



DRILL STEM TEST REPORT

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

9431 East Central Suite 100
Wichita, Kansas 672

ATTN: Rene Hustead

Penne Trut Unit#1-15

15-20s-15w

Start Date: 2012.07.25 @ 00:00:00

End Date: 2012.07.25 @ 00:00:00

Job Ticket #: 17782 DST #: 2

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

Printed: 2012.07.26 @ 11:06:42

F.G.Holl Company L.L.C.
15-20s-15w
Penne Trut Unit#1-15
DST # 2
Arbuckle
2012.07.25



DRILL STEM TEST REPORT

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

15-20s-15w

9431 East Central Suite 100
Wichita, Kansas 672

Penne Trut Unit#1-15

Job Ticket: 17782

DST#: 2

ATTN: Rene Husted

Test Start: 2012.07.25 @ 00:00:00

GENERAL INFORMATION:

Formation: **Arbuckle**

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

Interval: **3707.00 ft (KB) To 3721.00 ft (KB) (TVD)**

Reference Elevations: 1984.00 ft (KB)

Total Depth: 3721.00 ft (KB) (TVD)

1976.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: **91716** Outside

Press @ Run Depth: 907.98 psia @ 3718.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.07.25

End Date: 2012.07.25

Last Calib.: 2012.07.25

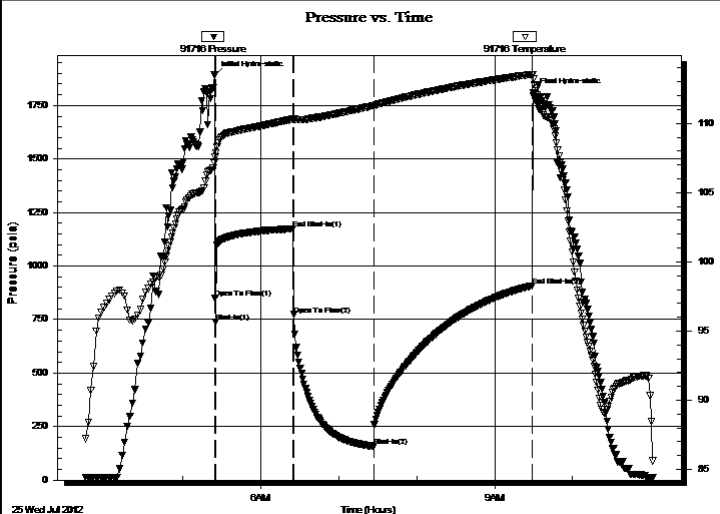
Start Time: 03:45:30

End Time: 11:02:00

Time On Btm: 2012.07.25 @ 05:24:29

Time Off Btm: 2012.07.25 @ 09:30:00

TEST COMMENT: 1st Opening 2 Minutes Strong blow gas to surface in 1 minute
 1st Shut-In 60 Minutes-Fair blow back
 2nd Opening 60 Minutes-Strong blow see gas report
 2nd Shut-In 120 Minutes- Fair blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1891.12	107.16	Initial Hydro-static
1	849.55	107.55	Open To Flow (1)
2	738.10	107.85	Shut-In(1)
61	1173.50	110.31	End Shut-In(1)
62	773.28	110.30	Open To Flow (2)
123	159.40	111.29	Shut-In(2)
245	907.98	113.53	End Shut-In(2)
246	1811.03	113.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	CLEAN OIL GRAVITY 38 CORRECTED	1.40
20.00	MUDDY OIL 20%OIL 80% MUD	0.28

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	1.00	81.74	2349.93
Last Gas Rate	1.00	22.75	654.04
Max. Gas Rate	1.00	81.74	2349.93



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Penne Trut Unit#1-15

Job Ticket: 17782

DST#: 2

ATTN: Rene Husted

Test Start: 2012.07.25 @ 00:00:00

GENERAL INFORMATION:

Formation: **Arbuckle**

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

Interval: 3707.00 ft (KB) To 3721.00 ft (KB) (TVD)

Reference Elevations: 1984.00 ft (KB)

Total Depth: 3721.00 ft (KB) (TVD)

1976.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524 Inside

Press @ Run Depth: 909.28 psia @ 3717.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.07.25

End Date: 2012.07.25

Last Calib.: 2012.07.25

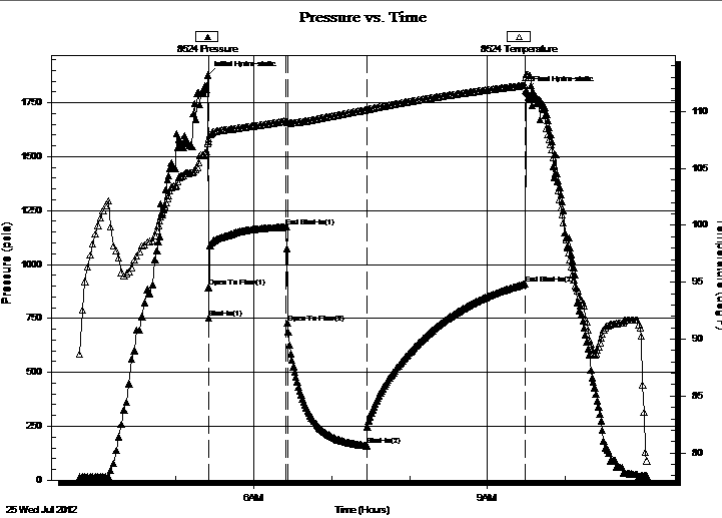
Start Time: 03:46:00

End Time: 11:03:00

Time On Btm: 2012.07.25 @ 05:24:30

Time Off Btm: 2012.07.25 @ 09:30:00

TEST COMMENT: 1st Opening 2 Minutes Strong blow gas to surface in 1 minute
 1st Shut-In 60 Minutes-Fair blow back
 2nd Opening 60 Minutes-Strong blow see gas report
 2nd Shut-In 120 Minutes- Fair blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1877.86	107.21	Initial Hydro-static
1	893.74	107.37	Open To Flow (1)
1	750.84	107.61	Shut-In(1)
61	1173.72	109.17	End Shut-In(1)
62	727.07	109.03	Open To Flow (2)
123	159.46	110.15	Shut-In(2)
245	909.28	112.29	End Shut-In(2)
246	1804.46	113.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	CLEAN OIL GRAVITY 38 CORRECTED	1.40
20.00	MUDDY OIL 20%OIL 80% MUD	0.28

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	1.00	81.74	2349.93
Last Gas Rate	1.00	22.75	654.04
Max. Gas Rate	1.00	81.74	2349.93



DRILL STEM TEST REPORT

TOOL DIAGRAM

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

15-20s-15w

9431 East Central Suite 100
Wichita, Kansas 672

Penne Trut Unit#1-15

Job Ticket: 17782

DST#: 2

ATTN: Rene Husted

Test Start: 2012.07.25 @ 00:00:00

Tool Information

Drill Pipe:	Length: 3695.00 ft	Diameter: 3.80 inches	Volume: 51.83 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 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: 45000.00 lb
			<u>Total Volume: 51.83 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3707.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	14.00 ft			
Tool Length:	42.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut-In Tool	5.00			3684.00	
Hydraulic Tool	5.00			3689.00	
Jars	6.00			3695.00	
Safety Joint	2.00			3697.00	
Packer	5.00			3702.00	28.00 Bottom Of Top Packer
Packer	5.00			3707.00	
Perforations	9.00			3716.00	
Recorder	1.00	8524	Inside	3717.00	
Recorder	1.00	91716	Outside	3718.00	
Bull Plug	3.00			3721.00	14.00 Bottom Packers & Anchor
Total Tool Length:	42.00				



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FLUID SUMMARY

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Penne Trut Unit#1-15

Job Ticket: 17782

DST#: 2

ATTN: Rene Husted

Test Start: 2012.07.25 @ 00:00:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 54.00 sec/qt
Water Loss: 9.19 in³
Resistivity: ohm.m
Salinity: 6000.00 ppm
Filter Cake: 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
100.00	CLEAN OIL GRAVITY 38 CORRECTED	1.403
20.00	MUDDY OIL 20%OIL 80% MUD	0.281

Total Length: 120.00 ft Total Volume: 1.684 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



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GAS RATES

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

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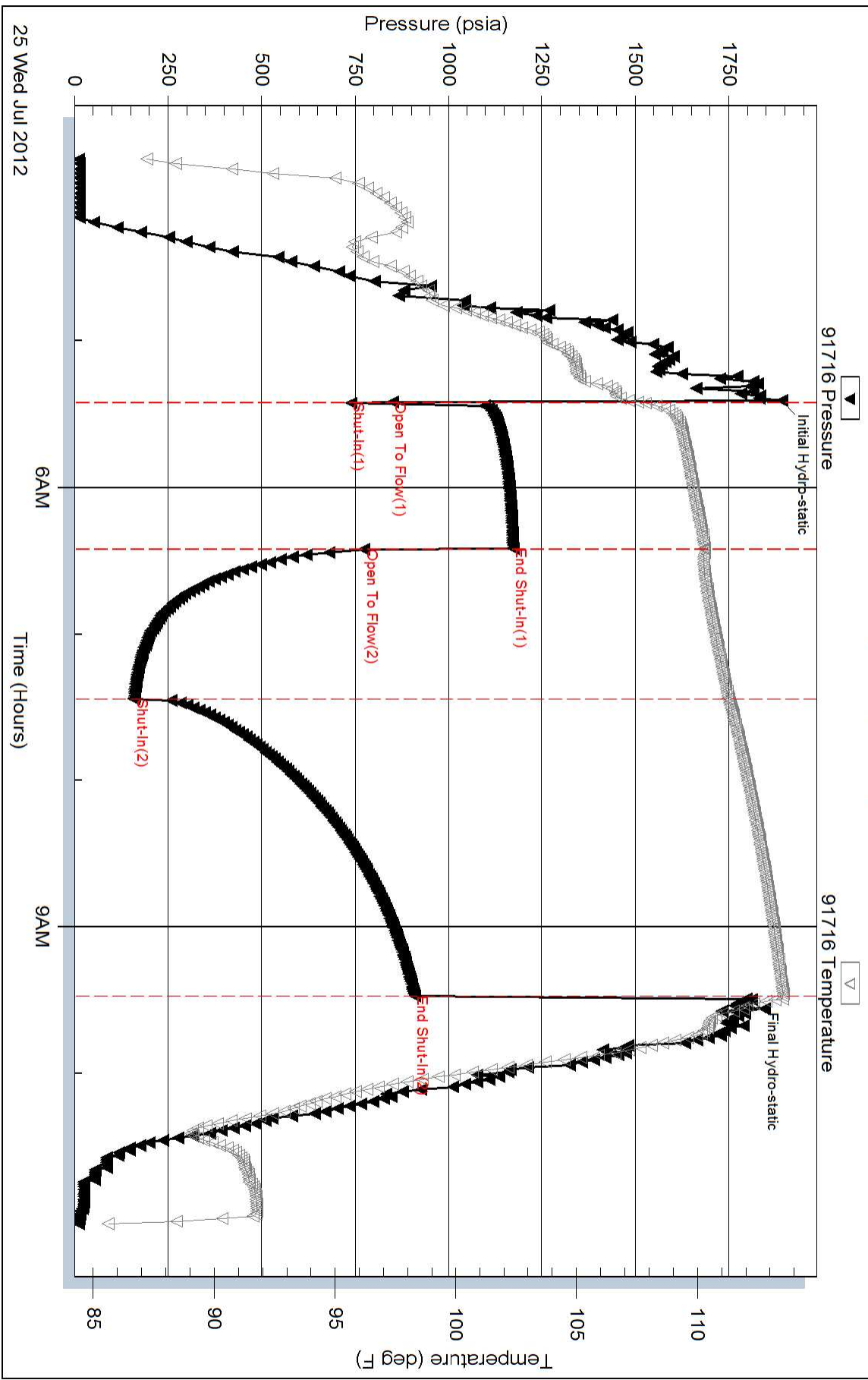
Gas Rates Information

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	10	1.00	81.74	2349.93
2	20	1.00	44.33	1274.43
2	30	1.00	39.00	1121.20
2	40	1.00	30.00	862.46
2	50	1.00	26.60	764.72
2	60	1.00	22.75	654.04

Pressure vs. Time



Pressure vs. Time

