



## DRILL STEM TEST REPORT

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

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

ATTN: Ryan Greenbaum

### **Mull "A" Unit #1-3**

### **3-30s-15w Barton**

Start Date: 2012.08.05 @ 00:00:00

End Date: 2012.08.05 @ 00:00:00

Job Ticket #: 17784                      DST #: 3

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

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ATTN: Ryan Greenbaum

Test Start: 2012.08.05 @ 00:00:00

## GENERAL INFORMATION:

Formation: **Conglomerate & Arbuc**

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: 335

**Interval: 3550.00 ft (KB) To 3690.00 ft (KB) (TVD)**

Reference Elevations: 1964.00 ft (KB)

Total Depth: 3690.00 ft (KB) (TVD)

1956.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8524 Inside**

Press @ Run Depth: 180.70 psia @ 3686.13 ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.08.05

End Date:

2012.08.05

Last Calib.:

2012.08.05

Start Time:

01:45:00

End Time:

06:56:30

Time On Btm:

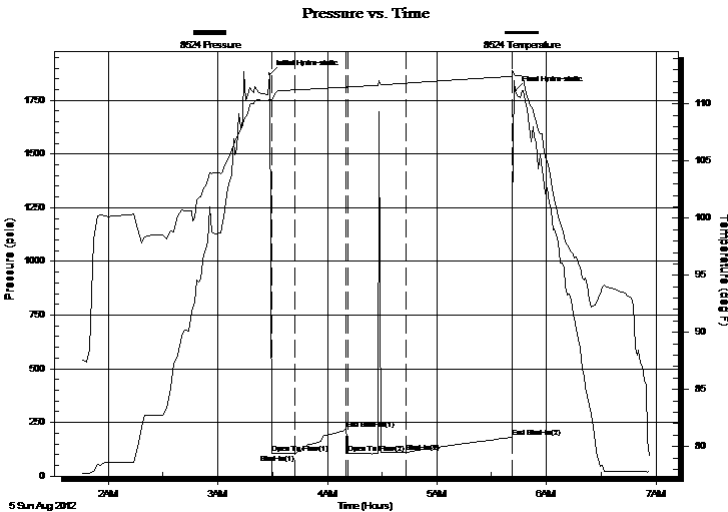
2012.08.05 @ 03:28:30

Time Off Btm:

2012.08.05 @ 05:43:00

**TEST COMMENT:** 1st Opening 15 Minutes-Weak blow and died  
 1st Shut-In 30 Minutes-No blow back  
 2nd Opening 30 Minutes-No blow -Flushed tool-Good surge-No help  
 2nd Shut-In 60 Minutes-No blow back

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1871.71         | 110.38       | Initial Hydro-static |
| 1           | 104.62          | 110.33       | Open To Flow (1)     |
| 14          | 102.27          | 111.24       | Shut-In(1)           |
| 42          | 218.43          | 111.49       | End Shut-In(1)       |
| 43          | 105.21          | 111.50       | Open To Flow (2)     |
| 75          | 109.18          | 111.83       | Shut-In(2)           |
| 133         | 180.70          | 112.43       | End Shut-In(2)       |
| 135         | 1794.48         | 112.53       | Final Hydro-static   |

## Recovery

## Gas Rates

| Length (ft) | Description  | Volume (bbl) |
|-------------|--------------|--------------|
| 20.00       | Drilling mud | 0.28         |
|             |              |              |
|             |              |              |
|             |              |              |
|             |              |              |

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



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Tester: Gene Budig

Unit No: 335

**Interval: 3550.00 ft (KB) To 3690.00 ft (KB) (TVD)**

Reference Elevations: 1964.00 ft (KB)

Total Depth: 3690.00 ft (KB) (TVD)

1956.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 91716 Outside**

Press @ Run Depth: 179.15 psia @ 3687.13 ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.08.05

End Date:

2012.08.05

Last Calib.:

2012.08.05

Start Time: 01:45:00

End Time:

06:57:00

Time On Btm:

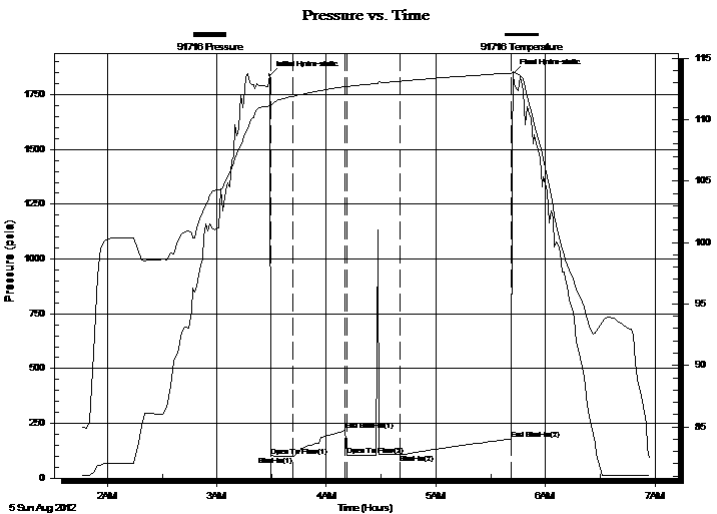
2012.08.05 @ 03:29:00

Time Off Btm:

2012.08.05 @ 05:42:30

**TEST COMMENT:** 1st Opening 15 Minutes-Weak blow and died  
1st Shut-In 30 Minutes-No blow back  
2nd Opening 30 Minutes-No blow -Flushed tool-Good surge-No help  
2nd Shut-In 60 Minutes-No blow back

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1837.28         | 111.12       | Initial Hydro-static |
| 1           | 101.60          | 111.19       | Open To Flow (1)     |
| 13          | 101.04          | 111.90       | Shut-In(1)           |
| 41          | 220.68          | 112.67       | End Shut-In(1)       |
| 42          | 103.84          | 112.68       | Open To Flow (2)     |
| 72          | 107.65          | 113.12       | Shut-In(2)           |
| 132         | 179.15          | 113.78       | End Shut-In(2)       |
| 134         | 1847.94         | 113.84       | Final Hydro-static   |

## Recovery

| Length (ft) | Description  | Volume (bbl) |
|-------------|--------------|--------------|
| 20.00       | Drilling mud | 0.28         |
|             |              |              |
|             |              |              |
|             |              |              |
|             |              |              |

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

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

**3-30s-15w Barton**

9431 East Central Suite 100  
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**Mull "A" Unit #1-3**

Job Ticket: 17784

**DST#: 3**

ATTN: Ryan Greenbaum

Test Start: 2012.08.05 @ 00:00:00

## Tool Information

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 3543.00 ft | Diameter: 3.80 inches | Volume: 49.70 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: 75000.00 lb  |
|                           |                    |                       | <u>Total Volume: 49.70 bbl</u> | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 21.00 ft           |                       |                                | String Weight: Initial 38000.00 lb |
| Depth to Top Packer:      | 3550.00 ft         |                       |                                | Final 38000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 140.13 ft          |                       |                                |                                    |
| Tool Length:              | 168.13 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   |       |         | 3527.00 |                                |
| Hydraulic Tool  | 5.00   |       |         | 3532.00 |                                |
| Jars            | 6.00   |       |         | 3538.00 |                                |
| Safety Joint    | 2.00   |       |         | 3540.00 |                                |
| Packer          | 5.00   |       |         | 3545.00 | 28.00 Bottom Of Top Packer     |
| Packer          | 5.00   |       |         | 3550.00 |                                |
| Perforations    | 4.00   |       |         | 3554.00 |                                |
| Change Over Sub | 0.75   |       |         | 3554.75 |                                |
| Drill Pipe      | 124.63 |       |         | 3679.38 |                                |
| Change Over Sub | 0.75   |       |         | 3680.13 |                                |
| Perforations    | 5.00   |       |         | 3685.13 |                                |
| Recorder        | 1.00   | 8524  | Inside  | 3686.13 |                                |
| Recorder        | 1.00   | 91716 | Outside | 3687.13 |                                |
| Bull Plug       | 3.00   |       |         | 3690.13 | 140.13 Bottom Packers & Anchor |

**Total Tool Length: 168.13**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

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Job Ticket: 17784

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ATTN: Ryan Greenbaum

Test Start: 2012.08.05 @ 00:00:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 54.00 sec/qt

Water Loss: 9.20 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 50001.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psia

Oil API:

Water Salinity: ppm

deg API

### Recovery Information

Recovery Table

| Length<br>ft | Description  | Volume<br>bbl |
|--------------|--------------|---------------|
| 20.00        | Drilling mud | 0.281         |

Total Length: 20.00 ft      Total Volume: 0.281 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

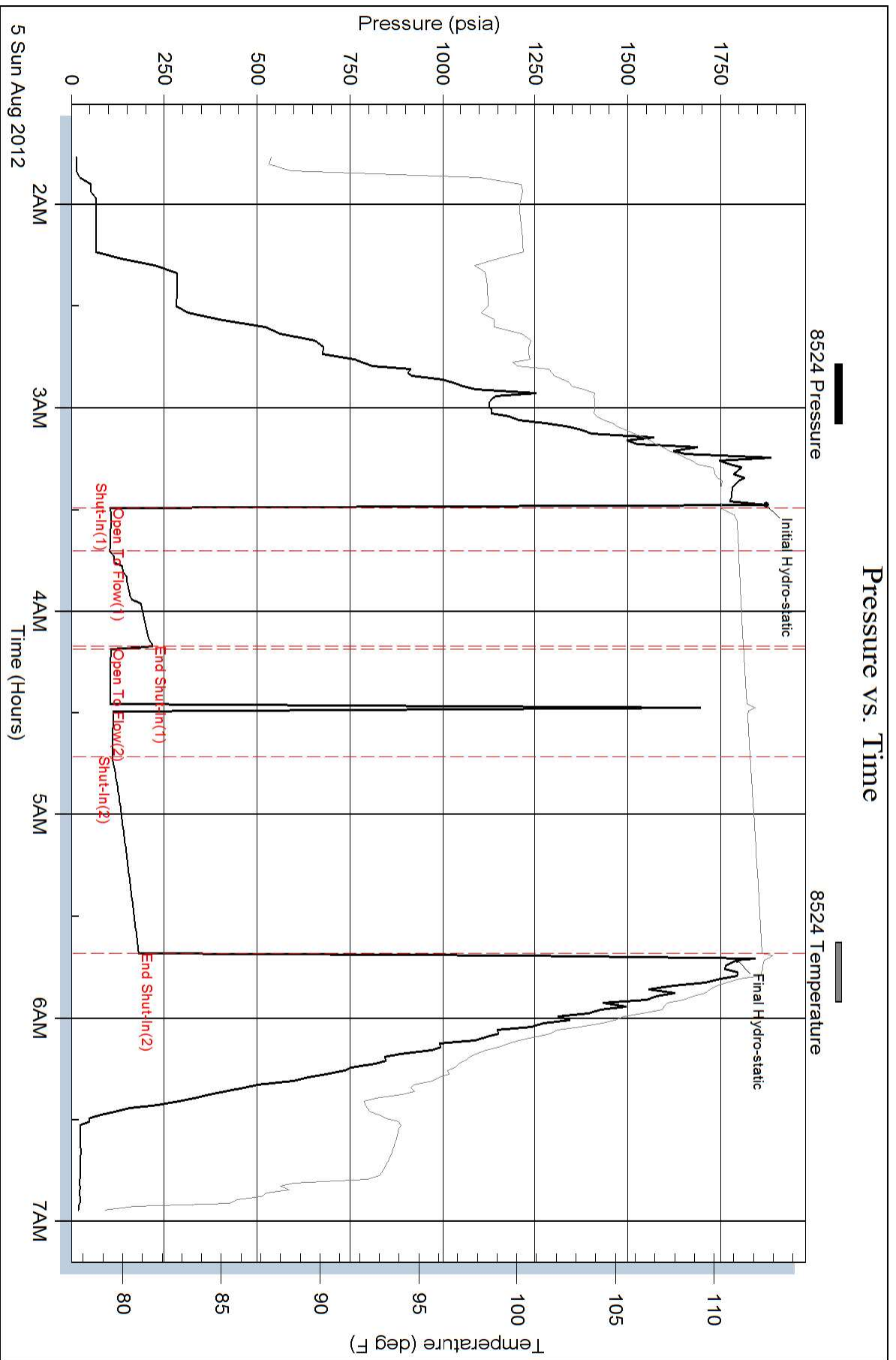
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



### Pressure vs. Time

