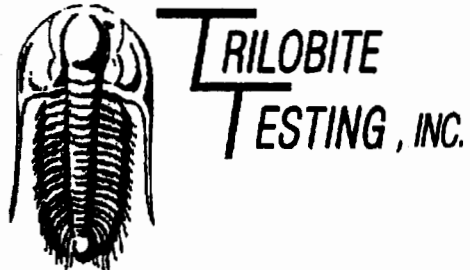


15-039-21035

15-5s-29w



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling**

250 N Water Ste 300  
Wichita KS 67202

ATTN: Rocky Milford

**19 5 29 Decatur KS**

**Green O'Brien #6-19**

Start Date: 2008.01.09 @ 15:20:16

End Date: 2008.01.09 @ 23:03:40

Job Ticket #: 31470      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

RECEIVED  
KANSAS CORPORATION COMMISSION  
SEP 08 2009  
CONSERVATION DIVISION  
WICHITA, KS

Murfin Drilling

Green O'Brien #6-19

19 5 29 Decatur KS

DST # 1

Toronto - Lans. C

2008.01.09



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Murfin Drilling

250 N Water Ste 300  
Wichita KS 67202

ATTN: Rocky Milford

Green O'Brien #6-19

19 5 29 Decatur KS

Job Ticket: 31470

DST#: 1

Test Start: 2008.01.09 @ 15:20:16

### GENERAL INFORMATION:

Formation: Toronto - Lans. C

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:32:11

Time Test Ended: 23:03:40

Test Type: Conventional Bottom Hole

Tester: Brandon Domsch

Unit No: 18

Interval: 3857.00 ft (KB) To 3937.00 ft (KB) (TVD)

Total Depth: 3937.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2840.00 ft (KB)

2835.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8366

Inside

Press@RunDepth: 60.85 psig @ 3858.00 ft (KB)

Start Date: 2008.01.09

End Date:

2008.01.09

Capacity: 7000.00 psig

Last Calib.: 2008.01.09

Start Time: 15:20:16

End Time:

23:03:40

Time On Btrc: 2008.01.09 @ 17:27:41

Time Off Btrc: 2008.01.09 @ 21:11:40

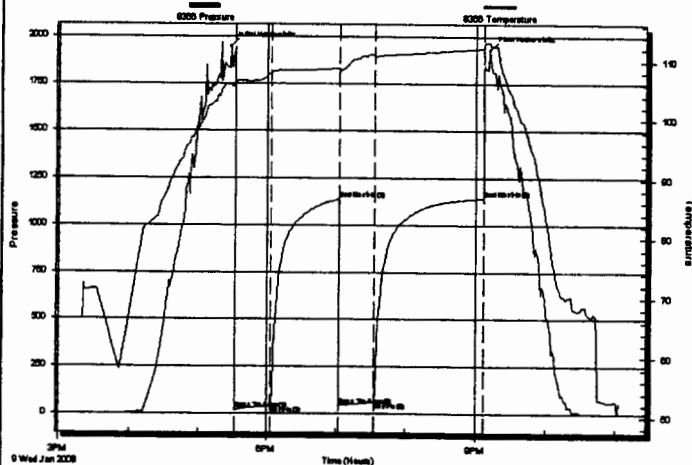
TEST COMMENT: IF Built to 1 3/4 "

IS No return

FF No blow

FS No return

Pressure vs. Time



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1948.56         | 106.04       | Initial Hydro-static |
| 5           | 20.01           | 106.18       | Open To Flow (1)     |
| 36          | 40.26           | 107.94       | Shut-In(1)           |
| 95          | 1135.81         | 108.82       | End Shut-In(1)       |
| 96          | 44.54           | 108.16       | Open To Flow (2)     |
| 125         | 60.85           | 110.96       | Shut-In(2)           |
| 219         | 1141.95         | 112.20       | End Shut-In(2)       |
| 224         | 1935.93         | 113.21       | Final Hydro-static   |

### Recovery

| Length (ft) | Description                 | Volume (bbl) |
|-------------|-----------------------------|--------------|
| 65.00       | Lightly O spotted Mud 100%M | 0.32         |
|             |                             |              |
|             |                             |              |
|             |                             |              |
|             |                             |              |
|             |                             |              |

### Gas Rates

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



**TRILOBITE**  
**TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling

250 N Water Ste 300  
Wichita KS 67202

ATTN: Rocky Milford

Green O'Brien #6-19

19 5 29 Decatur KS

Job Ticket: 31470

DST#: 1

Test Start: 2008.01.09 @ 15:20:16

### Tool Information

|                           |                    |                       |                   |                        |             |
|---------------------------|--------------------|-----------------------|-------------------|------------------------|-------------|
| Drill Pipe:               | Length: 3671.00 ft | Diameter: 3.80 inches | Volume: 51.49 bbl | Tool Weight:           | 1500.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl  | Weight set on Packer:  | 25000.00 lb |
| Drill Collar:             | Length: 179.00 ft  | Diameter: 2.25 inches | Volume: 0.88 bbl  | Weight to Pull Loose:  | 55000.00 lb |
|                           |                    | Total Volume:         | 52.37 bbl         | Tool Chased            | 5.00 ft     |
| Drill Pipe Above KB:      | 21.00 ft           |                       |                   | String Weight: Initial | 50000.00 lb |
| Depth to Top Packer:      | 3857.00 ft         |                       |                   | Final                  | 50000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                   |                        |             |
| Interval between Packers: | 80.00 ft           |                       |                   |                        |             |
| Tool Length:              | 108.00 ft          |                       |                   |                        |             |
| Number of Packers:        | 2                  | Diameter:             | 6.75 inches       |                        |             |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub  | 1.00        |            |          | 3830.00    |                               |
| Shut In Tool     | 5.00        |            |          | 3835.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 3840.00    |                               |
| Jars             | 5.00        |            |          | 3845.00    |                               |
| Safety Joint     | 3.00        |            |          | 3848.00    |                               |
| Packer           | 5.00        |            |          | 3853.00    | 28.00 Bottom Of Top Packer    |
| Packer           | 4.00        |            |          | 3857.00    |                               |
| Stubb            | 1.00        |            |          | 3858.00    |                               |
| Recorder         | 0.00        | 8366       | Inside   | 3858.00    |                               |
| Recorder         | 0.00        | 6672       | Inside   | 3858.00    |                               |
| Perforations     | 12.00       |            |          | 3870.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3871.00    |                               |
| Drill Pipe       | 62.00       |            |          | 3933.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3934.00    |                               |
| Bullnose         | 3.00        |            |          | 3937.00    | 80.00 Bottom Packers & Anchor |

**Total Tool Length: 108.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Murfin Drilling

**Green O'Brien #6-19**

250 N Water Ste 300  
Wichita KS 67202

**19 5 29 Decatur KS**

Job Ticket: 31470

DST#: 1

ATTN: Rocky Milford

Test Start: 2008.01.09 @ 15:20:16

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description                 | Volume<br>bbl |
|--------------|-----------------------------|---------------|
| 65.00        | Lightly O spotted Mud 100%M | 0.320         |

Total Length: 65.00 ft

Total Volume: 0.320 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

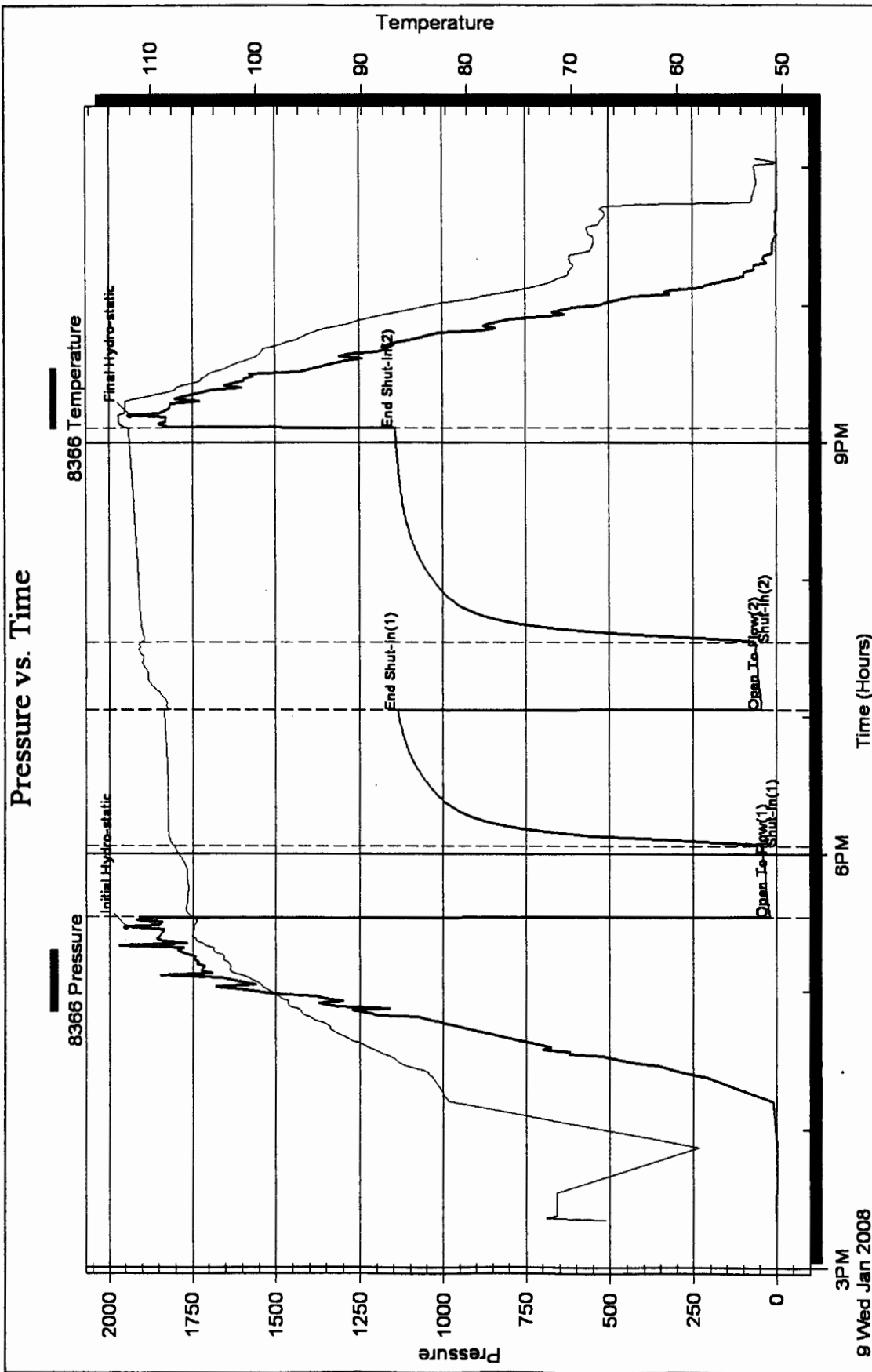
Serial #:

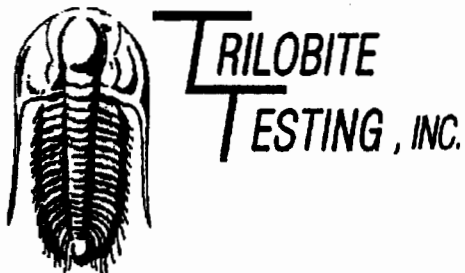
Laboratory Name:

Laboratory Location:

Recovery Comments:

# Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling**

250 N Water Ste 300  
Wichita KS 67202

ATTN: Rocky Milford

**19 5 29 Decatur KS**

**Green O'Brien #6-19**

Start Date: 2008.01.10 @ 08:55:50

End Date: 2008.01.10 @ 16:45:20

Job Ticket #: 31471                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE**  
**TESTING, INC**

## DRILL STEM TEST REPORT

Murfin Drilling

250 N Water Ste 300  
Wichita KS 67202

ATTN: Rocky Milford

Green O'Brien #6-19

19 5 29 Decatur KS

Job Ticket: 31471

DST#: 2

Test Start: 2008.01.10 @ 08:55:50

### GENERAL INFORMATION:

Formation: **Lans. "E-G"**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 11:05:20

Time Test Ended: 16:45:20

Test Type: **Conventional Bottom Hole**

Tester: **James Windeer**

Unit No: **20**

Interval: **3948.00 ft (KB) To 3998.00 ft (KB) (TVD)**

Total Depth: **3998.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2840.00 ft (KB)**

**2835.00 ft (CF)**

KB to GR/CF: **5.00 ft**

Serial #: **8366**

Inside

Press@RunDepth: **117.19 psig @ 3949.00 ft (KB)**

Start Date: **2008.01.10**

End Date:

**2008.01.10**

Capacity: **7000.00 psig**

Last Calib.: **2008.01.10**

Start Time: **08:55:55**

End Time:

**16:45:19**

Time On Btm: **2008.01.10 @ 11:04:20**

Time Off Btm: **2008.01.10 @ 15:06:20**

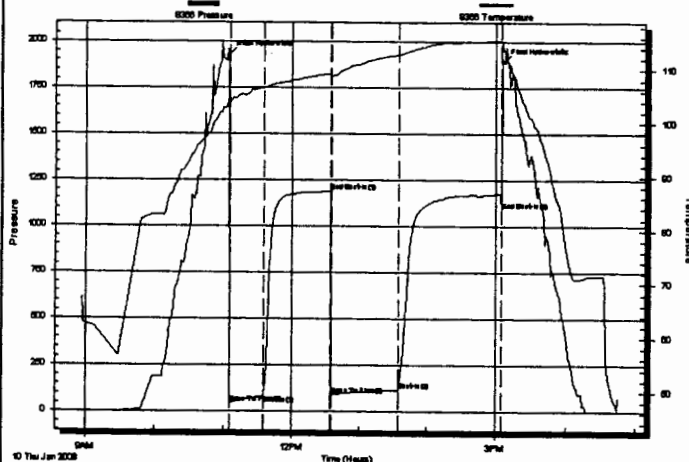
TEST COMMENT: IF Fair blow built to 7 1/4 " (slid to 6' at open Mud level dropped 6' in surface pipe)

ISI Bled off weak blow built to 1 "

FF Fair blow built to 9 1/2 "

FSI Bled off weak intermittent blow at 1/2

Pressure vs. Time



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1928.86         | 103.37       | Initial Hydro-static |
| 1           | 45.22           | 103.67       | Open To Flow (1)     |
| 31          | 82.69           | 106.57       | Shut-In (1)          |
| 91          | 1187.96         | 109.26       | End Shut-In (1)      |
| 91          | 90.64           | 108.75       | Open To Flow (2)     |
| 151         | 117.19          | 112.75       | Shut-In (2)          |
| 241         | 1089.25         | 115.45       | End Shut-In (2)      |
| 242         | 1889.56         | 113.70       | Final Hydro-static   |

### Recovery

| Length (ft) | Description         | Volume (bbl) |
|-------------|---------------------|--------------|
| 60.00       | SOGCM 86%M 8%G 6%O  | 0.30         |
| 145.00      | SOGCM 84%M 12%O 4%G | 0.94         |
| 15.00       | Clean Oil           | 0.21         |
|             |                     |              |
|             |                     |              |
|             |                     |              |

### Gas Rates

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



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling

250 N Water Ste 300  
Wichita KS 67202

ATTN: Rocky Milford

**Green O'Brien #8-19**

**19 5 29 Decatur KS**

Job Ticket: 31471

**DST#: 2**

Test Start: 2008.01.10 @ 08:55:50

### Tool Information

|                           |                    |                       |                   |                                    |
|---------------------------|--------------------|-----------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 3767.00 ft | Diameter: 3.80 inches | Volume: 52.84 bbl | Tool Weight: 2500.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl  | Weight set on Packer: 30000.00 lb  |
| Drill Collar:             | Length: 180.00 ft  | Diameter: 2.25 inches | Volume: 0.89 bbl  | Weight to Pull Loose: 66000.00 lb  |
|                           |                    | Total Volume:         | 53.73 bbl         | Tool Chased 6.00 ft                |
| Drill Pipe Above KB:      | 27.00 ft           |                       |                   | String Weight: Initial 48000.00 lb |
| Depth to Top Packer:      | 3948.00 ft         |                       |                   | Final 50000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                   |                                    |
| Interval between Packers: | 50.00 ft           |                       |                   |                                    |
| Tool Length:              | 78.00 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        |            |          | 3925.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 3930.00    |                               |
| Jars             | 5.00        |            |          | 3935.00    |                               |
| Safety Joint     | 3.00        |            |          | 3938.00    |                               |
| Packer           | 5.00        |            |          | 3943.00    | 28.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 3948.00    |                               |
| Stubb            | 1.00        |            |          | 3949.00    |                               |
| Recorder         | 0.00        | 8366       | Inside   | 3949.00    |                               |
| Recorder         | 0.00        | 6672       | Inside   | 3949.00    |                               |
| Perforations     | 13.00       |            |          | 3962.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3963.00    |                               |
| Drill Pipe       | 32.00       |            |          | 3995.00    |                               |
| Bullnose         | 3.00        |            |          | 3998.00    | 50.00 Bottom Packers & Anchor |

**Total Tool Length: 78.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Murfin Drilling

Green O'Brien #6-19

250 N Water Ste 300  
Wichita KS 67202

19 5 29 Decatur KS

Job Ticket: 31471

DST#: 2

ATTN: Rocky Milford

Test Start: 2008.01.10 @ 08:55:50

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 49.00 sec/qt

Water Loss: 6.77 in<sup>3</sup>

Resistivity: 0.00 ohm.m

Salinity: 1100.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

### Recovery Information

Recovery Table

| Length<br>ft | Description         | Volume<br>bbl |
|--------------|---------------------|---------------|
| 60.00        | SGOCM 86%M 8%G 6%O  | 0.295         |
| 145.00       | SGOCM 84%M 12%O 4%G | 0.941         |
| 15.00        | Clean Oil           | 0.210         |

Total Length: 220.00 ft

Total Volume: 1.455 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

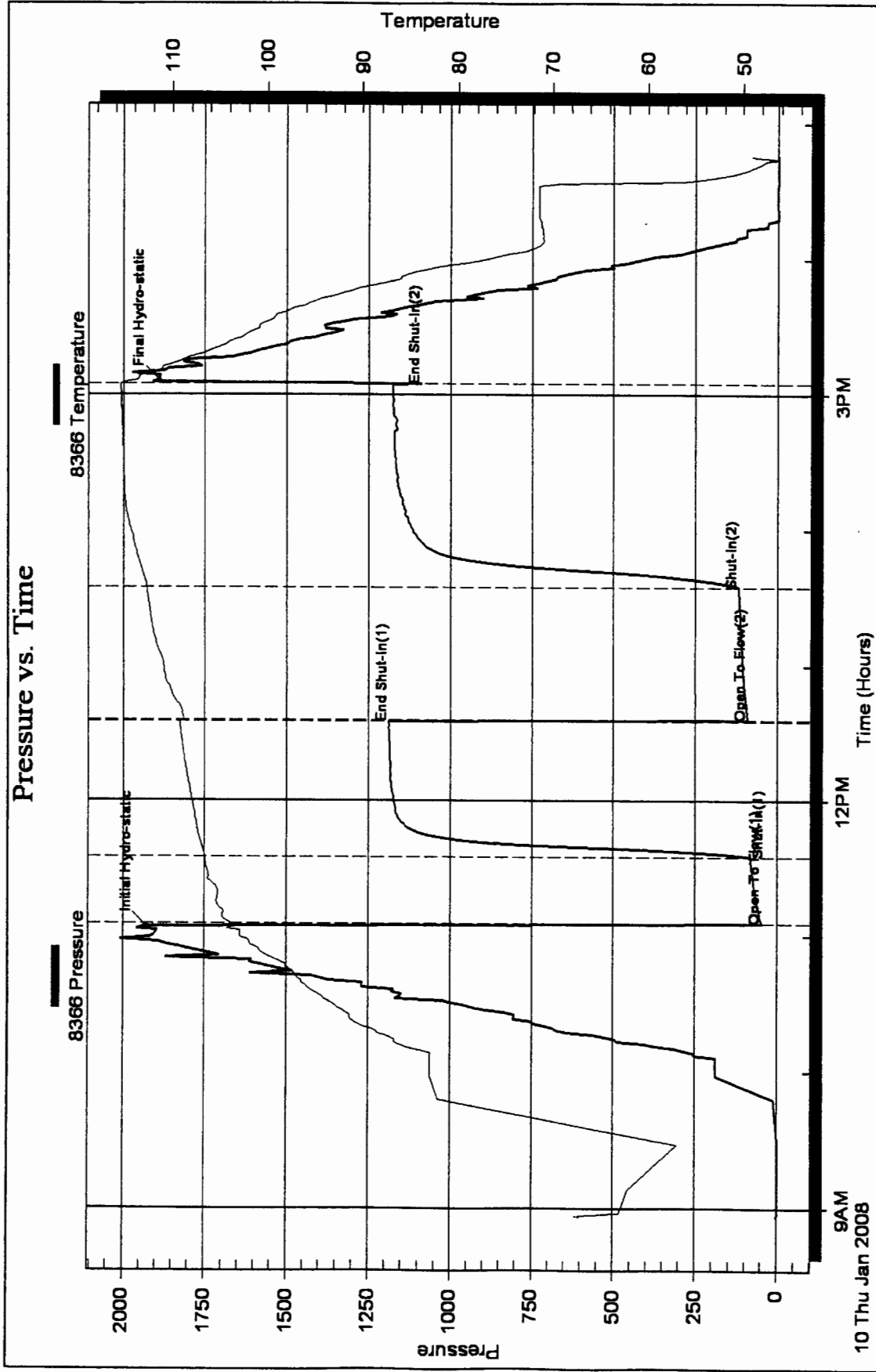
Serial #:

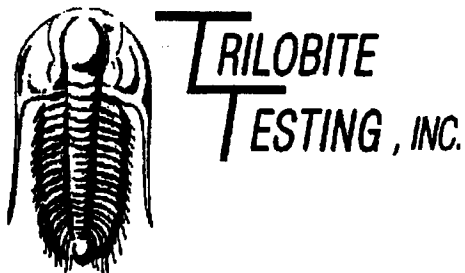
Laboratory Name:

Laboratory Location:

Recovery Comments:

# Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling**

250 N Water Ste 300  
Wichita KS 67202

ATTN: Rocky Milford

**19 5 29 Decatur KS**

**Green O'Brien #6-19**

Start Date: 2008.01.11 @ 04:56:48

End Date: 2008.01.11 @ 12:44:48

Job Ticket #: 31472                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Murfin Drilling

250 N Water Ste 300  
Wichita KS 67202

ATTN: Rocky Milford

Green O'Brien #6-19

19 5 29 Decatur KS

Job Ticket: 31472

DST#: 3

Test Start: 2008.01.11 @ 04:56:48

### GENERAL INFORMATION:

Formation: **Lans. "H-K"**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 06:58:48

Time Test Ended: 12:44:48

Test Type: **Conventional Bottom Hole**

Tester: **James Winder**

Unit No: **20**

Interval: **3997.00 ft (KB) To 4090.00 ft (KB) (TVD)**

Total Depth: **4090.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2840.00 ft (KB)**

**2835.00 ft (CF)**

KB to GR/CF: **5.00 ft**

Serial #: **8366**

Inside

Press@RunDepth: **51.03 psig @ 3998.00 ft (KB)**

Start Date: **2008.01.11**

End Date:

**2008.01.11**

Start Time: **04:56:53**

End Time:

**12:44:47**

Capacity: **7000.00 psig**

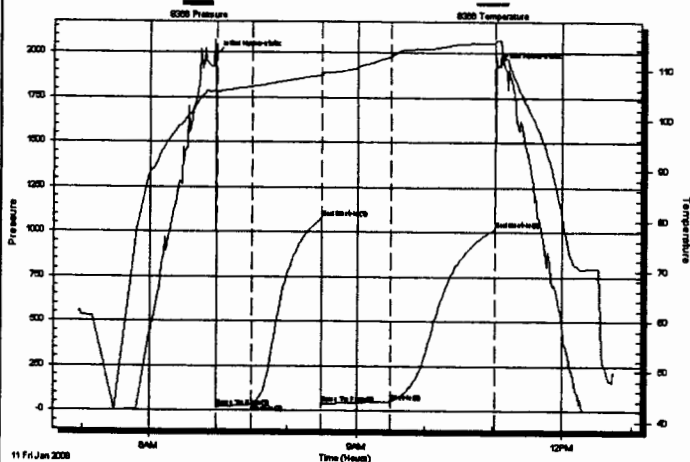
Last Calib.: **2008.01.11**

Time On Btm: **2008.01.11 @ 06:58:18**

Time Off Btm: **2008.01.11 @ 11:04:18**

TEST COMMENT: IF Weak blow built to 2 "  
ISI Bled off No blow back  
FF Weak blow built to 3 "  
FSI Bled off No blow back

Pressure vs. Time



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1988.16         | 106.10       | Initial Hydro-static |
| 1           | 17.31           | 105.02       | Open To Flow (1)     |
| 31          | 31.35           | 106.60       | Shut-In (1)          |
| 91          | 1077.89         | 108.90       | End Shut-In (1)      |
| 91          | 37.33           | 108.54       | Open To Flow (2)     |
| 151         | 51.03           | 112.61       | Shut-In (2)          |
| 243         | 1015.54         | 115.44       | End Shut-In (2)      |
| 246         | 1926.76         | 115.88       | Final Hydro-static   |

### Recovery

| Length (ft) | Description         | Volume (bbl) |
|-------------|---------------------|--------------|
| 65.00       | SGOCM 80%M 15%O 5%G | 0.32         |
| 10.00       | Clean Oil           | 0.05         |
|             |                     |              |
|             |                     |              |
|             |                     |              |
|             |                     |              |

### Gas Rates

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



**TRILOBITE**  
**TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling

Green O'Brien #6-19

250 N Water Ste 300  
Wichita KS 67202

19 5 29 Decatur KS

Job Ticket: 31472

DST#: 3

ATTN: Rocky Milford

Test Start: 2008.01.11 @ 04:56:48

### Tool Information

|                           |                    |                         |                   |                                    |
|---------------------------|--------------------|-------------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 3832.00 ft | Diameter: 3.80 inches   | Volume: 53.75 bbl | Tool Weight: 2100.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches   | Volume: 0.00 bbl  | Weight set on Packer: 30000.00 lb  |
| Drill Collar:             | Length: 180.00 ft  | Diameter: 2.25 inches   | Volume: 0.89 bbl  | Weight to Pull Loose: 64000.00 lb  |
|                           |                    | Total Volume: 54.64 bbl |                   | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 35.00 ft           |                         |                   | String Weight: Initial 50000.00 lb |
| Depth to Top Packer:      | 3997.00 ft         |                         |                   | Final 50000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                         |                   |                                    |
| Interval between Packers: | 93.00 ft           |                         |                   |                                    |
| Tool Length:              | 113.00 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        |            |          | 3982.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 3987.00    |                               |
| Packer           | 5.00        |            |          | 3992.00    | 20.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 3997.00    |                               |
| Stubb            | 1.00        |            |          | 3998.00    |                               |
| Recorder         | 0.00        | 8366       | Inside   | 3998.00    |                               |
| Recorder         | 0.00        | 6672       | Inside   | 3998.00    |                               |
| Perforations     | 25.00       |            |          | 4023.00    |                               |
| Change Over Sub  | 1.00        |            |          | 4024.00    |                               |
| Drill Pipe       | 62.00       |            |          | 4086.00    |                               |
| Change Over Sub  | 1.00        |            |          | 4087.00    |                               |
| Bullnose         | 3.00        |            |          | 4090.00    | 93.00 Bottom Packers & Anchor |

**Total Tool Length: 113.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling

**Green O'Brien #6-19**

250 N Water Ste 300  
Wichita KS 67202

**19 5 29 Decatur KS**

Job Ticket: 31472

**DST#: 3**

ATTN: Rocky Milford

Test Start: 2008.01.11 @ 04:56:48

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.40 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

| Length<br>ft | Description         | Volume<br>bbl |
|--------------|---------------------|---------------|
| 65.00        | SGOCM 80%M 15%O 5%G | 0.320         |
| 10.00        | Clean Oil           | 0.049         |

Total Length: 75.00 ft

Total Volume: 0.369 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

# Pressure vs. Time

