

DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.
 9431 East Central Suite 100
 Wichita, Kansas 67206-2563
 ATTN: ryan Greenbaum

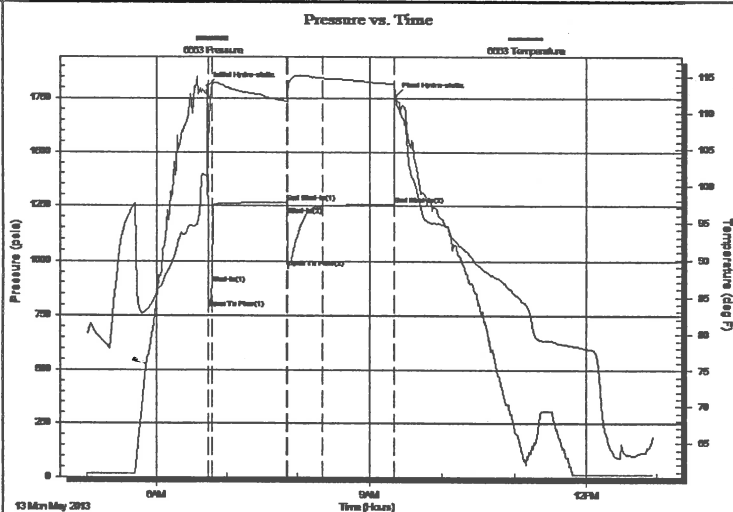
21-20s-15w
Mermis "B" OWWO #2-3
 Job Ticket: 17080 DST#: 1
 Test Start: 2013.05.13 @ 00:00:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:00:00
 Time Test Ended: 00:00:00
 Interval: **3815.00 ft (KB) To 3825.00 ft (KB) (TVD)**
 Total Depth: **3895.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: Fair
 Test Type: Conventional Straddle (Initial)
 Tester: Gene Budig
 Unit No: 3335
 Reference Elevations: 2004.00 ft (KB)
 1996.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6663 Inside
 Press@RunDepth: 1256.13 psia @ 3823.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2013.05.13 End Date: 2013.05.13 Last Calib.: 2013.05.14
 Start Time: 05:00:00 End Time: 12:57:00 Time On Btm: 2013.05.13 @ 06:43:30
 Time Off Btm: 2013.05.13 @ 09:21:30

TEST COMMENT: 1st Opening 5 Minutes Good blow built to the bottom of a 5 gallon bucket in 45 seconds
 1st Shut-in 60 Minutes -Strong blow back built to the bottom of a 5 gallon bucket
 2nd Opening 30 Minutes -Strong blow decreased to a weak blow
 2nd Shut-in 60 Minutes Strong blow built to the bottom of the bucket



PRESSURE SUMMARY

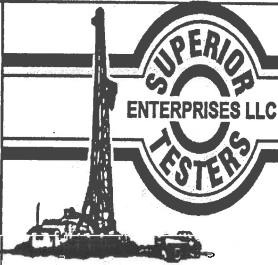
| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1807.13 | 101.32 | Initial Hydro-static |
| 1 | 781.08 | 105.75 | Open To Flow (1) |
| 4 | 891.59 | 113.89 | Shut-In(1) |
| 67 | 1263.61 | 111.69 | End Shut-In(1) |
| 68 | 967.89 | 111.49 | Open To Flow (2) |
| 98 | 1247.96 | 114.86 | Shut-In(2) |
| 157 | 1256.13 | 114.07 | End Shut-In(2) |
| 158 | 1759.27 | 112.60 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---|--------------|
| 0.00 | 800 Feet of Gas in The Pipe | 0.00 |
| 400.00 | Slightly gas cut slightly muddy w water | 5.61 |
| 2400.00 | Slightly Gas cut Water | 33.67 |
| 0.00 | Chlorides 30,000 | 0.00 |
| | | |

Gas Rates

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



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21-20s-15w

9431 East Central Suite 100
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Mermis "B" OWWO #2-3

Job Ticket: 17080

DST#: 1

ATTN: ryan Greenbaum

Test Start: 2013.05.13 @ 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 Straddle (Initial)

Tester: Gene Budig

Unit No: 3335

Interval: **3815.00 ft (KB) To 3825.00 ft (KB) (TVD)**

Total Depth: 3895.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2004.00 ft (KB)

1996.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6748

Inside

Press@RunDepth: psia @ 3896.11 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.05.13

End Date: 2013.05.13

Last Calib.: 2013.05.14

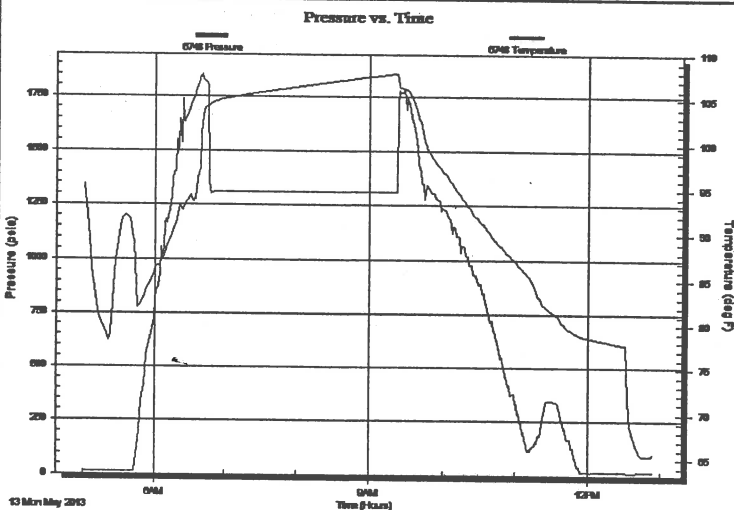
Start Time: 05:00:00

End Time: 12:55:00

Time On Btm:

Time Off Btm:

TEST COMMENT: 1st Opening 5 Minutes Good blow built to the bottom of a 5 gallon bucket in 45 seconds
 1st Shut-in 60 Minutes -Strong blow back built to the bottom of a 5 gallon bucket
 2nd Opening 30 Minutes -Strong blow decreased to a weak blow
 2nd Shut-in 60 Minutes Strong blow built to the bottom of the bucket



PRESSURE SUMMARY

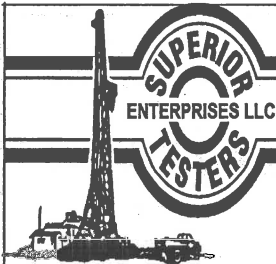
| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
| | | | |
| | | | |
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| | | | |
| | | | |
| | | | |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------------------------|--------------|
| 0.00 | 800 Feet of Gas in The Pipe | 0.00 |
| 400.00 | Slightly gas cut slightly muddy water | 5.61 |
| 2400.00 | Slightly Gas cut Water | 33.67 |
| 0.00 | Chlorides 30,000 | 0.00 |
| | | |
| | | |

Gas Rates

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



DRILL STEM TEST REPORT

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

21-20s-15w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

Mermis "B" OWWO #2-3

Job Ticket: 17080

DST#: 1

ATTN: ryan Greenbaum

Test Start: 2013.05.13 @ 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 Straddle (Initial)

Tester: Gene Budig

Unit No: 3335

Interval: **3815.00 ft (KB) To 3825.00 ft (KB) (TVD)**

Reference Elevations: 2004.00 ft (KB)

Total Depth: 3895.00 ft (KB) (TVD)

1996.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: **8419** Outside

Press@RunDepth: 1255.16 psia @ 3824.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.05.13

End Date: 2013.05.13

Last Calib.: 2013.05.14

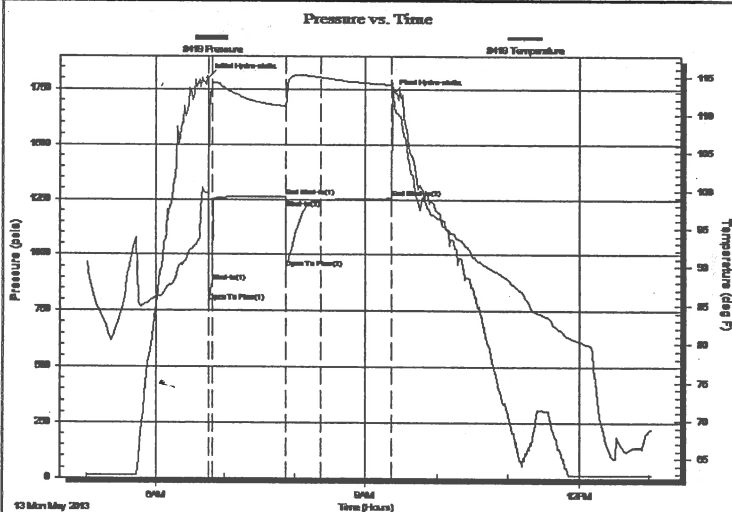
Start Time: 05:00:00

End Time: 13:03:00

Time On Btm: 2013.05.13 @ 06:46:00

Time Off Btm: 2013.05.13 @ 09:23:00

TEST COMMENT: 1st Opening 5 Minutes Good blow built to the bottom of a 5 gallon bucket in 45 seconds
 1st Shut-In 60 Minutes -Strong blow back built to the bottom of a 5 gallon bucket
 2nd Opening 30 Minutes -Strong blow decreased to a weak blow
 2nd Shut-in 60 Minutes Strong blow built to the bottom of the bucket



PRESSURE SUMMARY

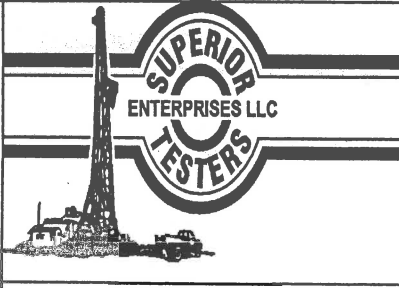
| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1798.96 | 99.52 | Initial Hydro-static |
| 1 | 787.17 | 101.69 | Open To Flow (1) |
| 4 | 875.77 | 113.66 | Shut-In(1) |
| 67 | 1262.79 | 111.13 | End Shut-In(1) |
| 67 | 938.04 | 110.90 | Open To Flow (2) |
| 97 | 1246.63 | 114.89 | Shut-In(2) |
| 156 | 1255.16 | 113.90 | End Shut-In(2) |
| 157 | 1728.03 | 113.44 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--|--------------|
| 0.00 | 800 Feet of Gas in The Pipe | 0.00 |
| 400.00 | Slightly gas cut slightly muddy w ater | 5.61 |
| 2400.00 | Slightly Gas cut Water | 33.67 |
| 0.00 | Chlorides 30,000 | 0.00 |

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

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

21-20s-15w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

Mermis "B" OWWO #2-3

Job Ticket: 17080

DST#: 1

ATTN: ryan Greenbaum

Test Start: 2013.05.13 @ 00:00:00

Tool Information

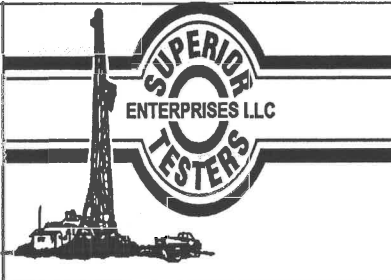
| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3796.00 ft | Diameter: 3.80 inches | Volume: 53.25 bbl | Tool Weight: 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | 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: 68000.00 lb |
| | | | <u>Total Volume: 53.25 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 5.00 ft | | | String Weight: Initial 42000.00 lb |
| Depth to Top Packer: | 3815.00 ft | | | Final lb |
| Depth to Bottom Packer: | 3825.00 ft | | | |
| Interval between Packers: | 10.00 ft | | | |
| Tool Length: | 108.11 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 3792.00 | |
| Shut-In Tool | 5.00 | | | 3797.00 | |
| Hydroic Tool | 5.00 | | | 3802.00 | |
| Jars | 6.00 | | | 3808.00 | |
| Safety Joint | 2.00 | | | 3810.00 | |
| Packer | 5.00 | | | 3815.00 | 24.00 Bottom Of Top Packer |
| Anchor | 7.00 | | | 3822.00 | |
| Recorder | 1.00 | 6663 | Inside | 3823.00 | |
| Recorder | 1.00 | 8419 | Outside | 3824.00 | |
| Blank Off Sub | 1.00 | | | 3825.00 | 10.00 Tool Interval |
| Packer | 5.00 | | | 3830.00 | |
| Perforations | 6.00 | | | 3836.00 | |
| Change Over Sub | 0.75 | | | 3836.75 | |
| Drill Pipe | 31.61 | | | 3868.36 | |
| Change Over Sub | 0.75 | | | 3869.11 | |
| Perforations | 26.00 | | | 3895.11 | |
| Recorder | 1.00 | 6748 | Inside | 3896.11 | |
| Bullnose | 3.00 | | | 3899.11 | 74.11 Bottom Packers & Anchor |

Total Tool Length: 108.11



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FLUID SUMMARY

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21-20s-15w
Mermis "B" OWWO #2-3
 Job Ticket: 17080 DST#: 1
 Test Start: 2013.05.13 @ 00:00:00

Mud and Cushion Information

Mud Type: Gel Chem
 Mud Weight: 9.00 lb/gal
 Viscosity: 69.00 sec/qt
 Water Loss: 8.79 in³
 Resistivity: ohm.m
 Salinity: 8100.00 ppm
 Filter Cake: 1.00 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 ft | Description | Volume bbl |
|--------------|---------------------------------------|---------------|
| 0.00 | 800 Feet of Gas in The Pipe | 0.000 |
| 400.00 | Slightly gas cut slightly muddy water | 5.611 |
| 2400.00 | Slightly Gas cut Water | 33.666 |
| 0.00 | Chlorides 30,000 | 0.000 |

Total Length: 2800.00 ft Total Volume: 39.277 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Serial #: 6663

Inside: F.G.Holl Company L.L.C.

Norris "B" OWWO #2-3

DST Test Number: 1

