



## DRILL STEM TEST REPORT

Prepared For: **F.G. Holl Company LLC**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

ATTN: Rene Husted

### **Kufeld #1-19 Barton**

#### **19-19s18w Barton**

Start Date: 2014.09.07 @ 02:10:00

End Date: 2014.09.07 @ 00:00:00

Job Ticket #: 60367                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

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**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

F.G. Holl Company LLC  
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 Wichita, Kansas 67206-2563  
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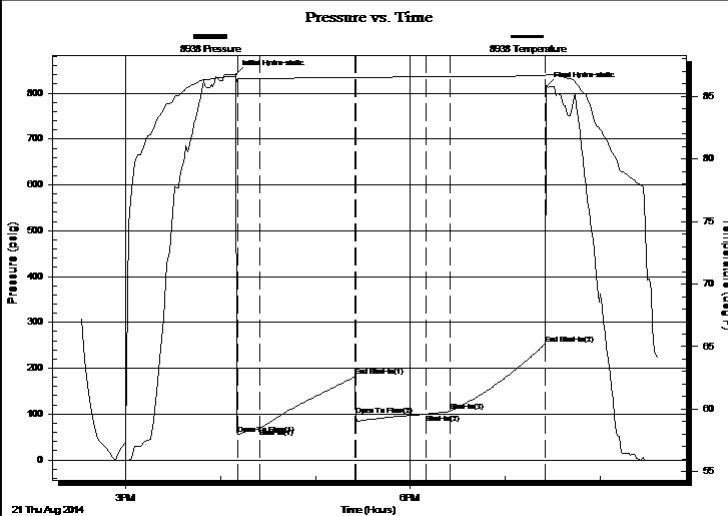
**19-19s18w Barton**  
**Kufeld #1-19 Barton**  
 Job Ticket: 60367 **DST#: 1**  
 Test Start: 2014.09.07 @ 02:10:00

## GENERAL INFORMATION:

Formation: **Herrington**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 03:48:00  
 Time Test Ended: 00:00:00  
 Interval: **1714.00 ft (KB) To 1800.00 ft (KB) (TVD)**  
 Total Depth: 1800.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: S5-20 miles  
 Reference Elevations: 1915.00 ft (KB)  
 1907.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8938 Inside**  
 Press@RunDepth: 252.74 psig @ 1795.46 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.08.21 End Date: 2014.08.21 Last Calib.: 2014.09.07  
 Start Time: 14:30:45 End Time: 20:36:45 Time On Btm: 2014.08.21 @ 16:09:45  
 Time Off Btm: 2014.08.21 @ 19:26:15

**TEST COMMENT:** 1st Opening- 30 Minutes-Fair blow built to 9 inches  
 1st Shut-In 60 Minutes-Bo blow back  
 2nd Opening 60 Minutes-Fair blow built to the bottom of the bucket in 32 minutes  
 2nd Shut-In 60 Minutes-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	840.36	86.61	Initial Hydro-static
1	55.04	86.44	Open To Flow (1)
15	69.35	86.43	Shut-In(1)
76	181.65	86.55	End Shut-In(1)
76	97.16	86.53	Open To Flow (2)
120	99.78	86.58	Shut-In(2)
136	106.44	86.59	Shut-In(3)
196	252.74	86.66	End Shut-In(2)
197	814.12	86.77	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
110.00	Drilling mud	1.54

## Gas Rates

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



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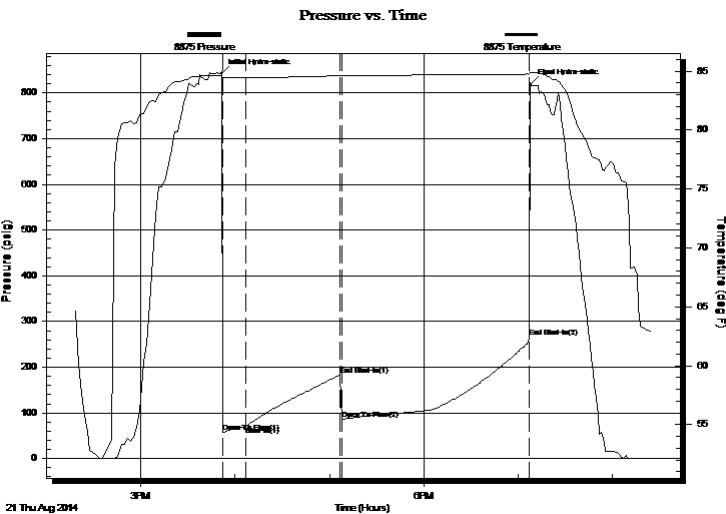
**19-19s18w Barton**  
**Kufeld #1-19 Barton**  
 Job Ticket: 60367 **DST#: 1**  
 Test Start: 2014.09.07 @ 02:10:00

## GENERAL INFORMATION:

Formation: **Herrington**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 03:48:00  
 Time Test Ended: 00:00:00  
 Interval: **1714.00 ft (KB) To 1800.00 ft (KB) (TVD)**  
 Total Depth: 1800.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: S5-20 miles  
 Reference Elevations: 1915.00 ft (KB)  
 1907.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8875 Outside**  
 Press@RunDepth: 266.49 psig @ 1796.46 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.08.21 End Date: 2014.08.21 Last Calib.: 2014.09.07  
 Start Time: 14:17:10 End Time: 20:24:33 Time On Btm: 2014.08.21 @ 15:51:33  
 Time Off Btm: 2014.08.21 @ 19:08:03

**TEST COMMENT:** 1st Opening- 30 Minutes-Fair blow built to 9 inches  
 1st Shut-In 60 Minutes-Bo blow back  
 2nd Opening 60 Minutes-Fair blow built to the bottom of the bucket in 32 minutes  
 2nd Shut-In 60 Minutes-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	842.81	84.64	Initial Hydro-static
1	56.73	84.47	Open To Flow (1)
15	70.79	84.40	Shut-In(1)
75	183.30	84.60	End Shut-In(1)
76	86.28	84.58	Open To Flow (2)
196	266.49	84.76	End Shut-In(2)
197	820.38	84.85	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
110.00	Drilling mud	1.54

## Gas Rates

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



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# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

F.G. Holl Company LLC

**19-19s18w Barton**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

**Kufeld #1-19 Barton**

Job Ticket: 60367

**DST#: 1**

ATTN: Rene Husted

Test Start: 2014.09.07 @ 02:10:00

## Tool Information

Drill Pipe:	Length: 1716.00 ft	Diameter: 3.80 inches	Volume: 24.07 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.86 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 39000.00 lb
			<u>Total Volume: 24.07 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 30000.00 lb
Depth to Top Packer:	1714.00 ft			Final 30000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	85.46 ft			
Tool Length:	113.46 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			1691.00	
Hydraulic Tool	5.00			1696.00	
Jars	6.00			1702.00	
Safety Joint	2.00			1704.00	
Top Packer	5.00			1709.00	
Packer	5.00			1714.00	28.00 Bottom Of Top Packer
Anchor	2.00			1716.00	
Change Over Sub	0.75			1716.75	
Drill Pipe	62.96			1779.71	
Change Over Sub	0.75			1780.46	
Anchor	14.00			1794.46	
Recorder	1.00	8938	Inside	1795.46	
Recorder	1.00	8875	Outside	1796.46	
Bull Plug	3.00			1799.46	85.46 Anchor Tool

**Total Tool Length: 113.46**



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**FLUID SUMMARY**

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Job Ticket: 60367      **DST#: 1**  
Test Start: 2014.09.07 @ 02:10:00

## Mud and Cushion Information

Mud Type: STARCH	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 42.00 sec/qt	Cushion Volume: bbl		
Water Loss: in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
110.00	Drilling mud	1.543

Total Length: 110.00 ft      Total Volume: 1.543 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

# Pressure vs. Time

