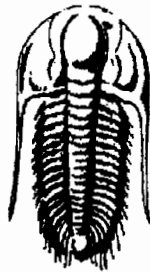


22-5-23w

15-137-20449



TRILOBITE
TESTING, INC.

KCC
JUN 14 2006
CONFIDENTIAL

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

PO Box 783188
Wichita KS 67278-3188

ATTN: Craig Caulk

22-5s-~~22~~w 23w

Schaben 22BC # 1

Start Date: 2006.02.28 @ 16:45:17

End Date: 2006.02.28 @ 22:10:47

Job Ticket #: 23936

DST #: 1

RECEIVED
JUN 15 2006
KCC WICHITA

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 67278-3188

ATTN: Craig Caulk

Schaben 22BC # 1

22-5s-~~22~~w 23w

Job Ticket: 23936

DST#: 1

Test Start: 2006.02.28 @ 16:45:17

GENERAL INFORMATION:

Formation: **Toronto**

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

Time Tool Opened: 18:13:47

Time Test Ended: 22:10:47

Test Type: **Conventional Bottom Hole**

Tester: **John Schmidt**

Unit No: **31**

Interval: **3342.00 ft (KB) To 3379.00 ft (KB) (TVD)**

Total Depth: **3379.00 ft (KB) (TVD)**

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

Reference Elevations: **2199.00 ft (KB)**

2194.00 ft (CF)

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

Serial #: **8018**

Inside

Press@RunDepth: **20.93 psig @ 3346.00 ft (KB)**

Start Date: **2006.02.28**

End Date:

2006.02.28

Capacity: **7000.00 psig**

Last Calib.: **2006.02.28**

Start Time: **16:45:22**

End Time:

22:10:46

Time On Btm: **2006.02.28 @ 18:12:17**

Time Off Btm: **2006.02.28 @ 20:15:47**

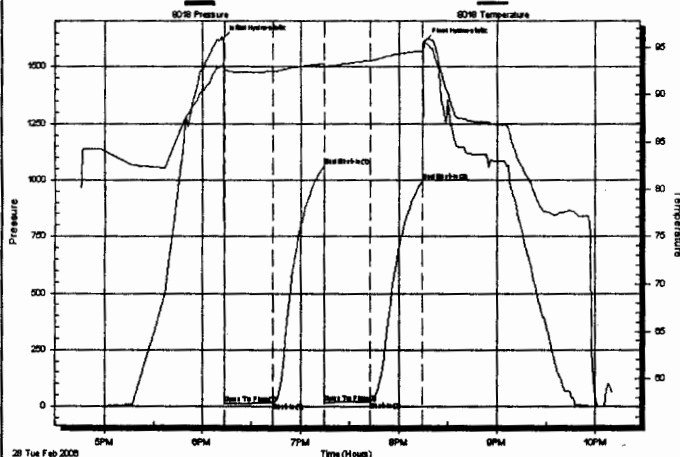
TEST COMMENT: **F-Weak Dead in 17 min.**

FF-Dead

ISI-Dead

FSI-dead

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1624.45	93.04	Initial Hydro-static
2	12.56	92.59	Open To Flow (1)
31	16.46	92.45	Shut-In(1)
62	1063.33	93.26	End Shut-In(1)
63	17.51	92.98	Open To Flow (2)
90	20.93	93.56	Shut-In(2)
122	996.84	94.61	End Shut-In(2)
124	1611.05	95.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	D.Mud	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

Schaben 22BC # 1

PO Box 783188
Wichita KS 67278-3188

22-5s-22w

Job Ticket: 23936

DST#: 1

ATTN: Craig Caulk

Test Start: 2006.02.28 @ 16:45:17

Tool Information

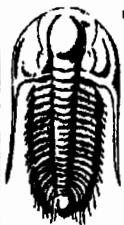
Drill Pipe:	Length: 3224.00 ft	Diameter: 3.80 inches	Volume: 45.22 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	50000.00 lb
		Total Volume:	45.82 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial	44000.00 lb
Depth to Top Packer:	3342.00 ft			Final	44000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	37.00 ft				
Tool Length:	57.00 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			3323.00	
Shut In Tool	5.00			3328.00	
Hydraulic tool	5.00			3333.00	
Packer	4.00			3337.00	20.00 Bottom Of Top Packer
Packer	5.00			3342.00	
Stubb	1.00			3343.00	
Perforations	3.00			3346.00	
Recorder	0.00	8018	Inside	3346.00	
Perforations	30.00			3376.00	
Recorder	0.00	13308	Outside	3376.00	
Bullnose	3.00			3379.00	37.00 Bottom Packers & Anchor

Total Tool Length: 57.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

Schaben 22BC # 1

PO Box 783188
Wichita KS 67278-3188

22-5s-22w

Job Ticket: 23936

DST#: 1

ATTN: Craig Caulk

Test Start: 2006.02.28 @ 16:45:17

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: 47.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	D.Mud	0.025

Total Length:

5.00 ft

Total Volume:

0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 1

22-5s-22w

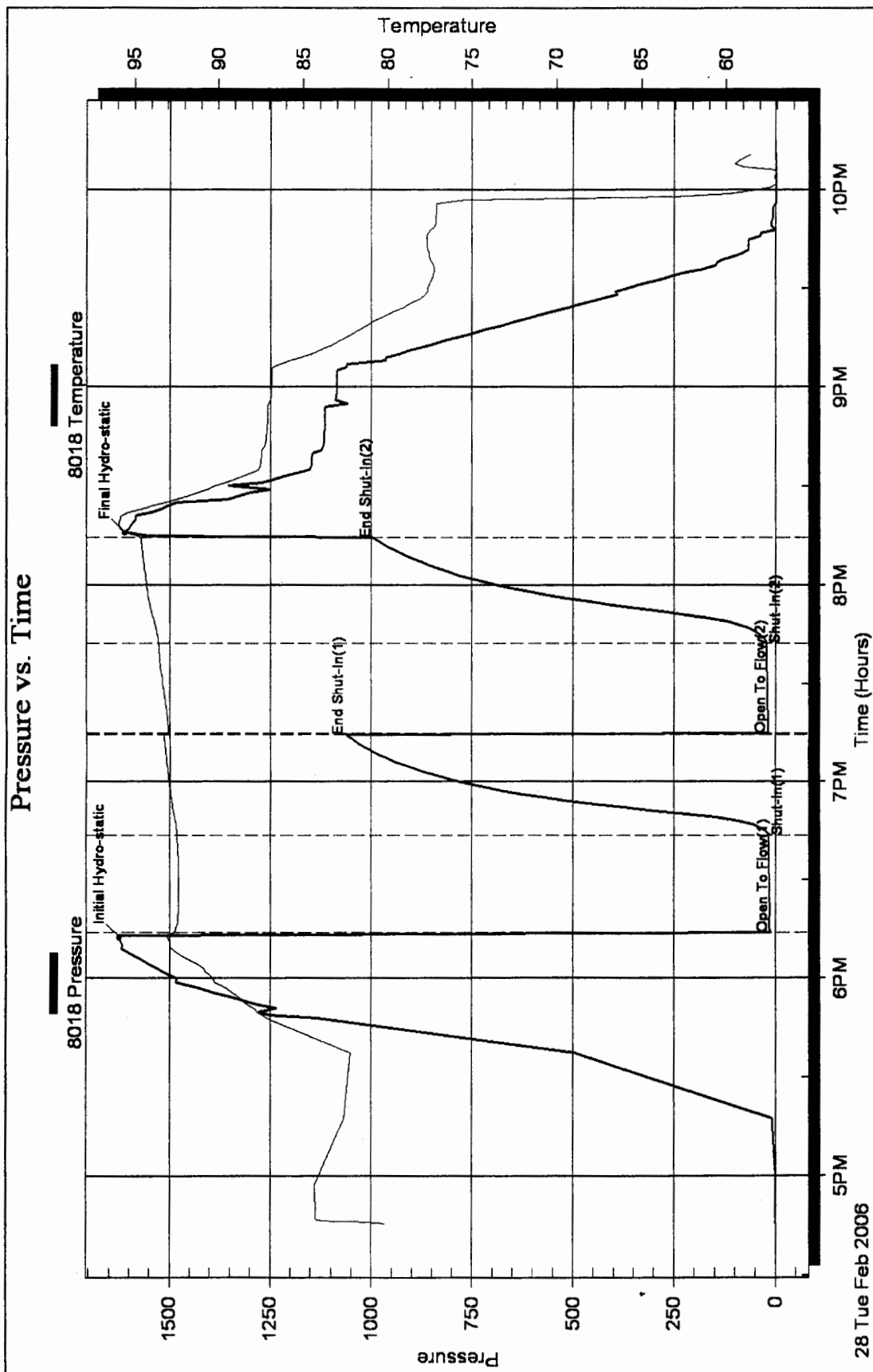
Inside Ritchie Exploration, Inc.

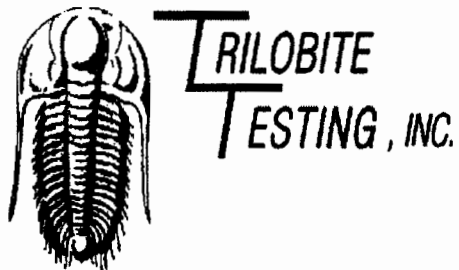
Serial #: 8018

Trilobite Testing, Inc

Ref. No: 23936

Printed: 2006.03.06 @ 15:21:56 Page 5





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

PO Box 783188
Wichita KS 67278-3188

ATTN: Craig Caulk

22-5s-22w

Schaben 22BC # 1

Start Date: 2006.03.01 @ 09:21:54

End Date: 2006.03.01 @ 14:33:54

Job Ticket #: 23937 DST #: 2

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

PO Box 783188
Wichita KS 67278-3188

ATTN: Craig Caulk

Schaben 22BC # 1

22-5s-22w

Job Ticket: 23937

DST#: 2

Test Start: 2006.03.01 @ 09:21:54

GENERAL INFORMATION:

Formation: L.Kc.-

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:57:54

Time Test Ended: 14:33:54

Test Type: Conventional Bottom Hole

Tester: John Schmidt

Unit No: 31

Interval: 3422.00 ft (KB) To 3444.00 ft (KB) (TVD)

Total Depth: 3444.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2199.00 ft (KB)

2194.00 ft (CF)

KB to GRVCF: 5.00 ft

Serial #: 8018

Inside

Press@RunDepth: 30.70 psig @ 3426.00 ft (KB)

Start Date: 2006.03.01

End Date:

2006.03.01

Start Time: 09:21:59

End Time:

14:33:53

Capacity: 7000.00 psig

Last Calib.: 2006.03.01

Time On Btm: 2006.03.01 @ 10:57:24

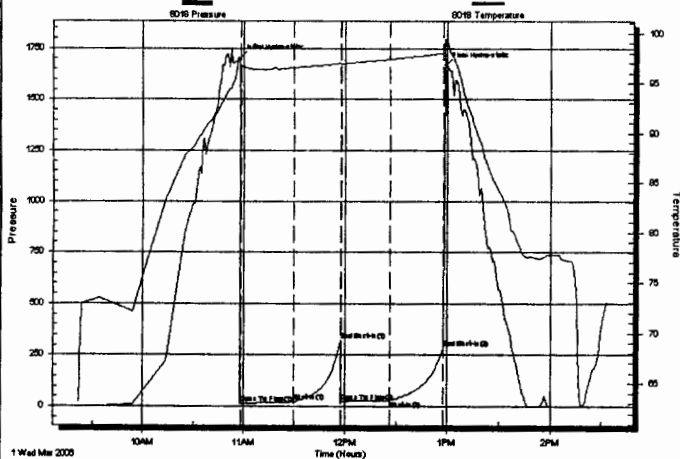
Time Off Btm: 2006.03.01 @ 12:58:54

TEST COMMENT: IF-Weak Surface Dead 22 min.
FF-Weak Surface.

ISI-Dead

FSI-Dead

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1700.78	97.36	Initial Hydro-static
1	13.75	96.93	Open To Flow (1)
32	21.27	96.54	Shut-In(1)
60	320.88	97.02	End Shut-In(1)
60	25.56	96.87	Open To Flow (2)
89	30.70	97.40	Shut-In(2)
120	283.46	98.02	End Shut-In(2)
122	1665.74	99.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	OCM-45%oil-55%mud	0.07

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

Schaben 22BC # 1

PO Box 783188
Wichita KS 67278-3188

22-5s-22w

Job Ticket: 23937

DST#: 2

ATTN: Craig Caulk

Test Start: 2006.03.01 @ 09:21:54

Tool Information

Drill Pipe:	Length: 3286.00 ft	Diameter: 3.80 inches	Volume: 46.09 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 48000.00 lb
		Total Volume: 46.69 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3422.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	42.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3403.00	
Shut In Tool	5.00			3408.00	
Hydraulic tool	5.00			3413.00	
Packer	4.00			3417.00	20.00 Bottom Of Top Packer
Packer	5.00			3422.00	
Stubb	1.00			3423.00	
Perforations	3.00			3426.00	
Recorder	0.00	8018	Inside	3426.00	
Perforations	15.00			3441.00	
Recorder	0.00	13308	Outside	3441.00	
Bullnose	3.00			3444.00	22.00 Bottom Packers & Anchor

Total Tool Length: 42.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

Schaben 22BC # 1

PO Box 783188
Wichita KS 67278-3188

22-5s-22w

Job Ticket: 23937

DST#: 2

ATTN: Craig Caulk

Test Start: 2006.03.01 @ 09:21:54

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: 51.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	OCM-45%oil-55%mud	0.074

Total Length: 15.00 ft

Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

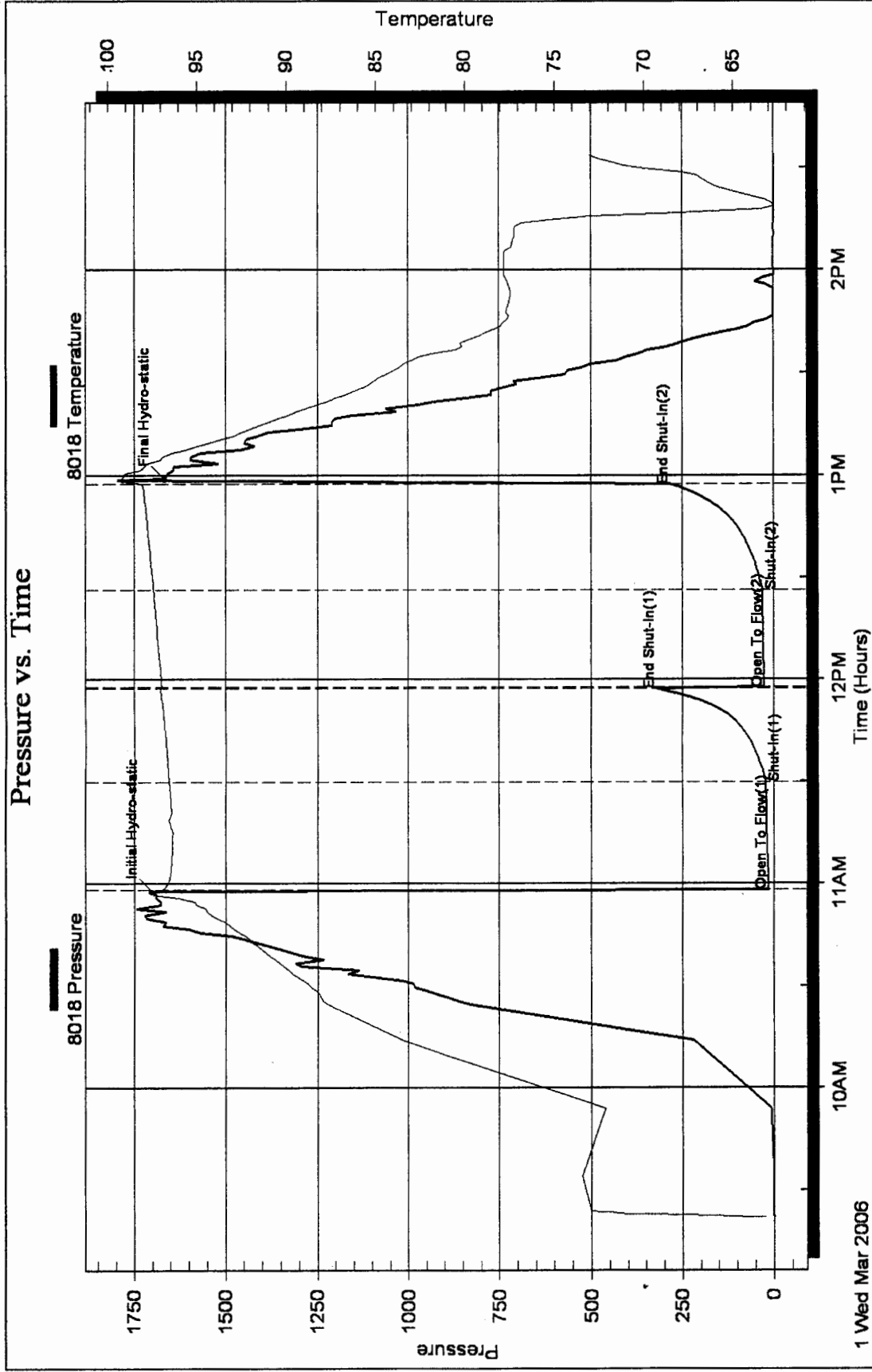
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Inside

Ritchie Exploration, Inc.

22--5s--22w

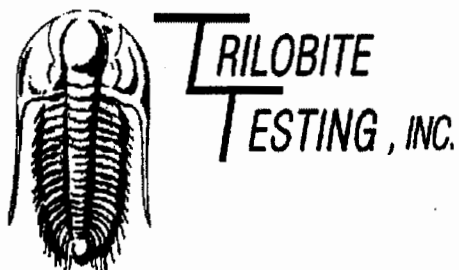
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 23937

Printed: 2006.03.06 @ 15:34:17 Page 5



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

PO Box 783188
Wichita KS 67278-3188

ATTN: Craig Caulk

22-5s-22w

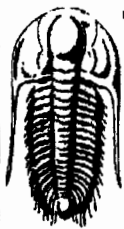
Schaben 22BC # 1

Start Date: 2006.03.01 @ 20:53:03

End Date: 2006.03.02 @ 03:47:03

Job Ticket #: 23938 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.

PO Box 783188
Wichita KS 67278-3188

ATTN: Craig Caulk

Schaben 22BC # 1

22-5s-22w

Job Ticket: 23938

DST#: 3

Test Start: 2006.03.01 @ 20:53:03

GENERAL INFORMATION:

Formation: **L.Kc.-E & F**

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

Time Tool Opened: 22:14:03

Time Test Ended: 03:47:03

Test Type: **Conventional Bottom Hole**

Tester: **John Schmidt**

Unit No: **31**

Interval: **3440.00 ft (KB) To 3470.00 ft (KB) (TVD)**

Total Depth: **3470.00 ft (KB) (TVD)**

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

Reference Elevations: **2199.00 ft (KB)**

2194.00 ft (CF)

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

Serial #: 8018

Inside

Press@RunDepth: **642.20 psig @ 3442.00 ft (KB)**

Start Date: **2006.03.01**

End Date: **2006.03.02**

Capacity: **7000.00 psig**

Last Calib.: **2006.03.02**

Start Time: **20:53:08**

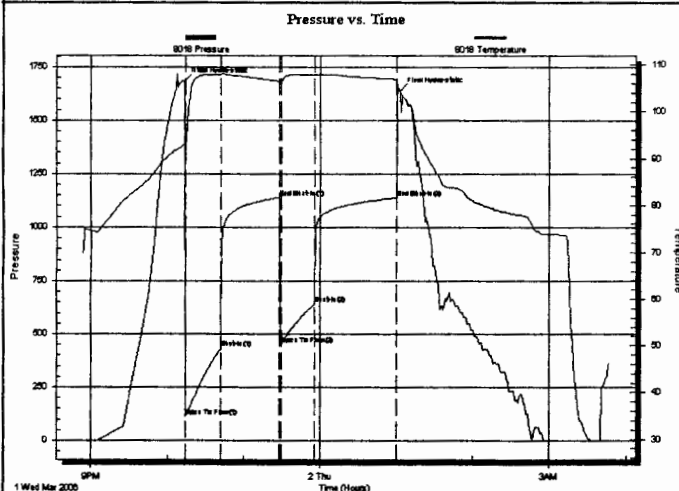
End Time: **03:47:02**

Time On Btm: **2006.03.01 @ 22:13:33**

Time Off Btm: **2006.03.02 @ 01:02:33**

TEST COMMENT: **IF-Strong B.O.B.1 min.**
FF-Strong B.O.B.2 min.

ISI-Blow back B.O.B.30 min.
FSI-Blow back B.O.B.20 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1682.53	93.06	Initial Hydro-static
1	111.73	92.47	Open To Flow (1)
29	433.15	107.89	Shut-In (1)
75	1139.65	106.43	End Shut-In (1)
76	451.12	106.19	Open To Flow (2)
102	642.20	107.78	Shut-In (2)
166	1138.46	106.85	End Shut-In (2)
169	1640.07	104.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
600.00	S.Water	7.31
300.00	GOMCW-10%G-10%O-30%M-50%W	4.21
600.00	gassy oil 15%G-85%oil	8.42

Gas Rates

	Chdte (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

Schaben 22BC # 1

PO Box 783188
Wichita KS 67278-3188

22-5s-22w

Job Ticket: 23938

DST#: 3

ATTN: Craig Caulk

Test Start: 2006.03.01 @ 20:53:03

Tool Information

Drill Pipe:	Length: 3319.00 ft	Diameter: 3.80 inches	Volume: 46.56 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	50000.00 lb
		Total Volume:	47.16 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3440.00 ft			Final	45000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	30.00 ft				
Tool Length:	50.00 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			3421.00	
Shut In Tool	5.00			3426.00	
Hydraulic tool	5.00			3431.00	
Packer	4.00			3435.00	20.00 Bottom Of Top Packer
Packer	5.00			3440.00	
Stubb	1.00			3441.00	
Perforations	1.00			3442.00	
Recorder	0.00	8018	Inside	3442.00	
Perforations	25.00			3467.00	
Recorder	0.00	13308	Outside	3467.00	
Bullnose	3.00			3470.00	30.00 Bottom Packers & Anchor

Total Tool Length: 50.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

Schaben 22BC # 1

PO Box 783188
Wichita KS 67278-3188

22-5s-22w

Job Ticket: 23938

DST#: 3

ATTN: Craig Caulk

Test Start: 2006.03.01 @ 20:53:03

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

60000 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
600.00	S.Water	7.314
300.00	GOMCW-10%G-10%O-30%M-50%W	4.208
600.00	gassy oil 15%G-85%oil	8.416

Total Length: 1500.00 ft

Total Volume: 19.938 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

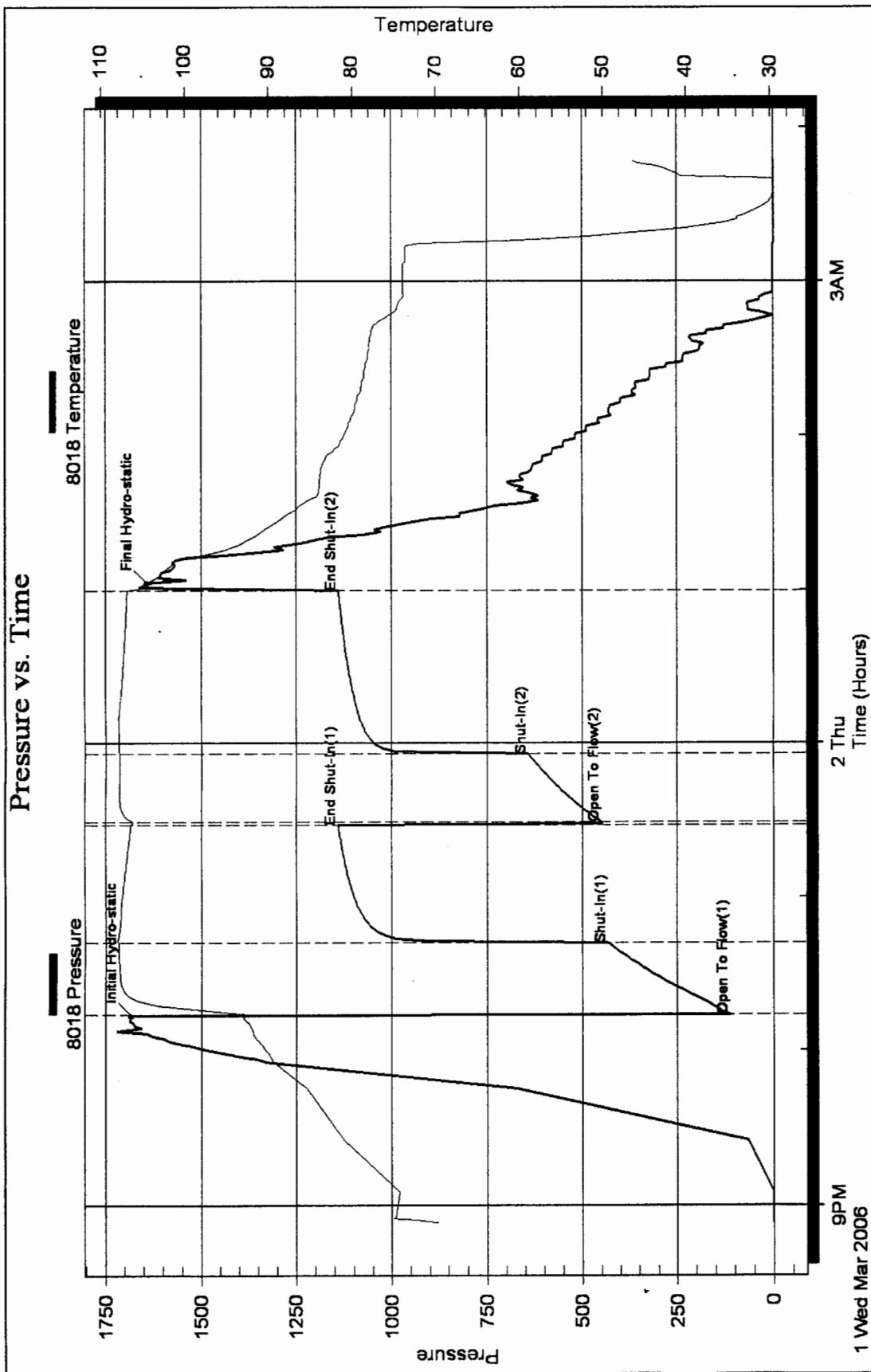
Serial #:

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 67278-3188

ATTN: Craig Caulk

22-5s-22w

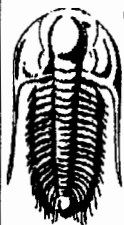
Schaben 22BC # 1

Start Date: 2006.03.02 @ 11:02:09

End Date: 2006.03.02 @ 17:09:09

Job Ticket #: 23939 DST #: 4

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

PO Box 783188
Wichita KS 67278-3188

ATTN: Craig Caulk

Schaben 22BC # 1

22-5s-22w

Job Ticket: 23939

DST#: 4

Test Start: 2006.03.02 @ 11:02:09

GENERAL INFORMATION:

Formation: L.Kc.-H

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:35:09

Time Test Ended: 17:09:09

Test Type: Conventional Bottom Hole

Tester: John Schmidt

Unit No: 31

Interval: 3480.00 ft (KB) To 3520.00 ft (KB) (TVD)

Total Depth: 3480.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2199.00 ft (KB)

2194.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8018 Inside

Press@RunDepth: 52.88 psig @ 3483.00 ft (KB)

Start Date: 2006.03.02

End Date:

2006.03.02

Start Time: 11:02:14

End Time:

17:09:08

Capacity: 7000.00 psig

Last Calib.: 2006.03.02

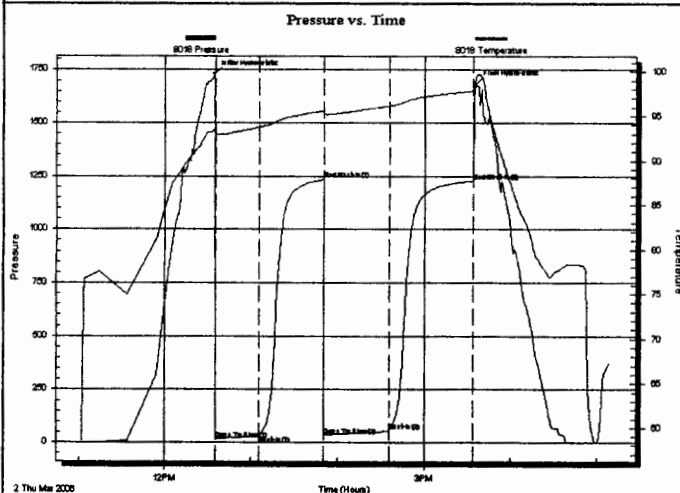
Time On Btm: 2006.03.02 @ 12:34:39

Time Off Btm: 2006.03.02 @ 15:35:39

TEST COMMENT: IF-Weak building to 3 1/2" in.
FF-Weak to fair built 6" in.

ISI-Dead

FSI-Very weak surface 10 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1729.88	93.42	Initial Hydro-static
1	13.65	93.00	Open To Flow (1)
31	30.45	93.74	Shut-In (1)
76	1233.53	95.56	End Shut-In (1)
76	32.51	95.23	Open To Flow (2)
121	52.88	96.11	Shut-In (2)
180	1227.90	97.86	End Shut-In (2)
181	1683.32	99.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	Clean oil	0.49

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

Schaben 22BC # 1

PO Box 783188
Wichita KS 67278-3188

22-5s-22w

Job Ticket: 23939

DST#: 4

ATTN: Craig Caulk

Test Start: 2006.03.02 @ 11:02:09

Tool Information

Drill Pipe:	Length: 3350.00 ft	Diameter: 3.80 inches	Volume: 46.99 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	50000.00 lb
		Total Volume:	47.59 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3480.00 ft			Final	43000.00 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	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3461.00	
Shut In Tool	5.00			3466.00	
Hydraulic tool	5.00			3471.00	
Packer	4.00			3475.00	20.00 Bottom Of Top Packer
Packer	5.00			3480.00	
Stubb	1.00			3481.00	
Perforations	1.00			3482.00	
Change Over Sub	1.00			3483.00	
Recorder	0.00	8018	Inside	3483.00	
Blank Spacing	31.00			3514.00	
Change Over Sub	1.00			3515.00	
Perforations	2.00			3517.00	
Recorder	0.00	13308	Outside	3517.00	
Bullnose	3.00			3520.00	40.00 Bottom Packers & Anchor

Total Tool Length: 60.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

Schaben 22BC # 1

PO Box 783188
Wichita KS 67278-3188

22-5s-22w

Job Ticket: 23939

DST#: 4

ATTN: Craig Caulk

Test Start: 2006.03.02 @ 11:02:09

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
100.00	Clean oil	0.492

Total Length: 100.00 ft

Total Volume: 0.492 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

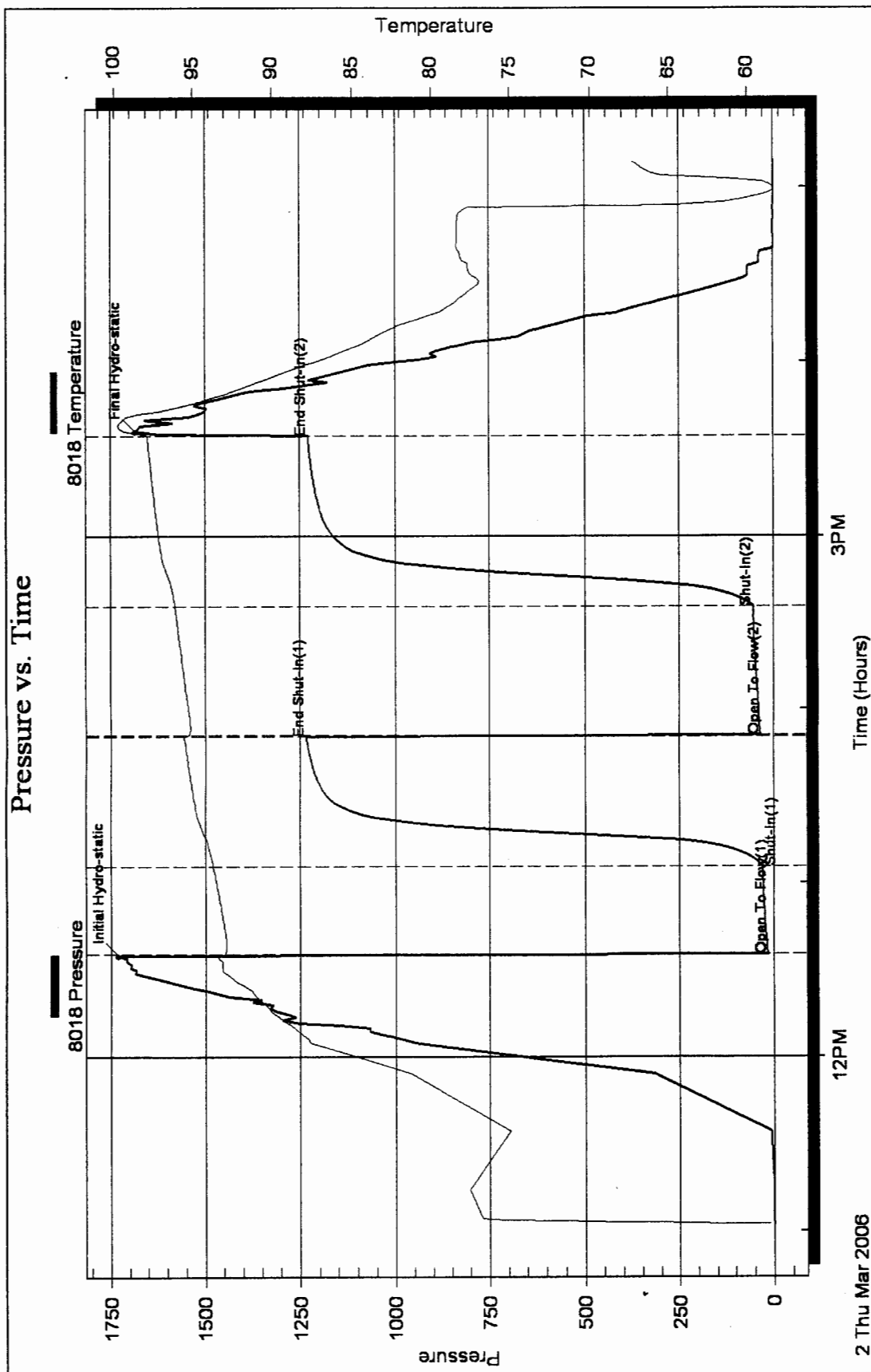
Serial #:

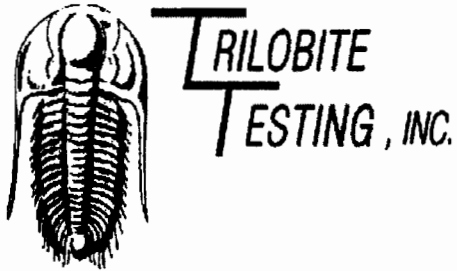
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

PO Box 783188
Wichita KS 67278-3188

ATTN: Craig Caulk

22-5s-22w

Schaben 22BC # 1

Start Date: 2006.03.03 @ 01:17:32

End Date: 2006.03.03 @ 07:48:02

Job Ticket #: 23940 DST #: 5

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

PO Box 783188
Wichita KS 67278-3188

ATTN: Craig Caulk

Schaben 22BC # 1

22-5s-22w

Job Ticket: 23940

DST#: 5

Test Start: 2006.03.03 @ 01:17:32

GENERAL INFORMATION:

Formation: **L.Kc.-I,J,K,L**

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

Time Tool Opened: 02:49:02

Time Test Ended: 07:48:02

Test Type: **Conventional Bottom Hole**

Tester: **John Schmidt**

Unit No: **31**

Interval: **3514.00 ft (KB) To 3574.00 ft (KB) (TVD)**

Total Depth: **3574.00 ft (KB) (TVD)**

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

Reference Elevations: **2199.00 ft (KB)**

2194.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8018

Inside

Press@RunDepth: **79.98 psig @ 3517.00 ft (KB)**

Start Date: **2006.03.03**

End Date:

2006.03.03

Start Time: **01:17:37**

End Time:

07:48:01

Capacity: **7000.00 psig**

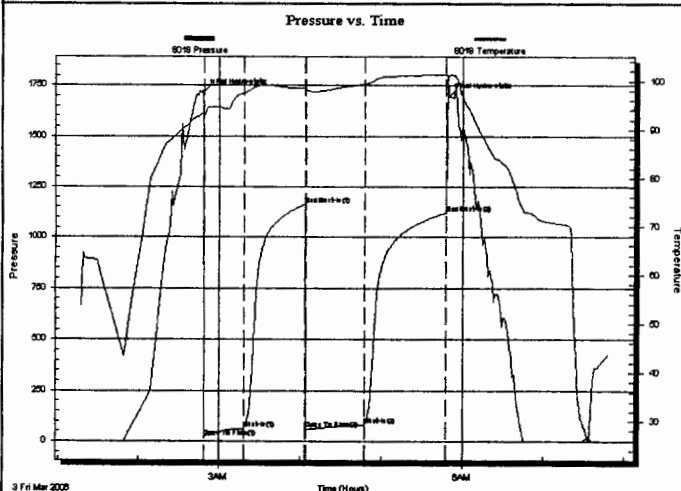
Last Calib.: **2006.03.03**

Time On Btm: **2006.03.03 @ 02:48:32**

Time Off Btm: **2006.03.03 @ 05:50:02**

TEST COMMENT: **IF-Good built to 10" in.**
FF-Strong B.O.B.22 min.

ISI-Weak surface.
FSI-Dead



PRESSURE SUMMARY

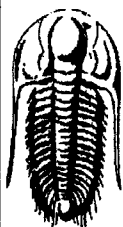
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1716.27	93.26	Initial Hydro-static
1	19.18	92.71	Open To Flow (1)
30	61.11	97.41	Shut-In(1)
76	1162.22	98.63	End Shut-In(1)
76	61.51	98.26	Open To Flow (2)
120	79.98	99.34	Shut-In(2)
180	1120.91	101.31	End Shut-In(2)
182	1696.79	100.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	Muddy oil	1.42
0.00	80 gas in pipe	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

Schaben 22BC # 1

PO Box 783188
Wichita KS 67278-3188

22-5s-22w

Job Ticket: 23940

DST#: 5

ATTN: Craig Caulk

Test Start: 2006.03.03 @ 01:17:32

Tool Information

Drill Pipe:	Length: 3381.00 ft	Diameter: 3.80 inches	Volume: 47.43 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	45000.00 lb
		Total Volume:	48.03 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3514.00 ft			Final	40000.00 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
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Change Over Sub	1.00			3495.00	
Shut In Tool	5.00			3500.00	
Hydraulic tool	5.00			3505.00	
Packer	4.00			3509.00	20.00 Bottom Of Top Packer
Packer	5.00			3514.00	
Stubb	1.00			3515.00	
Perforations	1.00			3516.00	
Change Over Sub	1.00			3517.00	
Recorder	0.00	8018	Inside	3517.00	
Blank Spacing	30.00			3547.00	
Change Over Sub	1.00			3548.00	
Recorder	0.00	11084	Outside	3548.00	
Perforations	23.00			3571.00	
Bullnose	3.00			3574.00	60.00 Bottom Packers & Anchor

Total Tool Length: 80.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

Schaben 22BC # 1

PO Box 783188
Wichita KS 67278-3188

22-5s-22w

Job Ticket: 23940

DST#: 5

ATTN: Craig Caulk

Test Start: 2006.03.03 @ 01:17:32

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: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	Muddy oil	1.423
0.00	80 gas in pipe	0.000

Total Length: 180.00 ft

Total Volume: 1.423 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

