



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278

ATTN: Terry McLeod

France #2

11-17e-35w Wichita,KS

Start Date: 2014.10.07 @ 23:50:15

End Date: 2014.10.08 @ 05:54:45

Job Ticket #: 59165 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.10.15 @ 11:32:16



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278
ATTN: Terry McLeod

11-17e-35w Wichita, KS

France #2

Job Ticket: 59165

DST#: 1

Test Start: 2014.10.07 @ 23:50:15

GENERAL INFORMATION:

Formation: **Toronto - LKC A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:38:00

Time Test Ended: 05:54:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Unit No: 65

Interval: 4024.00 ft (KB) To 4084.00 ft (KB) (TVD)

Reference Elevations: 3182.00 ft (KB)

Total Depth: 4084.00 ft (KB) (TVD)

3177.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8846 Inside

Press@RunDepth: 44.02 psig @ 4030.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.07

End Date:

2014.10.08

Last Calib.: 2014.10.08

Start Time: 23:50:15

End Time:

05:54:45

Time On Btm: 2014.10.08 @ 01:37:45

Time Off Btm: 2014.10.08 @ 04:10:15

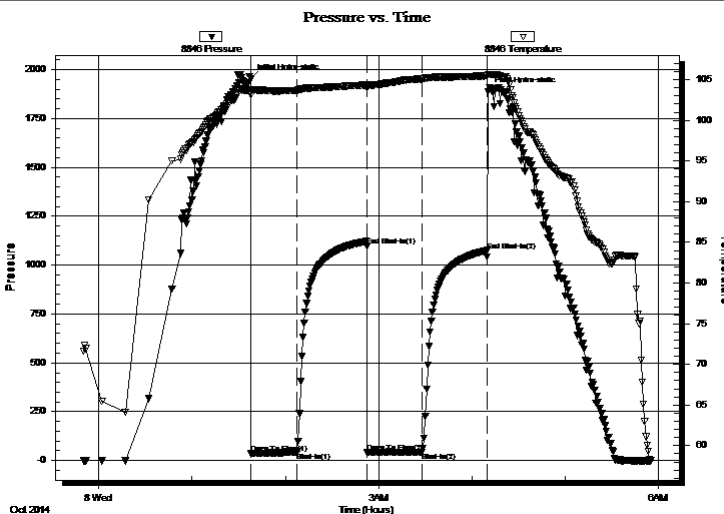
TEST COMMENT: IF: Built to 1/2" blow

IS: No return blow

FF: No blow

FS: No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1956.64	103.86	Initial Hydro-static
1	34.84	103.18	Open To Flow (1)
30	41.36	103.70	Shut-In(1)
75	1096.51	104.35	End Shut-In(1)
75	43.03	104.06	Open To Flow (2)
110	44.02	105.09	Shut-In(2)
152	1075.15	105.47	End Shut-In(2)
153	1888.56	105.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	mud 100% m	0.42

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278
ATTN: Terry McLeod

11-17e-35w Wichita,KS

France #2

Job Ticket: 59165

DST#: 1

Test Start: 2014.10.07 @ 23:50:15

GENERAL INFORMATION:

Formation: **Toronto - LKC A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:38:00

Time Test Ended: 05:54:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Unit No: 65

Interval: 4024.00 ft (KB) To 4084.00 ft (KB) (TVD)

Total Depth: 4084.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3182.00 ft (KB)

3177.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8737 Outside

Press@RunDepth: psig @ 4030.00 ft (KB)

Start Date: 2014.10.07

End Date:

2014.10.08

Start Time: 23:50:15

End Time:

05:54:45

Capacity: 8000.00 psig

Last Calib.:

2014.10.08

Time On Btm:

Time Off Btm:

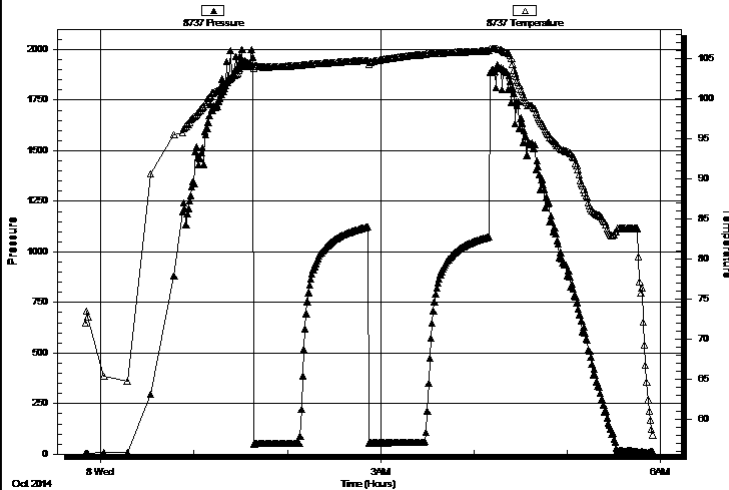
TEST COMMENT: IF:Built to 1/2" blow

IS:No return blow

FF:No blow

FS:No return blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	mud 100% m	0.42

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.

11-17e-35w Wichita,KS

810 E 22nd. St. 700

France #2

Box 783188

Job Ticket: 59165

DST#: 1

Wichita, KS 67278

Test Start: 2014.10.07 @ 23:50:15

ATTN: Terry McLeod

Tool Information

Drill Pipe:	Length:	4032.00 ft	Diameter:	3.80 inches	Volume:	56.56 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:	56.56 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		31.00 ft					String Weight: Initial	50000.00 lb
Depth to Top Packer:		4024.00 ft					Final	50000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		60.00 ft						
Tool Length:		83.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description

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

Change Over Sub	1.00		4002.00	
Shut In Tool	5.00		4007.00	
Hydraulic tool	5.00		4012.00	
Jars	5.00		4017.00	
Safety Joint	3.00		4020.00	
Packer - Shale	0.00		4020.00	
Packer	4.00		4024.00	23.00 Bottom Of Top Packer
Stubb	1.00		4025.00	
Perforations	5.00		4030.00	
Recorder	0.00	8846 Inside	4030.00	
Recorder	0.00	8737 Outside	4030.00	
Change Over Sub	1.00		4031.00	
Blank Spacing	32.00		4063.00	
Change Over Sub	1.00		4064.00	
Perforations	15.00		4079.00	
Bullnose	5.00		4084.00	60.00 Anchor Tool
Total Tool Length:	83.00			



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

11-17e-35w Wichita, KS

810 E 22nd. St. 700

France #2

Box 783188

Job Ticket: 59165

DST#: 1

Wichita, KS 67278

Test Start: 2014.10.07 @ 23:50:15

ATTN: Terry McLeod

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: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	mud 100%m	0.421

Total Length: 30.00 ft

Total Volume: 0.421 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8846

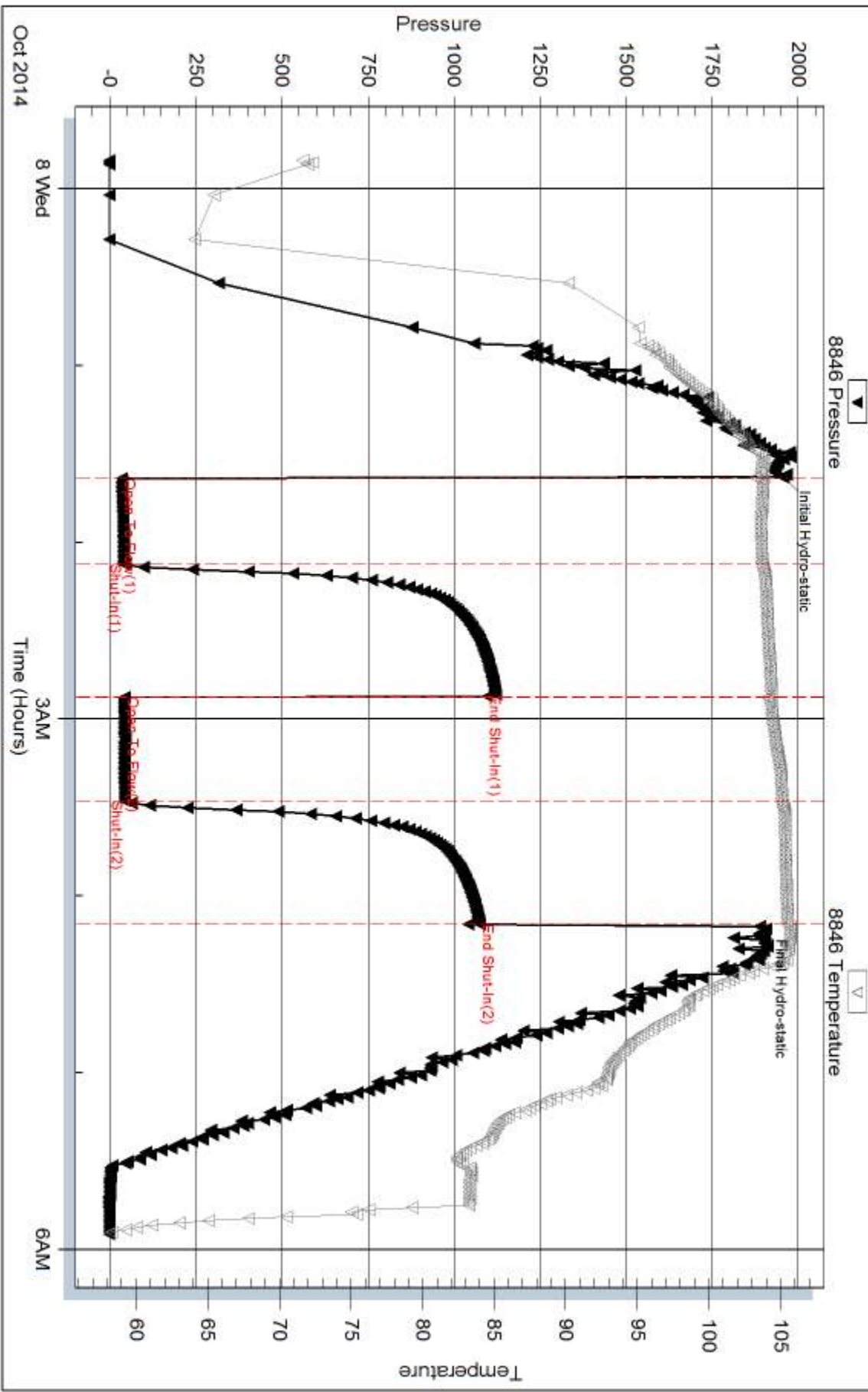
Inside

Ritchie Exploration Inc.

France #2

DST Test Number: 1

Pressure vs. Time

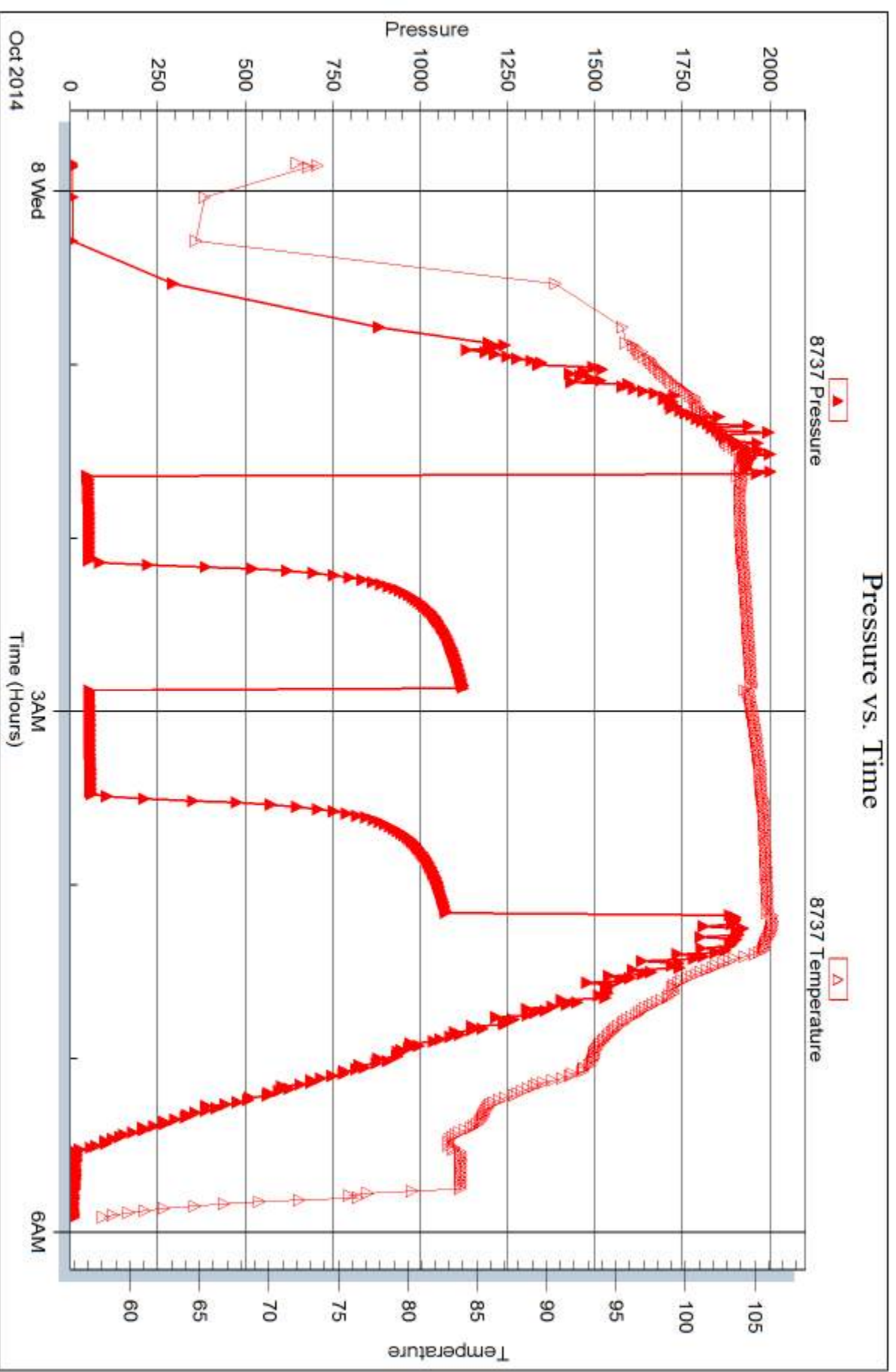


Serial #: 8737

Outside Ritchie Exploration Inc.

France #2

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278

ATTN: Terry McLeod

France #2

11-17e-35w Wichita,KS

Start Date: 2014.10.08 @ 21:00:15

End Date: 2014.10.09 @ 03:43:30

Job Ticket #: 59167 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.10.15 @ 11:31:54



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278
ATTN: Terry McLeod

11-17e-35w Wichita,KS

France #2

Job Ticket: 59167

DST#: 2

Test Start: 2014.10.08 @ 21:00:15

GENERAL INFORMATION:

Formation: **LKC C-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:58:30

Time Test Ended: 03:43:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 65

Interval: 4097.00 ft (KB) To 4200.00 ft (KB) (TVD)

Reference Elevations: 3182.00 ft (KB)

Total Depth: 4200.00 ft (KB) (TVD)

3177.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8846 Inside

Press@RunDepth: 366.52 psig @ 4099.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.08

End Date:

2014.10.09

Last Calib.: 2014.10.09

Start Time: 21:00:15

End Time:

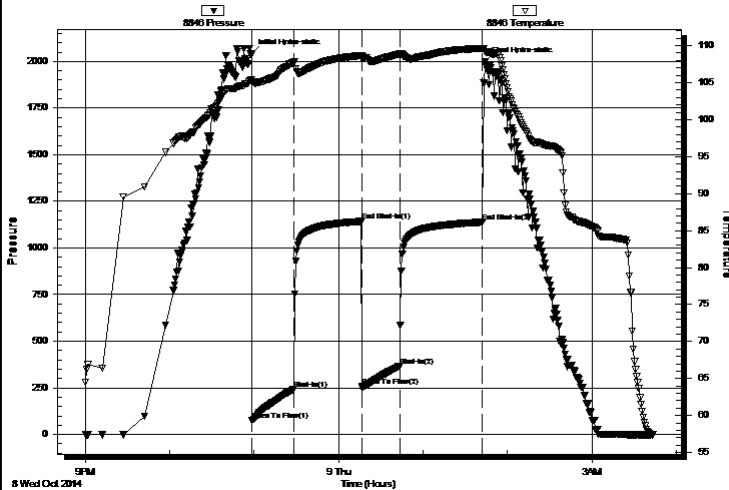
03:43:30

Time On Btm: 2014.10.08 @ 22:58:00

Time Off Btm: 2014.10.09 @ 01:44:00

TEST COMMENT: IF:BOB in 6 min.
IS:No return blow
FF:BOB in 12 min.
FS:No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2039.94	105.36	Initial Hydro-static
1	77.29	105.09	Open To Flow (1)
30	243.62	107.76	Shut-In(1)
79	1142.96	108.65	End Shut-In(1)
79	260.55	108.21	Open To Flow (2)
106	366.52	108.87	Shut-In(2)
165	1138.60	109.62	End Shut-In(2)
166	1996.77	109.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
248.00	mud 100%m	3.48
310.00	mcs w 50%m 50%sw	4.35
186.00	mcs w 10%m 90%sw	2.61

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278
ATTN: Terry McLeod

11-17e-35w Wichita, KS

France #2

Job Ticket: 59167

DST#: 2

Test Start: 2014.10.08 @ 21:00:15

GENERAL INFORMATION:

Formation: **LKC C-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:58:30

Time Test Ended: 03:43:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 65

Interval: 4097.00 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: 3182.00 ft (KB)

3177.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8737 Outside

Press@RunDepth: psig @ 4099.00 ft (KB)

Start Date: 2014.10.08

End Date:

2014.10.09

Start Time: 21:00:15

End Time:

03:43:30

Capacity: 8000.00 psig

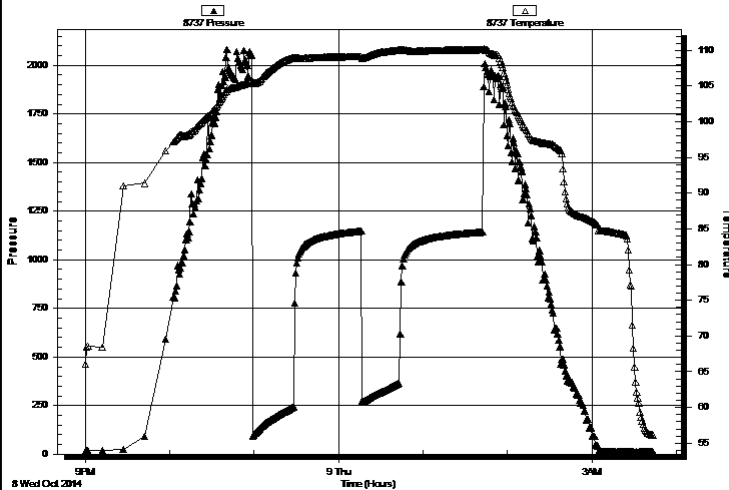
Last Calib.: 2014.10.09

Time On Btm:

Time Off Btm:

TEST COMMENT: IF:BOB in 6 min.
IS:No return blow
FF:BOB in 12 min.
FS:No return blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
248.00	mud 100%m	3.48
310.00	mcs w 50%m 50%sw	4.35
186.00	mcs w 10%m 90%sw	2.61

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.

11-17e-35w Wichita,KS

810 E 22nd. St. 700

France #2

Box 783188

Job Ticket: 59167

DST#: 2

Wichita, KS 67278

Test Start: 2014.10.08 @ 21:00:15

ATTN: Terry McLeod

Tool Information

Drill Pipe:	Length:	4093.00 ft	Diameter:	3.80 inches	Volume:	57.41 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:	57.41 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		19.00 ft					String Weight: Initial	52000.00 lb
Depth to Top Packer:		4097.00 ft					Final	58000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		103.00 ft						
Tool Length:		126.00 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			4075.00	
Shut In Tool	5.00			4080.00	
Hydraulic tool	5.00			4085.00	
Safety Joint	3.00			4088.00	
Packer	5.00			4093.00	23.00 Bottom Of Top Packer
Packer	4.00			4097.00	
Stubb	1.00			4098.00	
Perforations	1.00			4099.00	
Recorder	0.00	8846	Inside	4099.00	
Recorder	0.00	8737	Outside	4099.00	
Change Over Sub	1.00			4100.00	
Blank Spacing	94.00			4194.00	
Change Over Sub	1.00			4195.00	
Perforations	0.00			4195.00	
Bullnose	5.00			4200.00	103.00 Bottom Packers & Anchor

Total Tool Length: 126.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

11-17e-35w Wichita,KS

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278
ATTN: Terry McLeod

France #2

Job Ticket: 59167

DST#: 2

Test Start: 2014.10.08 @ 21:00:15

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 68.00 sec/qt

Water Loss: 6.97 in³

Resistivity: 0.00 ohm.m

Salinity: 7000.00 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:

13000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
248.00	mud 100%m	3.479
310.00	mcs w 50%m 50%sw	4.348
186.00	mcs w 10%m 90%sw	2.609

Total Length: 744.00 ft Total Volume: 10.436 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW= .667@ 56.4*=13,000 ppm

Serial #: 8846

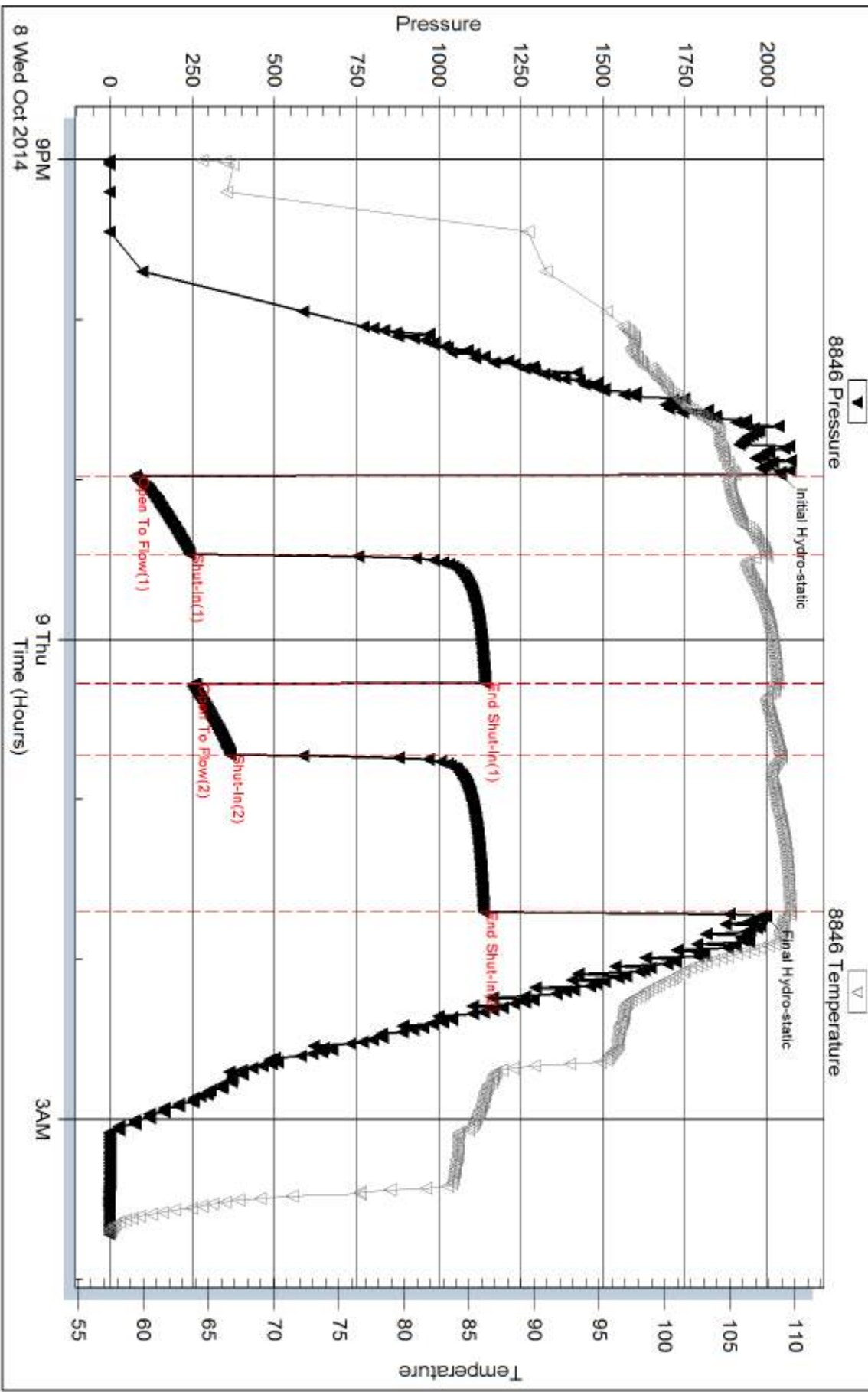
Inside

Ritchie Exploration Inc.

France #2

DST Test Number: 2

Pressure vs. Time

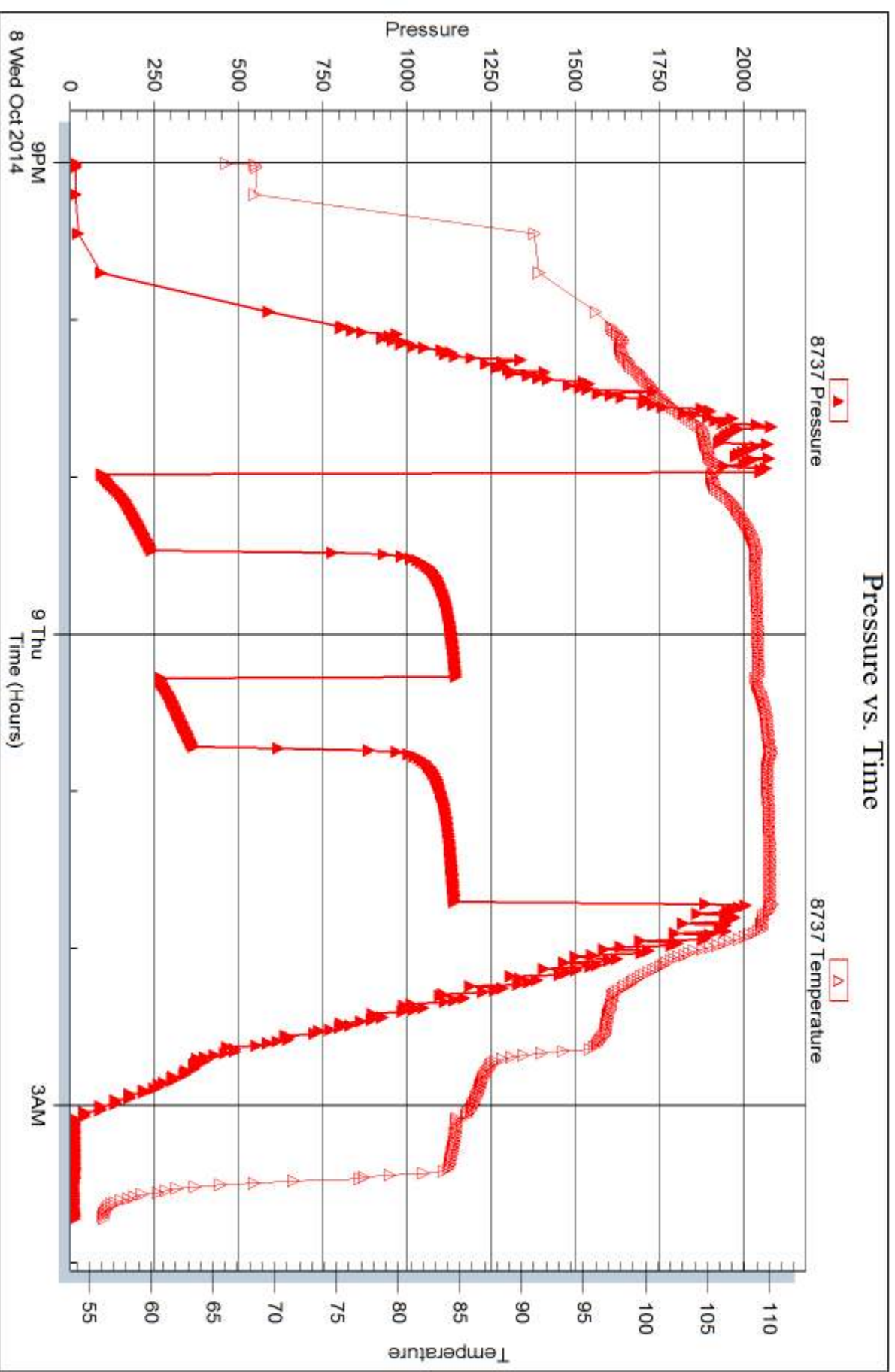


Serial #: 8737

Outside Ritchie Exploration Inc.

France #2

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278

ATTN: Terry McLeod

France #2

11-17e-35w Wichita,KS

Start Date: 2014.10.09 @ 17:41:00

End Date: 2014.10.10 @ 07:22:45

Job Ticket #: 57443 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.10.15 @ 11:31:33



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278
ATTN: Terry McLeod

11-17e-35w Wichita, KS

France #2

Job Ticket: 57443

DST#: 3

Test Start: 2014.10.09 @ 17:41:00

GENERAL INFORMATION:

Formation: **LKC H-1**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:26:30

Time Test Ended: 07:22:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 65

Interval: 4252.00 ft (KB) To 4315.00 ft (KB) (TVD)

Total Depth: 4313.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3182.00 ft (KB)

3177.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8846 Inside

Press@RunDepth: 175.56 psig @ 4277.00 ft (KB)

Start Date: 2014.10.09

End Date:

2014.10.10

Start Time: 17:41:15

End Time:

07:22:45

Capacity: 8000.00 psig

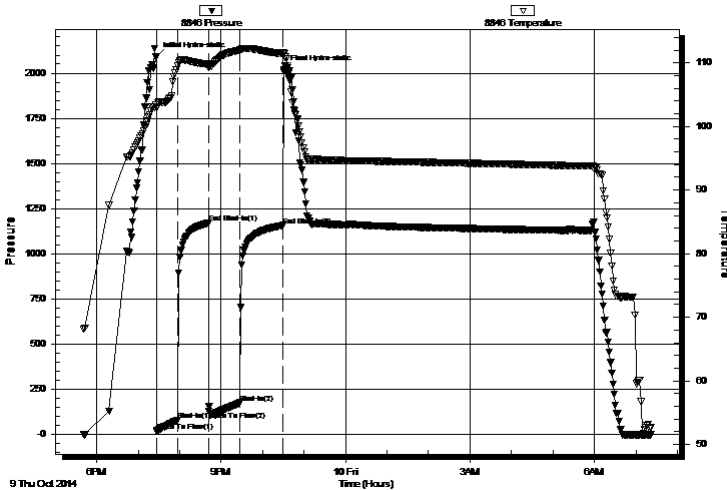
Last Calib.: 2014.10.10

Time On Btm: 2014.10.09 @ 19:26:15

Time Off Btm: 2014.10.09 @ 22:31:15

TEST COMMENT: 30 IF: BOB @ 25 min..
45 IS: No return.
45 FF: BOB @ 30 min.
60 FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2093.07	103.36	Initial Hydro-static
1	19.49	102.93	Open To Flow (1)
31	80.69	109.50	Shut-In(1)
76	1170.98	109.76	End Shut-In(1)
76	129.76	109.27	Open To Flow (2)
121	175.56	111.99	Shut-In(2)
184	1157.28	111.39	End Shut-In(2)
185	2018.85	111.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
320.00	mcw 20m 80w (oil spots on top)	4.49

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278
ATTN: Terry McLeod

11-17e-35w Wichita, KS

France #2

Job Ticket: 57443

DST#: 3

Test Start: 2014.10.09 @ 17:41:00

GENERAL INFORMATION:

Formation: **LKC H-1**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:26:30

Time Test Ended: 07:22:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 65

Interval: 4252.00 ft (KB) To 4315.00 ft (KB) (TVD)

Total Depth: 4313.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3182.00 ft (KB)

3177.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8737 Outside

Press@RunDepth: psig @ 4277.00 ft (KB)

Start Date: 2014.10.09

End Date:

2014.10.10

Start Time: 17:41:15

End Time:

07:22:45

Capacity: 8000.00 psig

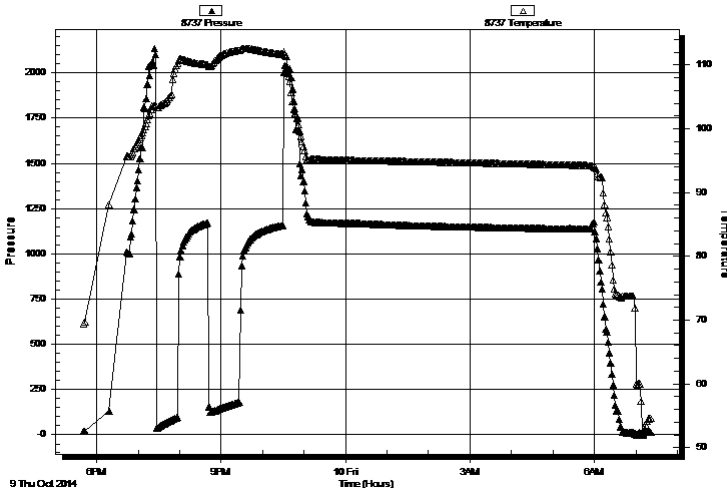
Last Calib.: 1899.12.30

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 IF: BOB @ 25 min..
45 IS: No return.
45 FF: BOB @ 30 min.
60 FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
320.00	mcw 20m 80w (oil spots on top)	4.49

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.

11-17e-35w Wichita,KS

810 E 22nd. St. 700

France #2

Box 783188

Job Ticket: 57443

DST#: 3

Wichita, KS 67278

Test Start: 2014.10.09 @ 17:41:00

ATTN: Terry McLeod

Tool Information

Drill Pipe:	Length:	4246.00 ft	Diameter:	3.80 inches	Volume:	59.56 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:	59.56 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		17.00 ft					String Weight: Initial	55000.00 lb
Depth to Top Packer:		4252.00 ft					Final	57000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		63.00 ft						
Tool Length:		86.00 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			4230.00	
Shut In Tool	5.00			4235.00	
Hydraulic tool	5.00			4240.00	
Jars	5.00			4245.00	
Safety Joint	3.00			4248.00	
Packer - Shale	0.00			4248.00	
Packer	4.00			4252.00	23.00 Bottom Of Top Packer
Stubb	1.00			4253.00	
Perforations	24.00			4277.00	
Recorder	0.00	8846	Inside	4277.00	
Recorder	0.00	8737	Outside	4277.00	
Change Over Sub	1.00			4278.00	
Blank Spacing	31.00			4309.00	
Change Over Sub	1.00			4310.00	
Bullnose	5.00			4315.00	63.00 Anchor Tool

Total Tool Length: 86.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

11-17e-35w Wichita,KS

810 E 22nd. St. 700

France #2

Box 783188

Job Ticket: 57443

DST#: 3

Wichita, KS 67278

Test Start: 2014.10.09 @ 17:41:00

ATTN: Terry McLeod

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:

20000 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
320.00	mcw 20m 80w (oil spots on top)	4.489

Total Length: 320.00 ft Total Volume: 4.489 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .450 @ 50F = 20000ppm

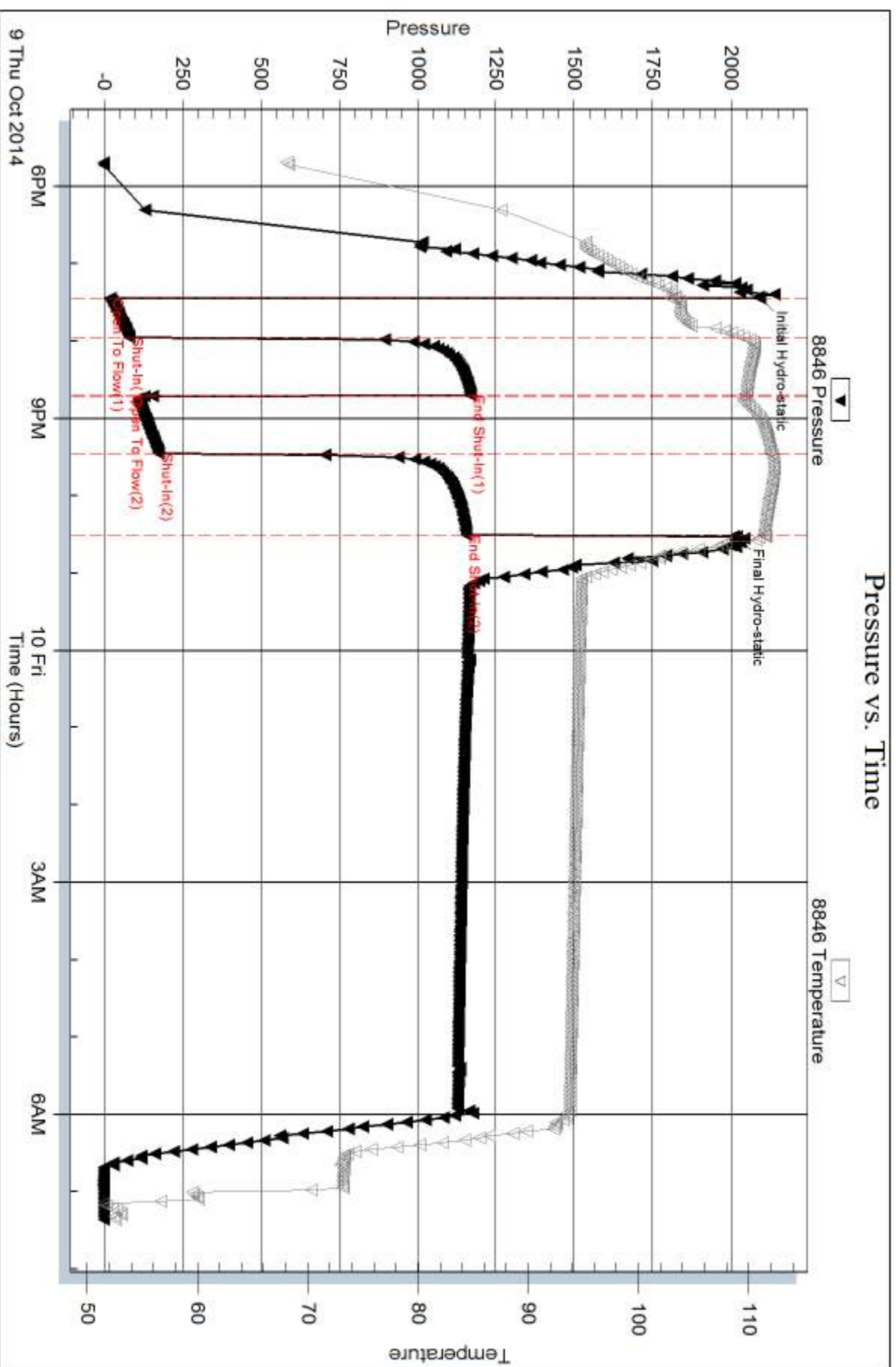
Serial #: 8846

Inside

Ritchie Exploration Inc.

France #2

DST Test Number: 3

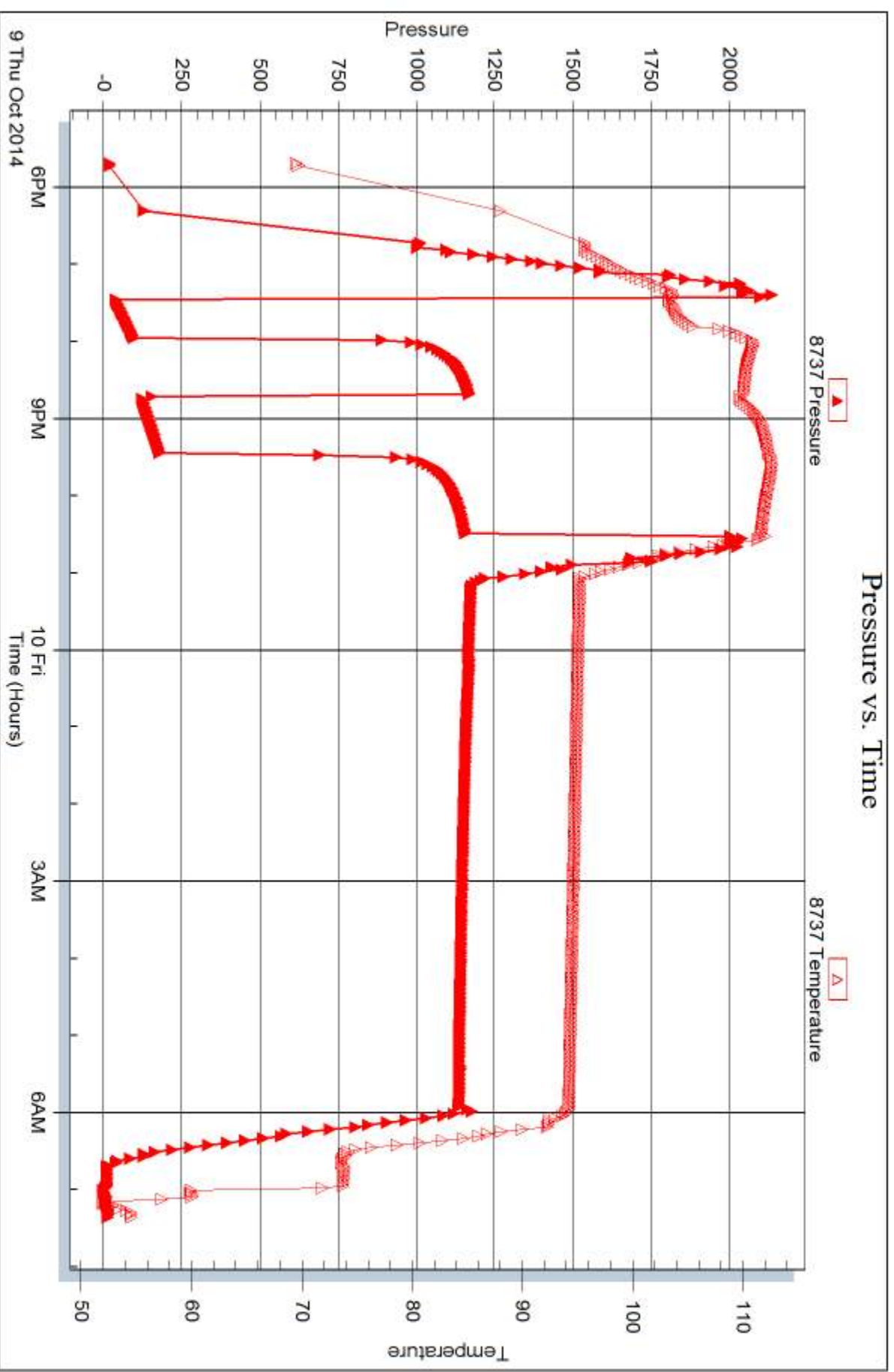


Serial #: 8737

Outside Ritchie Exploration Inc.

France #2

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278

ATTN: Terry McLeod

France #2

11-17e-35w Wichita,KS

Start Date: 2014.10.10 @ 15:38:00

End Date: 2014.10.10 @ 21:29:15

Job Ticket #: 57444 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.10.15 @ 11:31:06



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278
ATTN: Terry McLeod

11-17e-35w Wichita,KS

France #2

Job Ticket: 57444

DST#: 4

Test Start: 2014.10.10 @ 15:38:00

GENERAL INFORMATION:

Formation: **LKC - J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:20:30

Time Test Ended: 21:29:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 65

Interval: 4326.00 ft (KB) To 4345.00 ft (KB) (TVD)

Total Depth: 4345.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3182.00 ft (KB)

3177.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8846 Inside

Press@RunDepth: 227.59 psig @ 4340.00 ft (KB)

Start Date: 2014.10.10

End Date:

2014.10.10

Start Time: 15:38:15

End Time:

21:29:15

Capacity: 8000.00 psig

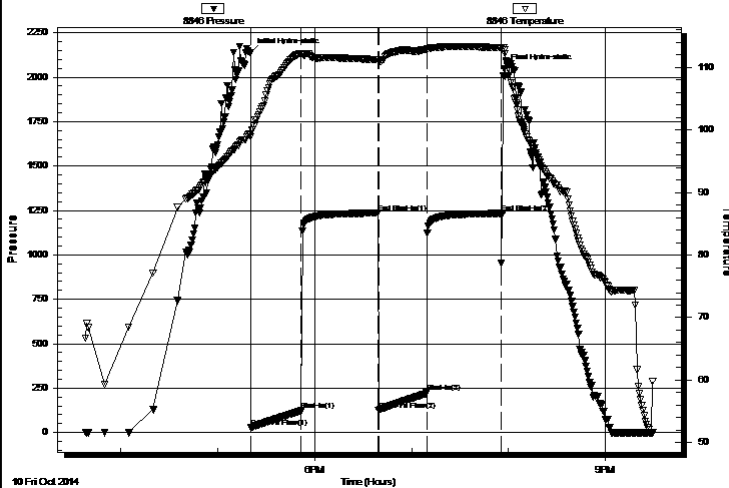
Last Calib.: 2014.10.10

Time On Btm: 2014.10.10 @ 17:20:15

Time Off Btm: 2014.10.10 @ 19:57:30

TEST COMMENT: 30: BOB @ 17 min.
45: No return.
30: BOB @ 19 min.
45: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2138.06	99.40	Initial Hydro-static
1	27.52	98.94	Open To Flow (1)
32	123.30	112.05	Shut-In(1)
79	1235.52	111.22	End Shut-In(1)
80	126.54	110.99	Open To Flow (2)
109	227.59	112.87	Shut-In(2)
155	1233.62	113.15	End Shut-In(2)
158	2047.38	112.80	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
500.00	mcw 10m 90w (oil spots)	7.01

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278
ATTN: Terry McLeod

11-17e-35w Wichita, KS

France #2

Job Ticket: 57444

DST#: 4

Test Start: 2014.10.10 @ 15:38:00

GENERAL INFORMATION:

Formation: **LKC - J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:20:30

Time Test Ended: 21:29:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 65

Interval: 4326.00 ft (KB) To 4345.00 ft (KB) (TVD)

Total Depth: 4345.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3182.00 ft (KB)

3177.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8737 Outside

Press@RunDepth: psig @ 4340.00 ft (KB)

Start Date: 2014.10.10

End Date:

2014.10.10

Start Time: 15:38:15

End Time:

21:29:15

Capacity: 8000.00 psig

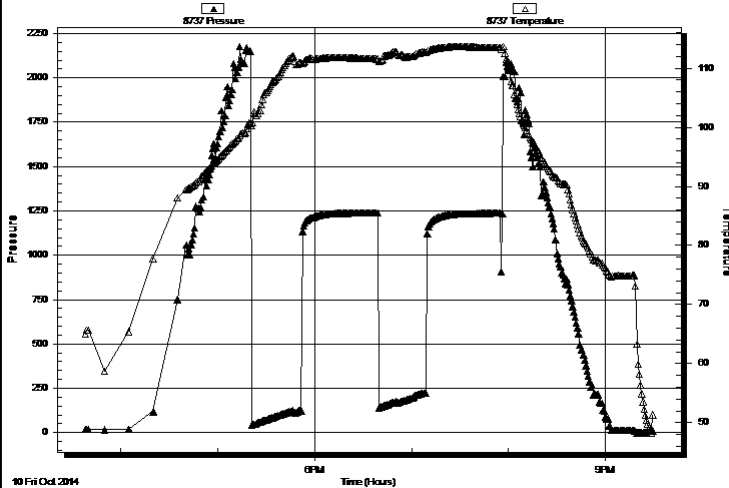
Last Calib.: 2014.10.10

Time On Btm:

Time Off Btm:

TEST COMMENT: 30: BOB @ 17 min.
45: No return.
30: BOB @ 19 min.
45: No return.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
500.00	mcw 10m 90w (oil spots)	7.01

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.

11-17e-35w Wichita,KS

810 E 22nd. St. 700

France #2

Box 783188

Job Ticket: 57444

DST#: 4

Wichita, KS 67278

Test Start: 2014.10.10 @ 15:38:00

ATTN: Terry McLeod

Tool Information

Drill Pipe:	Length:	4310.00 ft	Diameter:	3.80 inches	Volume:	60.46 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:	68000.00 lb
					Total Volume:	60.46 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		7.00 ft					String Weight: Initial	55000.00 lb
Depth to Top Packer:		4326.00 ft					Final	57000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		19.00 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
-------------	------------	----------	------------	----------------

Change Over Sub	1.00		4304.00	
Shut In Tool	5.00		4309.00	
Hydraulic tool	5.00		4314.00	
Jars	5.00		4319.00	
Safety Joint	3.00		4322.00	
Packer - Shale	0.00		4322.00	
Packer	4.00		4326.00	23.00 Bottom Of Top Packer
Stubb	1.00		4327.00	
Perforations	13.00		4340.00	
Recorder	0.00	8846 Inside	4340.00	
Recorder	0.00	8737 Outside	4340.00	
Bullnose	5.00		4345.00	19.00 Anchor Tool

Total Tool Length: 42.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

11-17e-35w Wichita,KS

810 E 22nd. St. 700

France #2

Box 783188

Job Ticket: 57444

DST#: 4

Wichita, KS 67278

Test Start: 2014.10.10 @ 15:38:00

ATTN: Terry McLeod

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:

38000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
500.00	mcw 10m 90w (oil spots)	7.014

Total Length: 500.00 ft

Total Volume: 7.014 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .230 @ 60F = 38000

Serial #: 8846

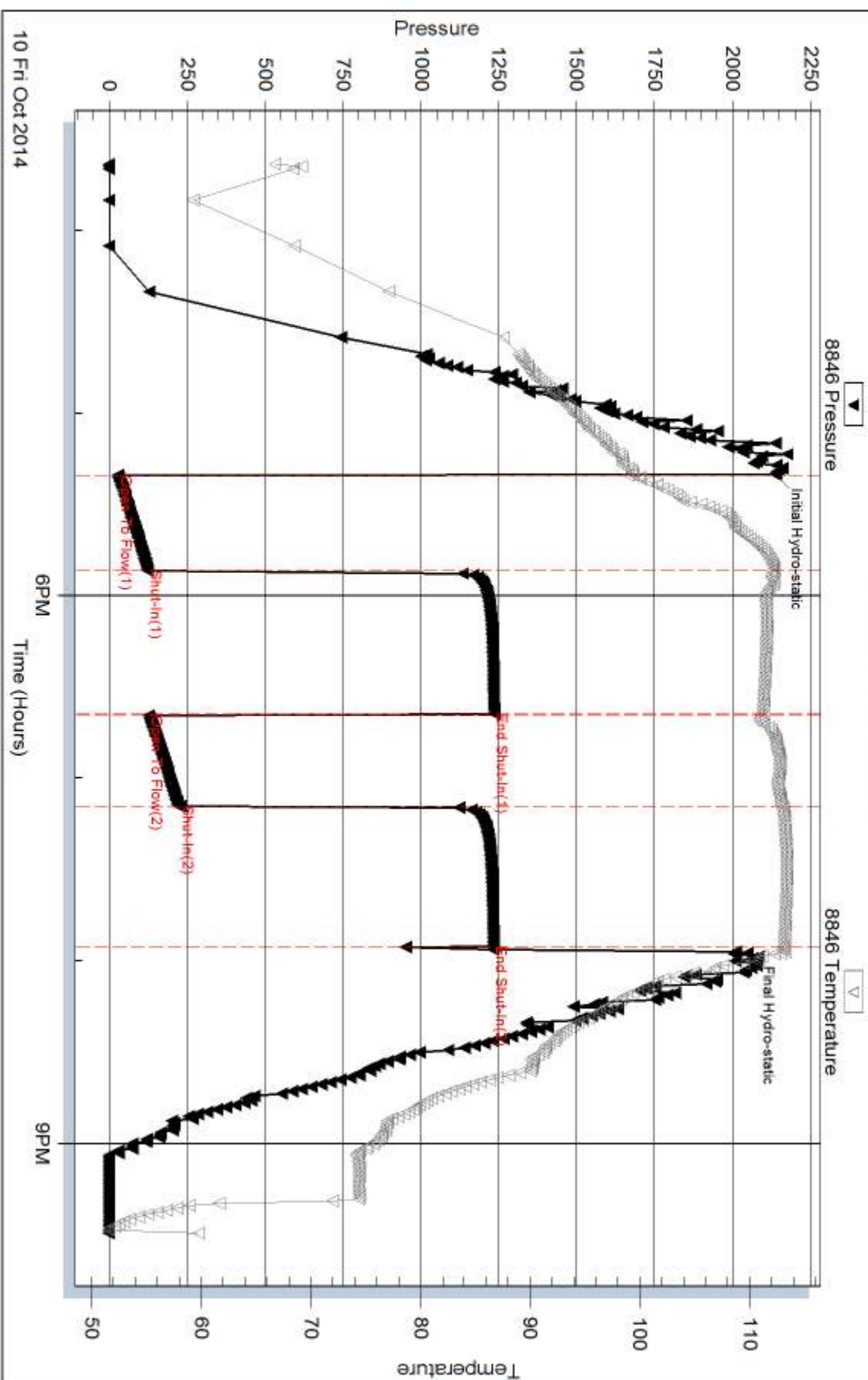
Inside

Ritchie Exploration Inc.

France #2

DST Test Number: 4

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 57444

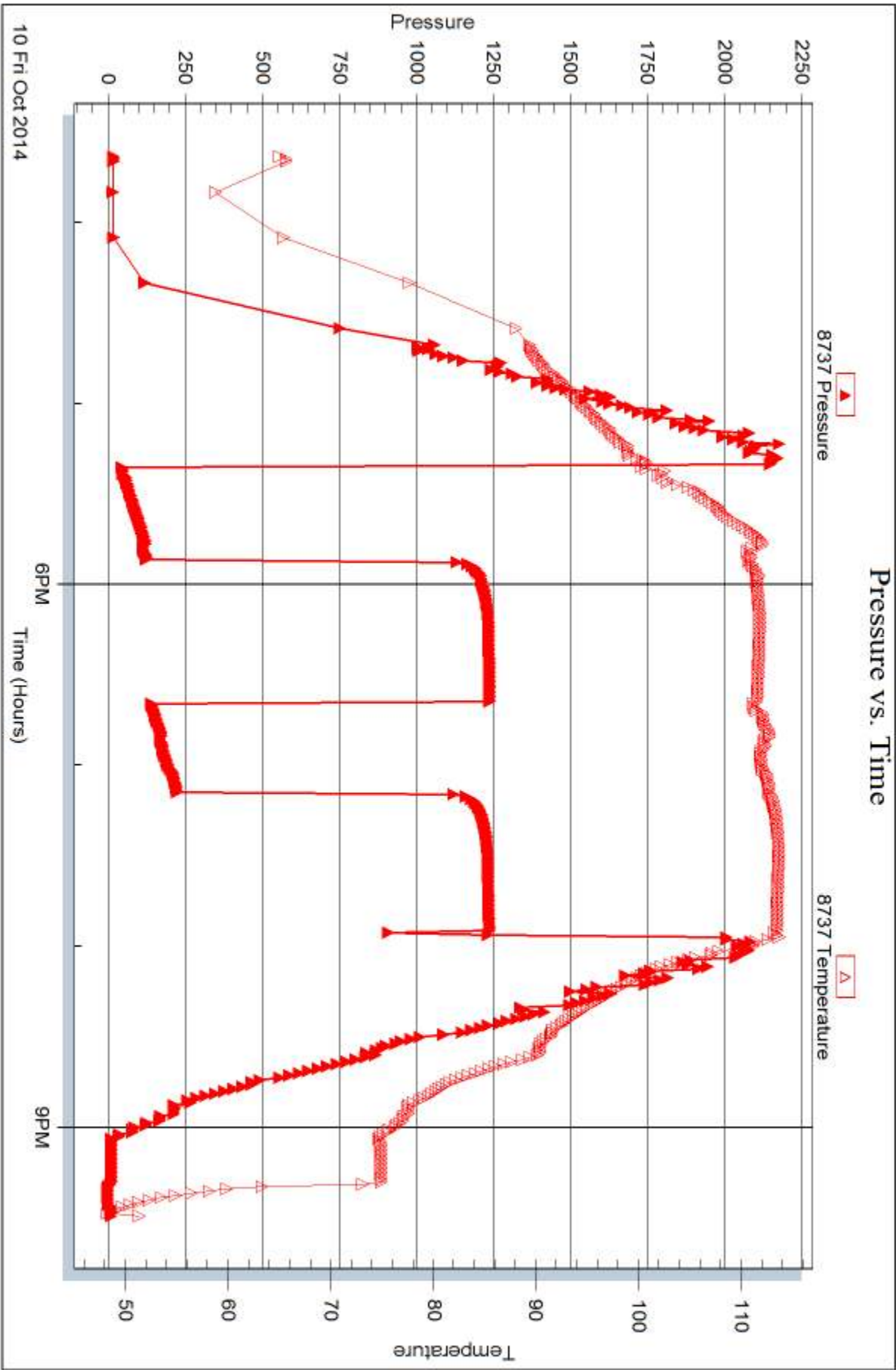
Printed: 2014.10.15 @ 11:31:07

Serial #: 8737

Outside Ritchie Exploration Inc.

France #2

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278

ATTN: Terry McLeod

France #2

11-17e-35w Wichita,KS

Start Date: 2014.10.11 @ 10:13:00

End Date: 2014.10.11 @ 18:18:45

Job Ticket #: 57445 DST #: 5

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.10.15 @ 11:30:44



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278
ATTN: Terry McLeod

11-17e-35w Wichita,KS

France #2

Job Ticket: 57445

DST#: 5

Test Start: 2014.10.11 @ 10:13:00

GENERAL INFORMATION:

Formation: **LKC K-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:46:15

Time Test Ended: 18:18:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 65

Interval: 4354.00 ft (KB) To 4443.00 ft (KB) (TVD)

Reference Elevations: 3182.00 ft (KB)

Total Depth: 4443.00 ft (KB) (TVD)

3177.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8846 Inside

Press@RunDepth: 1119.81 psig @ 4374.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.11

End Date:

2014.10.11

Last Calib.: 2014.10.11

Start Time: 10:13:15

End Time:

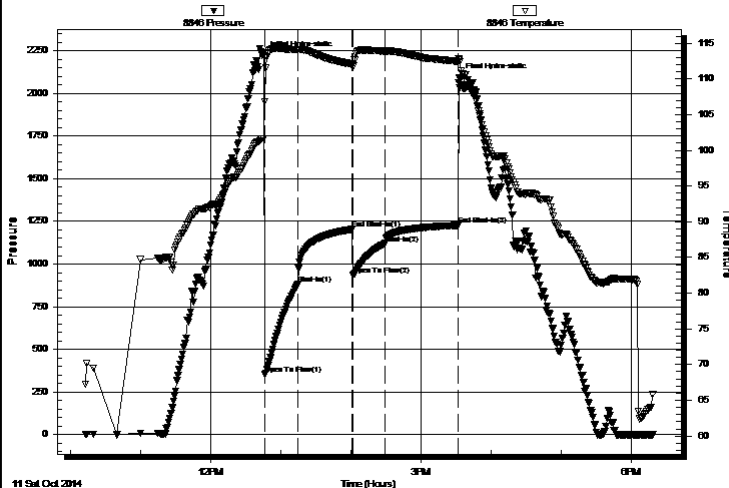
18:18:45

Time On Btm: 2014.10.11 @ 12:45:15

Time Off Btm: 2014.10.11 @ 15:32:30

TEST COMMENT: 30 IF: BOB @ 45 sec.
45 IS: No return.
30 FF: BOB @ 1 min.
60 FSI: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2223.03	101.64	Initial Hydro-static
1	355.51	106.80	Open To Flow (1)
30	881.84	114.05	Shut-In(1)
76	1203.29	112.06	End Shut-In(1)
77	936.35	111.96	Open To Flow (2)
105	1119.81	113.87	Shut-In(2)
167	1227.25	112.45	End Shut-In(2)
168	2091.85	112.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2450.00	smcw 2m 98w	34.37

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278
ATTN: Terry McLeod

11-17e-35w Wichita, KS

France #2

Job Ticket: 57445

DST#: 5

Test Start: 2014.10.11 @ 10:13:00

GENERAL INFORMATION:

Formation: **LKC K-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:46:15

Time Test Ended: 18:18:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 65

Interval: 4354.00 ft (KB) To 4443.00 ft (KB) (TVD)

Total Depth: 4443.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3182.00 ft (KB)

3177.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8737 Outside

Press@RunDepth: psig @ 4374.00 ft (KB)

Start Date: 2014.10.11

End Date:

2014.10.11

Capacity: 8000.00 psig

Last Calib.:

2014.10.11

Start Time: 10:13:15

End Time:

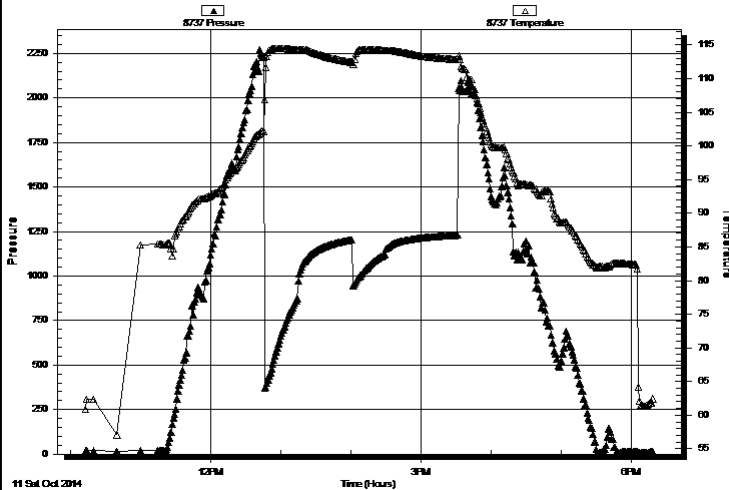
18:18:45

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 IF: BOB @ 45 sec.
45 IS: No return.
30 FF: BOB @ 1 min.
60 FSI: No return.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
2450.00	smcw 2m 98w	34.37

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.

11-17e-35w Wichita,KS

810 E 22nd. St. 700

France #2

Box 783188

Job Ticket: 57445

DST#: 5

Wichita, KS 67278

Test Start: 2014.10.11 @ 10:13:00

ATTN: Terry McLeod

Tool Information

Drill Pipe:	Length:	4341.00 ft	Diameter:	3.80 inches	Volume:	60.89 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:	80000.00 lb
					Total Volume:	60.89 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		10.00 ft					String Weight: Initial	55000.00 lb
Depth to Top Packer:		4354.00 ft					Final	65000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		89.00 ft						
Tool Length:		112.00 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		4332.00	
Shut In Tool	5.00		4337.00	
Hydraulic tool	5.00		4342.00	
Jars	5.00		4347.00	
Safety Joint	3.00		4350.00	
Packer - Shale	0.00		4350.00	
Packer	4.00		4354.00	23.00 Bottom Of Top Packer
Stubb	1.00		4355.00	
Perforations	19.00		4374.00	
Recorder	0.00	8846 Inside	4374.00	
Recorder	0.00	8737 Outside	4374.00	
Change Over Sub	1.00		4375.00	
Blank Spacing	62.00		4437.00	
Change Over Sub	1.00		4438.00	
Bullnose	5.00		4443.00	89.00 Anchor Tool

Total Tool Length: 112.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

11-17e-35w Wichita,KS

810 E 22nd. St. 700

France #2

Box 783188

Job Ticket: 57445

DST#: 5

Wichita, KS 67278

Test Start: 2014.10.11 @ 10:13:00

ATTN: Terry McLeod

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:

19000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.38 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9100.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2450.00	smcw 2m 98w	34.367

Total Length: 2450.00 ft Total Volume: 34.367 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .390 @ 65 = 19000ppm

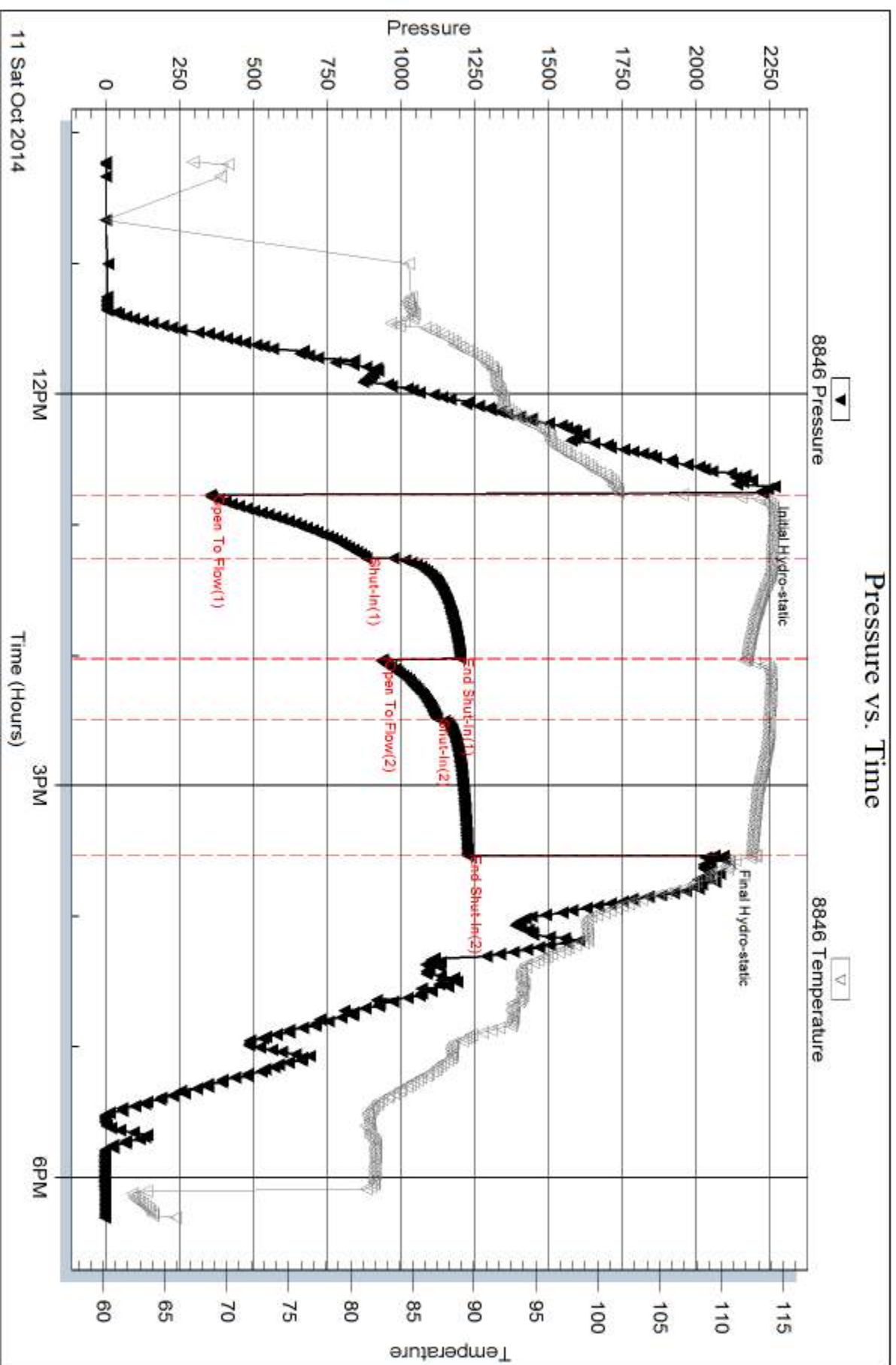
Serial #: 8846

Inside

Ritchie Exploration Inc.

France #2

DST Test Number: 5

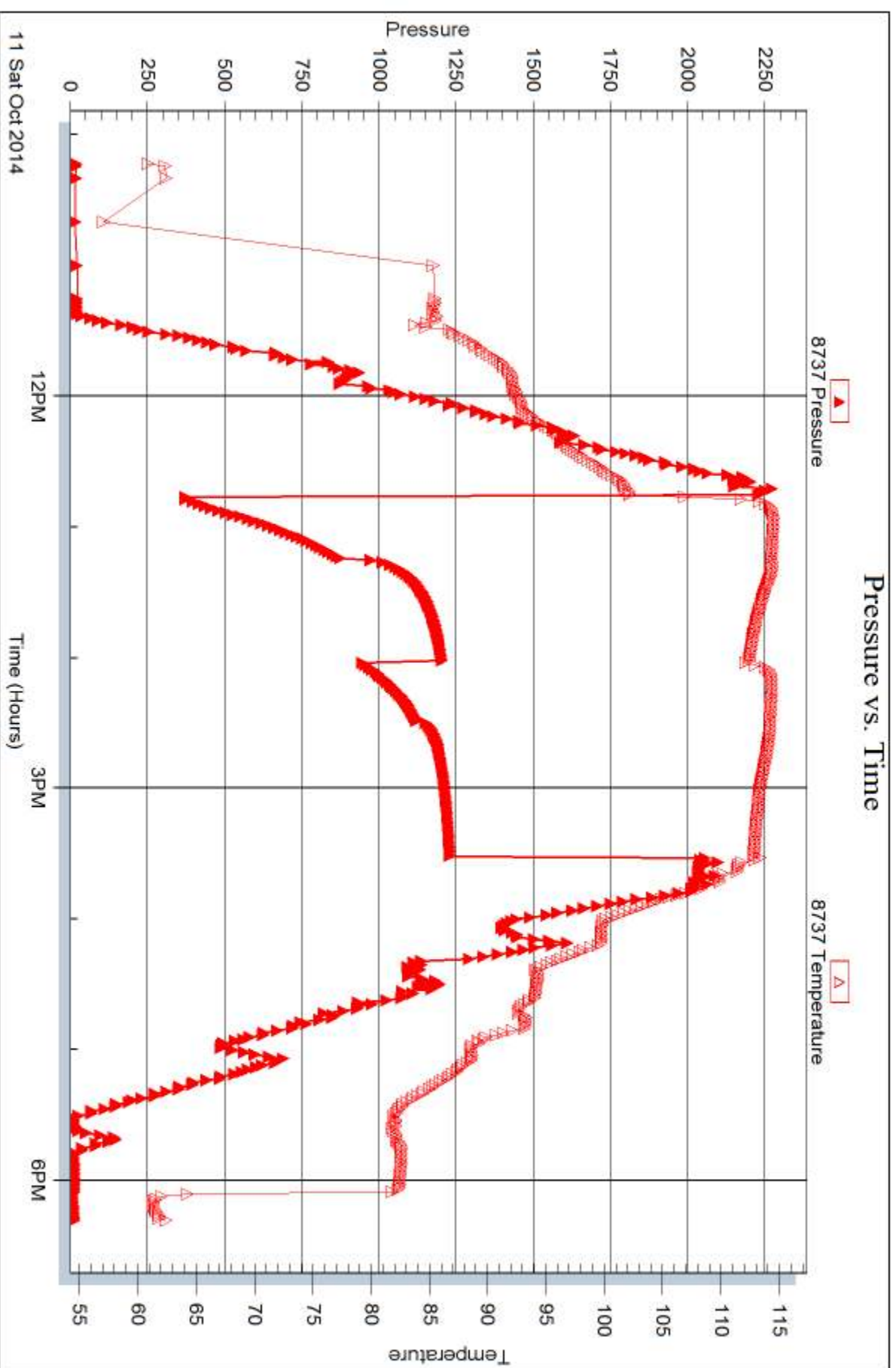


Serial #: 8737

Outside Ritchie Exploration Inc.

France #2

DST Test Number: 5





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278

ATTN: Terry McLeod

France #2

11-17e-35w Wichita,KS

Start Date: 2014.10.12 @ 11:07:00

End Date: 2014.10.12 @ 17:58:45

Job Ticket #: 57446 DST #: 6

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.10.15 @ 11:30:09



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278
ATTN: Terry McLeod

11-17e-35w Wichita,KS

France #2

Job Ticket: 57446

DST#: 6

Test Start: 2014.10.12 @ 11:07:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:20:45

Time Test Ended: 17:58:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

Interval: 4447.00 ft (KB) To 4554.00 ft (KB) (TVD)

Reference Elevations: 3182.00 ft (KB)

Total Depth: 4554.00 ft (KB) (TVD)

3177.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8846 Inside

Press@RunDepth: 99.74 psig @ 4453.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.12

End Date:

2014.10.12

Last Calib.: 2014.10.12

Start Time: 11:07:15

End Time:

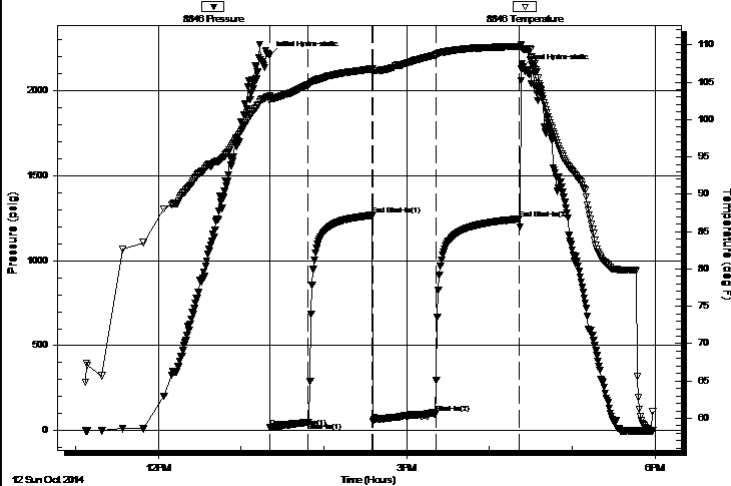
17:58:45

Time On Btm: 2014.10.12 @ 13:20:30

Time Off Btm: 2014.10.12 @ 16:22:45

TEST COMMENT: IF: 6" blow.
IS: No return.
FF: 7" blow.
FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2208.36	103.13	Initial Hydro-static
1	18.48	102.57	Open To Flow (1)
28	49.49	104.66	Shut-In(1)
75	1267.48	106.79	End Shut-In(1)
76	56.01	106.56	Open To Flow (2)
121	99.74	108.62	Shut-In(2)
182	1245.77	109.77	End Shut-In(2)
183	2129.05	110.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
170.00	mcw 50m 50w (oil spots)	2.38

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278
ATTN: Terry McLeod

11-17e-35w Wichita, KS

France #2

Job Ticket: 57446

DST#: 6

Test Start: 2014.10.12 @ 11:07:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:20:45

Time Test Ended: 17:58:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

Interval: 4447.00 ft (KB) To 4554.00 ft (KB) (TVD)

Total Depth: 4554.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3182.00 ft (KB)

3177.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8737 Outside

Press@RunDepth: psig @ 4453.00 ft (KB)

Start Date: 2014.10.12

End Date:

2014.10.12

Start Time: 11:07:15

End Time:

17:58:45

Capacity: 8000.00 psig

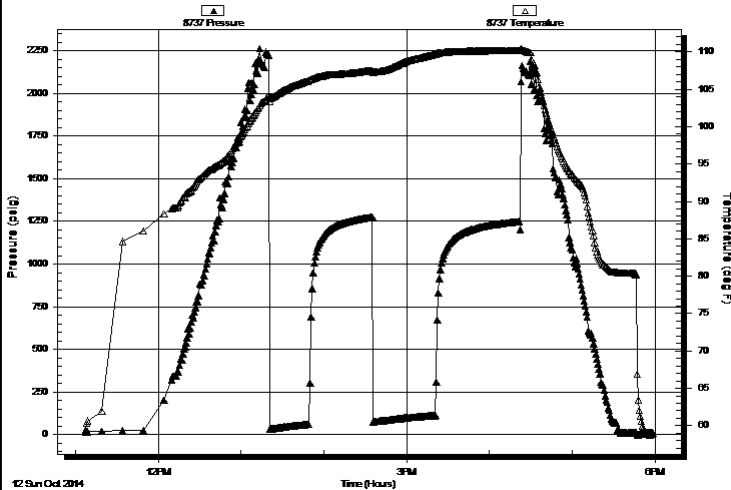
Last Calib.: 2014.10.12

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 6" blow.
IS: No return.
FF: 7" blow.
FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
170.00	mcw 50m 50w (oil spots)	2.38

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.

11-17e-35w Wichita,KS

810 E 22nd. St. 700
Box 783188
Wichita, KS 67278
ATTN: Terry McLeod

France #2

Job Ticket: 57446

DST#: 6

Test Start: 2014.10.12 @ 11:07:00

Tool Information

Drill Pipe:	Length:	4434.00 ft	Diameter:	3.80 inches	Volume:	62.20 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
					Total Volume:	62.20 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		10.00 ft					String Weight: Initial	55000.00 lb
Depth to Top Packer:		4447.00 ft					Final	55000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		107.00 ft						
Tool Length:		130.00 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			4425.00	
Shut In Tool	5.00			4430.00	
Hydraulic tool	5.00			4435.00	
Jars	5.00			4440.00	
Safety Joint	3.00			4443.00	
Packer - Shale	0.00			4443.00	
Packer	4.00			4447.00	23.00 Bottom Of Top Packer
Stubb	1.00			4448.00	
Perforations	5.00			4453.00	
Recorder	0.00	8846	Inside	4453.00	
Recorder	0.00	8737	Outside	4453.00	
Change Over Sub	1.00			4454.00	
Blank Spacing	94.00			4548.00	
Change Over Sub	1.00			4549.00	
Bullnose	5.00			4554.00	107.00 Anchor Tool

Total Tool Length: 130.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

11-17e-35w Wichita, KS

810 E 22nd. St. 700

France #2

Box 783188

Job Ticket: 57446

DST#: 6

Wichita, KS 67278

Test Start: 2014.10.12 @ 11:07:00

ATTN: Terry McLeod

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:

37000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.79 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
170.00	mcw 50m 50w (oil spots)	2.385

Total Length: 170.00 ft Total Volume: 2.385 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is 2.10 @ 65f = 37,000

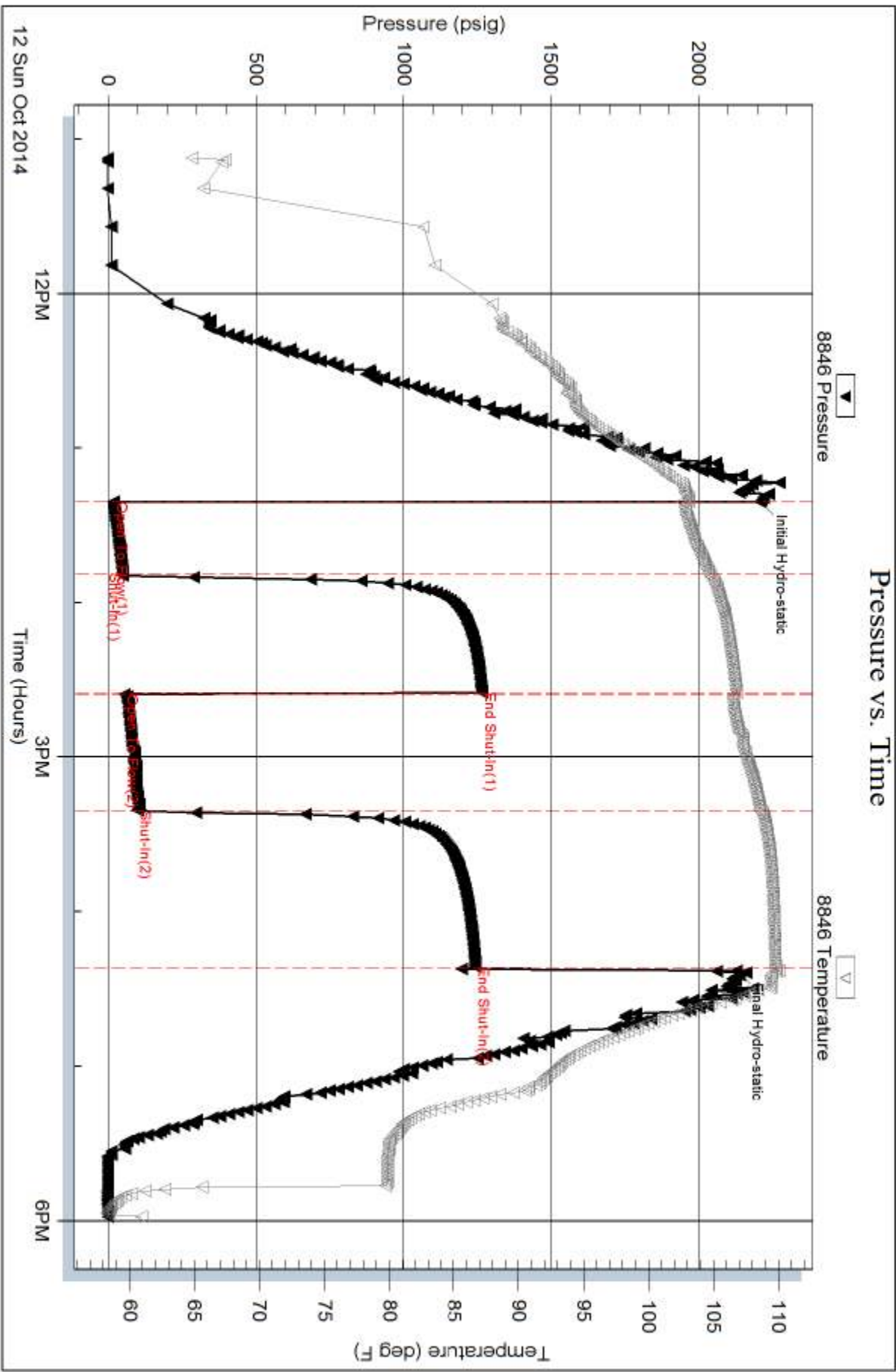
Serial #: 8846

Inside

Ritchie Exploration Inc.

France #2

DST Test Number: 6

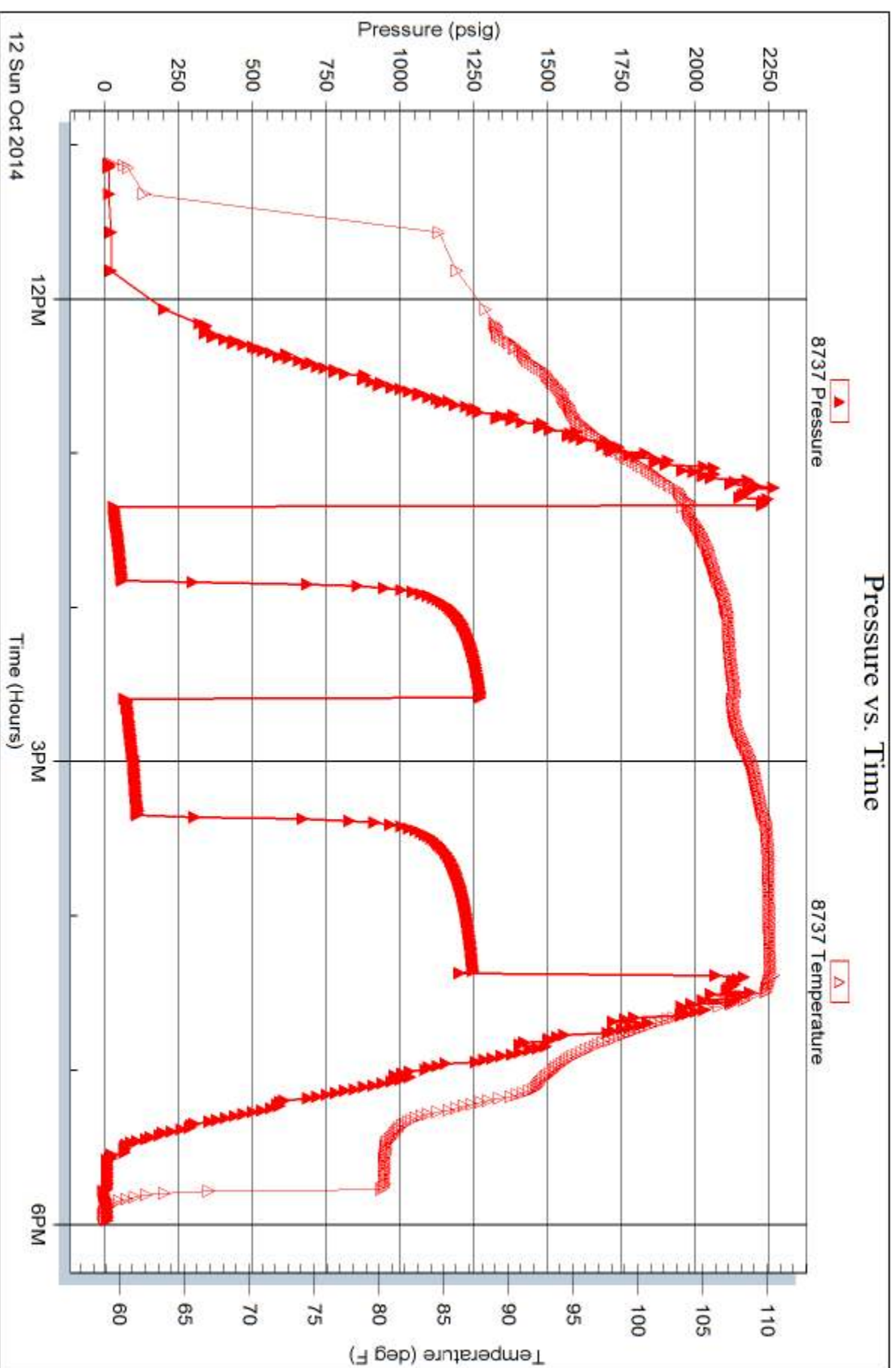


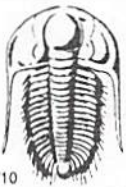
Serial #: 8737

Outside Ritchie Exploration Inc.

France #2

DST Test Number: 6





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59165

Well Name & No. France #2 Test No. 1 Date 10-8-14
 Company Ritchie Exploration Inc. Elevation 3182 KB 3177 GL
 Address 810 E 22nd ST #700 Wichita KS Box 783188
 Co. Rep / Geo. Terry McLeod Rig Duke 4
 Location: Sec. 11 Twp. 17 Rge. 35 Co. Wichita State KS

Interval Tested 4024-4084 Zone Tested ~~LEE~~ Toronto - LKC A
 Anchor Length 60 Drill Pipe Run 4032 Mud Wt. 8.9
 Top Packer Depth 4019 Drill Collars Run 0 Vis 58
 Bottom Packer Depth 4024 Wt. Pipe Run 0 WL 7.0
 Total Depth 4084 Chlorides 5000 ppm System LCM 1

Blow Description IFI Built to 1/2" Blow
IS: No Return Blow
FF: No Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 106 Gravity 1250.00 API RW @ °F Chlorides 5000 ppm
 (A) Initial Hydrostatic 1956 ☒ Test 1250.00 T-On Location 23:10
 (B) First Initial Flow 34 ☒ Jars 250.00 T-Started 23:50
 (C) First Final Flow 41 ☒ Safety Joint 75.00 T-Open 01:37
 (D) Initial Shut-In 1096 ☒ Circ Sub NC T-Pulled 04:00
 (E) Second Initial Flow 43 ☐ Hourly Standby 74.40 T-Out 05:54
 (F) Second Final Flow 44 ☒ Mileage 48 RT Comments
 (G) Final Shut-In 1075 ☐ Sampler
 (H) Final Hydrostatic 1888 ☐ Straddle ☐ Ruined Shale Packer

Initial Open 30 ☒ Shale Packer 250.00 ☐ Ruined Packer
 Initial Shut-In 45 ☐ Extra Packer ☐ Extra Copies
 Final Flow 30 ☐ Extra Recorder ☐ Sub Total 0
 Final Shut-In 45 ☐ Day Standby ☐ Total 1899.40
☐ Accessibility ☐ MP/DST Disc't
 Sub Total \$1899.40

Approved By Terry McLeod Our Representative Mike Rotch
 Trilobite Testing Inc. shall not be liable for damaged or any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Walt 785-623-1407

Test Ticket

NO. 59167

Well Name & No. France #2 Test No. 2 Date 10-8-14
 Company Ritchie Exploration Elevation 3182 KB 3177 GL
 Address 810 E 22ND ST #700 Box 783188 Wichita KS 67278
 Co. Rep / Geo. Terry McLeod Rig Duke 4
 Location: Sec. 11 Twp. 17 Rge. 35 Co. Wichita State KS

Interval Tested 4097 - 4200 Zone Tested LKC C-~~F~~
 Anchor Length 103 Drill Pipe Run 4093 Mud Wt. 9.0
 Top Packer Depth 4092 Drill Collars Run 0 Vis 68
 Bottom Packer Depth 4097 Wt. Pipe Run 0 WL 7.0
 Total Depth 4200 Chlorides 7000 ppm System LCM 2

Blow Description IF: BOB in 6 Min.
IS: No Return Blow
FF: BOB in 12 Min
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>248</u>	<u>MUD</u>			<u>100</u>	
<u>310</u>	<u>MCSW</u>		<u>50</u>	<u>50</u>	
<u>186</u>	<u>MCSW</u>		<u>90</u>	<u>10</u>	

Rec Total 744 BHT 109 Gravity — API RW 1677 @ 56.4 °F Chlorides 13000 ppm
 (A) Initial Hydrostatic 2039 ☒ Test 1250.00 T-On Location 20:10
 (B) First Initial Flow 77 ☐ Jars NC ~~250.00~~ T-Started 21:00
 (C) First Final Flow 243 ☒ Safety Joint 75.00 T-Open 22:58
 (D) Initial Shut-In 1142 ☒ Circ Sub NC T-Pulled 01:43
 (E) Second Initial Flow 260 ☐ Hourly Standby T-Out 03:43
 (F) Second Final Flow 366 ☒ Mileage 48 RT 74.40 Comments
 (G) Final Shut-In 1138 ☐ Sampler
 (H) Final Hydrostatic 1996 ☐ Straddle

☒ Shale Packer 250.00 ☐ Ruined Shale Packer
☐ Extra Packer ☐ Ruined Packer
☐ Extra Recorder ☐ Extra Copies
 Sub Total 0
 Initial Open 30 ☐ Day Standby Total 1649.40
 Initial Shut-In 45 ☐ Accessibility MP/DST Disc't
 Final Flow 30 Sub Total 1649.40/-
 Final Shut-In 60

Approved By

Terry McLeod

Our Representative

Mike Rohlf

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57443

Well Name & No. France #2 Test No. 3 Date 10/10/2014
 Company Ritchie Exploration, Inc Elevation 3182 KB 317# GL
 Address 810 E 22nd Ste 200 Wichita, KS 67278
 Co. Rep / Geo. Terry McLeod Rig Duke #4
 Location: Sec. 11 Twp. 17 Rge. 35 Co. Wichita State KS

Interval Tested 4252 4315 Zone Tested LKC H-I
 Anchor Length 63 Drill Pipe Run 4246 Mud Wt. 9.1
 Top Packer Depth 4247 Drill Collars Run 0 Vis 63
 Bottom Packer Depth 4252 Wt. Pipe Run 0 WL 6.4 7.2
 Total Depth 4315 Chlorides 6400 ppm System LCM 2#

Blow Description IF: BOB @ 25 min
ISI: No Return
FF: BOB @ 30 min
FSI: No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>320</u>	<u>new (OIL SAOTS)</u>		<u>80</u>	<u>20</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 320 BHT 111 Gravity — API RW 150 @ 50° F Chlorides 20000 ppm

(A) Initial Hydrostatic 2093
 (B) First Initial Flow 19
 (C) First Final Flow 81
 (D) Initial Shut-In 1171
 (E) Second Initial Flow 130
 (F) Second Final Flow 176
 (G) Final Shut-In 1157
 (H) Final Hydrostatic 2019

☒ Test 1250
☐ Jars
☒ Safety Joint 75
☒ Circ Sub N/C
☒ Hourly Standby 3.75h 375
☒ Mileage 48ct 74.40
☐ Sampler
☐ Straddle
☒ Shale Packer 250
☐ Extra Packer
☐ Extra Recorder
☐ Day Standby
☐ Accessibility
 Sub Total 2024.40

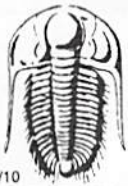
T-On Location 1700 10/09/2014
 T-Started 1741
 T-Open 1927
 T-Pulled 2227
 T-Out 0723
 Comments Waited on Power UNIT
From 2300 to 0600
☐ Ruined Shale Packer
☐ Ruined Packer
☐ Extra Copies
 Sub Total 0
 Total 2024.40
 MP/DST Disc't

Initial Open 30
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 60

Approved By

Our Representative

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57444

Well Name & No. France #2 Test No. 4 Date 10/10/2014
 Company Ritchie Exploration, Inc Elevation 5182 KB 3171 GL
 Address 810 E 22nd Ste 700 Wichita, KS 67278
 Co. Rep / Geo. Terry McLeod Rig Duke #4
 Location: Sec. 11 Twp. 17 Rge. 33 Co. Wichita State Ks

Interval Tested 4326 4345 Zone Tested LKC J
 Anchor Length 19 Drill Pipe Run 4310 Mud Wt. 9.1
 Top Packer Depth 4321 Drill Collars Run 0 Vis 53
 Bottom Packer Depth 4326 Wt. Pipe Run 0 WL 8.8
 Total Depth 4345 Chlorides 7,000 ppm System LCM 1#

Blow Description IP: BOB@ 17 min
IST: No return
FF: BOB@ 14 min
FSI: No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>500</u>	<u>mccw (OTL SPOTS)</u>		<u>90</u>	<u>10</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

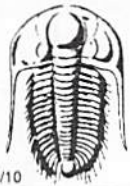
Rec Total 500 BHT 113 Gravity 1 API RW 230 @ 60 °F Chlorides 38,000 ppm
 (A) Initial Hydrostatic 2138 ☒ Test 1250 T-On Location 1500
 (B) First Initial Flow 28 ☐ Jars 75 T-Started 1558
 (C) First Final Flow 123 ☒ Safety Joint 75 T-Open 1721
 (D) Initial Shut-In 1236 ☒ Circ Sub 4 T-Pulled 1955
 (E) Second Initial Flow 127 ☐ Hourly Standby 74.40 T-Out 2129
 (F) Second Final Flow 228 ☒ Mileage 48 RT Comments _____
 (G) Final Shut-In 1234 ☐ Sampler _____
 (H) Final Hydrostatic 2047 ☐ Straddle _____

☒ Shale Packer 250 ☐ Ruined Shale Packer _____
☐ Extra Packer _____ ☐ Ruined Packer _____
☐ Extra Recorder _____ ☐ Extra Copies _____
☐ Day Standby _____ Sub Total 0
☐ Accessibility _____ Total 1649.40
 Sub Total 1649.40 MP/DST Disc't _____

Approved By _____

Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57445

Well Name & No. France #2 Test No. 5 Date 10/11/2014
 Company Ritchie Exploration, Inc Elevation 382 KB 3171 GL
 Address 810 E 22nd Ste 700 Wichita, KS 67278
 Co. Rep / Geo. Terry McLeod Rig Duke #4
 Location: Sec. 11 Twp. 17S Rge. 33W Co. Wichita State KS

Interval Tested 4354 4443 Zone Tested LKC K-L
 Anchor Length 89' Drill Pipe Run 4341 Mud Wt. 9.2
 Top Packer Depth 4349 Drill Collars Run 8 Vis 60
 Bottom Packer Depth 4354 Wt. Pipe Run 8 WL 10.4
 Total Depth 4443 Chlorides 9100 ppm System LCM 1 #

Blow Description IF: BOB @ 45 sec.

ISI: No return.

FF: BOB @ 1 min.

FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>2450</u>	<u>5mew</u>		<u>98</u>	<u>2</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 2450 BHT 113 Gravity — API RW 590 @ 65 °F Chlorides 19,000 ppm

(A) Initial Hydrostatic 2223

(B) First Initial Flow 356

(C) First Final Flow 882

(D) Initial Shut-In 1203

(E) Second Initial Flow 936

(F) Second Final Flow 1120

(G) Final Shut-In 1227

(H) Final Hydrostatic 2092

☒ Test 1250

☐ Jars

☒ Safety Joint 75

☒ Circ Sub 46

☐ Hourly Standby

☒ Mileage 46 RT 74.40

☐ Sampler

☐ Straddle

☒ Shale Packer 250

☐ Extra Packer

☐ Extra Recorder

☐ Day Standby

☐ Accessibility

Sub Total 1649.40

T-On Location 0930

T-Started 1013

T-Open 1246

T-Pulled 1531

T-Out 1819

Comments

☐ Ruined Shale Packer

☐ Ruined Packer

☐ Extra Copies

Sub Total 0

Total 1649.40

MP/DST Disc't

Initial Open 30

Initial Shut-In 45

Final Flow 30

Final Shut-In 60

Approved By

Our Representative Burt [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57446

Well Name & No. France #2 Test No. 6 Date 10/12/2014
 Company Ritchie Exploration, Inc Elevation 3182 KB 5171 GL
 Address 810 E 22nd Ste 700 Wichita, KS 67278
 Co. Rep / Geo. Terry McLeod Rig Duke #4
 Location: Sec. 11 Twp. 17s Rge. 33w Co. Wichita State KS

Interval Tested 4447 - 4554 Zone Tested Marmaton
 Anchor Length 107 Drill Pipe Run _____ Mud Wt. 9.2
 Top Packer Depth 4442 Drill Collars Run 0 Vis 45
 Bottom Packer Depth 4447 Wt. Pipe Run 0 WL 8.8
 Total Depth 4554 Chlorides 8,000 ppm System LCM 2*

Blow Description IF: BOB @ 6" blow
ISI: No return.
FF: 7" blow
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>170</u>	<u>mcw</u>			<u>50</u>	<u>50</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 170 BHT 108 Gravity _____ API RW .210 @ 65 °F Chlorides 37000 ppm

(A) Initial Hydrostatic	<u>2208</u>	☒ Test	<u>1250</u>	T-On Location	<u>1030</u>
(B) First Initial Flow	<u>18</u>	☐ Jars		T-Started	<u>1107</u>
(C) First Final Flow	<u>49</u>	☒ Safety Joint	<u>75</u>	T-Open	<u>1320</u>
(D) Initial Shut-In	<u>1267</u>	☒ Circ Sub <u>NYC</u>		T-Pulled	<u>1620</u>
(E) Second Initial Flow	<u>56</u>	☐ Hourly Standby		T-Out	<u>17:59</u>
(F) Second Final Flow	<u>99</u>	☒ Mileage <u>48 RT</u>	<u>74.40+74.40</u>	Comments	<u>P/O Tool @ 0800 10/14/14</u>
(G) Final Shut-In	<u>1246</u>	☐ Sampler			
(H) Final Hydrostatic	<u>2129</u>	☐ Straddle			

Initial Open	<u>30</u>	☒ Shale Packer	<u>250</u>	☐ Ruined Shale Packer	
Initial Shut-In	<u>45</u>	☐ Extra Packer		☐ Ruined Packer	
Final Flow	<u>45</u>	☐ Extra Recorder		☐ Extra Copies	
Final Shut-In	<u>60</u>	☒ Day Standby	<u>1.5d 2h</u>	Sub Total	<u>800</u>
		☐ Accessibility		Total	<u>2523.80</u>
		Sub Total	<u>1723.80</u>	MP/DST Disc't	

Approved By _____ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.