



DRILL STEM TEST REPORT

Prepared For: **John O.Farmer,Inc.**

PO Box 352
Russell KS 67665

ATTN: Austin Klaus

Patterson C# 1

35-13s-15w Russell,KS

Start Date: 2014.07.01 @ 10:10:00

End Date: 2014.07.01 @ 15:43:00

Job Ticket #: 59409 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.07.08 @ 10:19:03



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

John O. Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59409

DST#: 1

ATTN: Austin Klaus

Test Start: 2014.07.01 @ 10:10:00

GENERAL INFORMATION:

Formation: **Toronto - LKC "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:17:45

Time Test Ended: 15:43:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett Dickinson

Unit No: 59

Interval: **2993.00 ft (KB) To 3086.00 ft (KB) (TVD)**

Reference Elevations: 1892.00 ft (KB)

Total Depth: 3086.00 ft (KB) (TVD)

1884.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8957 Inside

Press@RunDepth: 32.63 psig @ 2994.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.07.01

End Date:

2014.07.01

Last Calib.: 2014.07.01

Start Time: 10:10:05

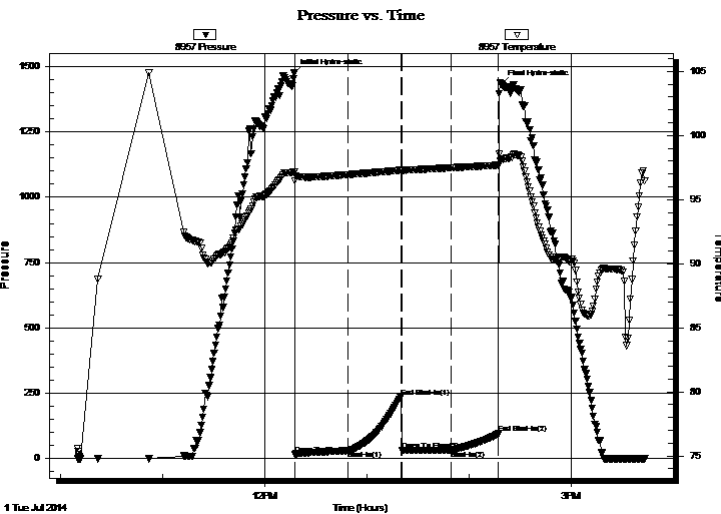
End Time:

15:42:59

Time On Btm: 2014.07.01 @ 12:17:15

Time Off Btm: 2014.07.01 @ 14:18:45

TEST COMMENT: IF-1" blow
IS-No blow
FF-Very weak surface blow
FS-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1475.40	97.16	Initial Hydro-static
1	16.65	96.46	Open To Flow (1)
32	29.51	96.95	Shut-In(1)
63	233.46	97.29	End Shut-In(1)
64	31.21	97.25	Open To Flow (2)
93	32.63	97.48	Shut-In(2)
120	95.06	97.69	End Shut-In(2)
122	1433.01	98.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
35.00	OS Mud	0.22

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

John O. Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59409 **DST#: 1**

ATTN: Austin Klaus

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Time Test Ended: 15:43:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett Dickinson

Unit No: 59

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Reference Elevations: 1892.00 ft (KB)

Total Depth: 3086.00 ft (KB) (TVD)

1884.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8934 Outside

Press@RunDepth: psig @ 2994.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.07.01 End Date: 2014.07.01

Last Calib.: 2014.07.01

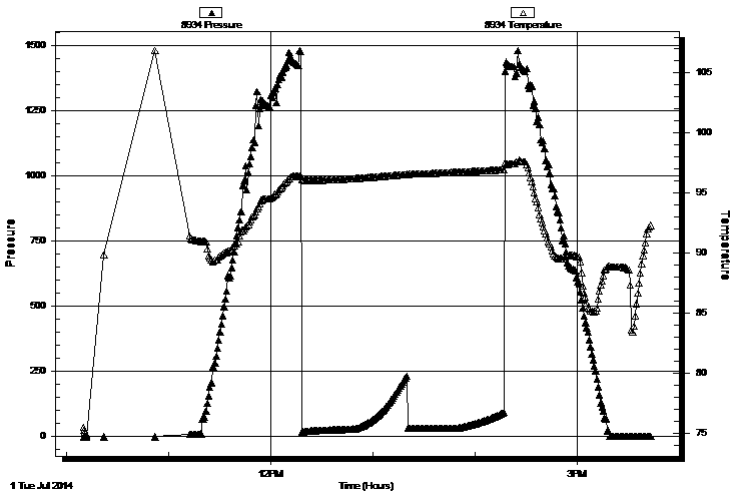
Start Time: 10:10:05 End Time: 15:42:59

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-1" blow
IS-No blow
FF-Very weak surface blow
FS-No blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
35.00	OS Mud	0.22

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O. Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59409

DST#: 1

ATTN: Austin Klaus

Test Start: 2014.07.01 @ 10:10:00

Tool Information

Drill Pipe:	Length: 2975.00 ft	Diameter: 3.80 inches	Volume: 41.73 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	2993.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	93.00 ft			
Tool Length:	113.00 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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Shut In Tool	5.00			2978.00	
Hydraulic tool	5.00			2983.00	
Packer	5.00			2988.00	20.00 Bottom Of Top Packer
Packer	5.00			2993.00	
Stubb	1.00			2994.00	
Recorder	0.00	8957	Inside	2994.00	
Recorder	0.00	8934	Outside	2994.00	
Perforations	5.00			2999.00	
Change Over Sub	1.00			3000.00	
Drill Pipe	63.00			3063.00	
Change Over Sub	1.00			3064.00	
Perforations	19.00			3083.00	
Bullnose	3.00			3086.00	93.00 Bottom Packers & Anchor

Total Tool Length: 113.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

John O.Farmer, Inc.

35-13s-15w Russell,KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59409

DST#: 1

ATTN: Austin Klaus

Test Start: 2014.07.01 @ 10:10:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	OS Mud	0.218

Total Length: 35.00 ft Total Volume: 0.218 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

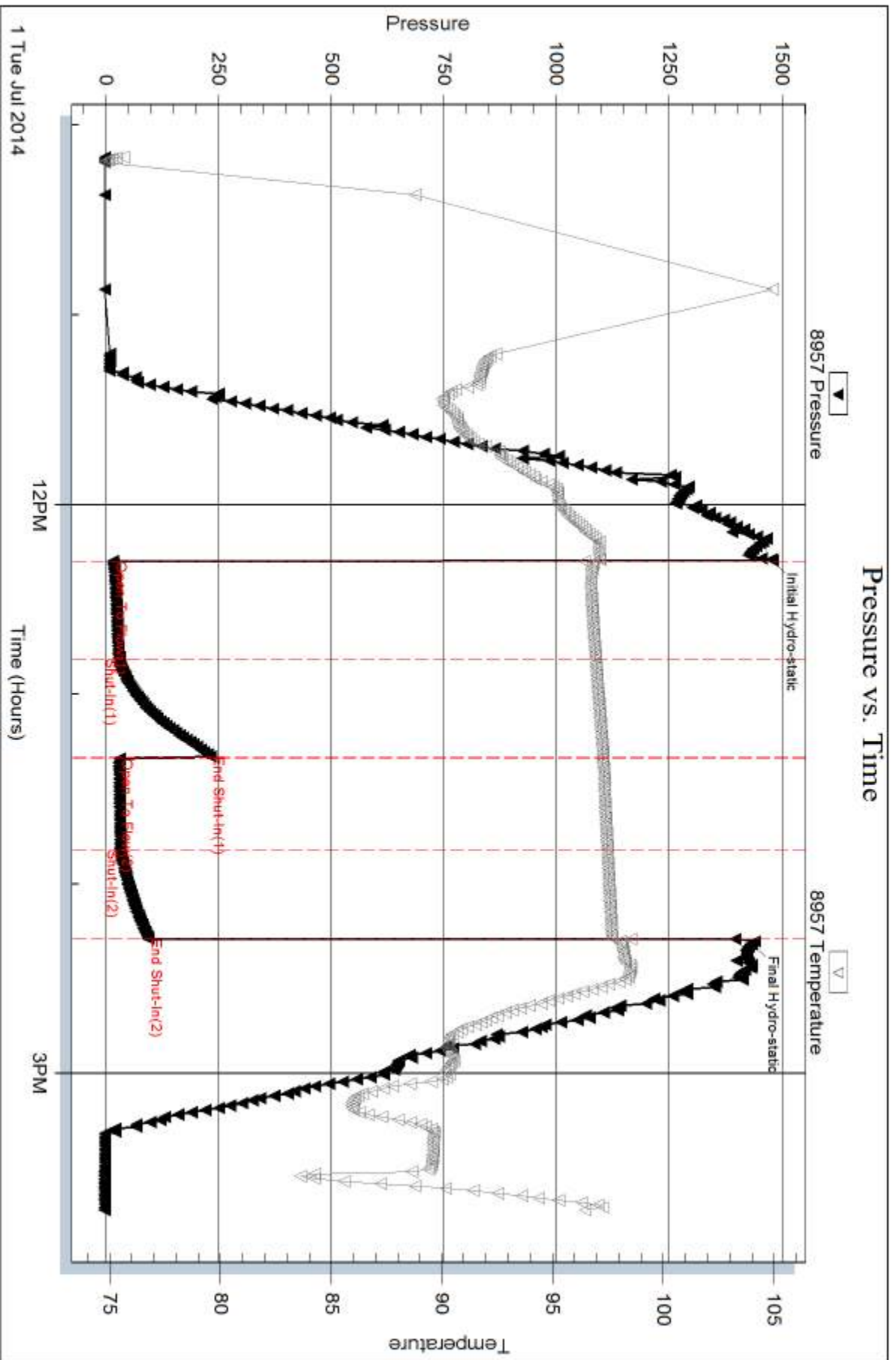
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

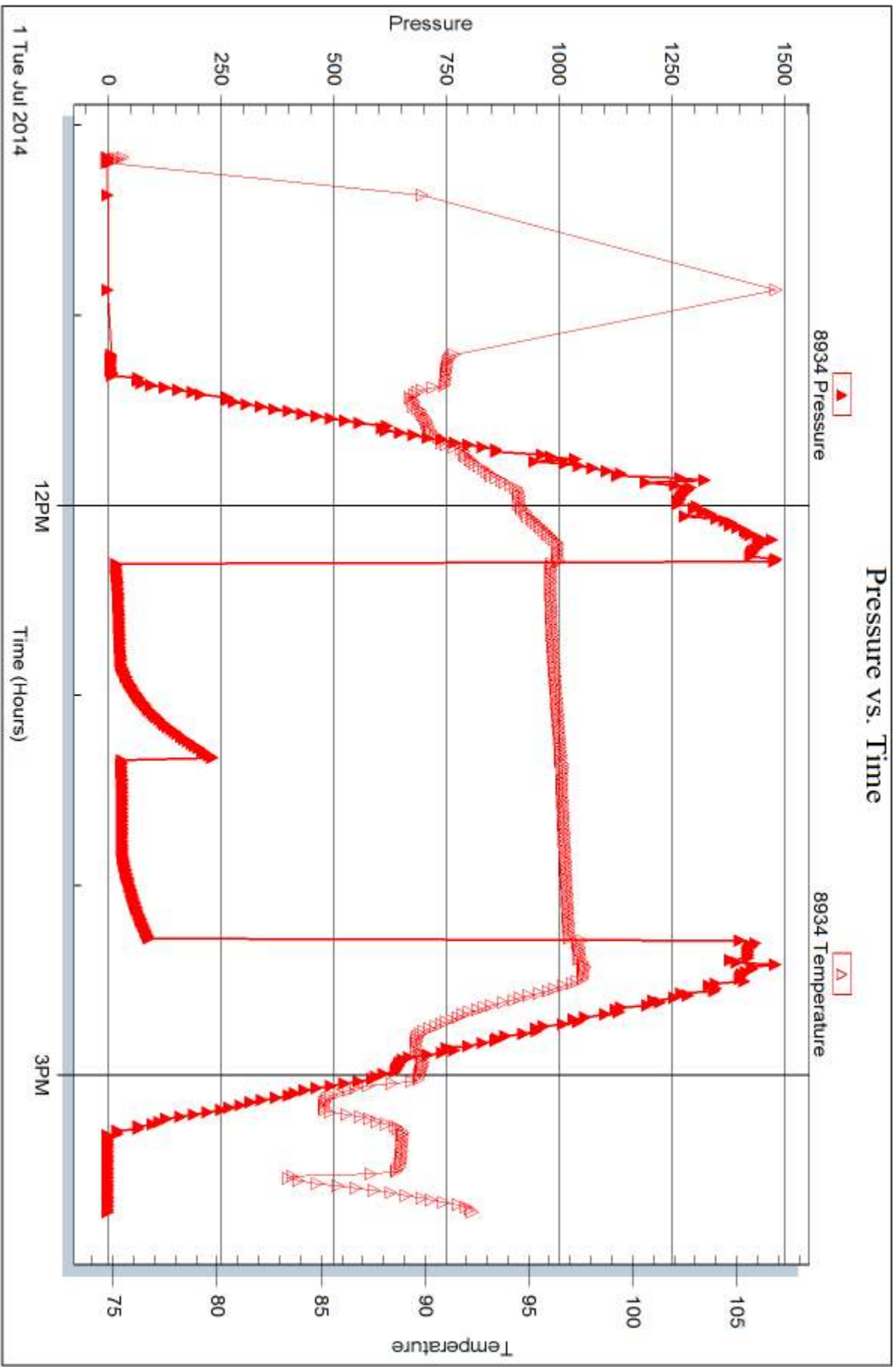


Serial #: 8934

Outside John O.Farmer, Inc.

Patterson C# 1

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 59409

Printed: 2014.07.08 @ 10:19:04



DRILL STEM TEST REPORT

Prepared For: **John O.Farmer,Inc.**

PO Box 352
Russell KS 67665

ATTN: Austin Klaus

Patterson C# 1

35-13s-15w Russell,KS

Start Date: 2014.07.01 @ 22:15:00

End Date: 2014.07.02 @ 04:02:00

Job Ticket #: 59410 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.07.08 @ 10:18:41

John O.Farmer,Inc.

35-13s-15w Russell,KS

Patterson C# 1

DST # 2

LKC "C-D"

2014.07.01



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

John O. Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59410

DST#: 2

ATTN: Austin Klaus

Test Start: 2014.07.01 @ 22:15:00

GENERAL INFORMATION:

Formation: **LKC "C-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:32:30

Time Test Ended: 04:02:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3079.00 ft (KB) To 3120.00 ft (KB) (TVD)

Reference Elevations: 1892.00 ft (KB)

Total Depth: 3120.00 ft (KB) (TVD)

1884.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8957 Inside

Press@RunDepth: 65.31 psig @ 3080.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.07.01 End Date: 2014.07.02

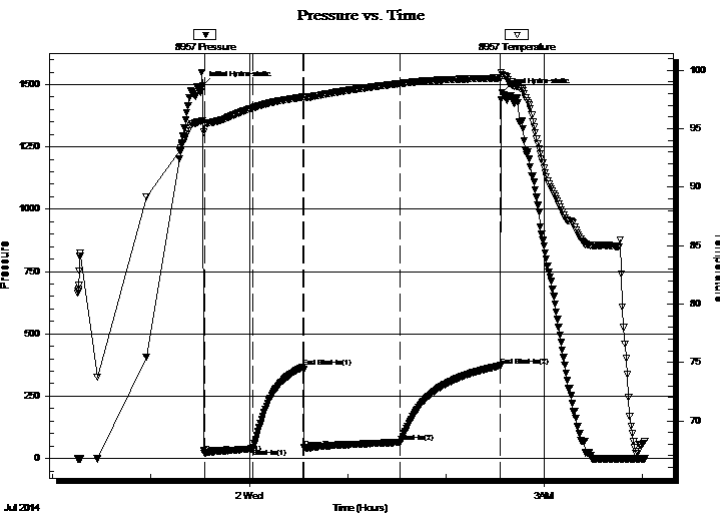
Last Calib.: 2014.07.02

Start Time: 22:15:05 End Time: 04:01:59

Time On Btm: 2014.07.01 @ 23:31:30

Time Off Btm: 2014.07.02 @ 02:34:30

TEST COMMENT: IF-BOB in 7 1/2 min
IS-No blow
FF-BOB in 11 min
FSI-Very weak surface blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1495.29	95.72	Initial Hydro-static
1	20.68	95.36	Open To Flow (1)
31	38.95	96.78	Shut-In(1)
61	365.87	97.70	End Shut-In(1)
62	41.97	97.65	Open To Flow (2)
121	65.31	98.87	Shut-In(2)
182	372.15	99.35	End Shut-In(2)
183	1469.21	99.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	OS MCW 80%W 20%M	0.64
30.00	OCM 30%O 70%M	0.42
20.00	SGO 5%G 95%O	0.28
0.00	300ft GIP	0.00

* Recovery from multiple tests

Gas Rates

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



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TESTING, INC**

DRILL STEM TEST REPORT

John O. Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59410

DST#: 2

ATTN: Austin Klaus

Test Start: 2014.07.01 @ 22:15:00

GENERAL INFORMATION:

Formation: **LKC "C-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:32:30

Time Test Ended: 04:02:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: **3079.00 ft (KB) To 3120.00 ft (KB) (TVD)**

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Total Depth: 3120.00 ft (KB) (TVD)

1884.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8934 Outside

Press@RunDepth: psig @ 3080.00 ft (KB)

Start Date: 2014.07.01

End Date:

2014.07.02

Start Time: 22:15:05

End Time:

04:01:59

Capacity: 8000.00 psig

Last Calib.:

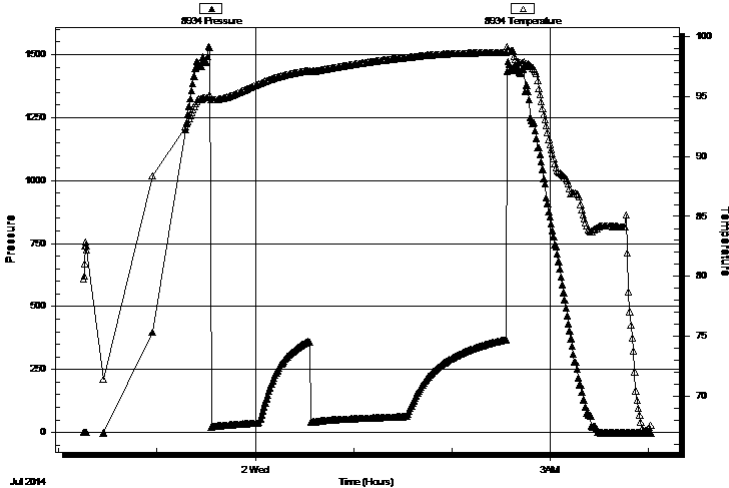
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Time On Btm:

Time Off Btm:

TEST COMMENT: IF-BOB in 7 1/2 min
IS- No blow
FF-BOB in 11 min
FS- Very weak surface blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
65.00	OS MCW 80%W 20%M	0.64
30.00	OCM 30%O 70%M	0.42
20.00	SGO 5%G 95%O	0.28
0.00	300ft GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O. Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59410

DST#: 2

ATTN: Austin Klaus

Test Start: 2014.07.01 @ 22:15:00

Tool Information

Drill Pipe:	Length: 3033.00 ft	Diameter: 3.80 inches	Volume: 42.55 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 46000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3079.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	41.00 ft			
Tool Length:	61.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3064.00	
Hydraulic tool	5.00			3069.00	
Packer	5.00			3074.00	20.00 Bottom Of Top Packer
Packer	5.00			3079.00	
Stubb	1.00			3080.00	
Recorder	0.00	8957	Inside	3080.00	
Recorder	0.00	8934	Outside	3080.00	
Perforations	4.00			3084.00	
Change Over Sub	1.00			3085.00	
Drill Pipe	31.00			3116.00	
Change Over Sub	1.00			3117.00	
Bullnose	3.00			3120.00	41.00 Bottom Packers & Anchor

Total Tool Length: 61.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O.Farmer, Inc.

35-13s-15w Russell,KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59410

DST#: 2

ATTN: Austin Klaus

Test Start: 2014.07.01 @ 22:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

88000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
65.00	OS MCW 80%W 20%M	0.638
30.00	OCM 30%O 70%M	0.421
20.00	SGO 5%G 95%O	0.281
0.00	300ft GIP	0.000

Total Length: 115.00 ft

Total Volume: 1.340 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

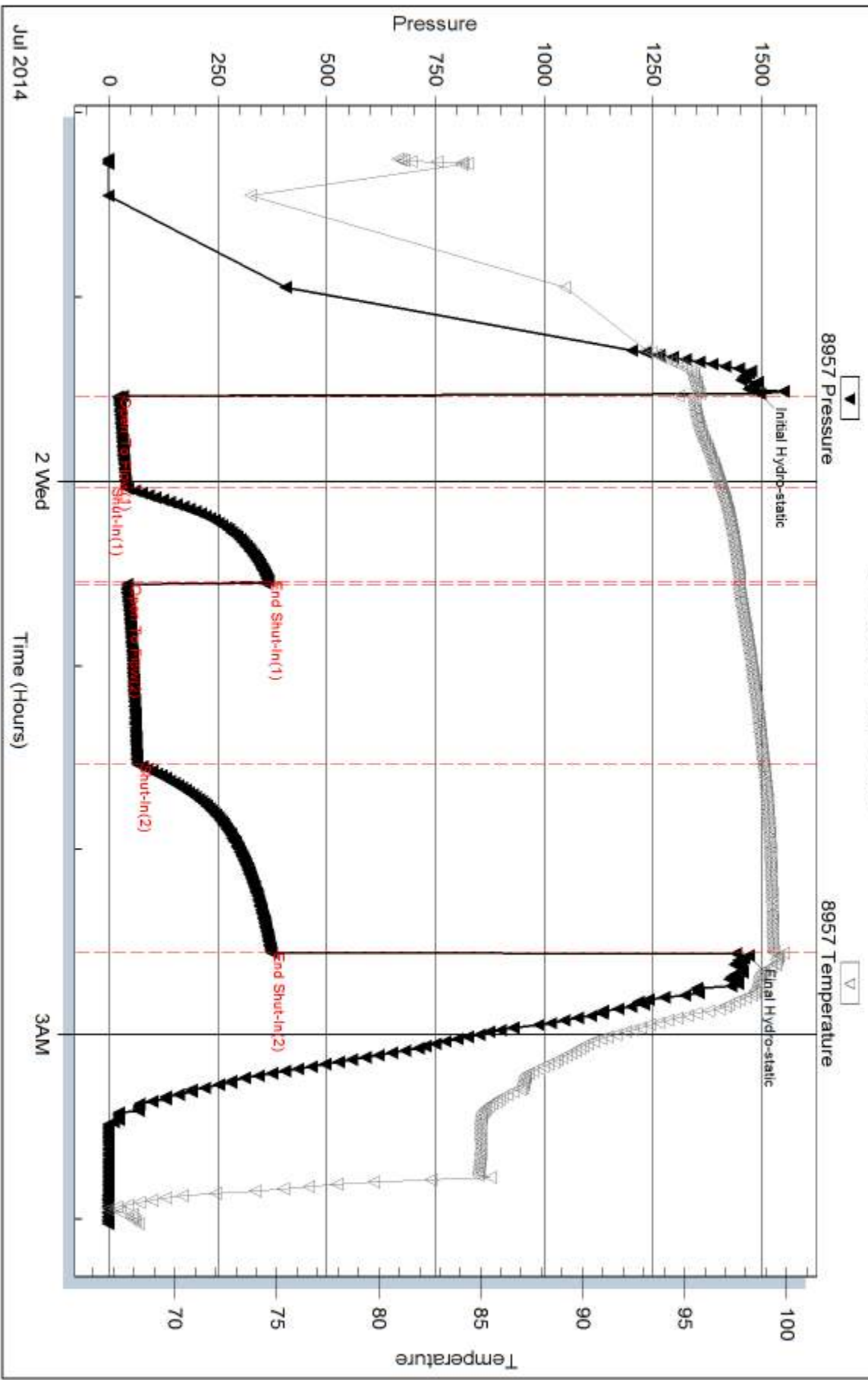
Serial #:

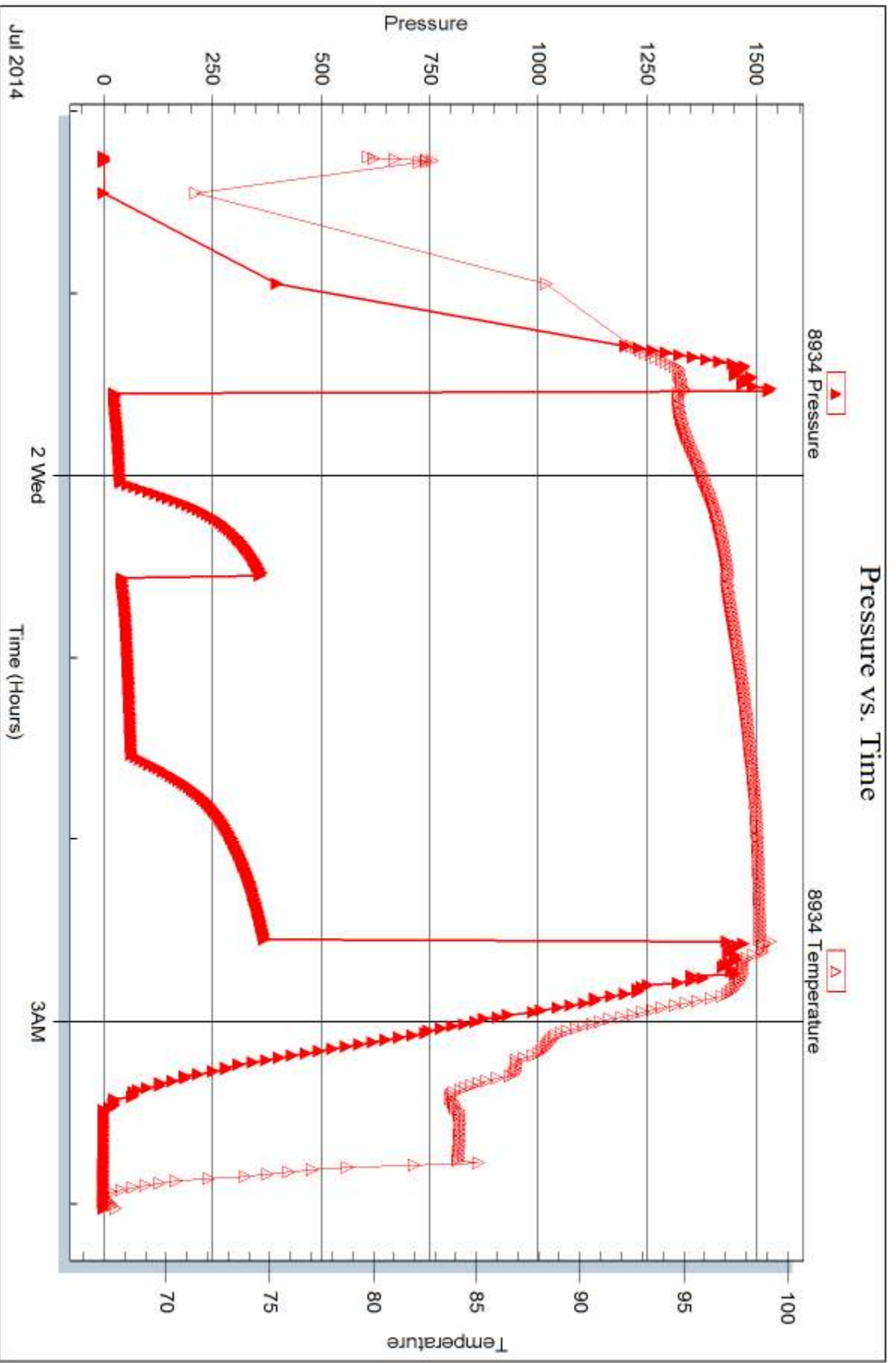
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **John O.Farmer,Inc.**

PO Box 352
Russell KS 67665

ATTN: Austin Klaus

Patterson C# 1

35-13s-15w Russell,KS

Start Date: 2014.07.02 @ 12:30:00

End Date: 2014.07.02 @ 18:33:00

Job Ticket #: 59411 DST #: 3

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

Printed: 2014.07.08 @ 10:18:21

John O.Farmer,Inc.
35-13s-15w Russell,KS
Patterson C# 1
DST # 3
LKC "E-G"
2014.07.02



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

John O. Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59411

DST#: 3

ATTN: Austin Klaus

Test Start: 2014.07.02 @ 12:30:00

GENERAL INFORMATION:

Formation: **LKC "E-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:15:15

Time Test Ended: 18:33:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3112.00 ft (KB) To 3160.00 ft (KB) (TVD)

Reference Elevations: 1892.00 ft (KB)

Total Depth: 3160.00 ft (KB) (TVD)

1884.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8957 Inside

Press@RunDepth: 60.17 psig @ 3113.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.07.02 End Date: 2014.07.02

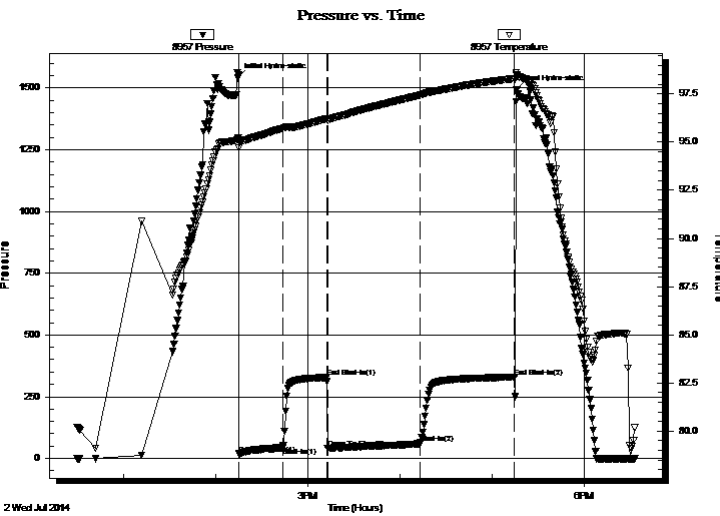
Last Calib.: 2014.07.02

Start Time: 12:30:05 End Time: 18:32:59

Time On Btm: 2014.07.02 @ 14:14:30

Time Off Btm: 2014.07.02 @ 17:16:00

TEST COMMENT: IF-1 1/2" blow
IS-No blow
FF-1 1/4" blow
FS-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1540.37	95.20	Initial Hydro-static
1	18.56	94.68	Open To Flow (1)
30	43.75	95.71	Shut-In(1)
58	328.14	96.21	End Shut-In(1)
59	41.20	96.12	Open To Flow (2)
119	60.17	97.44	Shut-In(2)
181	328.89	98.30	End Shut-In(2)
182	1493.99	98.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
85.00	OS VSWCM 5%W 95%M	0.92

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
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DRILL STEM TEST REPORT

John O. Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

ATTN: Austin Klaus

Job Ticket: 59411

DST#: 3

Test Start: 2014.07.02 @ 12:30:00

GENERAL INFORMATION:

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Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:15:15

Time Test Ended: 18:33:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3112.00 ft (KB) To 3160.00 ft (KB) (TVD)

Reference Elevations: 1892.00 ft (KB)

Total Depth: 3160.00 ft (KB) (TVD)

1884.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8934 Outside

Press@RunDepth: psig @ 3113.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.07.02 End Date: 2014.07.02

Last Calib.: 2014.07.02

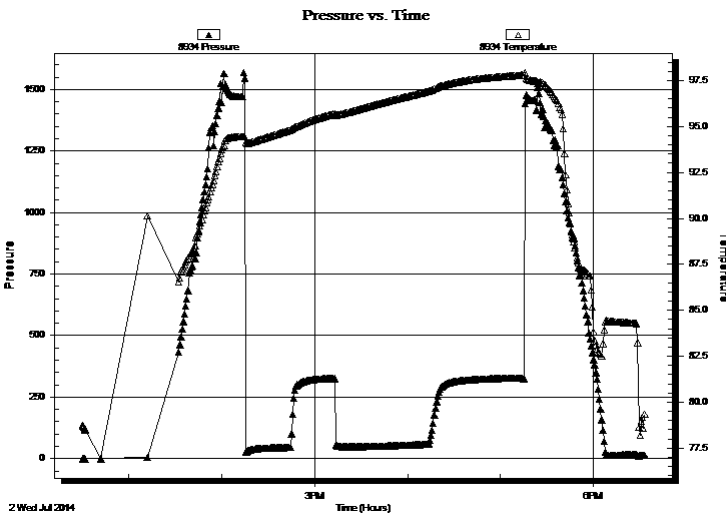
Start Time: 12:30:05 End Time: 18:33:14

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-1 1/2" blow
IS- No blow
FF-1 1/4" blow
FS- No blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
85.00	OS VSWCM 5%W 95%M	0.92

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O.Farmer, Inc.

35-13s-15w Russell,KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59411

DST#: 3

ATTN: Austin Klaus

Test Start: 2014.07.02 @ 12:30:00

Tool Information

Drill Pipe:	Length: 3070.00 ft	Diameter: 3.80 inches	Volume: 43.06 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3112.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	48.00 ft			
Tool Length:	68.00 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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Shut In Tool	5.00			3097.00	
Hydraulic tool	5.00			3102.00	
Packer	5.00			3107.00	20.00 Bottom Of Top Packer
Packer	5.00			3112.00	
Stubb	1.00			3113.00	
Recorder	0.00	8957	Inside	3113.00	
Recorder	0.00	8934	Outside	3113.00	
Perforations	10.00			3123.00	
Change Over Sub	1.00			3124.00	
Drill Pipe	32.00			3156.00	
Change Over Sub	1.00			3157.00	
Bullnose	3.00			3160.00	48.00 Bottom Packers & Anchor

Total Tool Length: 68.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O.Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59411

DST#: 3

ATTN: Austin Klaus

Test Start: 2014.07.02 @ 12:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
85.00	OS VSWCM 5%W 95%M	0.919

Total Length: 85.00 ft Total Volume: 0.919 bbl

Num Fluid Samples: 0

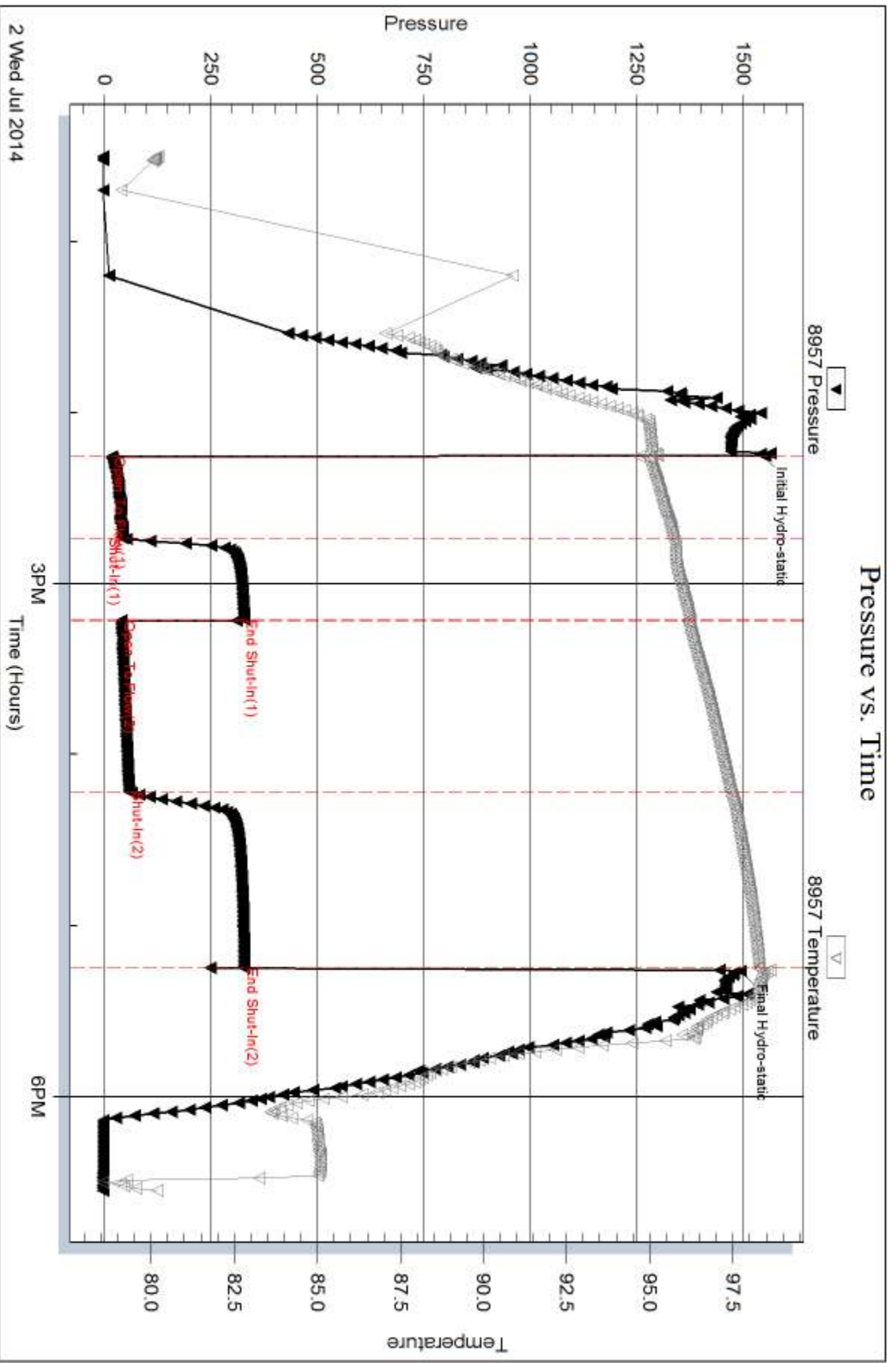
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

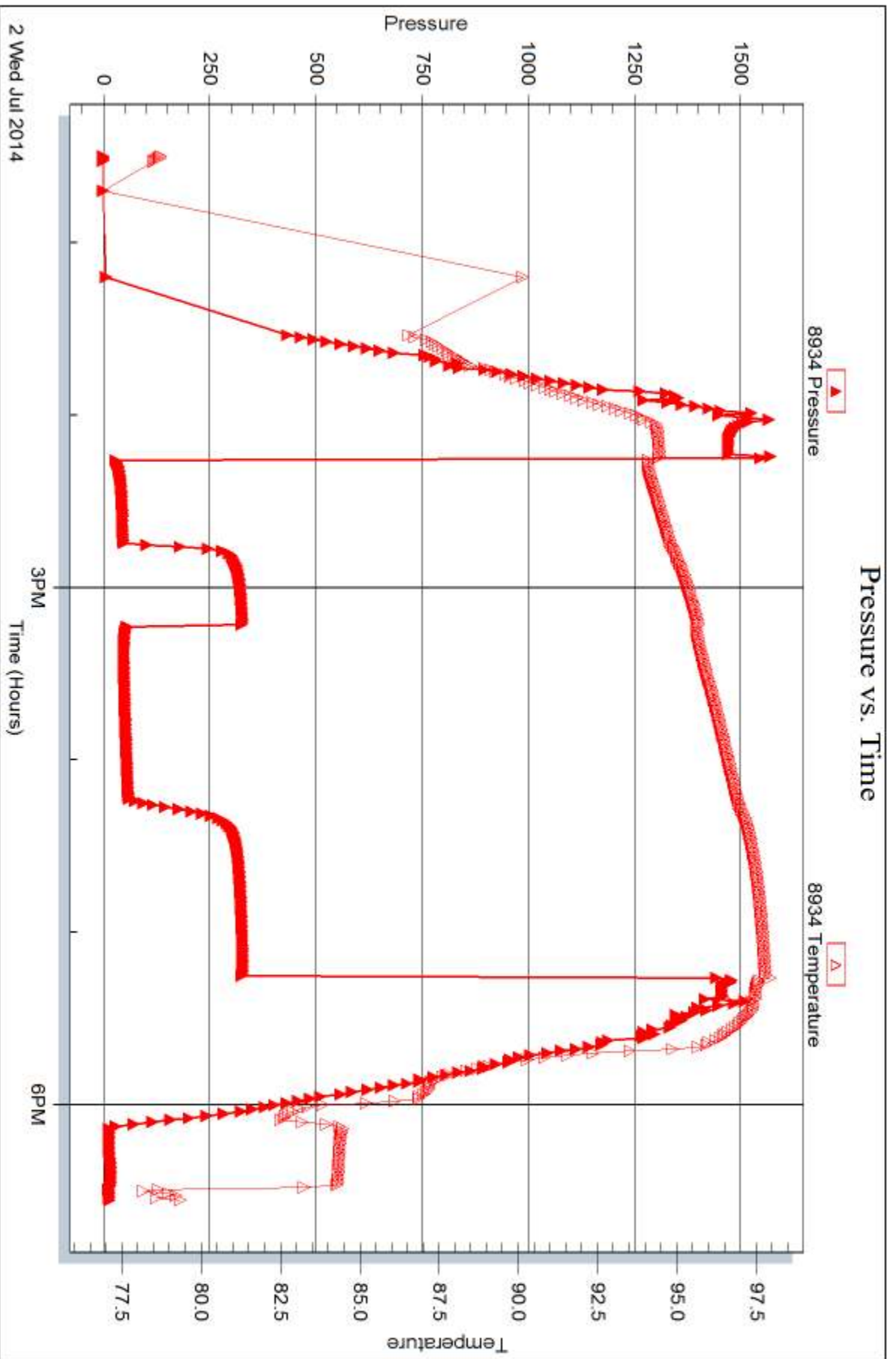


Serial #: 8934

Outside John O.Farmer, Inc.

Patterson C# 1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 59411

Printed: 2014.07.08 @ 10:18:23



DRILL STEM TEST REPORT

Prepared For: **John O.Farmer,Inc.**

PO Box 352
Russell KS 67665

ATTN: Austin Klaus

Patterson C# 1

35-13s-15w Russell,KS

Start Date: 2014.07.03 @ 07:45:00

End Date: 2014.07.03 @ 13:04:45

Job Ticket #: 59412 DST #: 4

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

Printed: 2014.07.08 @ 10:17:57

John O.Farmer,Inc.
35-13s-15w Russell,KS
Patterson C# 1
DST # 4
LKC "I-J"
2014.07.03



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

John O. Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59412

DST#: 4

ATTN: Austin Klaus

Test Start: 2014.07.03 @ 07:45:00

GENERAL INFORMATION:

Formation: **LKC "I-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:36:30

Time Test Ended: 13:04:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3197.00 ft (KB) To 3300.00 ft (KB) (TVD)

Reference Elevations: 1892.00 ft (KB)

Total Depth: 3300.00 ft (KB) (TVD)

1884.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8957

Inside

Press@RunDepth: 32.27 psig @ 3198.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.07.03

End Date:

2014.07.03

Last Calib.: 2014.07.03

Start Time: 07:45:05

End Time:

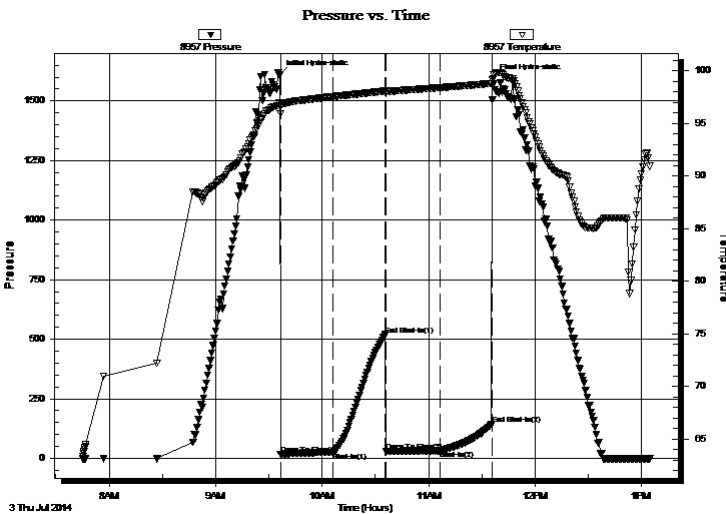
13:04:44

Time On Btm: 2014.07.03 @ 09:36:00

Time Off Btm: 2014.07.03 @ 11:36:15

TEST COMMENT: IF-1" blow
IS-No blow
FF-Very weak surface blow
FS-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1609.20	96.94	Initial Hydro-static
1	16.51	95.89	Open To Flow (1)
30	26.30	97.51	Shut-In(1)
60	519.18	98.06	End Shut-In(1)
60	28.95	97.84	Open To Flow (2)
91	32.27	98.38	Shut-In(2)
120	144.09	98.78	End Shut-In(2)
121	1593.74	99.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
35.00	OS Mud	0.22

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O.Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

ATTN: Austin Klaus

Job Ticket: 59412

DST#: 4

Test Start: 2014.07.03 @ 07:45:00

GENERAL INFORMATION:

Formation: **LKC "I-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:36:30

Time Test Ended: 13:04:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3197.00 ft (KB) To 3300.00 ft (KB) (TVD)

Reference Elevations: 1892.00 ft (KB)

Total Depth: 3300.00 ft (KB) (TVD)

1884.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8934

Outside

Press@RunDepth: psig @ 3198.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.07.03

End Date:

2014.07.03

Last Calib.:

2014.07.03

Start Time: 07:45:05

End Time:

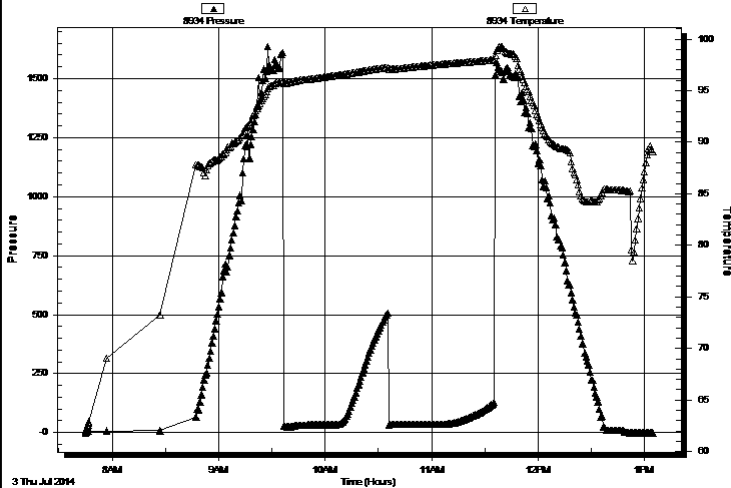
13:04:44

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-1" blow
IS-No blow
FF-Very weak surface blow
FS-No blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
35.00	OS Mud	0.22

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O.Farmer, Inc.

35-13s-15w Russell,KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59412

DST#: 4

ATTN: Austin Klaus

Test Start: 2014.07.03 @ 07:45:00

Tool Information

Drill Pipe:	Length: 3163.00 ft	Diameter: 3.80 inches	Volume: 44.37 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3197.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	104.00 ft			
Tool Length:	124.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			3182.00	
Hydraulic tool	5.00			3187.00	
Packer	5.00			3192.00	20.00 Bottom Of Top Packer
Packer	5.00			3197.00	
Stubb	1.00			3198.00	
Recorder	0.00	8957	Inside	3198.00	
Recorder	0.00	8934	Outside	3198.00	
Perforations	3.00			3201.00	
Change Over Sub	1.00			3202.00	
Drill Pipe	95.00			3297.00	
Change Over Sub	1.00			3298.00	
Bullnose	3.00			3301.00	104.00 Bottom Packers & Anchor

Total Tool Length: 124.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O.Farmer, Inc.

35-13s-15w Russell,KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59412

DST#: 4

ATTN: Austin Klaus

Test Start: 2014.07.03 @ 07:45:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	OS Mud	0.218

Total Length: 35.00 ft Total Volume: 0.218 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

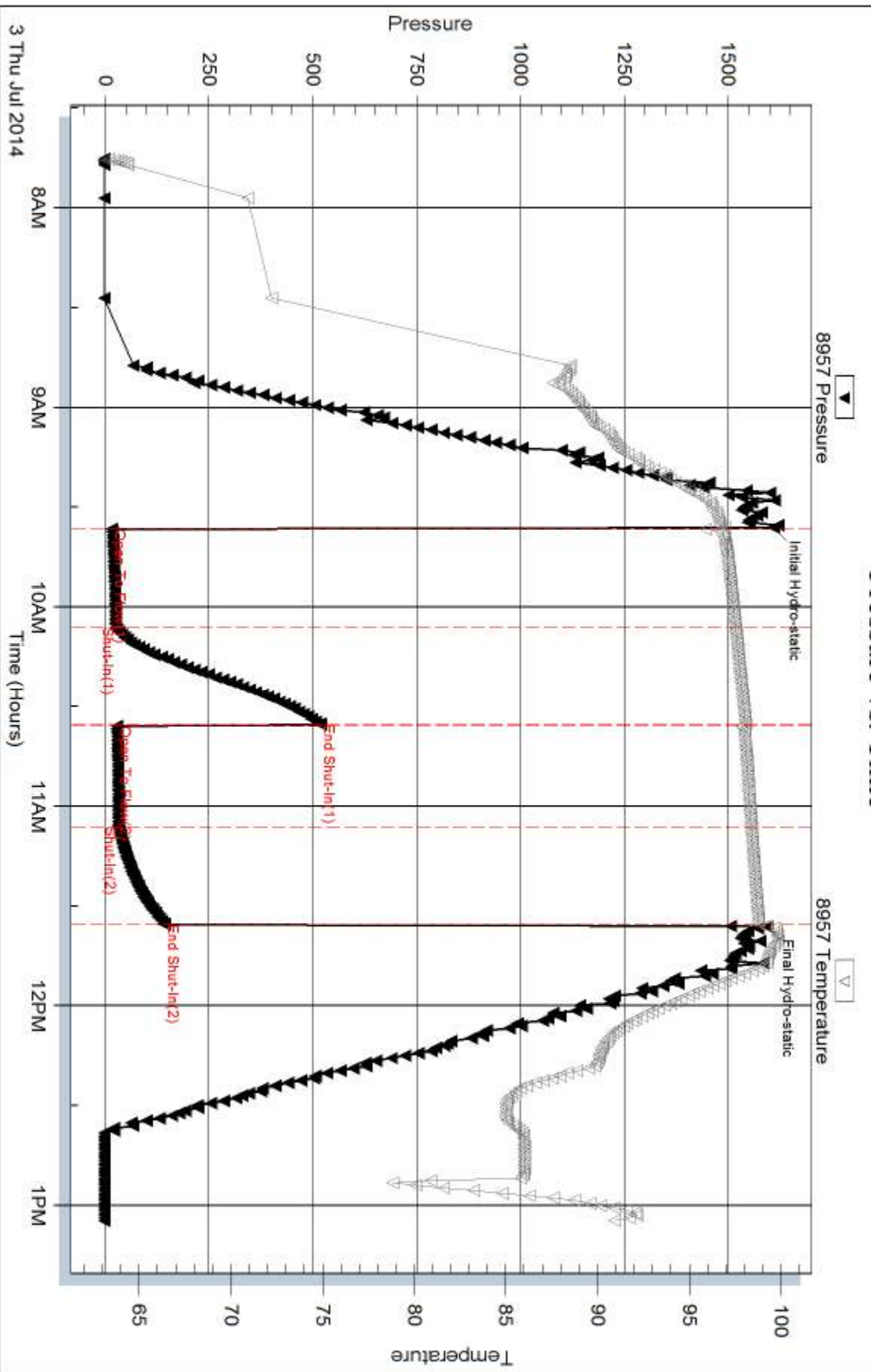
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

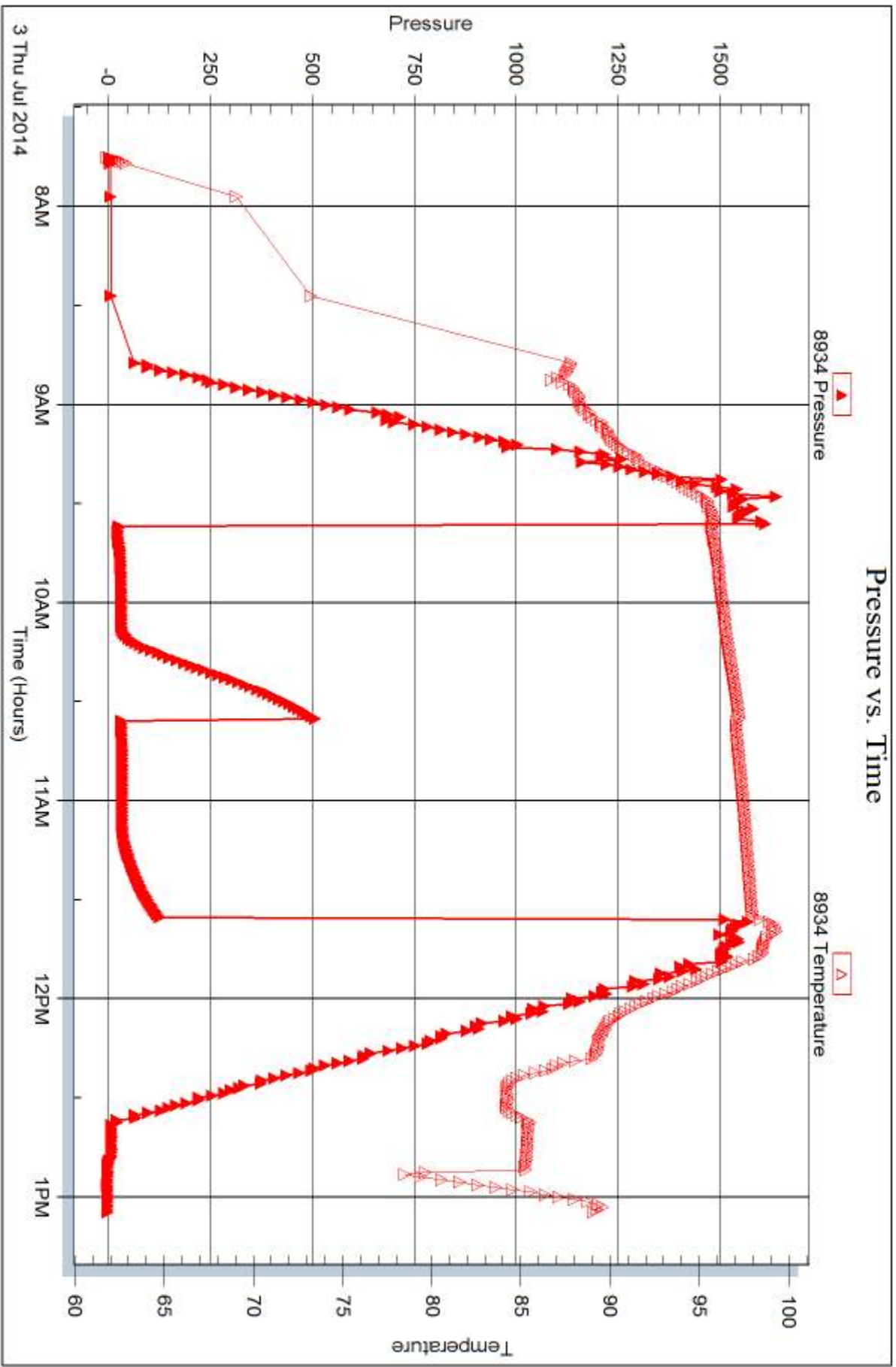


Serial #: 8934

Outside John O.Farmer, Inc.

Patterson C# 1

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **John O.Farmer,Inc.**

PO Box 352
Russell KS 67665

ATTN: Austin Klaus

Patterson C# 1

35-13s-15w Russell,KS

Start Date: 2014.07.04 @ 00:10:00

End Date: 2014.07.04 @ 07:13:30

Job Ticket #: 59413 DST #: 5

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

Printed: 2014.07.08 @ 10:17:26

John O.Farmer,Inc.
35-13s-15w Russell,KS
Patterson C# 1
DST # 5
Arbuckle
2014.07.04



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O. Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59413

DST#: 5

ATTN: Austin Klaus

Test Start: 2014.07.04 @ 00:10:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:17:00

Time Test Ended: 07:13:30

Test Type: Conventional Straddle (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3268.00 ft (KB) To 3320.00 ft (KB) (TVD)

Reference Elevations: 1892.00 ft (KB)

Total Depth: 3380.00 ft (KB) (TVD)

1884.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8957

Inside

Press@RunDepth: 1050.21 psig @ 3269.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.07.04

End Date:

2014.07.04

Last Calib.:

2014.07.04

Start Time: 00:10:05

End Time:

07:13:29

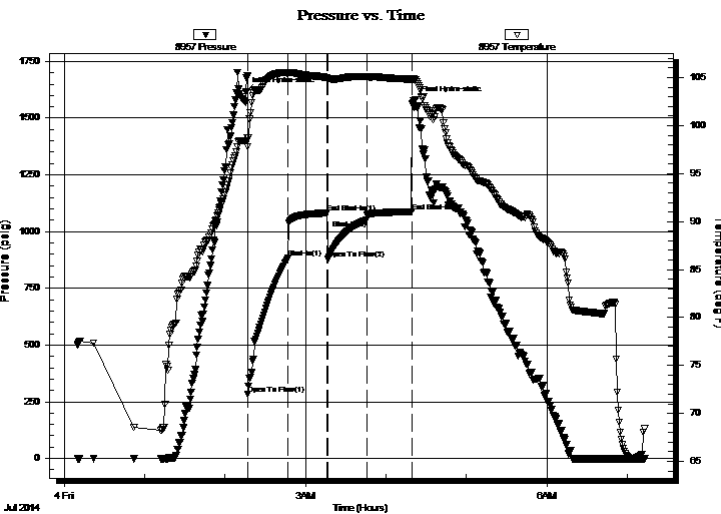
Time On Btm:

2014.07.04 @ 02:15:45

Time Off Btm:

2014.07.04 @ 04:20:45

TEST COMMENT: IF-BOB in 45 sec
IS-No blow
FF-BOB in 45 sec
FS-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1617.19	98.46	Initial Hydro-static
2	281.72	97.81	Open To Flow (1)
31	882.26	105.48	Shut-In(1)
61	1082.28	105.01	End Shut-In(1)
61	879.90	104.90	Open To Flow (2)
90	1050.21	105.08	Shut-In(2)
124	1086.65	104.75	End Shut-In(2)
125	1576.16	104.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
430.00	VSOCW 5%O 95%W	5.76
490.00	SGOCW 10%G 10%O 80%W	6.87
1520.00	SGOCW 10%G 40%O 50%W	21.32

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

John O. Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59413

DST#: 5

ATTN: Austin Klaus

Test Start: 2014.07.04 @ 00:10:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:17:00

Time Test Ended: 07:13:30

Test Type: Conventional Straddle (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3268.00 ft (KB) To 3320.00 ft (KB) (TVD)

Total Depth: 3380.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1892.00 ft (KB)

1884.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8934 Outside

Press@RunDepth: psig @ 3269.00 ft (KB)

Start Date: 2014.07.04

End Date:

2014.07.04

Start Time: 00:10:05

End Time:

07:13:44

Capacity: 8000.00 psig

Last Calib.:

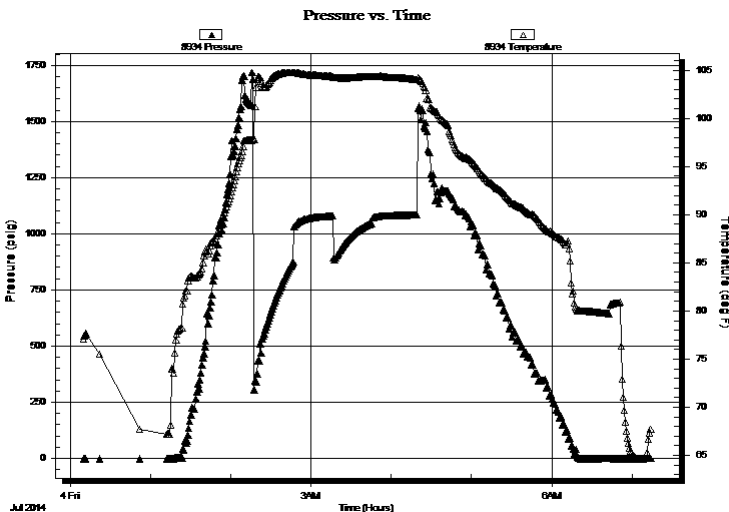
2014.07.04

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-BOB in 45 sec
IS- No blow
FF-BOB in 45 sec
FS- No blow

PRESSURE SUMMARY



Time
(Min.)

Pressure
(psig)

Temp
(deg F)

Annotation

Recovery

Length (ft)	Description	Volume (bbl)
430.00	VSOCW 5%O 95%W	5.76
490.00	SGOCW 10%G 10%O 80%W	6.87
1520.00	SGOCW 10%G 40%O 50%W	21.32

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

John O. Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

ATTN: Austin Klaus

Job Ticket: 59413

DST#: 5

Test Start: 2014.07.04 @ 00:10:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:17:00

Time Test Ended: 07:13:30

Test Type: Conventional Straddle (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3268.00 ft (KB) To 3320.00 ft (KB) (TVD)

Reference Elevations: 1892.00 ft (KB)

Total Depth: 3380.00 ft (KB) (TVD)

1884.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8736 Below (Straddle)

Press@RunDepth: psig @ 3350.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.07.04 End Date: 2014.07.04

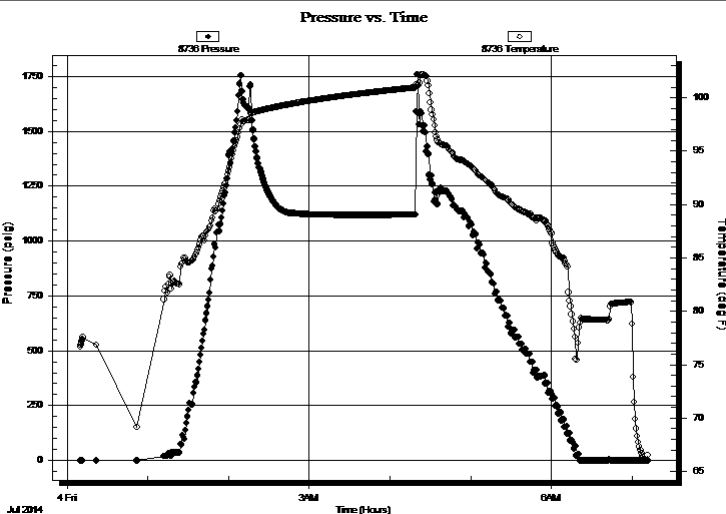
Last Calib.: 2014.07.04

Start Time: 00:10:05 End Time: 07:11:59

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-BOB in 45 sec
IS-No blow
FF-BOB in 45 sec
FS-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
430.00	VSOCW 5%O 95%W	5.76
490.00	SGOCW 10%G 10%O 80%W	6.87
1520.00	SGOCW 10%G 40%O 50%W	21.32

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O. Farmer, Inc.

35-13s-15w Russell, KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59413

DST#: 5

ATTN: Austin Klaus

Test Start: 2014.07.04 @ 00:10:00

Tool Information

Drill Pipe:	Length: 3226.00 ft	Diameter: 3.80 inches	Volume: 45.25 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3268.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	3320.00 ft			
Interval between Packers:	52.00 ft			
Tool Length:	138.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description

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

Shut In Tool	5.00			3253.00	
Hydraulic tool	5.00			3258.00	
Packer	5.00			3263.00	20.00 Bottom Of Top Packer
Packer	5.00			3268.00	
Stubb	1.00			3269.00	
Recorder	0.00	8957	Inside	3269.00	
Recorder	0.00	8934	Outside	3269.00	
Perforations	8.00			3277.00	
Change Over Sub	1.00			3278.00	
Drill Pipe	32.00			3310.00	
Change Over Sub	1.00			3311.00	
Perforations	5.00			3316.00	
Blank Off Sub	4.00			3320.00	52.00 Tool Interval
Packer	5.00			3325.00	
Perforations	25.00			3350.00	
Recorder	0.00	8736	Below	3350.00	
Change Over Sub	1.00			3351.00	
Drill Pipe	31.00			3382.00	
Change Over Sub	1.00			3383.00	
Bullnose	3.00			3386.00	66.00 Bottom Packers & Anchor

Total Tool Length: 138.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O.Farmer, Inc.

35-13s-15w Russell,KS

PO Box 352
Russell KS 67665

Patterson C# 1

Job Ticket: 59413

DST#: 5

ATTN: Austin Klaus

Test Start: 2014.07.04 @ 00:10:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
430.00	VSOCW 5%O 95%W	5.758
490.00	SGOCW 10%G 10%O 80%W	6.873
1520.00	SGOCW 10%G 40%O 50%W	21.322

Total Length: 2440.00 ft Total Volume: 33.953 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

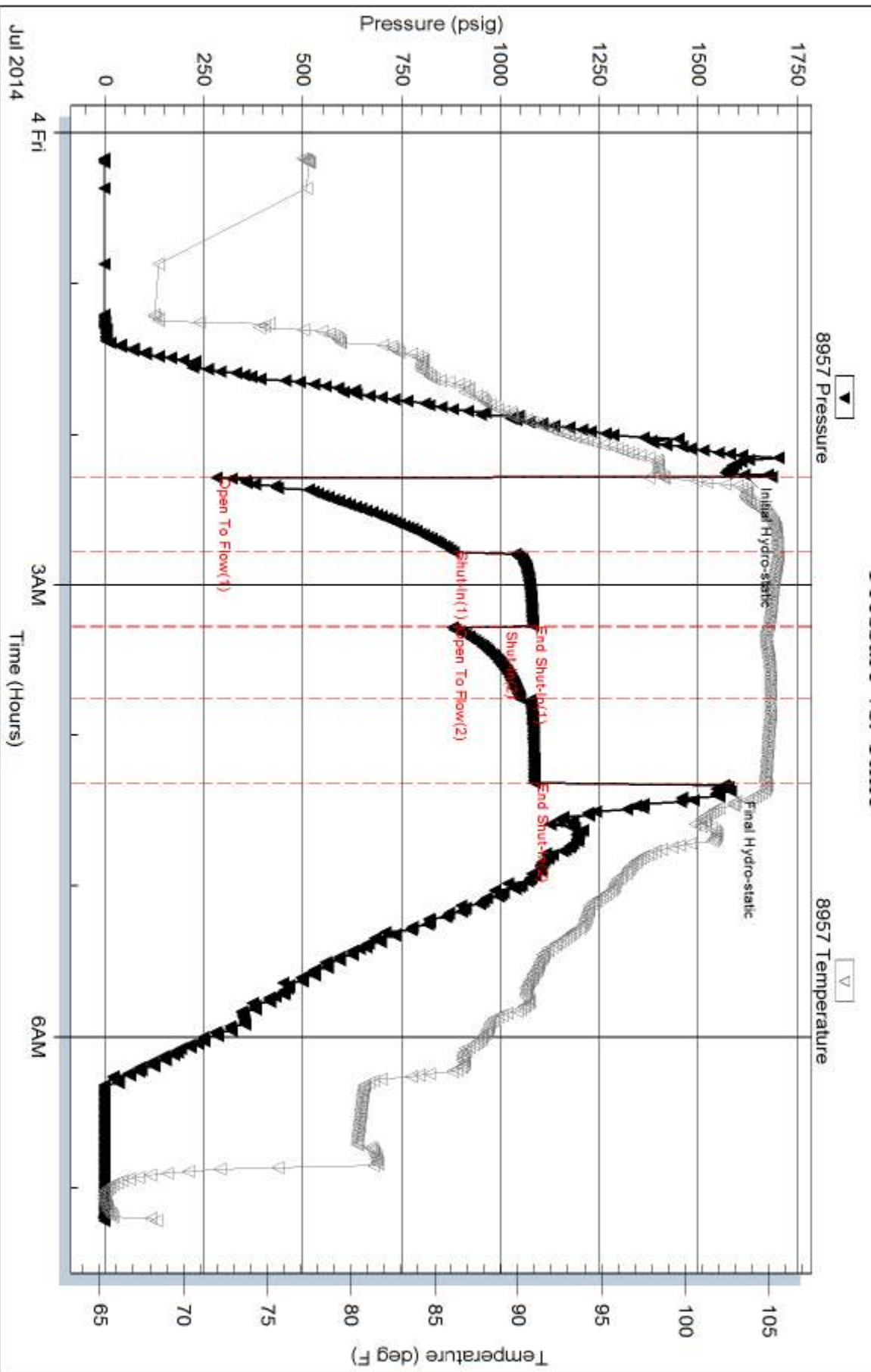
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

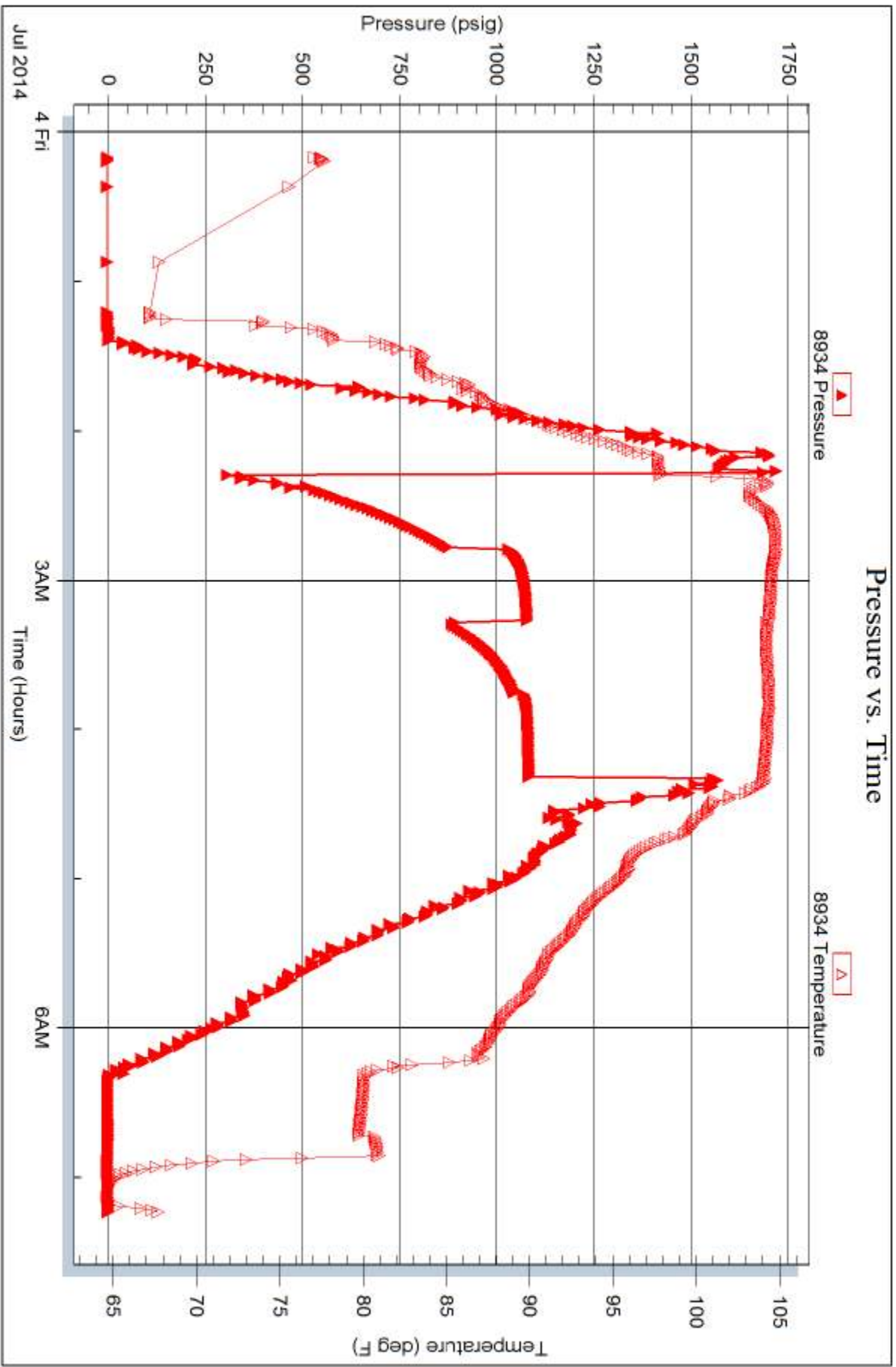


Serial #: 8934

Outside John O'Farmer, Inc.

Patterson C# 1

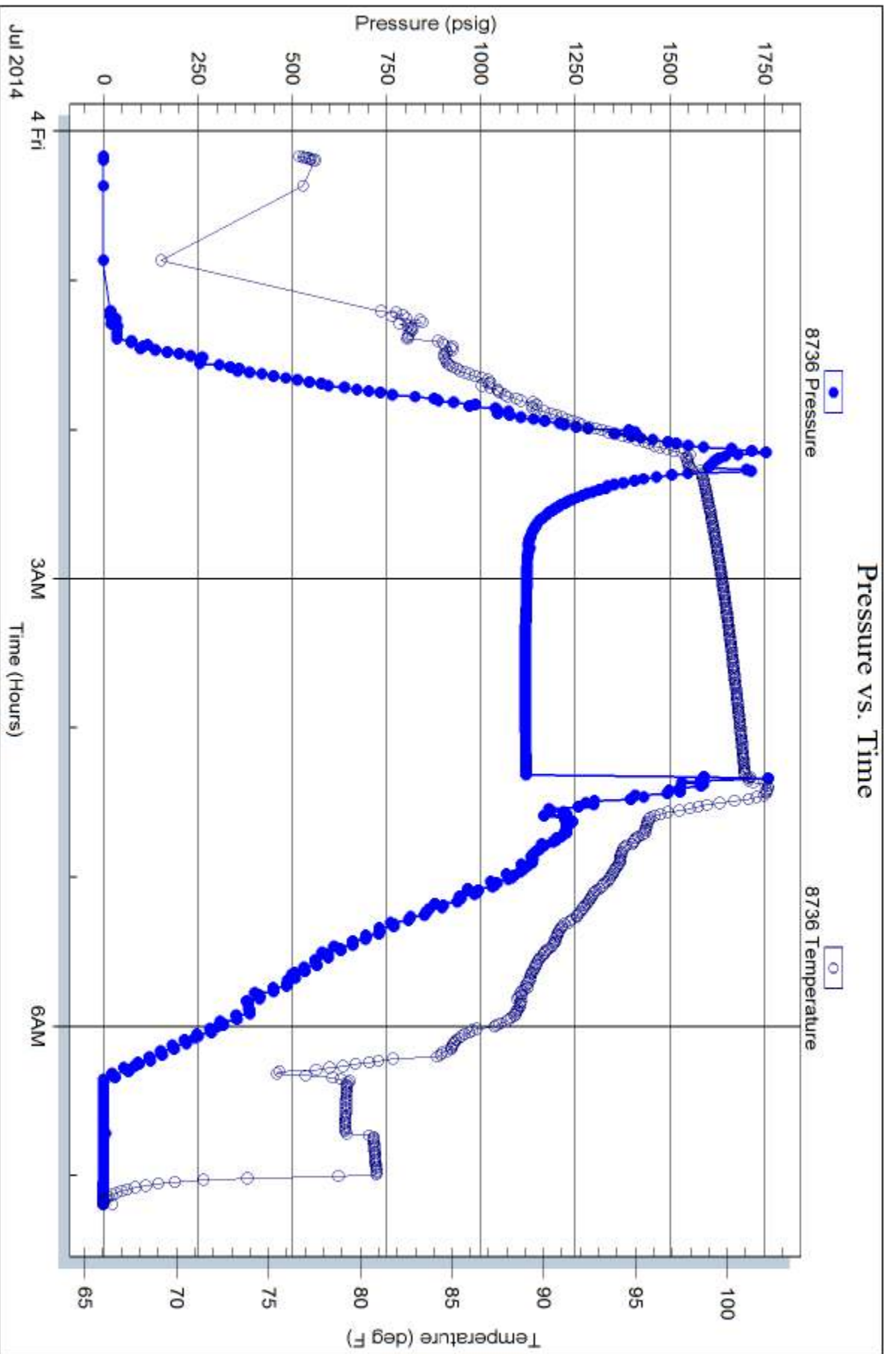
DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 59413

Printed: 2014.07.08 @ 10:17:27





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59409

4/10

Well Name & No. Patterson C #1 Test No. 1 Date 7/01/14
 Company John O. Farmer, Inc. Elevation 1892 KB 1884 GL
 Address PO Box 352 Russell KS 67665
 Co. Rep / Geo. Austin Klaus Rig Discovery #2
 Location: Sec. 35 Twp. 13 Rge. 15w Co. Russell State KS

Interval Tested 2993 - 3086 Zone Tested Tarabo - KC "B"
 Anchor Length 93 Drill Pipe Run _____ Mud Wt. 8.9
 Top Packer Depth 2988 Drill Collars Run 30 Vis 57
 Bottom Packer Depth 2993 Wt. Pipe Run _____ WL 8.0
 Total Depth 3086 Chlorides 5,000 ppm System LCM 1 1/2 #
 Blow Description IF - 1 in blow
ISF - No blow
FF - Very weak surface blow
FSF - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>35</u>	<u>05 mud</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 35 BHT 98 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm
 (A) Initial Hydrostatic 1475 Test 1150 T-On Location 8:30
 (B) First Initial Flow 17 Jars _____ T-Started 10:10
 (C) First Final Flow 30 Safety Joint _____ T-Open 12:20
 (D) Initial Shut-In 233 Circ Sub _____ T-Pulled 14:20
 (E) Second Initial Flow 31 Hourly Standby _____ T-Out 15:45
 (F) Second Final Flow 33 Mileage 46.1 71.30 Comments _____
 (G) Final Shut-In 95 Sampler _____
 (H) Final Hydrostatic 1,433 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 30 Day Standby _____ Total 1221.30
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 30 Sub Total 1221.30

Approved By _____ Our Representative Brian D...
 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. 59410

Well Name & No. Patterson C#1 Test No. 2 Date 7/01/14
 Company John O Farmer Inc. Elevation 1892 KB 1884 GL
 Address PO Box 352 Russell KS 67665
 Co. Rep / Geo. Austin Klaus Rig Discovery #2
 Location: Sec. 35 Twp. 13 Rge. 15 Co. Russell State KS

Interval Tested 3079-3120 Zone Tested KC" C-D "
 Anchor Length 41 Drill Pipe Run _____ Mud Wt. _____
 Top Packer Depth 3074 Drill Collars Run 30 Vis _____
 Bottom Packer Depth 3079 Wt. Pipe Run _____ WL _____
 Total Depth 3120 Chlorides _____ ppm System LCM _____

Blow Description FF-BOB in 7 1/2 min
JSD - No blow
FF-BOB in 11 min
JSD - Very weak surface blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>SGO</u>	<u>5</u>	<u>93</u>		
<u>30</u>	<u>OCM</u>		<u>30</u>		<u>70</u>
<u>65</u>	<u>OS MCW</u>			<u>80</u>	<u>20</u>
	<u>30087 GIP</u>				

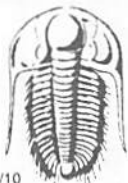
Rec Total 115 BHT _____ Gravity _____ API RW 1 @ 65 °F Chlorides 88000 ppm

(A) Initial Hydrostatic 1,495 Test 1150 T-On Location 22:00
 (B) First Initial Flow 21 Jars _____ T-Started 22:15
 (C) First Final Flow 39 Safety Joint _____ T-Open 23:32
 (D) Initial Shut-In 366 Circ Sub _____ T-Pulled 2:32
 (E) Second Initial Flow 42 Hourly Standby _____ T-Out 4:00
 (F) Second Final Flow 65 Mileage 46 RT 71.30 Comments _____
 (G) Final Shut-In 372 Sampler _____
 (H) Final Hydrostatic 1,465 Straddle _____ Ruined Shale Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 30 Extra Recorder _____ Sub Total 0
 Final Flow 60 Day Standby _____ Total 1221.30
 Final Shut-In 60 Accessibility _____ MP/DST Disc't _____
 Sub Total 1221.30

Approved By _____ Our Representative Russell

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. 59411

Well Name & No. Patterson C#1 Test No. 3 Date 7/02/14
 Company John O Farmer Inc. Elevation 1892 KB 1884 GL
 Address PO Box 352 Russell KS 67665
 Co. Rep / Geo. Austin Klaus Rig Discovery #2
 Location: Sec. 3.5 Twp. 13 Rge. 1.5 Co. Russell State KS

Interval Tested 3112 - 3160 Zone Tested KC "E-6"
 Anchor Length 48 Drill Pipe Run _____ Mud Wt. _____
 Top Packer Depth 3107 Drill Collars Run 30 Vis _____
 Bottom Packer Depth 3112 Wt. Pipe Run — WL _____
 Total Depth 3160 Chlorides _____ ppm System LCM _____

Blow Description IF - 1 1/2 in blow
IST - No blow
FF - 1 1/4 in blow
FST - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>85</u>	<u>VS WCM</u>		<u>5</u>	<u>95</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 85 BHT 98 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1,540 Test 1150 T-On Location 12:30
 (B) First Initial Flow 19 Jars _____ T-Started 12:30
 (C) First Final Flow 44 Safety Joint _____ T-Open 14:12
 (D) Initial Shut-In 328 Circ Sub _____ T-Pulled 17:12
 (E) Second Initial Flow 41 Hourly Standby _____ T-Out 18:30
 (F) Second Final Flow 60 Mileage 46.7 71.30 Comments _____
 (G) Final Shut-In 329 Sampler _____
 (H) Final Hydrostatic 1,494 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1221.30
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1221.30

Approved By _____ Our Representative Ben Du

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59412

4/10

Well Name & No. Patterson C # 1 Test No. 4 Date 7/03/14
 Company John O Farmer Inc. Elevation 1892 KB 1884 GL
 Address PO Box 352 Russell KS 67665
 Co. Rep / Geo. Austin Klaus Rig Discovering #2
 Location: Sec. 35 Twp. 13 Rge. 15 Co. Russell State KS

Interval Tested 3197 - 3300 Zone Tested KC "I-L"
 Anchor Length 103 Drill Pipe Run _____ Mud Wt. _____
 Top Packer Depth 3192 Drill Collars Run 30 Vis _____
 Bottom Packer Depth 3197 Wt. Pipe Run _____ WL _____
 Total Depth 3300 Chlorides _____ ppm System LCM _____
 Blow Description IF - 1 in blow
ISI - No blow
FF - very weak surge blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>35</u>	<u>OS Mud</u>				
____	____				
____	____				
____	____				
____	____				

Rec Total 35 BHT 99 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 4609 Test 1150 T-On Location 7:45
 (B) First Initial Flow 17 Jars _____ T-Started 7:45
 (C) First Final Flow 26 Safety Joint _____ T-Open 9:37
 (D) Initial Shut-In 519 Circ Sub _____ T-Pulled 11:37
 (E) Second Initial Flow 29 Hourly Standby _____ T-Out 13:05
 (F) Second Final Flow 32 Mileage 46.1 71.30 Comments _____
 (G) Final Shut-In 144 Sampler _____
 (H) Final Hydrostatic 1,594 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 30 Day Standby _____ Total 1221.30
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 30 Sub Total 1221.30

Approved By _____ Our Representative Beth D...

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59413

Well Name & No. Patterson C #1 Test No. 5 Date 7/03/14
 Company John O Farmer Inc. Elevation 1892 KB 1884 GL
 Address _____
 Co. Rep / Geo. Austin Klaus Rig Discovery #2
 Location: Sec. 35 Twp. 13 Rge. 15 Co. Russell State KS

Interval Tested 3268 - 3320 Zone Tested Arb.
 Anchor Length 52 Drill Pipe Run _____ Mud Wt. _____
 Top Packer Depth 3263, 3268 Drill Collars Run 30 Vis _____
 Bottom Packer Depth 3320 Wt. Pipe Run - WL _____
 Total Depth 3380 Chlorides _____ ppm System LCM _____

Blow Description 7F - BOB in 45 sec
7SF - No blow
FF - BOB in 45 sec
FSF - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1520</u>	<u>SGOCW</u>	<u>10</u>	<u>40</u>	<u>50</u>	
<u>490</u>	<u>SGOCW</u>	<u>10</u>	<u>10</u>	<u>80</u>	
<u>430</u>	<u>VSO CW</u>		<u>5</u>	<u>95</u>	
_____	_____	%gas	%oil	%water	%mud
_____	_____	%gas	%oil	%water	%mud

Rec Total 2440 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1,617 Test 1150 T-On Location 23:40
 (B) First Initial Flow 282 Jars _____ T-Started 00:10
 (C) First Final Flow 882 Safety Joint _____ T-Open 2:15
 (D) Initial Shut-In 1,082 Circ Sub _____ T-Pulled 4:15
 (E) Second Initial Flow 880 Hourly Standby _____ T-Out 7:10
 (F) Second Final Flow 1,050 Mileage 46 RT 71.30 Comments _____
 (G) Final Shut-In 1,087 Sampler _____
 (H) Final Hydrostatic 1,576 Straddle 600 Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 30 Day Standby _____ Total 1821.30
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 30 Sub Total 1821.30

Approved By _____ Our Representative Burt D...
 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.