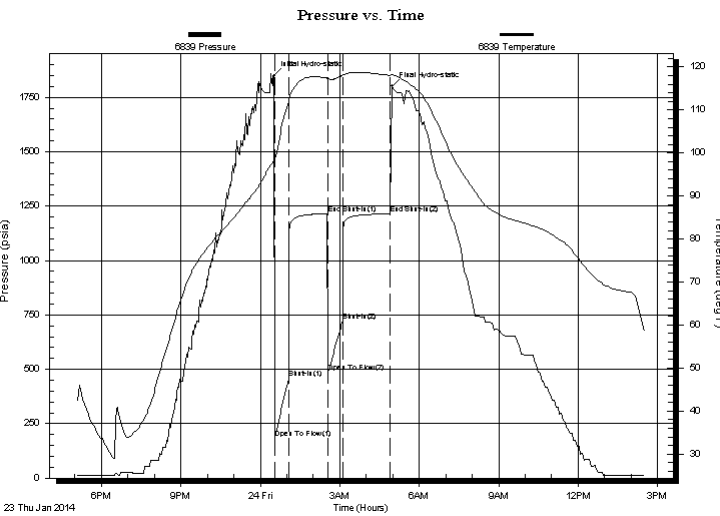
**7/11S/20W/Ellis**  
**Walz-Mustang SOL #11**  
 Job Ticket: 19192 **DST#: 2**  
 Test Start: 2014.01.23 @ 17:05:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:46:30  
 Time Test Ended: 00:34:00  
 Interval: **3657.00 ft (KB) To 3675.00 ft (KB) (TVD)**  
 Total Depth: 3675.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Fair  
 Test Type: Conventional Straddle (Initial)  
 Tester: Ken Swinney  
 Unit No: 3330 Hays/50  
 Reference Elevations: 2062.00 ft (KB)  
 2055.00 ft (CF)  
 KB to GR/CF: 7.00 ft

**Serial #: 6839 Inside**  
 Press @ Run Depth: 1215.30 psia @ 3669.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2014.01.23 End Date: 2014.01.24 Last Calib.: 2014.01.22  
 Start Time: 17:05:00 End Time: 14:46:20 Time On Btm: 2014.01.24 @ 00:31:30  
 Time Off Btm: 2014.01.24 @ 04:59:00

**TEST COMMENT:** 1ST Open 10 Minutes/Strong blow/Blow built to bottom of bucket of diesel in 50 seconds  
 1ST Shut In 30 Minutes/Blow back built to 1/2 inch  
 2ND Open 10 Minutes/Strong blow/Blow built to bottom of bucket of diesel in 45 seconds  
 2ND Shut In 30 Minutes/No blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1848.56	98.27	Initial Hydro-static
2	181.11	98.11	Open To Flow (1)
33	457.99	112.11	Shut-In(1)
121	1215.73	117.47	End Shut-In(1)
123	486.76	117.24	Open To Flow (2)
155	721.34	118.06	Shut-In(2)
263	1215.30	118.04	End Shut-In(2)
268	1800.01	118.14	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
1426.00	Mud cut Water with show of oil	18.64
0.00	Mud 3% Water 97%	0.00
0.00	Recov. Chlorides 32,000 ppm	0.00
0.00	Recov. Resist .28 ohms @ 50 deg	0.00

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



# DRILL STEM TEST REPORT

Werth Exploration Trust  
 1308 Schwaller Avenue  
 Hays, Kansas 67601  
 ATTN: Herb Deines

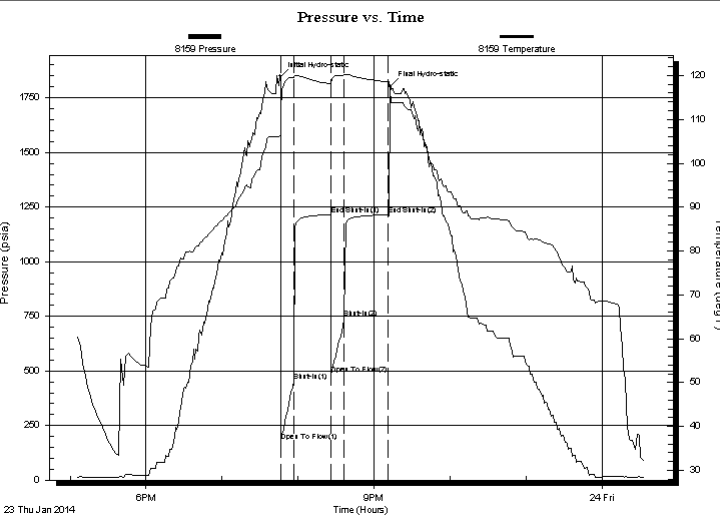
**7/11S/20W/Ellis**  
**Walz-Mustang SOL #11**  
 Job Ticket: 19192 **DST#: 2**  
 Test Start: 2014.01.23 @ 17:05:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:46:30  
 Time Test Ended: 00:34:00  
 Interval: **3657.00 ft (KB) To 3675.00 ft (KB) (TVD)**  
 Total Depth: 3675.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Fair  
 Test Type: Conventional Straddle (Initial)  
 Tester: Ken Swinney  
 Unit No: 3330 Hays/50  
 Reference Elevations: 2062.00 ft (KB)  
 2055.00 ft (CF)  
 KB to GR/CF: 7.00 ft

**Serial #: 8159 Inside**  
 Press @ Run Depth: 743.85 psia @ 3669.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2014.01.23 End Date: 2014.01.24 Last Calib.: 2014.01.22  
 Start Time: 17:05:00 End Time: 00:34:00 Time On Btm: 2014.01.23 @ 19:46:00  
 Time Off Btm: 2014.01.23 @ 21:13:00

**TEST COMMENT:** 1ST Open 10 Minutes/Strong blow/Blow built to bottom of bucket of diesel in 50 seconds  
 1ST Shut In 30 Minutes/Blow back built to 1/2 inch  
 2ND Open 10 Minutes/Strong blow/Blow built to bottom of bucket of diesel in 45 seconds  
 2ND Shut In 30 Minutes/No blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1847.82	106.55	Initial Hydro-static
1	178.17	112.06	Open To Flow (1)
11	453.42	119.61	Shut-In(1)
40	1215.19	118.06	End Shut-In(1)
40	486.30	118.06	Open To Flow (2)
51	743.85	120.08	Shut-In(2)
85	1214.76	118.54	End Shut-In(2)
87	1804.80	114.29	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
1426.00	Mud cut Water with show of oil	18.64
0.00	Mud 3% Water 97%	0.00
0.00	Recov. Chlorides 32,000 ppm	0.00
0.00	Recov. Resist .28 ohms @ 50 deg	0.00

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





## DRILL STEM TEST REPORT

Prepared For: **Werth Exploration Trust**

1308 Schwaller Avenue  
Hays, Kansas 67601

ATTN: Herb Deines

### **Walz-Mustang SOL #11**

#### **7/11S/20W/Ellis**

Start Date: 2014.01.23 @ 17:05:00

End Date: 2014.01.24 @ 00:34:00

Job Ticket #: 19192                      DST #: 2

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2014.01.22 @ 01:09:38