

15-161-21902



**TRILOBITE
TESTING, INC.**

**KCC
MAY 30 2006
CONFIDENTIAL**

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Mike Engelbrecht

5-17-30 Lane KS

Wilkins #1 -5D

Start Date: 2006.02.05 @ 11:30:36

End Date: 2006.02.05 @ 20:15:31

Job Ticket #: 23251 DST #: 1

KGS LIBRARY

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

Ritchie Exploration Inc

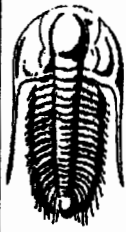
Wilkins #1 -5D

5-17-30 Lane KS

DST # 1

Lans 'A'

2006.02.05



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration Inc

Wilkins #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

ATTN: Mike Engelbrecht

Job Ticket: 23251

DST#: 1

Test Start: 2006.02.05 @ 11:30:36

GENERAL INFORMATION:

Formation: Lans 'A'

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:55:46

Time Test Ended: 20:15:31

Test Type: Conventional Bottom Hole

Tester: Shane McBride

Unit No: 25

Interval: 3923.00 ft (KB) To 3948.00 ft (KB) (TVD)

Reference Elevations: 2886.00 ft (KB)

Total Depth: 3948.00 ft (KB) (TVD)

2876.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 6667

Inside

Press@RunDepth: 69.86 psig @ 3924.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2006.02.05 End Date: 2006.02.05

Last Calib.: 2006.02.05

Start Time: 11:30:36 End Time: 20:07:31

Time On Btm: 2006.02.05 @ 15:54:46

Time Off Btm: 2006.02.05 @ 18:10:31

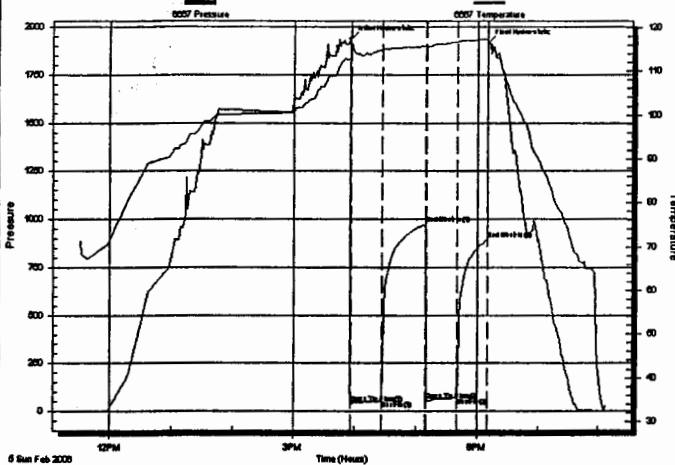
TEST COMMENT: 4 1/2" in. blow @ open, slide tool 4' to bottom, died back to 1/2" in.

No return

No blow, flush tool after 7 min. good 1/4" in surge died in 5 min.

No return

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1936.11 | 113.16 | Initial Hydro-static |
| 1 | 40.19 | 115.91 | Open To Flow (1) |
| 32 | 53.74 | 114.93 | Shut-In(1) |
| 75 | 974.46 | 115.76 | End Shut-In(1) |
| 76 | 54.95 | 115.44 | Open To Flow (2) |
| 106 | 69.86 | 116.76 | Shut-In(2) |
| 135 | 894.92 | 117.27 | End Shut-In(2) |
| 136 | 1913.38 | 116.92 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 120.00 | mud 100% m | 1.68 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23251

DST#: 1

ATTN: Mike Engelbrecht

Test Start: 2006.02.05 @ 11:30:36

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3910.00 ft | Diameter: 3.80 inches | Volume: 54.85 bbl | Tool Weight: 1500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 65000.00 lb |
| | | | <u>Total Volume: 54.85 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 7.00 ft | | | String Weight: Initial 41000.00 lb |
| Depth to Top Packer: | 3923.00 ft | | | Final 42000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 25.00 ft | | | |
| Tool Length: | 45.00 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 | | | 3904.00 | |
| Shut In Tool | 5.00 | | | 3909.00 | |
| Hydraulic tool | 5.00 | | | 3914.00 | |
| Packer | 5.00 | | Fluid | 3919.00 | 20.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3923.00 | |
| Stubb | 1.00 | | | 3924.00 | |
| Recorder | 0.00 | 6667 | Inside | 3924.00 | |
| Perforations | 19.00 | | | 3943.00 | |
| Recorder | 0.00 | 11058 | Inside | 3943.00 | |
| Bullnose | 5.00 | | | 3948.00 | 25.00 Bottom Packers & Anchor |
| Total Tool Length: | 45.00 | | | | |



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23251

DST#: 1

ATTN: Mike Engelbrecht

Test Start: 2006.02.05 @ 11:30:36

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:

1900 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.31 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 120.00 | mud 100%m | 1.683 |

Total Length: 120.00 ft

Total Volume: 1.683 bbl

Num Fluid Samples: 0

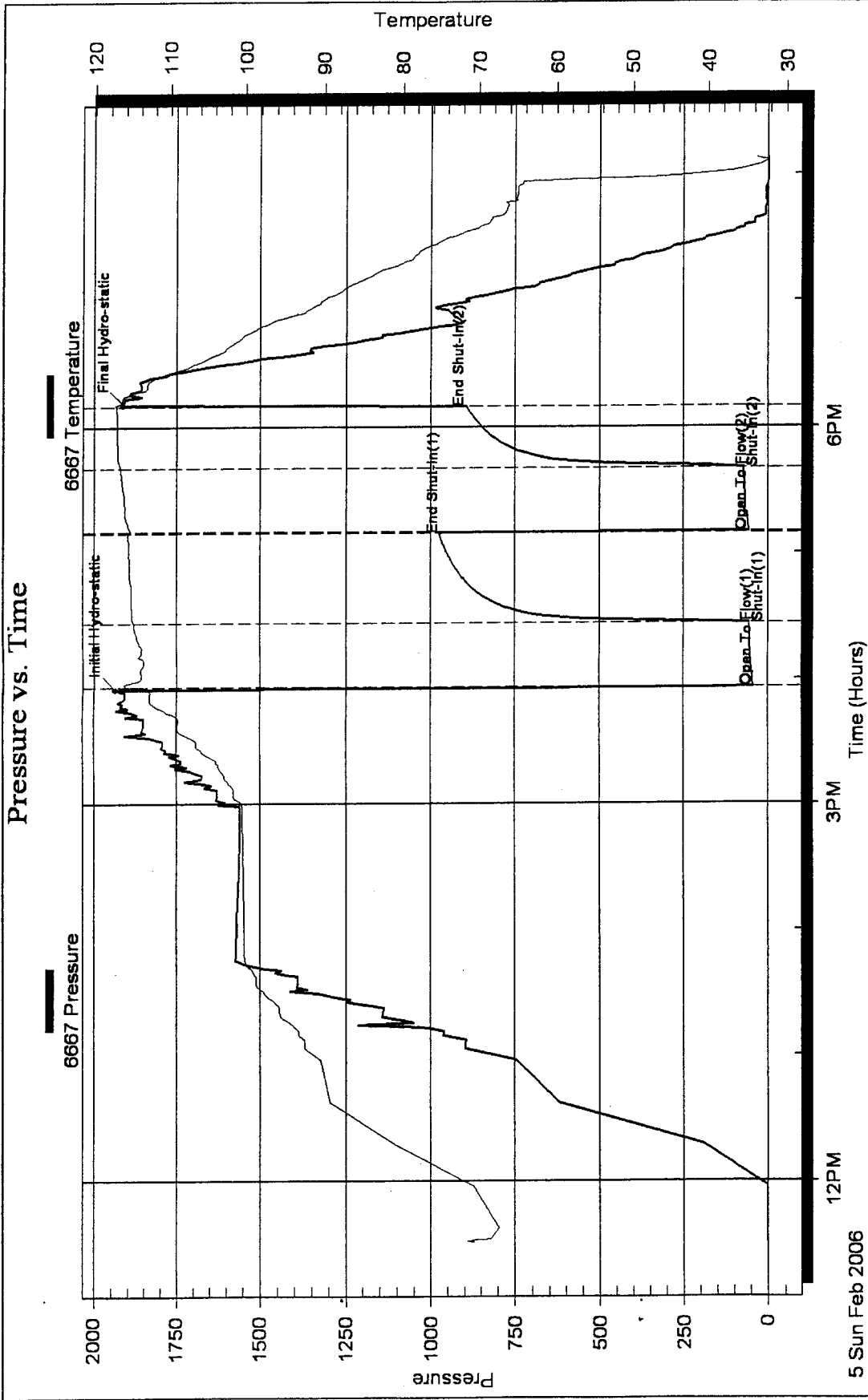
Num Gas Bombs: 0

Serial #:

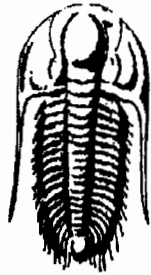
Laboratory Name:

Laboratory Location:

Recovery Comments:



5 Sun Feb 2006



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Mike Engelbrecht

5-17-30 Lane KS

Wilkins #1 -5D

Start Date: 2006.02.06 @ 07:15:39

End Date: 2006.02.06 @ 15:20:48

Job Ticket #: 23252 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Ritchie Exploration Inc

Wilkins #1 -5D

5-17-30 Lane KS

DST # 2

Lans 'C'

2006.02.06



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23252

DST#: 2

ATTN: Mike Engelbrecht

Test Start: 2006.02.06 @ 07:15:39

GENERAL INFORMATION:

Formation: **Lans 'C'**

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

Time Tool Opened: 09:36:34

Time Test Ended: 15:20:48

Test Type: **Conventional Bottom Hole**

Tester: **Shane McBride**

Unit No: **25**

Interval: **3955.00 ft (KB) To 3988.00 ft (KB) (TVD)**

Reference Elevations: **2886.00 ft (KB)**

Total Depth: **3988.00 ft (KB) (TVD)**

2876.00 ft (CF)

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

KB to GR/CF: 10.00 ft

Serial #: 6667

Inside

Press@RunDepth: **159.23 psig @ 3956.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2006.02.06**

End Date:

2006.02.06

Last Calib.:

2006.02.06

Start Time: **07:15:39**

End Time:

15:07:48

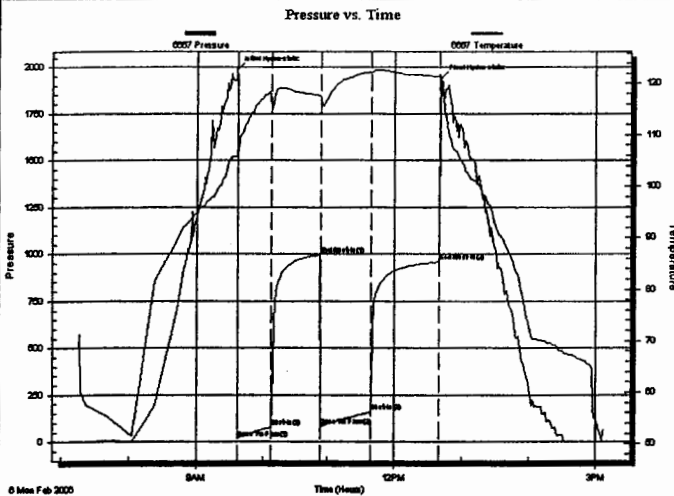
Time On Btm:

2006.02.06 @ 09:35:49

Time Off Btm:

2006.02.06 @ 12:40:49

TEST COMMENT: B.O.B. in 11 min.
Return blow in 2 min. built to 1" in.
B.O.B. in 17 min.
Return blow in 3 min. built to 1" in.



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1987.66 | 106.63 | Initial Hydro-static |
| 1 | 18.19 | 106.38 | Open To Flow (1) |
| 32 | 79.67 | 114.95 | Shut-In(1) |
| 77 | 995.79 | 117.64 | End Shut-In(1) |
| 78 | 84.43 | 117.04 | Open To Flow (2) |
| 123 | 159.23 | 122.24 | Shut-In(2) |
| 184 | 959.39 | 121.36 | End Shut-In(2) |
| 185 | 1940.16 | 120.61 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------|--------------|
| 250.00 | c g o 15g 85o | 3.51 |
| 120.00 | s g m c o 10g 35m 55o | 1.68 |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23252

DST#: 2

ATTN: Mike Engelbrecht

Test Start: 2006.02.06 @ 07:15:39

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3940.00 ft | Diameter: 3.80 inches | Volume: 55.27 bbl | Tool Weight: 1500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 65000.00 lb |
| | | | <u>Total Volume: 55.27 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 5.00 ft | | | String Weight: Initial 41000.00 lb |
| Depth to Top Packer: | 3955.00 ft | | | Final 43000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 33.00 ft | | | |
| Tool Length: | 53.00 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 | | | 3936.00 | |
| Shut In Tool | 5.00 | | | 3941.00 | |
| Hydraulic tool | 5.00 | | | 3946.00 | |
| Packer | 5.00 | | Fluid | 3951.00 | 20.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3955.00 | |
| Stubb | 1.00 | | | 3956.00 | |
| Recorder | 0.00 | 6667 | Inside | 3956.00 | |
| Perforations | 27.00 | | | 3983.00 | |
| Recorder | 0.00 | 11058 | Inside | 3983.00 | |
| Bullnose | 5.00 | | | 3988.00 | 33.00 Bottom Packers & Anchor |
| Total Tool Length: | 53.00 | | | | |



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23252

DST#: 2

ATTN: Mike Engelbrecht

Test Start: 2006.02.06 @ 07:15:39

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

29 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

2900 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.31 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-----------------------|---------------|
| 250.00 | c g o 15g 85o | 3.507 |
| 120.00 | s g m c o 10g 35m 55o | 1.683 |

Total Length: 370.00 ft Total Volume: 5.190 bbl

Num Fluid Samples: 0

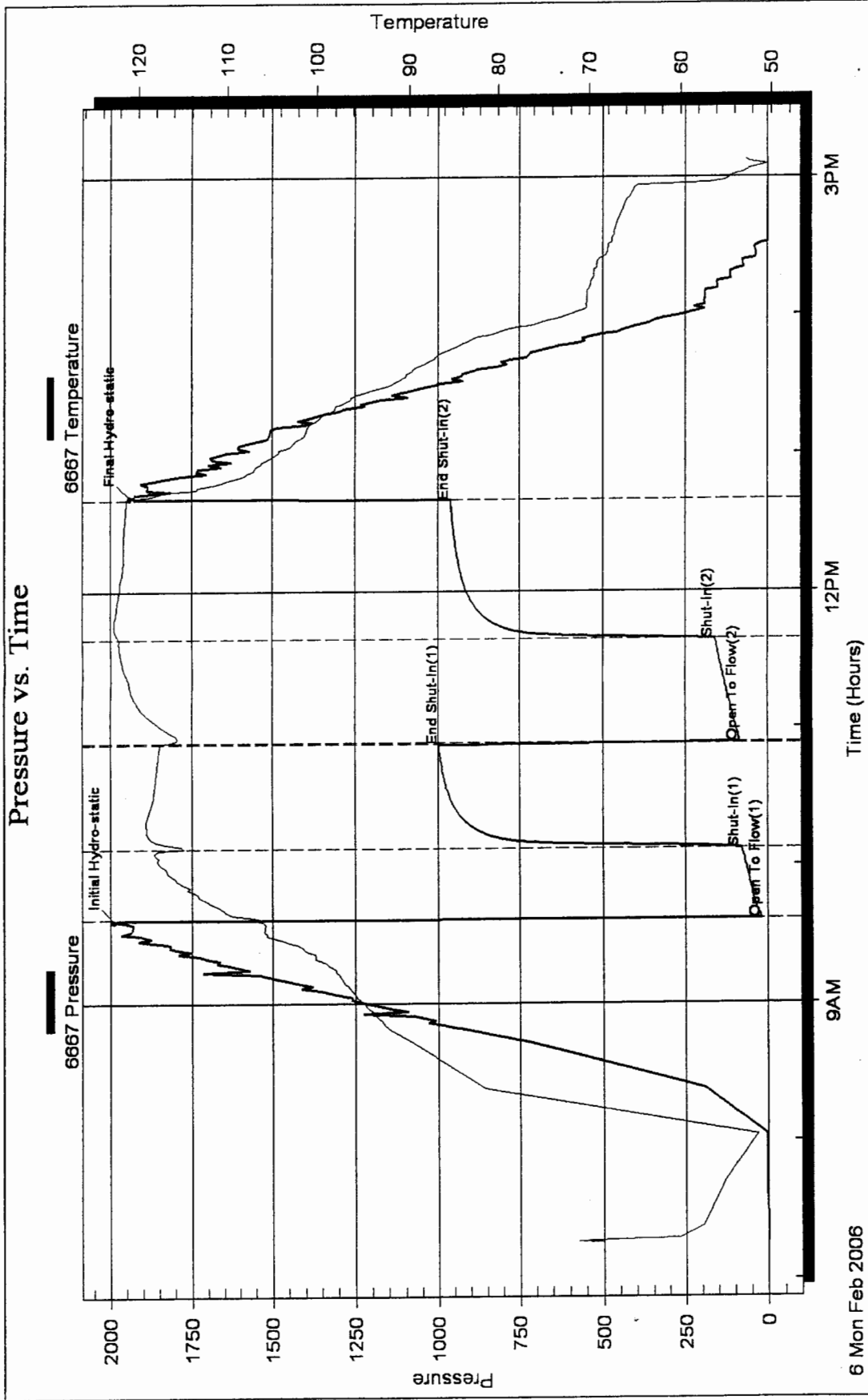
Num Gas Bombs: 0

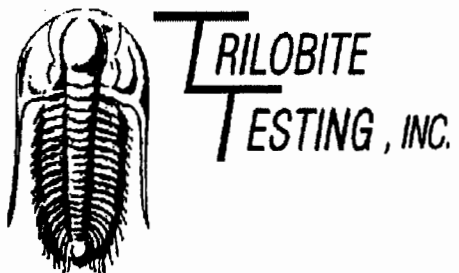
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Mike Engelbrecht

5-17-30 Lane KS

Wilkins #1 -5D

Start Date: 2006.02.07 @ 08:15:35

End Date: 2006.02.07 @ 05:10:59

Job Ticket #: 23253 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

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23253

DST#: 3

ATTN: Mike Engelbrecht

Test Start: 2006.02.07 @ 08:15:35

GENERAL INFORMATION:

Formation: **Lans 'E-F**

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

Time Tool Opened: 10:14:00

Time Test Ended: 05:10:59

Test Type: **Conventional Bottom Hole**

Tester: **Shane McBride**

Unit No: **25**

Interval: **4018.00 ft (KB) To 4042.00 ft (KB) (TVD)**

Reference Elevations: **2886.00 ft (KB)**

Total Depth: **4042.00 ft (KB) (TVD)**

2876.00 ft (CF)

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

KB to GR/CF: 10.00 ft

Serial #: 6667

Inside

Press@RunDepth: **27.95 psig @ 4019.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2006.02.07** End Date: **2006.02.07**

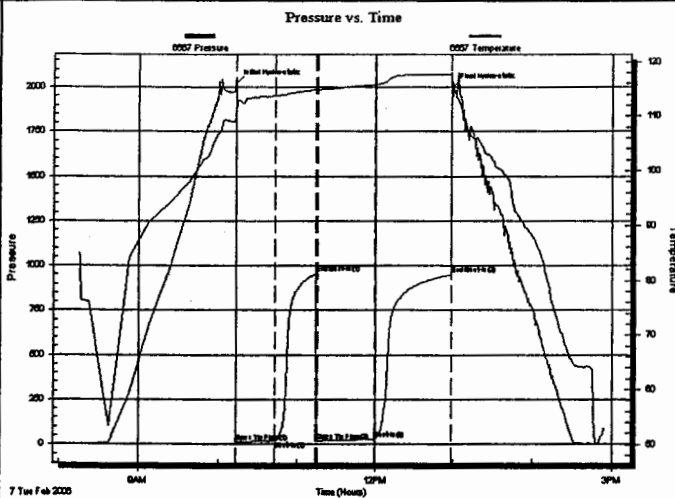
Last Calib.: **2006.02.07**

Start Time: **08:15:35** End Time: **14:53:59**

Time On Btm: **2006.02.07 @ 10:13:45**

Time Off Btm: **2006.02.07 @ 12:59:45**

TEST COMMENT: 1/4" in. blow
No return
Surface blow in 2 min. built to 1" in.
No return



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2023.33 | 111.21 | Initial Hydro-static |
| 1 | 12.47 | 110.79 | Open To Flow (1) |
| 30 | 17.96 | 113.75 | Shut-In(1) |
| 61 | 956.14 | 114.82 | End Shut-In(1) |
| 62 | 16.73 | 114.80 | Open To Flow (2) |
| 106 | 27.95 | 115.80 | Shut-In(2) |
| 165 | 950.48 | 117.72 | End Shut-In(2) |
| 166 | 2003.20 | 114.80 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------------|--------------|
| 10.00 | s g m c o 5g 30m 65o | 0.14 |
| 30.00 | c g o 10g 90o | 0.42 |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23253

DST#: 3

ATTN: Mike Engelbrecht

Test Start: 2006.02.07 @ 08:15:35

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4003.00 ft | Diameter: 3.80 inches | Volume: 56.15 bbl | Tool Weight: 1500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 65000.00 lb |
| | | | <u>Total Volume: 56.15 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 5.00 ft | | | String Weight: Initial 41000.00 lb |
| Depth to Top Packer: | 4018.00 ft | | | Final 42000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 24.00 ft | | | |
| Tool Length: | 44.00 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 | | | 3999.00 | |
| Shut In Tool | 5.00 | | | 4004.00 | |
| Hydraulic tool | 5.00 | | | 4009.00 | |
| Packer | 5.00 | | Fluid | 4014.00 | 20.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4018.00 | |
| Stubb | 1.00 | | | 4019.00 | |
| Recorder | 0.00 | 6667 | Inside | 4019.00 | |
| Perforations | 18.00 | | | 4037.00 | |
| Recorder | 0.00 | 11058 | Inside | 4037.00 | |
| Bullnose | 5.00 | | | 4042.00 | 24.00 Bottom Packers & Anchor |
| Total Tool Length: | 44.00 | | | | |



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23253 **DST#: 3**

ATTN: Mike Engelbrecht

Test Start: 2006.02.07 @ 08:15:35

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 51.00 sec/qt
Water Loss: 7.14 in³
Resistivity: 0.00 ohm.m
Salinity: 3400.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 35 deg API
Water Salinity: 3400 ppm

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|----------------------|---------------|
| 10.00 | s g m c o 5g 30m 65o | 0.140 |
| 30.00 | c g o 10g 90o | 0.421 |

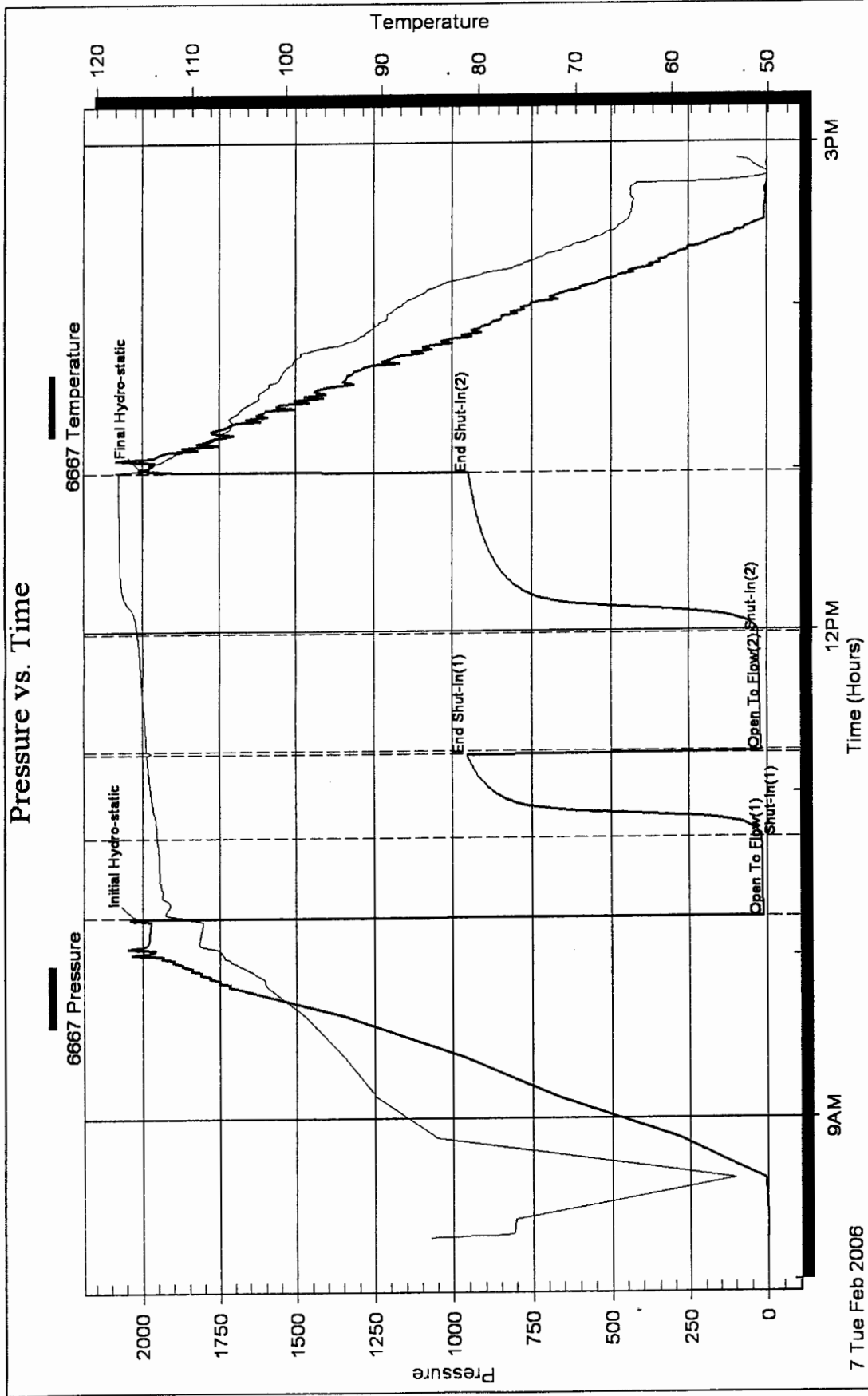
Total Length: 40.00 ft Total Volume: 0.561 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Mike Engelbrecht

5-17-30 Lane KS

Wilkens #1 -5D

Start Date: 2006.02.08 @ 02:22:10

End Date: 2006.02.08 @ 09:25:49

Job Ticket #: 23254 DST #: 4

Ritchie Exploration Inc

Wilkens #1 -5D

5-17-30 Lane KS

DST # 4

Lans #1

2006.02.08

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc

PO Box 783188
Wichita KS 67278

ATTN: Mike Engelbrecht

Wilkens #1 -5D

5-17-30 Lane KS

Job Ticket: 23254 DST#: 4

Test Start: 2006.02.08 @ 02:22:10

GENERAL INFORMATION:

Formation: **Lans 'H'**
 Deviated: **No Whipstock** ft (KB)
 Time Tool Opened: **04:50:05**
 Time Test Ended: **09:25:49**

Test Type: **Conventional Bottom Hole**
 Tester: **Shane McBride**
 Unit No: **25**

Interval: **4098.00 ft (KB) To 4138.00 ft (KB) (TVD)**
 Total Depth: **4138.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2886.00 ft (KB)**
2876.00 ft (CF)
 KB to GR/CF: **10.00 ft**

Serial #: 6667

inside

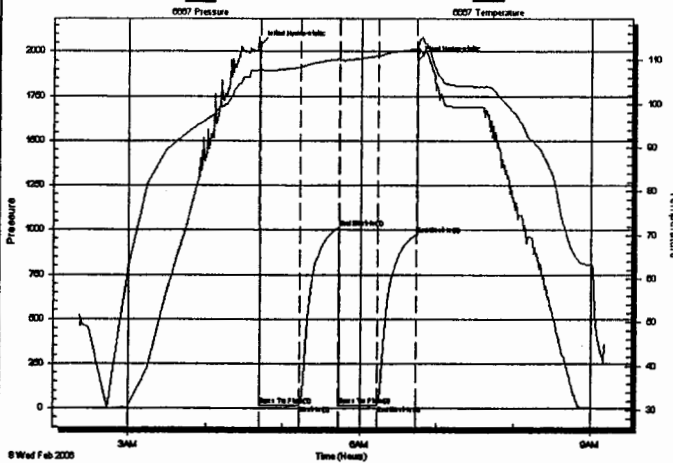
Press@RunDepth: **15.76 psig @ 4099.00 ft (KB)**
 Start Date: **2006.02.08** End Date: **2006.02.08**
 Start Time: **02:22:10** End Time: **09:10:49**

Capacity: **7000.00 psig**
 Last Calib.: **2006.02.08**
 Time On Btmr: **2006.02.08 @ 04:41:50**
 Time Off Btmr: **2006.02.08 @ 06:44:20**

TEST COMMENT:

Weak surface blow died in 5 min
 No return
 No blow ,flush tool @ open (good surge) no blow
 No return

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2038.53 | 108.46 | Initial Hydro-static |
| 1 | 15.00 | 107.80 | Open To Flow (1) |
| 32 | 15.76 | 108.44 | Shut-in(1) |
| 61 | 1015.26 | 110.27 | End Shut-in(1) |
| 62 | 17.50 | 109.92 | Open To Flow (2) |
| 91 | 18.61 | 110.96 | End Shut-in(2) |
| 122 | 974.20 | 112.57 | End Shut-in(3) |
| 123 | 1950.93 | 113.25 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------|--------------|
| 5.00 | mud 100% _m | 0.07 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23254

DST#: 4

ATTN: Mike Engelbrecht

Test Start: 2006.02.08 @ 02:22:10

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4098.00 ft | Diameter: 3.80 inches | Volume: 57.48 bbl | Tool Weight: 1500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 65000.00 lb |
| | | | <u>Total Volume: 57.48 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 20.00 ft | | | String Weight: Initial 42000.00 lb |
| Depth to Top Packer: | 4098.00 ft | | | Final 42000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 40.00 ft | | | |
| Tool Length: | 60.00 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 | | | 4079.00 | |
| Shut In Tool | 5.00 | | | 4084.00 | |
| Hydraulic tool | 5.00 | | | 4089.00 | |
| Packer | 5.00 | | Fluid | 4094.00 | 20.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4098.00 | |
| Stubb | 1.00 | | | 4099.00 | |
| Recorder | 0.00 | 6667 | Inside | 4099.00 | |
| Perforations | 34.00 | | | 4133.00 | |
| Recorder | 0.00 | 11058 | Inside | 4133.00 | |
| Bullnose | 5.00 | | | 4138.00 | 40.00 Bottom Packers & Anchor |
| Total Tool Length: | 60.00 | | | | |



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23254

DST#: 4

ATTN: Mike Engelbrecht

Test Start: 2006.02.08 @ 02:22:10

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:

3400 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.14 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 5.00 | mud 100%m | 0.070 |

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

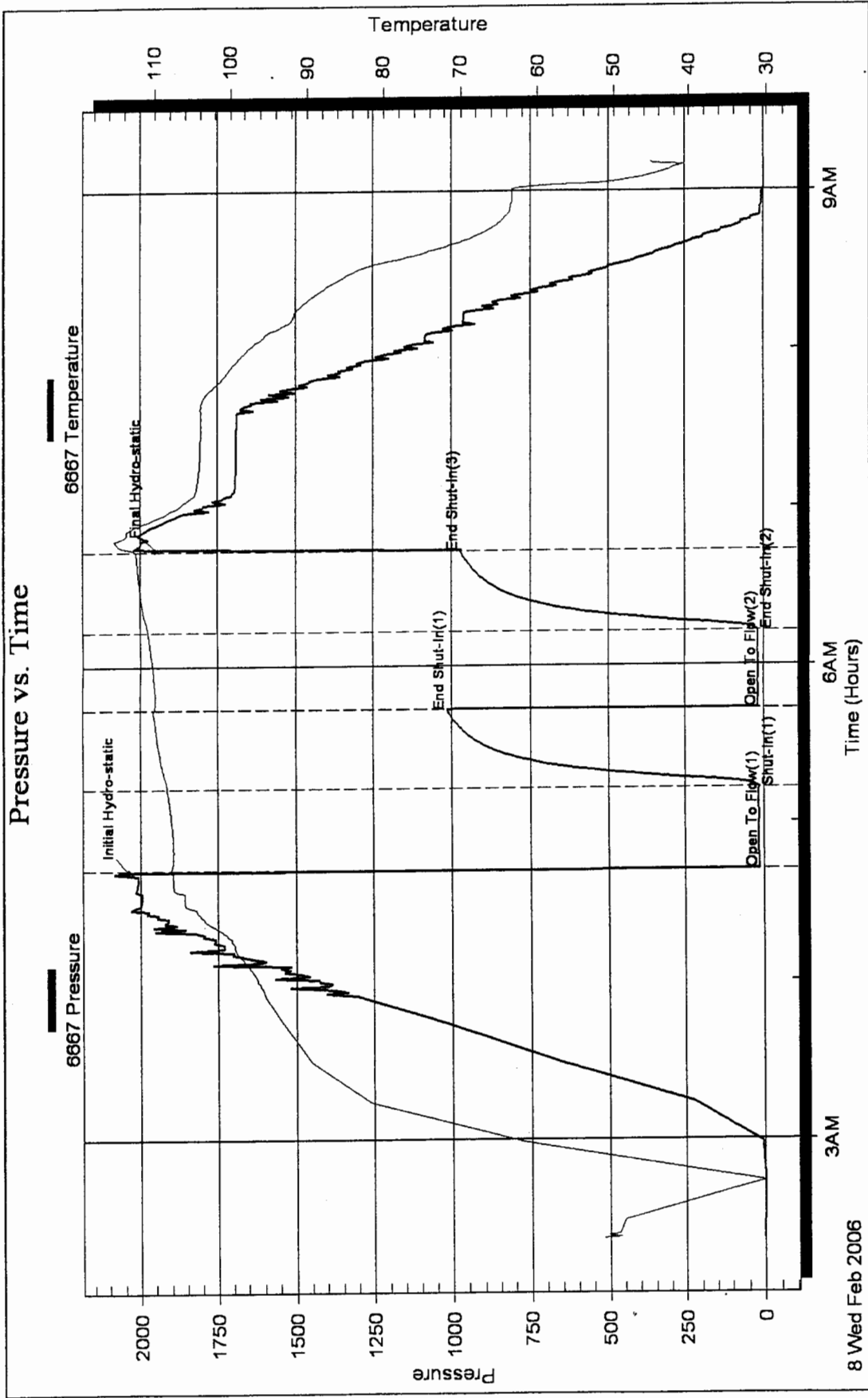
Serial #:

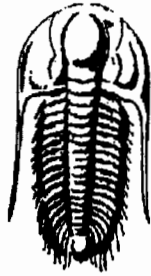
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Mike Engelbrecht

5-17-30 Lane KS

Wilkins #1 -5D

Start Date: 2006.02.08 @ 21:20:38

End Date: 2006.02.09 @ 06:25:03

Job Ticket #: 23255 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Ritchie Exploration Inc

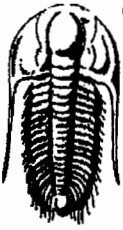
Wilkins #1 -5D

5-17-30 Lane KS

DST # 5

Lane 'I-J'

2006.02.08



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23255 **DST#: 5**

ATTN: Mike Engelbrecht

Test Start: 2006.02.08 @ 21:20:38

GENERAL INFORMATION:

Formation: **Lans 'I-J'**
Deviated: **No Whipstock** ft (KB)
Time Tool Opened: 23:42:03
Time Test Ended: 06:25:03

Test Type: **Conventional Bottom Hole**
Tester: **Shane McBride**
Unit No: **25**

Interval: **4147.00 ft (KB) To 4200.00 ft (KB) (TVD)**
Total Depth: **4200.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2886.00 ft (KB)**
2876.00 ft (CF)
KB to GR/CF: **10.00 ft**

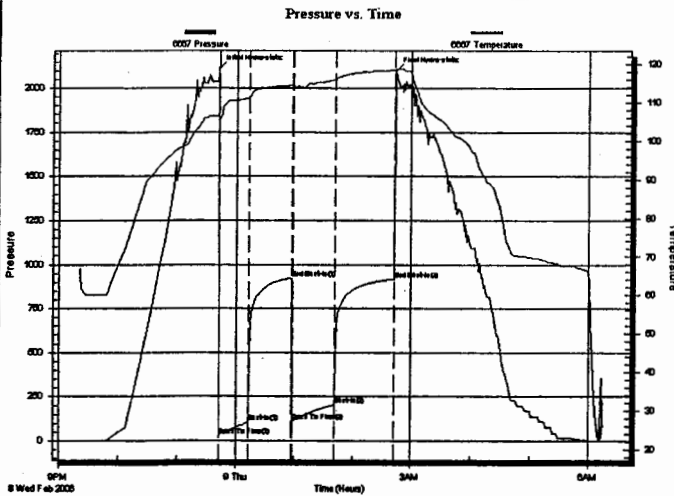
Serial #: 6667

Inside

Press@RunDepth: **205.07 psig @ 4148.00 ft (KB)**
Start Date: **2006.02.08** End Date: **2006.02.09**
Start Time: **21:20:38** End Time: **06:16:03**

Capacity: **7000.00 psig**
Last Calib.: **2006.02.09**
Time On Btm: **2006.02.08 @ 23:41:33**
Time Off Btm: **2006.02.09 @ 02:43:33**

TEST COMMENT: B.O.B. in 11 min.
Bleed off for 2 min. return in 2 min. built to 1/2" in.
B.O.B. in 18 min.
Bleed off for 2 min. return in 3 min. built to 1/2" in.



PRESSURE SUMMARY

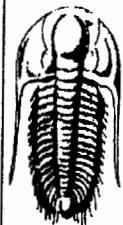
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2110.67 | 106.43 | Initial Hydro-static |
| 1 | 27.63 | 105.76 | Open To Flow (1) |
| 31 | 106.99 | 110.96 | Shut-In(1) |
| 75 | 923.29 | 114.44 | End Shut-In(1) |
| 76 | 110.50 | 114.16 | Open To Flow (2) |
| 120 | 205.07 | 116.12 | Shut-In(2) |
| 181 | 917.52 | 118.44 | End Shut-In(2) |
| 182 | 2096.94 | 118.79 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------|--------------|
| 275.00 | c g o 20g 80o | 3.86 |
| 60.00 | s m c g o 10m 20g 70o | 0.84 |
| 120.00 | g s o c m 25g 15o 60m | 1.68 |
| | | |
| | | |

Gas Rates

| | Choke (Inches) | Pressure (psig) | Gas Rate (Mc/d) |
|--|----------------|-----------------|-----------------|
| | | | |



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23255

DST#: 5

ATTN: Mike Engelbrecht

Test Start: 2006.02.08 @ 21:20:38

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4159.00 ft | Diameter: 3.80 inches | Volume: 58.34 bbl | Tool Weight: 1500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 65000.00 lb |
| | | | <u>Total Volume: 58.34 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 32.00 ft | | | String Weight: Initial 41000.00 lb |
| Depth to Top Packer: | 4147.00 ft | | | Final 42000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 53.00 ft | | | |
| Tool Length: | 73.00 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 | | | 4128.00 | | |
| Shut In Tool | 5.00 | | | 4133.00 | | |
| Hydraulic tool | 5.00 | | | 4138.00 | | |
| Packer | 5.00 | | Fluid | 4143.00 | 20.00 | Bottom Of Top Packer |
| Packer | 4.00 | | | 4147.00 | | |
| Stubb | 1.00 | | | 4148.00 | | |
| Recorder | 0.00 | 6667 | Inside | 4148.00 | | |
| Perforations | 14.00 | | | 4162.00 | | |
| Change Over Sub | 1.00 | | | 4163.00 | | |
| Drill Pipe | 31.00 | | | 4194.00 | | |
| Change Over Sub | 1.00 | | | 4195.00 | | |
| Recorder | 0.00 | 11058 | Inside | 4195.00 | | |
| Bullnose | 5.00 | | | 4200.00 | 53.00 | Bottom Packers & Anchor |

Total Tool Length: 73.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS.

Job Ticket: 23255

DST#: 5

ATTN: Mike Engelbrecht

Test Start: 2006.02.08 @ 21:20:38

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

3300 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.36 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbf |
|--------------|-----------------------|---------------|
| 275.00 | c g o 20g 80o | 3.858 |
| 60.00 | s m c g o 10m 20g 70o | 0.842 |
| 120.00 | g s o c m 25g 15o60m | 1.683 |

Total Length: 455.00 ft Total Volume: 6.383 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6667

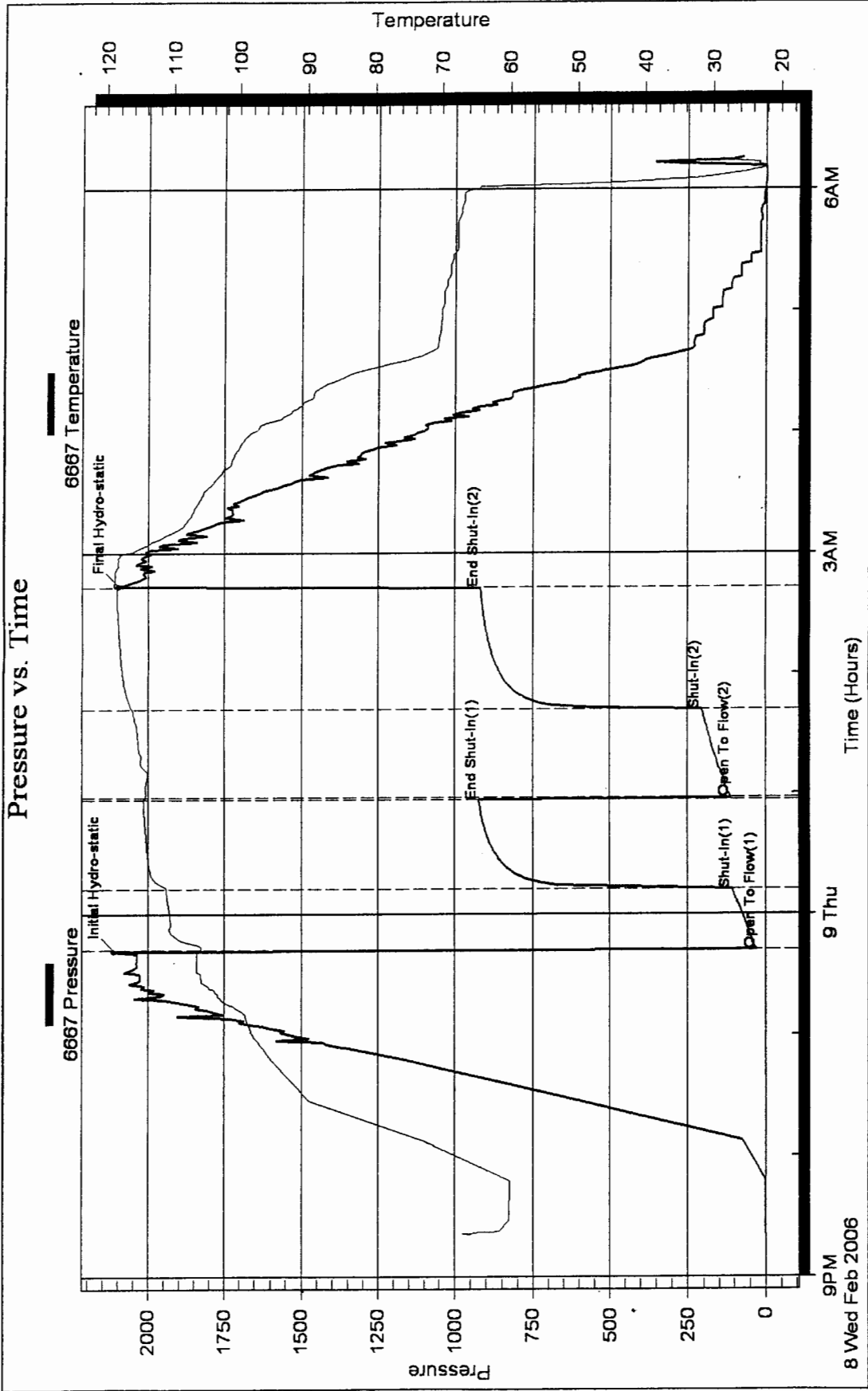
Inside

Ritchie Exploration Inc

5-17-30 Lane KS

DST Test Number: 5

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 23255

Printed: 2006.02.20 @ 11:48:02 Page 5



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Mike Engelbrecht

5-17-30 Lane KS

Wilkins #1 -5D

Start Date: 2006.02.12 @ 01:00:08

End Date: 2006.02.12 @ 09:35:47

Job Ticket #: 23256 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Ritchie Exploration Inc

Wilkins #1 -5D

5-17-30 Lane KS

DST # 6

Lans 'K'

2006.02.12



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration Inc

PO Box 783188
Wichita KS 67278

ATTN: Mike Engelbrecht

Wilkins #1 -5D

5-17-30 Lane KS

Job Ticket: 23256

DST#: 6

Test Start: 2006.02.12 @ 01:00:08

GENERAL INFORMATION:

Formation: **Lans 'K'**

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

Time Tool Opened: 03:50:48

Time Test Ended: 09:35:47

Test Type: **Conventional Bottom Hole**

Tester: **Shane McBride**

Unit No: **25**

Interval: **4207.00 ft (KB) To 4240.00 ft (KB) (TVD)**

Total Depth: **4240.00 ft (KB) (TVD)**

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

Reference Elevations: **2886.00 ft (KB)**

2876.00 ft (CF)

KB to GR/CF: **10.00 ft**

Serial #: **6667**

Inside

Press@RunDepth: **930.87 psig @ 4208.00 ft (KB)**

Start Date: **2006.02.12**

End Date:

2006.02.12

Start Time: **01:00:08**

End Time:

09:24:47

Capacity: **7000.00 psig**

Last Calib.: **2006.02.12**

Time On Btrr: **2006.02.12 @ 03:49:33**

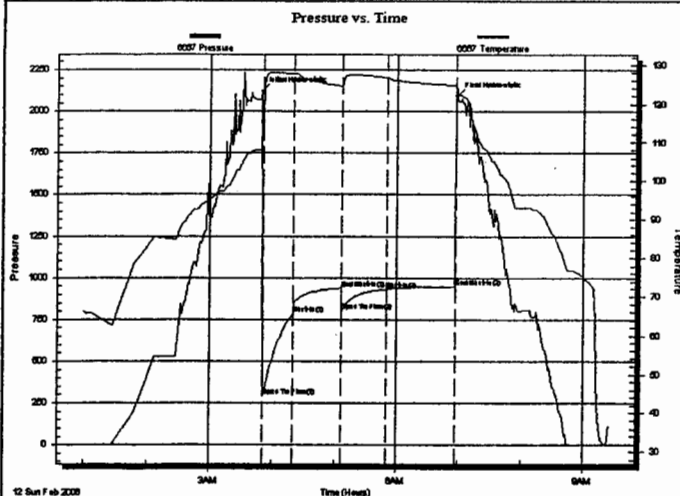
Time Off Btrr: **2006.02.12 @ 06:58:03**

TEST COMMENT: **B.O.B. in 1 min.**

No return

B.O.B. in 2 1/2 min. died back to 7" in.

No return



PRESSURE SUMMARY

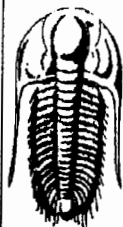
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2122.80 | 108.02 | Initial Hydro-static |
| 2 | 291.52 | 116.83 | Open To Flow (1) |
| 31 | 785.56 | 127.78 | Shut-In(1) |
| 77 | 937.24 | 124.61 | End Shut-in(1) |
| 77 | 803.71 | 124.55 | Open To Flow (2) |
| 122 | 930.87 | 126.78 | Shut-In(2) |
| 188 | 946.71 | 124.88 | End Shut-in(2) |
| 189 | 2094.30 | 123.18 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------------------|--------------|
| 120.00 | m c w 20m 80w | 1.68 |
| 1806.00 | reversed out (w ater) 100w | 25.33 |
| 120.00 | under circ sub (w ater) 100w | 1.68 |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Wilkens #1 -5D

PO.Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23256

DST#: 6

ATTN: Mike Engelbrecht

Test Start: 2006.02.12 @ 01:00:08

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4220.00 ft | Diameter: 3.80 inches | Volume: 59.20 bbl | Tool Weight: 1500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 70000.00 lb |
| | | | <u>Total Volume: 59.20 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 33.00 ft | | | String Weight: Initial 41000.00 lb |
| Depth to Top Packer: | 4207.00 ft | | | Final 50000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 33.00 ft | | | |
| Tool Length: | 53.00 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 | | | 4188.00 | |
| Shut In Tool | 5.00 | | | 4193.00 | |
| Hydraulic tool | 5.00 | | | 4198.00 | |
| Packer | 5.00 | | Fluid | 4203.00 | 20.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4207.00 | |
| Stubb | 1.00 | | | 4208.00 | |
| Recorder | 0.00 | 6667 | Inside | 4208.00 | |
| Perforations | 27.00 | | | 4235.00 | |
| Recorder | 0.00 | 11058 | Inside | 4235.00 | |
| Bullnose | 5.00 | | | 4240.00 | 33.00 Bottom Packers & Anchor |
| Total Tool Length: | 53.00 | | | | |



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23256

DST#: 6

ATTN: Mike Engelbrecht

Test Start: 2006.02.12 @ 01:00:08

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:

61000 ppm

Viscosity: 67.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.37 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|------------------------------|---------------|
| 120.00 | m c w 20m 80w | 1.683 |
| 1806.00 | reversed out (w ater) 100w | 25.333 |
| 120.00 | under circ sub (w ater) 100w | 1.683 |

Total Length: 2046.00 ft Total Volume: 28.699 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

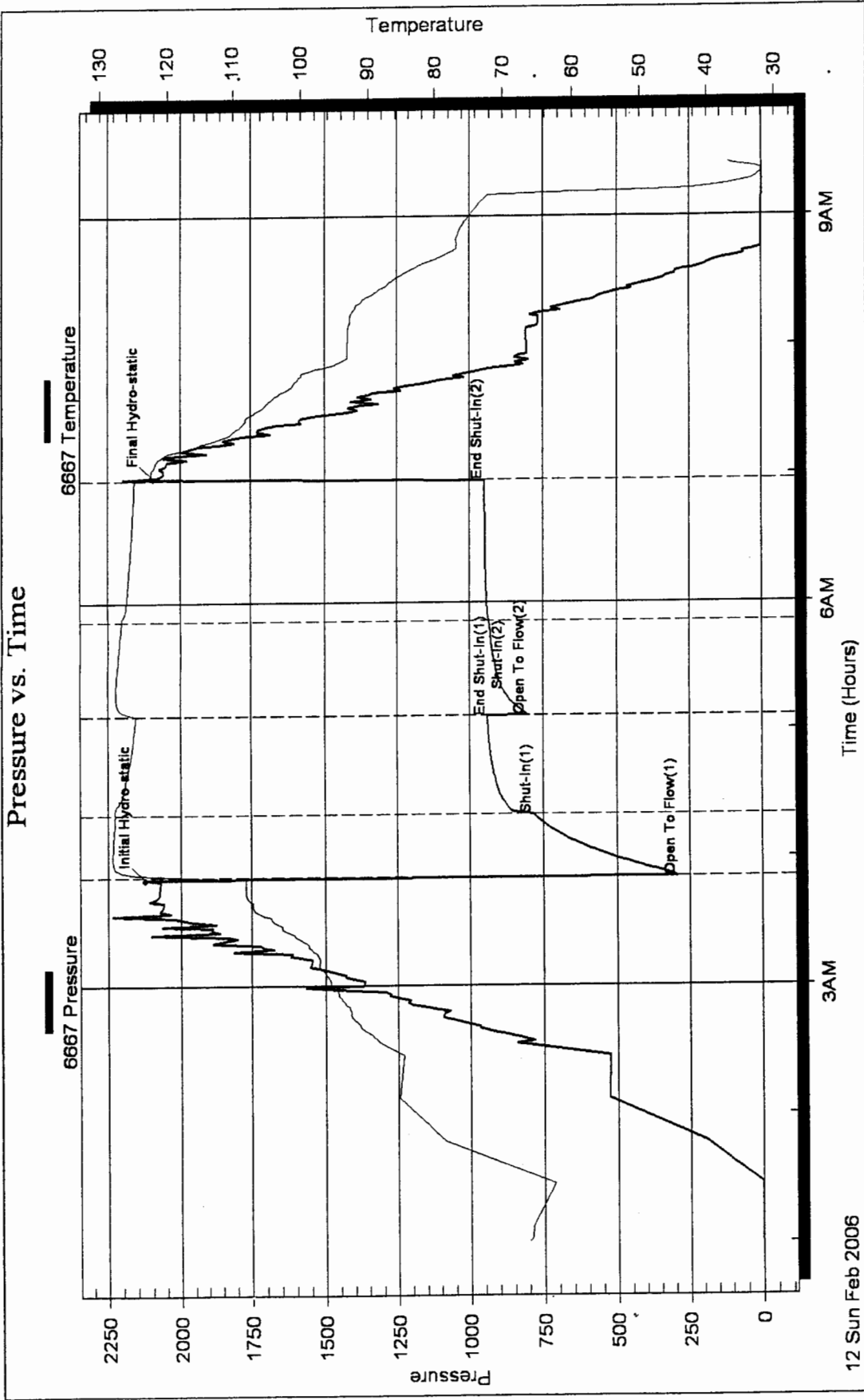
Serial #:

Laboratory Name:

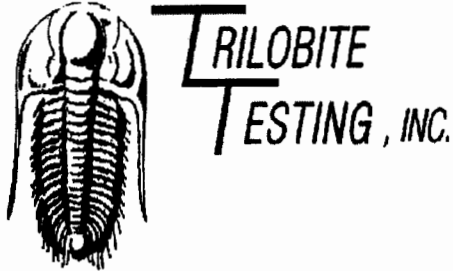
Laboratory Location:

Recovery Comments: rw .161 @ 50*f = 61000 chlor

Pressure vs. Time



12 Sun Feb 2006



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Mike Engelbrecht

5-17-30 Lane KS

Wilkins #1 -5D

Start Date: 2006.02.13 @ 03:00:49

End Date: 2006.02.13 @ 12:05:29

Job Ticket #: 23257 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

Ritchie Exploration Inc

Wilkens #1 -5D

PO-Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23257

DST#: 7

ATTN: Mike Engelbrecht

Test Start: 2006.02.13 @ 03:00:49

GENERAL INFORMATION:

Formation: **Altamont 'A-B'**

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

Time Tool Opened: 05:25:14

Time Test Ended: 12:05:29

Test Type: **Conventional Bottom Hole**

Tester: **Shane McBride**

Unit No: **25**

Interval: **4313.00 ft (KB) To 4370.00 ft (KB) (TVD)**

Total Depth: **4370.00 ft (KB) (TVD)**

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

Reference Elevations: **2886.00 ft (KB)**

2876.00 ft (CF)

KB to GR/CF: **10.00 ft**

Serial #: **6667**

Inside

Press@RunDepth: **286.61 psig @ 4314.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2006.02.13**

End Date:

2006.02.13

Last Calib.: **2006.02.13**

Start Time: **03:00:49**

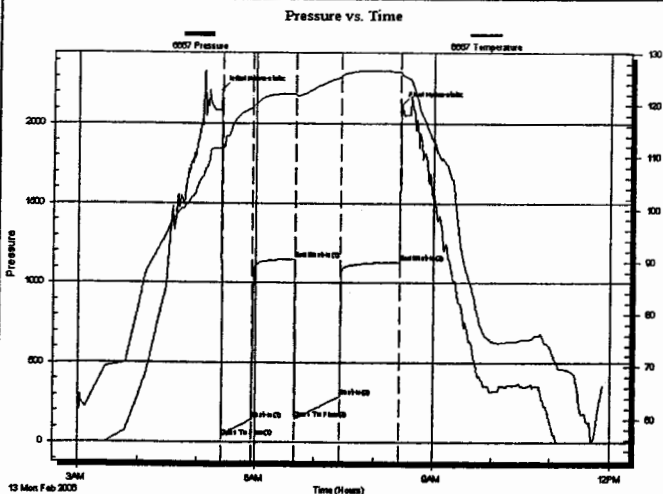
End Time:

11:52:29

Time On Btrr: **2006.02.13 @ 05:24:44**

Time Off Btrr: **2006.02.13 @ 08:26:44**

TEST COMMENT: B.O.B. in 4 1/2 min.
Return blow in 1 min. built to 10" in. died back to 6 1/2" in
B.O.B. in 3 min.
Return blow in 1 min. built to b.o.b. in 25 min



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2212.59 | 112.15 | Initial Hydro-static |
| 1 | 31.26 | 111.39 | Open To Flow (1) |
| 32 | 144.48 | 119.51 | Shut-In(1) |
| 75 | 1150.63 | 122.29 | End Shut-In(1) |
| 76 | 148.27 | 121.98 | Open To Flow (2) |
| 121 | 286.61 | 125.42 | Shut-In(2) |
| 181 | 1131.96 | 126.45 | End Shut-In(2) |
| 182 | 2115.69 | 126.20 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------------------|--------------|
| 90.00 | c g o 20g 80o | 1.26 |
| 480.00 | c g o reversed out 20g 80o | 6.73 |
| 120.00 | h o c g m 30o30g 40m | 1.68 |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23257

DST#: 7

ATTN: Mike Engelbrecht

Test Start: 2006.02.13 @ 03:00:49

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4315.00 ft | Diameter: 3.80 inches | Volume: 60.53 bbl | Tool Weight: 1500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 70000.00 lb |
| | | | <u>Total Volume: 60.53 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 22.00 ft | | | String Weight: Initial 41000.00 lb |
| Depth to Top Packer: | 4313.00 ft | | | Final 43000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 57.00 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 | | | 4294.00 | |
| Shut In Tool | 5.00 | | | 4299.00 | |
| Hydraulic tool | 5.00 | | | 4304.00 | |
| Packer | 5.00 | | Fluid | 4309.00 | 20.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4313.00 | |
| Stubb | 1.00 | | | 4314.00 | |
| Recorder | 0.00 | 6667 | Inside | 4314.00 | |
| Perforations | 18.00 | | | 4332.00 | |
| Change Over Sub | 1.00 | | | 4333.00 | |
| Drill Pipe | 31.00 | | | 4364.00 | |
| Change Over Sub | 1.00 | | | 4365.00 | |
| Recorder | 0.00 | 11058 | Inside | 4365.00 | |
| Bullnose | 5.00 | | | 4370.00 | 57.00 Bottom Packers & Anchor |

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

Wilkins #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane -KS

Job Ticket: 23257

DST#: 7

ATTN: Mike Engelbrecht

Test Start: 2006.02.13 @ 03:00:49

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

2500 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|----------------------------|---------------|
| 90.00 | c g o 20g 80o | 1.262 |
| 480.00 | c g o reversed out 20g 80o | 6.733 |
| 120.00 | h o c g m 30o30g 40m | 1.683 |

Total Length: 690.00 ft Total Volume: 9.678 bbl

Num Fluid Samples: 0

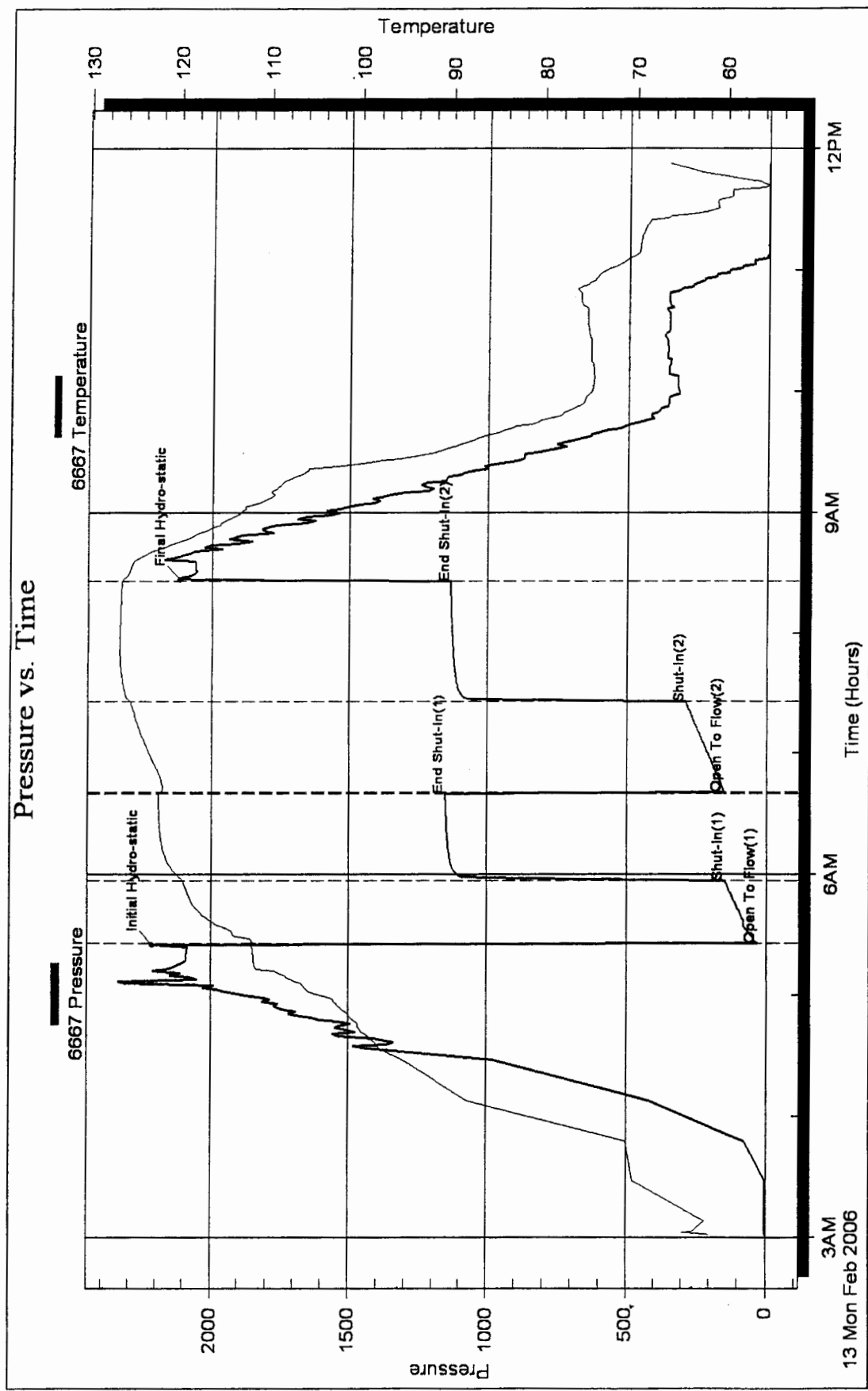
Num Gas Bombs: 0

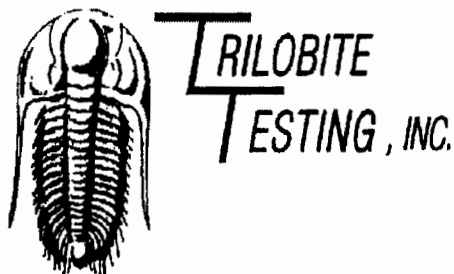
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1530' gas in pipe





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Mike Engelbrecht

5-17-30 Lane KS

Wilkins #1 -5D

Start Date: 2006.02.14 @ 02:00:20

End Date: 2006.02.14 @ 09:15:29

Job Ticket #: 23258 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

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23258 **DST#: 8**

ATTN: Mike Engelbrecht

Test Start: 2006.02.14 @ 02:00:20

GENERAL INFORMATION:

Formation: **Pawnee-Ft Scott**
 Deviated: **No Whipstock** ft (KB)
 Test Type: **Conventional Bottom Hole**
 Time Tool Opened: **04:15:00**
 Tester: **Shane McBride**
 Time Test Ended: **09:15:29**
 Unit No: **25**
 Interval: **4390.00 ft (KB) To 4480.00 ft (KB) (TVD)**
 Reference Elevations: **2886.00 ft (KB)**
 Total Depth: **4480.00 ft (KB) (TVD)**
2876.00 ft (CF)
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**
 KB to GRVCF: **10.00 ft**

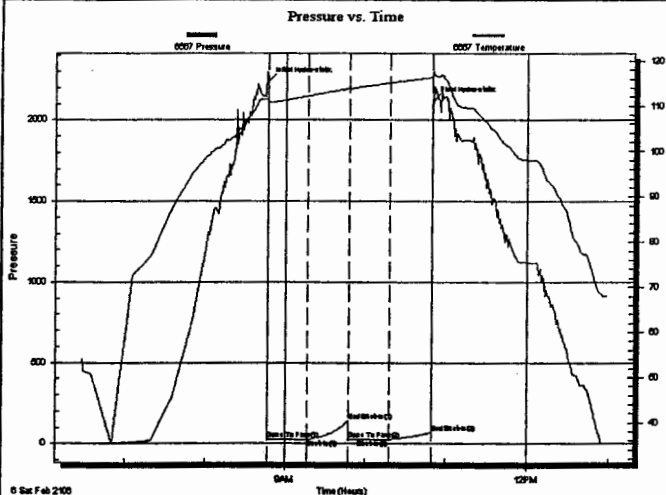
Serial #: 6667

Inside

Press@RunDepth: **25.80 psig @ 4391.00 ft (KB)** Capacity: **7000.00 psig**
 Start Date: **2106.02.06** End Date: **2106.02.06** Last Calib.: **2006.02.14**
 Start Time: **06:28:20** End Time: **12:59:29** Time On Btm: **2106.02.06 @ 08:46:45**
 Time Off Btm: **2106.02.06 @ 10:50:30**

TEST COMMENT: Weak blow died in 8 min.

No return
No blow
No return



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2243.20 | 111.34 | Initial Hydro-static |
| 1 | 23.46 | 110.58 | Open To Flow (1) |
| 30 | 25.21 | 112.18 | Shut-In(1) |
| 61 | 141.44 | 113.84 | End Shut-In(1) |
| 62 | 25.66 | 113.81 | Open To Flow (2) |
| 91 | 25.80 | 115.08 | Shut-In(2) |
| 123 | 69.29 | 116.32 | End Shut-In(2) |
| 124 | 2119.58 | 117.64 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 5.00 | mud 100m | 0.07 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23258

DST#: 8

ATTN: Mike Engelbrecht

Test Start: 2006.02.14 @ 02:00:20

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4378.00 ft | Diameter: 3.80 inches | Volume: 61.41 bbl | Tool Weight: 1500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 70000.00 lb |
| | | | Total Volume: 61.41 bbl | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 8.00 ft | | | String Weight: Initial 42000.00 lb |
| Depth to Top Packer: | 4390.00 ft | | | Final 42000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 90.00 ft | | | |
| Tool Length: | 110.00 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 | | | 4371.00 | |
| Shut In Tool | 5.00 | | | 4376.00 | |
| Hydraulic tool | 5.00 | | | 4381.00 | |
| Packer | 5.00 | | Fluid | 4386.00 | 20.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4390.00 | |
| Stubb | 1.00 | | | 4391.00 | |
| Recorder | 0.00 | 6667 | Inside | 4391.00 | |
| Perforations | 20.00 | | | 4411.00 | |
| Change Over Sub | 1.00 | | | 4412.00 | |
| Drill Pipe | 62.00 | | | 4474.00 | |
| Change Over Sub | 1.00 | | | 4475.00 | |
| Recorder | 0.00 | 11058 | Inside | 4475.00 | |
| Bullnose | 5.00 | | | 4480.00 | 90.00 Bottom Packers & Anchor |

Total Tool Length: 110.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23258

DST#: 8

ATTN: Mike Engelbrecht

Test Start: 2006.02.14 @ 02:00:20

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:

3600 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 5.00 | mud 100m | 0.070 |

Total Length: 5.00 ft

Total Volume: 0.070 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6667

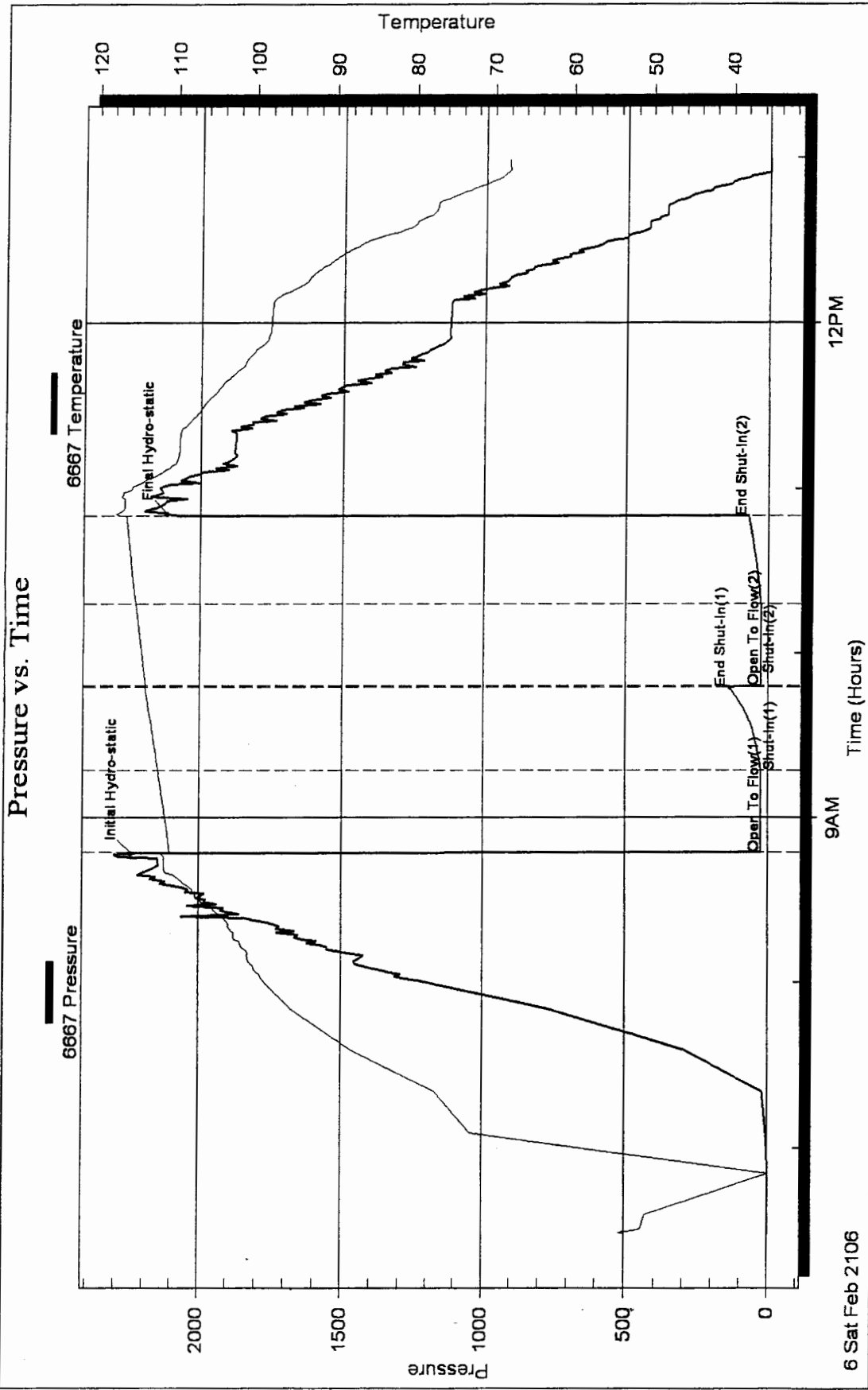
Inside

Ritchie Exploration Inc

5-17-30 Lane KS

DST Test Number: 8

Pressure vs. Time



6 Sat Feb 2106

9AM

12PM

Time (Hours)



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23259

DST#: 9

ATTN: Mike Engelbrecht

Test Start: 2006.02.14 @ 18:31:00

GENERAL INFORMATION:

Formation: **Johnson**

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

Time Tool Opened: 20:57:55

Time Test Ended: 03:20:55

Test Type: **Conventional Bottom Hole**

Tester: **Shane McBride**

Unit No: **25**

Interval: **4473.00 ft (KB) To 4533.00 ft (KB) (TVD)**

Total Depth: **4533.00 ft (KB) (TVD)**

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

Reference Elevations: **2886.00 ft (KB)**

2876.00 ft (CF)

KB to GR/CF: **10.00 ft**

Serial #: **6667**

Inside

Press@RunDepth: **167.13 psig @ 4474.00 ft (KB)**

Start Date: **2006.02.14**

End Date:

2006.02.15

Capacity: **7000.00 psig**

Last Calib.: **2006.02.15**

Start Time: **18:31:00**

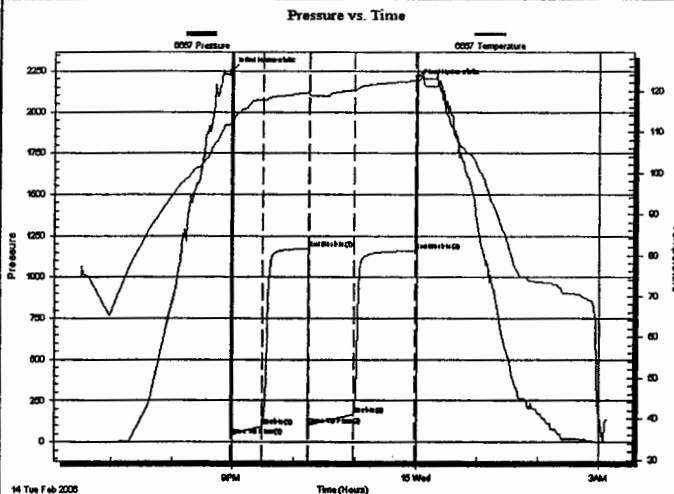
End Time:

03:07:55

Time On Btrr: **2006.02.14 @ 20:57:40**

Time Off Btrr: **2006.02.14 @ 23:59:25**

TEST COMMENT: B.O.B. in 5 min.
Weak surface return, died in 25 min.
B.O.B. in 4 1/2 min.
Return blow built to 4 1/2" in., died back to 1 1/2" in.



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2249.16 | 112.62 | Initial Hydro-static |
| 1 | 34.35 | 111.61 | Open To Flow (1) |
| 31 | 94.00 | 117.82 | Shut-In(1) |
| 76 | 1173.49 | 119.61 | End Shut-In(1) |
| 77 | 97.95 | 119.08 | Open To Flow (2) |
| 121 | 167.13 | 120.16 | Shut-In(2) |
| 182 | 1161.62 | 122.56 | End Shut-In(2) |
| 182 | 2178.30 | 122.84 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------|--------------|
| 275.00 | m c g o 25g 25m 50o | 3.86 |
| 150.00 | c g o 20g 80o | 2.10 |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23259

DST#: 9

ATTN: Mike Engelbrecht

Test Start: 2006.02.14 @ 18:31:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4471.00 ft | Diameter: 3.80 inches | Volume: 62.72 bbl | Tool Weight: 1500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 70000.00 lb |
| | | | <u>Total Volume: 62.72 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 18.00 ft | | | String Weight: Initial 42000.00 lb |
| Depth to Top Packer: | 4473.00 ft | | | Final 44000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 60.00 ft | | | |
| Tool Length: | 80.00 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 | | | 4454.00 | |
| Shut In Tool | 5.00 | | | 4459.00 | |
| Hydraulic tool | 5.00 | | | 4464.00 | |
| Packer | 5.00 | | Fluid | 4469.00 | 20.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4473.00 | |
| Stubb | 1.00 | | | 4474.00 | |
| Recorder | 0.00 | 6667 | Inside | 4474.00 | |
| Perforations | 21.00 | | | 4495.00 | |
| Change Over Sub | 1.00 | | | 4496.00 | |
| Drill Pipe | 31.00 | | | 4527.00 | |
| Change Over Sub | 1.00 | | | 4528.00 | |
| Recorder | 0.00 | 11058 | Inside | 4528.00 | |
| Bullnose | 5.00 | | | 4533.00 | 60.00 Bottom Packers & Anchor |
| Total Tool Length: | 80.00 | | | | |



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

Wilkens #1 -5D

PO Box 783188
Wichita KS 67278

5-17-30 Lane KS

Job Ticket: 23259

DST#: 9

ATTN: Mike Engelbrecht

Test Start: 2006.02.14 @ 18:31:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

2000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|---------------------|---------------|
| 275.00 | m c g o 25g 25m 50o | 3.858 |
| 150.00 | c g o 20g 80o | 2.104 |

Total Length: 425.00 ft

Total Volume: 5.962 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6667

Inside

Ritchie Exploration Inc

5-17-30 Lane KS

DST Test Number: 9

