

TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St N #700
Wichita, KS 67278

ATTN: Max Lovely

24-17-35 Wichita, KS

Simons 24A #1

Job Ticket: 45023

DST#: 1

Test Start: 2012.03.07 @ 21:30:20

GENERAL INFORMATION:

Formation: **Toronto- Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:51:00

Time Test Ended: 04:27:44

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 35

Interval: 4024.00 ft (KB) To 4090.00 ft (KB) (TVD)

Total Depth: 4090.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3177.00 ft (KB)

3167.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8373 Inside

Press@RunDepth: 140.48 psig @ 4025.00 ft (KB)

Start Date: 2012.03.07

End Date:

2012.03.08

Start Time: 21:30:20

End Time:

04:27:44

Capacity: 8000.00 psig

Last Calib.: 2012.03.08

Time On Btm: 2012.03.07 @ 23:49:00

Time Off Btm: 2012.03.08 @ 02:24:29

TEST COMMENT: IF: 1/4 blow built to 5 in 30 min.

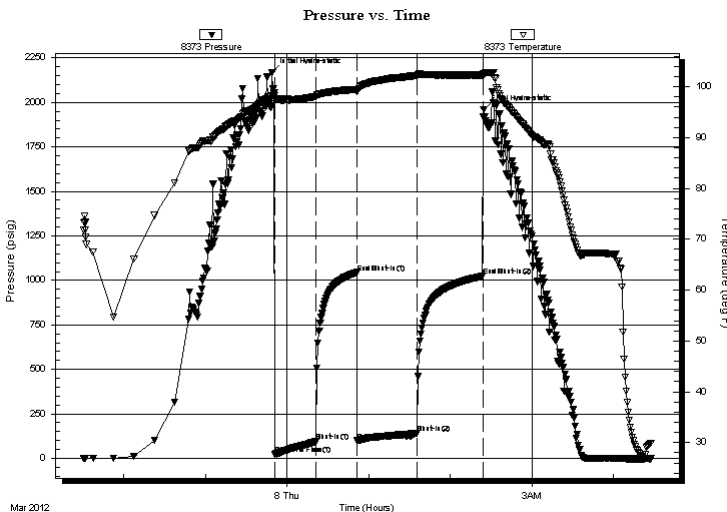
IS: No return.

FF: Surface blow built to 6 in 45 min.

FS: No return.

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2168.97	98.13	Initial Hydro-static
2	21.10	97.56	Open To Flow (1)
33	93.30	98.07	Shut-In(1)
63	1044.36	99.45	End Shut-In(1)
63	98.11	99.07	Open To Flow (2)
107	140.48	102.22	Shut-In(2)
155	1022.88	102.25	End Shut-In(2)
156	1961.42	102.31	Final Hydro-static

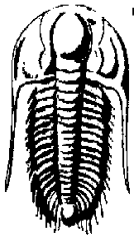


Recovery

Length (ft)	Description	Volume (bbl)
124.00	mw 50%w 50%m	0.61
124.00	w cm 40%w 60%m	0.92
15.00	mud oil spots 100%m	0.21

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

24-17-35 Wichita, KS

8100 E 22nd St N #700
Wichita, KS 67278

Simons 24A #1

Job Ticket: 45023

DST#: 1

ATTN: Max Lovely

Test Start: 2012.03.07 @ 21:30:20

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:

53000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	mw 50%w 50%m	0.610
124.00	w cm 40%w 60%m	0.920
15.00	mud oil spots 100%m	0.210

Total Length: 263.00 ft

Total Volume: 1.740 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .33@32=53000

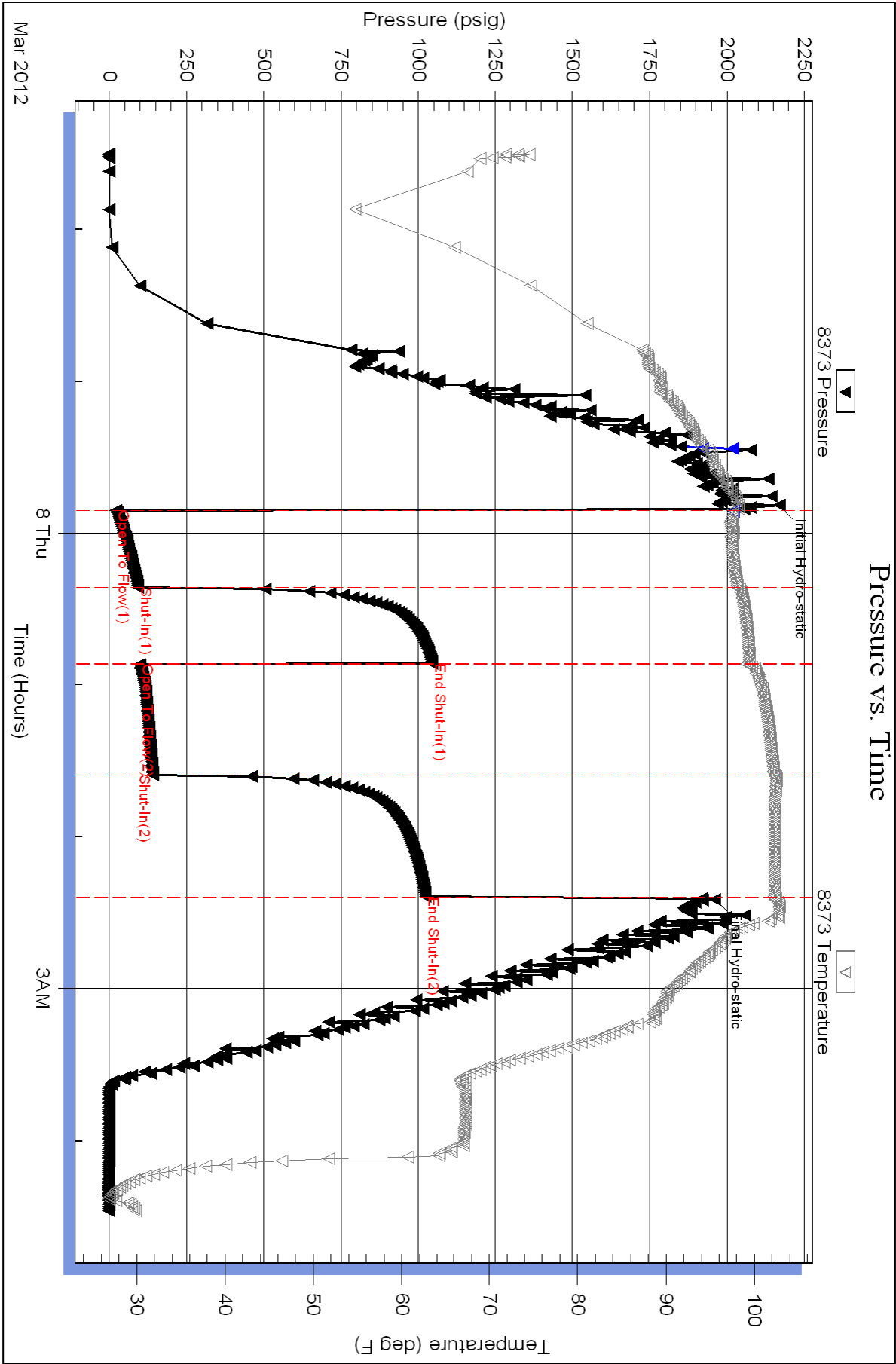
Serial #: 8373

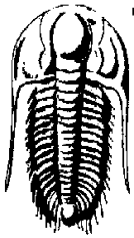
Inside

Ritchie Exploration

Simons 24A #1

DST Test Number: 1





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St N #700
Wichita, KS 67278

ATTN: Max Lovely

24-17-35 Wichita, KS

Simons 24A #1

Job Ticket: 45024

DST#: 2

Test Start: 2012.03.08 @ 14:47:22

GENERAL INFORMATION:

Formation: **Lansing C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:58:17

Time Test Ended: 21:34:31

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 35

Interval: 4099.00 ft (KB) To 4143.00 ft (KB) (TVD)

Total Depth: 4143.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3177.00 ft (KB)

3167.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8373 Inside

Press@RunDepth: 77.52 psig @ 4100.00 ft (KB)

Start Date: 2012.03.08

End Date:

2012.03.08

Start Time: 14:47:22

End Time:

21:34:31

Capacity: 8000.00 psig

Last Calib.: 2012.03.08

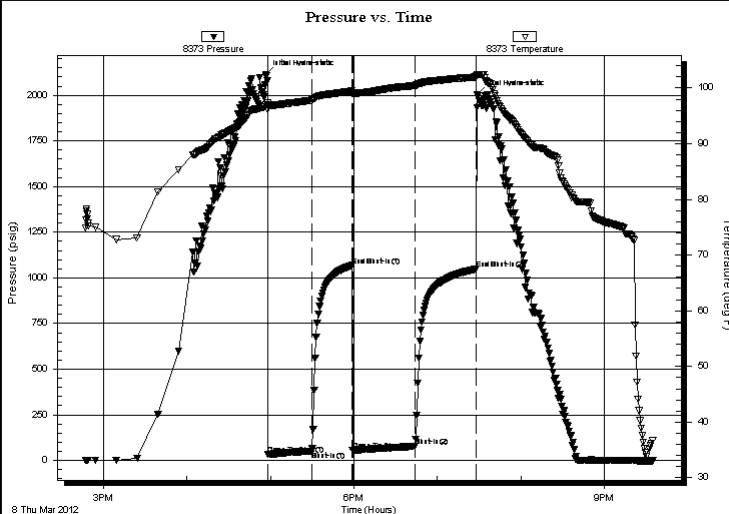
Time On Btm: 2012.03.08 @ 16:56:32

Time Off Btm: 2012.03.08 @ 19:28:16

TEST COMMENT: IF: Weak blow built to 1/2.
IS: No return.
FF: Surface blow built to 1.
FS: No return.

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2113.78	96.59	Initial Hydro-static
2	33.15	96.08	Open To Flow (1)
34	51.67	97.81	Shut-In(1)
62	1067.52	99.47	End Shut-In(1)
63	56.13	99.06	Open To Flow (2)
108	77.52	100.41	Shut-In(2)
152	1048.14	101.95	End Shut-In(2)
152	2002.02	102.22	Final Hydro-static



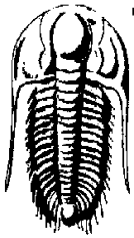
Recovery

Length (ft)	Description	Volume (bbl)
62.00	ocm 15%o 85%m	0.30
77.00	ocm 10%o 90%m	0.38

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



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DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

24-17-35 Wichita, KS

8100 E 22nd St N #700
Wichita, KS 67278

Simons 24A #1

Job Ticket: 45024

DST#: 2

ATTN: Max Lovely

Test Start: 2012.03.08 @ 14:47:22

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: 57.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	ocm 15%o 85%m	0.305
77.00	ocm 10%o 90%m	0.379

Total Length: 139.00 ft

Total Volume: 0.684 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

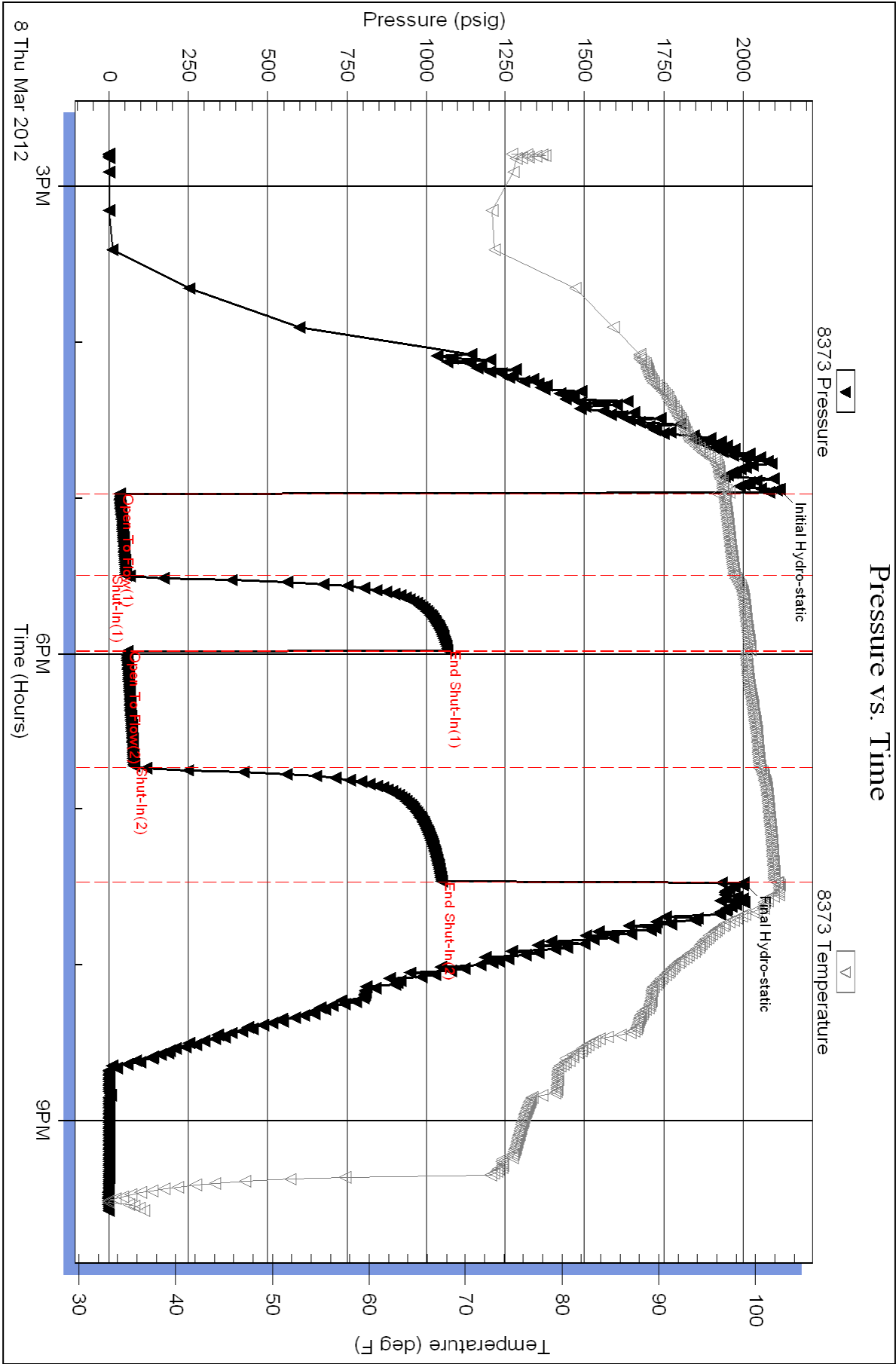
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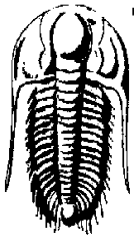
Inside

Ritchie Exploration

Simons 24A #1

DST Test Number: 2





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DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St N #700
Wichita, KS 67278

ATTN: Max Lovely

24-17-35 Wichita, KS

Simons 24A #1

Job Ticket: 45025

DST#: 3

Test Start: 2012.03.09 @ 07:33:43

GENERAL INFORMATION:

Formation: **Lansing F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:24:23

Time Test Ended: 14:02:07

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 35

Interval: 4162.00 ft (KB) To 4181.00 ft (KB) (TVD)

Total Depth: 4181.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3177.00 ft (KB)

3167.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8373 Inside

Press@RunDepth: 54.73 psig @ 4163.00 ft (KB)

Start Date: 2012.03.09

End Date:

2012.03.09

Start Time: 07:33:43

End Time:

14:02:07

Capacity: 8000.00 psig

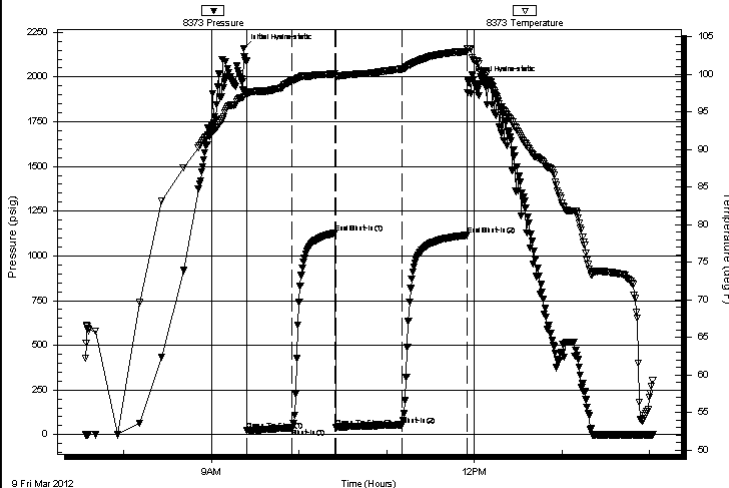
Last Calib.: 2012.03.09

Time On Btm: 2012.03.09 @ 09:22:08

Time Off Btm: 2012.03.09 @ 11:55:52

TEST COMMENT: IF: Weak blow built to 1/4.
IS: No return.
FF: Weak blow built to 1/2.
FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2160.24	97.05	Initial Hydro-static
3	22.85	97.30	Open To Flow (1)
33	37.61	99.06	Shut-In(1)
63	1127.65	100.05	End Shut-In(1)
63	42.43	99.62	Open To Flow (2)
108	54.73	100.70	Shut-In(2)
153	1116.03	103.04	End Shut-In(2)
154	1980.99	103.33	Final Hydro-static

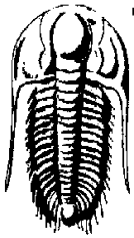
Recovery

Length (ft)	Description	Volume (bbl)
90.00	ocm 5%o 95% m	0.44

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



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DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

24-17-35 Wichita, KS

8100 E 22nd St N #700
Wichita, KS 67278

Simons 24A #1

Job Ticket: 45025

DST#: 3

ATTN: Max Lovely

Test Start: 2012.03.09 @ 07:33:43

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: 57.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	ocm 5%o 95%m	0.443

Total Length: 90.00 ft

Total Volume: 0.443 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

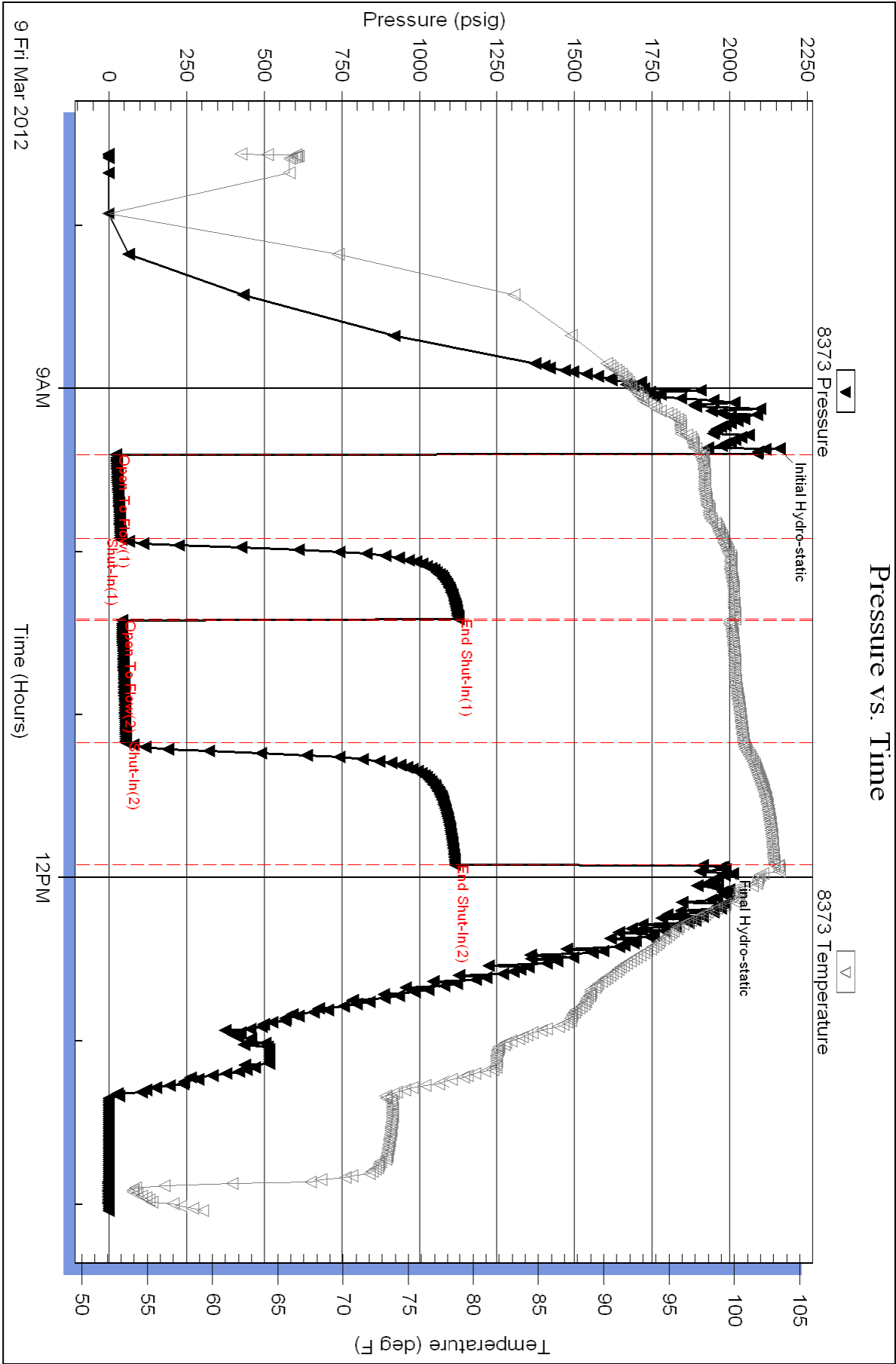
Serial #: 8373

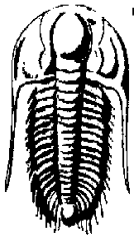
Inside

Ritchie Exploration

Simons 24A #1

DST Test Number: 3





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St N #700
Wichita, KS 67278

ATTN: Max Lovely

24-17-35 Wichita, KS

Simons 24A #1

Job Ticket: 45026

DST#: 4

Test Start: 2012.03.09 @ 23:30:04

GENERAL INFORMATION:

Formation: **Lansing G**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:10:49

Time Test Ended: 06:03:34

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 35

Interval: 4197.00 ft (KB) To 4210.00 ft (KB) (TVD)

Total Depth: 4210.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3177.00 ft (KB)

3167.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8373 Inside

Press@RunDepth: 926.19 psig @ 4198.00 ft (KB)

Start Date: 2012.03.09

End Date:

2012.03.10

Start Time: 23:30:09

End Time:

06:03:33

Capacity: 8000.00 psig

Last Calib.: 2012.03.10

Time On Btm: 2012.03.10 @ 01:09:04

Time Off Btm: 2012.03.10 @ 03:44:19

TEST COMMENT: IF: BOB in 2 min.

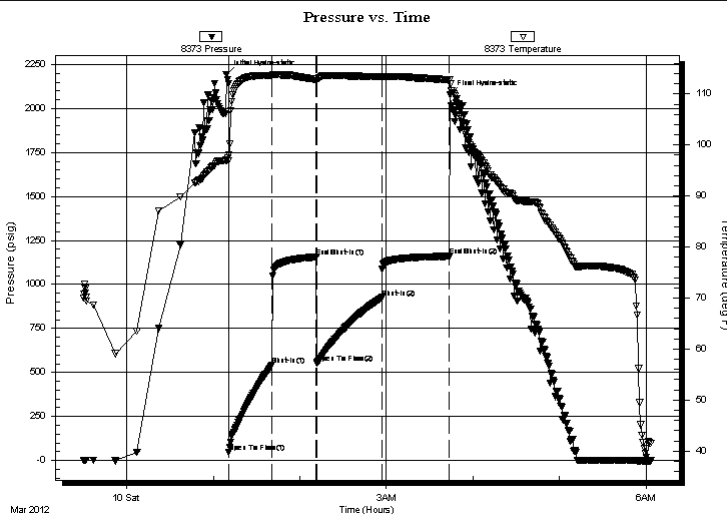
IS: No return.

FF: BOB in 4 min.

FS: No return.

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2193.94	97.05	Initial Hydro-static
2	48.10	96.89	Open To Flow (1)
32	545.23	113.66	Shut-In(1)
63	1156.56	112.91	End Shut-In(1)
63	552.49	112.57	Open To Flow (2)
108	926.19	113.36	Shut-In(2)
155	1160.18	112.81	End Shut-In(2)
156	2078.22	111.96	Final Hydro-static



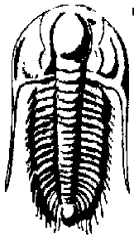
Recovery

Length (ft)	Description	Volume (bbl)
1674.00	water 100%w	21.53
310.00	mcw 90%w 10%m	4.35

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

24-17-35 Wichita, KS

8100 E 22nd St N #700
Wichita, KS 67278

Simons 24A #1

Job Ticket: 45026

DST#: 4

ATTN: Max Lovely

Test Start: 2012.03.09 @ 23:30:04

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:

50000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 8100.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1674.00	water 100%w	21.532
310.00	mcw 90%w 10%m	4.348

Total Length: 1984.00 ft

Total Volume: 25.880 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .27@40=50000

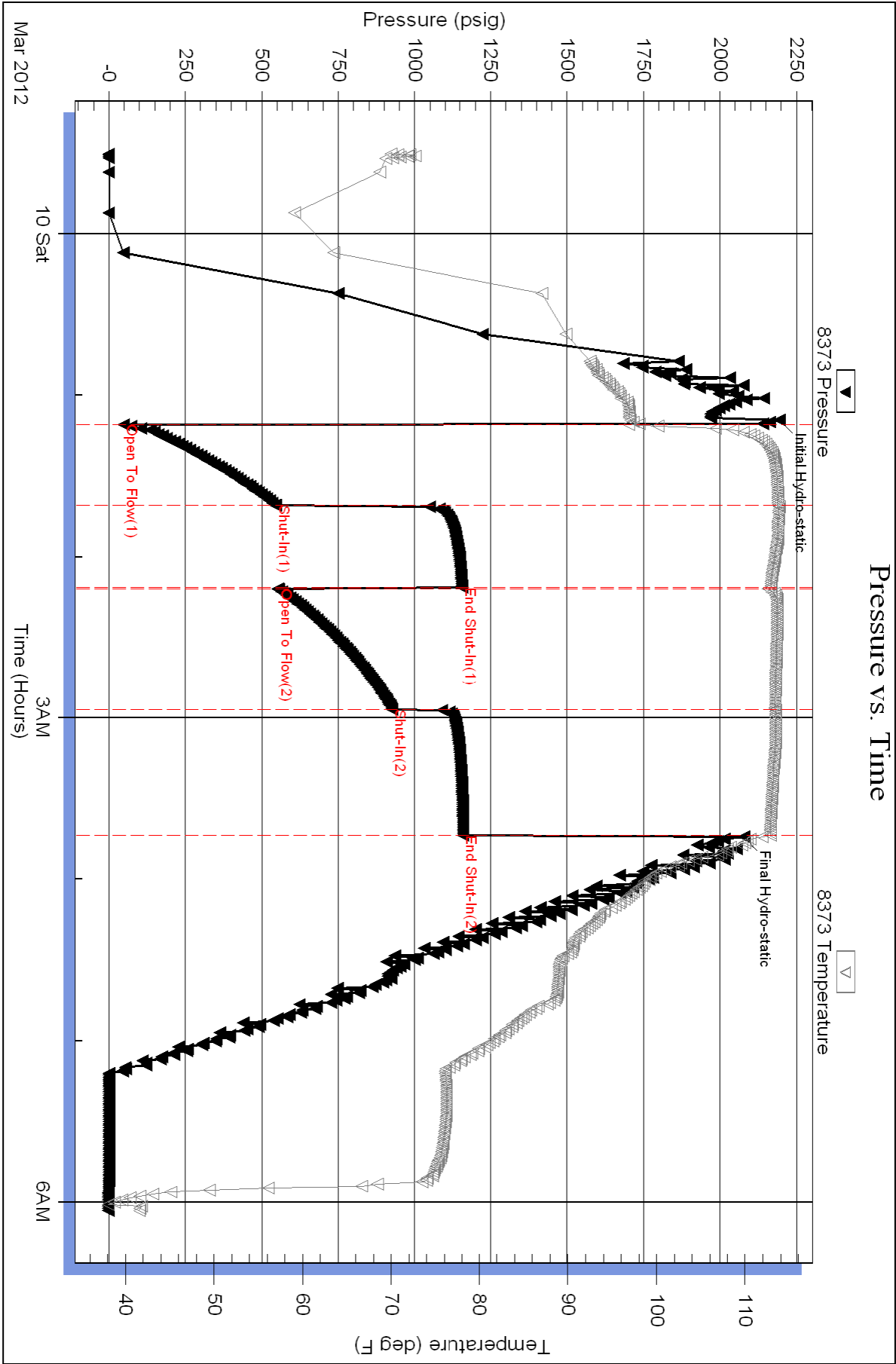
Serial #: 8373

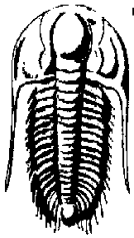
Inside

Ritchie Exploration

Simons 24A #1

DST Test Number: 4





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St N #700
Wichita, KS 67278

ATTN: Max Lovely

24-17-35 Wichita, KS

Simons 24A #1

Job Ticket: 45027

DST#: 5

Test Start: 2012.03.10 @ 16:46:47

GENERAL INFORMATION:

Formation: **H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:56:12

Time Test Ended: 22:55:41

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 35

Interval: 4253.00 ft (KB) To 4283.00 ft (KB) (TVD)

Total Depth: 4283.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3177.00 ft (KB)

3167.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8373

Inside

Press@RunDepth: 21.78 psig @ 4254.00 ft (KB)

Start Date: 2012.03.10

End Date:

2012.03.10

Start Time: 16:46:47

End Time:

22:55:41

Capacity: 8000.00 psig

Last Calib.: 2012.03.10

Time On Btm: 2012.03.10 @ 18:54:27

Time Off Btm: 2012.03.10 @ 20:56:57

TEST COMMENT: IF: Weak blow died in 10 min.

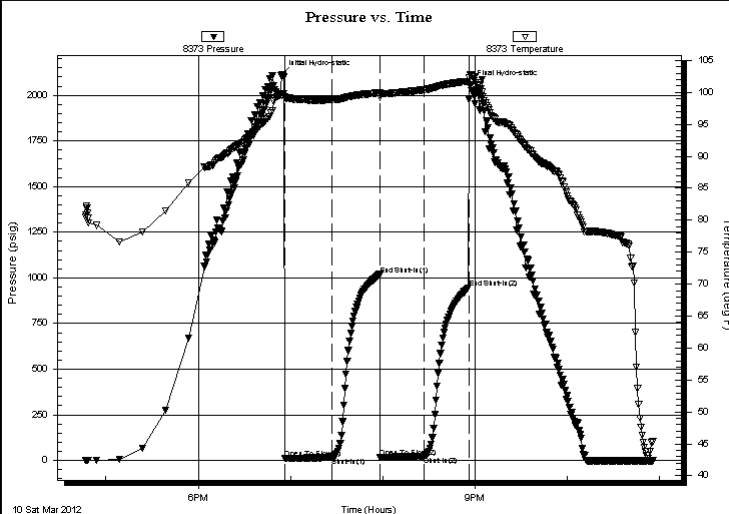
IS: No return.

FF: No blow.

FS: No return.

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2113.98	99.60	Initial Hydro-static
2	12.64	99.29	Open To Flow (1)
33	16.28	98.85	Shut-In(1)
64	1018.23	99.95	End Shut-In(1)
64	18.56	99.26	Open To Flow (2)
93	21.78	100.42	Shut-In(2)
122	943.42	101.75	End Shut-In(2)
123	2057.16	102.82	Final Hydro-static



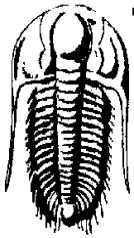
Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud oil spots 100% m	0.05

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



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TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St N #700
Wichita, KS 67278

ATTN: Max Lovely

24-17-35 Wichita, KS

Simons 24A #1

Job Ticket: 45027

DST#: 5

Test Start: 2012.03.10 @ 16:46:47

GENERAL INFORMATION:

Formation: **H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:56:12

Time Test Ended: 22:55:41

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 35

Interval: 4253.00 ft (KB) To 4283.00 ft (KB) (TVD)

Reference Elevations: 3177.00 ft (KB)

Total Depth: 4283.00 ft (KB) (TVD)

3167.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8356 Outside

Press@RunDepth: psig @ 4254.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.03.10

End Date:

2012.03.10

Last Calib.:

2012.03.10

Start Time: 16:46:32

End Time:

22:55:26

Time On Btm:

Time Off Btm:

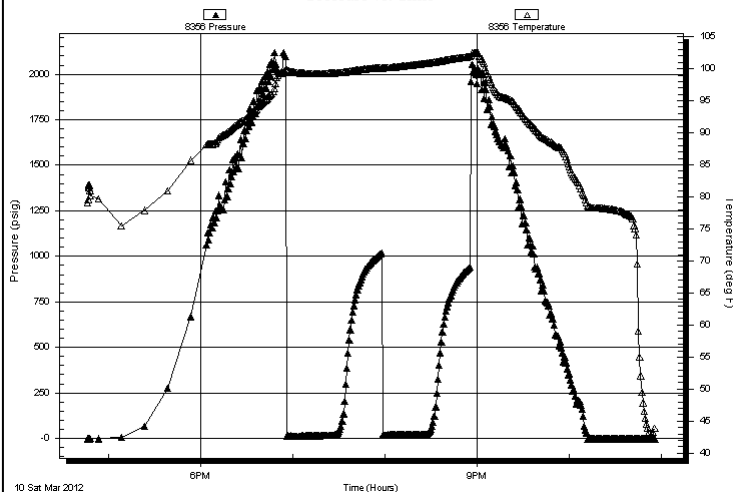
TEST COMMENT: IF: Weak blow died in 10 min.

IS: No return.

FF: No blow.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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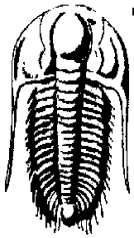
Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud oil spots 100% m	0.05

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



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DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

24-17-35 Wichita, KS

8100 E 22nd St N #700
Wichita, KS 67278

Simons 24A #1

Job Ticket: 45027

DST#: 5

ATTN: Max Lovely

Test Start: 2012.03.10 @ 16:46:47

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:

bbl

Water Loss: 10.38 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud oil spots 100%m	0.049

Total Length: 10.00 ft

Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

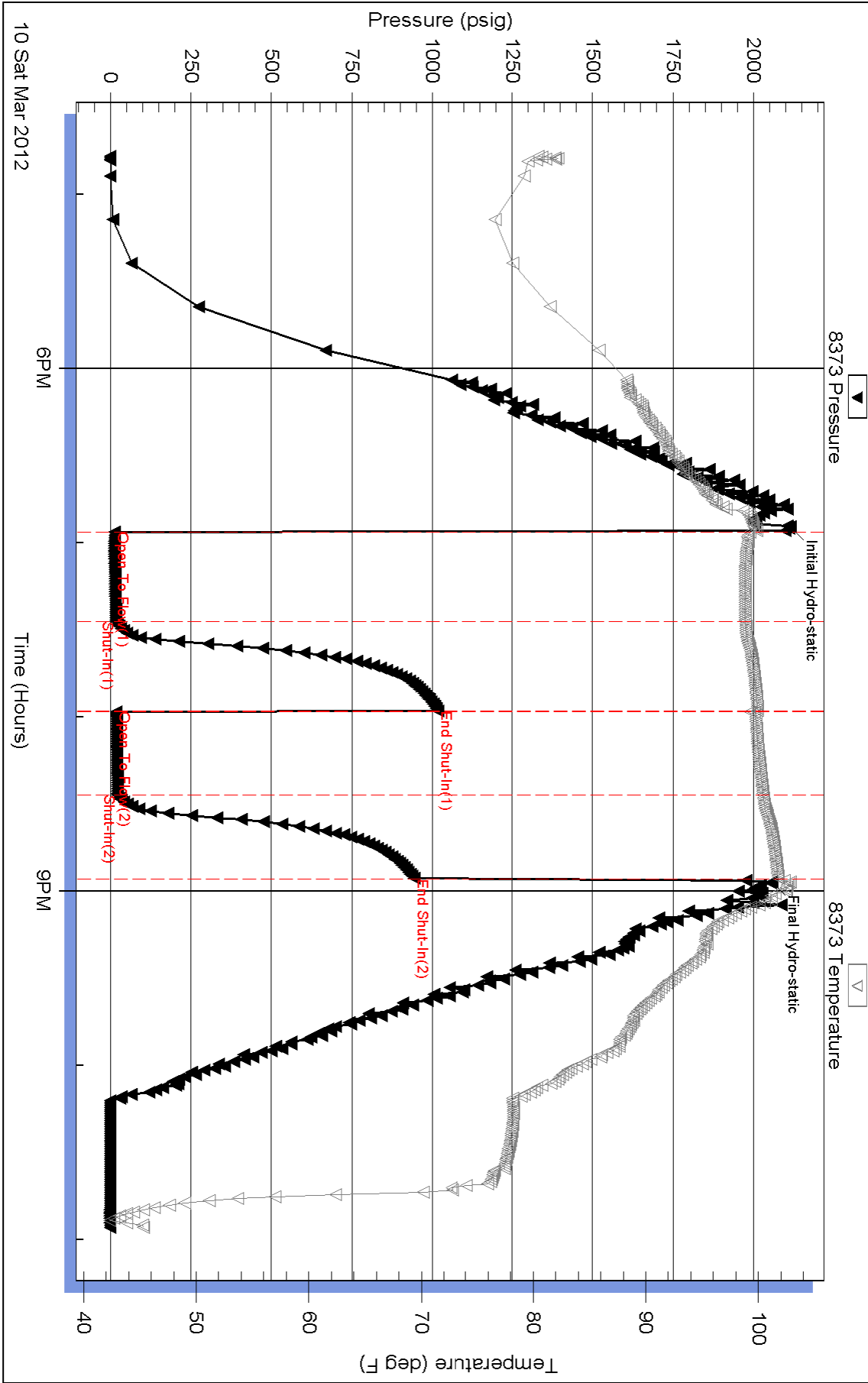
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

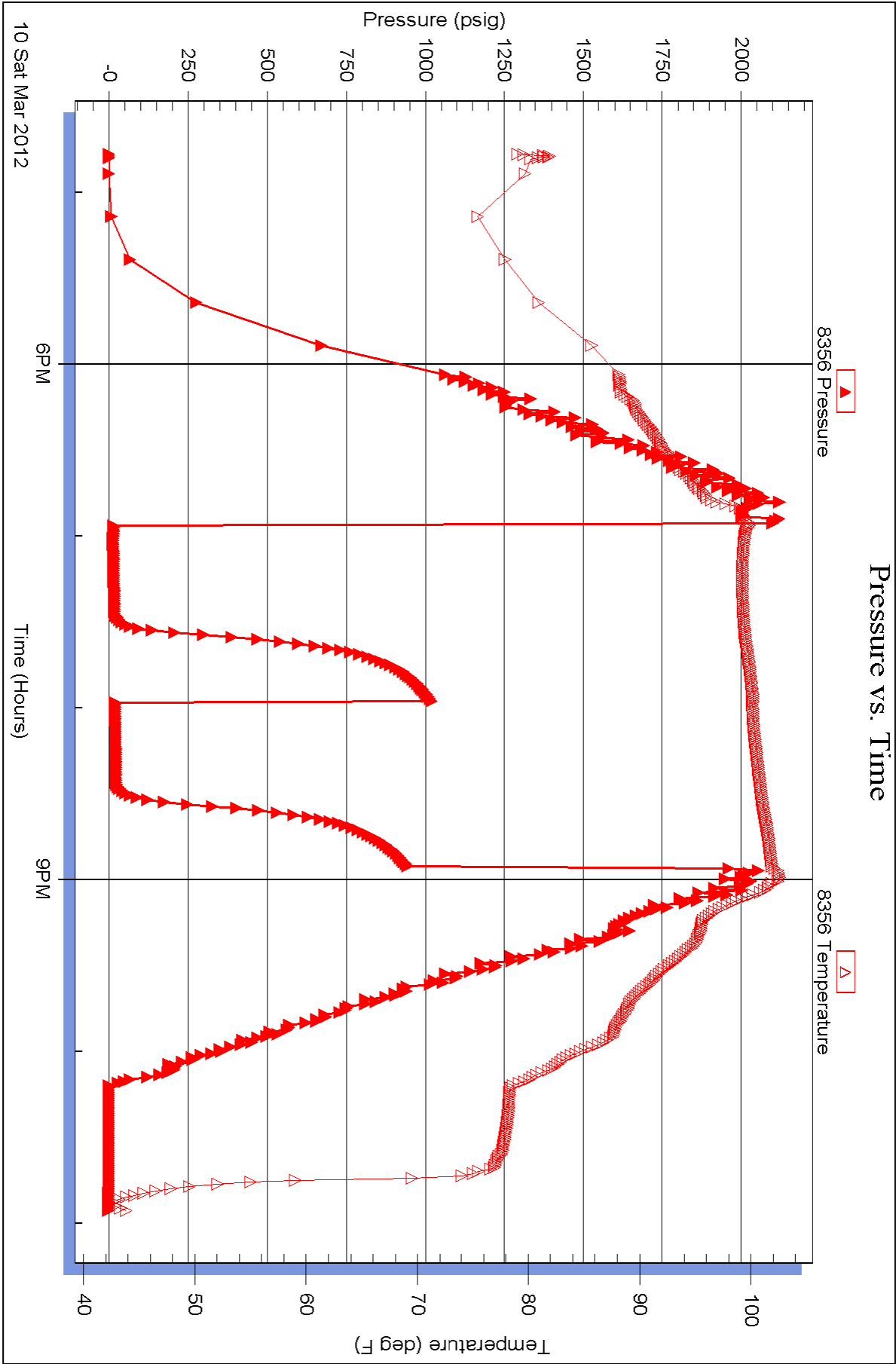


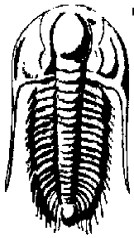
Serial #: 8356

Outside Ritchie Exploration

Simons 24A #1

DST Test Number: 5





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St N #700
Wichita, KS 67278

ATTN: Max Lovely

24-17-35 Wichita, KS

Simons 24A #1

Job Ticket: 45028

DST#: 6

Test Start: 2012.03.11 @ 10:06:57

GENERAL INFORMATION:

Formation: I

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:45:37

Time Test Ended: 16:31:21

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 35

Interval: 4291.00 ft (KB) To 4337.00 ft (KB) (TVD)

Total Depth: 4337.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3177.00 ft (KB)

3167.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8373 Inside

Press@RunDepth: 233.95 psig @ 4292.00 ft (KB)

Start Date: 2012.03.11

End Date:

2012.03.11

Start Time: 10:06:57

End Time:

16:31:21

Capacity: 8000.00 psig

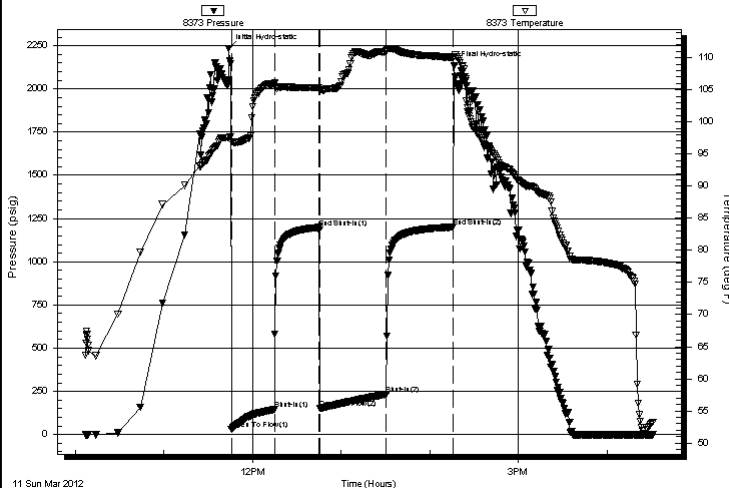
Last Calib.: 2012.03.11

Time On Btm: 2012.03.11 @ 11:43:52

Time Off Btm: 2012.03.11 @ 14:16:37

TEST COMMENT: IF: BOB in 19 min.
IS: No return.
FF: BOB in 25 min.
FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2234.35	97.61	Initial Hydro-static
2	29.44	96.97	Open To Flow (1)
31	145.30	106.02	Shut-In(1)
61	1198.57	105.35	End Shut-In(1)
62	150.93	104.91	Open To Flow (2)
107	233.95	111.04	Shut-In(2)
152	1200.55	109.99	End Shut-In(2)
153	2136.55	110.24	Final Hydro-static

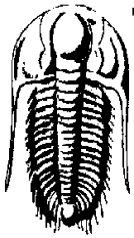
Recovery

Length (ft)	Description	Volume (bbl)
186.00	mcw 80%w 20%m	0.91
186.00	wcm trace of oil 30%w 70%m	2.35
107.00	ocm 10%o 90%m	1.50
5.00	free oil 100%o	0.07

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St N #700
Wichita, KS 67278

ATTN: Max Lovely

24-17-35 Wichita, KS

Simons 24A #1

Job Ticket: 45028

DST#: 6

Test Start: 2012.03.11 @ 10:06:57

GENERAL INFORMATION:

Formation: I

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:45:37

Time Test Ended: 16:31:21

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 35

Interval: 4291.00 ft (KB) To 4337.00 ft (KB) (TVD)

Reference Elevations: 3177.00 ft (KB)

Total Depth: 4337.00 ft (KB) (TVD)

3167.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8356 Outside

Press@RunDepth: psig @ 4292.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.03.11

End Date:

2012.03.11

Last Calib.:

2012.03.11

Start Time: 10:06:49

End Time:

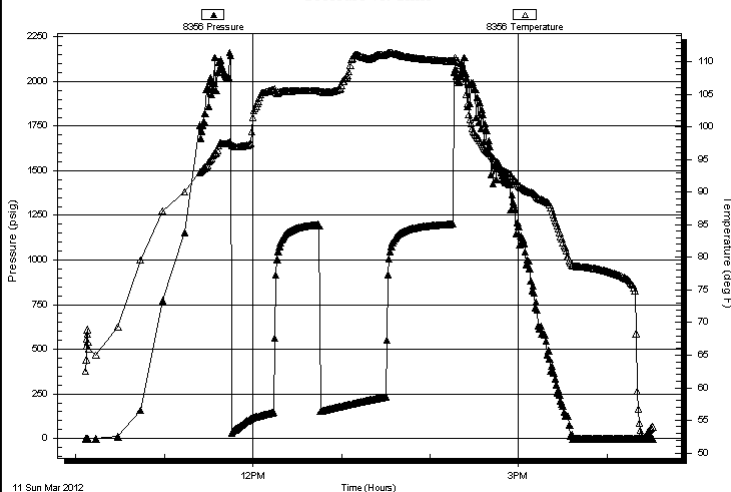
16:31:13

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: BOB in 19 min.
IS: No return.
FF: BOB in 25 min.
FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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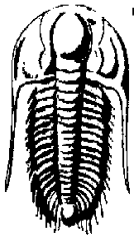
Recovery

Length (ft)	Description	Volume (bbl)
186.00	mcw 80%w 20%m	0.91
186.00	w cm trace of oil 30%w 70%m	2.35
107.00	ocm 10%o 90%m	1.50
5.00	free oil 100%o	0.07

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

24-17-35 Wichita, KS

8100 E 22nd St N #700
Wichita, KS 67278

Simons 24A #1

Job Ticket: 45028

DST#: 6

ATTN: Max Lovely

Test Start: 2012.03.11 @ 10:06:57

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:

41000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.38 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	mcw 80%w 20%m	0.915
186.00	wcm trace of oil 30%w 70%m	2.354
107.00	ocm 10%o 90%m	1.501
5.00	free oil 100%o	0.070

Total Length: 484.00 ft

Total Volume: 4.840 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .25@53= 41000

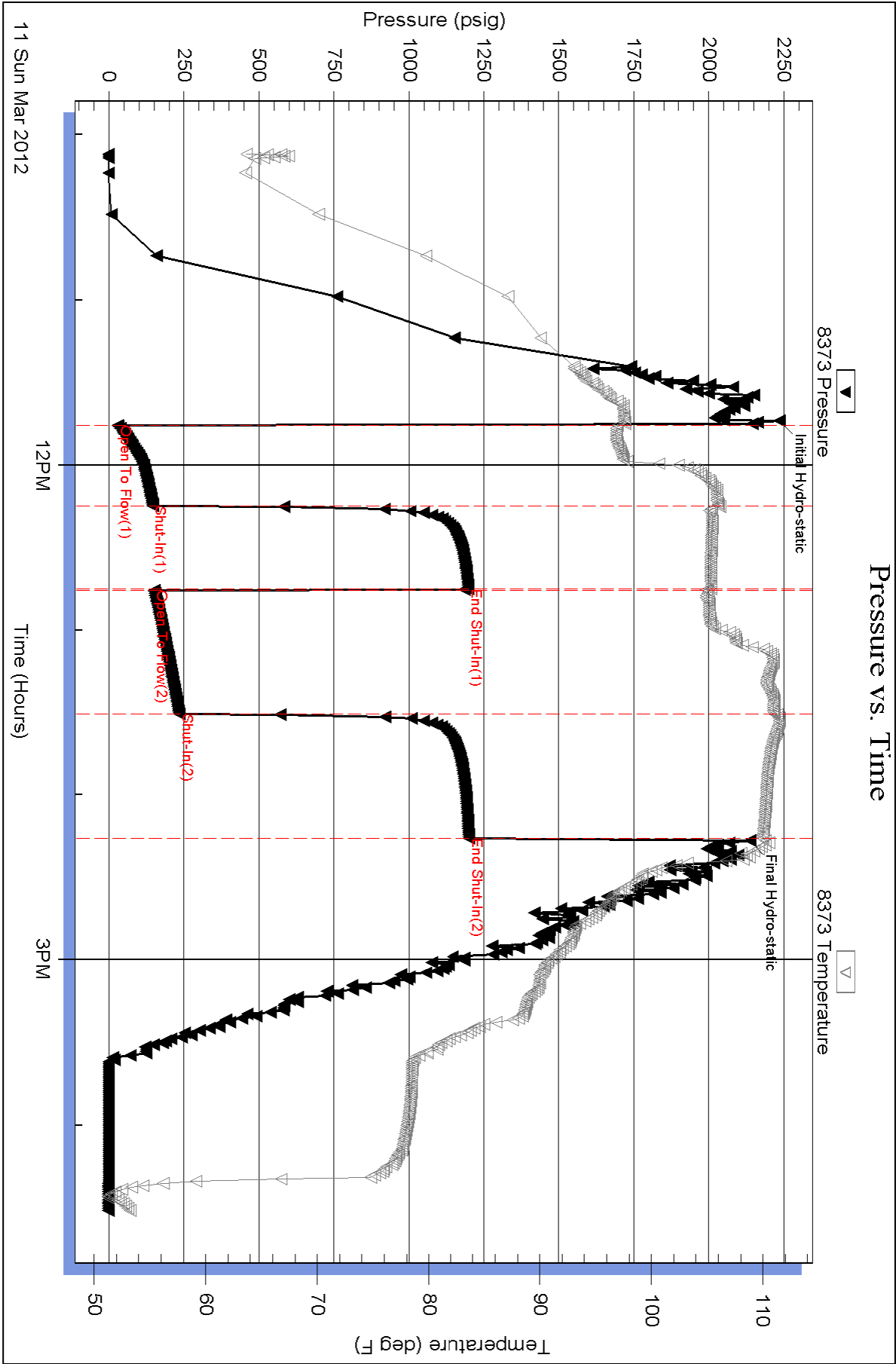
Serial #: 8373

Inside

Ritchie Exploration

Simons 24A #1

DST Test Number: 6

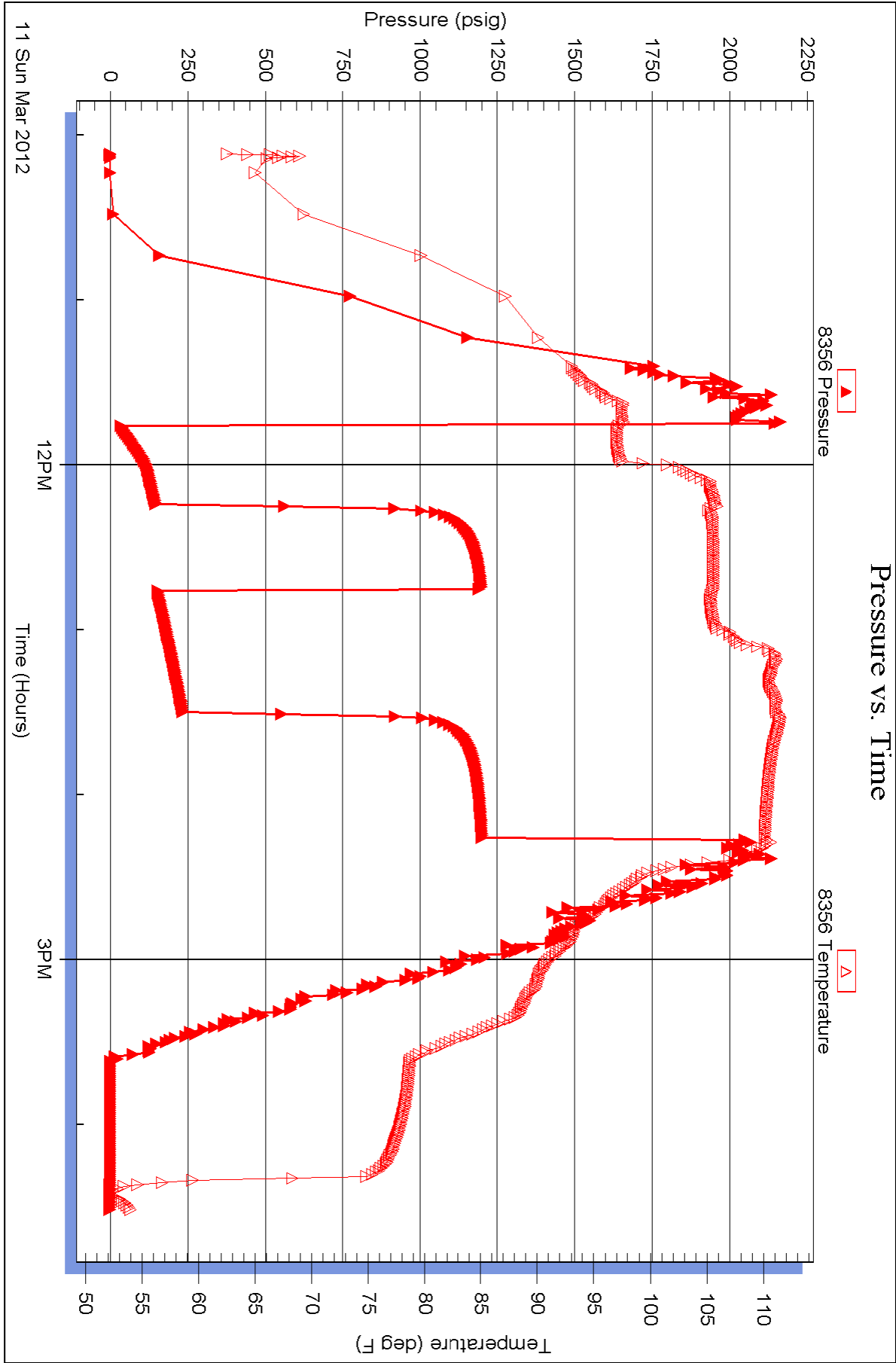


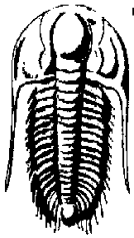
Serial #: 8356

Outside Ritchie Exploration

Simons 24A #1

DST Test Number: 6





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St N #700
Wichita, KS 67278

ATTN: Max Lovely

24-17-35 Wichita, KS

Simons 24A #1

Job Ticket: 45029

DST#: 7

Test Start: 2012.03.11 @ 23:50:18

GENERAL INFORMATION:

Formation: **Lansing J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:57:58

Time Test Ended: 06:27:42

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 35

Interval: 4327.00 ft (KB) To 4350.00 ft (KB) (TVD)

Total Depth: 4350.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3177.00 ft (KB)

3167.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8373 Inside

Press@RunDepth: 316.01 psig @ 4328.00 ft (KB)

Start Date: 2012.03.11

End Date:

2012.03.12

Start Time: 23:50:18

End Time:

06:27:42

Capacity: 8000.00 psig

Last Calib.: 2012.03.12

Time On Btm: 2012.03.12 @ 01:56:28

Time Off Btm: 2012.03.12 @ 04:29:27

TEST COMMENT: IF: BOB in 12 min.

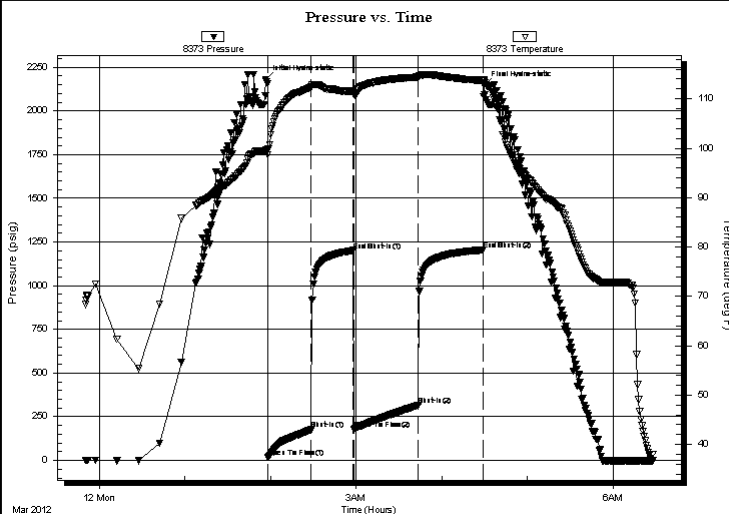
IS: No return.

FF: BOB in 13 min.

FS: No return.

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2177.78	99.55	Initial Hydro-static
2	17.18	98.69	Open To Flow (1)
32	176.30	112.36	Shut-In(1)
62	1201.39	111.56	End Shut-In(1)
62	179.54	111.07	Open To Flow (2)
107	316.01	114.40	Shut-In(2)
153	1204.82	113.57	End Shut-In(2)
153	2146.13	113.57	Final Hydro-static



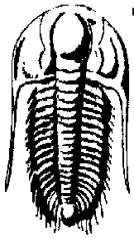
Recovery

Length (ft)	Description	Volume (bbl)
248.00	water 100%w	1.53
186.00	mcw 80%w 20%m	2.61
186.00	mw oil spots 50%w 50%m	2.61

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

24-17-35 Wichita, KS

8100 E 22nd St N #700
Wichita, KS 67278

Simons 24A #1

Job Ticket: 45029

DST#: 7

ATTN: Max Lovely

Test Start: 2012.03.11 @ 23:50:18

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 59.00 sec/qt

Water Loss: 8.78 in³

Resistivity: 0.00 ohm.m

Salinity: 8200.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

0 deg API

Water Salinity:

48000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
248.00	water 100%w	1.529
186.00	mcw 80%w 20%m	2.609
186.00	mw oil spots 50%w 50%m	2.609

Total Length: 620.00 ft

Total Volume: 6.747 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .30@37=48000

Serial #: 8373

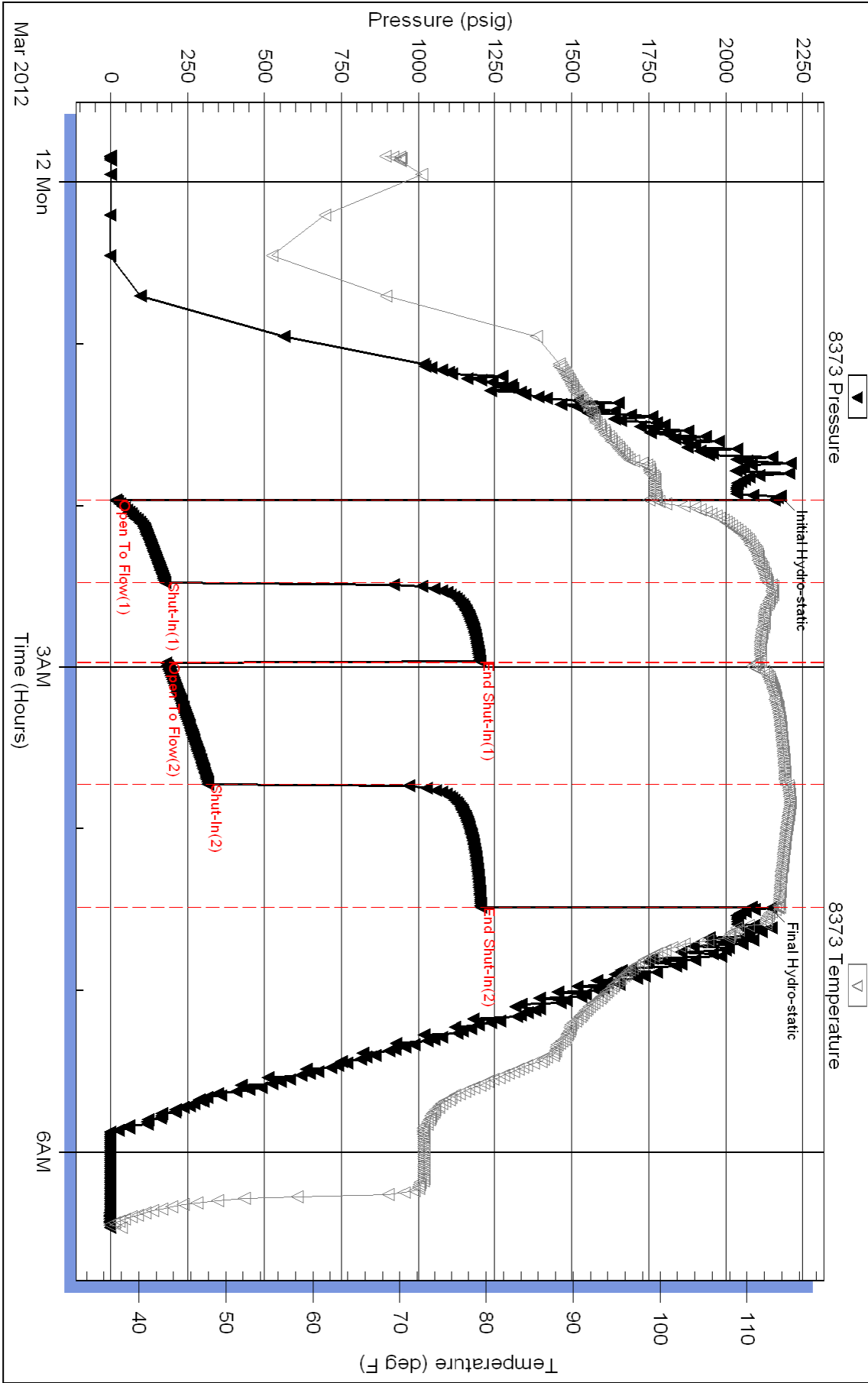
Inside

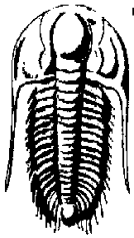
Ritchie Exploration

Simons 24A #1

DST Test Number: 7

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St N #700
Wichita, KS 67278

ATTN: Max Lovely

24-17-35 Wichita, KS

Simons 24A #1

Job Ticket: 45030

DST#: 8

Test Start: 2012.03.12 @ 15:37:11

GENERAL INFORMATION:

Formation: **Lansing K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:52:21

Time Test Ended: 22:34:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 35

Interval: 4355.00 ft (KB) To 4397.00 ft (KB) (TVD)

Total Depth: 4397.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3177.00 ft (KB)

3167.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8373 Inside

Press@RunDepth: 232.37 psig @ 4360.00 ft (KB)

Start Date: 2012.03.12

End Date:

2012.03.12

Start Time: 15:37:11

End Time:

22:34:20

Capacity: 8000.00 psig

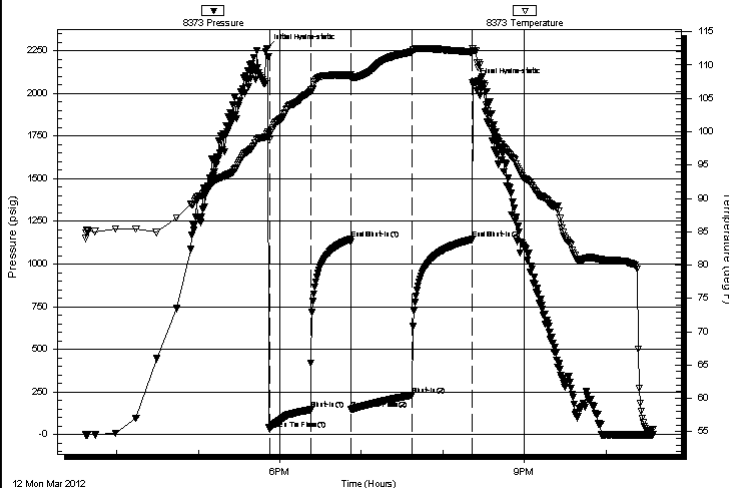
Last Calib.: 2012.03.12

Time On Btm: 2012.03.12 @ 17:50:36

Time Off Btm: 2012.03.12 @ 20:21:50

TEST COMMENT: IF: BOB in 19 min.
IS: No return.
FF: BOB in 24 min.
FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2264.43	99.71	Initial Hydro-static
2	31.66	99.58	Open To Flow (1)
32	146.64	106.03	Shut-In(1)
62	1146.65	108.50	End Shut-In(1)
62	148.80	108.02	Open To Flow (2)
107	232.37	112.02	Shut-In(2)
151	1144.68	111.99	End Shut-In(2)
152	2062.50	112.47	Final Hydro-static

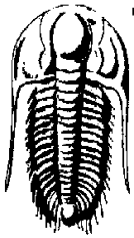
Recovery

Length (ft)	Description	Volume (bbl)
186.00	mcw 90%w 10%m	0.91
186.00	mw 50%w 50%m	2.35
124.00	ocw m 1%o 20%w 79%m	1.74
2.00	oil 100%o	0.03

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

24-17-35 Wichita, KS

8100 E 22nd St N #700
Wichita, KS 67278

Simons 24A #1

Job Ticket: 45030

DST#: 8

ATTN: Max Lovely

Test Start: 2012.03.12 @ 15:37:11

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 53.00 sec/qt

Water Loss: 9.18 in³

Resistivity: 0.00 ohm.m

Salinity: 9000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity: 38000 ppm

0 deg API

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	mcw 90%w 10%m	0.915
186.00	mw 50%w 50%m	2.354
124.00	ocw m 1%o 20%w 79%m	1.739
2.00	oil 100%o	0.028

Total Length: 498.00 ft

Total Volume: 5.036 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .23@58=38000

Serial #: 8373

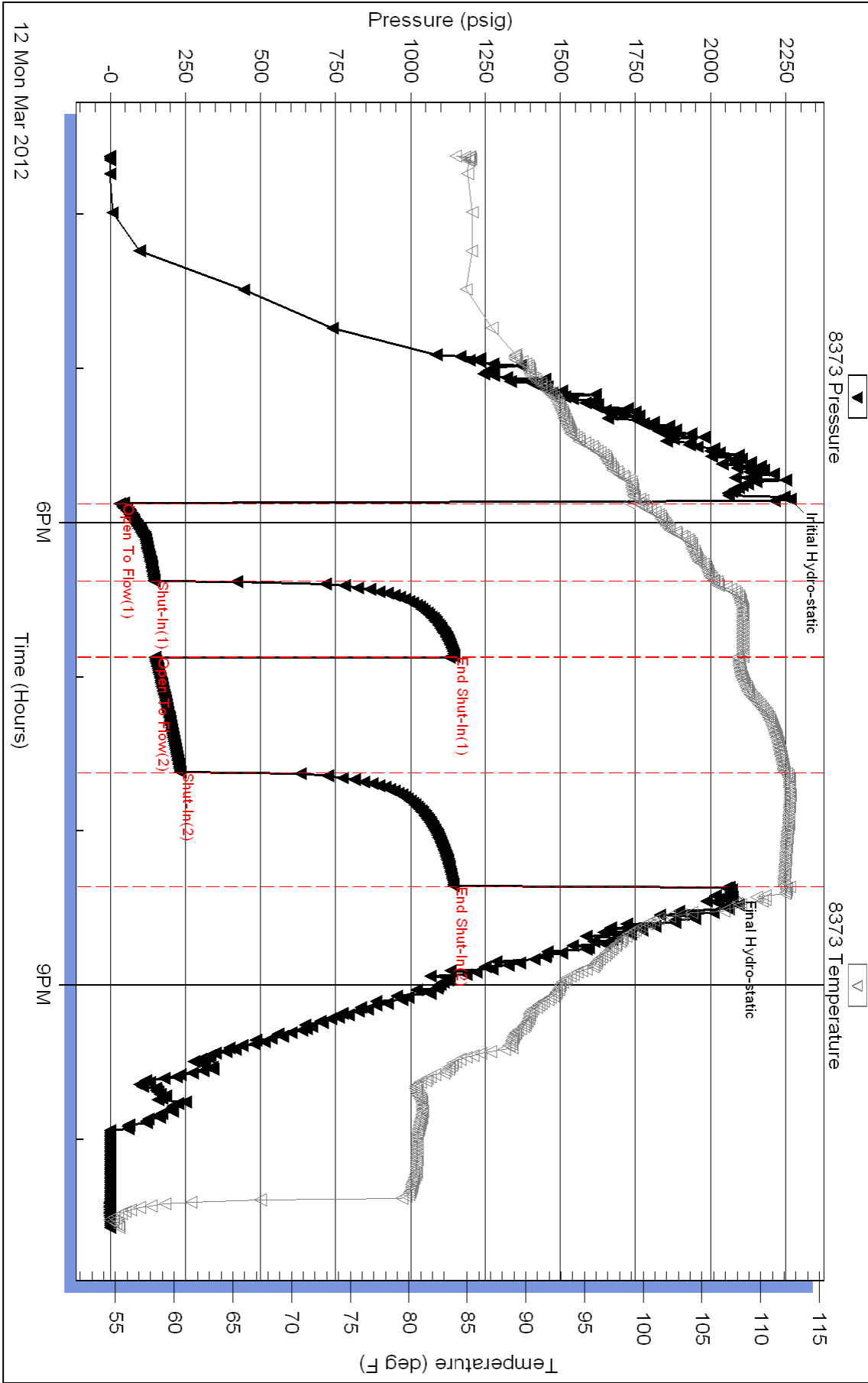
Inside

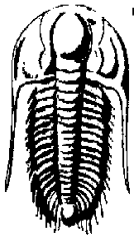
Ritchie Exploration

Simons 24A #1

DST Test Number: 8

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration
8100 E 22nd St N #700
Wichita, KS 67278
ATTN: Max Lovely

24-17-35 Wichita, KS

Simons 24A #1

Job Ticket: 45031

DST#: 9

Test Start: 2012.03.13 @ 16:10:40

GENERAL INFORMATION:

Formation: **Altamont A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:20:05

Time Test Ended: 23:48:34

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4478.00 ft (KB) To 4520.00 ft (KB) (TVD)

Total Depth: 4520.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3177.00 ft (KB)

3167.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8373 Inside

Press@RunDepth: 157.21 psig @ 4483.00 ft (KB)

Start Date: 2012.03.13

End Date:

2012.03.13

Start Time: 16:10:40

End Time:

23:48:34

Capacity: 8000.00 psig

Last Calib.: 2012.03.13

Time On Btm: 2012.03.13 @ 18:18:20

Time Off Btm: 2012.03.13 @ 21:22:49

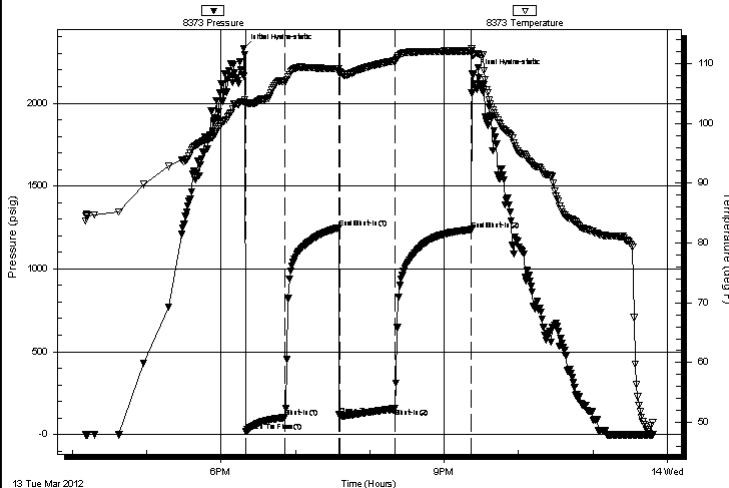
TEST COMMENT: IF: BOB in 17 min.

IS: Surface blow built to 2 in 45 min,

FF: BOB in 15 min.

FS: Surface blow built to 6 in 60 min.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2330.59	103.69	Initial Hydro-static
2	20.05	103.37	Open To Flow (1)
33	102.98	106.95	Shut-In(1)
77	1246.88	109.18	End Shut-In(1)
78	115.94	108.57	Open To Flow (2)
122	157.21	110.47	Shut-In(2)
184	1237.28	112.15	End Shut-In(2)
185	2176.37	111.44	Final Hydro-static

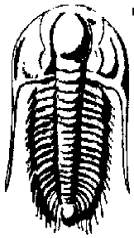
Recovery

Length (ft)	Description	Volume (bbl)
124.00	gocm 20%g 30%o 50%m	0.61
62.00	mco 5%g 75%o 20%m	0.30
210.00	go 10%g 90%o	2.69
0.00	496 GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

24-17-35 Wichita, KS

8100 E 22nd St N #700
Wichita, KS 67278

Simons 24A #1

Job Ticket: 45031

DST#: 9

ATTN: Max Lovely

Test Start: 2012.03.13 @ 16:10:40

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 56.00 sec/qt

Water Loss: 8.78 in³

Resistivity: 0.00 ohm.m

Salinity: 8400.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

36 deg API

0 ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	gocm 20%g 30%o 50%m	0.610
62.00	mcgo 5%g 75%o 20%m	0.305
210.00	go 10%g 90%o	2.691
0.00	496 GIP	0.000

Total Length: 396.00 ft

Total Volume: 3.606 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 35@50=36

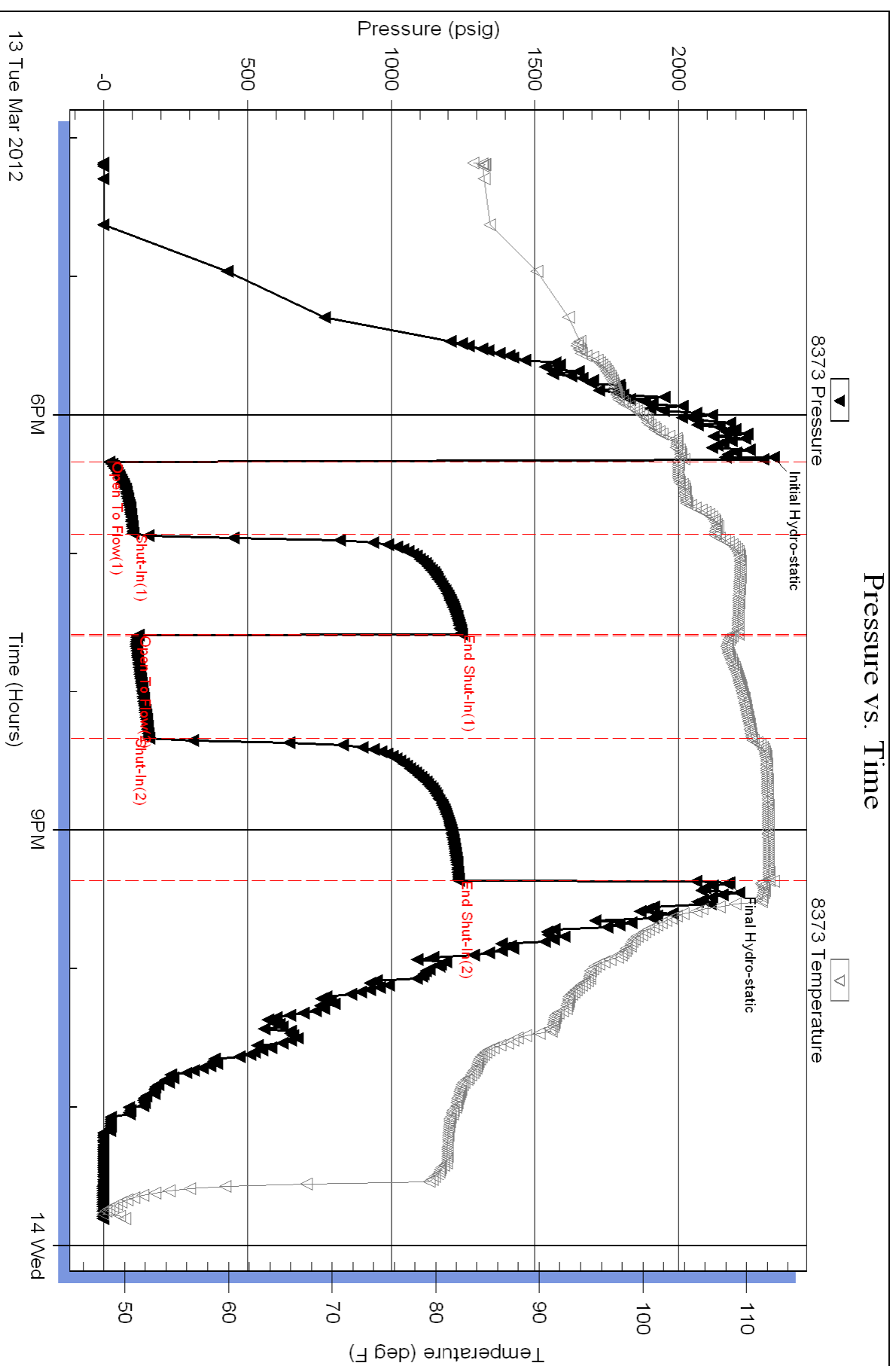
Serial #: 8373

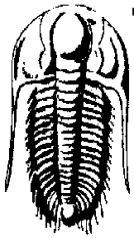
Inside

Ritchie Exploration

Simons 24A #1

DST Test Number: 9





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration
8100 E 22nd St N #700
Wichita, KS 67278
ATTN: Max Lovely

24-17-35 Wichita, KS

Simons 24A #1

Job Ticket: 45032

DST#: 10

Test Start: 2012.03.14 @ 08:13:24

GENERAL INFORMATION:

Formation: **Altamont D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:01:19

Time Test Ended: 15:14:48

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4526.00 ft (KB) To 4544.00 ft (KB) (TVD)

Total Depth: 4544.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3177.00 ft (KB)

3167.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8373 Inside

Press@RunDepth: 114.65 psig @ 4531.00 ft (KB)

Start Date: 2012.03.14

End Date:

2012.03.14

Start Time: 08:13:24

End Time:

15:14:48

Capacity: 8000.00 psig

Last Calib.: 2012.03.14

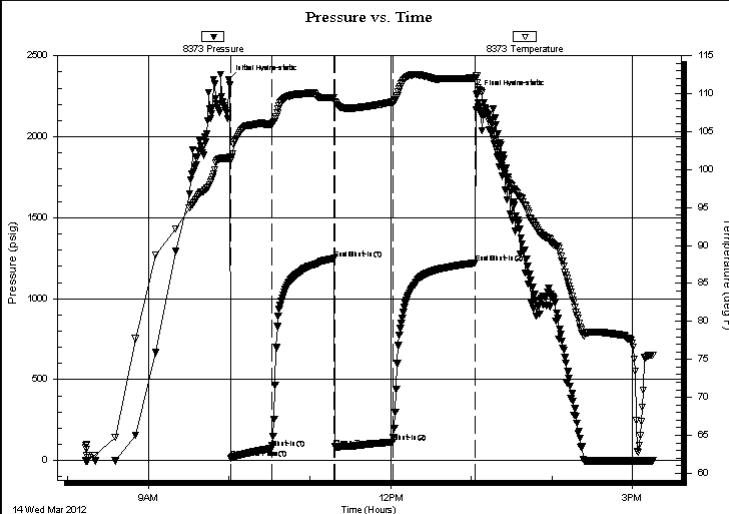
Time On Btm: 2012.03.14 @ 09:59:49

Time Off Btm: 2012.03.14 @ 13:04:03

TEST COMMENT: IF: BOB in 19 min.
IS: Surface blow built to 1 1/4.
FF: BOB in 22 min.
FS: Surface blow built to 3.

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2355.30	101.49	Initial Hydro-static
2	15.89	101.22	Open To Flow (1)
32	73.76	105.89	Shut-In(1)
79	1248.19	109.48	End Shut-In(1)
79	85.31	108.94	Open To Flow (2)
122	114.65	108.89	Shut-In(2)
184	1220.12	112.05	End Shut-In(2)
185	2257.80	112.31	Final Hydro-static



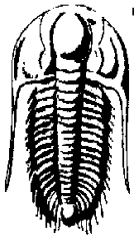
Recovery

Length (ft)	Description	Volume (bbl)
124.00	gocm 10%g 30%o 60%w	0.61
186.00	go 10%g 90%o	1.79
0.00	310GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

24-17-35 Wichita, KS

8100 E 22nd St N #700
Wichita, KS 67278

Simons 24A #1

Job Ticket: 45032

DST#: 10

ATTN: Max Lovely

Test Start: 2012.03.14 @ 08:13:24

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

30 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 8400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	gocm 10%g 30%o 60%m	0.610
186.00	go 10%g 90%o	1.789
0.00	310GIP	0.000

Total Length: 310.00 ft

Total Volume: 2.399 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 32@80=30

Serial #: 8373

Inside

Ritchie Exploration

Simons 24A #1

DST Test Number: 10

