



DRILL STEM TEST REPORT

Prepared For: **F.G.Holl Company L.L.C.**

9431 east Central Suite 100
Wichita, Kansas 67206

ATTN: Rene Husted

Button "A" Unit #1-24

29-19s-15w Barton

Start Date: 2012.09.02 @ 00:00:00

End Date: 2012.09.02 @ 00:00:00

Job Ticket #: 17791 DST #: 2

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

Printed: 2012.09.02 @ 13:34:42

F.G.Holl Company L.L.C.

29-19s-15w Barton

Button "A" Unit #1-24

DST # 2

Cottonwood

2012.09.02



DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.

29-19s-15w Barton

9431 east Central Suite 100
Wichita, Kansas 67206

Button "A" Unit #1-24

Job Ticket: 17791

DST#: 2

ATTN: Rene Hustedad

Test Start: 2012.09.02 @ 00:00:00

GENERAL INFORMATION:

Formation: **Cottonwood**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 3335-22

Interval: 2188.00 ft (KB) To 2231.00 ft (KB) (TVD)

Reference Elevations: 1915.00 ft (KB)

Total Depth: 2231.00 ft (KB) (TVD)

1907.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6839 Outside

Press @ Run Depth: 728.96 psia @ 2228.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.09.02

End Date: 2012.09.02

Last Calib.: 2012.09.02

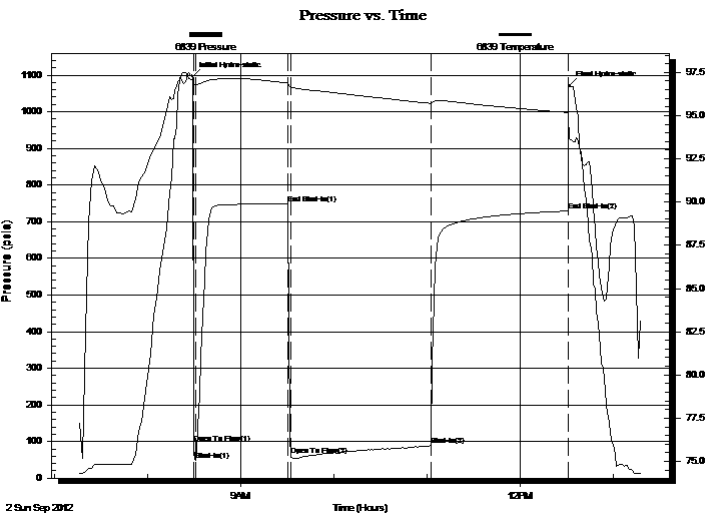
Start Time: 07:15:00

End Time: 13:18:30

Time On Btm: 2012.09.02 @ 08:29:00

Time Off Btm: 2012.09.02 @ 12:32:00

TEST COMMENT: 1st Opening 2 Minutes-Strong blow bottom of a 5 gallon bucket in 30 seconds
 1st Shut-In 60 Minutes-No blow back
 2nd Opening 90 Minutes-Strong blow with gas to surface in 6 minutes SEE GAS REPORT
 2nd Shut-In 90 Minutes--Fair blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1097.34	97.07	Initial Hydro-static
1	95.71	96.81	Open To Flow (1)
2	48.64	96.80	Shut-In(1)
62	748.07	96.88	End Shut-In(1)
63	63.42	96.66	Open To Flow (2)
154	90.87	95.71	Shut-In(2)
242	728.96	95.18	End Shut-In(2)
243	1071.00	93.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	Drilling Mud	1.26

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.50	6.65	44.86
Last Gas Rate	0.50	14.83	100.04
Max. Gas Rate	0.50	14.83	100.04



DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.

29-19s-15w Barton

9431 east Central Suite 100
Wichita, Kansas 67206

Button "A" Unit #1-24

ATTN: Rene Hustedad

Job Ticket: 17791

DST#: 2

Test Start: 2012.09.02 @ 00:00:00

GENERAL INFORMATION:

Formation: **Cottonwood**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 3335-22

Interval: 2188.00 ft (KB) To 2231.00 ft (KB) (TVD)

Reference Elevations: 1915.00 ft (KB)

Total Depth: 2231.00 ft (KB) (TVD)

1907.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6838 Inside

Press @ Run Depth: 729.65 psia @ 2227.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.09.02

End Date: 2012.09.02

Last Calib.: 2012.09.02

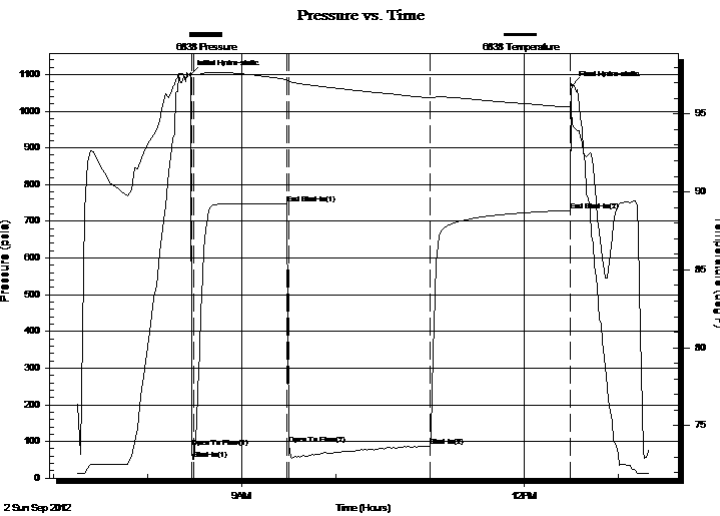
Start Time: 07:15:00

End Time: 13:20:23

Time On Btm: 2012.09.02 @ 08:27:23

Time Off Btm: 2012.09.02 @ 12:30:23

TEST COMMENT: 1st Opening 2 Minutes-Strong blow bottom of a 5 gallon bucket in 30 seconds
 1st Shut-In 60 Minutes-No blow back
 2nd Opening 90 Minutes-Strong blow with gas to surface in 6 minutes SEE GAS REPORT
 2nd Shut-In 90 Minutes--Fair blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1100.66	97.62	Initial Hydro-static
1	82.76	97.51	Open To Flow (1)
2	51.97	97.50	Shut-In(1)
62	748.98	97.20	End Shut-In(1)
63	91.98	97.09	Open To Flow (2)
153	86.61	96.03	Shut-In(2)
242	729.65	95.43	End Shut-In(2)
243	1071.24	94.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	Drilling Mud	1.26

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.50	6.65	44.86
Last Gas Rate	0.50	14.83	100.04
Max. Gas Rate	0.50	14.83	100.04



DRILL STEM TEST REPORT

TOOL DIAGRAM

F.G.Holl Company L.L.C.

29-19s-15w Barton

9431 east Central Suite 100
Wichita, Kansas 67206

Button "A" Unit #1-24

Job Ticket: 17791

DST#: 2

ATTN: Rene Husted

Test Start: 2012.09.02 @ 00:00:00

Tool Information

Drill Pipe:	Length: 2164.00 ft	Diameter: 3.80 inches	Volume: 30.36 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 35000.00 lb
			<u>Total Volume: 30.36 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 28000.00 lb
Depth to Top Packer:	2188.00 ft			Final 28000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	43.00 ft			
Tool Length:	71.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			2165.00	
Hydraulic Tool	5.00			2170.00	
Jars	6.00			2176.00	
Safety Joint	2.00			2178.00	
Packer	5.00			2183.00	28.00 Bottom Of Top Packer
Packer	5.00			2188.00	
Perforations	38.00			2226.00	
Recorder	1.00	6838	Inside	2227.00	
Recorder	1.00	6839	Outside	2228.00	
Bull Plug	3.00			2231.00	43.00 Bottom Packers & Anchor
Total Tool Length:	71.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

F.G.Holl Company L.L.C.

29-19s-15w Barton

9431 east Central Suite 100
Wichita, Kansas 67206

Button "A" Unit #1-24

Job Ticket: 17791

DST#: 2

ATTN: Rene Husted

Test Start: 2012.09.02 @ 00:00:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 38.00 sec/qt
Water Loss: 9.20 in³
Resistivity: ohm.m
Salinity: 4600.00 ppm
Filter Cake: 1.00 inches

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

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	Drilling Mud	1.262

Total Length: 90.00 ft Total Volume: 1.262 bbl

Num Fluid Samples: 0

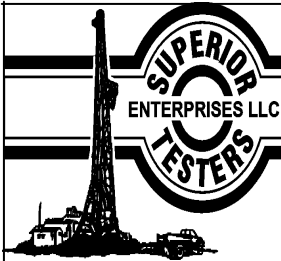
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



DRILL STEM TEST REPORT

GAS RATES

F.G.Holl Company L.L.C.

29-19s-15w Barton

9431 east Central Suite 100
Wichita, Kansas 67206

Button "A" Unit #1-24

Job Ticket: 17791

DST#: 2

ATTN: Rene Husted

Test Start: 2012.09.02 @ 00:00:00

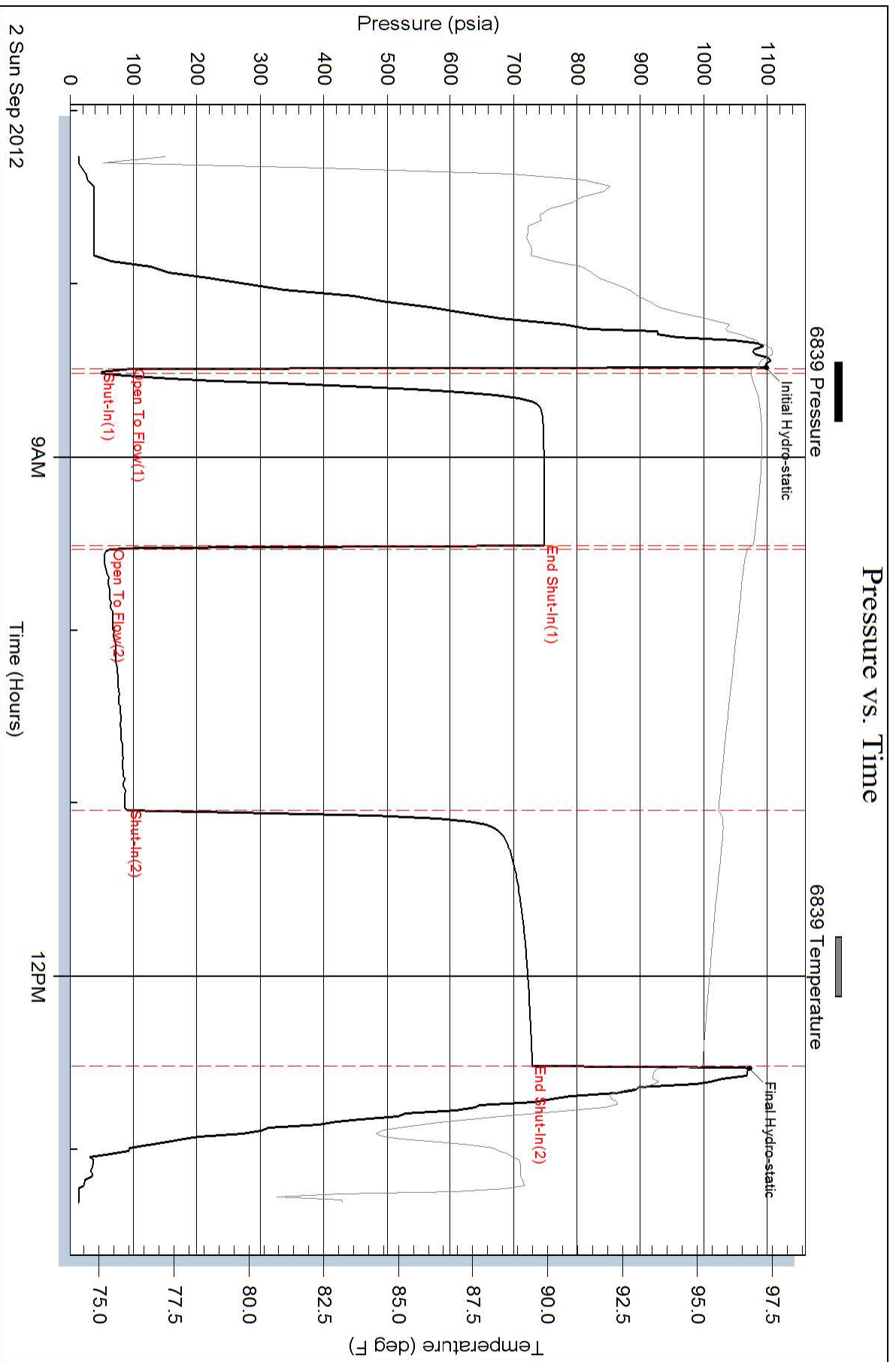
Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
2	5	0.50	6.65	44.86
2	10	0.50	7.30	49.24
2	20	0.50	9.40	63.41
2	30	0.50	11.50	77.58
2	40	0.50	12.95	87.36
2	50	0.50	13.65	92.08
2	60	0.50	13.95	94.10
2	70	0.50	14.60	98.49
2	80	0.50	14.70	99.16
2	90	0.50	14.83	100.04

Pressure vs. Time



Pressure vs. Time

