

15-185-23235

14-21s-13w



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

## DRILL STEM TEST REPORT

Prepared For: **Mull Drlg.Co.IInc.**

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

**14-21s-13w Stafford**

**Hall "C" #1-14**

Start Date: 2004.03.08 @ 23:00:21

End Date: 2004.03.09 @ 07:07:36

Job Ticket #: 18762

DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



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

## DRILL STEM TEST REPORT

Mull Drlg.Co.Inc.

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18762

DST#: 1

Test Start: 2004.03.08 @ 23:00:21

### GENERAL INFORMATION:

Formation: **Lans A - D**

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

Time Tool Opened: 01:09:36

Time Test Ended: 07:07:36

Test Type: **Conventional Bottom Hole**

Tester: **Gary Pevoteaux**

Unit No: **23**

Interval: **3271.00 ft (KB) To 3340.00 ft (KB) (TVD)**

Total Depth: **3340.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Poor**

Reference Elevations: **1872.00 ft (KB)**

**1863.00 ft (CF)**

KB to GR/CF: **9.00 ft**

Serial #: **6755**

Inside

Press@RunDepth: **55.42 psig @ 3272.00 ft (KB)**

Start Date: **2004.03.08**

End Date:

**2004.03.09**

Start Time: **23:00:31**

End Time:

**07:07:36**

Capacity: **7000.00 psig**

Last Calib.: **2004.03.09**

Time On Btmr: **2004.03.09 @ 01:07:51**

Time Off Btmr: **2004.03.09 @ 05:12:36**

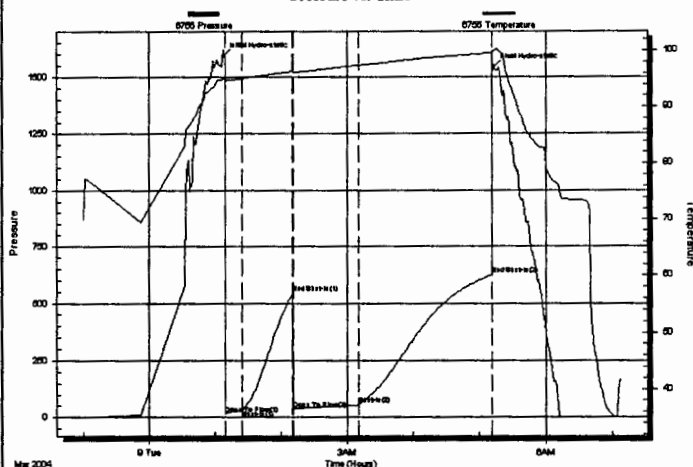
TEST COMMENT: IF:Weak blow . 1/2 - 1".

IS:No blow .

FF:Weak blow . 1/2 - 2 1/2".

FS:No blow .

Pressure vs. Time



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1591.95         | 95.09        | Initial Hydro-static |
| 2           | 16.29           | 94.24        | Open To Flow (1)     |
| 17          | 31.29           | 94.99        | Shut-In (1)          |
| 63          | 543.41          | 96.26        | End Shut-In (1)      |
| 64          | 33.56           | 96.11        | Open To Flow (2)     |
| 123         | 55.42           | 97.34        | Shut-In (2)          |
| 244         | 624.64          | 99.54        | End Shut-In (2)      |
| 245         | 1543.78         | 99.95        | Final Hydro-static   |

### Recovery

| Length (ft) | Description          | Volume (bbl) |
|-------------|----------------------|--------------|
| 85.00       | Mud with oil specs   | 0.42         |
| 0.00        | Trace of gas in pipe | 0.00         |
|             |                      |              |
|             |                      |              |
|             |                      |              |
|             |                      |              |

### Gas Rates

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



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

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drig. Co. Inc.

Hall "C" #1-14

221 N. Main #300  
Wichita Ks; 67202

14-21s-13w Stafford

Job Ticket: 18762

DST#: 1

ATTN: Roger L. Martin

Test Start: 2004.03.08 @ 23:00:21

### Tool Information

|                           |                    |                         |                   |                                    |
|---------------------------|--------------------|-------------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 3067.00 ft | Diameter: 3.80 inches   | Volume: 43.02 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: 20000.00 lb  |
| Drill Collar:             | Length: 210.00 ft  | Diameter: 2.25 inches   | Volume: 1.03 bbl  | Weight to Pull Loose: 66000.00 lb  |
|                           |                    | Total Volume: 44.05 bbl |                   | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 26.00 ft           |                         |                   | String Weight: Initial 51000.00 lb |
| Depth to Top Packer:      | 3271.00 ft         |                         |                   | Final 51000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                         |                   |                                    |
| Interval between Packers: | 69.00 ft           |                         |                   |                                    |
| Tool Length:              | 89.00 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        |            |          | 3252.00    |                               |
| Shut In Tool     | 5.00        |            |          | 3257.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 3262.00    |                               |
| Packer           | 4.00        |            |          | 3266.00    | 20.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 3271.00    |                               |
| Stubb            | 1.00        |            |          | 3272.00    |                               |
| Recorder         | 0.00        | 6755       | Inside   | 3272.00    |                               |
| Perforations     | 5.00        |            |          | 3277.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3278.00    |                               |
| Blank Spacing    | 32.00       |            |          | 3310.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3311.00    |                               |
| Perforations     | 24.00       |            |          | 3335.00    |                               |
| Recorder         | 0.00        | 13222      | Outside  | 3335.00    |                               |
| Bullnose         | 5.00        |            |          | 3340.00    | 69.00 Bottom Packers & Anchor |

Total Tool Length: 89.00



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

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Mull Drig.Co.Inc.

Hall "C" #1-14

221 N.Main #300  
Wichita Ks; 67202

14-21s-13w Stafford

Job Ticket: 18762

DST#: 1

ATTN: Roger L.Martin

Test Start: 2004.03.08 @ 23:00:21

### 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:

4000 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.54 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description          | Volume<br>bbl |
|--------------|----------------------|---------------|
| 85.00        | Mud with oil specs   | 0.418         |
| 0.00         | Trace of gas in pipe | 0.000         |

Total Length: 85.00 ft

Total Volume: 0.418 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

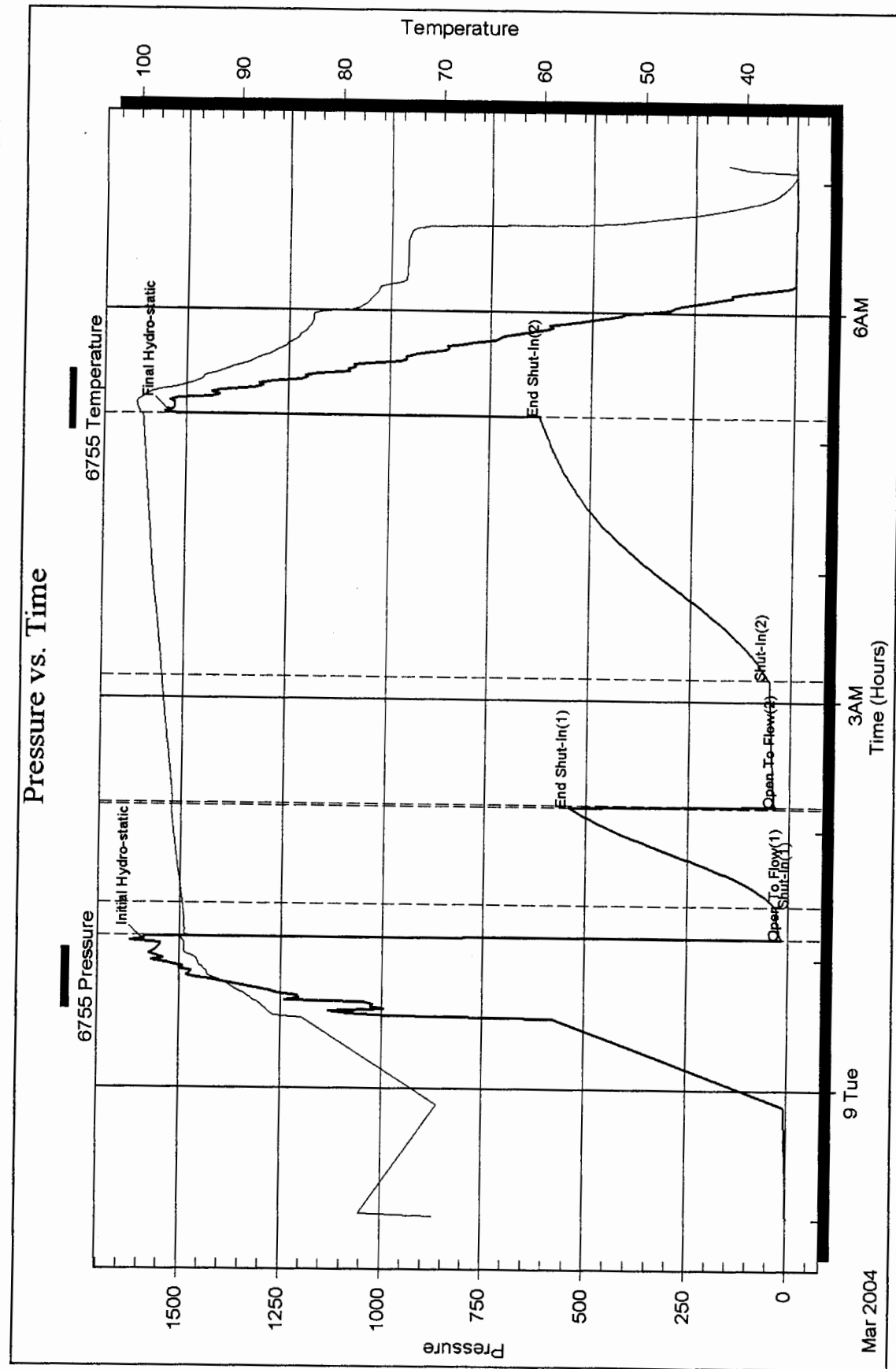
Serial #: 6755

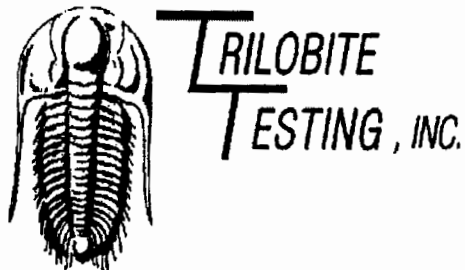
Inside

Mull Dtg. Co. Inc.

14-21s-13w Stafford

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Mull Drlg.Co.IInc.**

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

**14-21s-13w Stafford**

**Hall "C" #1-14**

Start Date: 2004.03.09 @ 17:47:35

End Date: 2004.03.10 @ 01:40:20

Job Ticket #: 18763      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

Mull Drig.Co.,Inc.

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18763

DST#: 2

Test Start: 2004.03.09 @ 17:47:35

### GENERAL INFORMATION:

Formation: **Lans E-F**

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

Time Tool Opened: 19:32:20

Time Test Ended: 01:40:20

Test Type: **Conventional Bottom Hole**

Tester: **Gary Pevoteaux**

Unit No: **23**

Interval: **3339.00 ft (KB) To 3362.00 ft (KB) (TVD)**

Total Depth: **3362.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Poor**

Reference Elevations: **1872.00 ft (KB)**

**1863.00 ft (CF)**

KB to GR/CF: **9.00 ft**

Serial #: **6755**

Inside

Press@RunDepth: **177.99 psig @ 3340.00 ft (KB)**

Start Date: **2004.03.09**

End Date:

**2004.03.10**

Start Time: **17:47:45**

End Time:

**01:40:20**

Capacity: **7000.00 psig**

Last Calib.: **2004.03.10**

Time On Btm: **2004.03.09 @ 19:28:05**

Time Off Btm: **2004.03.09 @ 23:38:50**

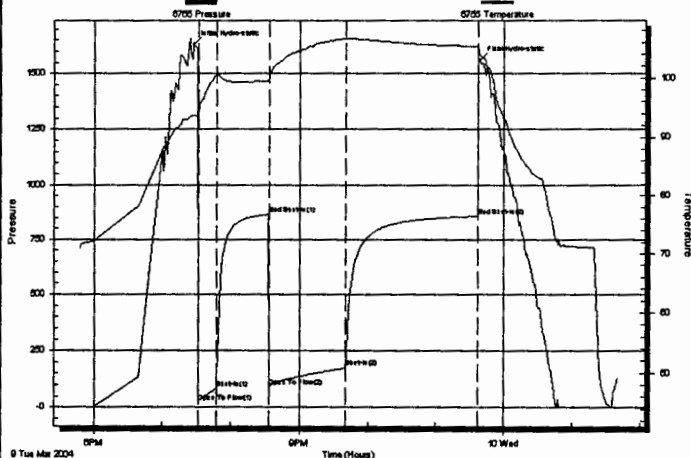
TEST COMMENT: IF:Weak to fair blow . Slow increase to 7".

IS:No blow .

FF:Fair blow . B.O.B. in 59 mins.

FS:No blow .

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1630.41         | 93.63        | Initial Hydro-static |
| 5           | 23.58           | 93.68        | Open To Flow (1)     |
| 20          | 83.34           | 100.64       | Shut-In(1)           |
| 66          | 864.00          | 99.53        | End Shut-In(1)       |
| 66          | 91.01           | 99.97        | Open To Flow (2)     |
| 132         | 177.99          | 106.62       | Shut-In(2)           |
| 249         | 855.70          | 105.31       | End Shut-In(2)       |
| 251         | 1560.90         | 103.78       | Final Hydro-static   |

Recovery

| Length (ft) | Description                        | Volume (bbl) |
|-------------|------------------------------------|--------------|
| 120.00      | GCMW with oil specs 15%g 15%m 70%w | 0.59         |
| 120.00      | MW with oil specs 6%m 94%w /Rw .1  | 0.86         |
| 0.00        | ohms @ 43 deg.                     | 0.00         |
| 90.00       | SOCMW 2%o 15%m 83%w                | 1.26         |
|             |                                    |              |
|             |                                    |              |

Gas Rates

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



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

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drig.Co.,Inc.

Hall "C" #1-14

221 N.Main #300  
Wichita Ks; 67202

14-21s-13w Stafford

Job Ticket: 18763

DST#: 2

ATTN: Roger L.Martin

Test Start: 2004.03.09 @ 17:47:35

### Tool Information

|                           |                    |                       |                   |                                    |
|---------------------------|--------------------|-----------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 3132.00 ft | Diameter: 3.80 inches | Volume: 43.93 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: 21000.00 lb  |
| Drill Collar:             | Length: 210.00 ft  | Diameter: 2.25 inches | Volume: 1.03 bbl  | Weight to Pull Loose: 75000.00 lb  |
|                           |                    | Total Volume:         | 44.96 bbl         | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 23.00 ft           |                       |                   | String Weight: Initial 53000.00 lb |
| Depth to Top Packer:      | 3339.00 ft         |                       |                   | Final 54000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                   |                                    |
| Interval between Packers: | 23.00 ft           |                       |                   |                                    |
| Tool Length:              | 43.00 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  |       |         | 3320.00 |                               |
| Shut In Tool       | 5.00  |       |         | 3325.00 |                               |
| Hydraulic tool     | 5.00  |       |         | 3330.00 |                               |
| Packer             | 4.00  |       |         | 3334.00 | 20.00 Bottom Of Top Packer    |
| Packer             | 5.00  |       |         | 3339.00 |                               |
| Stubb              | 1.00  |       |         | 3340.00 |                               |
| Recorder           | 0.00  | 6755  | Inside  | 3340.00 |                               |
| Perforations       | 17.00 |       |         | 3357.00 |                               |
| Recorder           | 0.00  | 13222 | Outside | 3357.00 |                               |
| Bullnose           | 5.00  |       |         | 3362.00 | 23.00 Bottom Packers & Anchor |
| Total Tool Length: | 43.00 |       |         |         |                               |



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

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Mull Drig.Co.lnc.

Hall "C" #1-14

221 N.Main #300  
Wichita Ks; 67202

14-21s-13w Stafford

Job Ticket: 18763

DST#: 2

ATTN: Roger L.Martin

Test Start: 2004.03.09 @ 17:47:35

### 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: 118000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.57 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description                        | Volume<br>bbl |
|--------------|------------------------------------|---------------|
| 120.00       | GCMW with oil specs 15%g 15%m 70%w | 0.590         |
| 120.00       | MW with oil specs 6%m 94%w /Rw .11 | 0.863         |
| 0.00         | ohms @ 43 deg.                     | 0.000         |
| 90.00        | SOCMW 2%o 15%m 83%w                | 1.262         |

Total Length: 330.00 ft

Total Volume: 2.715 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6755

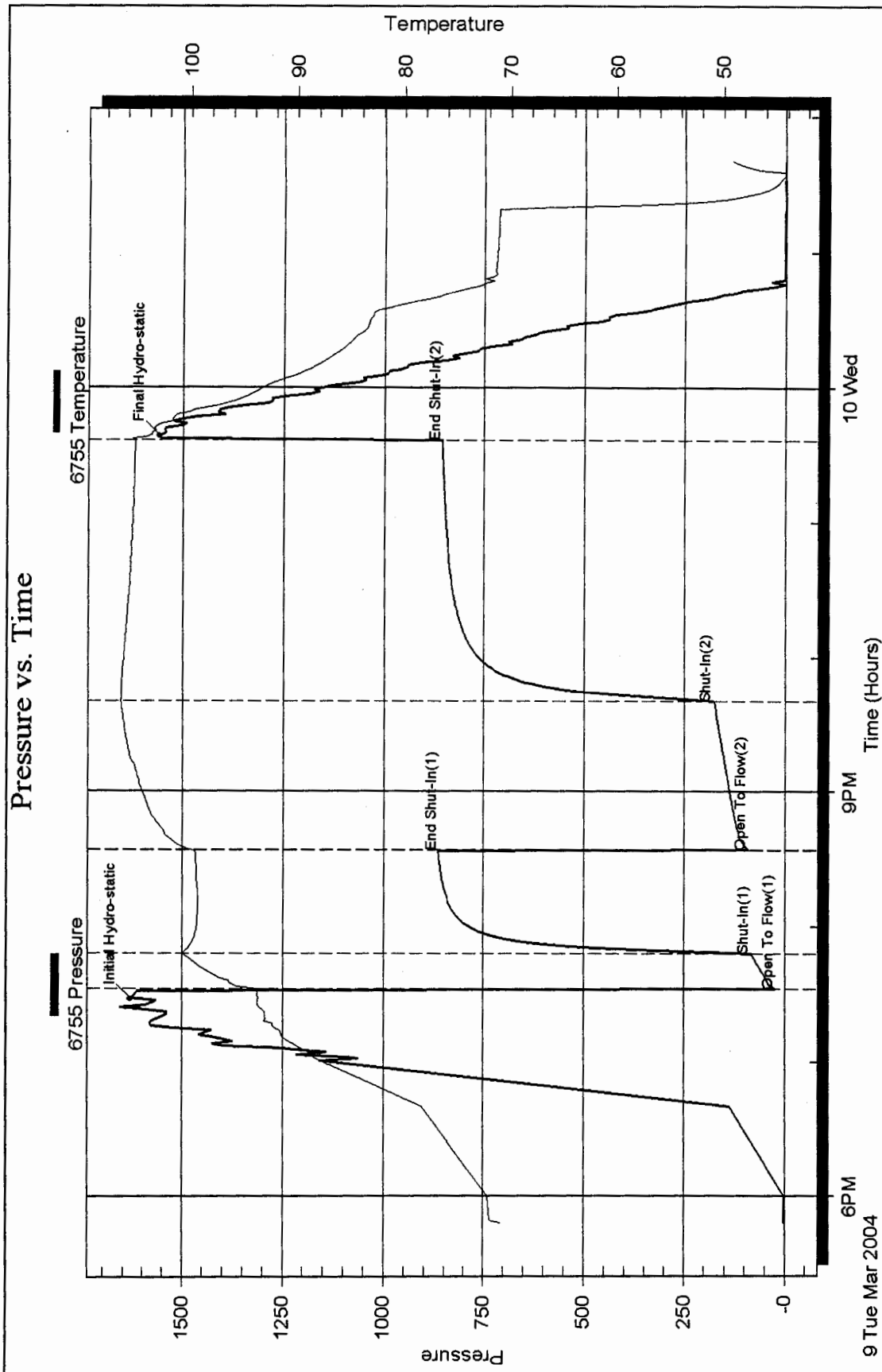
Inside

Mull Drig. Co. Inc.

14-21s-13w Stafford

DST Test Number: 2

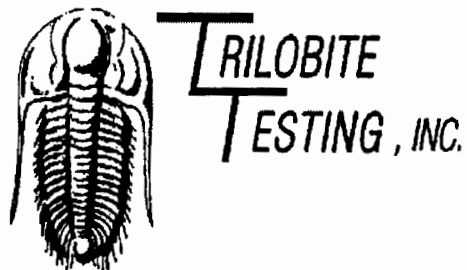
# Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 18763

Printed: 2004.03.17 @ 10:31:31 Page 5



## DRILL STEM TEST REPORT

Prepared For: **Mull Drlg.Co.Inc.**

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

**14-21s-13w Stafford**

**Hall "C" #1-14**

Start Date: 2004.03.10 @ 13:21:44

End Date: 2004.03.10 @ 21:15:14

Job Ticket #: 18764      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

Mull Drig.Co.Inc.

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18764

DST#: 3

Test Start: 2004.03.10 @ 13:21:44

### GENERAL INFORMATION:

Formation: **Lans H-I**

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

Time Tool Opened: 14:51:29

Time Test Ended: 21:15:14

Test Type: **Conventional Bottom Hole**

Tester: **Gary Pevoteaux**

Unit No: **23**

Interval: **3397.00 ft (KB) To 3441.00 ft (KB) (TVD)**

Total Depth: **3441.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Poor**

Reference Elevations: **1872.00 ft (KB)**

**1863.00 ft (CF)**

KB to GR/CF: **9.00 ft**

Serial #: **6755**

Inside

Press@RunDepth: **108.48 psig @ 3398.00 ft (KB)**

Start Date: **2004.03.10**

End Date:

**2004.03.10**

Start Time: **13:21:54**

End Time:

**21:15:14**

Capacity: **7000.00 psig**

Last Calib.: **2004.03.10**

Time On Btm: **2004.03.10 @ 14:48:44**

Time Off Btm: **2004.03.10 @ 18:54:29**

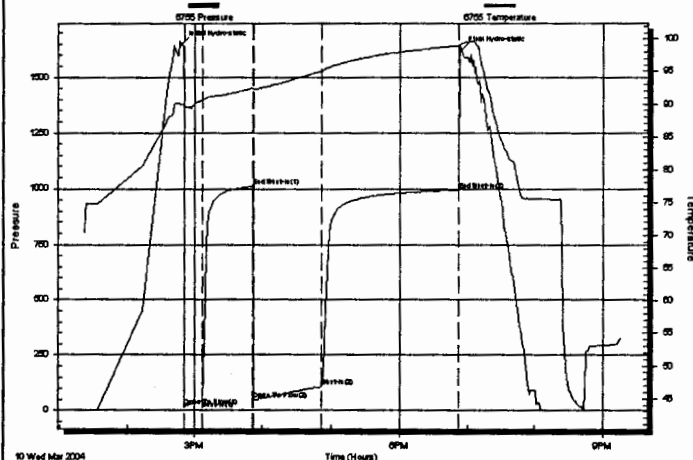
TEST COMMENT: IF:Weak blow . 1/4 - 1 1/4".

IS:No blow .

FF:Weak blow .; 1/4 - 4".

FS:No blow .

Pressure vs. Time



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1648.35         | 89.98        | Initial Hydro-static |
| 3           | 17.77           | 89.60        | Open To Flow (1)     |
| 19          | 44.35           | 90.58        | Shut-In(1)           |
| 63          | 1010.47         | 92.44        | End Shut-In(1)       |
| 64          | 47.37           | 92.24        | Open To Flow (2)     |
| 123         | 108.48          | 95.07        | Shut-In(2)           |
| 244         | 994.26          | 98.95        | End Shut-In(2)       |
| 246         | 1624.35         | 99.26        | Final Hydro-static   |

### Recovery

| Length (ft) | Description                           | Volume (bbl) |
|-------------|---------------------------------------|--------------|
| 120.00      | MW 33% m 67% w Rw .14 ohms @ 46 d0.59 |              |
| 66.00       | Mud with oil specs                    | 0.32         |
|             |                                       |              |
|             |                                       |              |
|             |                                       |              |
|             |                                       |              |

### Gas Rates

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



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

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drig.Co.Inc.

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18764

DST#: 3

Test Start: 2004.03.10 @ 13:21:44

### Tool Information

|                           |                    |                         |                   |                                    |
|---------------------------|--------------------|-------------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 3196.00 ft | Diameter: 3.80 inches   | Volume: 44.83 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: 20000.00 lb  |
| Drill Collar:             | Length: 210.00 ft  | Diameter: 2.25 inches   | Volume: 1.03 bbl  | Weight to Pull Loose: 62000.00 lb  |
|                           |                    | Total Volume: 45.86 bbl |                   | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 29.00 ft           |                         |                   | String Weight: Initial 54000.00 lb |
| Depth to Top Packer:      | 3397.00 ft         |                         |                   | Final 54000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                         |                   |                                    |
| Interval between Packers: | 44.00 ft           |                         |                   |                                    |
| Tool Length:              | 64.00 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        |            |          | 3378.00    |                               |
| Shut In Tool     | 5.00        |            |          | 3383.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 3388.00    |                               |
| Packer           | 4.00        |            |          | 3392.00    | 20.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 3397.00    |                               |
| Stubb            | 1.00        |            |          | 3398.00    |                               |
| Recorder         | 0.00        | 6755       | Inside   | 3398.00    |                               |
| Perforations     | 5.00        |            |          | 3403.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3404.00    |                               |
| Blank Spacing    | 31.00       |            |          | 3435.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3436.00    |                               |
| Recorder         | 0.00        | 13222      | Outside  | 3436.00    |                               |
| Bullnose         | 5.00        |            |          | 3441.00    | 44.00 Bottom Packers & Anchor |

Total Tool Length: 64.00



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

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Mull Drlg. Co. Inc.

Hall "C" #1-14

221 N. Main #300  
Wichita Ks; 67202

14-21s-13w Stafford

Job Ticket: 18764

DST#: 3

ATTN: Roger L. Martin

Test Start: 2004.03.10 @ 13:21:44

### 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:

81000 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.16 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description                          | Volume<br>bbl |
|--------------|--------------------------------------|---------------|
| 120.00       | MW 33% m 67% w Rw .14 ohms @ 46 deg. | 0.590         |
| 66.00        | Mud with oil specs                   | 0.325         |

Total Length: 186.00 ft

Total Volume: 0.915 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

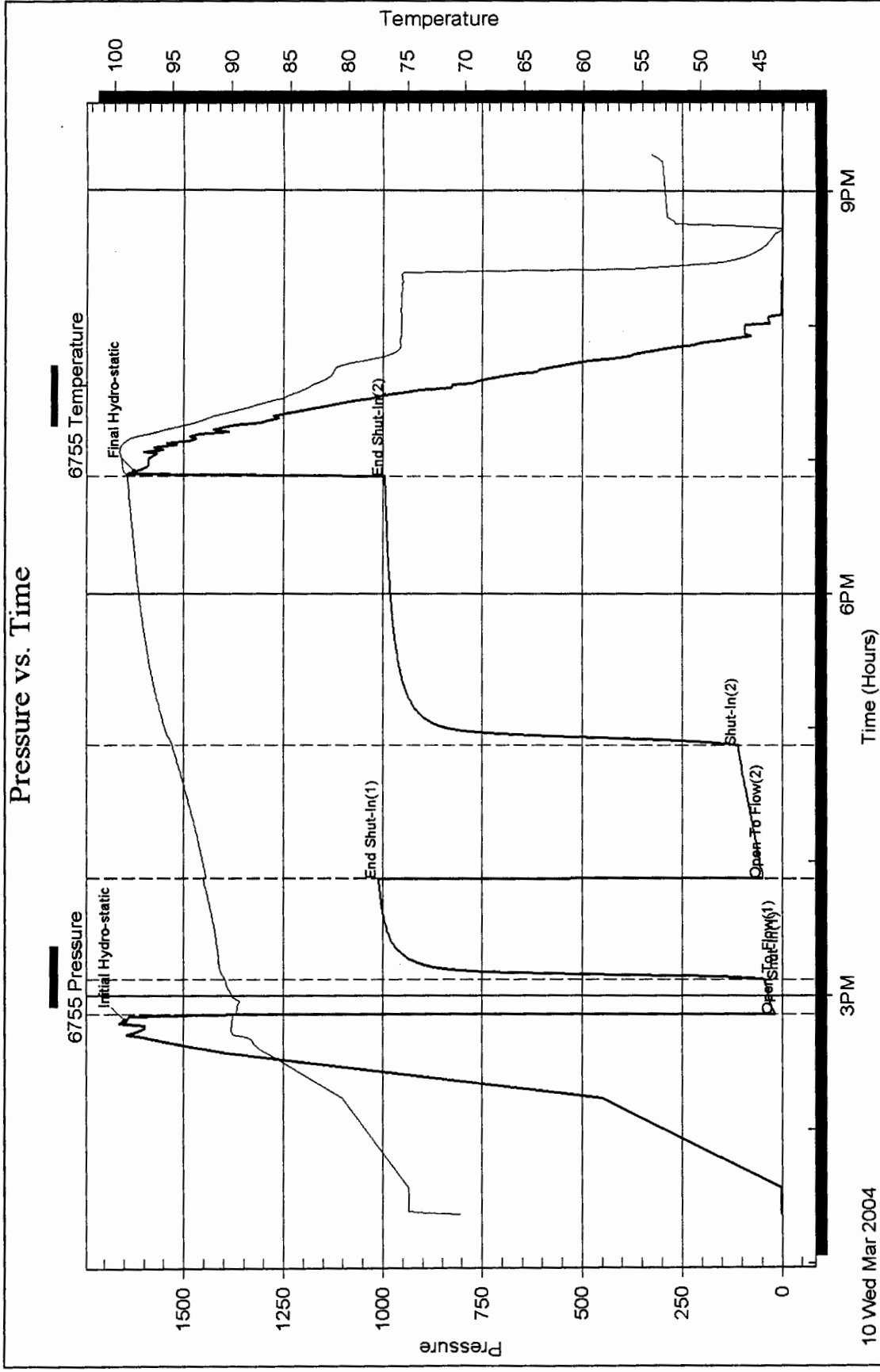
Serial #: 6755

Inside

Mull Drig Co. Inc.

14-21s-13w Stafford

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Mull Drlg.Co.Inc.**

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

**14-21s-13w Stafford**

**Hall "C" #1-14**

Start Date: 2004.03.11 @ 04:40:57

End Date: 2004.03.11 @ 12:55:27

Job Ticket #: 18765

DST #: 4

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Mull Drig. Co. Inc.

221 N. Main #300  
Wichita Ks; 67202

ATTN: Roger L. Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18765

DST#: 4

Test Start: 2004.03.11 @ 04:40:57

### GENERAL INFORMATION:

Formation: **Lans J**

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

Time Tool Opened: 06:57:57

Time Test Ended: 12:55:27

Test Type: **Conventional Bottom Hole**

Tester: **Gary Pevoteaux**

Unit No: **23**

Interval: **3437.00 ft (KB) To 3463.00 ft (KB) (TVD)**

Total Depth: **3463.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Poor**

Reference Elevations: **1872.00 ft (KB)**

**1863.00 ft (CF)**

KB to GR/CF: **9.00 ft**

Serial #: **6755** Inside

Press@RunDepth: **162.68 psig @ 3438.00 ft (KB)**

Start Date: **2004.03.11**

End Date:

**2004.03.11**

Start Time: **04:41:02**

End Time:

**12:55:26**

Capacity: **7000.00 psig**

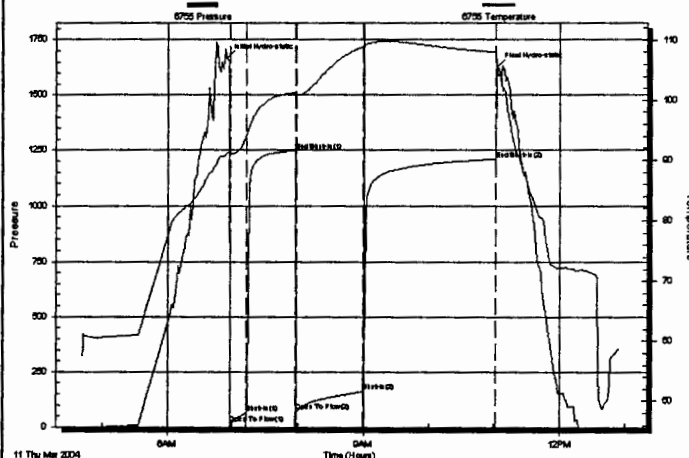
Last Calib.: **2004.03.11**

Time On Btm: **2004.03.11 @ 06:55:12**

Time Off Btm: **2004.03.11 @ 11:03:12**

TEST COMMENT: IF:Weak blow . Slow increase to 3".  
IS:No blow ;  
FF:Weak to fair blow . Slow increase to 8".  
FS:Surface blow . after 20 mins.

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1668.90         | 91.22        | Initial Hydro-static |
| 3           | 17.19           | 90.71        | Open To Flow (1)     |
| 18          | 65.33           | 94.29        | Shut-In (1)          |
| 63          | 1249.64         | 101.24       | End Shut-In (1)      |
| 63          | 72.36           | 100.81       | Open To Flow (2)     |
| 124         | 162.68          | 108.92       | Shut-In (2)          |
| 247         | 1210.55         | 108.03       | End Shut-In (2)      |
| 248         | 1632.78         | 104.16       | Final Hydro-static   |

Recovery

| Length (ft) | Description                            | Volume (bbl) |
|-------------|----------------------------------------|--------------|
| 310.00      | MW 4% m 96% w Rw .08 ohms @ 62 de 2.44 |              |
|             |                                        |              |
|             |                                        |              |
|             |                                        |              |
|             |                                        |              |
|             |                                        |              |

Gas Rates

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



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

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drlg.Co.,Inc.

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18765

DST#:4

Test Start: 2004.03.11 @ 04:40:57

### Tool Information

|                           |                    |                       |                         |                                    |
|---------------------------|--------------------|-----------------------|-------------------------|------------------------------------|
| Drill Pipe:               | Length: 3224.00 ft | Diameter: 3.80 inches | Volume: 45.22 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: 20000.00 lb  |
| Drill Collar:             | Length: 210.00 ft  | Diameter: 2.25 inches | Volume: 1.03 bbl        | Weight to Pull Loose: 60000.00 lb  |
|                           |                    |                       | Total Volume: 46.25 bbl | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 17.00 ft           |                       |                         | String Weight: Initial 54000.00 lb |
| Depth to Top Packer:      | 3437.00 ft         |                       |                         | Final 54000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                         |                                    |
| Interval between Packers: | 26.00 ft           |                       |                         |                                    |
| Tool Length:              | 46.00 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        |            |          | 3418.00    |                               |
| Shut In Tool       | 5.00        |            |          | 3423.00    |                               |
| Hydraulic tool     | 5.00        |            |          | 3428.00    |                               |
| Packer             | 4.00        |            |          | 3432.00    | 20.00 Bottom Of Top Packer    |
| Packer             | 5.00        |            |          | 3437.00    |                               |
| Stubb              | 1.00        |            |          | 3438.00    |                               |
| Recorder           | 0.00        | 6755       | Inside   | 3438.00    |                               |
| Perforations       | 20.00       |            |          | 3458.00    |                               |
| Recorder           | 0.00        | 13222      | Outside  | 3458.00    |                               |
| Bullnose           | 5.00        |            |          | 3463.00    | 26.00 Bottom Packers & Anchor |
| Total Tool Length: | 46.00       |            |          |            |                               |



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

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Mull Drig. Co. Inc.

Hall "C" #1-14

221 N. Main #300  
Wichita Ks; 67202

14-21s-13w Stafford

Job Ticket: 18765

DST#: 4

ATTN: Roger L. Martin

Test Start: 2004.03.11 @ 04:40:57

### 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:

123000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.16 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 11000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description                         | Volume<br>bbl |
|--------------|-------------------------------------|---------------|
| 310.00       | MW 4% m 96% w Rw .08 ohms @ 62 deg. | 2.435         |

Total Length: 310.00 ft

Total Volume: 2.435 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 4

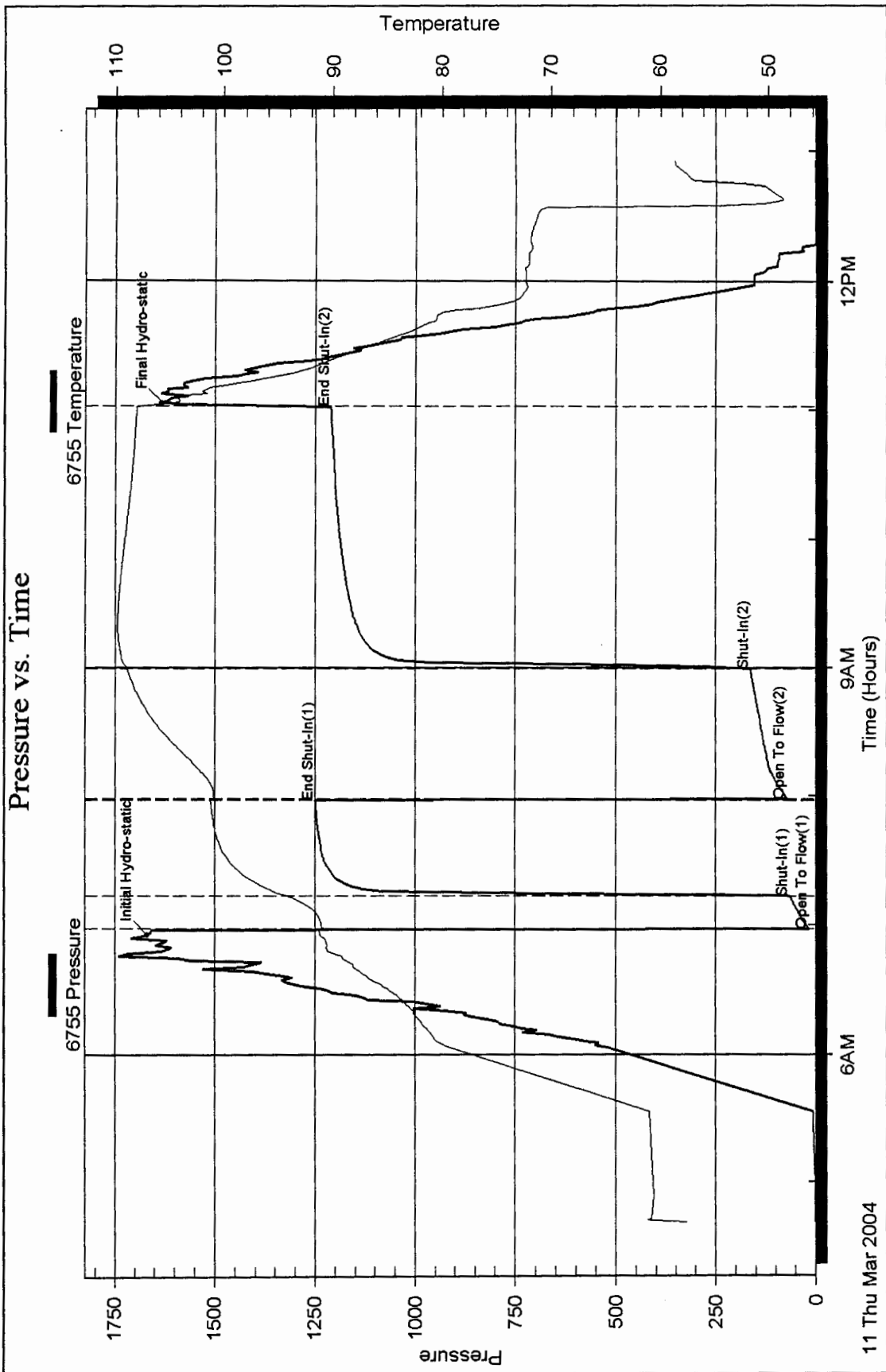
14-21s-13w Stafford

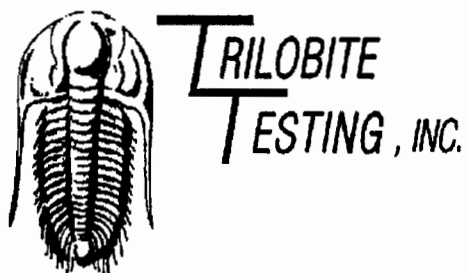
Mull Drig. Co. Inc.

Inside

Serial #: 6755

# Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Mull Drlg.Co.Inc.**

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

**14-21s-13w Stafford**

**Hall "C" #1-14**

Start Date: 2004.03.11 @ 23:36:36

End Date: 2004.03.12 @ 07:08:36

Job Ticket #: 18766                      DST #: 5

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Mull Drig.Co.Inc.

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18766

DST#: 5

Test Start: 2004.03.11 @ 23:36:36

### GENERAL INFORMATION:

Formation: **Lans. K-L**

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

Time Tool Opened: 01:47:51

Time Test Ended: 07:08:36

Test Type: **Conventional Bottom Hole**

Tester: **Gary Pevoteaux**

Unit No: **23**

Interval: **3460.00 ft (KB) To 3510.00 ft (KB) (TVD)**

Total Depth: **3510.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Poor**

Reference Elevations: **1872.00 ft (KB)**

**1863.00 ft (CF)**

KB to GR/CF: **9.00 ft**

Serial #: **6755**

Inside

Press@RunDepth: **33.34 psig @ 3461.00 ft (KB)**

Start Date: **2004.03.11**

End Date:

**2004.03.12**

Start Time: **23:36:41**

End Time:

**07:08:35**

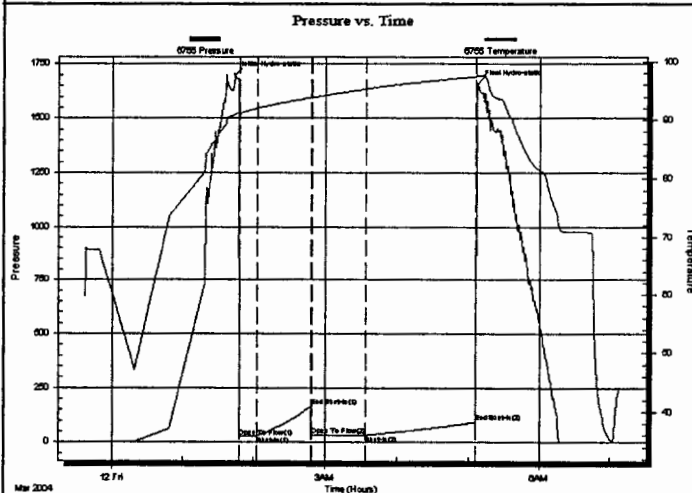
Capacity: **7000.00 psig**

Last Calib.: **2004.03.12**

Time On Btm: **2004.03.12 @ 01:44:06**

Time Off Btm: **2004.03.12 @ 05:07:21**

TEST COMMENT: IF:Weak blow . 1/2" decreasing.  
IS:No blow .  
FF:Weak blow . 1/2" slowly decreasing to no blow after 45 mins.  
FS:No blow .



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1699.62         | 90.95        | Initial Hydro-static |
| 4           | 25.11           | 90.91        | Open To Flow (1)     |
| 20          | 28.35           | 92.01        | Shut-In(1)           |
| 64          | 164.17          | 93.86        | End Shut-In(1)       |
| 65          | 31.96           | 93.82        | Open To Flow (2)     |
| 110         | 33.34           | 95.30        | Shut-In(2)           |
| 202         | 92.27           | 97.43        | End Shut-In(2)       |
| 204         | 1657.53         | 97.52        | Final Hydro-static   |

### Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 20.00       | Heavy mud   | 0.10         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

### Gas Rates

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



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

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drig.Co.,Inc.

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18766

DST#: 5

Test Start: 2004.03.11 @ 23:36:36

### Tool Information

|                           |                    |                       |                         |                        |             |
|---------------------------|--------------------|-----------------------|-------------------------|------------------------|-------------|
| Drill Pipe:               | Length: 3256.00 ft | Diameter: 3.80 inches | Volume: 45.67 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:  | 20000.00 lb |
| Drill Collar:             | Length: 210.00 ft  | Diameter: 2.25 inches | Volume: 1.03 bbl        | Weight to Pull Loose:  | 71000.00 lb |
|                           |                    |                       | Total Volume: 46.70 bbl | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 26.00 ft           |                       |                         | String Weight: Initial | 54000.00 lb |
| Depth to Top Packer:      | 3460.00 ft         |                       |                         | Final                  | 54000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                         |                        |             |
| Interval between Packers: | 50.00 ft           |                       |                         |                        |             |
| Tool Length:              | 70.00 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  |       |         | 3441.00 |                               |
| Shut In Tool    | 5.00  |       |         | 3446.00 |                               |
| Hydraulic tool  | 5.00  |       |         | 3451.00 |                               |
| Packer          | 4.00  |       |         | 3455.00 | 20.00 Bottom Of Top Packer    |
| Packer          | 5.00  |       |         | 3460.00 |                               |
| Stubb           | 1.00  |       |         | 3461.00 |                               |
| Recorder        | 0.00  | 6755  | Inside  | 3461.00 |                               |
| Perforations    | 5.00  |       |         | 3466.00 |                               |
| Change Over Sub | 1.00  |       |         | 3467.00 |                               |
| Blank Spacing   | 32.00 |       |         | 3499.00 |                               |
| Change Over Sub | 1.00  |       |         | 3500.00 |                               |
| Perforations    | 5.00  |       |         | 3505.00 |                               |
| Recorder        | 0.00  | 13222 | Outside | 3505.00 |                               |
| Bullnose        | 5.00  |       |         | 3510.00 | 50.00 Bottom Packers & Anchor |

**Total Tool Length: 70.00**



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

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Mull Drig. Co. Inc.

Hall "C" #1-14

221 N. Main #300  
Wichita Ks; 67202

14-21s-13w Stafford

Job Ticket: 18766

DST#: 5

ATTN: Roger L. Martin

Test Start: 2004.03.11 @ 23:36:36

### 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: 11000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume: bbl

Water Loss: 10.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure: psig

Salinity: 11000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 20.00        | Heavy mud   | 0.098         |

Total Length: 20.00 ft

Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6755

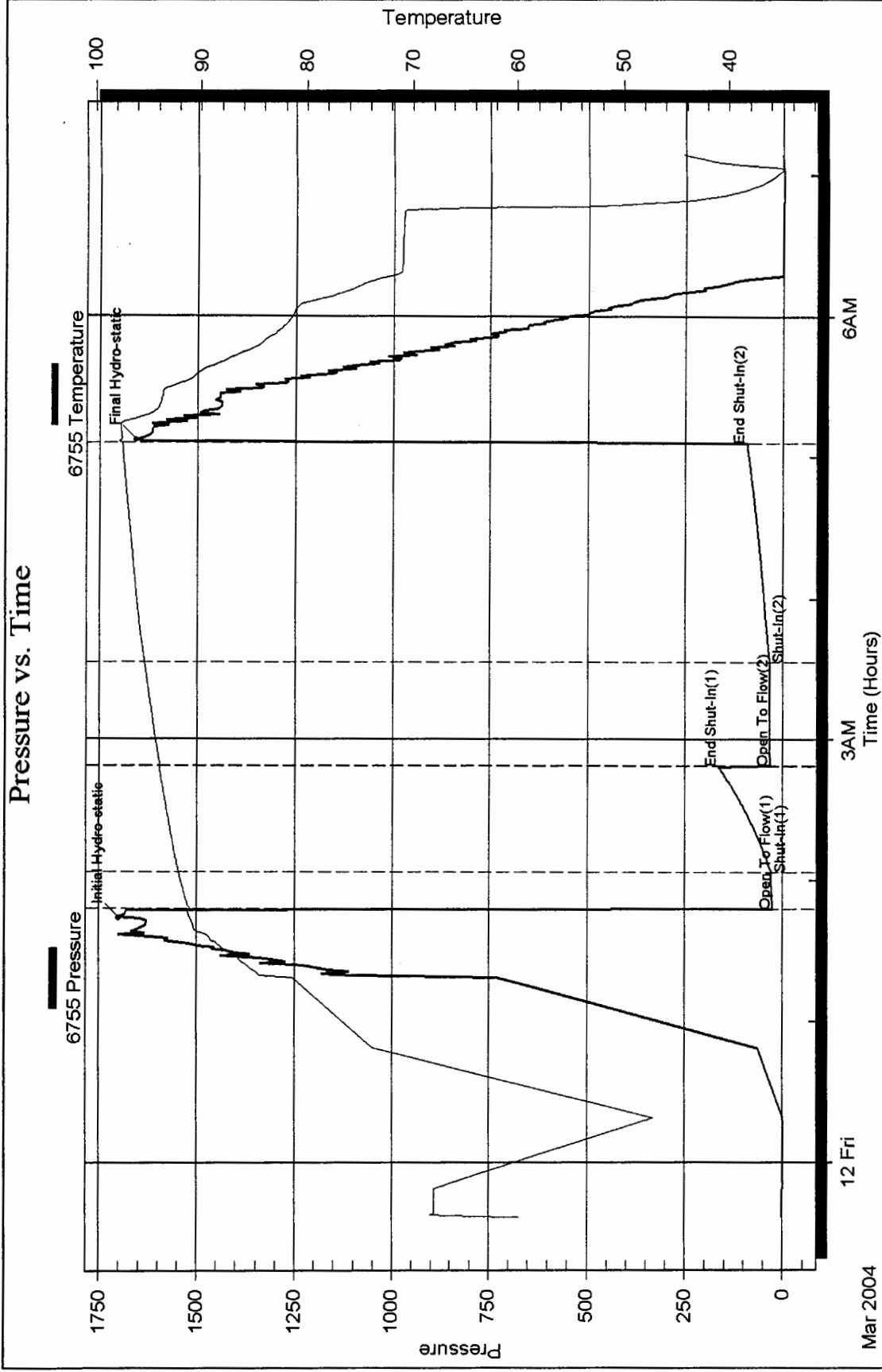
Inside

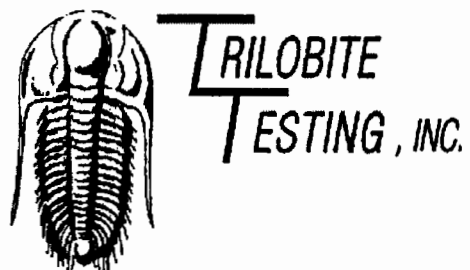
Mull Drig. Co. Inc.

14-21s-13w Stafford

DST Test Number: 5

# Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Mull Drlg.Co.Inc.**

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

**14-21s-13w Stafford**

**Hall "C" #1-14**

Start Date: 2004.03.12 @ 16:41:35

End Date: 2004.03.13 @ 01:15:35

Job Ticket #: 18767      DST #: 6

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



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

## DRILL STEM TEST REPORT

Mull Drig.Co.lnc.

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18767

DST#: 6

Test Start: 2004.03.12 @ 16:41:35

### GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:23:50

Time Test Ended: 01:15:35

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 23

Interval: 3500.00 ft (KB) To 3587.00 ft (KB) (TVD)

Total Depth: 3587.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 1872.00 ft (KB)

1863.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 6755 Inside

Press@RunDepth: 82.36 psig @ 3501.00 ft (KB)

Start Date: 2004.03.12

End Date:

2004.03.13

Start Time: 16:41:40

End Time:

01:15:35

Capacity: 7000.00 psig

Last Calib.: 2004.03.13

Time On Btm: 2004.03.12 @ 18:23:35

Time Off Btm: 2004.03.12 @ 22:26:20

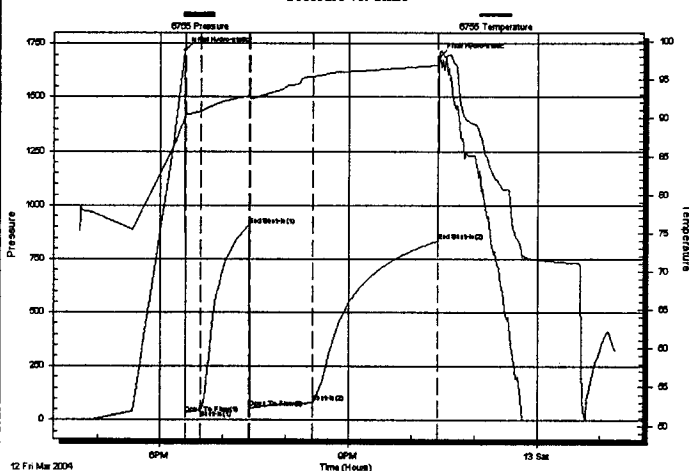
TEST COMMENT: IF:Weak blow . Slow increase to 3 1/2".

IS:No blow .

FF:Weak blow . Slow increase to 5".

FS:No blow .

Pressure vs. Time



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1716.39         | 90.06        | Initial Hydro-static |
| 1           | 29.15           | 90.56        | Open To Flow (1)     |
| 16          | 48.31           | 90.90        | Shut-In(1)           |
| 62          | 906.00          | 92.84        | End Shut-In(1)       |
| 62          | 55.17           | 92.46        | Open To Flow (2)     |
| 122         | 82.36           | 95.41        | Shut-In(2)           |
| 241         | 834.45          | 96.90        | End Shut-In(2)       |
| 243         | 1688.56         | 98.57        | Final Hydro-static   |

### Recovery

| Length (ft) | Description              | Volume (bbl) |
|-------------|--------------------------|--------------|
| 60.00       | GOCM 20%g 11%o 69%m      | 0.30         |
| 60.00       | GOCM 10%g 22%o 68%m      | 0.30         |
| 20.00       | Clean oil 100 ft. of GIP | 0.10         |
|             |                          |              |
|             |                          |              |
|             |                          |              |

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drig. Co. Inc.

221 N. Main #300  
Wichita Ks; 67202

ATTN: Roger L. Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18767

DST#: 6

Test Start: 2004.03.12 @ 16:41:35

### Tool Information

|                           |                    |                       |                         |                                    |
|---------------------------|--------------------|-----------------------|-------------------------|------------------------------------|
| Drill Pipe:               | Length: 3285.00 ft | Diameter: 3.80 inches | Volume: 46.08 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: 20000.00 lb  |
| Drill Collar:             | Length: 210.00 ft  | Diameter: 2.25 inches | Volume: 1.03 bbl        | Weight to Pull Loose: 70000.00 lb  |
|                           |                    |                       | Total Volume: 47.11 bbl | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 25.00 ft           |                       |                         | String Weight: Initial 54000.00 lb |
| Depth to Top Packer:      | 3500.00 ft         |                       |                         | Final 55000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                         |                                    |
| Interval between Packers: | 87.00 ft           |                       |                         |                                    |
| Tool Length:              | 117.00 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        |            |          | 3471.00    |                               |
| Shut In Tool       | 5.00        |            |          | 3476.00    |                               |
| Sampler            | 3.00        |            |          | 3479.00    |                               |
| Hydraulic tool     | 5.00        |            |          | 3484.00    |                               |
| Jars               | 5.00        |            |          | 3489.00    |                               |
| Safety Joint       | 2.00        |            |          | 3491.00    |                               |
| Packer             | 4.00        |            |          | 3495.00    | 30.00 Bottom Of Top Packer    |
| Packer             | 5.00        |            |          | 3500.00    |                               |
| Stubb              | 1.00        |            |          | 3501.00    |                               |
| Recorder           | 0.00        | 6755       | Inside   | 3501.00    |                               |
| Perforations       | 5.00        |            |          | 3506.00    |                               |
| Change Over Sub    | 1.00        |            |          | 3507.00    |                               |
| Blank Spacing      | 63.00       |            |          | 3570.00    |                               |
| Change Over Sub    | 1.00        |            |          | 3571.00    |                               |
| Perforations       | 11.00       |            |          | 3582.00    |                               |
| Recorder           | 0.00        | 13222      | Outside  | 3582.00    |                               |
| Bullnose           | 5.00        |            |          | 3587.00    | 87.00 Bottom Packers & Anchor |
| Total Tool Length: |             | 117.00     |          |            |                               |



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

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Mull Drig.Co.Inc.

Hall "C" #1-14

221 N.Main #300  
Wichita Ks; 67202

14-21s-13w Stafford

Job Ticket: 18767

DST#: 6

ATTN: Roger L.Martin

Test Start: 2004.03.12 @ 16:41:35

### 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:

11000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 11000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description              | Volume<br>bbl |
|--------------|--------------------------|---------------|
| 60.00        | GOCM 20%g 11%o 69%m      | 0.295         |
| 60.00        | GOCM 10%g 22%o 68%m      | 0.295         |
| 20.00        | Clean oil 100 ft. of GIP | 0.098         |

Total Length: 140.00 ft

Total Volume: 0.688 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: SAMPLER DATA:1500 M. oil, 1500 ml. gas, 200 ml. mud @ 290 psi

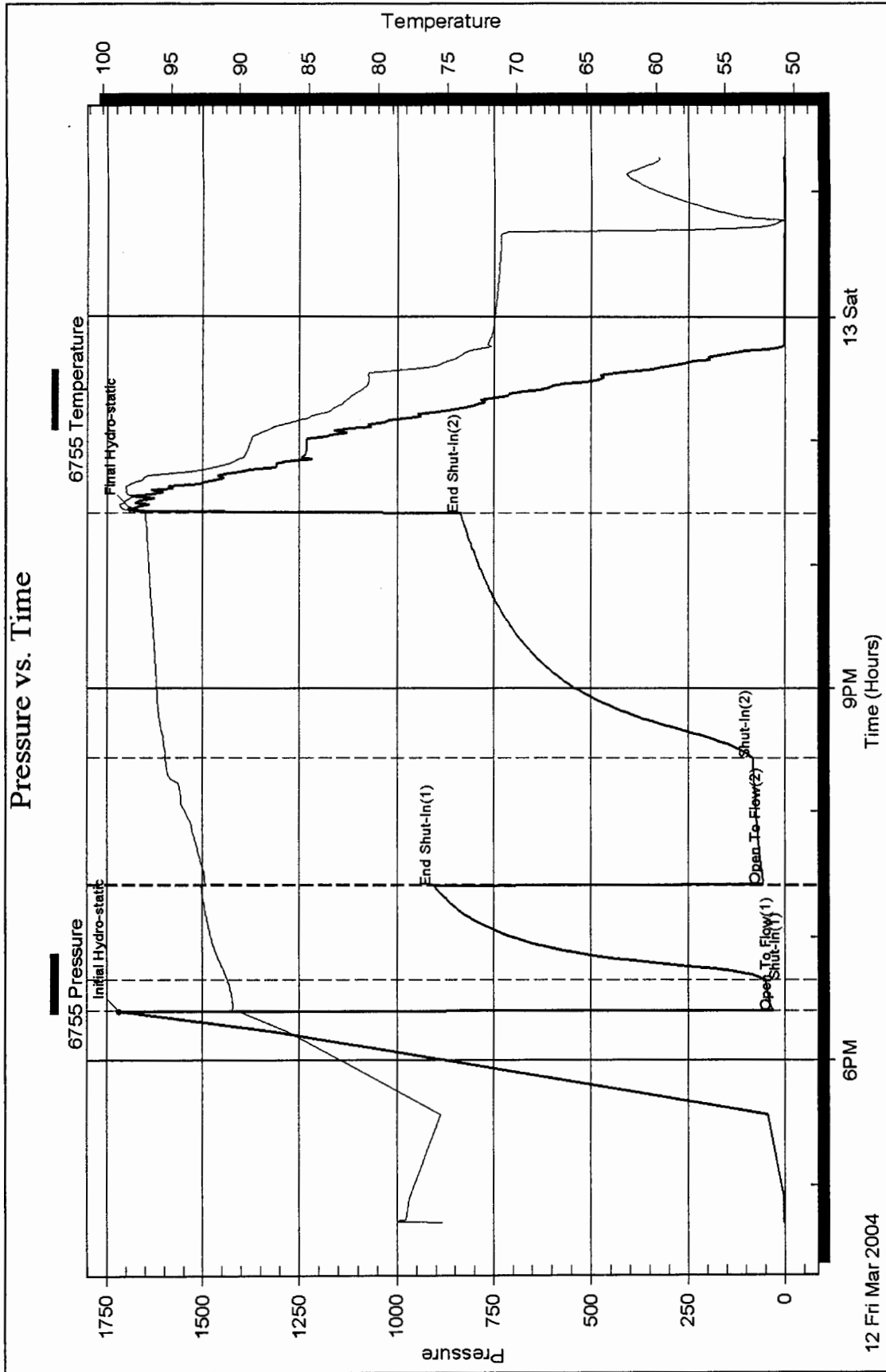
Serial #: 6755

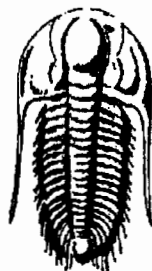
Inside

Mull Dtg Co. Inc.

14-21s-13w Stafford

DST Test Number: 6





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

## DRILL STEM TEST REPORT

Prepared For: **Mull Drlg.Co.Inc.**

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

**14-21s-13w Stafford**

**Hall "C" #1-14**

Start Date: 2004.03.13 @ 09:54:24

End Date: 2004.03.13 @ 18:23:54

Job Ticket #: 18768

DST #: 7

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



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

## DRILL STEM TEST REPORT

Mull Drig. Co. Inc.

221 N. Main #300  
Wichita Ks; 67202

ATTN: Roger L. Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18768

DST#: 7

Test Start: 2004.03.13 @ 09:54:24

### GENERAL INFORMATION:

Formation: **Arubuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:20:39

Time Test Ended: 18:23:54

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 23

Interval: 3587.00 ft (KB) To 3605.00 ft (KB) (TVD)

Total Depth: 3605.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 1872.00 ft (KB)

1863.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 6755

Inside

Press@RunDepth: 54.02 psig @ 3588.00 ft (KB)

Start Date: 2004.03.13

End Date:

2004.03.13

Start Time: 09:54:29

End Time:

18:23:53

Capacity: 7000.00 psig

Last Calib.: 2004.03.13

Time On Btm: 2004.03.13 @ 11:18:39

Time Off Btm: 2004.03.13 @ 15:34:24

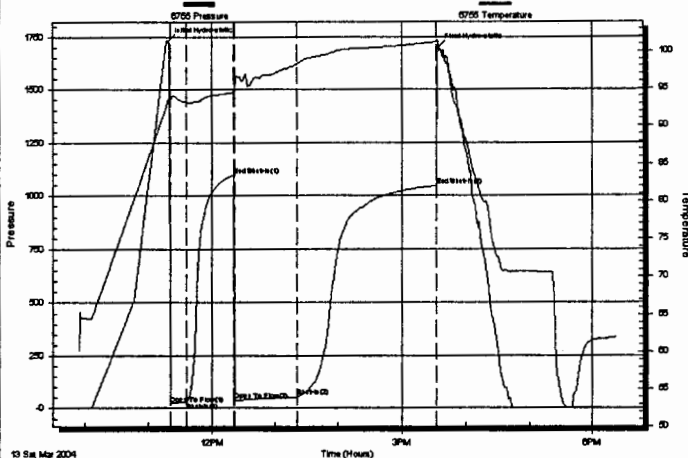
TEST COMMENT: IF: Weak blow . 1/2 - 1".

IS: No blow .

FF: Weak blow . Slow increase to 1 1/2".

FS: No blow .

Pressure vs. Time



### PRESSURE SUMMARY

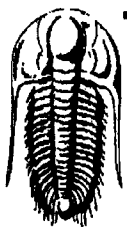
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1729.72         | 93.66        | Initial Hydro-static |
| 2           | 22.15           | 93.11        | Open To Flow (1)     |
| 18          | 31.24           | 93.11        | Shut-In(1)           |
| 63          | 1098.36         | 94.47        | End Shut-In(1)       |
| 63          | 36.63           | 94.60        | Open To Flow (2)     |
| 123         | 54.02           | 98.35        | Shut-In(2)           |
| 254         | 1047.61         | 101.23       | End Shut-In(2)       |
| 256         | 1700.26         | 101.15       | Final Hydro-static   |

### Recovery

| Length (ft) | Description    | Volume (bbl) |
|-------------|----------------|--------------|
| 80.00       | OCM 12%o 88% m | 0.39         |
|             |                |              |
|             |                |              |
|             |                |              |
|             |                |              |

### Gas Rates

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



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

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drig.Co.Inc.

Hall "C" #1-14

221 N.Main #300  
Wichita Ks; 67202

14-21s-13w Stafford

Job Ticket: 18768

DST#: 7

ATTN: Roger L.Martin

Test Start: 2004.03.13 @ 09:54:24

### Tool Information

|                           |                    |                         |                   |                                    |
|---------------------------|--------------------|-------------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 3351.00 ft | Diameter: 3.80 inches   | Volume: 47.01 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: 20000.00 lb  |
| Drill Collar:             | Length: 210.00 ft  | Diameter: 2.25 inches   | Volume: 1.03 bbl  | Weight to Pull Loose: 80000.00 lb  |
|                           |                    | Total Volume: 48.04 bbl |                   | Tool Chased 3.00 ft                |
| Drill Pipe Above KB:      | 4.00 ft            |                         |                   | String Weight: Initial 55000.00 lb |
| Depth to Top Packer:      | 3587.00 ft         |                         |                   | Final 55000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                         |                   |                                    |
| Interval between Packers: | 18.00 ft           |                         |                   |                                    |
| Tool Length:              | 48.00 ft           |                         |                   |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches   |                   |                                    |

### Tool Comments:

12 ft. of fill on Btm. Slid open tool 2 - 3 ft.

### Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|----------------|
|------------------|-------------|------------|----------|------------|----------------|

|                 |       |       |         |         |                               |
|-----------------|-------|-------|---------|---------|-------------------------------|
| Change Over Sub | 1.00  |       |         | 3558.00 |                               |
| Shut In Tool    | 5.00  |       |         | 3563.00 |                               |
| Sampler         | 3.00  |       |         | 3566.00 |                               |
| Hydraulic tool  | 5.00  |       |         | 3571.00 |                               |
| Jars            | 5.00  |       |         | 3576.00 |                               |
| Safety Joint    | 2.00  |       |         | 3578.00 |                               |
| Packer          | 4.00  |       |         | 3582.00 | 30.00 Bottom Of Top Packer    |
| Packer          | 5.00  |       |         | 3587.00 |                               |
| Stubb           | 1.00  |       |         | 3588.00 |                               |
| Recorder        | 0.00  | 6755  | Inside  | 3588.00 |                               |
| Perforations    | 12.00 |       |         | 3600.00 |                               |
| Recorder        | 0.00  | 13222 | Outside | 3600.00 |                               |
| Bullnose        | 5.00  |       |         | 3605.00 | 18.00 Bottom Packers & Anchor |

Total Tool Length: 48.00



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

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Mull Drig.Co.lnc.

Hall "C" #1-14

221 N.Main #300  
Wichita Ks; 67202

14-21s-13w Stafford

Job Ticket: 18768

DST#: 7

ATTN: Roger L.Martin

Test Start: 2004.03.13 @ 09:54:24

### 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:

14000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 14000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description   | Volume<br>bbl |
|--------------|---------------|---------------|
| 80.00        | OCM 12%o 88%m | 0.393         |

Total Length: 80.00 ft

Total Volume: 0.393 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: SAMPLER DATA:98 ml. gas 43 ml. oil 347 ml. mud @ 125 psi

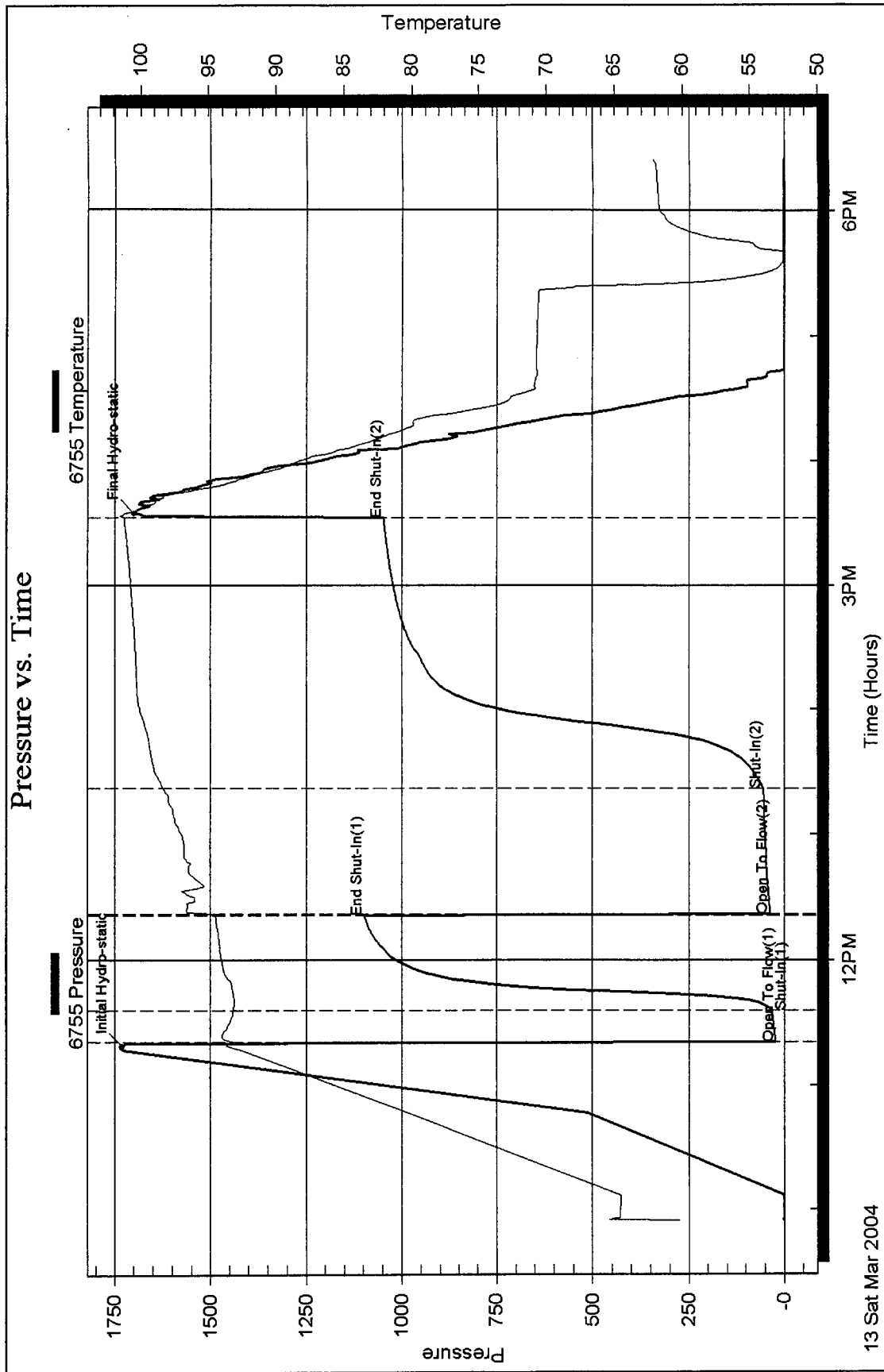
Serial #: 6755

Inside

Mull Drig.Co.Inc.

14-21s-13w Stafford

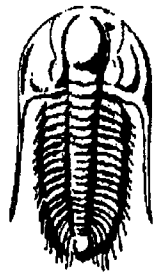
DST Test Number: 7



Trilobite Testing, Inc

Ref. No: 18768

Printed: 2004.03.17 @ 10:34:13 Page 5



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

## DRILL STEM TEST REPORT

Prepared For: **Mull Drlg.Co.Inc.**

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

**14-21s-13w Stafford**

**Hall "C" #1-14**

Start Date: 2004.03.14 @ 00:48:08

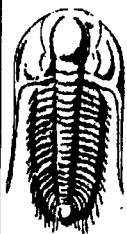
End Date: 2004.03.14 @ 08:48:23

Job Ticket #: 18769      DST #: 8

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Mull Drig.Co.Inc.

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18769

DST#: 8

Test Start: 2004.03.14 @ 00:48:08

### GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:55:38

Time Test Ended: 08:48:23

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 23

Interval: **3605.00 ft (KB) To 3618.00 ft (KB) (TVD)**

Total Depth: 3618.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 1872.00 ft (KB)

1863.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 6755

Inside

Press@RunDepth: 29.95 psig @ 3606.00 ft (KB)

Start Date: 2004.03.14

End Date: 2004.03.14

Start Time: 00:48:13

End Time: 08:48:22

Capacity: 7000.00 psig

Last Calib.: 2004.03.14

Time On Btm: 2004.03.14 @ 02:53:23

Time Off Btm: 2004.03.14 @ 06:16:38

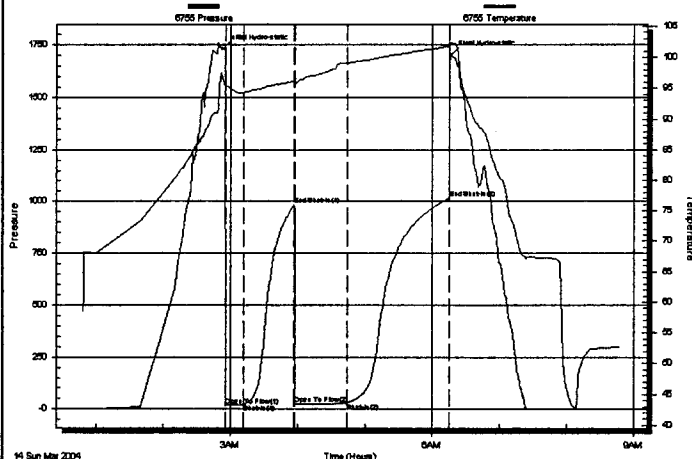
TEST COMMENT: F:Weak blow . 1/4 - 1/2".

IS:No blow .

FF:Very weak blow .(surface)Dead in 30 mins. Flushed tool 39 mins. in to FFP.

FS:No blow .

Pressure vs. Time



PRESSURE SUMMARY

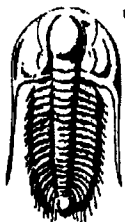
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1730.49         | 96.36        | Initial Hydro-static |
| 3           | 16.94           | 94.78        | Open To Flow (1)     |
| 19          | 22.40           | 94.36        | Shut-In (1)          |
| 64          | 981.49          | 96.20        | End Shut-In (1)      |
| 65          | 22.88           | 95.89        | Open To Flow (2)     |
| 111         | 29.95           | 99.14        | Shut-In (2)          |
| 202         | 1015.81         | 101.77       | End Shut-In (2)      |
| 204         | 1703.89         | 102.31       | Final Hydro-static   |

Recovery

| Length (ft) | Description        | Volume (bbl) |
|-------------|--------------------|--------------|
| 25.00       | Mud with oil specs | 0.12         |
|             |                    |              |
|             |                    |              |
|             |                    |              |
|             |                    |              |
|             |                    |              |

Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drig. Co. Inc.

221 N. Main #300  
Wichita Ks; 67202

ATTN: Roger L. Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18769

DST#: 8

Test Start: 2004.03.14 @ 00:48:08

### Tool Information

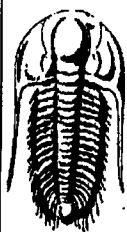
|                           |                    |                       |                   |                                    |
|---------------------------|--------------------|-----------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 3377.00 ft | Diameter: 3.80 inches | Volume: 47.37 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: 20000.00 lb  |
| Drill Collar:             | Length: 210.00 ft  | Diameter: 2.25 inches | Volume: 1.03 bbl  | Weight to Pull Loose: 76000.00 lb  |
|                           |                    | Total Volume:         | 48.40 bbl         | Tool Chased 1.00 ft                |
| Drill Pipe Above KB:      | 12.00 ft           |                       |                   | String Weight: Initial 55000.00 lb |
| Depth to Top Packer:      | 3605.00 ft         |                       |                   | Final 55000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                   |                                    |
| Interval between Packers: | 13.00 ft           |                       |                   |                                    |
| Tool Length:              | 43.00 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 |       |         | 3576.00 |                               |
| Shut In Tool    | 5.00 |       |         | 3581.00 |                               |
| Sampler         | 3.00 |       |         | 3584.00 |                               |
| Hydraulic tool  | 5.00 |       |         | 3589.00 |                               |
| Jars            | 5.00 |       |         | 3594.00 |                               |
| Safety Joint    | 2.00 |       |         | 3596.00 |                               |
| Packer          | 4.00 |       |         | 3600.00 | 30.00 Bottom Of Top Packer    |
| Packer          | 5.00 |       |         | 3605.00 |                               |
| Stubb           | 1.00 |       |         | 3606.00 |                               |
| Recorder        | 0.00 | 6755  | Inside  | 3606.00 |                               |
| Perforations    | 7.00 |       |         | 3613.00 |                               |
| Recorder        | 0.00 | 13222 | Outside | 3613.00 |                               |
| Bullnose        | 5.00 |       |         | 3618.00 | 13.00 Bottom Packers & Anchor |

**Total Tool Length: 43.00**



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

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Mull Drig.Co.,Inc.

Hall "C" #1-14

221 N.Main #300  
Wichita Ks; 67202

14-21s-13w Stafford

Job Ticket: 18769

DST#: 8

ATTN: Roger L.Martin

Test Start: 2004.03.14 @ 00:48:08

### 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:

14000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 14000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description        | Volume<br>bbl |
|--------------|--------------------|---------------|
| 25.00        | Mud with oil specs | 0.123         |

Total Length:

25.00 ft

Total Volume:

0.123 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: SAMPLER DATA: 400 ml. mud / trace of oil @ 105 psi

DST Test Number: 8

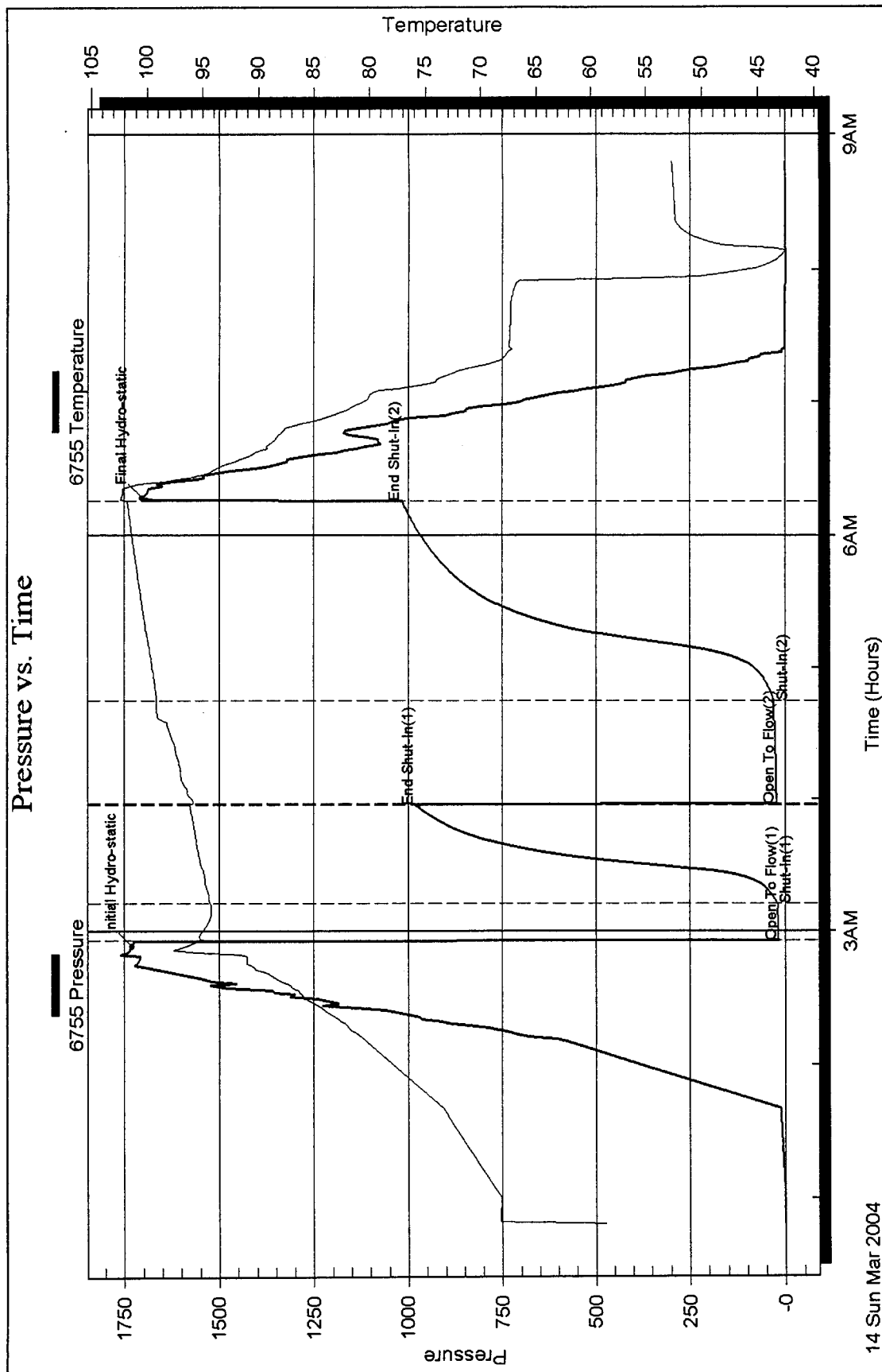
14-21s-13w Stafford

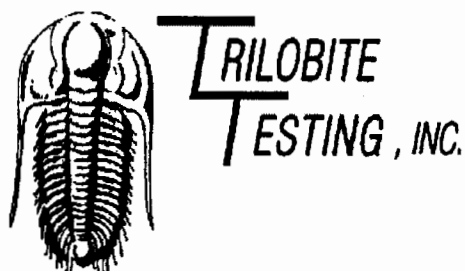
Mull Drig. Co. Inc.

Inside

Serial #: 6755

# Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Mull Drlg.Co.Inc.**

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

**14-21s-13w Stafford**

**Hall "C" #1-14**

Start Date: 2004.03.14 @ 15:14:33

End Date: 2004.03.14 @ 21:42:18

Job Ticket #: 18770                      DST #: 9

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



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

## DRILL STEM TEST REPORT

Mull Drig.Co.Inc.

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18770

DST#: 9

Test Start: 2004.03.14 @ 15:14:33

### GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:41:48

Time Test Ended: 21:42:18

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 23

Interval: **3618.00 ft (KB) To 3628.00 ft (KB) (TVD)**

Reference Elevations: 1872.00 ft (KB)

Total Depth: 3628.00 ft (KB) (TVD)

1863.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 9.00 ft

Serial #: 6755

Inside

Press@RunDepth: 1713.89 psig @ 3619.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2004.03.14

End Date:

2004.03.14

Last Calib.: 2004.03.14

Start Time: 15:14:38

End Time:

21:42:17

Time On Btm: 2004.03.14 @ 16:40:48

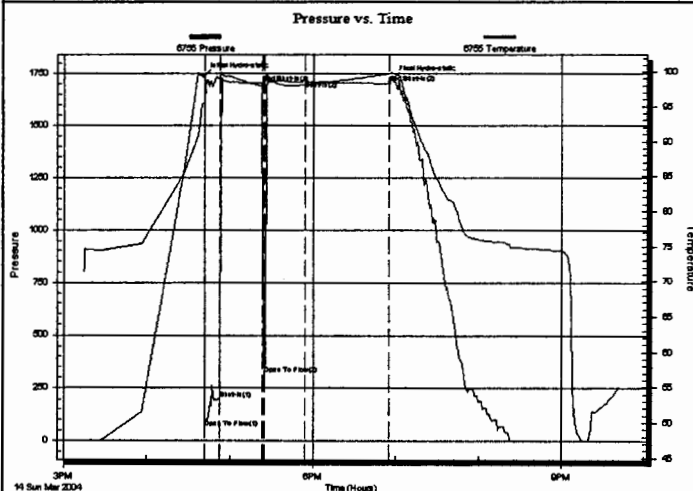
Time Off Btm: 2004.03.14 @ 18:57:18

TEST COMMENT: IF: Strong blow. B.O.B. in 3 mins. Slowly losing mud on back side.

IS: No blow

FF: Strong blow. (13") for approx. 2 mins. Slowly losing mud on back side for approx. 2 mins. Blow died.

FSI: No blow.



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1733.76         | 95.50        | Initial Hydro-static |
| 1           | 59.67           | 95.75        | Open To Flow (1)     |
| 12          | 195.41          | 99.22        | Shut-in(1)           |
| 43          | 1702.64         | 97.94        | End Shut-in(1)       |
| 44          | 315.15          | 98.91        | Open To Flow (2)     |
| 74          | 1713.89         | 98.12        | Shut-in(2)           |
| 135         | 1704.83         | 99.79        | End Shut-in(2)       |
| 137         | 1718.92         | 99.84        | Final Hydro-static   |

### Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 442.00      | Drig.mud    | 4.29         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drlg. Co. Inc.

221 N. Main #300  
Wichita Ks; 67202

ATTN: Roger L. Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18770

DST#: 9

Test Start: 2004.03.14 @ 15:14:33

### Tool Information

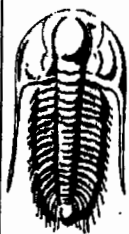
|                           |                    |                         |                   |                                    |
|---------------------------|--------------------|-------------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 3382.00 ft | Diameter: 3.80 inches   | Volume: 47.44 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: 22000.00 lb  |
| Drill Collar:             | Length: 210.00 ft  | Diameter: 2.25 inches   | Volume: 1.03 bbl  | Weight to Pull Loose: 64000.00 lb  |
|                           |                    | Total Volume: 48.47 bbl |                   | Tool Chased 1.00 ft                |
| Drill Pipe Above KB:      | 4.00 ft            |                         |                   | String Weight: Initial 54000.00 lb |
| Depth to Top Packer:      | 3618.00 ft         |                         |                   | Final 55000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                         |                   |                                    |
| Interval between Packers: | 10.00 ft           |                         |                   |                                    |
| Tool Length:              | 40.00 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        |            |          | 3589.00    |                               |
| Shut In Tool     | 5.00        |            |          | 3594.00    |                               |
| Sampler          | 3.00        |            |          | 3597.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 3602.00    |                               |
| Jars             | 5.00        |            |          | 3607.00    |                               |
| Safety Joint     | 2.00        |            |          | 3609.00    |                               |
| Packer           | 4.00        |            |          | 3613.00    | 30.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 3618.00    |                               |
| Stubb            | 1.00        |            |          | 3619.00    |                               |
| Recorder         | 0.00        | 6755       | Inside   | 3619.00    |                               |
| Perforations     | 4.00        |            |          | 3623.00    |                               |
| Recorder         | 0.00        | 13222      | Outside  | 3623.00    |                               |
| Bullnose         | 5.00        |            |          | 3628.00    | 10.00 Bottom Packers & Anchor |

Total Tool Length: 40.00



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Mull Drlg.Co.,Inc.

Hall "C" #1-14

221 N.Main #300  
Wichita Ks; 67202

14-21s-13w Stafford

Job Ticket: 18770

DST#: 9

ATTN: Roger L.Martin

Test Start: 2004.03.14 @ 15:14:33

### 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:

15000 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 15000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 442.00       | Drig.mud    | 4.287         |

Total Length: 442.00 ft

Total Volume: 4.287 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: SAMPLER DATA: 930 ml. mud @ 520 psi

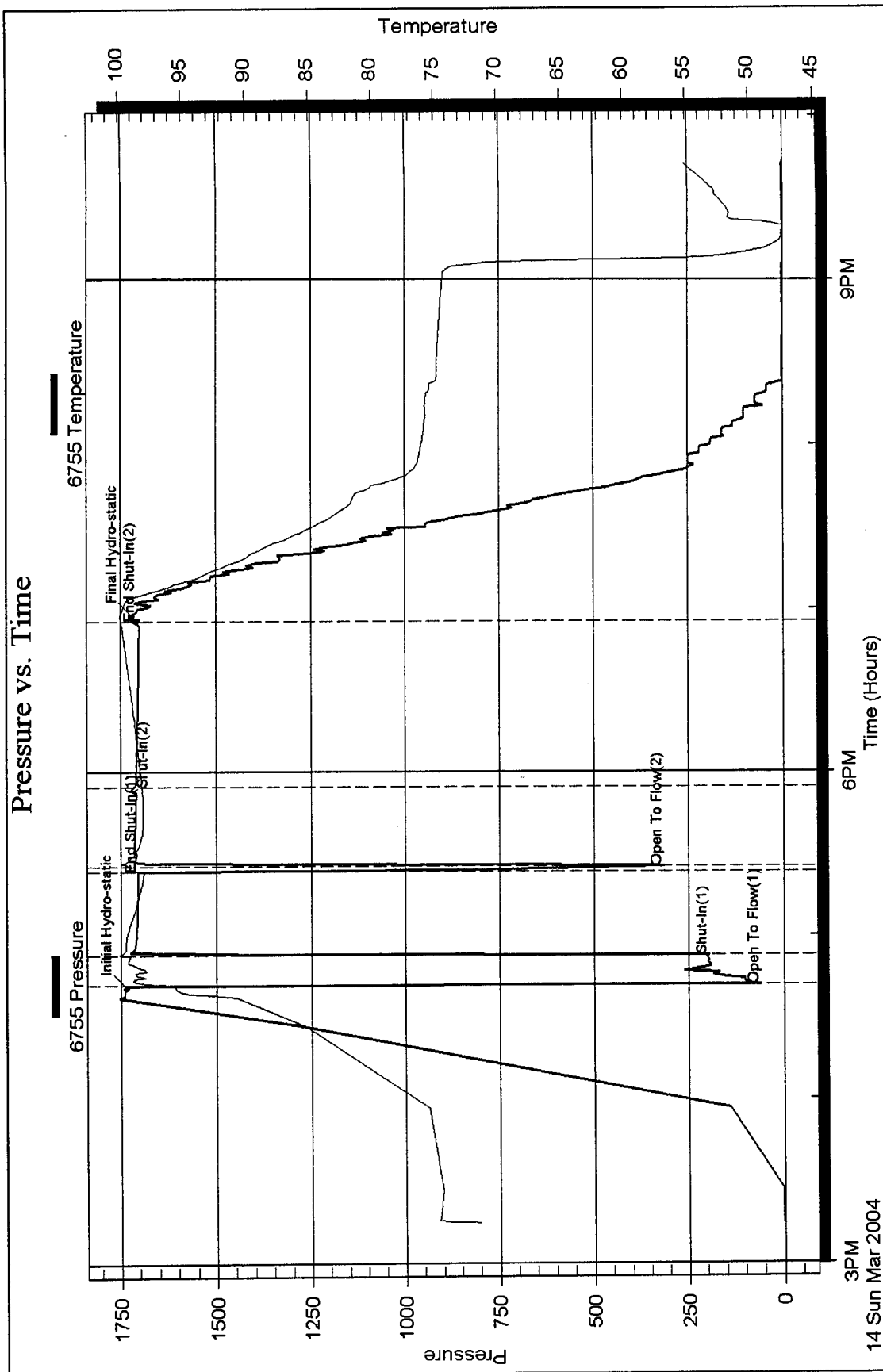
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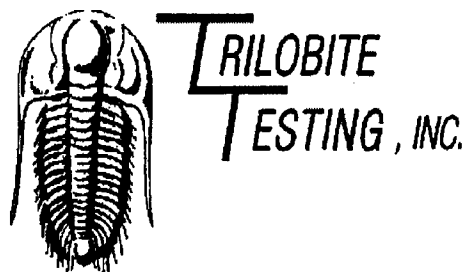
14-21s-13w Stafford

Mull Dtg. Co. Inc.

Inside

Serial #: 6755





## DRILL STEM TEST REPORT

Prepared For: **Mull Drlg.Co.Inc.**

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

**14-21s-13w Stafford**

**Hall "C" #1-14**

Start Date: 2004.03.15 @ 15:14:46

End Date: 2004.03.15 @ 23:59:31

Job Ticket #: 18771 /For L.D.[DST #: 10

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



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

## DRILL STEM TEST REPORT

Mull Drig.Co.,Inc.

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18771 /For **DST#: 10**

Test Start: 2004.03.15 @ 15:14:46

### GENERAL INFORMATION:

Formation: **Arbuckle**

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

Time Tool Opened: 17:47:01

Time Test Ended: 23:59:31

Test Type: **Conventional Straddle**

Tester: **Gary Pevoteaux**

Unit No: **23**

Interval: **3601.00 ft (KB) To 3634.00 ft (KB) (TVD)**

Total Depth: **3746.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Poor**

Reference Elevations: **1872.00 ft (KB)**

**1863.00 ft (CF)**

KB to GR/CF: **9.00 ft**

Serial #: **6755**

Inside

Press@RunDepth: **100.18 psig @ 3602.00 ft (KB)**

Start Date: **2004.03.15**

End Date:

**2004.03.15**

Start Time: **15:14:51**

End Time:

**23:59:31**

Capacity: **7000.00 psig**

Last Calib.: **2004.03.16**

Time On Btmr: **2004.03.15 @ 17:45:46**

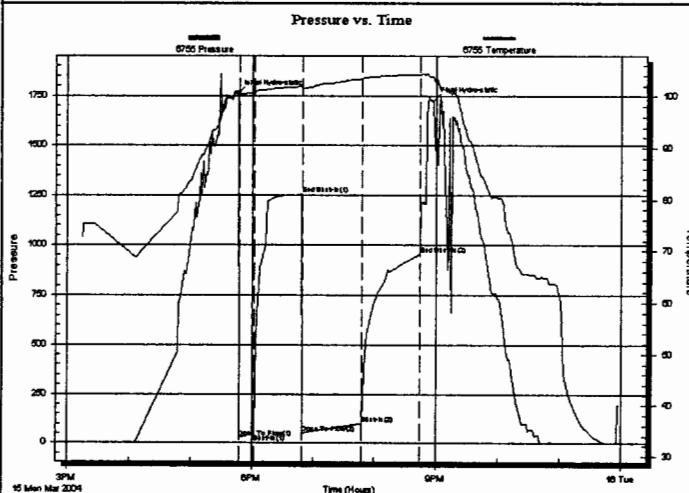
Time Off Btmr: **2004.03.15 @ 20:56:46**

TEST COMMENT: IF:Weak blow . 1/2 - 3".

IS:No blow .

FF:Weak blow . 1/4 - 3/4".

FS:No blow .



### PRESSURE SUMMARY

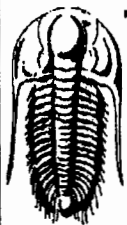
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1756.38         | 100.96       | Initial Hydro-static |
| 2           | 24.76           | 100.38       | Open To Flow (1)     |
| 16          | 45.69           | 100.72       | Shut-In(1)           |
| 64          | 1254.27         | 101.89       | End Shut-In(1)       |
| 64          | 49.91           | 101.62       | Open To Flow (2)     |
| 123         | 100.18          | 103.39       | Shut-In(2)           |
| 179         | 951.47          | 104.22       | End Shut-In(2)       |
| 191         | 1723.36         | 103.76       | Final Hydro-static   |

### Recovery

| Length (ft) | Description                         | Volume (bbl) |
|-------------|-------------------------------------|--------------|
| 120.00      | WM with o spks Rw .31 ohms @ 41 deg | 0.59         |
| 50.00       | Mud with oil specs.                 | 0.25         |
|             |                                     |              |
|             |                                     |              |
|             |                                     |              |
|             |                                     |              |

### Gas Rates

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



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

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drlg.Co.Inc.

221 N.Main #300  
Wichita Ks; 67202

ATTN: Roger L.Martin

Hall "C" #1-14

14-21s-13w Stafford

Job Ticket: 18771 /For DST#: 10

Test Start: 2004.03.15 @ 15:14:46

### Tool Information

|                           |                    |                         |                   |                                    |
|---------------------------|--------------------|-------------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 3380.00 ft | Diameter: 3.80 inches   | Volume: 47.41 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: 20000.00 lb  |
| Drill Collar:             | Length: 210.00 ft  | Diameter: 2.25 inches   | Volume: 1.03 bbl  | Weight to Pull Loose: 135000.0 lb  |
|                           |                    | Total Volume: 48.44 bbl |                   | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 16.00 ft           |                         |                   | String Weight: Initial 60000.00 lb |
| Depth to Top Packer:      | 3601.00 ft         |                         |                   | Final 60000.00 lb                  |
| Depth to Bottom Packer:   | 3634.00 ft         |                         |                   |                                    |
| Interval between Packers: | 33.00 ft           |                         |                   |                                    |
| Tool Length:              | 172.00 ft          |                         |                   |                                    |
| Number of Packers:        | 3                  | Diameter: 6.75 inches   |                   |                                    |

Tool Comments:

### Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

|                 |       |       |         |         |                                |
|-----------------|-------|-------|---------|---------|--------------------------------|
| Change Over Sub | 1.00  |       |         | 3575.00 |                                |
| Shut In Tool    | 5.00  |       |         | 3580.00 |                                |
| Hydraulic tool  | 5.00  |       |         | 3585.00 |                                |
| Jars            | 5.00  |       |         | 3590.00 |                                |
| Safety Joint    | 2.00  |       |         | 3592.00 |                                |
| Packer          | 4.00  |       |         | 3596.00 | 27.00 Bottom Of Top Packer     |
| Packer          | 5.00  |       |         | 3601.00 |                                |
| Stubb           | 1.00  |       |         | 3602.00 |                                |
| Recorder        | 0.00  | 6755  | Inside  | 3602.00 |                                |
| Perforations    | 28.00 |       |         | 3630.00 |                                |
| Recorder        | 0.00  | 10290 | Outside | 3630.00 |                                |
| Blank Off Sub   | 1.00  |       |         | 3631.00 |                                |
| Travel collar   | 3.00  |       |         | 3634.00 | 33.00 Tool Interval            |
| Packer          | 0.00  |       |         | 3634.00 |                                |
| Stubb           | 1.00  |       |         | 3635.00 |                                |
| Perforations    | 9.00  |       |         | 3644.00 |                                |
| Change Over Sub | 1.00  |       |         | 3645.00 |                                |
| Blank Spacing   | 95.00 |       |         | 3740.00 |                                |
| Change Over Sub | 1.00  |       |         | 3741.00 |                                |
| Recorder        | 0.00  | 13222 | Below   | 3741.00 |                                |
| Bullnose        | 5.00  |       |         | 3746.00 | 112.00 Bottom Packers & Anchor |

Total Tool Length: 172.00



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

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Mull Drlg.Co.,Inc.

Hall "C" #1-14

221 N.Main #300  
Wichita Ks; 67202

14-21s-13w Stafford

Job Ticket: 18771 /For DST#: 10

ATTN: Roger L.Martin

Test Start: 2004.03.15 @ 15:14:46

### 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: 40000 ppm

Viscosity: 59.00 sec/qt

Cushion Volume: bbl

Water Loss: 9.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure: psig

Salinity: 15000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description                          | Volume<br>bbl |
|--------------|--------------------------------------|---------------|
| 120.00       | WM with o spks Rw .31 ohms @ 41 deg. | 0.590         |
| 50.00        | Mud with oil specs.                  | 0.246         |

Total Length: 170.00 ft

Total Volume: 0.836 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 10

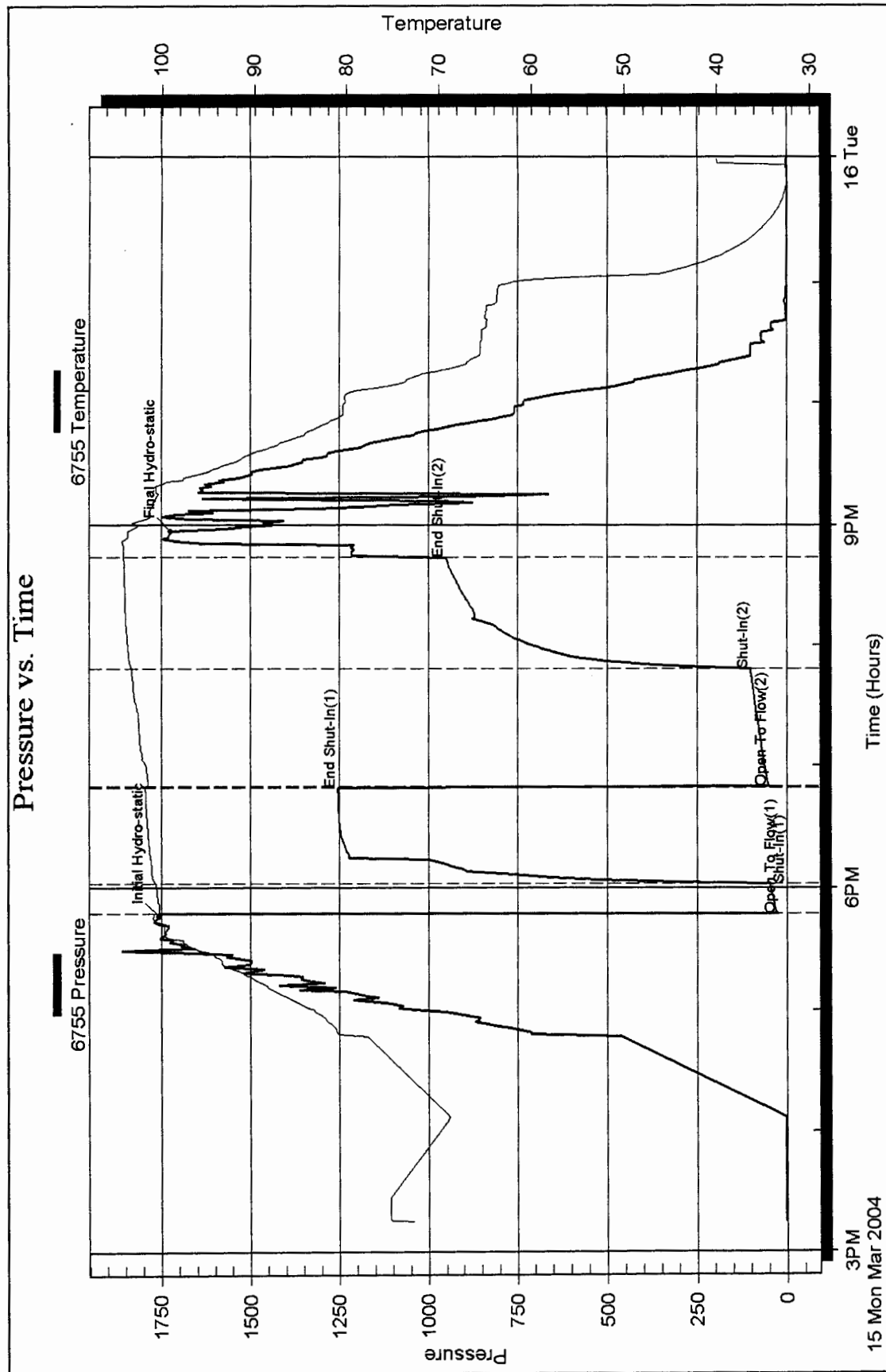
14-21s-13w Stafford

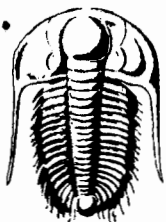
Mull Drig.Co.lnc.

Inside

Serial #: 6755

# Pressure vs. Time





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

05/03

## Test Ticket

Nº 18762

Well Name & No. Hall C # 1-14 Test No. 1 Date 3-8-04  
Company Mull Dily. Co. Inc. Zone Tested Law A-0  
Address 221 S. Main # 300, WASHBURN KS. 67202 Elevation 1872 KB 1863 GL  
Co. Rep / Geo. Roger L. Martin Cont. Studing Dily. #1 Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
Location: Sec. 14 Twp. 21 S Rge. 13 W Co. Stafford State Ks.  
No. of Copies 48 Distribution Sheet (Y, N) yes Turnkey (Y, N) - Evaluation (Y, N) \_\_\_\_\_

Interval Tested 3271 - 3340' Initial Str Wt./Lbs. 51,000 Unseated Str Wt./Lbs. 51,000  
Anchor Length 69' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 44,000  
Top Packer Depth 3266' Tool Weight 2100#  
Bottom Packer Depth 3271' Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓  
Total Depth 3340' Wt. Pipe Run None Drill Collar Run 210  
Mud Wt. 9.1 LCM - Vis. 46 WL 9.4 cc Drill Pipe Size 4 1/2" Ft. Run 3067  
Blow Description IF: Weak below. 1/2 - 1" ISI: No below.

FF: Weak below. 1/2 - 2 1/2" FSI: No below.

Recovery - Total Feet 85 GIP Trace Ft. in DC 85 Ft. in DP 0  
Rec. 85 Feet of Mud @ 1000 spec. %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
BHT 100 °F Gravity N/A °API D @ \_\_\_\_\_ °F Corrected Gravity N/A °API  
RW N.C. @ 2 °F Chlorides 4,000 ppm Recovery \_\_\_\_\_ Chlorides 4,000 ppm System

|                                  | AK-1        | Alpine |                 |              |             |              |
|----------------------------------|-------------|--------|-----------------|--------------|-------------|--------------|
| (A) Initial Hydrostatic Mud      | <u>1592</u> | PSI    | Recorder No.    | <u>6755</u>  | Test        | <u>✓ 700</u> |
| (B) First Initial Flow Pressure  | <u>16</u>   | PSI    | (depth)         | <u>3272'</u> | Elec. Rec.  | <u>✓ 150</u> |
| (C) First Final Flow Pressure    | <u>31</u>   | PSI    | Recorder No.    | <u>13222</u> | Jars        | _____        |
| (D) Initial Shut-In Pressure     | <u>543</u>  | PSI    | (depth)         | <u>3335'</u> | Safety Jt.  | _____        |
| (E) Second Initial Flow Pressure | <u>34</u>   | PSI    | Recorder No.    | <u>-</u>     | Circ Sub    | _____        |
| (F) Second Final Flow Pressure   | <u>55</u>   | PSI    | (depth)         | <u>-</u>     | Sampler     | _____        |
| (G) Final Shut-In Pressure       | <u>625</u>  | PSI    | Initial Opening | <u>15</u>    | Straddle    | _____        |
| (Q) Final Hydrostatic Mud        | <u>1544</u> | PSI    | Initial Shut-In | <u>45</u>    | Ext. Packer | _____        |

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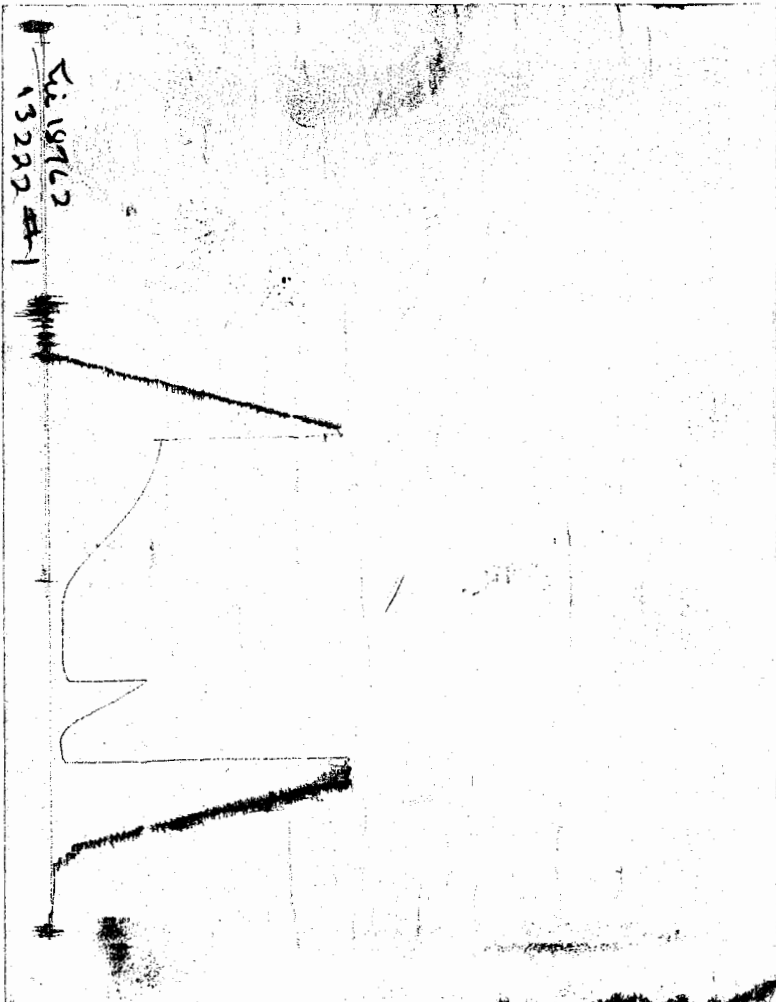
Approved By Roger Martin

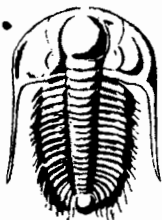
Our Representative Gary Revotian

|               |                             |
|---------------|-----------------------------|
| Final Flow    | <u>60</u>                   |
| Final Shut-In | <u>120</u>                  |
| T-On Location | <u>2210</u>                 |
| T-Started     | <u>2300</u>                 |
| T-Open        | <u>0109</u>                 |
| T-Pulled      | <u>0512</u>                 |
| T-Out         | <u>0707</u>                 |
| Mileage       | <u>80</u> <del>1068</del>   |
| Sub Total:    | <u>240918</u>               |
| Std. By       | <u>✓ 30</u>                 |
| Other         | _____                       |
| Total:        | <u>✓ 220°</u><br><u>948</u> |

## CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18763

05/03

## Test Ticket

|                 |                                      |                            |                  |                 |         |                   |
|-----------------|--------------------------------------|----------------------------|------------------|-----------------|---------|-------------------|
| Well Name & No. | Hall C-1-14                          |                            | Test No.         | 2               | Date    | 3-9-04            |
| Company         | Mull Dely Co. Inc.                   |                            | Zone Tested      | Lans. E-F       |         |                   |
| Address         | 221 N. Main, #300, Wichita, KS 67202 |                            | Elevation        | 1872 KB         | 1863 GL |                   |
| Co. Rep / Geo.  | Roger L. Martin                      | Cont.                      | Stirling Dely #1 | Est. Ft. of Pay |         | Por. %            |
| Location: Sec.  | 14                                   | Twp.                       | 215              | Rge.            | 13W     | Co. Stafford      |
| No. of Copies   | 4                                    | Disbtribution Sheet (Y, N) | Y                | Turnkey (Y, N)  |         | Evaluation (Y, N) |

|                     |                                                                                                                    |                      |        |                       |        |
|---------------------|--------------------------------------------------------------------------------------------------------------------|----------------------|--------|-----------------------|--------|
| Interval Tested     | 3339 - 3362'                                                                                                       | Initial Str Wt./Lbs. | 53,000 | Unseated Str Wt./Lbs. | 54,000 |
| Anchor Length       | 23'                                                                                                                | Wt. Set Lbs.         | 24,000 | Wt. Pulled Loose/Lbs. | 75,000 |
| Top Packer Depth    | 3334'                                                                                                              | Tool Weight          | 2100 # |                       |        |
| Bottom Packer Depth | 3339'                                                                                                              | Hole Size 7 7/8"     | ✓      | Rubber Size 6 3/4"    | ✓      |
| Total Depth         | 3362'                                                                                                              | Wt. Pipe Run         | None   | Drill Collar Run      | 210'   |
| Mud Wt.             | 9.0 LCM ~ Vis. SS WL 7.6 cc                                                                                        | Drill Pipe Size      | 4 1/2" | Ft. Run               | 3132   |
| Blow Description    | IF: Wt. to fair below. slow increase to 7".<br>ISI: No below.<br>FF: Fair below. B.O.B. in 59 mins. FSI: No below. |                      |        |                       |        |

|                       |     |            |                   |              |             |                      |                            |
|-----------------------|-----|------------|-------------------|--------------|-------------|----------------------|----------------------------|
| Recovery - Total Feet | 330 | GIP        | Trace             | Ft. in DC    | 210         | Ft. in DP            | 120                        |
| Rec.                  | 90  | Feet of    | 50cmw (Trach oil) | %gas         | 2           | %oil                 | 83                         |
| Rec.                  | 120 | Feet of    | new @ oil spec    | %gas         |             | %oil                 | 94                         |
| Rec.                  | 130 | Feet of    | CCMW @ oil spec   | 15%gas       |             | %oil                 | 70                         |
| Rec.                  |     | Feet of    |                   | %gas         |             | %oil                 | %water                     |
| Rec.                  |     | Feet of    |                   | %gas         |             | %oil                 | %water                     |
| BHT                   | 105 | °F Gravity | N/A               | °API D @     |             | °F Corrected Gravity | N/A                        |
| RW                    | .11 | @          | 43                | °F Chlorides | 118,000 ppm | Recovery             | Chlorides 5,000 ppm System |

|                                  |      |        |          |                 |       |              |       |
|----------------------------------|------|--------|----------|-----------------|-------|--------------|-------|
| (A) Initial Hydrostatic Mud      | AK-1 | Alpine | 1630 PSI | Recorder No.    | 6255  | Test         | ✓ 700 |
| (B) First Initial Flow Pressure  |      |        | 24 PSI   | (depth)         | 3340' | Elec. Rec.   | ✓ 150 |
| (C) First Final Flow Pressure    |      |        | 83 PSI   | Recorder No.    | 13222 | Jars         |       |
| (D) Initial Shut-In Pressure     |      |        | 84 PSI   | (depth)         | 3357' | Safety Jt.   |       |
| (E) Second Initial Flow Pressure |      |        | 91 PSI   | Recorder No.    |       | Circ Sub     |       |
| (F) Second Final Flow Pressure   |      |        | 178 PSI  | (depth)         |       | Sampler      |       |
| (G) Final Shut-In Pressure       |      |        | 856 PSI  | Initial Opening | 15    | Straddle     |       |
| (Q) Final Hydrostatic Mud        |      |        | 1561 PSI | Initial Shut-In | 45    | Ext. Packer  |       |
|                                  |      |        |          | Final Flow      | 65    | Shale Packer |       |
|                                  |      |        |          | Final Shut-In   | 120   | Mileage      | ✓ 40  |
|                                  |      |        |          | T-On Location   | 1740  | Sub Total:   | 890   |
|                                  |      |        |          | T-Started       | 1747  | Std. By      | ✓ 30  |
|                                  |      |        |          | T-Open          | 1932  | Other        |       |
|                                  |      |        |          | T-Pulled        | 2340  | Total:       | 920   |
|                                  |      |        |          | T-Out           | 0140  |              |       |

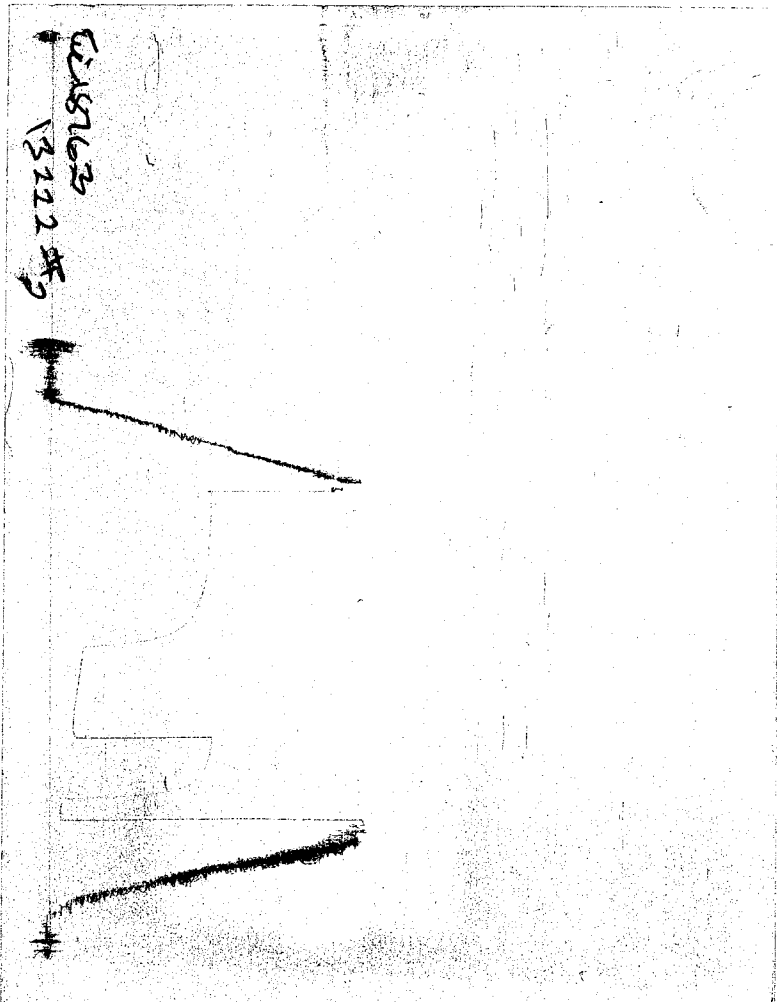
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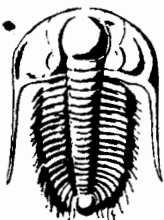
Approved By: Roger L. Martin

Our Representative: Gary [Signature]

# CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18764

05/03

## Test Ticket

Well Name & No. Hall "C" #1-14 Test No. 3 Date 3-10-04  
 Company Mull Oily Co. Inc. Zone Tested Laurel 4-I  
 Address Wichita, KS 67202 Elevation 1822 KB 1863 GL  
 Co. Rep / Geo. Roger L. Martin Cont. Stirling Oily Co. Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 14 Twp. 21S Rge. 13W Co. Stafford State KS  
 No. of Copies 4 Distribution Sheet (Y, N) yes Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 3392 - 3441' Initial Str Wt./Lbs. 54,000 Unseated Str Wt./Lbs. 54,000  
 Anchor Length 44' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 62,000  
 Top Packer Depth 3392' Tool Weight 2100#  
 Bottom Packer Depth 3397' Hole Size 7 7/8" Rubber Size 6 3/4"  
 Total Depth 3441' Wt. Pipe Run None Drill Collar Run 210'  
 Mud Wt. 9.1 LCM ~ Vis. 63 WL 9.2cc Drill Pipe Size 4 1/2" Ft. Run 3196  
 Blow Description IF: Weak below 1/4 - 1 1/4". FSI: No blow.

FF: Weak below 1/4 - 4". FSI: No blow.

Recovery - Total Feet 186' GIP 0 Ft. in DC 186 Ft. in DP 0  
 Rec. 66 Feet of Mud and Specs. %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
 Rec. 120 Feet of ~~Specs~~ MW %gas \_\_\_\_\_ %oil 67 %water 33 %mud \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
 BHT 99 °F Gravity N/A °API D @ \_\_\_\_\_ °F Corrected Gravity N/A °API  
 RW .14 @ 46 °F Chlorides 8,000 ppm Recovery \_\_\_\_\_ Chlorides 9,000 ppm System

|                                  | AK-1 | Alpine          |                 |              |              |                 |
|----------------------------------|------|-----------------|-----------------|--------------|--------------|-----------------|
| (A) Initial Hydrostatic Mud      |      | <u>1648</u> PSI | Recorder No.    | <u>6755</u>  | Test         | <u>✓ 700</u>    |
| (B) First Initial Flow Pressure  |      | <u>18</u> PSI   | (depth)         | <u>3398'</u> | Elec. Rec.   | <u>✓ 150</u>    |
| (C) First Final Flow Pressure    |      | <u>44</u> PSI   | Recorder No.    | <u>13222</u> | Jars         | _____           |
| (D) Initial Shut-In Pressure     |      | <u>1610</u> PSI | (depth)         | <u>3436'</u> | Safety Jt.   | _____           |
| (E) Second Initial Flow Pressure |      | <u>47</u> PSI   | Recorder No.    | <u>~</u>     | Circ Sub     | _____           |
| (F) Second Final Flow Pressure   |      | <u>108</u> PSI  | (depth)         | <u>~</u>     | Sampler      | _____           |
| (G) Final Shut-In Pressure       |      | <u>994</u> PSI  | Initial Opening | <u>15</u>    | Straddle     | _____           |
| (Q) Final Hydrostatic Mud        |      | <u>1624</u> PSI | Initial Shut-In | <u>45</u>    | Ext. Packer  | _____           |
|                                  |      |                 | Final Flow      | <u>60</u>    | Shale Packer | _____           |
|                                  |      |                 | Final Shut-In   | <u>126</u>   | Mileage      | <u>✓ 40</u>     |
|                                  |      |                 | T-On Location   | <u>1316</u>  | Sub Total:   | <u>890.00</u>   |
|                                  |      |                 | T-Started       | <u>1321</u>  | Std. By      | <u>✓ 30.00</u>  |
|                                  |      |                 | T-Open          | <u>1451</u>  | Other        | _____           |
|                                  |      |                 | T-Pulled        | <u>1854</u>  | Total:       | <u>✓ 920.00</u> |
|                                  |      |                 | T-Out           | <u>2115</u>  |              |                 |

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Approved By

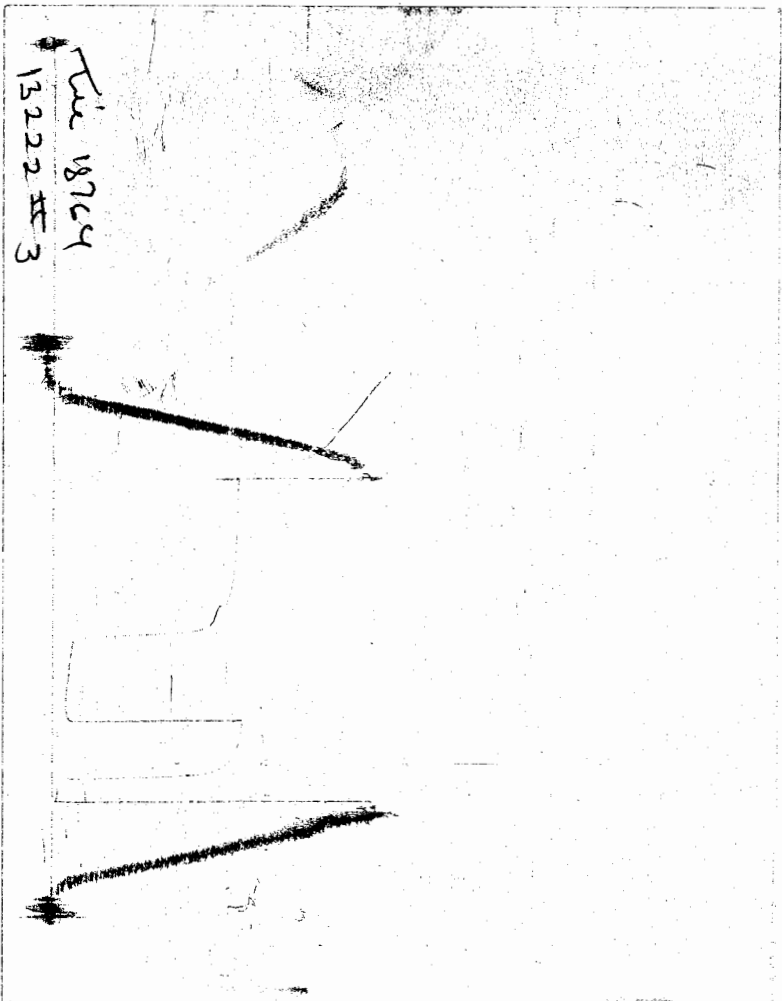
Roger Martin

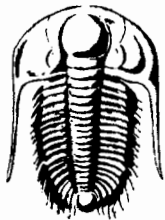
Our Representative

Gary Iverson

# CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18765

05/03

## Test Ticket

|                 |                        |                            |          |                |         |
|-----------------|------------------------|----------------------------|----------|----------------|---------|
| Well Name & No. | Hall C #1-14           | Test No.                   | 4        | Date           | 2-11-04 |
| Company         | Mull Drilling Co. Inc. | Zone Tested                | hans 3   |                |         |
| Address         | Wichita Ks. 67202      | Elevation                  | 1872     | KB             | 1863    |
| Co. Rep / Geo.  | Roger L. Martin        | Est. Ft. of Pay            |          | Por.           | %       |
| Location: Sec.  | 14                     | Twp.                       | 21 S     | Rge.           | 13 W    |
|                 |                        | Co.                        | Stellard | State          | Ks.     |
| No. of Copies   | 4                      | Disbtribution Sheet (Y, N) | yes      | Turnkey (Y, N) |         |
|                 |                        | Evaluation (Y, N)          |          |                |         |

|                     |                                                   |                      |        |                       |        |
|---------------------|---------------------------------------------------|----------------------|--------|-----------------------|--------|
| Interval Tested     | 3437 - 3463'                                      | Initial Str Wt./Lbs. | 54,000 | Unseated Str Wt./Lbs. | 54,000 |
| Anchor Length       | 26'                                               | Wt. Set Lbs.         | 20,000 | Wt. Pulled Loose/Lbs. | 60,000 |
| Top Packer Depth    | 3432'                                             | Tool Weight          | 2100 # |                       |        |
| Bottom Packer Depth | 3437'                                             | Hole Size 7 7/8"     | ✓      | Rubber Size 6 3/4"    | ✓      |
| Total Depth         | 3463'                                             | Wt. Pipe Run         | None   | Drill Collar Run      | 210'   |
| Mud Wt.             | 9.0 LCM                                           | Vis.                 | 52     | WL                    | 11.24  |
|                     |                                                   | Drill Pipe Size      | 4 1/2" | Ft. Run               | 3224   |
| Blow Description    | FF: Weak blow. Slow increase to 3". FST: No blow. |                      |        |                       |        |

FF: Weak to fair blow. Slow increase to 8". FST: Surface after 20 min.

|                       |     |            |     |           |           |                      |          |   |           |            |        |
|-----------------------|-----|------------|-----|-----------|-----------|----------------------|----------|---|-----------|------------|--------|
| Recovery - Total Feet | 310 | GIP        | 0   | Ft. in DC | 210       | Ft. in DP            | 100      |   |           |            |        |
| Rec.                  | 310 | Feet of    | mud | %gas      | %oil      | %water               | %mud     |   |           |            |        |
| Rec.                  |     | Feet of    |     | %gas      | %oil      | %water               | %mud     |   |           |            |        |
| Rec.                  |     | Feet of    |     | %gas      | %oil      | %water               | %mud     |   |           |            |        |
| Rec.                  |     | Feet of    |     | %gas      | %oil      | %water               | %mud     |   |           |            |        |
| Rec.                  |     | Feet of    |     | %gas      | %oil      | %water               | %mud     |   |           |            |        |
| BHT                   | 108 | °F Gravity | N/A | °API D @  |           | °F Corrected Gravity | N/A      |   |           |            |        |
| RW                    | .08 | @          | 62  | °F        | Chlorides | 123,000 ppm          | Recovery | — | Chlorides | 11,000 ppm | System |

|                                  | AK-1 | Alpine |                 |       |             |       |
|----------------------------------|------|--------|-----------------|-------|-------------|-------|
| (A) Initial Hydrostatic Mud      | 1669 | PSI    | Recorder No.    | 6755  | Test        | ✓ 700 |
| (B) First Initial Flow Pressure  | 17   | PSI    | (depth)         | 3438' | Elec. Rec.  | ✓ 150 |
| (C) First Final Flow Pressure    | 65   | PSI    | Recorder No.    | 13222 | Jars        |       |
| (D) Initial Shut-In Pressure     | 1250 | PSI    | (depth)         | 3458' | Safety Jt.  |       |
| (E) Second Initial Flow Pressure | 72   | PSI    | Recorder No.    |       | Circ Sub    |       |
| (F) Second Final Flow Pressure   | 163  | PSI    | (depth)         |       | Sampler     |       |
| (G) Final Shut-In Pressure       | 1211 | PSI    | Initial Opening | 15    | Straddle    |       |
| (Q) Final Hydrostatic Mud        | 1633 | PSI    | Initial Shut-In | 45    | Ext. Packer |       |

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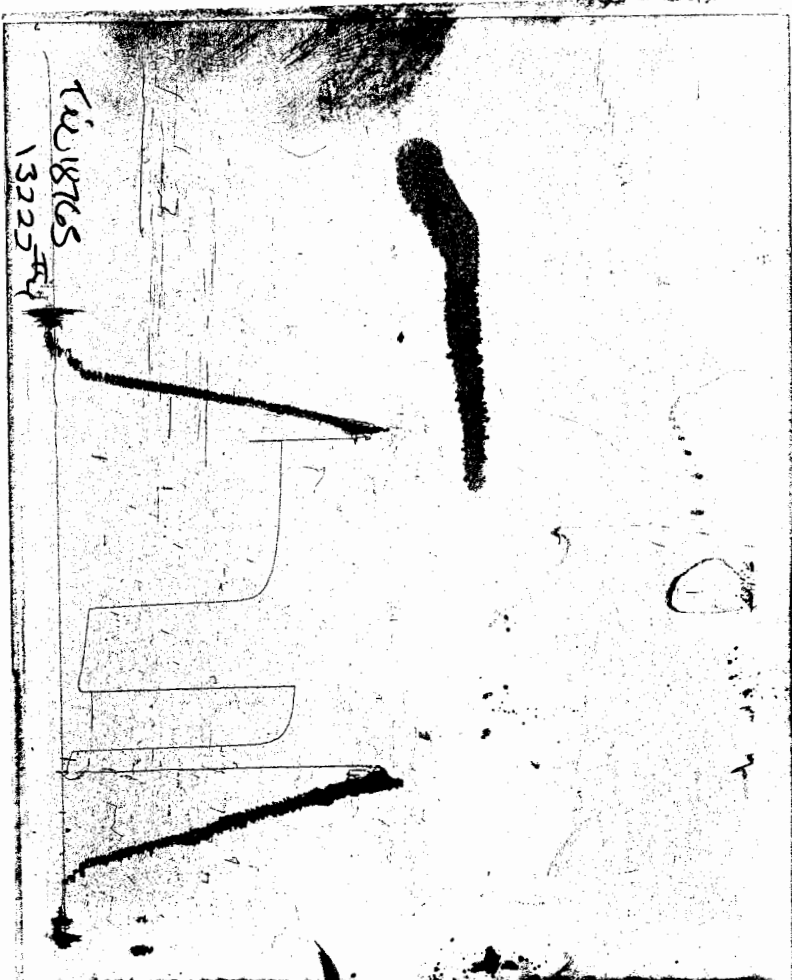
Approved By Roger Martin  
Our Representative Gary Swanson

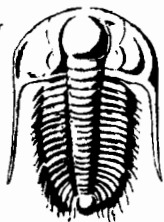
|               |      |
|---------------|------|
| Final Flow    | 60   |
| Final Shut-In | 120  |
| T-On Location | 0430 |
| T-Started     | 0440 |
| T-Open        | 0457 |
| T-Pulled      | 1103 |
| T-Out         | 1255 |

|            |                   |
|------------|-------------------|
| Mileage    | ✓ 40              |
| Sub Total: | 890               |
| Std. By    | ✓ 30              |
| Other      |                   |
| Total:     | 920 <sup>00</sup> |

# CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

N<sup>o</sup> 18766

05/03

## Test Ticket

|                 |                    |                            |                  |                 |                            |
|-----------------|--------------------|----------------------------|------------------|-----------------|----------------------------|
| Well Name & No. | Hall C #1-14       | Test No.                   | 5                | Date            | 3-11-04                    |
| Company         | Mall Dlg. Co. Inc. | Zone Tested                | Lans 14-2        |                 |                            |
| Address         | Wichita Ks. 67202  | Elevation                  | 1872             | KB              | 1863 GL                    |
| Co. Rep / Geo.  | Roger L. Martin    | Cont.                      | Sterling Dlg. #1 | Est. Ft. of Pay | Por. %                     |
| Location: Sec.  | 14                 | Twp.                       | 21S              | Rge.            | 13W Co. Stafford State KS. |
| No. of Copies   | 4                  | Disbtribution Sheet (Y, N) | yes              | Turnkey (Y, N)  | Evaluation (Y, N)          |

|                     |                                                |                      |        |                       |        |
|---------------------|------------------------------------------------|----------------------|--------|-----------------------|--------|
| Interval Tested     | 3460 - 3510'                                   | Initial Str Wt./Lbs. | 54,000 | Unseated Str Wt./Lbs. | 54,000 |
| Anchor Length       | 50'                                            | Wt. Set Lbs.         | 20,000 | Wt. Pulled Loose/Lbs. | 71,000 |
| Top Packer Depth    | 3485'                                          | Tool Weight          | 2100 # |                       |        |
| Bottom Packer Depth | 3460'                                          | Hole Size 7 7/8"     | ✓      | Rubber Size 6 3/4"    | ✓      |
| Total Depth         | 3510'                                          | Wt. Pipe Run         | None   | Drill Collar Run      | 210'   |
| Mud Wt.             | 9.0 LCM ~ Vis. SI WL 10.2                      | Drill Pipe Size      | 4 1/2" | Ft. Run               | 3256'  |
| Blow Description    | IF: Weak blow, 1/2" decreasing - ISF: No blow. |                      |        |                       |        |

FF: Weak blow, 1/2" slowly decreasing to no blow after 45 mins  
FSF: No blow.

|                       |      |            |           |              |            |                      |                             |
|-----------------------|------|------------|-----------|--------------|------------|----------------------|-----------------------------|
| Recovery - Total Feet | 20   | GIP        | ~         | Ft. in DC    | 20         | Ft. in DP            | ~                           |
| Rec.                  | 20   | Feet of    | Heavy Mud | %gas         | %oil       | %water               | %mud                        |
| Rec.                  |      | Feet of    |           | %gas         | %oil       | %water               | %mud                        |
| Rec.                  |      | Feet of    |           | %gas         | %oil       | %water               | %mud                        |
| Rec.                  |      | Feet of    |           | %gas         | %oil       | %water               | %mud                        |
| Rec.                  |      | Feet of    |           | %gas         | %oil       | %water               | %mud                        |
| BHT                   | 97   | °F Gravity | N/A       | °API D @     | ~          | °F Corrected Gravity | N/A                         |
| RW                    | N.C. | @          | ~         | °F Chlorides | 11,000 ppm | Recovery             | Chlorides 11,000 ppm System |

|                                  | AK-1 | Alpine   |                 |       |             |       |
|----------------------------------|------|----------|-----------------|-------|-------------|-------|
| (A) Initial Hydrostatic Mud      |      | 1700 PSI | Recorder No.    | 6755  | Test        | ✓ 700 |
| (B) First Initial Flow Pressure  |      | 25 PSI   | (depth)         | 3461' | Elec. Rec.  | ✓ 150 |
| (C) First Final Flow Pressure    |      | 28 PSI   | Recorder No.    | 13222 | Jars        |       |
| (D) Initial Shut-In Pressure     |      | 164 PSI  | (depth)         | 3505' | Safety Jt.  |       |
| (E) Second Initial Flow Pressure |      | 32 PSI   | Recorder No.    | -     | Circ Sub    |       |
| (F) Second Final Flow Pressure   |      | 33 PSI   | (depth)         | -     | Sampler     |       |
| (G) Final Shut-In Pressure       |      | 92 PSI   | Initial Opening | 15    | Straddle    |       |
| (Q) Final Hydrostatic Mud        |      | 1658 PSI | Initial Shut-In | 45    | Ext. Packer |       |

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Approved By

Roger Martin

Our Representative

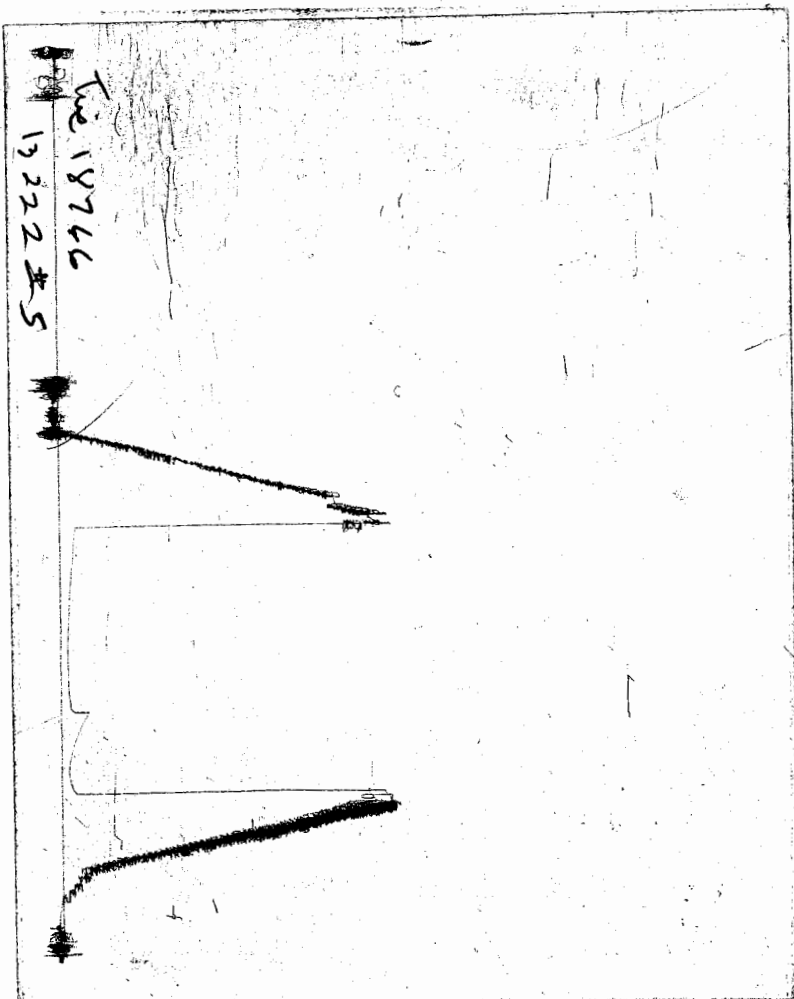
Gary P. Williams

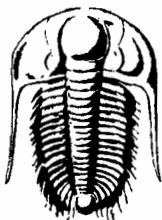
|               |      |
|---------------|------|
| Final Flow    | 45   |
| Final Shut-In | 90   |
| T-On Location | 2330 |
| T-Started     | 2336 |
| T-Open        | 0147 |
| T-Pulled      | 0507 |
| T-Out         | 0708 |

|              |          |
|--------------|----------|
| Test         | ✓ 700    |
| Elec. Rec.   | ✓ 150    |
| Jars         |          |
| Safety Jt.   |          |
| Circ Sub     |          |
| Sampler      |          |
| Straddle     |          |
| Ext. Packer  |          |
| Shale Packer |          |
| Mileage      | ✓ 40     |
| Sub Total:   | 890      |
| Std. By      |          |
| Other        |          |
| Total:       | ✓ 890 °C |

# CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18767

05/03

## Test Ticket

|                 |                        |                            |                   |                 |                   |                       |
|-----------------|------------------------|----------------------------|-------------------|-----------------|-------------------|-----------------------|
| Well Name & No. | Hall C # 1-14          |                            | Test No.          | 6               | Date              | 8-12-04               |
| Company         | Mull Drilling Co. Inc. |                            | Zone Tested       | Arkumcke        |                   |                       |
| Address         | Wichita KS 67202       |                            | Elevation         | 1822            | KB                | 1863 GL               |
| Co. Rep / Geo.  | Roger L. Martin        | Cont.                      | Stirling Drilling | Est. Ft. of Pay | Por. %            |                       |
| Location: Sec.  | 14                     | Twp.                       | 21 S              | Rge.            | 13 W              | Co. Stafford State KS |
| No. of Copies   | 4                      | Disbtribution Sheet (Y, N) | yes               | Turnkey (Y, N)  | Evaluation (Y, N) |                       |

|                                                    |                                                       |                      |        |                       |        |
|----------------------------------------------------|-------------------------------------------------------|----------------------|--------|-----------------------|--------|
| Interval Tested                                    | 3500 - 3587                                           | Initial Str Wt./Lbs. | 54,000 | Unseated Str Wt./Lbs. | 55,000 |
| Anchor Length                                      | 87'                                                   | Wt. Set Lbs.         | 20,000 | Wt. Pulled Loose/Lbs. | 70,000 |
| Top Packer Depth                                   | 3495                                                  | Tool Weight          | 2100#  |                       |        |
| Bottom Packer Depth                                | 3500                                                  | Hole Size 7 7/8"     | ✓      | Rubber Size 6 3/4"    | ✓      |
| Total Depth                                        | 3587                                                  | Wt. Pipe Run         | None   | Drill Collar Run      | 210'   |
| Mud Wt.                                            | 9.0                                                   | LCM                  | ~      | Vis.                  | 49     |
| WL                                                 | 10.2                                                  | Drill Pipe Size      | 4 1/2" | Ft. Run               | 3285   |
| Blow Description                                   | IF: Weak below. slow increase to 3 1/2". ISI: No blow |                      |        |                       |        |
| FF: Weak below. slow increase to 5". PSI: No blow. |                                                       |                      |        |                       |        |

|                       |     |            |          |           |           |                      |          |
|-----------------------|-----|------------|----------|-----------|-----------|----------------------|----------|
| Recovery - Total Feet | 140 | GIP        | 100      | Ft. in DC | 140       | Ft. in DP            | 0        |
| Rec.                  | 20  | Feet of    | Chem Oil | %gas      | %oil      | %water               | %mud     |
| Rec.                  | 60  | Feet of    | GOCM     | 10 %gas   | 22 %oil   | %water               | 68 %mud  |
| Rec.                  | 60  | Feet of    | GOCM     | 20 %gas   | 11 %oil   | %water               | 69 %mud  |
| Rec.                  |     | Feet of    |          | %gas      | %oil      | %water               | %mud     |
| Rec.                  |     | Feet of    |          | %gas      | %oil      | %water               | %mud     |
| BHT                   | 99  | °F Gravity | 37       | °API D @  | 55        | °F Corrected Gravity | 38       |
| RW                    | N.C | @          | ~        | °F        | Chlorides | 11,000 ppm           | Recovery |
|                       |     |            |          |           | Chlorides | 11,000 ppm           | System   |

|                                  | AK-1 | Alpine |                 |       |              |   |       |
|----------------------------------|------|--------|-----------------|-------|--------------|---|-------|
| (A) Initial Hydrostatic Mud      | 1716 | PSI    | Recorder No.    | 6255  | Test         | ✓ | 700   |
| (B) First Initial Flow Pressure  | 29   | PSI    | (depth)         | 3501' | Elec. Rec.   | ✓ | 150   |
| (C) First Final Flow Pressure    | 48   | PSI    | Recorder No.    | 13222 | Jars         | ✓ | 200   |
| (D) Initial Shut-In Pressure     | 906  | PSI    | (depth)         | 3582' | Safety Jt.   | ✓ | 50    |
| (E) Second Initial Flow Pressure | 55   | PSI    | Recorder No.    | ~     | Circ Sub     |   |       |
| (F) Second Final Flow Pressure   | 82   | PSI    | (depth)         | ~     | Sampler      | ✓ | 200   |
| (G) Final Shut-In Pressure       | 834  | PSI    | Initial Opening | 15    | Straddle     |   |       |
| (Q) Final Hydrostatic Mud        | 1689 | PSI    | Initial Shut-In | 45    | Ext. Packer  |   |       |
|                                  |      |        | Final Flow      | 60    | Shale Packer |   |       |
|                                  |      |        | Final Shut-In   | 120   | Mileage      | ✓ | 40    |
|                                  |      |        | T-On Location   | 1637  | Sub Total:   |   | 1368° |
|                                  |      |        | T-Started       | 1641  | Std. By      | ✓ | 30°   |
|                                  |      |        | T-Open          | 1823  | Other        |   |       |
|                                  |      |        | T-Pulled        | 2227  | Total:       |   | 1390° |
|                                  |      |        | T-Out           | 2115  |              |   |       |

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Approved By

Roger Martin

Our Representative

Conny Paretz

# TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 18767 Date 3-12-2004  
Company Name Mull Dwg. Co. Inc. / REP. Roger L Martin  
Lease Hall c #1-14 Test No. 18767 #6  
County \_\_\_\_\_ Sec. 14 Twp. 21S Rng. 13W

### SAMPLER RECOVERY

Gas 1600 ML  
Oil 1500 ML  
Mud 200 ML  
Water None ML  
Other ~ ML  
Pressure 290 PSI  
Total 3300 ML

### PIT MUD ANALYSIS

Chlorides 11,000 ppm.  
Resistivity N.C. ohms @ ~ F  
Viscosity 49  
Mud Weight 9.0  
Filtrate 10.2 cc  
Other \_\_\_\_\_

### SAMPLER ANALYSIS

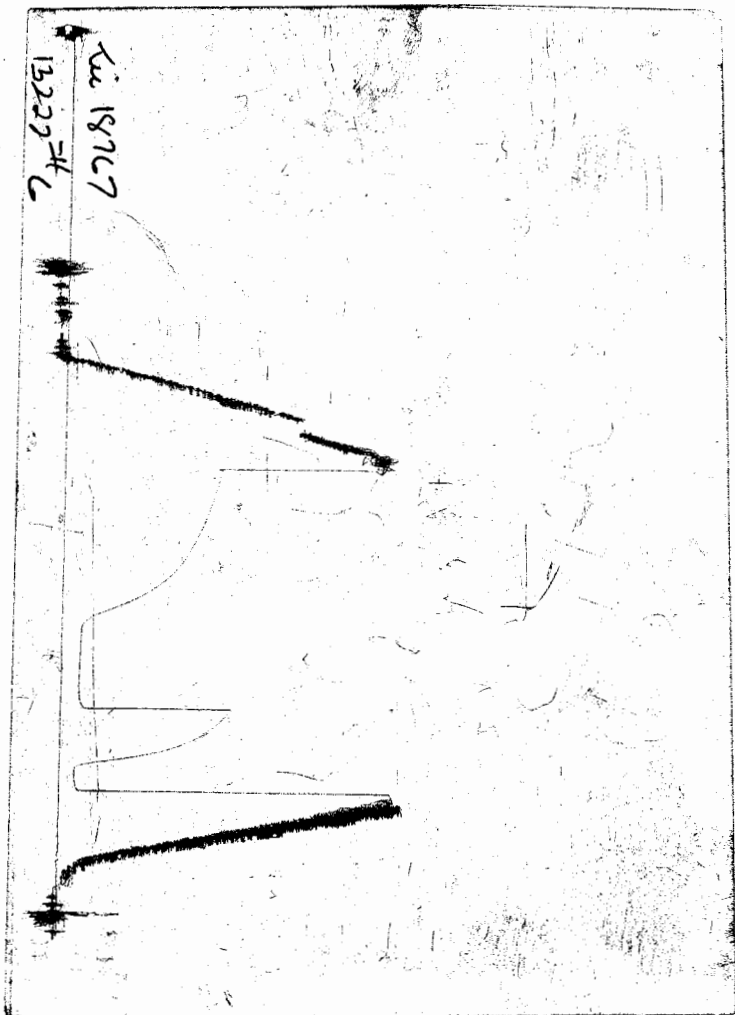
Resistivity N/A ohms @ ~ F  
Chlorides N/A ppm.  
Gravity 38 corrected @ 60 F

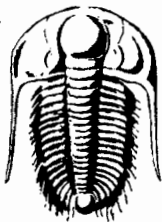
### PIPE RECOVERY

TOP 20' Clean Oil  
Resistivity N/A ohms @ ~ F  
Chlorides N/A ppm.  
MIDDLE 60 GOCM  
Resistivity N.C. ohms @ ~ F  
Chlorides N.C. ppm.  
BOTTOM 60 GOCM  
Resistivity N.C. ohms @ ~ F  
Chlorides N.C. ppm.

## CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 18768

05/03

## Test Ticket

|                 |                   |                           |                 |                 |         |
|-----------------|-------------------|---------------------------|-----------------|-----------------|---------|
| Well Name & No. | Hall C #1-14      | Test No.                  | 7               | Date            | 3-13-04 |
| Company         | Mull Dwg Co Inc   | Zone Tested               | Artificial      |                 |         |
| Address         | Wichita Ks. 67202 | Elevation                 | 1872 KB 1863 GL |                 |         |
| Co. Rep / Geo.  | Roger L. Martin   | Cont.                     | Stirling Dwg #1 | Est. Ft. of Pay | Por. %  |
| Location: Sec.  | 14                | Twp.                      | 21 S            | Rge.            | 13 W    |
|                 |                   | Co.                       | Stafford        | State           | Ks.     |
| No. of Copies   | 4                 | Distribution Sheet (Y, N) | yes             | Turnkey (Y, N)  |         |
|                 |                   | Evaluation (Y, N)         |                 |                 |         |

|                     |                           |                      |          |                       |        |
|---------------------|---------------------------|----------------------|----------|-----------------------|--------|
| Interval Tested     | 3587 - 3605'              | Initial Str Wt./Lbs. | 55,000   | Unseated Str Wt./Lbs. | 55,000 |
| Anchor Length       | 18'                       | Wt. Set Lbs.         | 24,000   | Wt. Pulled Loose/Lbs. | 80,000 |
| Top Packer Depth    | 3582'                     | Tool Weight          | 2100 lb  |                       |        |
| Bottom Packer Depth | 3587'                     | Hole Size 7 7/8"     |          | Rubber Size 6 3/4"    |        |
| Total Depth         | 3605'                     | Wt. Pipe Run         | None     | Drill Collar Run      | 210    |
| Mud Wt.             | 9.0 LCM ~ Vis. 60 WL 10.2 | Drill Pipe Size      | 4 1/2"   | Ft. Run               | 3561   |
| Blow Description    | IF: Wash below 1/2 - 1"   | ESI:                 | No below |                       |        |

FF: Wash below. Slow increase to 1/2". ESI: No below.  
COMMENT: Approx 12' of fill on bit. slid open tool 2-3 ft. to bit.

|                       |      |            |       |           |    |                               |                             |
|-----------------------|------|------------|-------|-----------|----|-------------------------------|-----------------------------|
| Recovery - Total Feet | 80   | GIP        | Trace | Ft. in DC | 80 | Ft. in DP                     | 0                           |
| Rec.                  | 80   | Feet of    | OCM   | %gas      | 12 | %oil                          | %water 88 %mud              |
| Rec.                  |      | Feet of    |       | %gas      |    | %oil                          | %water %mud                 |
| Rec.                  |      | Feet of    |       | %gas      |    | %oil                          | %water %mud                 |
| Rec.                  |      | Feet of    |       | %gas      |    | %oil                          | %water %mud                 |
| Rec.                  |      | Feet of    |       | %gas      |    | %oil                          | %water %mud                 |
| BHT                   | 101  | °F Gravity | N/A   | °API D @  |    | °F Corrected Gravity          | N/A °API                    |
| RW                    | N.C. | @          |       | °F        |    | Chlorides 14,000 ppm Recovery | Chlorides 14,000 ppm System |

|                                  |      |        |          |                 |       |              |        |
|----------------------------------|------|--------|----------|-----------------|-------|--------------|--------|
| (A) Initial Hydrostatic Mud      | AK-1 | Alpine | 1730 PSI | Recorder No.    | 6755  | Test         | ✓ 700  |
| (B) First Initial Flow Pressure  |      |        | 22 PSI   | (depth)         | 3588  | Elec. Rec.   | ✓ 150  |
| (C) First Final Flow Pressure    |      |        | 31 PSI   | Recorder No.    | 13222 | Jars         | ✓ 200  |
| (D) Initial Shut-In Pressure     |      |        | 1048 PSI | (depth)         | 3600  | Safety Jt.   | ✓ 50   |
| (E) Second Initial Flow Pressure |      |        | 37 PSI   | Recorder No.    |       | Circ Sub     |        |
| (F) Second Final Flow Pressure   |      |        | 54 PSI   | (depth)         |       | Sampler      | ✓ 200  |
| (G) Final Shut-In Pressure       |      |        | 1048 PSI | Initial Opening | 15    | Straddle     |        |
| (Q) Final Hydrostatic Mud        |      |        | 1700 PSI | Initial Shut-In | 45    | Ext. Packer  |        |
|                                  |      |        |          | Final Flow      | 60    | Shale Packer |        |
|                                  |      |        |          | Final Shut-In   | 120   | Mileage      | ✓ 680  |
|                                  |      |        |          | T-On Location   | 0950  | Sub Total:   | 1368   |
|                                  |      |        |          | T-Started       | 0954  | Std. By      | ✓ MC   |
|                                  |      |        |          | T-Open          | 1120  | Other        |        |
|                                  |      |        |          | T-Pulled        | 1531  | Total:       | ✓ 1368 |
|                                  |      |        |          | T-Out           | 1823  |              |        |

TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGED OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By Roger L. Martin  
Our Representative Cathy Pustemps

# TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 18268 Date 3-13-04  
Company Name Mull Dug Co Inc. Rep. Roger L. Martin  
Lease Hall C #1-14 Test No. 7  
County Stafford Ko. Sec. 14 Twp. 21S Rng. 13W

### SAMPLER RECOVERY

Gas 98 ML  
Oil 43 ML  
Mud 349 ML  
Water 0 ML  
Other 0 ML  
Pressure 125 PSI  
Total 490 ML

### PIT MUD ANALYSIS

Chlorides 14,000 ppm.  
Resistivity N.C. ohms @ ~ F  
Viscosity 60  
Mud Weight 9.0  
Filtrate 10.2 cc  
Other \_\_\_\_\_

### SAMPLER ANALYSIS

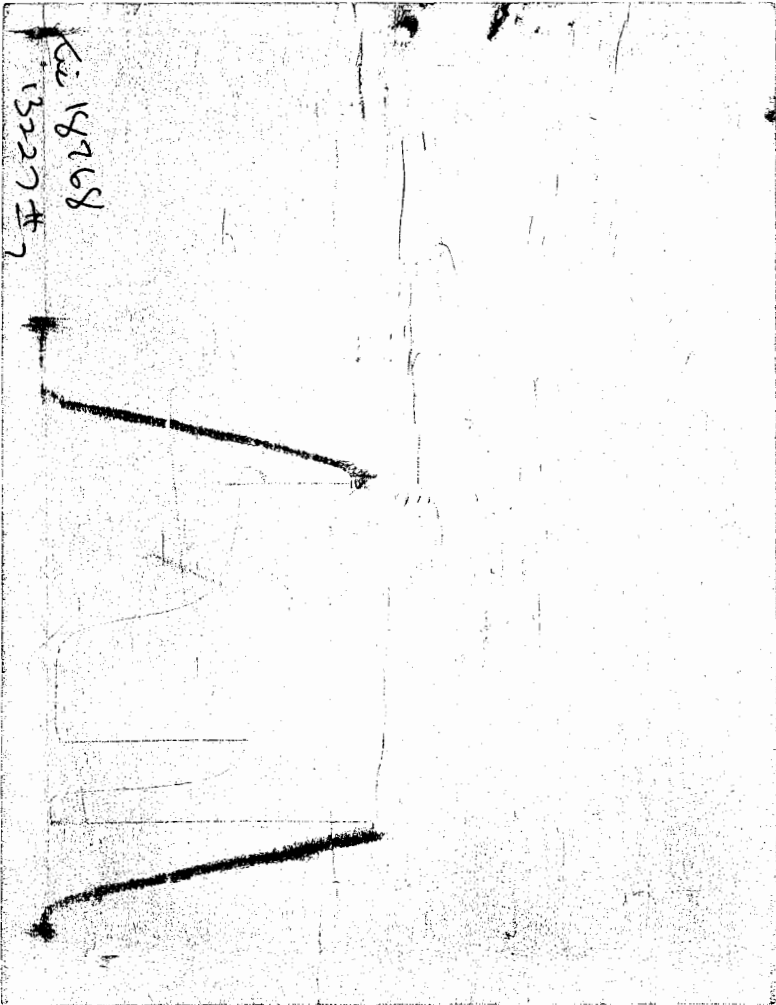
Resistivity N/A ohms @ ~ F  
Chlorides 14,000 ppm.  
Gravity N/A corrected @ 60 F

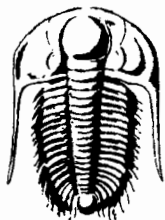
### PIPE RECOVERY

TOP Trace of Gas  
Resistivity N/A ohms @ ~ F  
Chlorides N/A ppm.  
MIDDLE  
Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
Chlorides \_\_\_\_\_ ppm.  
BOTTOM 80' OCM  
Resistivity N.C. ohms @ ~ F  
Chlorides 14,000 ppm.

## CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18769

05/03

## Test Ticket

|                 |                   |                            |                  |                   |         |
|-----------------|-------------------|----------------------------|------------------|-------------------|---------|
| Well Name & No. | Hail C #14        | Test No.                   | 8                | Date              | 3-14-04 |
| Company         | Mull Dely Co Inc  | Zone Tested                | Artemesia        |                   |         |
| Address         | Wichita Ks. 67202 | Elevation                  | 1872 KB 1863 GL  |                   |         |
| Co. Rep / Geo.  | Roger L Martin    | Cont.                      | Sterling Dely #1 | Est. Ft. of Pay   | Por. %  |
| Location: Sec.  | 14                | Twp.                       | 21 S             | Rge.              | 13 W    |
|                 |                   |                            | Co.              | Stafford          | State   |
| No. of Copies   | 4                 | Disbtribution Sheet (Y, N) | yes              | Turnkey (Y, N)    |         |
|                 |                   |                            |                  | Evaluation (Y, N) |         |

|                     |                            |                      |         |                       |        |
|---------------------|----------------------------|----------------------|---------|-----------------------|--------|
| Interval Tested     | 3605 - 3618'               | Initial Str Wt./Lbs. | 55,000  | Unseated Str Wt./Lbs. | 55,000 |
| Anchor Length       | 13'                        | Wt. Set Lbs.         | 20,000  | Wt. Pulled Loose/Lbs. | 21,000 |
| Top Packer Depth    | 3600'                      | Tool Weight          | 2100 lb |                       |        |
| Bottom Packer Depth | 3605'                      | Hole Size 7 7/8"     | ✓       | Rubber Size 6 3/4"    | ✓      |
| Total Depth         | 3618'                      | Wt. Pipe Run         | None    | Drill Collar Run      | 210    |
| Mud Wt.             | 9.0 LCM ~                  | Vis.                 | 51      | WL                    | 10.24  |
|                     |                            | Drill Pipe Size      | 4 1/2"  | Ft. Run               | 3377   |
| Blow Description    | IF: weak below. 1/4 - 1/2" | FSI: No below.       |         |                       |        |

FF: very weak below. (surface) Dead in 30 mins. Flushed tool 39 mins. in to FFP. FSI: No below.

|                       |      |            |                   |           |           |                      |                             |
|-----------------------|------|------------|-------------------|-----------|-----------|----------------------|-----------------------------|
| Recovery - Total Feet | 25   | GIP        | 0                 | Ft. in DC | 25        | Ft. in DP            | 0                           |
| Rec.                  | 25   | Feet of    | Mud (in oil spec) | %gas      | %oil      | %water               | %mud                        |
| Rec.                  |      | Feet of    |                   | %gas      | %oil      | %water               | %mud                        |
| Rec.                  |      | Feet of    |                   | %gas      | %oil      | %water               | %mud                        |
| Rec.                  |      | Feet of    |                   | %gas      | %oil      | %water               | %mud                        |
| Rec.                  |      | Feet of    |                   | %gas      | %oil      | %water               | %mud                        |
| BHT                   | 102  | °F Gravity | N/A               | °API D @  |           | °F Corrected Gravity | N/A                         |
| RW                    | N.C. | @          |                   | °F        | Chlorides | 14,000 ppm Recovery  | Chlorides 14,000 ppm System |

|                                  |          |                 |       |
|----------------------------------|----------|-----------------|-------|
| AK-1                             | Alpine   |                 |       |
| (A) Initial Hydrostatic Mud      | 1730 PSI | Recorder No.    | 6755  |
| (B) First Initial Flow Pressure  | 17 PSI   | (depth)         | 3606' |
| (C) First Final Flow Pressure    | 22 PSI   | Recorder No.    | 13222 |
| (D) Initial Shut-In Pressure     | 981 PSI  | (depth)         | 3603' |
| (E) Second Initial Flow Pressure | 23 PSI   | Recorder No.    | -     |
| (F) Second Final Flow Pressure   | 30 PSI   | (depth)         | -     |
| (G) Final Shut-In Pressure       | 1016 PSI | Initial Opening | 15    |
| (Q) Final Hydrostatic Mud        | 1704 PSI | Initial Shut-In | 45    |

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Approved By

Roger L. Martin

Our Representative

Gary Swartz

Final Flow

Final Shut-In

T-On Location

T-Started

T-Open

T-Pulled

T-Out

|              |   |                    |
|--------------|---|--------------------|
| Test         | ✓ | 700                |
| Elec. Rec.   | ✓ | 150                |
| Jars         | ✓ | 200                |
| Safety Jt.   | ✓ | 50                 |
| Circ Sub     |   |                    |
| Sampler      | ✓ | 200                |
| Straddle     |   |                    |
| Ext. Packer  |   |                    |
| Shale Packer |   |                    |
| Mileage      | ✓ | 40                 |
| Sub Total:   |   | 1240               |
| Std. By      | ✓ | P.E.               |
| Other        |   |                    |
| Total:       | ✓ | 1340 <sup>00</sup> |

1368

# TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 18769 Date 3-14-04  
Company Name Mull Drilling Co Inc.  
Lease Hall c # 1-14 Test No. 8  
County Stafford Co. Sec. 14 Twp. 21<sup>s</sup> Rng. 13<sup>w</sup>

### SAMPLER RECOVERY

Gas --- ML  
Oil Trace ML  
Mud 400 ML  
Water --- ML  
Other --- ML  
Pressure 105 PSI  
Total 400 ML

### PIT MUD ANALYSIS

Chlorides 14,000 ppm.  
Resistivity N.C. ohms @ --- F  
Viscosity 51  
Mud Weight 9.0  
Filtrate 10.2 cc  
Other ---

### SAMPLER ANALYSIS

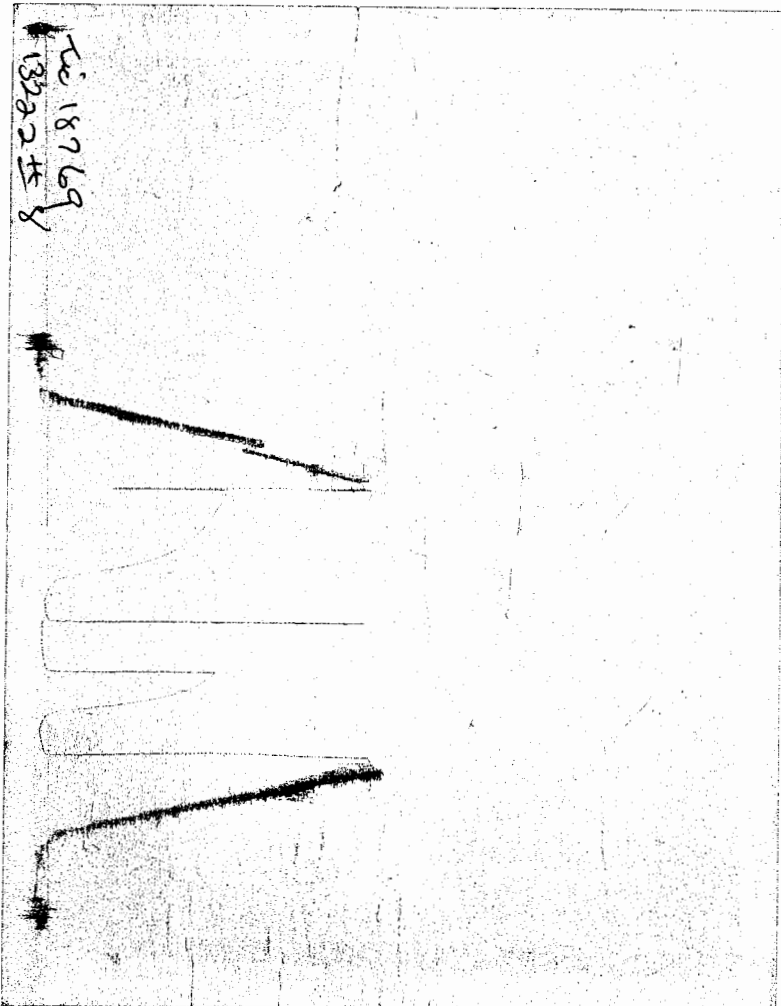
Resistivity N.C. ohms @ --- F  
Chlorides 14,000 ppm.  
Gravity N/A corrected @ 60 F

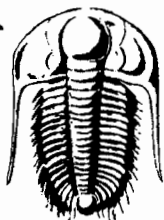
### PIPE RECOVERY

TOP  
Resistivity --- ohms @ --- F  
Chlorides --- ppm.  
MIDDLE  
Resistivity --- ohms @ --- F  
Chlorides --- ppm.  
BOTTOM 25' Mud @ oil spec  
Resistivity N.C. ohms @ --- F  
Chlorides 14,000 ppm.

# CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18770

05/03

## Test Ticket

|                 |                 |                           |                |                 |         |
|-----------------|-----------------|---------------------------|----------------|-----------------|---------|
| Well Name & No. | Hall C# 1-14    | Test No.                  | 9              | Date            | 3-14-04 |
| Company         | Mull Wdg Co Inc | Zone Tested               | Orderville     |                 |         |
| Address         | White R. 67202  | Elevation                 | 1872           | KB              | 1863 GL |
| Co. Rep / Geo.  | Page L Martin   | Cont.                     | Sterling Dlg#1 | Est. Ft. of Pay | Por. %  |
| Location: Sec.  | 14              | Twp.                      | 21S            | Rge.            | 13W     |
|                 |                 | Co.                       | Stafford       | State           | Mo.     |
| No. of Copies   | 4               | Distribution Sheet (Y, N) | yes            | Turnkey (Y, N)  |         |
|                 |                 | Evaluation (Y, N)         |                |                 |         |

|                       |                                                                                                                       |                      |            |                       |          |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------|------------|-----------------------|----------|
| Interval Tested       | 3618 - 3628'                                                                                                          | Initial Str Wt./Lbs. | 54,000     | Unseated Str Wt./Lbs. | 53,000   |
| Anchor Length         | 10'                                                                                                                   | Wt. Set Lbs.         | 22,000     | Wt. Pulled Loose/Lbs. | 64,000   |
| Top Packer Depth      | 3613'                                                                                                                 | Tool Weight          | 2100#      |                       |          |
| Bottom Packer Depth   | 3618'                                                                                                                 | Hole Size 7 7/8"     | ✓          | Rubber Size 6 3/4"    | ✓        |
| Total Depth           | 3628'                                                                                                                 | Wt. Pipe Run         | None       | Drill Collar Run      | 210'     |
| Mud Wt.               | 9.1 LCM                                                                                                               | Vis.                 | 46         | WL                    | 10.4     |
|                       |                                                                                                                       | Drill Pipe Size      | 4 1/2"     | Ft. Run               | 3382'    |
| Blow Description      | IF: <del>Strong</del> Strong below. B.O.B in 3 mins. Slowly losing mud on back side. IS: No below.                    |                      |            |                       |          |
|                       | FF: Strong blow (13") for approx. 2 mins. Slowly losing mud on back side for approx 2 mins. Blow died. FST, No below. |                      |            |                       |          |
| Recovery - Total Feet | 442                                                                                                                   | GIP                  | 0          | Ft. in DC             | 210      |
|                       |                                                                                                                       | Ft. in DP            | 232        |                       |          |
| Rec.                  | 442                                                                                                                   | Feet of              | Dry Mud    | %gas                  | %oil     |
|                       |                                                                                                                       | %water               | %mud       |                       |          |
| Rec.                  |                                                                                                                       | Feet of              |            | %gas                  | %oil     |
|                       |                                                                                                                       | %water               | %mud       |                       |          |
| Rec.                  |                                                                                                                       | Feet of              |            | %gas                  | %oil     |
|                       |                                                                                                                       | %water               | %mud       |                       |          |
| Rec.                  |                                                                                                                       | Feet of              |            | %gas                  | %oil     |
|                       |                                                                                                                       | %water               | %mud       |                       |          |
| BHT                   | 100                                                                                                                   | °F Gravity           | N/A        | °API D @              | ~        |
|                       |                                                                                                                       | °F Corrected Gravity | N/A        | °API                  |          |
| RW                    | N.C. @                                                                                                                | °F                   | Chlorides  | 15,000 ppm            | Recovery |
|                       |                                                                                                                       | Chlorides            | 15,000 ppm | System                |          |

|                                                                                                                                                                                                                                                                                                                                                                                                           |                  |                 |              |              |      |         |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|--------------|--------------|------|---------|-----|
| * CHARTS SHOW HYDROSTATIC INVASION TO TEST THROUGHOUT                                                                                                                                                                                                                                                                                                                                                     |                  | Alpine          | Recorder No. | 6755         | Test | MISSION | 500 |
| (A) Initial Hydrostatic Mud                                                                                                                                                                                                                                                                                                                                                                               | 1734 PSI         | (depth)         | 3619'        | Elec. Rec.   | ✓    | 130     |     |
| (B) First Initial Flow Pressure                                                                                                                                                                                                                                                                                                                                                                           | 60 PSI           | Recorder No.    | 13222        | Jars         | ✓    | 200     |     |
| (C) First Final Flow Pressure                                                                                                                                                                                                                                                                                                                                                                             | 195 PSI          | (depth)         | 3623'        | Safety Jt.   | ✓    | 50      |     |
| (D) Initial Shut-In Pressure                                                                                                                                                                                                                                                                                                                                                                              | FALSE → 1703 PSI | Recorder No.    | —            | Circ Sub     |      |         |     |
| (E) Second Initial Flow Pressure                                                                                                                                                                                                                                                                                                                                                                          | 315 PSI          | (depth)         | —            | Sampler      |      |         |     |
| (F) Second Final Flow Pressure                                                                                                                                                                                                                                                                                                                                                                            | 1714 PSI         | Initial Opening | 10           | Straddle     | ✓    | 200     |     |
| (G) Final Shut-In Pressure                                                                                                                                                                                                                                                                                                                                                                                | FALSE → 1705 PSI | Initial Shut-In | 30           | Ext. Packer  |      |         |     |
| (Q) Final Hydrostatic Mud                                                                                                                                                                                                                                                                                                                                                                                 | 1719 PSI         | Final Flow      | 30           | Shale Packer |      |         |     |
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| Approved By                                                                                                                                                                                                                                                                                                                                                                                               | Roger Martin     | T-On Location   | 15 10        | Sub Total:   |      | 1168.00 |     |
|                                                                                                                                                                                                                                                                                                                                                                                                           |                  | T-Started       | 15 14        | Std. By      |      |         |     |
|                                                                                                                                                                                                                                                                                                                                                                                                           |                  | T-Open          | 16 41        | Other        |      |         |     |
|                                                                                                                                                                                                                                                                                                                                                                                                           |                  | T-Pulled        | 18 55        | Total:       |      | 1168.00 |     |
| Our Representative                                                                                                                                                                                                                                                                                                                                                                                        | Gregory          | T-Out           | 20 42        |              |      |         |     |

# TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 18770 Date 3-14-04  
Company Name Mall DCI  
Lease Hall E #1-14 Test No. 18770 DST#9  
County Stafford 16. Sec. 14 Twp. 21S Rng. 13W

### SAMPLER RECOVERY

Gas                      ML  
Oil                      ML  
Mud 930 ML  
Water                      ML  
Other                      ML  
Pressure 520 PSI  
Total 930 ML

### PIT MUD ANALYSIS

Chlorides 15,000 ppm.  
Resistivity N.C. ohms @            F  
Viscosity 46  
Mud Weight 9.1  
Filtrate 10.4 cc  
Other                     

### SAMPLER ANALYSIS

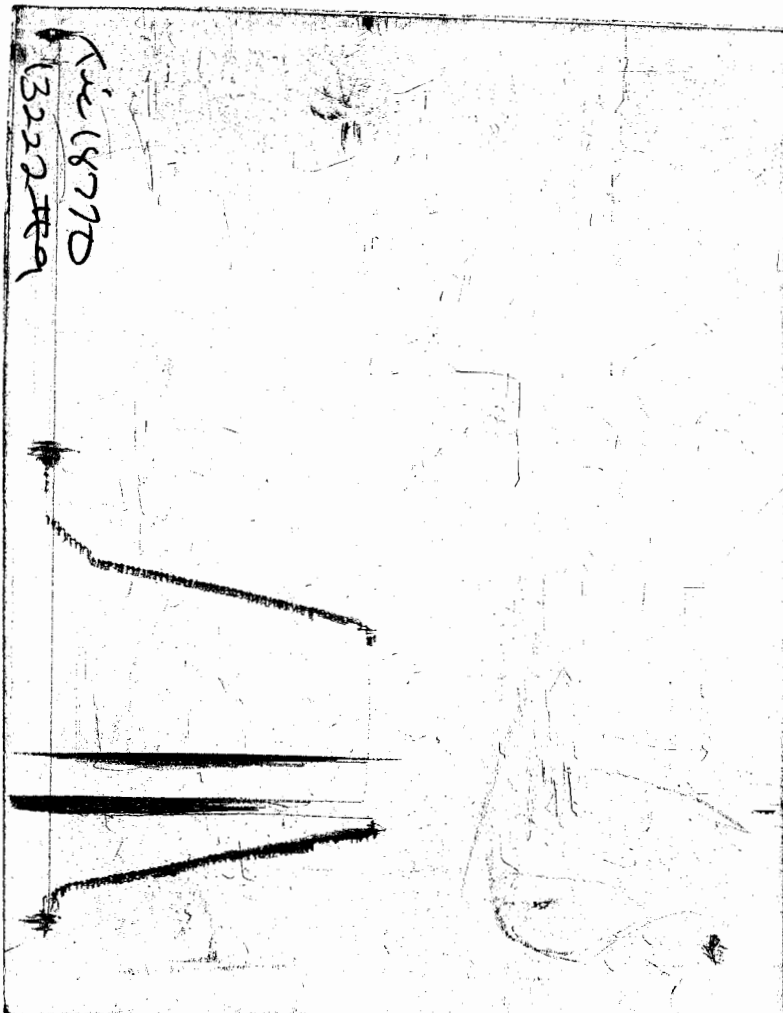
Resistivity N/C ohms @            F  
Chlorides 15,000 ppm.  
Gravity N/A corrected @ 60 F

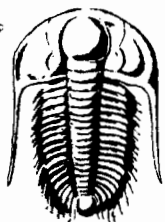
### PIPE RECOVERY

TOP  
Resistivity                      ohms @            F  
Chlorides                      ppm.  
MIDDLE  
Resistivity                      ohms @            F  
Chlorides                      ppm.  
BOTTOM 442' Dirty Mud  
Resistivity N.C. ohms @            F  
Chlorides 15,000 ppm.

# CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

05/03

INV  
6259

Nº 18771

## Test Ticket

Well Name & No. Hall C #1-14 Test No. 10 Date 3-15-04  
 Company Mull Dole Co. Inc, For L.D. Davis Zone Tested Oriskany  
 Address Wichita, Ks. 67202 Elevation 1812 KB 1863 GL  
 Co. Rep / Geo. Roger Martin Cont. Standing Dole Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 14 Twp. 21S Rge. 13W Co. Stafford State Ks.  
 No. of Copies 5 Distribution Sheet (Y, N) N Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 3601 - 3634' Initial Str Wt./Lbs. 60,000 Unseated Str Wt./Lbs. 60,000  
 Anchor Length 33' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 130,000  
 Top Packer Depth 3596 ± 3601' Tool Weight 2100#  
 Bottom Packer Depth 3634' Hole Size 7 7/8" Rubber Size 6 3/4"  
 Total Depth 3746' LTP Wt. Pipe Run None Drill Collar Run 210  
 Mud Wt. 9.1 LCM 0 Vis. 59 WL 9.44 Drill Pipe Size 4 1/2" Ft. Run 3380'  
 Blow Description IF: Weak below. 1/2 - 3". FSI: No below.

FF: Weak below. 1/4 - 3/4". FSI: No below.

Recovery - Total Feet 170 GIP 0 Ft. in DC 170 Ft. in DP 0  
 Rec. 50 Feet of Mud @ oil specs. %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
 Rec. 120 Feet of WM @ oil specs. %gas \_\_\_\_\_ %oil 32 %water 68 %mud \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
 Rec. Top of Tool Feet of \_\_\_\_\_ %gas 3 %oil 32 %water 65 %mud \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
 BHT 104 °F Gravity N/A °API D @ \_\_\_\_\_ °F Corrected Gravity N/A °API  
 RW 31 @ 41 °F Chlorides 40,000 ppm Recovery \_\_\_\_\_ Chlorides 15,000 ppm System

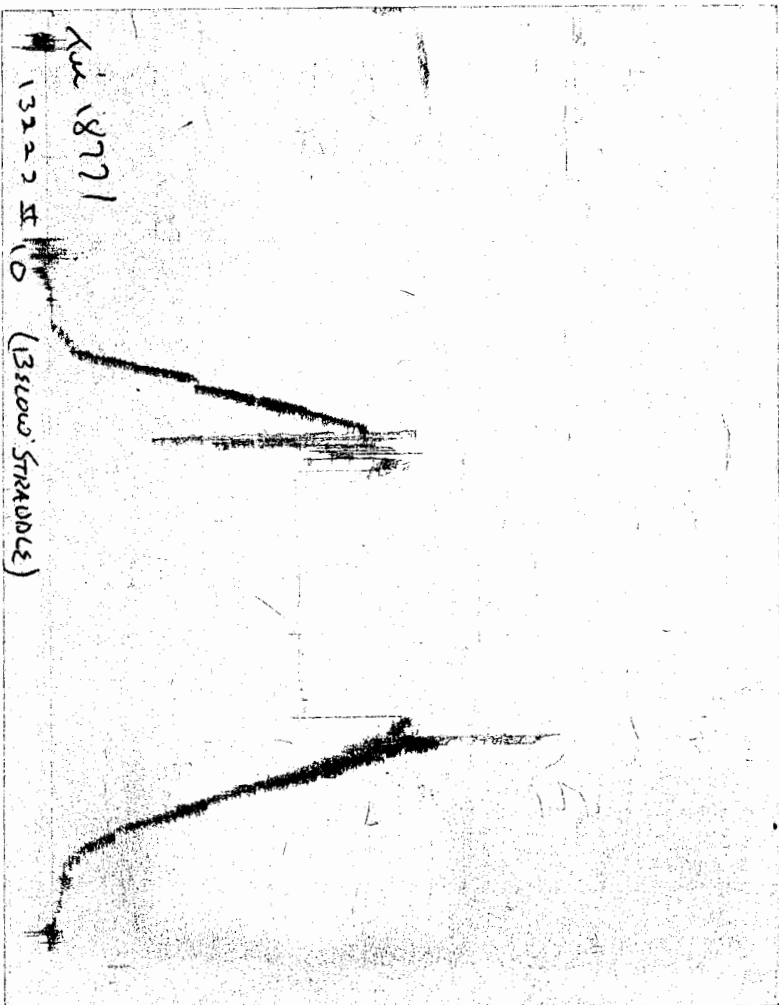
|                                  | AK-1            | Alpine                    |              |          |              |  |
|----------------------------------|-----------------|---------------------------|--------------|----------|--------------|--|
| (A) Initial Hydrostatic Mud      | <u>1786</u> PSI | Recorder No. <u>6755</u>  | Test         | <u>✓</u> | <u>700"</u>  |  |
| (B) First Initial Flow Pressure  | <u>25</u> PSI   | (depth) <u>3602'</u>      | Elec. Rec.   | <u>✓</u> | <u>150"</u>  |  |
| (C) First Final Flow Pressure    | <u>94</u> PSI   | Recorder No. <u>10290</u> | Jars         | <u>✓</u> | <u>200"</u>  |  |
| (D) Initial Shut-In Pressure     | <u>1254</u> PSI | (depth) <u>3630'</u>      | Safety Jt.   | <u>✓</u> | <u>50"</u>   |  |
| (E) Second Initial Flow Pressure | <u>50</u> PSI   | Recorder No. <u>13222</u> | Circ Sub     |          |              |  |
| (F) Second Final Flow Pressure   | <u>100</u> PSI  | (depth) <u>3741'</u>      | Sampler      |          |              |  |
| (G) Final Shut-In Pressure       | <u>951</u> PSI  | Initial Opening <u>15</u> | Straddle     | <u>✓</u> | <u>250"</u>  |  |
| (Q) Final Hydrostatic Mud        | <u>1123</u> PSI | Initial Shut-In <u>45</u> | Ext. Packer  | <u>✓</u> | <u>150"</u>  |  |
|                                  |                 | Final Flow <u>60</u>      | Shale Packer |          |              |  |
|                                  |                 | Final Shut-In <u>60</u>   | Mileage      | <u>✓</u> | <u>40"</u>   |  |
|                                  |                 | T-On Location <u>1430</u> | Sub Total:   |          | <u>1540</u>  |  |
|                                  |                 | T-Started <u>15 14</u>    | Std. By      | <u>✓</u> | <u>30"</u>   |  |
|                                  |                 | T-Open <u>17 47</u>       | Other        |          |              |  |
|                                  |                 | T-Pulled <u>2053</u>      | Total:       | <u>✓</u> | <u>1570"</u> |  |
|                                  |                 | T-Out <u>2359</u>         |              |          |              |  |

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Approved By Roger Martin  
 Our Representative Craig Kuehner

# CHART PAGE

This is a photocopy of the actual AK-1 recorder chart



## CHART PAGE

This is a photocopy of the actual AK-1 recorder chart

