



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Keith Reavis

Showalter #1-17

17 16s 32w Scott, KS

Start Date: 2012.08.01 @ 14:34:00

End Date: 2012.08.01 @ 23:06:15

Job Ticket #: 48970 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.10 @ 11:06:53



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N. Water Suite 300
 Wichita, KS 67202
 ATTN: Keith Reavis

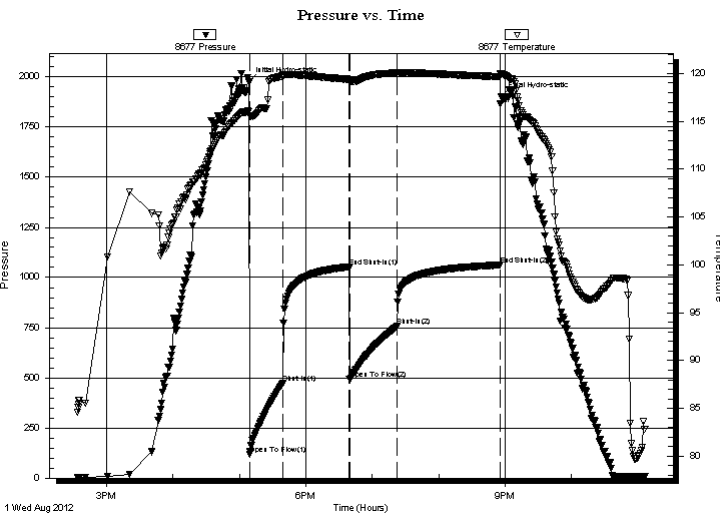
17 16s 32w Scott, KS
Showalter #1-17
 Job Ticket: 48970 **DST#: 1**
 Test Start: 2012.08.01 @ 14:34:00

GENERAL INFORMATION:

Formation: **LKC B - E**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 17:09:15
 Time Test Ended: 23:06:15
 Interval: **4028.00 ft (KB) To 4100.00 ft (KB) (TVD)**
 Total Depth: 4100.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Bradley Walter
 Unit No: 53
 Reference Elevations: 3013.00 ft (KB)
 3002.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8677 Inside
 Press @ Run Depth: 758.39 psig @ 4029.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.08.01 End Date: 2012.08.01 Last Calib.: 2012.08.01
 Start Time: 14:34:05 End Time: 23:06:15 Time On Btm: 2012.08.01 @ 17:08:45
 Time Off Btm: 2012.08.01 @ 20:56:30

TEST COMMENT: IF: BOB @ 2 min.
 IS: No return
 FF: BOB @ 4 min.
 FS: No return.



PRESSURE SUMMARY

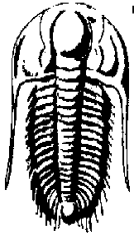
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1974.53 | 116.03 | Initial Hydro-static |
| 1 | 120.47 | 115.55 | Open To Flow (1) |
| 31 | 472.28 | 119.71 | Shut-In(1) |
| 91 | 1050.51 | 119.39 | End Shut-In(1) |
| 91 | 492.87 | 119.22 | Open To Flow (2) |
| 134 | 758.39 | 120.06 | Shut-In(2) |
| 227 | 1062.81 | 119.68 | End Shut-In(2) |
| 228 | 1903.21 | 119.93 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------------------|--------------|
| 850.00 | smcw 2m 98w (oil spots in tool) | 9.51 |
| 795.00 | mcw 10m 90w | 11.15 |
| | | |
| | | |
| | | |

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N. Water Suite 300
Wichita, KS 67202
ATTN: Keith Reavis

17 16s 32w Scott, KS
Showalter #1-17
Job Ticket: 48970 **DST#: 1**
Test Start: 2012.08.01 @ 14:34:00

GENERAL INFORMATION:

Formation: **LKC B - E**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:09:15

Time Test Ended: 23:06:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 53

Interval: **4028.00 ft (KB) To 4100.00 ft (KB) (TVD)**

Total Depth: 4100.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3013.00 ft (KB)

3002.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8522 Outside

Press @RunDepth: psig @ 4029.00 ft (KB)

Start Date: 2012.08.01

Start Time: 14:34:05

End Date:

End Time:

Capacity: 8000.00 psig

Last Calib.: 2012.08.01

Time On Btm:

Time Off Btm:

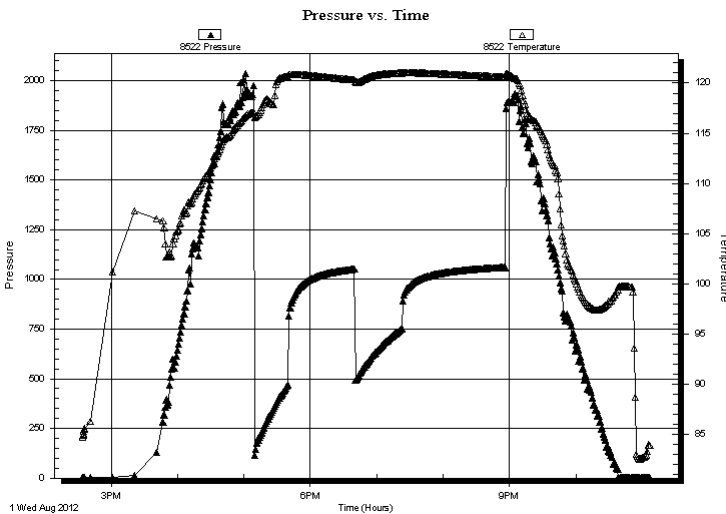
TEST COMMENT: IF: BOB @ 2 min.

IS: No return

FF: BOB @ 4 min.

FS: No return.

PRESSURE SUMMARY



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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------------------|--------------|
| 850.00 | smcw 2m 98w (oil spots in tool) | 9.51 |
| 795.00 | mcw 10m 90w | 11.15 |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

17 16s 32w Scott, KS

250 N. Water Suite 300
Wichita, KS 67202

Showalter #1-17

Job Ticket: 48970

DST#: 1

ATTN: Keith Reavis

Test Start: 2012.08.01 @ 14:34:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3767.00 ft | Diameter: 3.80 inches | Volume: 52.84 bbl | Tool Weight: 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 265.00 ft | Diameter: 2.25 inches | Volume: 1.30 bbl | Weight to Pull Loose: 87000.00 lb |
| | | | <u>Total Volume: 54.14 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 31.00 ft | | | String Weight: Initial 70000.00 lb |
| Depth to Top Packer: | 4028.00 ft | | | Final 77000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 72.00 ft | | | |
| Tool Length: | 99.00 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 | | | 4002.00 | |
| Shut In Tool | 5.00 | | | 4007.00 | |
| Hydraulic tool | 5.00 | | | 4012.00 | |
| Jars | 5.00 | | | 4017.00 | |
| Safety Joint | 2.00 | | | 4019.00 | |
| Packer | 5.00 | | | 4024.00 | 27.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4028.00 | |
| Stubb | 1.00 | | | 4029.00 | |
| Recorder | 0.00 | 8677 | Inside | 4029.00 | |
| Recorder | 0.00 | 8522 | Outside | 4029.00 | |
| Perforations | 3.00 | | | 4032.00 | |
| Change Over Sub | 1.00 | | | 4033.00 | |
| Drill Pipe | 63.00 | | | 4096.00 | |
| Change Over Sub | 1.00 | | | 4097.00 | |
| Bullnose | 3.00 | | | 4100.00 | 72.00 Bottom Packers & Anchor |

Total Tool Length: 99.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

17 16s 32w Scott, KS

250 N. Water Suite 300
Wichita, KS 67202

Showalter #1-17

Job Ticket: 48970

DST#: 1

ATTN: Keith Reavis

Test Start: 2012.08.01 @ 14:34:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

33000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|---------------------------------|---------------|
| 850.00 | smcw 2m 98w (oil spots in tool) | 9.509 |
| 795.00 | mcw 10m 90w | 11.152 |

Total Length: 1645.00 ft Total Volume: 20.661 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .165 @ 89F = 33,000ppm

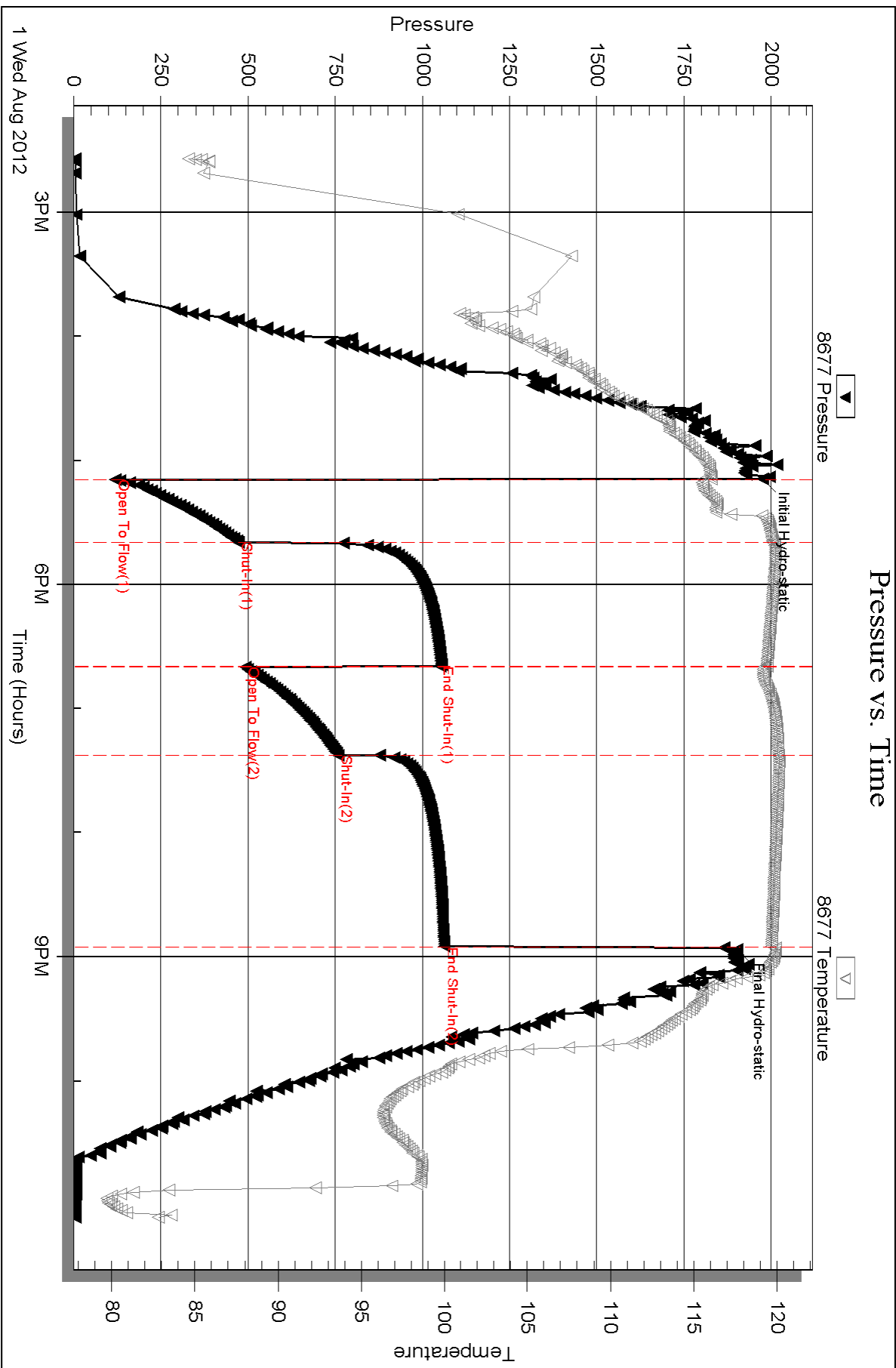
Serial #: 8677

Inside

Murfin Drilling Co Inc

Show after #1-17

DST Test Number: 1

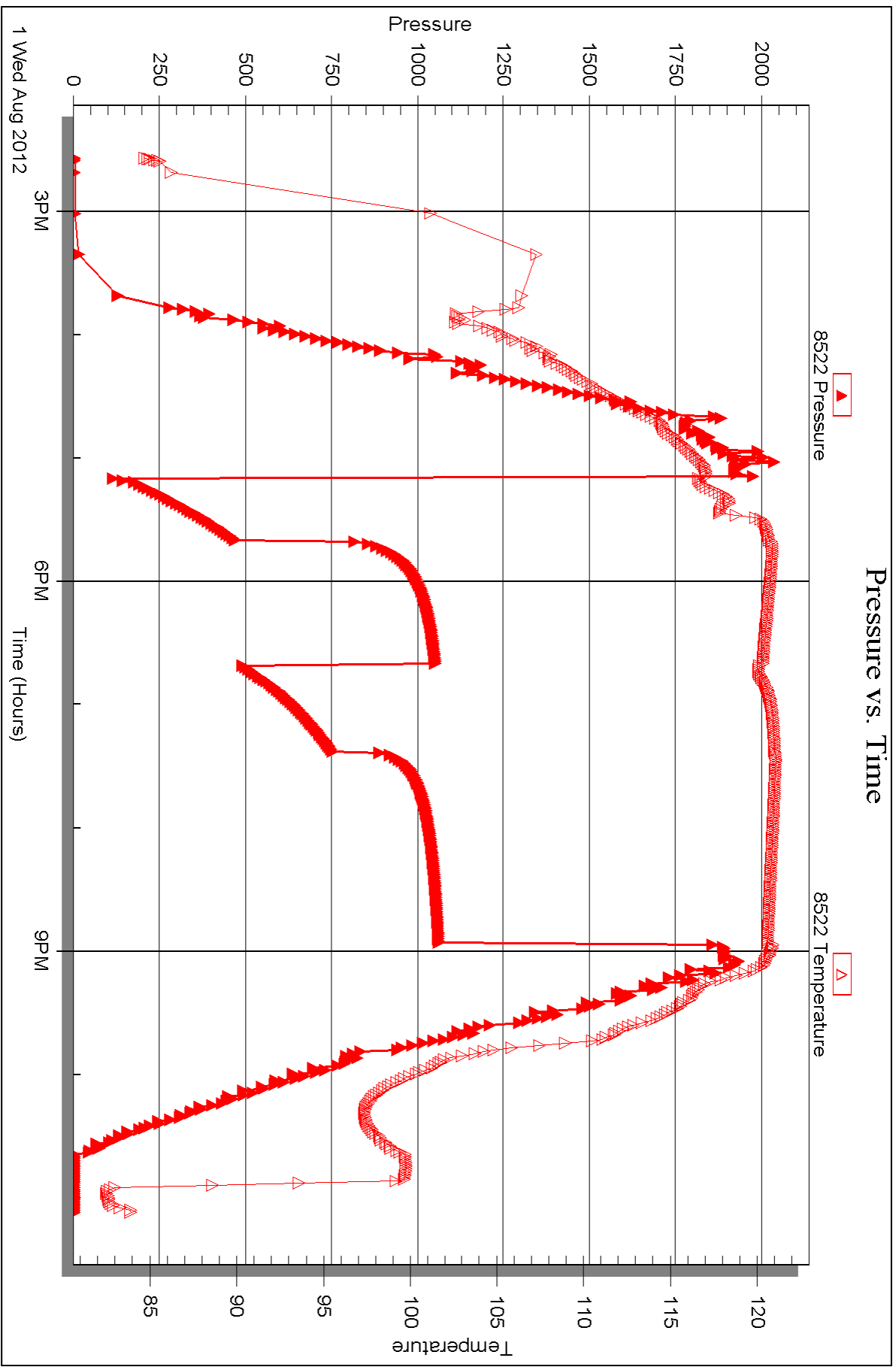


Serial #: 8522

Outside Murfin Drilling Co Inc

Show after #1-17

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Keith Reavis

Showalter #1-17

17 16s 32w Scott, KS

Start Date: 2012.08.02 @ 18:32:00

End Date: 2012.08.03 @ 02:51:00

Job Ticket #: 48971 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.10 @ 11:06:09



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N. Water Suite 300
 Wichita, KS 67202
 ATTN: Keith Reavis

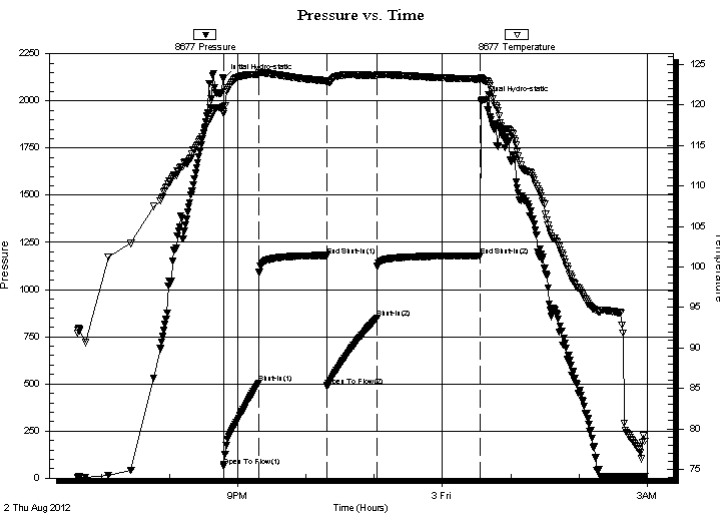
17 16s 32w Scott, KS
Showalter #1-17
 Job Ticket: 48971 **DST#: 2**
 Test Start: 2012.08.02 @ 18:32:00

GENERAL INFORMATION:

Formation: **LKC "I-J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:47:30
 Time Test Ended: 02:51:00
 Interval: **4218.00 ft (KB) To 4272.00 ft (KB) (TVD)**
 Total Depth: 4272.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 53
 Reference Elevations: 3013.00 ft (KB)
 3002.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8677 Inside
 Press @ Run Depth: 848.38 psig @ 4219.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.08.02 End Date: 2012.08.03 Last Calib.: 2012.08.03
 Start Time: 18:39:05 End Time: 02:57:59 Time On Btm: 2012.08.02 @ 20:47:15
 Time Off Btm: 2012.08.03 @ 00:34:15

TEST COMMENT: IF: BOB @ 3 min.
 IS: No return.
 FF: BOB @ 4 min.
 FS: No return.



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2119.30 | 119.74 | Initial Hydro-static |
| 1 | 61.79 | 118.91 | Open To Flow (1) |
| 31 | 503.11 | 123.79 | Shut-In(1) |
| 91 | 1178.99 | 123.01 | End Shut-In(1) |
| 92 | 489.37 | 122.75 | Open To Flow (2) |
| 135 | 848.38 | 123.63 | Shut-In(2) |
| 226 | 1179.75 | 123.20 | End Shut-In(2) |
| 227 | 2000.45 | 123.31 | Final Hydro-static |

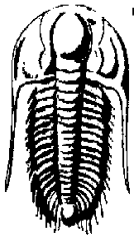
Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 630.00 | mcw 10m 90w | 6.42 |
| 1220.00 | smcw 2m 98w | 17.11 |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N. Water Suite 300
Wichita, KS 67202
ATTN: Keith Reavis

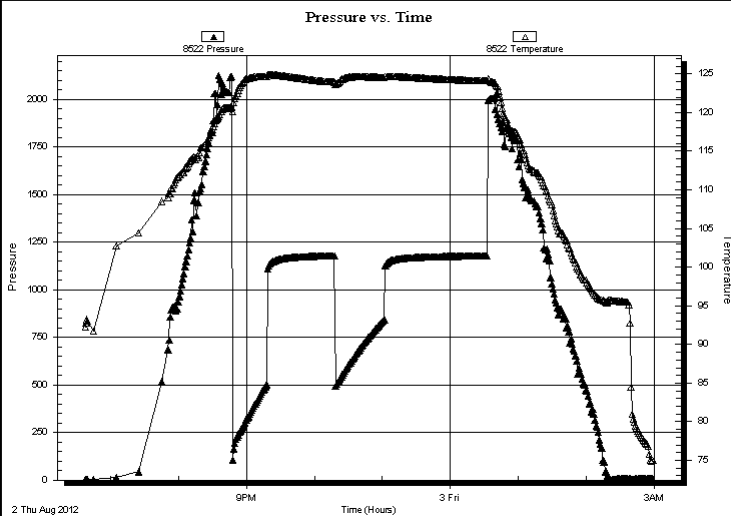
17 16s 32w Scott, KS
Showalter #1-17
Job Ticket: 48971 **DST#: 2**
Test Start: 2012.08.02 @ 18:32:00

GENERAL INFORMATION:

Formation: **LKC "I-J"**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 20:47:30 Tester: Bradley Walter
Time Test Ended: 02:51:00 Unit No: 53
Interval: 4218.00 ft (KB) To 4272.00 ft (KB) (TVD) Reference Elevations: 3013.00 ft (KB)
Total Depth: 4272.00 ft (KB) (TVD) 3002.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 11.00 ft

Serial #: 8522 Outside
Press @ RunDepth: psig @ 4219.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.08.02 End Date: 2012.08.03 Last Calib.: 2012.08.03
Start Time: 18:38:05 End Time: 02:58:44 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: BOB @ 3 min.
IS: No return.
FF: BOB @ 4 min.
FS: No return.



PRESSURE SUMMARY

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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 630.00 | mcw 10m 90w | 6.42 |
| 1220.00 | smcw 2m 98w | 17.11 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N. Water Suite 300
Wichita, KS 67202
ATTN: Keith Reavis

17 16s 32w Scott, KS
Showalter #1-17
Job Ticket: 48971 **DST#: 2**
Test Start: 2012.08.02 @ 18:32:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3956.00 ft | Diameter: 3.80 inches | Volume: 55.49 bbl | Tool Weight: 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 265.00 ft | Diameter: 2.25 inches | Volume: 1.30 bbl | Weight to Pull Loose: 92000.00 lb |
| | | | <u>Total Volume: 56.79 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 30.00 ft | | | String Weight: Initial 70000.00 lb |
| Depth to Top Packer: | 4218.00 ft | | | Final 80000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 54.00 ft | | | |
| Tool Length: | 81.00 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 | | | 4192.00 | |
| Shut In Tool | 5.00 | | | 4197.00 | |
| Hydraulic tool | 5.00 | | | 4202.00 | |
| Jars | 5.00 | | | 4207.00 | |
| Safety Joint | 2.00 | | | 4209.00 | |
| Packer | 5.00 | | | 4214.00 | 27.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4218.00 | |
| Stubb | 1.00 | | | 4219.00 | |
| Recorder | 0.00 | 8677 | Inside | 4219.00 | |
| Recorder | 0.00 | 8522 | Outside | 4219.00 | |
| Perforations | 17.00 | | | 4236.00 | |
| Change Over Sub | 1.00 | | | 4237.00 | |
| Drill Pipe | 31.00 | | | 4268.00 | |
| Change Over Sub | 1.00 | | | 4269.00 | |
| Bullnose | 3.00 | | | 4272.00 | 54.00 Bottom Packers & Anchor |

Total Tool Length: 81.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

17 16s 32w Scott, KS

250 N. Water Suite 300
Wichita, KS 67202

Showalter #1-17

Job Ticket: 48971

DST#: 2

ATTN: Keith Reavis

Test Start: 2012.08.02 @ 18:32:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

27000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2100.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 630.00 | mcw 10m 90w | 6.423 |
| 1220.00 | smcw 2m 98w | 17.113 |

Total Length: 1850.00 ft Total Volume: 23.536 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

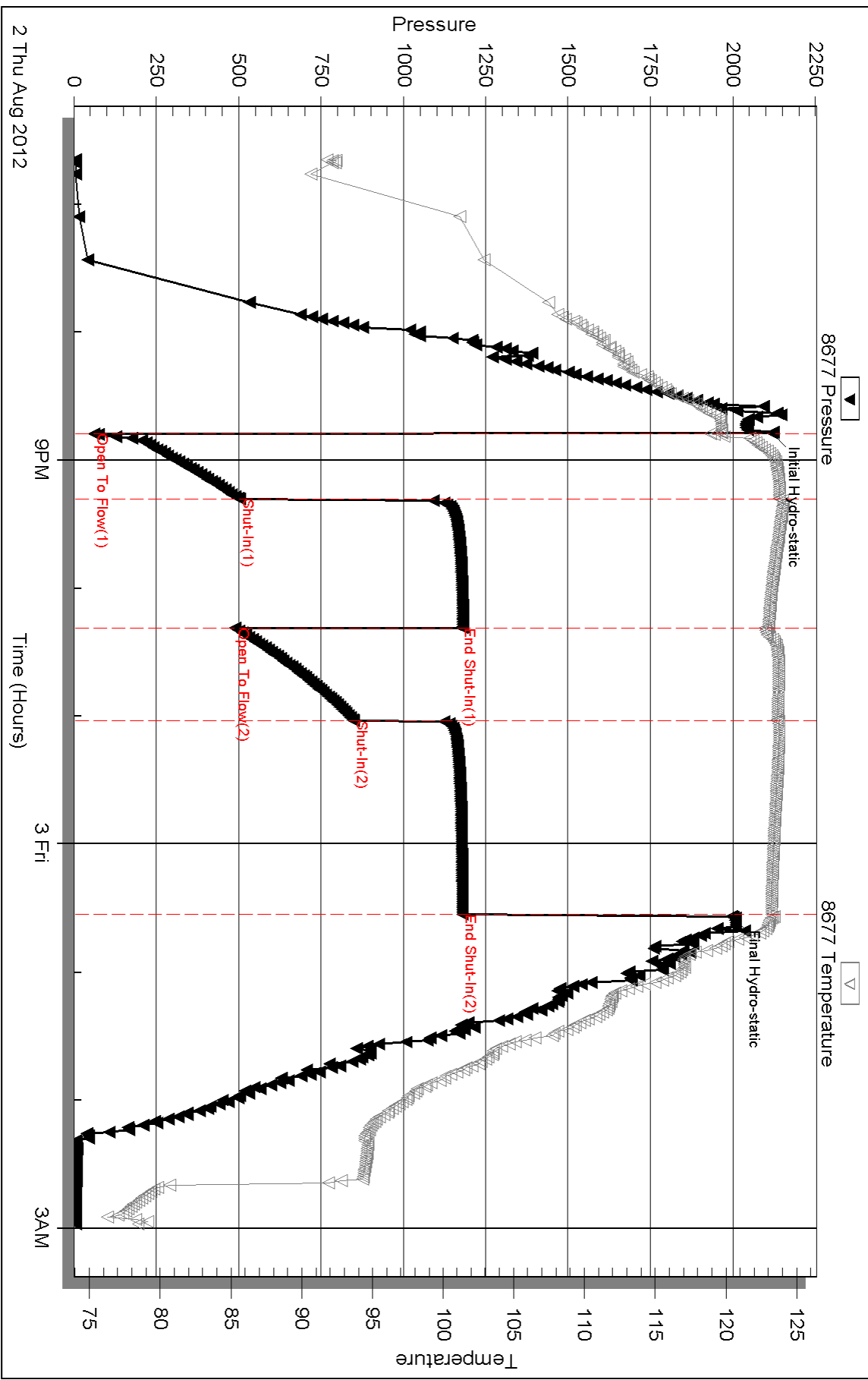
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .270 @ 67F = 27,000ppm

Pressure vs. Time

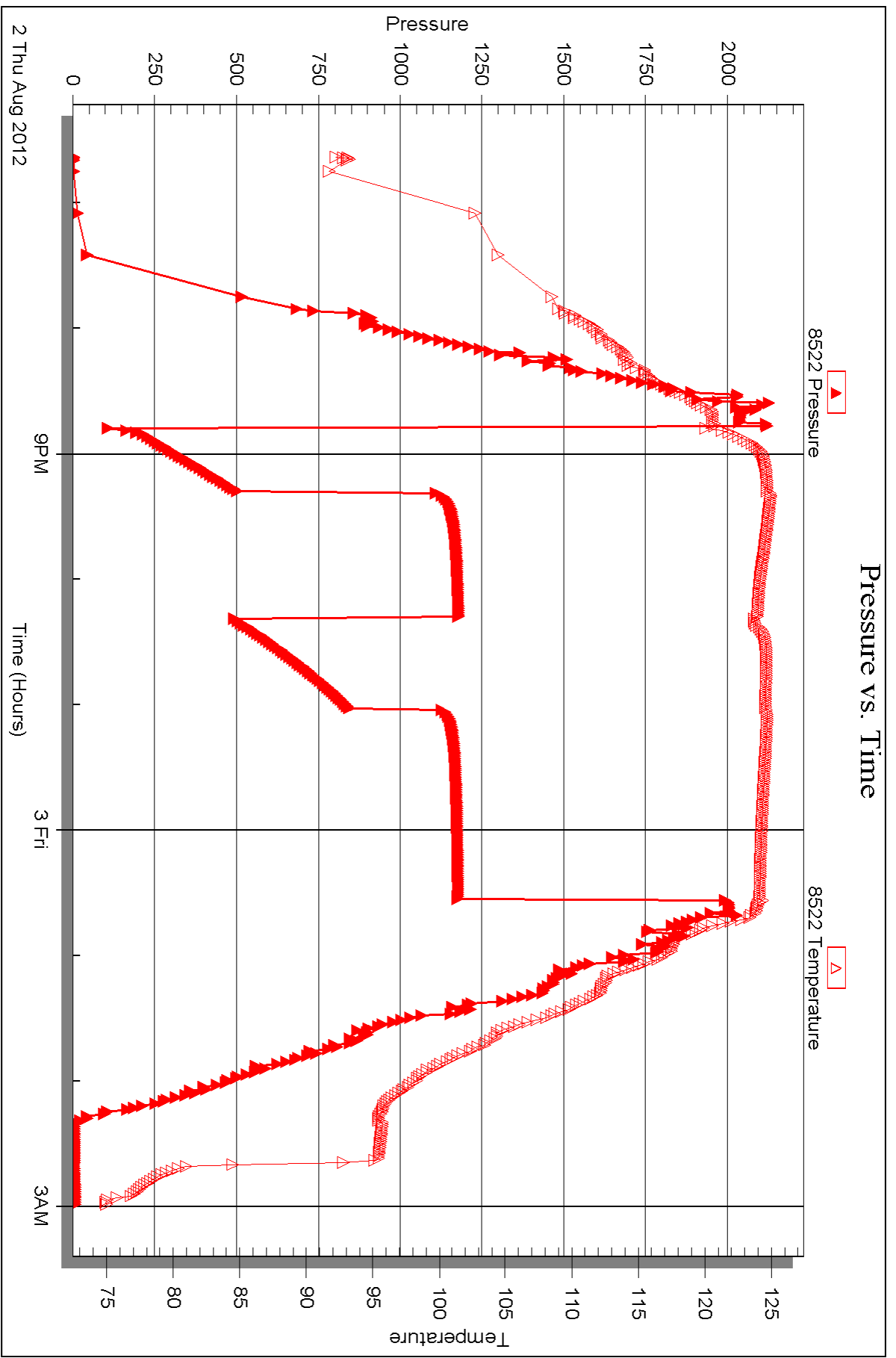


Serial #: 8522

Outside Murfin Drilling Co Inc

Show alter #1-17

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Keith Reavis

Showalter #1-17

17 16s 32w Scott, KS

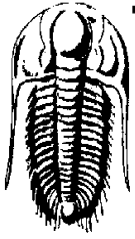
Start Date: 2012.08.04 @ 05:17:00

End Date: 2012.08.04 @ 09:34:45

Job Ticket #: 48972 DST #: 3

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

Printed: 2012.08.10 @ 11:05:13



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N. Water Suite 300
 Wichita, KS 67202
 ATTN: Keith Reavis

17 16s 32w Scott, KS
Showalter #1-17
 Job Ticket: 48972 **DST#: 3**
 Test Start: 2012.08.04 @ 05:17:00

GENERAL INFORMATION:

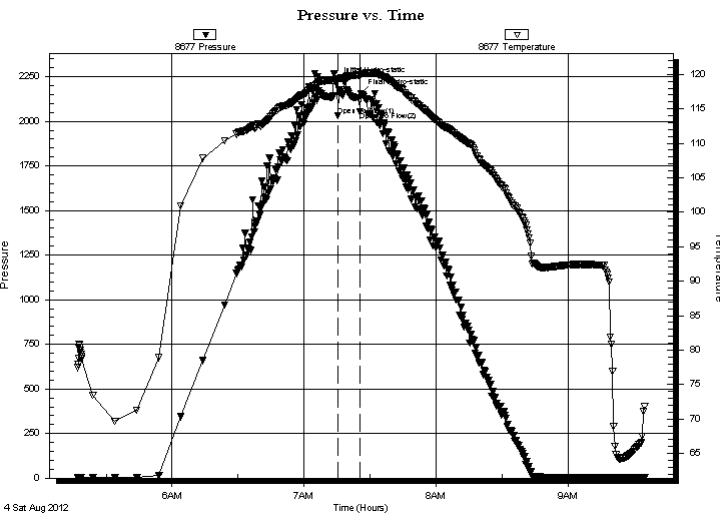
Formation: **Marmaton-Pawnee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:15:15
 Time Test Ended: 09:34:45
Interval: 4420.00 ft (KB) To 4525.00 ft (KB) (TVD)
 Total Depth: 4525.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 53
 Reference Elevations: 3013.00 ft (KB)
 3002.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8677

Inside

Press@RunDepth: psig @ 4421.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.08.04 End Date: 2012.08.04 Last Calib.: 2012.08.04
 Start Time: 05:17:05 End Time: 09:34:44 Time On Btm: 2012.08.04 @ 07:15:00
 Time Off Btm: 2012.08.04 @ 07:25:45

TEST COMMENT: IF: Packer failure, attempt to reseal failed.



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2220.06 | 119.30 | Initial Hydro-static |
| 1 | 2031.00 | 119.20 | Open To Flow (1) |
| 11 | 2055.29 | 119.81 | Open To Flow (2) |
| 11 | 2154.93 | 119.98 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 330.00 | mud 100m | 2.22 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N. Water Suite 300
Wichita, KS 67202
ATTN: Keith Reavis

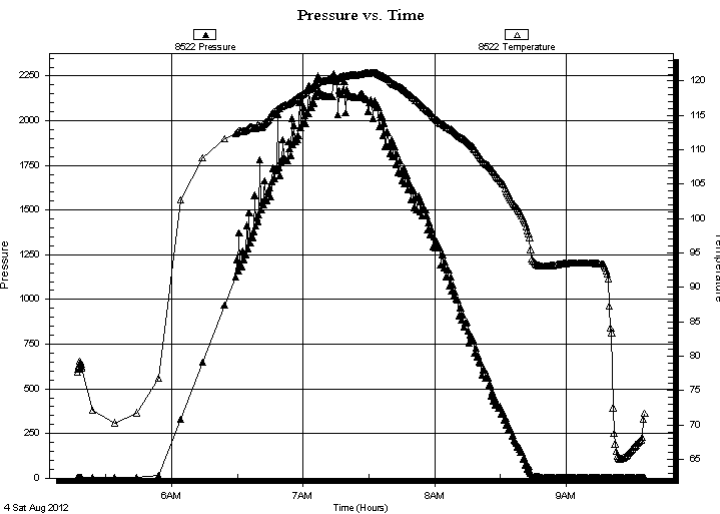
17 16s 32w Scott, KS
Showalter #1-17
Job Ticket: 48972 **DST#: 3**
Test Start: 2012.08.04 @ 05:17:00

GENERAL INFORMATION:

Formation: **Marmaton-Pawnee**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 07:15:15 Tester: Bradley Walter
Time Test Ended: 09:34:45 Unit No: 53
Interval: 4420.00 ft (KB) To 4525.00 ft (KB) (TVD) Reference Elevations: 3013.00 ft (KB)
Total Depth: 4525.00 ft (KB) (TVD) 3002.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 11.00 ft

Serial #: 8522 Outside
Press @ RunDepth: psig @ 4421.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.08.04 End Date: 2012.08.04 Last Calib.: 2012.08.04
Start Time: 05:17:05 End Time: 09:35:44 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Packer failure, attempt to reseal failed.



PRESSURE SUMMARY

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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 330.00 | mud 100m | 2.22 |
| | | |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N. Water Suite 300
Wichita, KS 67202
ATTN: Keith Reavis

17 16s 32w Scott, KS
Showalter #1-17
Job Ticket: 48972 **DST#: 3**
Test Start: 2012.08.04 @ 05:17:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4146.00 ft | Diameter: 3.80 inches | Volume: 58.16 bbl | Tool Weight: 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 35000.00 lb |
| Drill Collar: | Length: 265.00 ft | Diameter: 2.25 inches | Volume: 1.30 bbl | Weight to Pull Loose: 90000.00 lb |
| | | | <u>Total Volume: 59.46 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 18.00 ft | | | String Weight: Initial 76000.00 lb |
| Depth to Top Packer: | 4420.00 ft | | | Final 77000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 105.00 ft | | | |
| Tool Length: | 132.00 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 | | | 4394.00 | |
| Shut In Tool | 5.00 | | | 4399.00 | |
| Hydraulic tool | 5.00 | | | 4404.00 | |
| Jars | 5.00 | | | 4409.00 | |
| Safety Joint | 2.00 | | | 4411.00 | |
| Packer | 5.00 | | | 4416.00 | 27.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4420.00 | |
| Stubb | 1.00 | | | 4421.00 | |
| Recorder | 0.00 | 8677 | Inside | 4421.00 | |
| Recorder | 0.00 | 8522 | Outside | 4421.00 | |
| Perforations | 5.00 | | | 4426.00 | |
| Change Over Sub | 1.00 | | | 4427.00 | |
| Drill Pipe | 94.00 | | | 4521.00 | |
| Change Over Sub | 1.00 | | | 4522.00 | |
| Bullnose | 3.00 | | | 4525.00 | 105.00 Bottom Packers & Anchor |

Total Tool Length: 132.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

17 16s 32w Scott, KS

250 N. Water Suite 300
Wichita, KS 67202

Showalter #1-17

Job Ticket: 48972

DST#: 3

ATTN: Keith Reavis

Test Start: 2012.08.04 @ 05:17:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 330.00 | mud 100m | 2.215 |

Total Length: 330.00 ft Total Volume: 2.215 bbl

Num Fluid Samples: 0

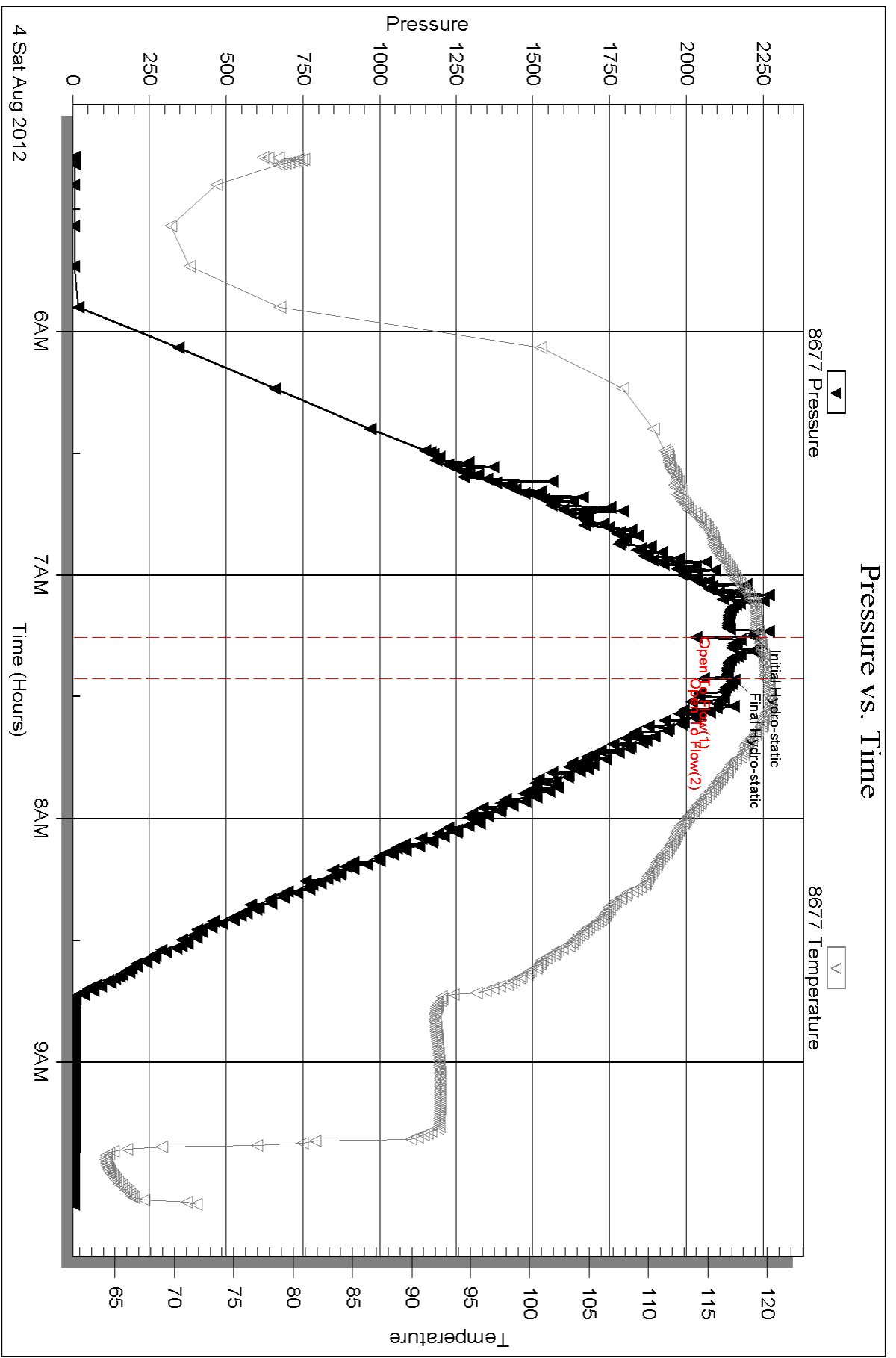
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

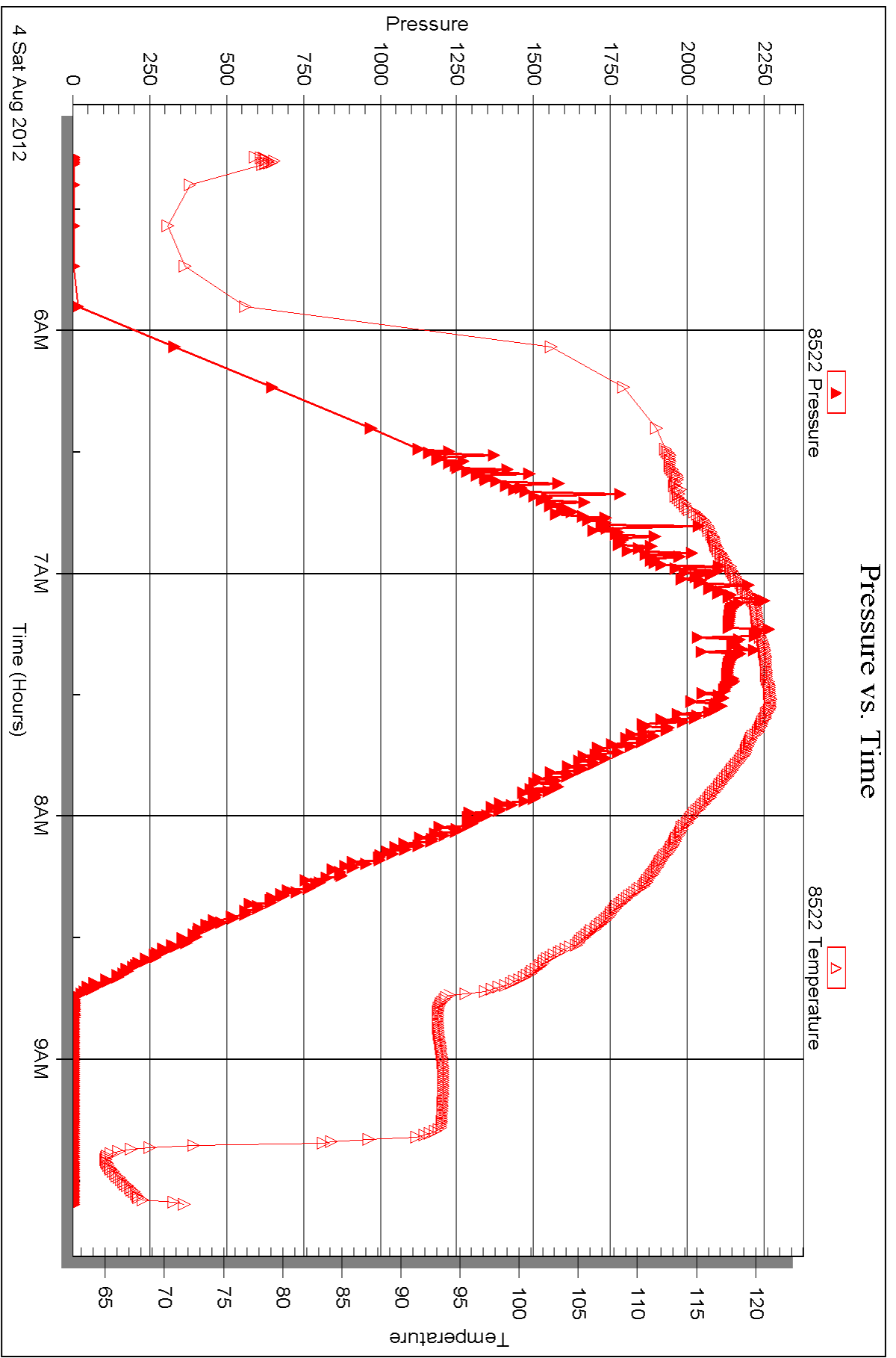


Serial #: 8522

Outside Murfin Drilling Co Inc

Show alter #1-17

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 48972

Printed: 2012.08.10 @ 11:05:17



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Keith Reavis

Showalter #1-17

17 16s 32w Scott, KS

Start Date: 2012.08.04 @ 10:05:00

End Date: 2012.08.04 @ 16:53:30

Job Ticket #: 48973 DST #: 4

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

Printed: 2012.08.10 @ 11:04:15



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N. Water Suite 300
Wichita, KS 67202
ATTN: Keith Reavis

17 16s 32w Scott, KS
Showalter #1-17
Job Ticket: 48973 **DST#: 4**
Test Start: 2012.08.04 @ 10:05:00

GENERAL INFORMATION:

Formation: **Marmaton-Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:00:00

Time Test Ended: 16:53:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

Interval: 4424.00 ft (KB) To 4525.00 ft (KB) (TVD)

Total Depth: 4525.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3013.00 ft (KB)

3002.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8677

Inside

Press @ Run Depth: 88.02 psig @ 4425.00 ft (KB)

Start Date: 2012.08.04

Start Time: 10:05:05

End Date: 2012.08.04

End Time: 16:53:29

Capacity: 8000.00 psig

Last Calib.: 2012.08.04

Time On Btm: 2012.08.04 @ 11:59:45

Time Off Btm: 2012.08.04 @ 15:02:00

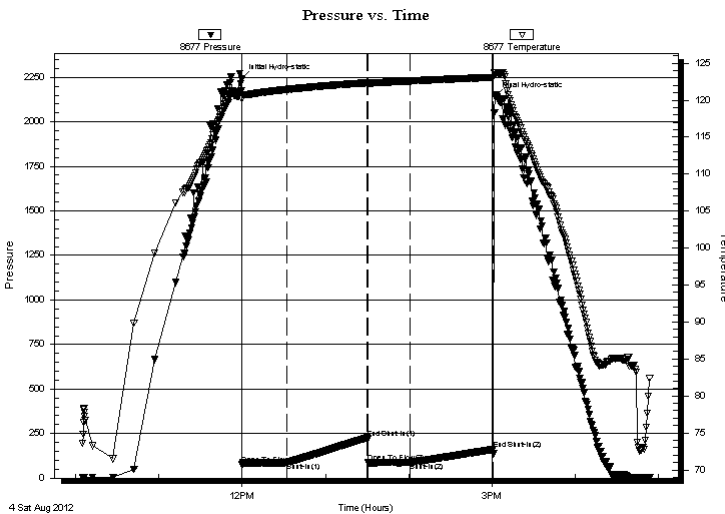
TEST COMMENT: IF: 5", receded to 1/4". Packer seat failed initially then seated. Mud fell approx. 10' before packer set.

IS: No return.

FF: No blow.

FS: No return.

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2240.38 | 121.32 | Initial Hydro-static |
| 1 | 75.68 | 120.17 | Open To Flow (1) |
| 33 | 88.95 | 121.45 | Shut-In(1) |
| 91 | 226.53 | 122.34 | End Shut-In(1) |
| 91 | 86.68 | 122.29 | Open To Flow (2) |
| 121 | 88.02 | 122.59 | Shut-In(2) |
| 181 | 161.19 | 123.08 | End Shut-In(2) |
| 183 | 2139.69 | 123.73 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------------|--------------|
| 30.00 | socm 2o 98m | 0.15 |
| 70.00 | mud 100m (oil spots) | 0.34 |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N. Water Suite 300
 Wichita, KS 67202
 ATTN: Keith Reavis

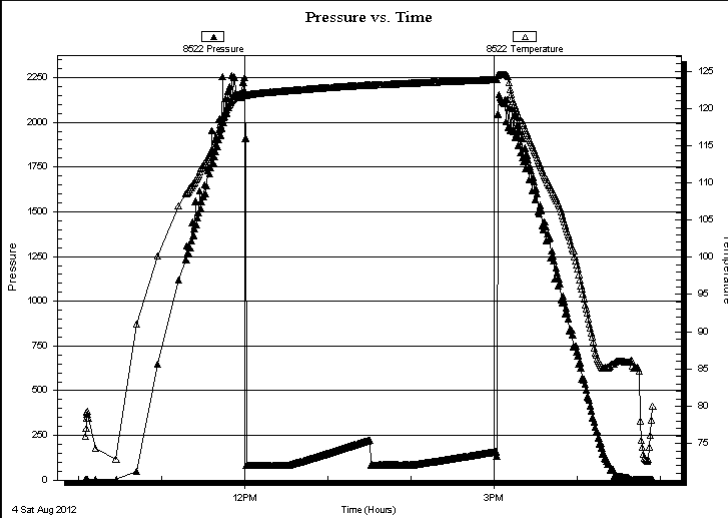
17 16s 32w Scott, KS
Showalter #1-17
 Job Ticket: 48973 **DST#: 4**
 Test Start: 2012.08.04 @ 10:05:00

GENERAL INFORMATION:

Formation: **Marmaton-Pawnee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:00:00
 Time Test Ended: 16:53:30
 Interval: **4424.00 ft (KB) To 4525.00 ft (KB) (TVD)**
 Total Depth: 4525.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 53
 Reference Elevations: 3013.00 ft (KB)
 3002.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8522 Outside
 Press @ Run Depth: psig @ 4425.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.08.04 End Date: 2012.08.04 Last Calib.: 2012.08.04
 Start Time: 10:05:05 End Time: 16:54:44 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: 5", receded to 1/4". Packer seat failed initaly then seated. Mud fell approx. 10' before packer set.
 IS: No return.
 FF: No blow.
 FS: No return.



| PRESSURE SUMMARY | | | |
|------------------|-----------------|--------------|------------|
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| Recovery | | |
|-------------|----------------------|--------------|
| Length (ft) | Description | Volume (bbl) |
| 30.00 | socm 2o 98m | 0.15 |
| 70.00 | mud 100m (oil spots) | 0.34 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N. Water Suite 300
Wichita, KS 67202
ATTN: Keith Reavis

17 16s 32w Scott, KS
Showalter #1-17
Job Ticket: 48973 **DST#: 4**
Test Start: 2012.08.04 @ 10:05:00

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 4146.00 ft | Diameter: 3.80 inches | Volume: 58.16 bbl | Tool Weight: | 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: | 30000.00 lb |
| Drill Collar: | Length: 265.00 ft | Diameter: 2.25 inches | Volume: 1.30 bbl | Weight to Pull Loose: | 90000.00 lb |
| | | | <u>Total Volume: 59.46 bbl</u> | Tool Chased | 0.00 ft |
| Drill Pipe Above KB: | 14.00 ft | | | String Weight: Initial | 77000.00 lb |
| Depth to Top Packer: | 4424.00 ft | | | Final | 77000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 101.00 ft | | | | |
| Tool Length: | 128.00 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 | | | 4398.00 | |
| Shut In Tool | 5.00 | | | 4403.00 | |
| Hydraulic tool | 5.00 | | | 4408.00 | |
| Jars | 5.00 | | | 4413.00 | |
| Safety Joint | 2.00 | | | 4415.00 | |
| Packer | 5.00 | | | 4420.00 | 27.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4424.00 | |
| Stubb | 1.00 | | | 4425.00 | |
| Recorder | 0.00 | 8677 | Inside | 4425.00 | |
| Recorder | 0.00 | 8522 | Outside | 4425.00 | |
| Perforations | 32.00 | | | 4457.00 | |
| Change Over Sub | 1.00 | | | 4458.00 | |
| Drill Pipe | 63.00 | | | 4521.00 | |
| Change Over Sub | 1.00 | | | 4522.00 | |
| Bullnose | 3.00 | | | 4525.00 | 101.00 Bottom Packers & Anchor |

Total Tool Length: 128.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

17 16s 32w Scott, KS

250 N. Water Suite 300
Wichita, KS 67202

Showalter #1-17

Job Ticket: 48973

DST#: 4

ATTN: Keith Reavis

Test Start: 2012.08.04 @ 10:05:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbbl |
|--------------|----------------------|----------------|
| 30.00 | socm 2o 98m | 0.148 |
| 70.00 | mud 100m (oil spots) | 0.344 |

Total Length: 100.00 ft

Total Volume: 0.492 bbl

Num Fluid Samples: 0

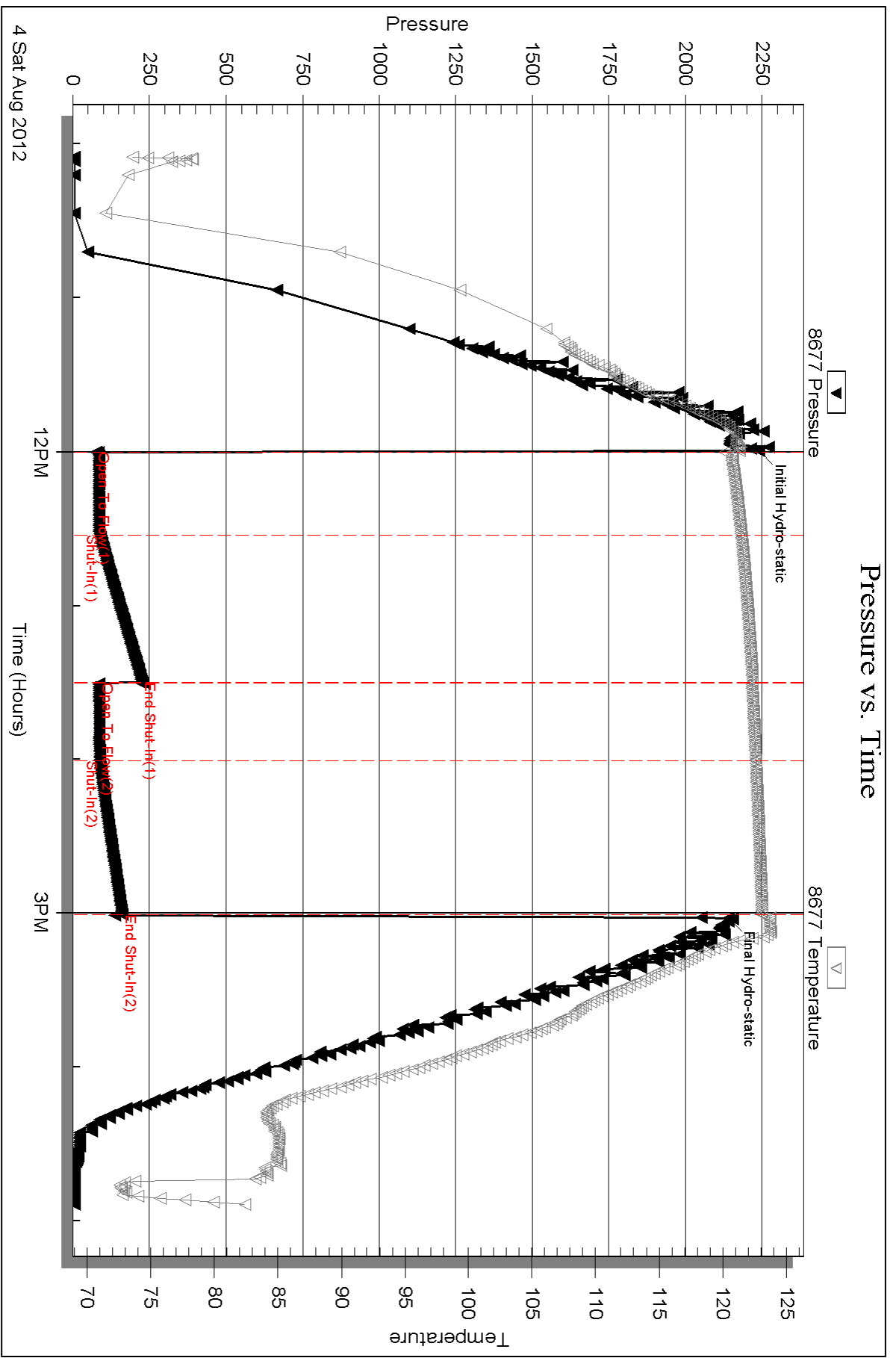
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

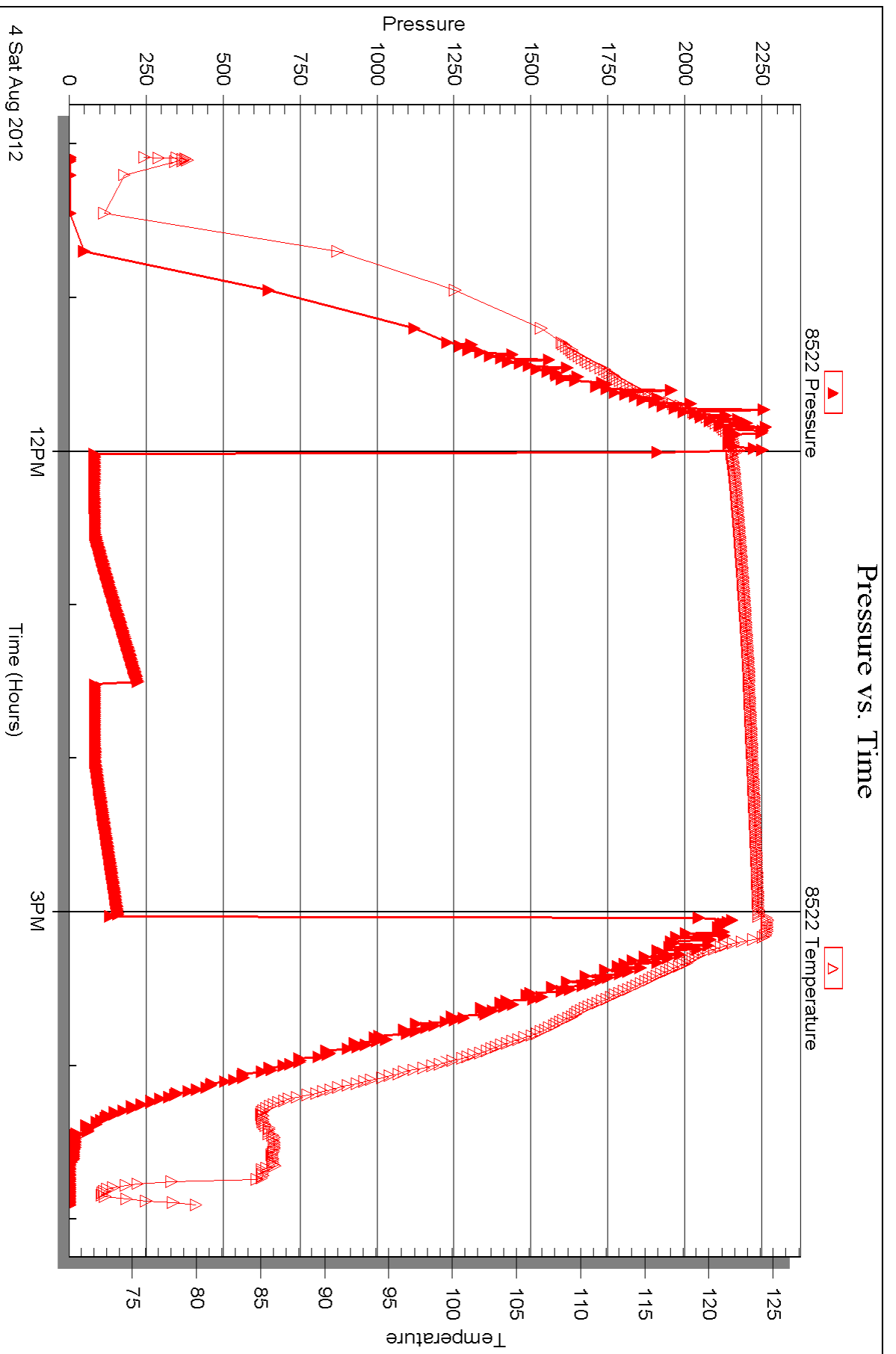


Serial #: 8522

Outside Murfin Drilling Co Inc

Show alter #1-17

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 48973

Printed: 2012.08.10 @ 11:04:19



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Keith Reavis

Showalter #1-17

17 16s 32w Scott, KS

Start Date: 2012.08.05 @ 10:15:00

End Date: 2012.08.05 @ 17:41:15

Job Ticket #: 48974 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.10 @ 11:03:29



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N. Water Suite 300
Wichita, KS 67202
ATTN: Keith Reavis

17 16s 32w Scott, KS
Showalter #1-17
Job Ticket: 48974 **DST#: 5**
Test Start: 2012.08.05 @ 10:15:00

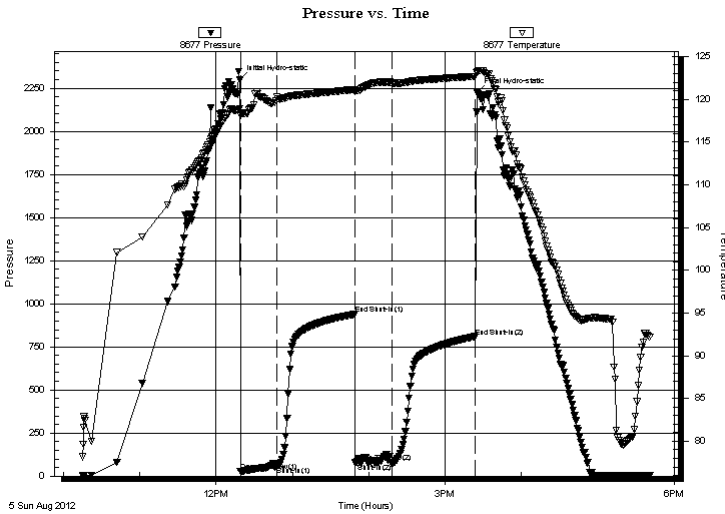
GENERAL INFORMATION:

Formation: **Johnson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:19:00
Time Test Ended: 17:41:15
Interval: **4570.00 ft (KB) To 4620.00 ft (KB) (TVD)**
Total Depth: 4620.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 53
Reference Elevations: 3013.00 ft (KB)
3002.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8677 Inside
Press @ Run Depth: 73.07 psig @ 4571.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.08.05 End Date: 2012.08.05 Last Calib.: 2012.08.05
Start Time: 10:15:05 End Time: 17:41:14 Time On Btm: 2012.08.05 @ 12:18:45
Time Off Btm: 2012.08.05 @ 15:25:00

TEST COMMENT: IF: 1" blow.
IS: No return.
FF: Surface blow.
FS: No return.

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2297.31 | 118.93 | Initial Hydro-static |
| 1 | 26.47 | 118.15 | Open To Flow (1) |
| 29 | 55.42 | 120.23 | Shut-In(1) |
| 90 | 939.07 | 121.13 | End Shut-In(1) |
| 91 | 81.65 | 120.89 | Open To Flow (2) |
| 120 | 73.07 | 121.91 | Shut-In(2) |
| 185 | 807.01 | 122.68 | End Shut-In(2) |
| 187 | 2222.65 | 123.22 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 75.00 | socm 2o 98m | 0.37 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N. Water Suite 300
Wichita, KS 67202
ATTN: Keith Reavis

17 16s 32w Scott, KS
Showalter #1-17
Job Ticket: 48974 **DST#: 5**
Test Start: 2012.08.05 @ 10:15:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4302.00 ft | Diameter: 3.80 inches | Volume: 60.35 bbl | Tool Weight: 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 30000.00 lb |
| Drill Collar: | Length: 265.00 ft | Diameter: 2.25 inches | Volume: 1.30 bbl | Weight to Pull Loose: 90000.00 lb |
| | | | <u>Total Volume: 61.65 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 24.00 ft | | | String Weight: Initial 76000.00 lb |
| Depth to Top Packer: | 4570.00 ft | | | Final 76000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 50.00 ft | | | |
| Tool Length: | 77.00 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 | | | 4544.00 | |
| Shut In Tool | 5.00 | | | 4549.00 | |
| Hydraulic tool | 5.00 | | | 4554.00 | |
| Jars | 5.00 | | | 4559.00 | |
| Safety Joint | 2.00 | | | 4561.00 | |
| Packer | 5.00 | | | 4566.00 | 27.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4570.00 | |
| Stubb | 1.00 | | | 4571.00 | |
| Recorder | 0.00 | 8677 | Inside | 4571.00 | |
| Recorder | 0.00 | 8522 | Outside | 4571.00 | |
| Perforations | 13.00 | | | 4584.00 | |
| Change Over Sub | 1.00 | | | 4585.00 | |
| Drill Pipe | 31.00 | | | 4616.00 | |
| Change Over Sub | 1.00 | | | 4617.00 | |
| Bullnose | 3.00 | | | 4620.00 | 50.00 Bottom Packers & Anchor |

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

17 16s 32w Scott, KS

250 N. Water Suite 300
Wichita, KS 67202

Showalter #1-17

Job Ticket: 48974

DST#: 5

ATTN: Keith Reavis

Test Start: 2012.08.05 @ 10:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 75.00 | socm 2o 98m | 0.369 |

Total Length: 75.00 ft Total Volume: 0.369 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

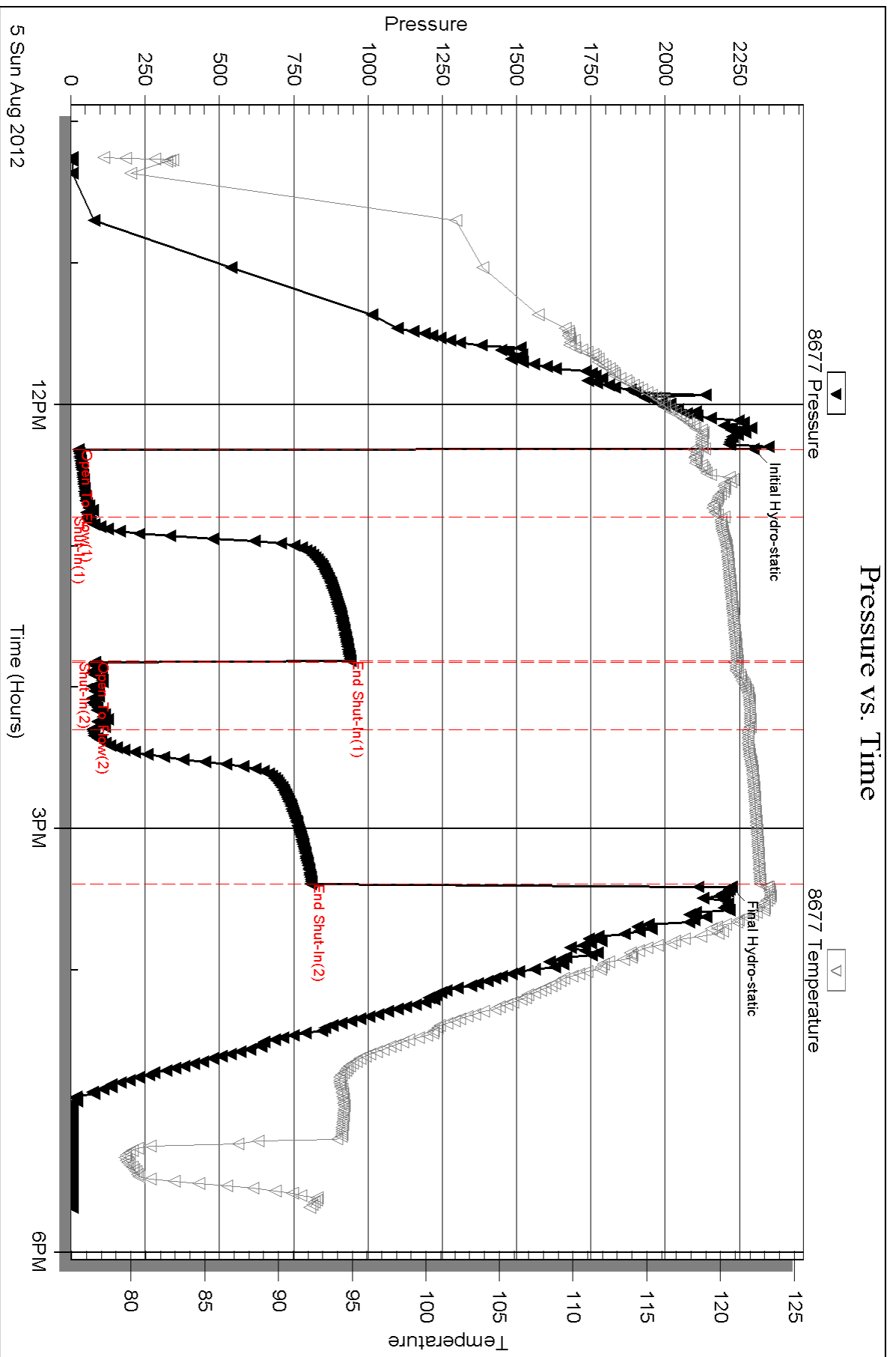
Serial #: 8677

Inside

Murfin Drilling Co Inc

Show after #1-17

DST Test Number: 5



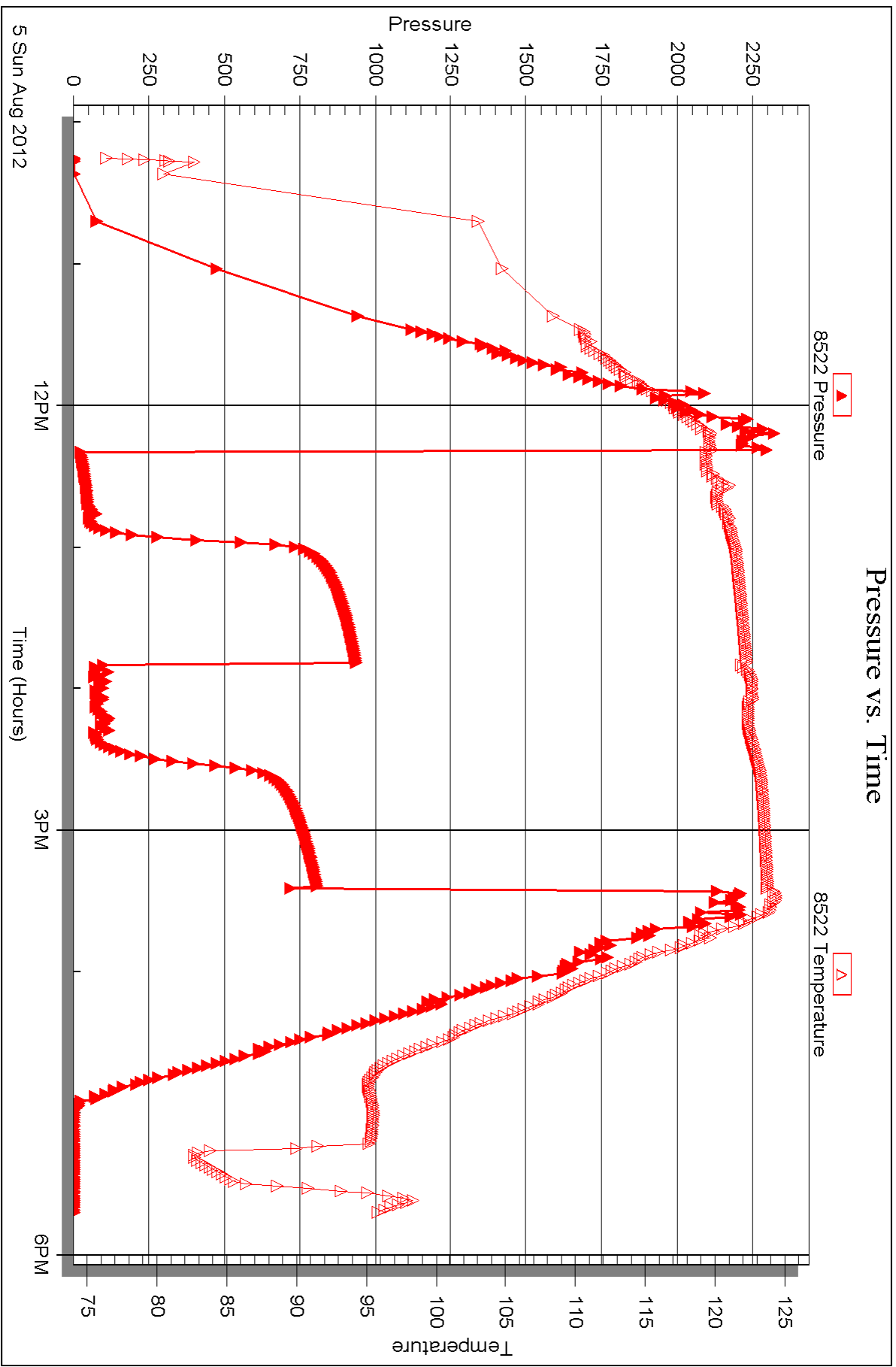
Serial #: 8522

Outside

Murfin Drilling Co Inc

Show alter #1-17

DST Test Number: 5





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Keith Reavis

Showalter #1-17

17 16s 32w Scott, KS

Start Date: 2012.08.06 @ 00:46:00

End Date: 2012.08.06 @ 07:51:15

Job Ticket #: 48975 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.10 @ 11:02:20



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N. Water Suite 300
 Wichita, KS 67202
 ATTN: Keith Reavis

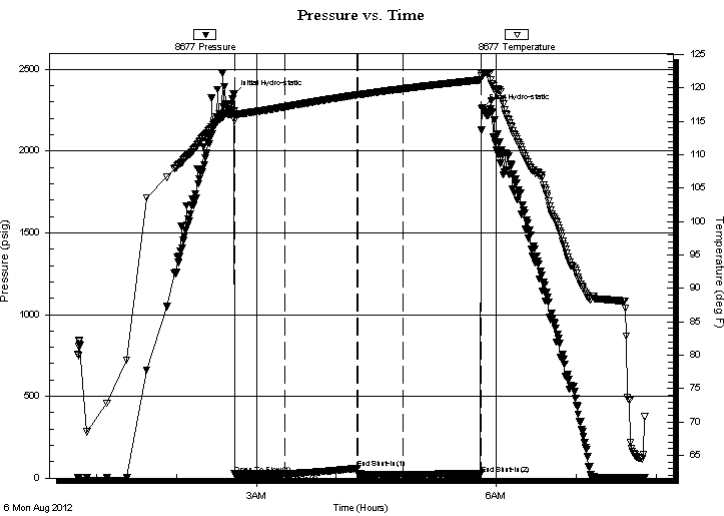
17 16s 32w Scott, KS
Showalter #1-17
 Job Ticket: 48975 **DST#: 6**
 Test Start: 2012.08.06 @ 00:46:00

GENERAL INFORMATION:

Formation: **Atoka**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 02:43:30
 Time Test Ended: 07:51:15
Interval: 4618.00 ft (KB) To 4634.00 ft (KB) (TVD)
 Total Depth: 4634.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 53
 Reference Elevations: 3013.00 ft (KB)
 3002.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8677 Inside
 Press @ Run Depth: 24.10 psig @ 4619.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.08.06 End Date: 2012.08.06 Last Calib.: 2012.08.06
 Start Time: 00:46:05 End Time: 07:51:14 Time On Btm: 2012.08.06 @ 02:43:15
 Time Off Btm: 2012.08.06 @ 05:49:00

TEST COMMENT: IF: Surface blow, Died @ 9 min.
 IS: No return.
 FF: No blow
 FS: no return.



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2347.43 | 116.53 | Initial Hydro-static |
| 1 | 25.23 | 115.17 | Open To Flow (1) |
| 38 | 25.24 | 117.17 | Shut-In(1) |
| 93 | 59.55 | 118.97 | End Shut-In(1) |
| 93 | 25.20 | 118.95 | Open To Flow (2) |
| 127 | 24.10 | 119.88 | Shut-In(2) |
| 185 | 25.41 | 121.21 | End Shut-In(2) |
| 186 | 2259.90 | 122.11 | Final Hydro-static |

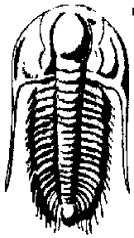
Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------------------|--------------|
| 3.00 | mud 100m (oil puddle on top) | 0.01 |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N. Water Suite 300
Wichita, KS 67202
ATTN: Keith Reavis

17 16s 32w Scott, KS
Showalter #1-17
Job Ticket: 48975 **DST#: 6**
Test Start: 2012.08.06 @ 00:46:00

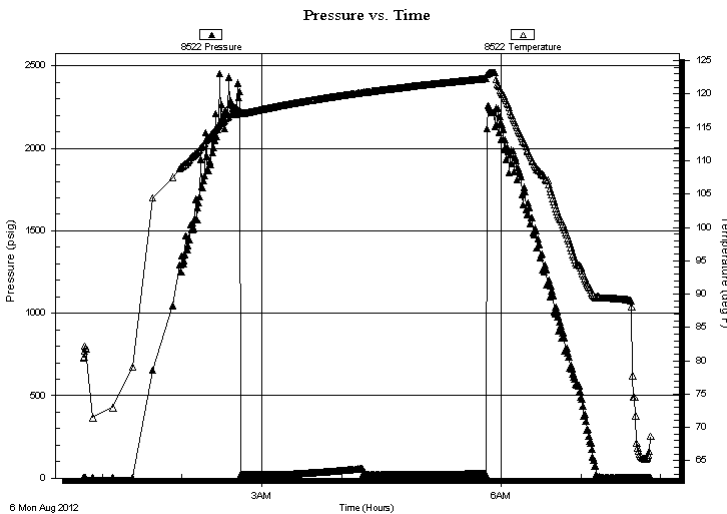
GENERAL INFORMATION:

| | | |
|---|----------------------|---|
| Formation: Atoka | | Test Type: Conventional Bottom Hole (Reset) |
| Deviated: No Whipstock: | ft (KB) | Tester: Bradley Walter |
| Time Tool Opened: 02:43:30 | | Unit No: 53 |
| Time Test Ended: 07:51:15 | | Reference Elevations: 3013.00 ft (KB) |
| Interval: 4618.00 ft (KB) To 4634.00 ft (KB) (TVD) | | 3002.00 ft (CF) |
| Total Depth: 4634.00 ft (KB) (TVD) | | KB to GR/CF: 11.00 ft |
| Hole Diameter: 7.88 inches | Hole Condition: Good | |

| | | | | |
|---|----------------------|--------------|--|-------------------------|
| Serial #: 8522 | Outside | | | Capacity: 8000.00 psig |
| Press @ Run Depth: psig @ 4619.00 ft (KB) | | | | Last Calib.: 2012.08.06 |
| Start Date: 2012.08.06 | End Date: 2012.08.06 | Time On Btm: | | Time Off Btm: |
| Start Time: 00:46:05 | End Time: 07:52:29 | | | |

TEST COMMENT: IF: Surface blow , Died @ 9 min.
IS: No return.
FF: No blow
FS: no return.

PRESSURE SUMMARY



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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------------------|--------------|
| 3.00 | mud 100m (oil puddle on top) | 0.01 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N. Water Suite 300
Wichita, KS 67202
ATTN: Keith Reavis

17 16s 32w Scott, KS
Showalter #1-17
Job Ticket: 48975 **DST#: 6**
Test Start: 2012.08.06 @ 00:46:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4334.00 ft | Diameter: 3.80 inches | Volume: 60.79 bbl | Tool Weight: 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: inches | Volume: 0.00 bbl | Weight set on Packer: 30000.00 lb |
| Drill Collar: | Length: 265.00 ft | Diameter: 2.25 inches | Volume: 1.30 bbl | Weight to Pull Loose: 90000.00 lb |
| | | | <u>Total Volume: 62.09 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 8.00 ft | | | String Weight: Initial 76000.00 lb |
| Depth to Top Packer: | 4618.00 ft | | | Final 76000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 16.00 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 | | | 4592.00 | |
| Shut In Tool | 5.00 | | | 4597.00 | |
| Hydraulic tool | 5.00 | | | 4602.00 | |
| Jars | 5.00 | | | 4607.00 | |
| Safety Joint | 2.00 | | | 4609.00 | |
| Packer | 5.00 | | | 4614.00 | 27.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4618.00 | |
| Stubb | 1.00 | | | 4619.00 | |
| Recorder | 0.00 | 8677 | Inside | 4619.00 | |
| Recorder | 0.00 | 8522 | Outside | 4619.00 | |
| Perforations | 12.00 | | | 4631.00 | |
| Bullnose | 3.00 | | | 4634.00 | 16.00 Bottom Packers & Anchor |

Total Tool Length: 43.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

17 16s 32w Scott, KS

250 N. Water Suite 300
Wichita, KS 67202

Showalter #1-17

Job Ticket: 48975

DST#: 6

ATTN: Keith Reavis

Test Start: 2012.08.06 @ 00:46:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|------------------------------|---------------|
| 3.00 | mud 100m (oil puddle on top) | 0.015 |

Total Length: 3.00 ft Total Volume: 0.015 bbl

Num Fluid Samples: 0

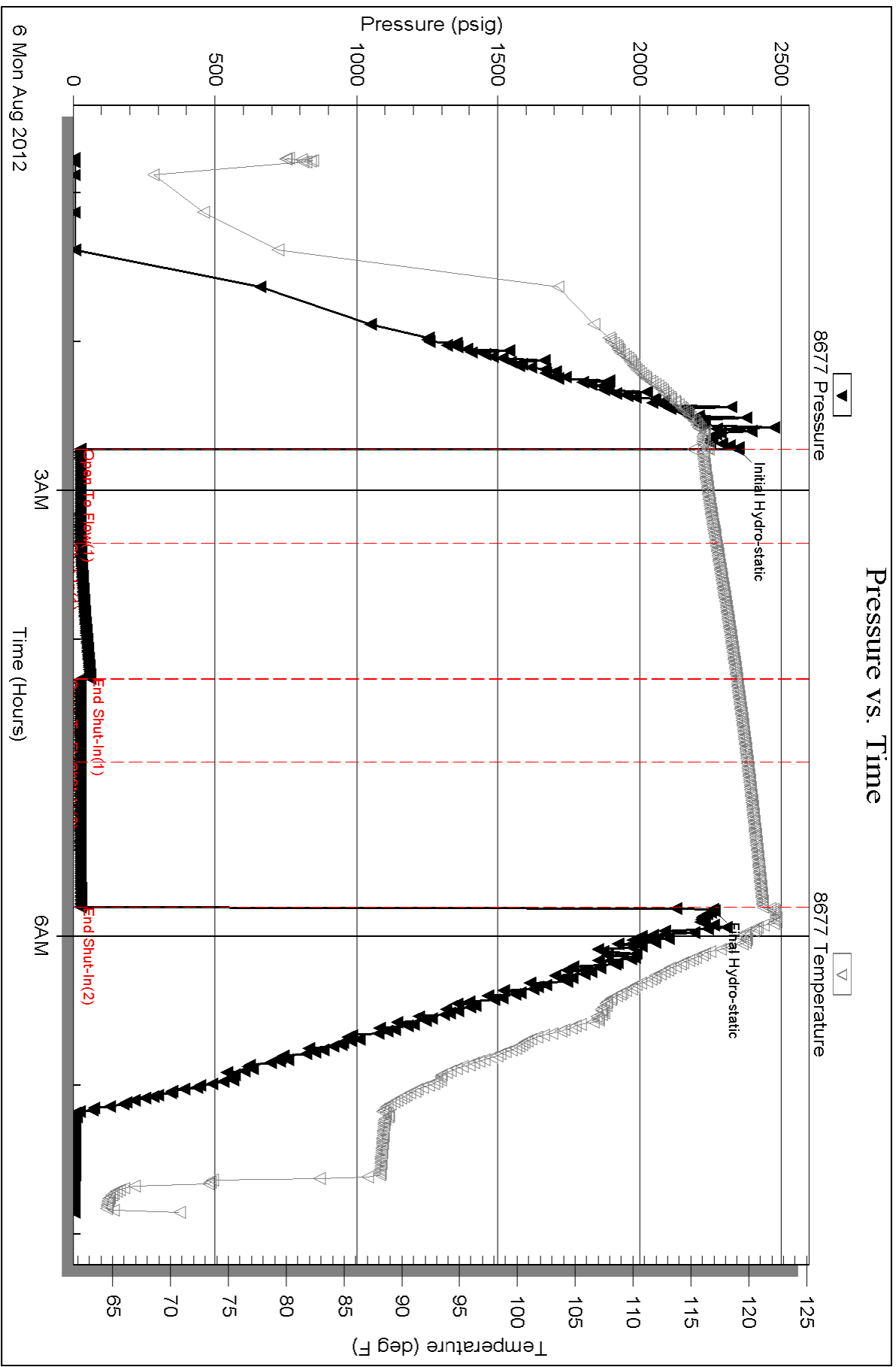
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

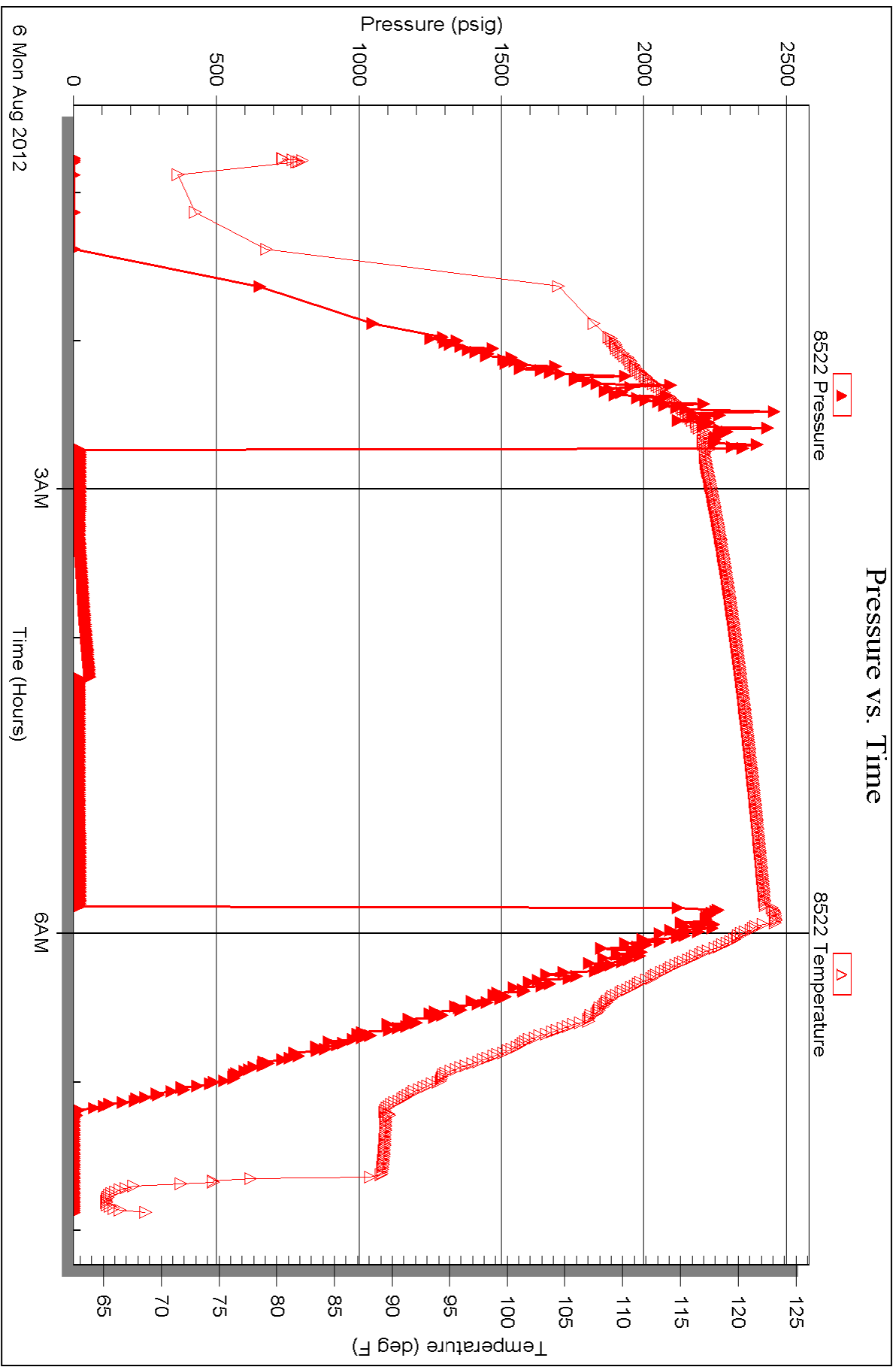


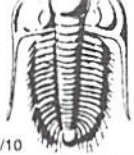
Serial #: 8522

Outside Murfin Drilling Co Inc

Show alter #1-17

DST Test Number: 6





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48970

Well Name & No. Showalter #1-17 Test No. 1 Date 8/01/12
 Company Muffin Drilling Co. Inc Elevation 3013 KB 3002 GL
 Address 250 N Water Suite 300 Wichita, Ks 67202
 Co. Rep / Geo. Keith Reavis Rig Muffin #21
 Location: Sec. 17 Twp. 16S Rge. 32 W Co. Scott State Ks

Interval Tested 4028 - 4100 Zone Tested LKC B-E
 Anchor Length 72' Drill Pipe Run 3767 Mud Wt. 9.2
 Top Packer Depth 4023 Drill Collars Run 265 Vis 5'7
 Bottom Packer Depth 4028 Wt. Pipe Run Ø WL 6.4
 Total Depth 4100 Chlorides 2,200 ppm System LCM 6#
 Blow Description IF: BOB @ 2 min.
ISI: No return.
FF: BOB @ 4 min
FSI: No return.

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|--------------------------|------|------|-----------|-----------|
| <u>795</u> | <u>mcw 10m 90w</u> | | | <u>90</u> | <u>10</u> |
| <u>850</u> | <u>SMCW</u> | | | <u>98</u> | <u>2</u> |
| | | | | | |
| | <u>Oil Spots in tool</u> | | | | |
| | | | | | |

Rec Total 1645 BHT 120 Gravity — API RW 16S @ 89 °F Chlorides 53,000 ppm

| | | |
|-------------------------------------|---|--|
| (A) Initial Hydrostatic <u>1975</u> | <input checked="" type="checkbox"/> Test <u>1250</u> | T-On Location <u>1230</u> |
| (B) First Initial Flow <u>120</u> | <input checked="" type="checkbox"/> Jars <u>250</u> | T-Started <u>1434</u> |
| (C) First Final Flow <u>472</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>1709</u> |
| (D) Initial Shut-In <u>1051</u> | <input checked="" type="checkbox"/> Circ Sub <u>NF</u> | T-Pulled <u>2054</u> |
| (E) Second Initial Flow <u>493</u> | <input type="checkbox"/> Hourly Standby | T-Out <u>2306</u> |
| (F) Second Final Flow <u>758</u> | <input checked="" type="checkbox"/> Mileage <u>32 R/T</u> 49.60 | Comments |
| (G) Final Shut-In <u>1063</u> | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic <u>1903</u> | <input type="checkbox"/> Straddle | <input type="checkbox"/> Ruined Shale Packer |
| Initial Open <u>30</u> | <input type="checkbox"/> Shale Packer | <input type="checkbox"/> Ruined Packer |
| Initial Shut-In <u>60</u> | <input type="checkbox"/> Extra Packer | <input type="checkbox"/> Extra Copies |
| Final Flow <u>45</u> | <input type="checkbox"/> Extra Recorder | Sub Total <u>0</u> |
| Final Shut-In <u>90</u> | <input type="checkbox"/> Day Standby | Total <u>1624.60</u> |
| | <input type="checkbox"/> Accessibility | MP/DST Disc't |
| | Sub Total <u>1624.60</u> | |

Approved By Keith Reavis Our Representative [Signature]

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.



TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

NO. 48971

4/10

Well Name & No. Showalter #1-17 Test No. 2 Date 8/02/12
 Company Murfin Drilling Co. Inc Elevation 3013 KB 3002 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Keith Reavis Rig Murfin #21
 Location: Sec. 17 Twp. 16s Rge. 32w Co. Scott State KS

Interval Tested 4218 4272 Zone Tested LKC I, J
 Anchor Length 54 Drill Pipe Run 3950 Mud Wt. 9.2
 Top Packer Depth 4213 Drill Collars Run 265 Vis 54
 Bottom Packer Depth 4218 Wt. Pipe Run 0 WL 6.4
 Total Depth 4272 Chlorides 2100 ppm System LCM S#

Blow Description IF: BOB @ 3 min.
IS: No return.
FF: BOB @ 4 min.
FSJ: No return.

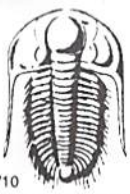
| Rec | Feet of | %gas | %oil | %water | %mud |
|-------------|--------------|------|------|-----------|-----------|
| <u>630</u> | <u>mcw</u> | | | <u>90</u> | <u>10</u> |
| <u>1220</u> | <u>S mcw</u> | | | <u>98</u> | <u>2</u> |
| | | | | | |
| | | | | | |
| | | | | | |

Rec Total 1850 BHT 124 Gravity — API RW 270 @ 67 °F Chlorides 27,000 ppm

| | | |
|-------------------------------------|--|--|
| (A) Initial Hydrostatic <u>2119</u> | <input checked="" type="checkbox"/> Test <u>1250</u> | T-On Location <u>1710</u> |
| (B) First Initial Flow <u>62</u> | <input checked="" type="checkbox"/> Jars <u>250</u> | T-Started <u>1832</u> |
| (C) First Final Flow <u>503</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>2147</u> |
| (D) Initial Shut-In <u>11 79</u> | <input checked="" type="checkbox"/> Circ Sub <u>1/4</u> | T-Pulled <u>0032</u> <u>08/03/12</u> |
| (E) Second Initial Flow <u>489</u> | <input type="checkbox"/> Hourly Standby | T-Out <u>0259</u> |
| (F) Second Final Flow <u>848</u> | <input type="checkbox"/> Mileage <u>49.60</u> | Comments |
| (G) Final Shut-In <u>1180</u> | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic <u>2,000</u> | <input type="checkbox"/> Straddle | <input type="checkbox"/> Ruined Shale Packer |
| | <input type="checkbox"/> Shale Packer | <input type="checkbox"/> Ruined Packer |
| Initial Open <u>30</u> | <input type="checkbox"/> Extra Packer | <input type="checkbox"/> Extra Copies |
| Initial Shut-In <u>60</u> | <input type="checkbox"/> Extra Recorder | Sub Total <u>0</u> |
| Final Flow <u>45</u> | <input type="checkbox"/> Day Standby | Total <u>1624.60</u> |
| Final Shut-In <u>90</u> | <input type="checkbox"/> Accessibility | MP/DST Disc't |
| | Sub Total <u>1624.60</u> | |

Approved By Keith Reavis Our Representative [Signature]

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.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48972

Well Name & No. Showalter #1-17 Test No. 3 Date 8/4/12
 Company Murfin Drilling Co, Inc Elevation With 3013 KB 3002 GL
 Address 250 N Water Suite 300 Wichita, Ks 67202
 Co. Rep / Geo. Keith Reavis Rig Murfin #21
 Location: Sec. 17 Twp. 16s Rge. 32w Co. Scott State Ks

Interval Tested 4420 4525 Zone Tested Mannaton - Pawnee
 Anchor Length 105' Drill Pipe Run 4142 Mud Wt. 9.2
 Top Packer Depth 4415 Drill Collars Run 265 Vis 56
 Bottom Packer Depth 4420 Wt. Pipe Run 0 WL 7.2
 Total Depth 4525 Chlorides 3,000 ppm System LCM 6#

Blow Description FF: Packer failed, attempt to reseat packers failed.
 ISJ:
 FF:
 FSJ:

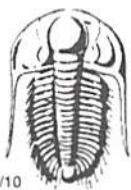
| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|------------|------|------|------------|------|
| <u>330</u> | <u>Mud</u> | | | <u>100</u> | |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

Rec Total 330 BHT 120 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 2220 Test 1050 T-On Location 0347
 (B) First Initial Flow 2031 Jars 250 T-Started 0517
 (C) First Final Flow _____ Safety Joint 75 T-Open 0715
 (D) Initial Shut-In _____ Circ Sub N/C T-Pulled 0725
 (E) Second Initial Flow 2055 Hourly Standby _____ T-Out 0934
 (F) Second Final Flow _____ Mileage 32 R/T 49.60 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic 2155 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open _____ Extra Recorder _____ Sub Total 0
 Initial Shut-In MISRUN Day Standby _____ Total 1424.60
 Final Flow _____ Accessibility _____ MP/DST Disc't _____
 Final Shut-In _____ Sub Total 1424.60

Approved By _____ Our Representative [Signature]

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.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48973

Well Name & No. Showalter # 1-17 Test No. 4 Date 8/4/12
 Company Martin Drilling Co, Inc Elevation 3013 KB 3002 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Keith Reavis Rig Martin #21
 Location: Sec. 17 Twp. 16S Rge. 32W Co. Scott State Ks

Interval Tested 44²⁴ 4525 Zone Tested Marmaton - Pawnee
 Anchor Length 101' Drill Pipe Run 4142 Mud Wt. 9.2
 Top Packer Depth 4419 Drill Collars Run 265 Vis 56
 Bottom Packer Depth 4424 Wt. Pipe Run 0 WL 7.2
 Total Depth 4525 Chlorides 3,000 ppm System LCM 6 #
 Blow Description IF: 5" blow, receded to 1/4" (Packer seat failed initially but seated after opening)
ISI: No return. (Mud fell 10 feet before stopping)
FF: NO blow
FSI: No return.

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|-------------|------|----------|--------|------------|
| <u>330</u> | <u>ADP</u> | | | | |
| <u>30</u> | <u>SOCM</u> | | <u>2</u> | | <u>98</u> |
| <u>70</u> | <u>MUD</u> | | | | <u>100</u> |
| | | | | | |
| | | | | | |

Rec Total 100 BHT 124 Gravity — API RW — @ — °F Chlorides — ppm

| | | |
|-------------------------------------|---|--|
| (A) Initial Hydrostatic <u>2240</u> | <input checked="" type="checkbox"/> Test <u>1250</u> | T-On Location <u>0935</u> |
| (B) First Initial Flow <u>76</u> | <input checked="" type="checkbox"/> Jars <u>250</u> | T-Started <u>1005</u> |
| (C) First Final Flow <u>89</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>1201</u> |
| (D) Initial Shut-In <u>227</u> | <input checked="" type="checkbox"/> Circ Sub <u>1/2</u> | T-Pulled <u>1501</u> |
| (E) Second Initial Flow <u>87</u> | <input type="checkbox"/> Hourly Standby | T-Out <u>1653</u> |
| (F) Second Final Flow <u>88</u> | <input checked="" type="checkbox"/> Mileage <u>32 1/2</u> 49.60 | Comments |
| (G) Final Shut-In <u>161</u> | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic <u>2140</u> | <input type="checkbox"/> Straddle | <input type="checkbox"/> Ruined Shale Packer |
| | <input checked="" type="checkbox"/> Shale Packer <u>250</u> | <input type="checkbox"/> Ruined Packer |
| Initial Open <u>30</u> | <input type="checkbox"/> Extra Packer | <input type="checkbox"/> Extra Copies |
| Initial Shut-In <u>60</u> | <input type="checkbox"/> Extra Recorder | Sub Total <u>0</u> |
| Final Flow <u>30</u> | <input type="checkbox"/> Day Standby | Total <u>1874.60</u> |
| Final Shut-In <u>60</u> | <input type="checkbox"/> Accessibility | MP/DST Disc't |
| | Sub Total <u>1874.60</u> | |

Approved By _____

Our Representative [Signature]

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.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48974

Well Name & No. Showalter # 1-17 Test No. 5 Date 8/05/12
 Company Murfin Drilling Co., Inc Elevation 3013 KB 3002 GL
 Address 250 N Water Suite 300 Wichita, Ks 67202
 Co. Rep / Geo. Keith Reavis Rig Murfin #21
 Location: Sec. 17 Twp. 16S Rge. 32W Co. Scott State Ks

Interval Tested 4570 - 4620 Zone Tested Johnson
 Anchor Length 50' Drill Pipe Run 4302 Mud Wt. 9.3
 Top Packer Depth 4565 Drill Collars Run 265 Vis 50
 Bottom Packer Depth 4570 Wt. Pipe Run 0 WL 7.2
 Total Depth 4620 Chlorides 3000 ppm System LCM 5#

Blow Description IP! 1" blow.
ISI! No return.
FF! Surface blow.
FBI! No return.

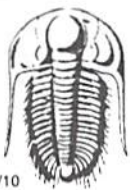
| Rec | Feet of | %gas | %oil | %water | %mud |
|-----------|-------------|------|----------|--------|-----------|
| <u>75</u> | <u>500M</u> | | <u>2</u> | | <u>98</u> |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

Rec Total 75 BHT 123 Gravity — API RW — @ — ° F Chlorides — ppm

| | | |
|-------------------------------------|---|--|
| (A) Initial Hydrostatic <u>2297</u> | <input checked="" type="checkbox"/> Test 1250 | T-On Location <u>0930</u> |
| (B) First Initial Flow <u>26</u> | <input checked="" type="checkbox"/> Jars 250 | T-Started <u>1005</u> |
| (C) First Final Flow <u>55</u> | <input checked="" type="checkbox"/> Safety Joint 75 | T-Open <u>1210</u> |
| (D) Initial Shut-In <u>939</u> | <input checked="" type="checkbox"/> Circ Sub <u>H/C</u> | T-Pulled <u>1510</u> |
| (E) Second Initial Flow <u>82</u> | <input type="checkbox"/> Hourly Standby | T-Out <u>1741</u> |
| (F) Second Final Flow <u>73</u> | <input checked="" type="checkbox"/> Mileage <u>32 R/T</u> 49.60 | Comments |
| (G) Final Shut-In <u>807</u> | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic <u>2223</u> | <input type="checkbox"/> Straddle | <input type="checkbox"/> Ruined Shale Packer |
| Initial Open <u>30</u> | <input checked="" type="checkbox"/> Shale Packer 250 | <input type="checkbox"/> Ruined Packer |
| Initial Shut-In <u>60</u> | <input type="checkbox"/> Extra Packer | <input type="checkbox"/> Extra Copies |
| Final Flow <u>30</u> | <input type="checkbox"/> Extra Recorder | Sub Total <u>0</u> |
| Final Shut-In <u>60</u> | <input type="checkbox"/> Day Standby | Total <u>1874.60</u> |
| | <input type="checkbox"/> Accessibility | MP/DST Disc't |
| | Sub Total <u>1874.60</u> | |

Approved By _____ Our Representative [Signature]

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.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48975

Well Name & No. Showalter #1-17 Test No. 6 Date 8/06/12
 Company Murkin Drilling Co, Inc Elevation 3013 KB 3002 GL
 Address 250 N Water Suite 300 Wichita, Ks 67202
 Co. Rep / Geo. Keith Reavis Rig Murkin #21
 Location: Sec. 17 Twp. 16S Rge. 32W Co. Scott State Ks

Interval Tested 4618 -4634 Zone Tested Atoka
 Anchor Length 16' Drill Pipe Run 4334 Mud Wt. 9.2
 Top Packer Depth 4613 Drill Collars Run 255 Vis 56
 Bottom Packer Depth 4618 Wt. Pipe Run 0 WL 7.6
 Total Depth 4634 Chlorides 3000 ppm System LCM 6*
 Blow Description IF: Surface blow, died @ 9 min.
ISI: No return.
FF: No blow
FST: No return.

| Rec | Feet of | %gas | %oil | %water | %mud |
|----------|---------------------------------|------|------|------------|------|
| <u>3</u> | <u>MUD (core Puddle on top)</u> | | | <u>100</u> | |
| 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 |

Rec Total 3 BHT 122 Gravity — API RW — @ — °F Chlorides — ppm

| | | |
|-------------------------------------|---|--|
| (A) Initial Hydrostatic <u>2347</u> | <input checked="" type="checkbox"/> Test <u>1250</u> | T-On Location <u>0001</u> |
| (B) First Initial Flow <u>25</u> | <input checked="" type="checkbox"/> Jars <u>250</u> | T-Started <u>0046</u> |
| (C) First Final Flow <u>24</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>0246</u> |
| (D) Initial Shut-In <u>60</u> | <input checked="" type="checkbox"/> Circ Sub <u>N/C</u> | T-Pulled <u>0546</u> |
| (E) Second Initial Flow <u>25</u> | <input type="checkbox"/> Hourly Standby | T-Out <u>0751</u> |
| (F) Second Final Flow <u>24</u> | <input checked="" type="checkbox"/> Mileage <u>32 R/L x 2</u> 99.20 | Comments <u>P/V Tool 2000 8/06/12</u> |
| (G) Final Shut-In <u>27</u> | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic <u>2260</u> | <input type="checkbox"/> Straddle | <input type="checkbox"/> Ruined Shale Packer |
| | <input type="checkbox"/> Shale Packer | <input type="checkbox"/> Ruined Packer |
| Initial Open <u>30</u> | <input type="checkbox"/> Extra Packer | <input type="checkbox"/> Extra Copies |
| Initial Shut-In <u>60</u> | <input type="checkbox"/> Extra Recorder | Sub Total <u>0</u> |
| Final Flow <u>30</u> | <input type="checkbox"/> Day Standby | Total <u>1674.20</u> |
| Final Shut-In <u>60</u> | <input type="checkbox"/> Accessibility | MP/DST Disc't |
| | Sub Total <u>1674.20</u> | |

Approved By _____

Our Representative 

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.