



DRILL STEM TEST REPORT

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

PO Box 352
Russell, KS 67665

ATTN: Austin Klaus

Camp #1

2-15s-14w Russell KS

Start Date: 2013.01.15 @ 04:30:00

End Date: 2013.01.15 @ 10:03:30

Job Ticket #: 51576 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.01.21 @ 09:39:54



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 51576

DST#: 1

ATTN: Austin Klaus

Test Start: 2013.01.15 @ 04:30:00

GENERAL INFORMATION:

Formation: **Sand - Grand Haven**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:30:30

Time Test Ended: 10:03:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 59

Interval: 2249.00 ft (KB) To 2319.00 ft (KB) (TVD)

Reference Elevations: 1708.00 ft (KB)

Total Depth: 2319.00 ft (KB) (TVD)

1700.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753 Inside

Press @ Run Depth: 63.04 psig @ 2315.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.15 End Date: 2013.01.15

Last Calib.: 2013.01.15

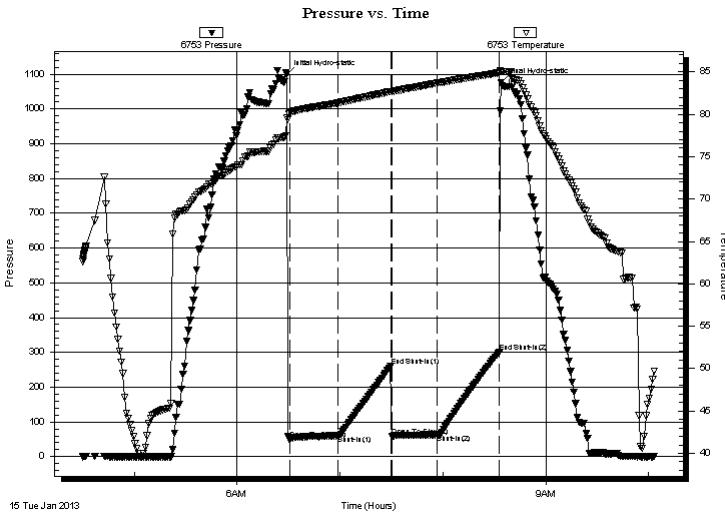
Start Time: 04:30:05 End Time: 10:03:29

Time On Btm: 2013.01.15 @ 06:29:00

Time Off Btm: 2013.01.15 @ 08:34:00

TEST COMMENT: 30 - IF- BOB instantly
30 - IS- No blow back
30 - FF- BOB instantly
30 - FS- No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1099.47	79.59	Initial Hydro-static
2	48.84	80.07	Open To Flow (1)
30	60.85	81.36	Shut-In(1)
61	261.29	82.68	End Shut-In(1)
62	57.36	82.68	Open To Flow (2)
88	63.04	83.67	Shut-In(2)
124	301.66	84.89	End Shut-In(2)
125	1076.08	85.08	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	GSOCWM, 2%W, 8%G, 10%O, 80%M	0.35
0.00	124' of G.I.P.	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 51576

DST#: 1

ATTN: Austin Klaus

Test Start: 2013.01.15 @ 04:30:00

GENERAL INFORMATION:

Formation: **Sand - Grand Haven**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:30:30

Time Test Ended: 10:03:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 59

Interval: 2249.00 ft (KB) To 2319.00 ft (KB) (TVD)

Reference Elevations: 1708.00 ft (KB)

Total Depth: 2319.00 ft (KB) (TVD)

1700.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8166 Outside

Press @ RunDepth: psig @ 2315.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.15

End Date: 2013.01.15

Last Calib.: 2013.01.15

Start Time: 04:30:05

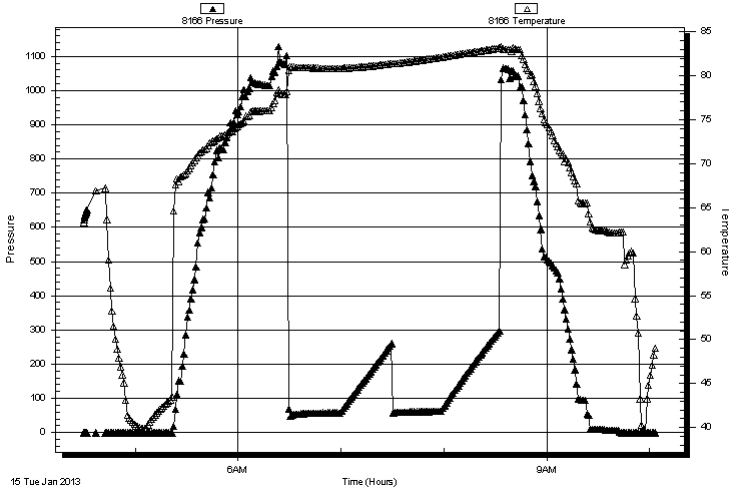
End Time: 10:03:29

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF- BOB instantly
30 - IS- No blow back
30 - FF- BOB instantly
30 - FS- No blow back

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
45.00	GSOCWM, 2%W, 8%G, 10%O, 80%M	0.35
0.00	124' of G.I.P.	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 51576

DST#: 1

ATTN: Austin Klaus

Test Start: 2013.01.15 @ 04:30:00

Tool Information

Drill Pipe:	Length: 2225.00 ft	Diameter: 3.80 inches	Volume: 31.21 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 46000.00 lb
			<u>Total Volume: 31.36 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	2249.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	70.00 ft			
Tool Length:	91.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			2229.00	
Shut In Tool	5.00			2234.00	
Hydraulic tool	5.00			2239.00	
Packer	5.00			2244.00	21.00 Bottom Of Top Packer
Packer	5.00			2249.00	
Stubb	1.00			2250.00	
Perforations	2.00			2252.00	
Change Over Sub	1.00			2253.00	
Drill Pipe	62.00			2315.00	
Recorder	0.00	6753	Inside	2315.00	
Recorder	0.00	8166	Outside	2315.00	
Change Over Sub	1.00			2316.00	
Bullnose	3.00			2319.00	70.00 Bottom Packers & Anchor

Total Tool Length: 91.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 51576

DST#: 1

ATTN: Austin Klaus

Test Start: 2013.01.15 @ 04:30:00

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	GSOCWM, 2%W, 8%G, 10%O, 80%M	0.349
0.00	124' of G.I.P.	0.000

Total Length: 45.00 ft Total Volume: 0.349 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

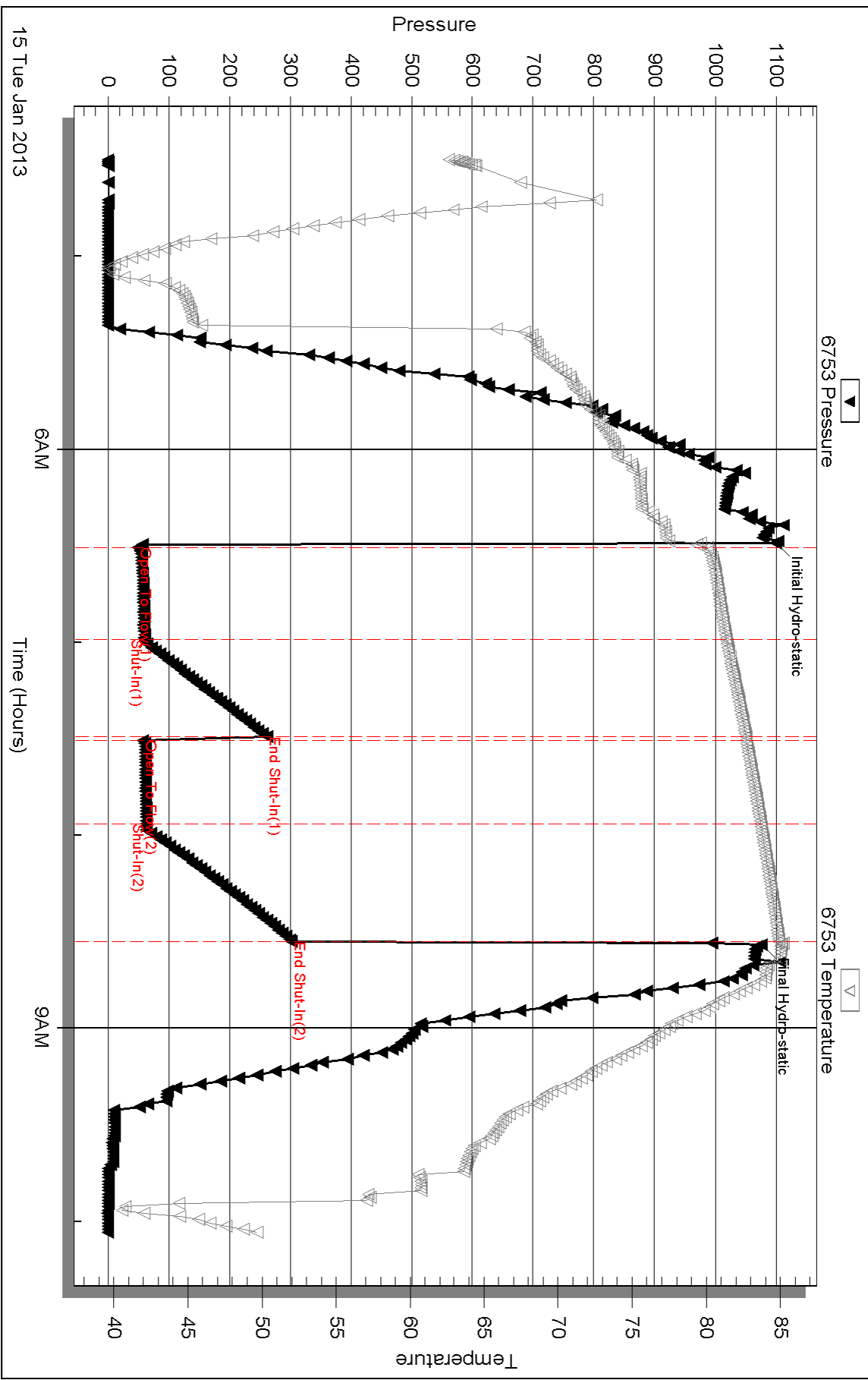
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



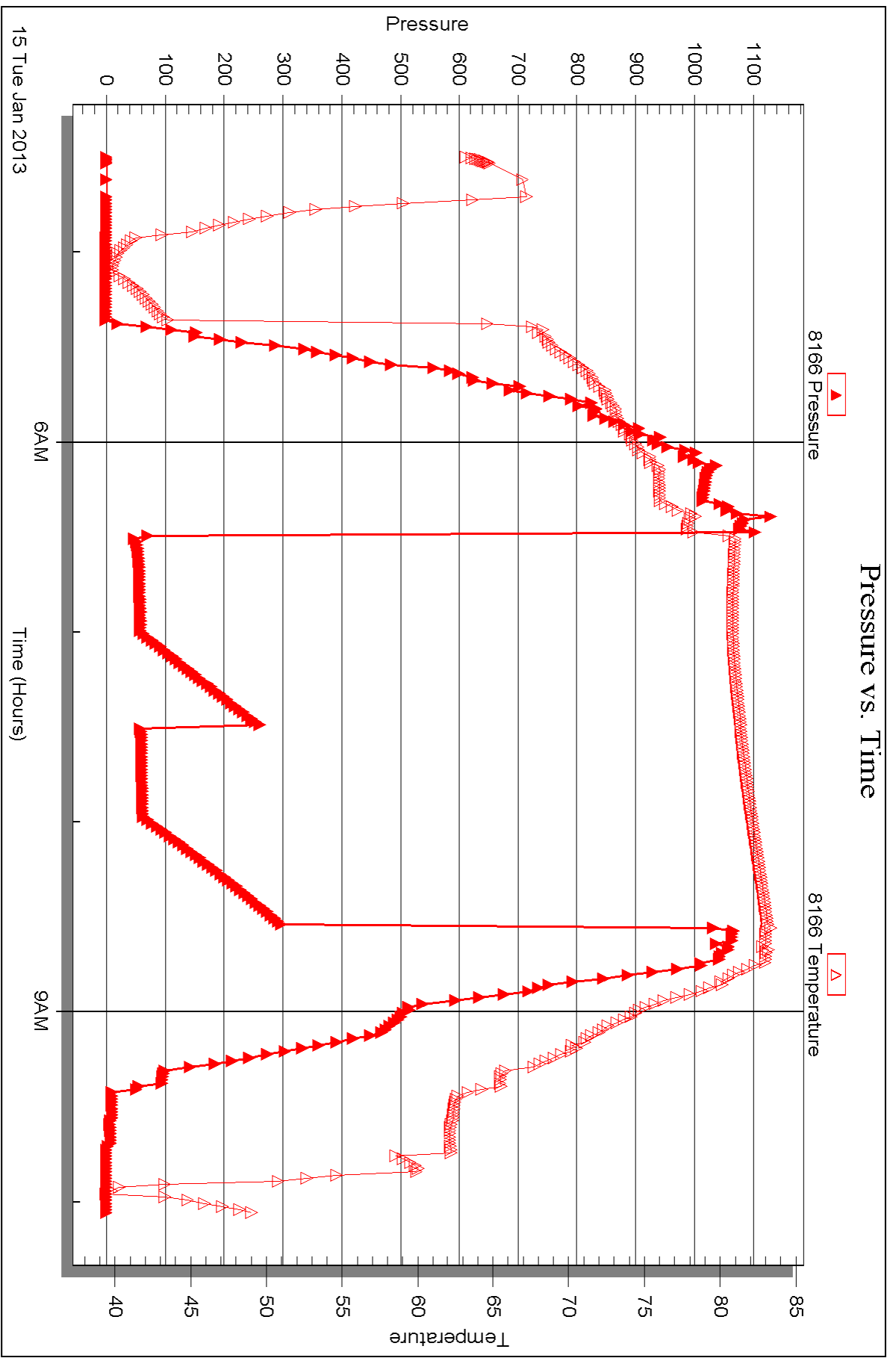
Serial #: 8166

Outside

John O. Farmer Inc

Camp #1

DST Test Number: 1





DRILL STEM TEST REPORT

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

PO Box 352
Russell, KS 67665

ATTN: Austin Klaus

Camp #1

2-15s-14w Russell KS

Start Date: 2013.01.15 @ 16:00:00

End Date: 2013.01.15 @ 21:43:00

Job Ticket #: 50255 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.01.21 @ 09:39:09

John O. Farmer Inc
2-15s-14w Russell KS
Camp #1
DST # 2
Tankio
2013.01.15



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50255

DST#: 2

ATTN: Austin Klaus

Test Start: 2013.01.15 @ 16:00:00

GENERAL INFORMATION:

Formation: **Tarkio**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:13:00

Time Test Ended: 21:43:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 2327.00 ft (KB) To 2370.00 ft (KB) (TVD)

Reference Elevations: 1708.00 ft (KB)

Total Depth: 2370.00 ft (KB) (TVD)

1700.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753 Inside

Press @ Run Depth: 95.25 psig @ 2363.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.15

End Date:

2013.01.15

Last Calib.: 2013.01.15

Start Time: 16:00:05

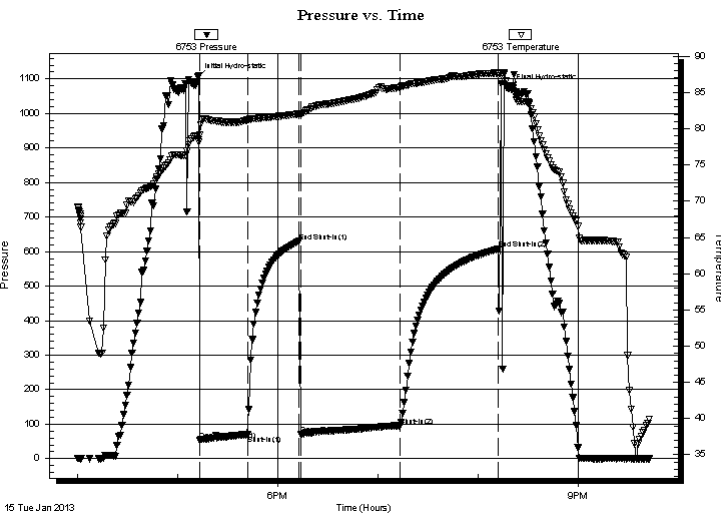
End Time:

21:42:59

Time On Btm: 2013.01.15 @ 17:12:00

Time Off Btm: 2013.01.15 @ 20:18:30

TEST COMMENT: IF-6" blow
ISI-No blow
FF-7 1/2" blow
FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1105.11	78.53	Initial Hydro-static
1	53.71	79.11	Open To Flow (1)
30	68.98	81.19	Shut-In(1)
61	628.99	82.02	End Shut-In(1)
62	71.55	81.94	Open To Flow (2)
121	95.25	85.74	Shut-In(2)
180	606.99	87.72	End Shut-In(2)
187	1072.57	85.77	Final Hydro-static

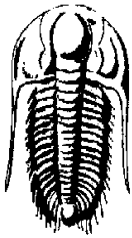
Recovery

Length (ft)	Description	Volume (bbl)
120.00	VSOMCW 2%O 58%W 40%M	1.40
45.00	VSOWCM 2%O 10%W 88%M	0.63

* 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

PO Box 352
Russell, KS 67665

ATTN: Austin Klaus

2-15s-14w Russell KS

Camp #1

Job Ticket: 50255

DST#: 2

Test Start: 2013.01.15 @ 16:00:00

GENERAL INFORMATION:

Formation: **Tarkio**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:13:00

Time Test Ended: 21:43:00

Interval: 2327.00 ft (KB) To 2370.00 ft (KB) (TVD)

Total Depth: 2370.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Reference Elevations: 1708.00 ft (KB)

1700.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8166 Outside

Press @ Run Depth: psig @ 2363.00 ft (KB)

Start Date: 2013.01.15 End Date: 2013.01.15

Start Time: 16:00:05 End Time: 21:42:29

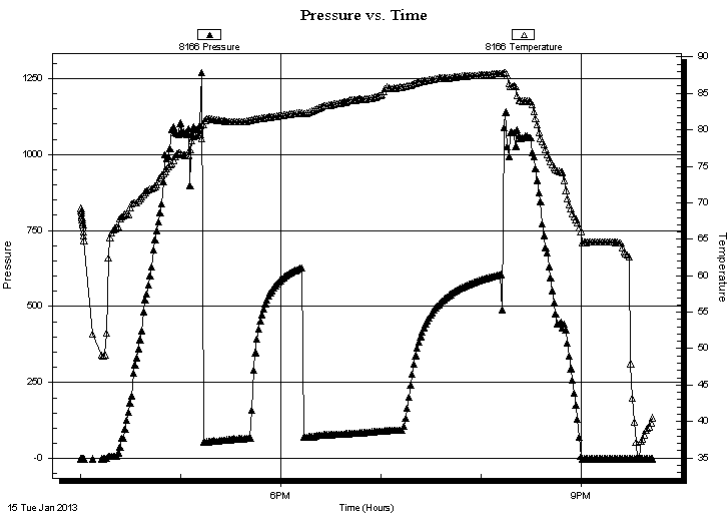
Capacity: 8000.00 psig

Last Calib.: 2013.01.15

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-6" blow
IS- No blow
FF-7 1/2" blow
FS- No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
120.00	VSOMCW 2%O 58%W 40%M	1.40
45.00	VSOWCM 2%O 10%W 88%M	0.63

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50255

DST#: 2

ATTN: Austin Klaus

Test Start: 2013.01.15 @ 16:00:00

Tool Information

Drill Pipe:	Length: 2287.00 ft	Diameter: 3.80 inches	Volume: 32.08 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 32.23 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	2327.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	43.00 ft			
Tool Length:	64.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2307.00	
Shut In Tool	5.00			2312.00	
Hydraulic tool	5.00			2317.00	
Packer	5.00			2322.00	21.00 Bottom Of Top Packer
Packer	5.00			2327.00	
Stubb	1.00			2328.00	
Perforations	2.00			2330.00	
Change Over Sub	1.00			2331.00	
Drill Pipe	32.00			2363.00	
Recorder	0.00	6753	Inside	2363.00	
Recorder	0.00	8166	Outside	2363.00	
Change Over Sub	1.00			2364.00	
Perforations	3.00			2367.00	
Bullnose	3.00			2370.00	43.00 Bottom Packers & Anchor

Total Tool Length: 64.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50255

DST#: 2

ATTN: Austin Klaus

Test Start: 2013.01.15 @ 16:00:00

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:

50000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	VSOMCW 2%O 58%W 40%M	1.401
45.00	VSOWCM 2%O 10%W 88%M	0.631

Total Length: 165.00 ft

Total Volume: 2.032 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

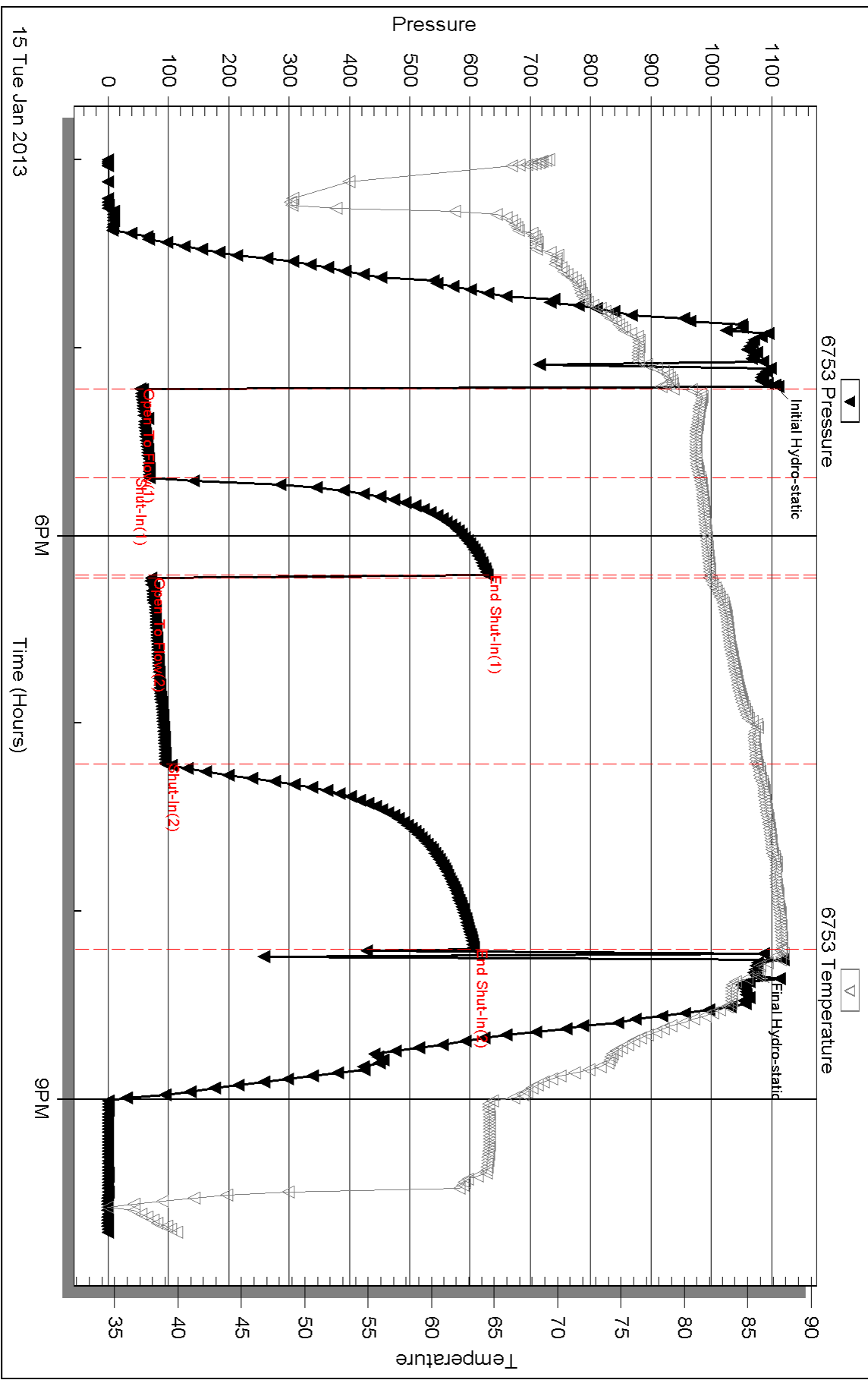
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



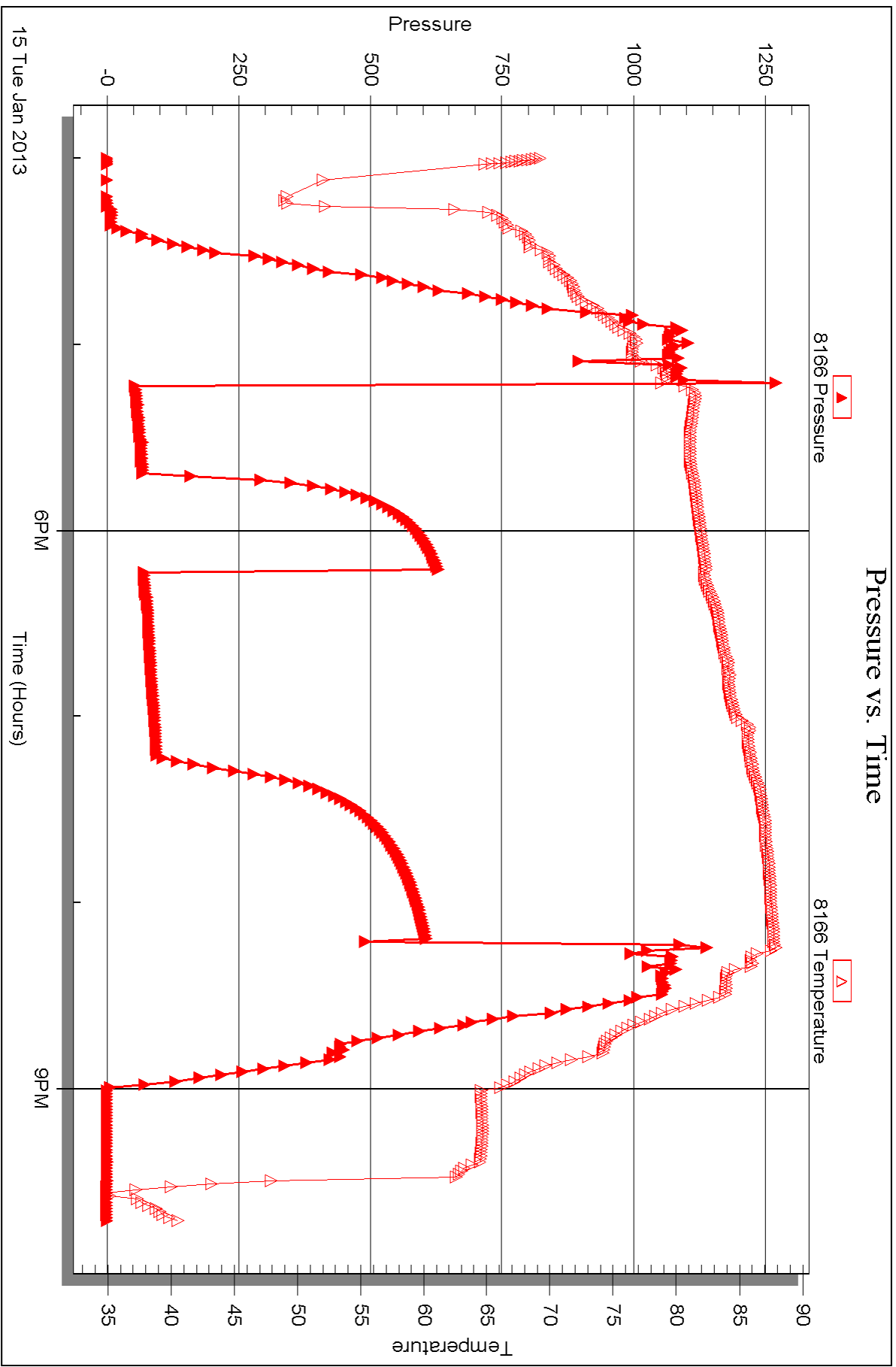
Serial #: 8166

Outside

John O. Farmer Inc

Camp #1

DST Test Number: 2





DRILL STEM TEST REPORT

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

PO Box 352
Russell, KS 67665

ATTN: Austin Klaus

Camp #1

2-15s-14w Russell KS

Start Date: 2013.01.16 @ 22:40:00

End Date: 2013.01.17 @ 04:23:30

Job Ticket #: 50256 DST #: 3

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

Printed: 2013.01.21 @ 09:38:33



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50256

DST#: 3

ATTN: Austin Klaus

Test Start: 2013.01.16 @ 22:40:00

GENERAL INFORMATION:

Formation: **KC "A-C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:53:30

Time Test Ended: 04:23:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 2886.00 ft (KB) To 2930.00 ft (KB) (TVD)

Reference Elevations: 1708.00 ft (KB)

Total Depth: 2930.00 ft (KB) (TVD)

1700.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753

Inside

Press @ Run Depth: 31.64 psig @ 2924.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.16

End Date:

2013.01.17

Last Calib.: 2013.01.17

Start Time: 22:40:05

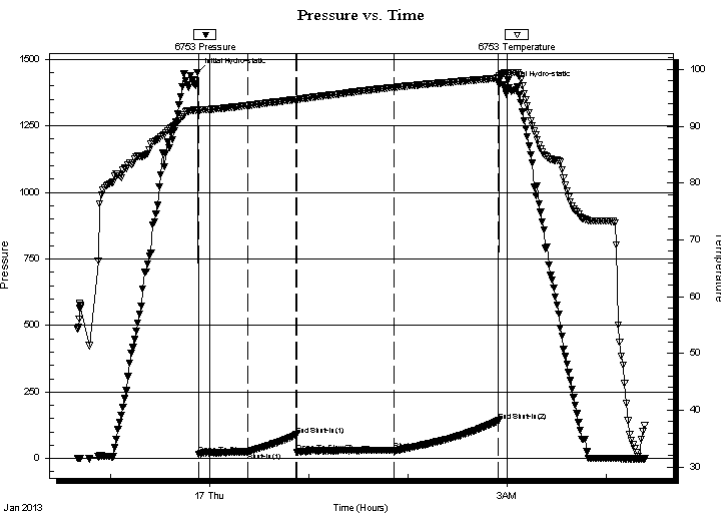
End Time:

04:23:29

Time On Btm: 2013.01.16 @ 23:52:30

Time Off Btm: 2013.01.17 @ 02:57:30

TEST COMMENT: IF-5 1/2" blow
ISI-No blow
FF-3" blow
FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1451.03	92.87	Initial Hydro-static
1	17.15	92.34	Open To Flow (1)
31	25.46	93.64	Shut-In(1)
60	89.24	94.70	End Shut-In(1)
61	23.84	94.70	Open To Flow (2)
120	31.64	96.85	Shut-In(2)
183	142.24	98.46	End Shut-In(2)
185	1403.31	99.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
35.00	VSOCM 2%O 98%M	0.21

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50256

DST#: 3

ATTN: Austin Klaus

Test Start: 2013.01.16 @ 22:40:00

Tool Information

Drill Pipe:	Length: 2850.00 ft	Diameter: 3.80 inches	Volume: 39.98 bbl	Tool Weight: 2000.00 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 46000.00 lb
			<u>Total Volume: 40.13 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	2886.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	65.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2866.00	
Shut In Tool	5.00			2871.00	
Hydraulic tool	5.00			2876.00	
Packer	5.00			2881.00	21.00 Bottom Of Top Packer
Packer	5.00			2886.00	
Stubb	1.00			2887.00	
Perforations	5.00			2892.00	
Change Over Sub	1.00			2893.00	
Drill Pipe	31.00			2924.00	
Recorder	0.00	6753	Inside	2924.00	
Recorder	0.00	8166	Outside	2924.00	
Change Over Sub	1.00			2925.00	
Perforations	2.00			2927.00	
Bullnose	3.00			2930.00	44.00 Bottom Packers & Anchor

Total Tool Length: 65.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50256

DST#: 3

ATTN: Austin Klaus

Test Start: 2013.01.16 @ 22:40:00

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: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.57 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	VSOCM 2%O 98%M	0.209

Total Length: 35.00 ft Total Volume: 0.209 bbl

Num Fluid Samples: 0

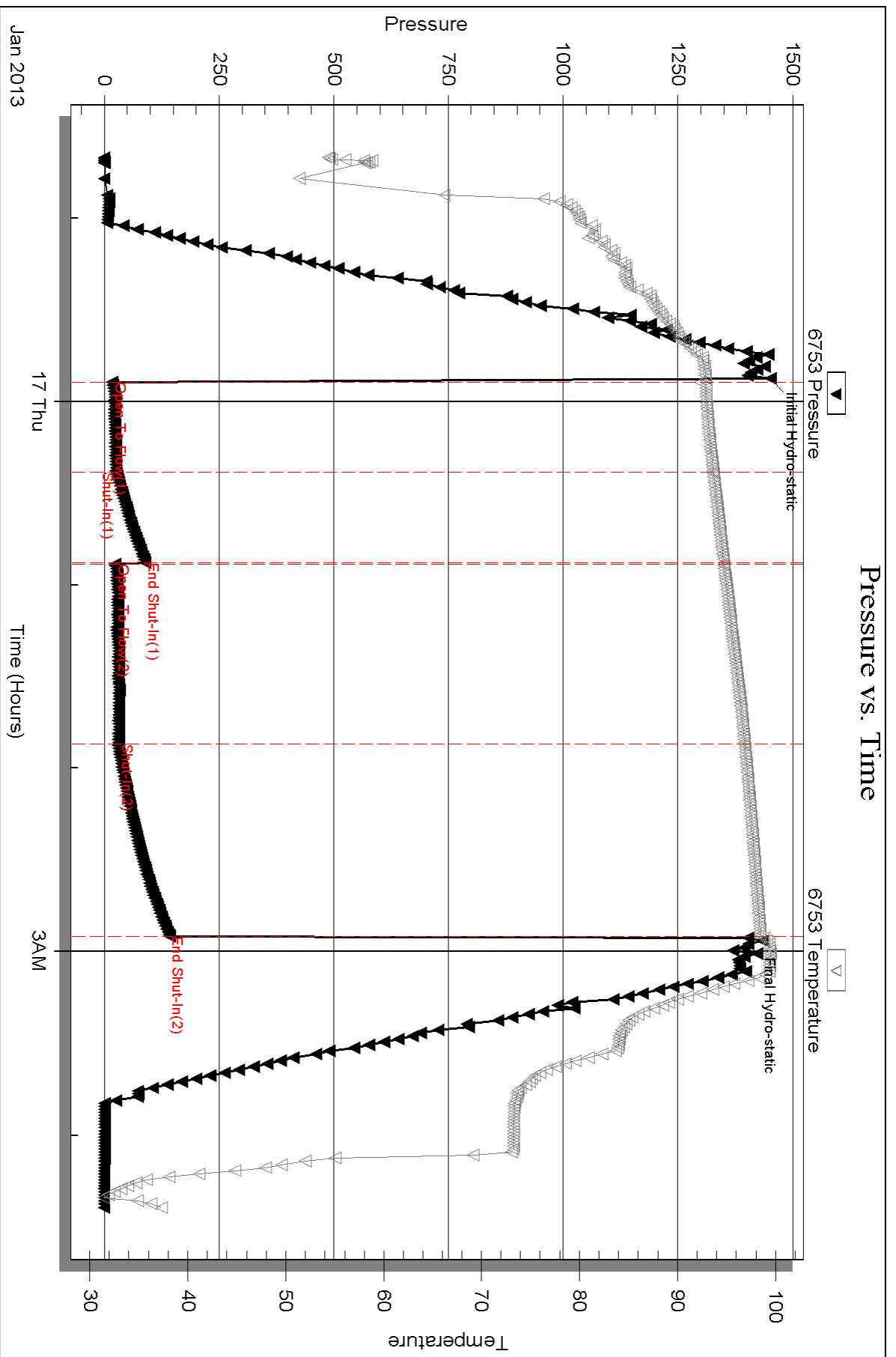
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

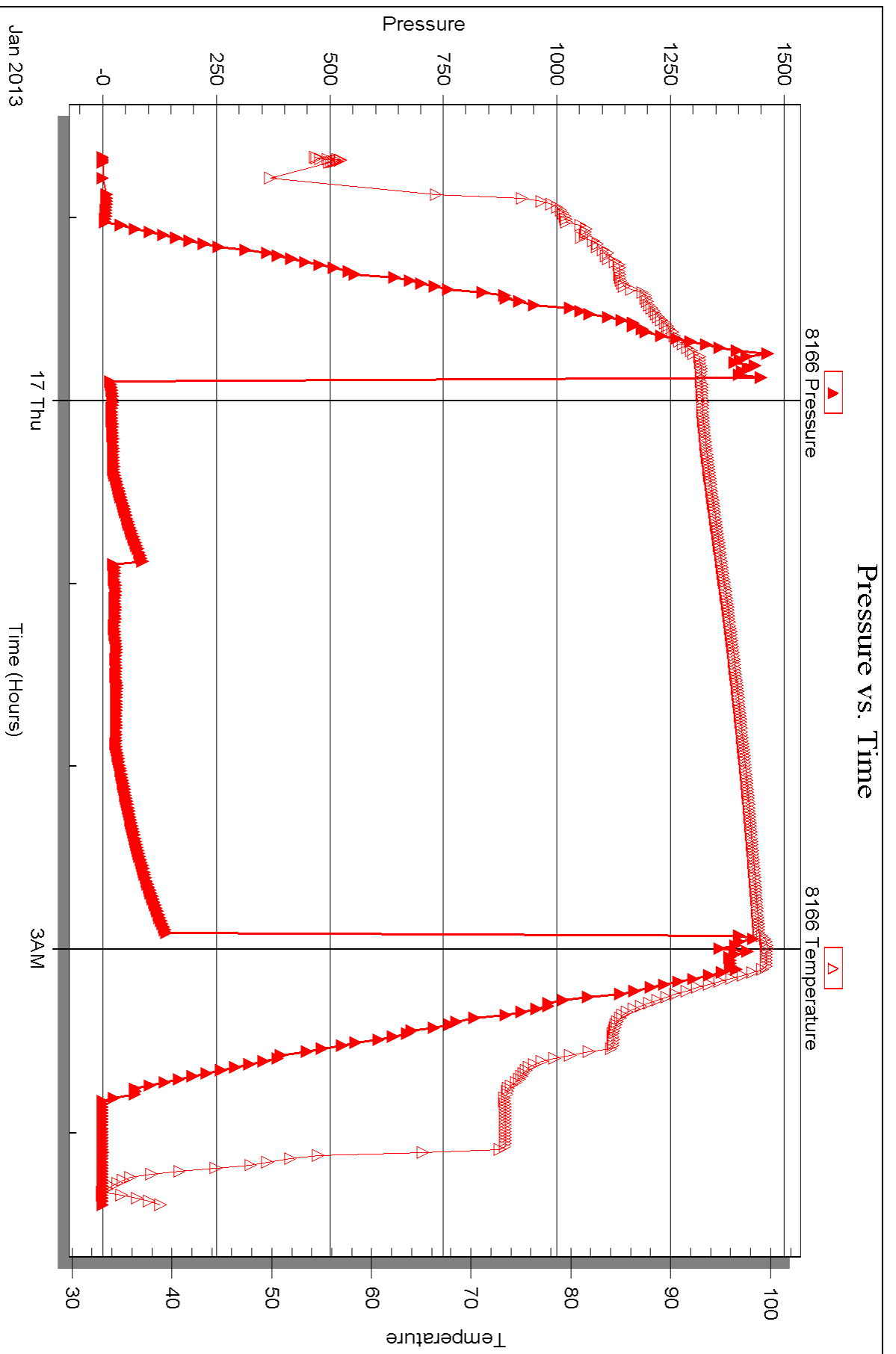


Serial #: 8166

Outside John O. Farmer Inc

Camp #1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 50256

Printed: 2013.01.21 @ 09:38:36



DRILL STEM TEST REPORT

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

PO Box 352
Russell, KS 67665

ATTN: Austin Klaus

Camp #1

2-15s-14w Russell KS

Start Date: 2013.01.17 @ 13:00:00

End Date: 2013.01.17 @ 18:52:00

Job Ticket #: 50257 DST #: 4

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

Printed: 2013.01.21 @ 09:37:40



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50257

DST#: 4

ATTN: Austin Klaus

Test Start: 2013.01.17 @ 13:00:00

GENERAL INFORMATION:

Formation: **KC "E-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:24:30

Time Test Ended: 18:52:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 2944.00 ft (KB) To 2988.00 ft (KB) (TVD)

Reference Elevations: 1708.00 ft (KB)

Total Depth: 2988.00 ft (KB) (TVD)

1700.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753

Inside

Press @ Run Depth: 50.27 psig @ 2982.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.17

End Date: 2013.01.17

Last Calib.: 2013.01.17

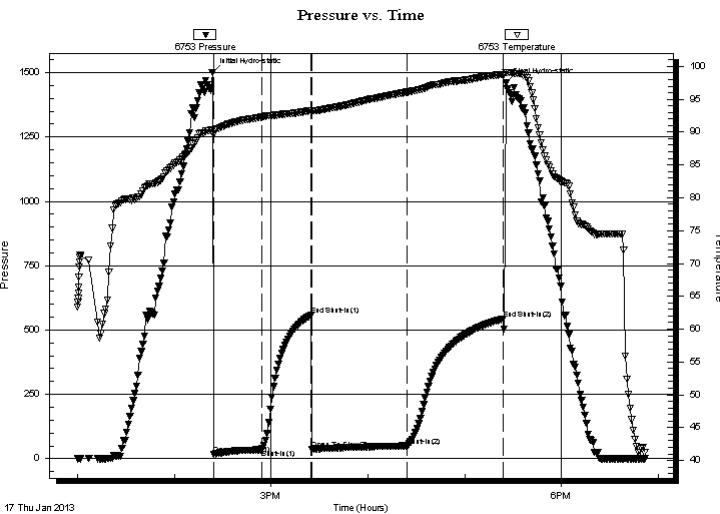
Start Time: 13:00:05

End Time: 18:51:59

Time On Btm: 2013.01.17 @ 14:23:30

Time Off Btm: 2013.01.17 @ 17:25:30

TEST COMMENT: IF-4" blow
ISI-No blow
FF-2 1/2" blow
FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1501.28	90.37	Initial Hydro-static
1	16.93	89.64	Open To Flow (1)
31	35.53	92.29	Shut-In(1)
61	557.00	93.28	End Shut-In(1)
62	37.89	93.19	Open To Flow (2)
121	50.27	96.06	Shut-In(2)
181	543.91	98.79	End Shut-In(2)
182	1459.97	99.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
64.00	WCM 40%W 60%M	0.62
1.00	Free Oil	0.01

* 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

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

ATTN: Austin Klaus

Job Ticket: 50257

DST#: 4

Test Start: 2013.01.17 @ 13:00:00

GENERAL INFORMATION:

Formation: **KC "E-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:24:30

Time Test Ended: 18:52:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 2944.00 ft (KB) To 2988.00 ft (KB) (TVD)

Reference Elevations: 1708.00 ft (KB)

Total Depth: 2988.00 ft (KB) (TVD)

1700.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8166 Outside

Press @ Run Depth: psig @ 2982.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.17

End Date: 2013.01.17

Last Calib.: 2013.01.17

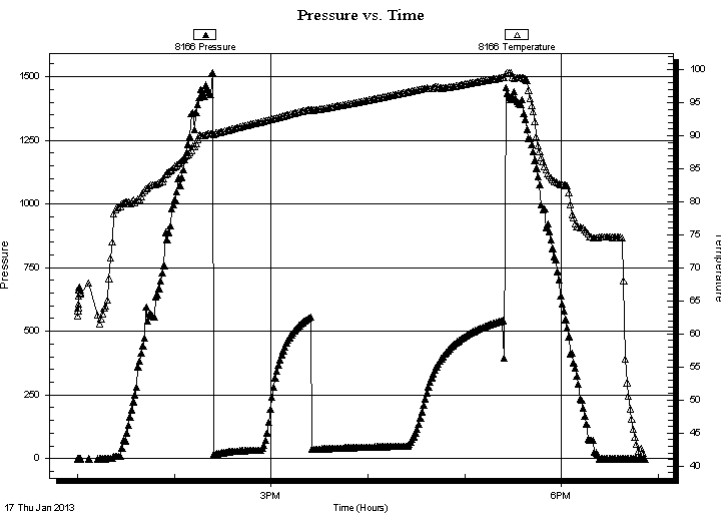
Start Time: 13:00:05

End Time: 18:51:59

Time On Btm:

Time Off Btm:

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



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
64.00	WCM 40%W 60%M	0.62
1.00	Free Oil	0.01

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

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50257

DST#: 4

ATTN: Austin Klaus

Test Start: 2013.01.17 @ 13:00:00

Tool Information

Drill Pipe:	Length: 2913.00 ft	Diameter: 3.80 inches	Volume: 40.86 bbl	Tool Weight:	2000.00 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	46000.00 lb
			<u>Total Volume: 41.01 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	2944.00 ft			Final	46000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	44.00 ft				
Tool Length:	65.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2924.00	
Shut In Tool	5.00			2929.00	
Hydraulic tool	5.00			2934.00	
Packer	5.00			2939.00	21.00 Bottom Of Top Packer
Packer	5.00			2944.00	
Stubb	1.00			2945.00	
Perforations	5.00			2950.00	
Change Over Sub	1.00			2951.00	
Drill Pipe	31.00			2982.00	
Recorder	0.00	6753	Inside	2982.00	
Recorder	0.00	8166	Outside	2982.00	
Change Over Sub	1.00			2983.00	
Perforations	2.00			2985.00	
Bullnose	3.00			2988.00	44.00 Bottom Packers & Anchor

Total Tool Length: 65.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50257

DST#: 4

ATTN: Austin Klaus

Test Start: 2013.01.17 @ 13:00:00

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:

42000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
64.00	WCM 40%W 60%M	0.615
1.00	Free Oil	0.014

Total Length: 65.00 ft

Total Volume: 0.629 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6753

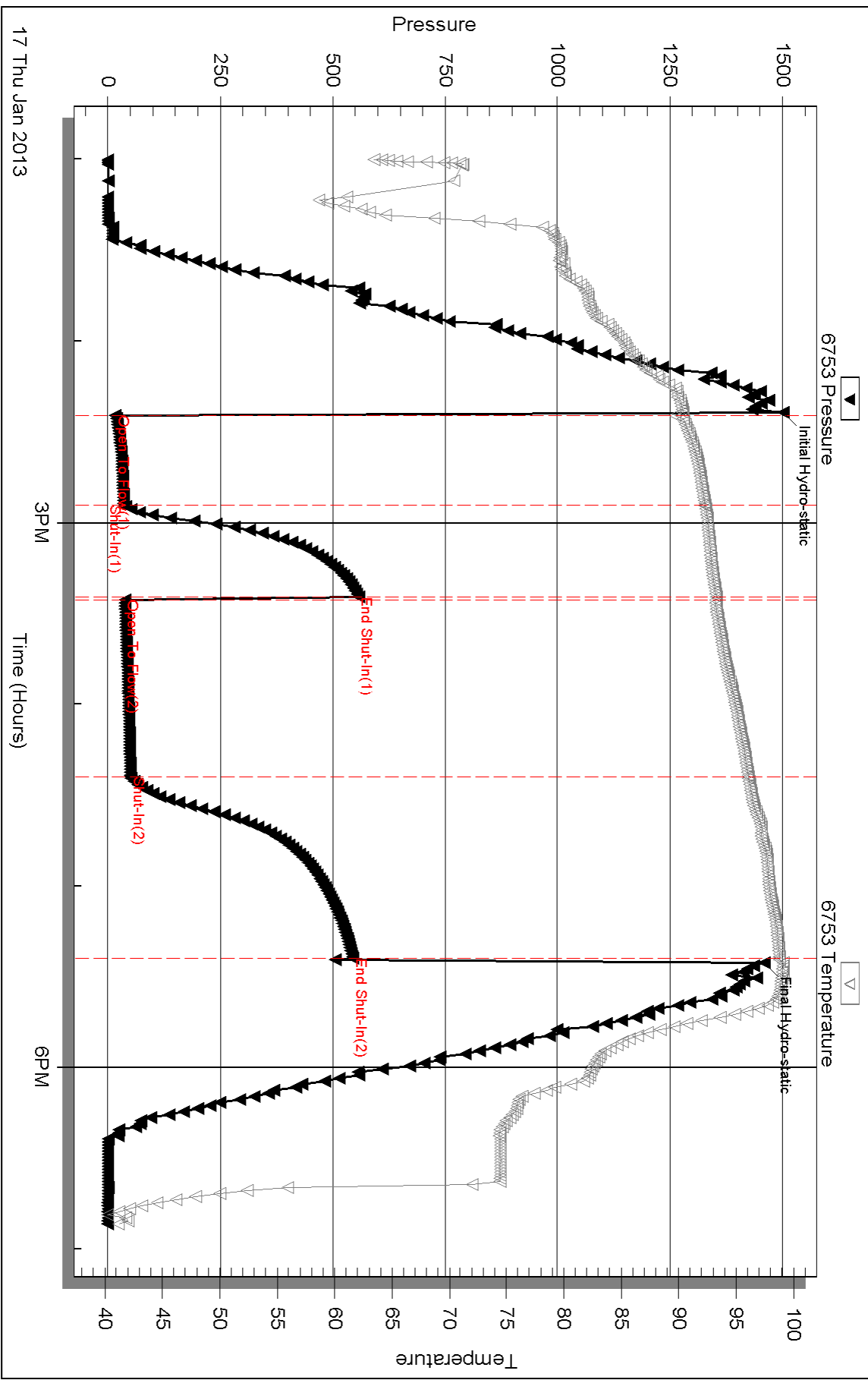
Inside

John O. Farmer Inc

Camp #1

DST Test Number: 4

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 50257

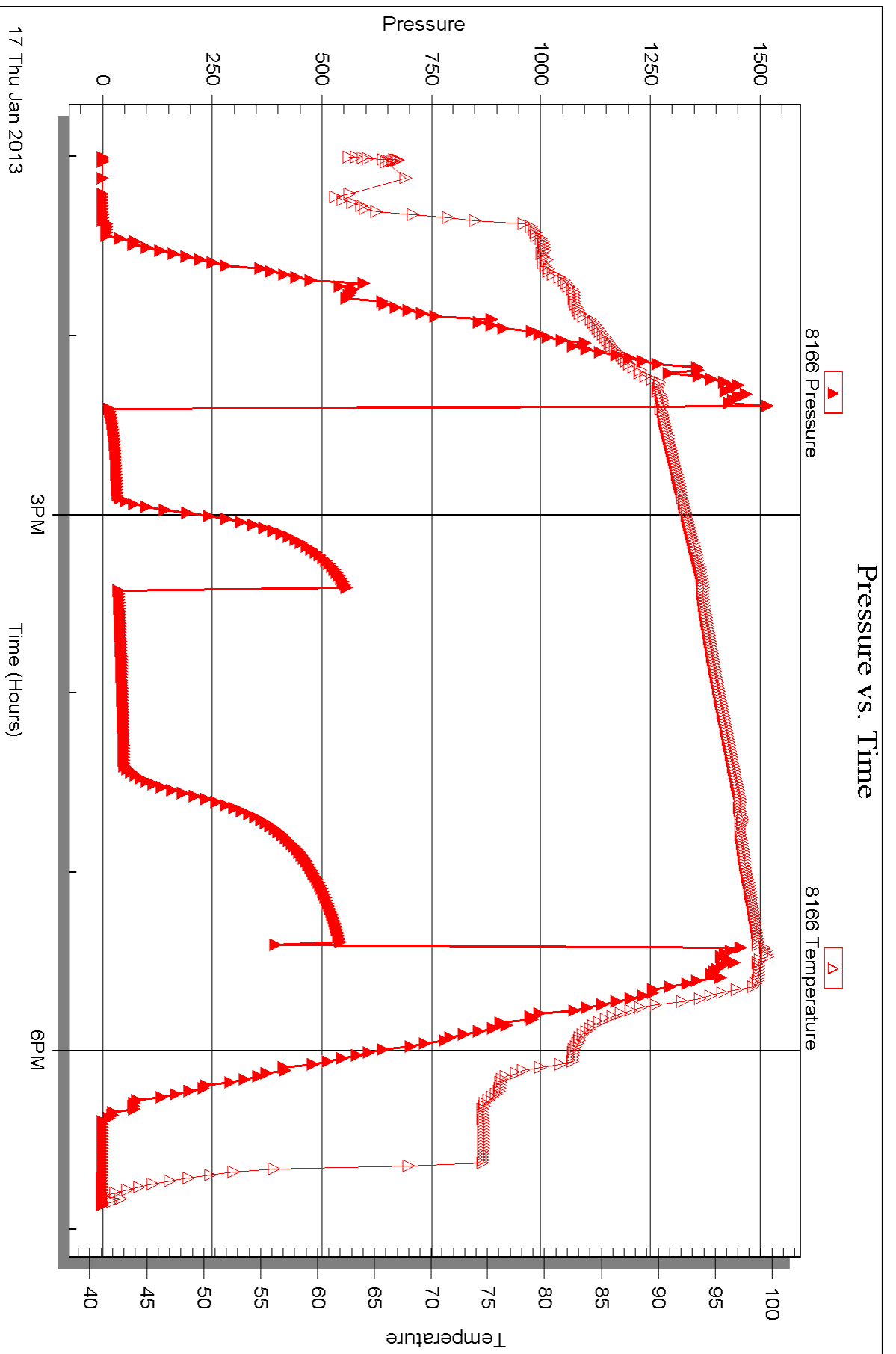
Printed: 2013.01.21 @ 09:37:42

Serial #: 8166

Outside John O. Farmer Inc

Camp #1

DST Test Number: 4





DRILL STEM TEST REPORT

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

PO Box 352
Russell, KS 67665

ATTN: Austin Klaus

Camp #1

2-15s-14w Russell KS

Start Date: 2013.01.18 @ 06:00:00

End Date: 2013.01.18 @ 11:17:00

Job Ticket #: 50258 DST #: 5

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

Printed: 2013.01.21 @ 09:36:50



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50258

DST#: 5

ATTN: Austin Klaus

Test Start: 2013.01.18 @ 06:00:00

GENERAL INFORMATION:

Formation: **KC"J-L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:56:00

Time Test Ended: 11:17:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3039.00 ft (KB) To 3105.00 ft (KB) (TVD)

Reference Elevations: 1708.00 ft (KB)

Total Depth: 3105.00 ft (KB) (TVD)

1700.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753

Inside

Press @ Run Depth: 19.98 psig @ 3077.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.18

End Date: 2013.01.18

Last Calib.: 2013.01.18

Start Time: 06:00:05

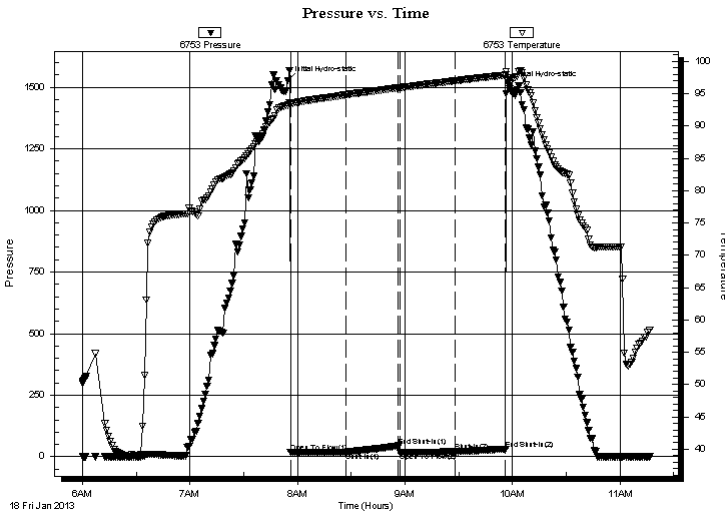
End Time: 11:16:59

Time On Btm: 2013.01.18 @ 07:54:30

Time Off Btm: 2013.01.18 @ 09:58:00

TEST COMMENT: IF-1" blow
ISI-No blow
FF-Very weak surface blow died in 15 min
FSI-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1528.16	93.20	Initial Hydro-static
2	17.40	93.26	Open To Flow (1)
33	18.85	94.82	Shut-In(1)
62	43.78	95.90	End Shut-In(1)
63	18.45	95.92	Open To Flow (2)
94	19.98	97.00	Shut-In(2)
122	30.49	97.87	End Shut-In(2)
124	1506.17	97.48	Final Hydro-static

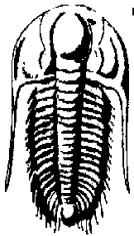
Recovery

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

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

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50258

DST#: 5

ATTN: Austin Klaus

Test Start: 2013.01.18 @ 06:00:00

GENERAL INFORMATION:

Formation: **KC"J-L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:56:00

Time Test Ended: 11:17:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: **3039.00 ft (KB) To 3105.00 ft (KB) (TVD)**

Reference Elevations: 1708.00 ft (KB)

Total Depth: 3105.00 ft (KB) (TVD)

1700.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8166 Outside

Press @ Run Depth: psig @ 3077.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.18 End Date: 2013.01.18

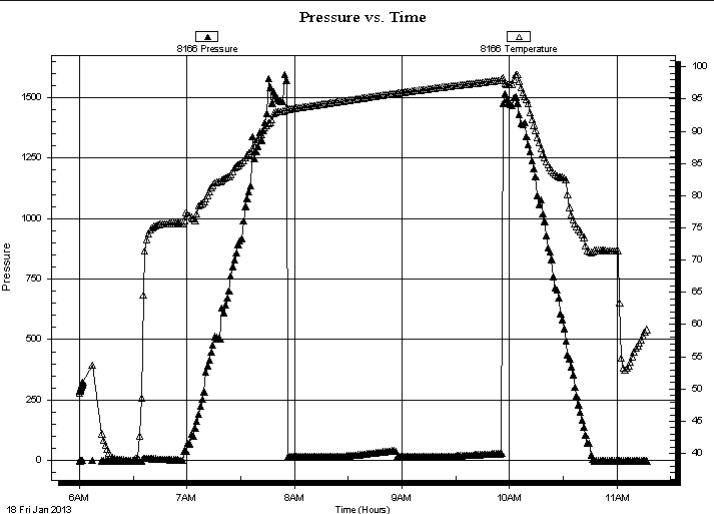
Last Calib.: 2013.01.18

Start Time: 06:00:05 End Time: 11:16:59

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-1" blow
ISI-No blow
FF-Very weak surface blow died in 15 min
FSI-No blow



PRESSURE SUMMARY

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

Recovery

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

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

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50258

DST#: 5

ATTN: Austin Klaus

Test Start: 2013.01.18 @ 06:00:00

Tool Information

Drill Pipe:	Length: 3007.00 ft	Diameter: 3.80 inches	Volume: 42.18 bbl	Tool Weight: 2000.00 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 47000.00 lb
			<u>Total Volume: 42.33 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3039.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	66.00 ft			
Tool Length:	87.00 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			3019.00	
Shut In Tool	5.00			3024.00	
Hydraulic tool	5.00			3029.00	
Packer	5.00			3034.00	21.00 Bottom Of Top Packer
Packer	5.00			3039.00	
Stubb	1.00			3040.00	
Perforations	5.00			3045.00	
Change Over Sub	1.00			3046.00	
Drill Pipe	31.00			3077.00	
Recorder	0.00	6753	Inside	3077.00	
Recorder	0.00	8166	Outside	3077.00	
Change Over Sub	1.00			3078.00	
Perforations	24.00			3102.00	
Bullnose	3.00			3105.00	66.00 Bottom Packers & Anchor

Total Tool Length: 87.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50258

DST#: 5

ATTN: Austin Klaus

Test Start: 2013.01.18 @ 06:00:00

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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6753

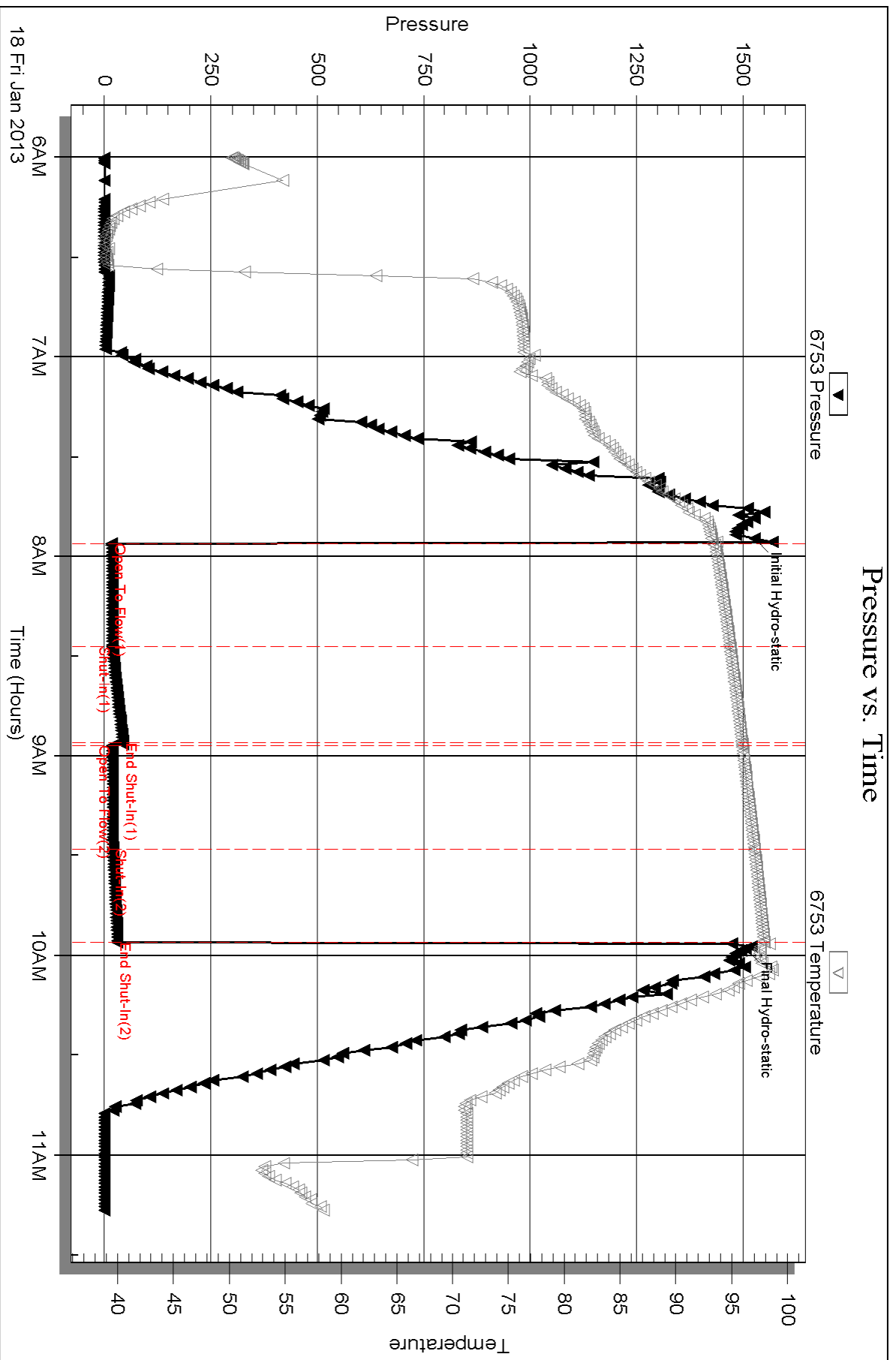
Inside

John O. Farmer Inc

Camp #1

DST Test Number: 5

Pressure vs. Time

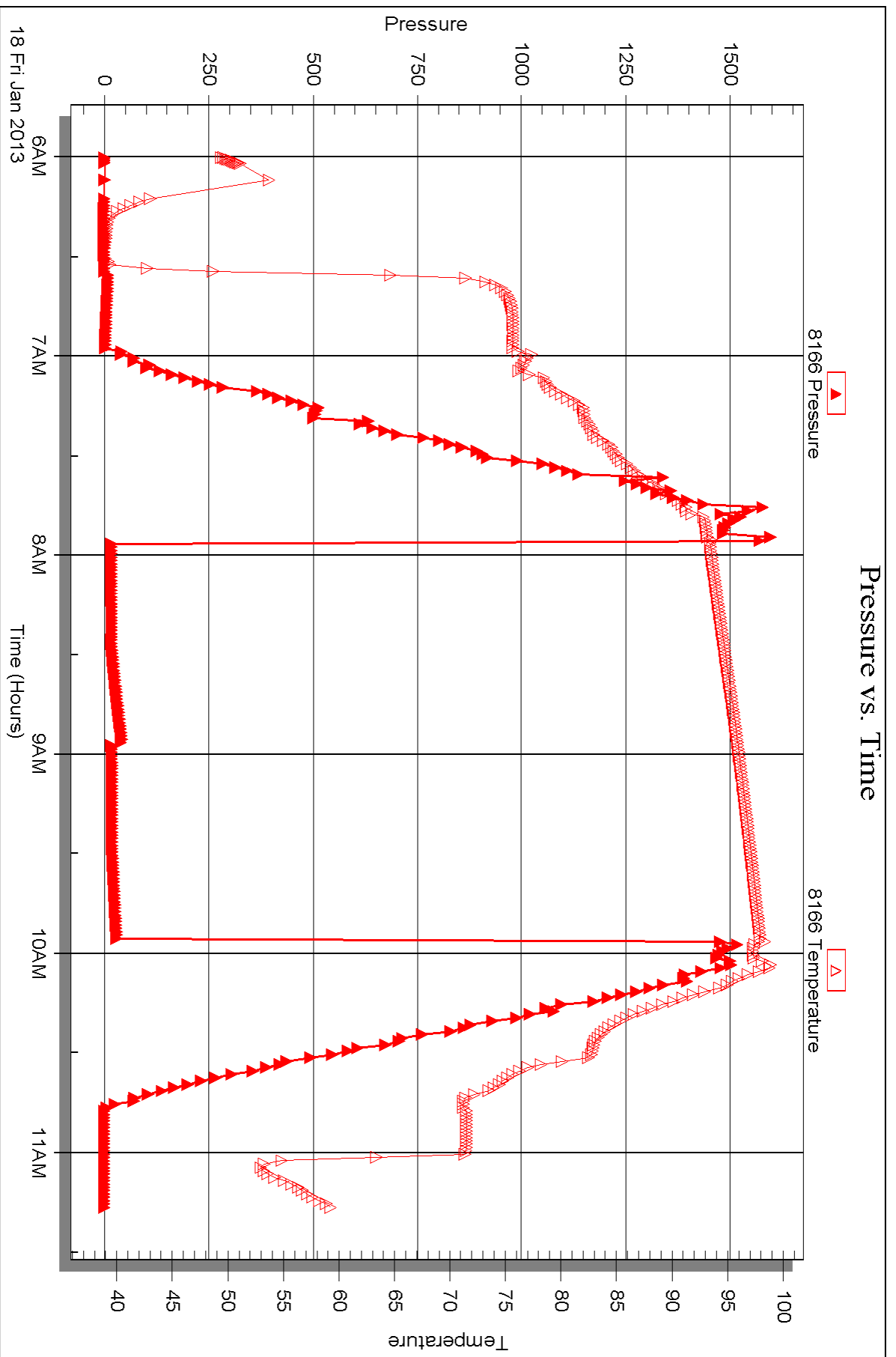


Serial #: 8166

Outside John O. Farmer Inc

Camp #1

DST Test Number: 5





DRILL STEM TEST REPORT

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

PO Box 352
Russell, KS 67665

ATTN: Austin Klaus

Camp #1

2-15s-14w Russell KS

Start Date: 2013.01.19 @ 03:00:00

End Date: 2013.01.19 @ 10:09:30

Job Ticket #: 50259 DST #: 6

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

Printed: 2013.01.21 @ 09:36:07



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50259

DST#: 6

ATTN: Austin Klaus

Test Start: 2013.01.19 @ 03:00:00

GENERAL INFORMATION:

Formation: **Arb**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:24:00
 Time Test Ended: 10:09:30
 Interval: **3104.00 ft (KB) To 3156.00 ft (KB) (TVD)**
 Total Depth: 3210.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Reset)
 Tester: Brett Dickinson
 Unit No: 59
 Reference Elevations: 1708.00 ft (KB)
 1700.00 ft (CF)
 KB to GR/CF: 8.00 ft

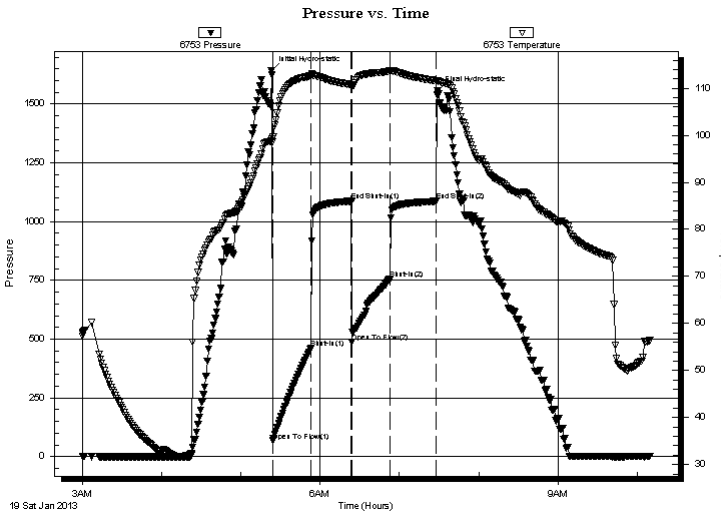
Serial #: 6753

Outside

Press @ Run Depth: 757.14 psig @ 3142.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.01.19 End Date: 2013.01.19 Last Calib.: 2013.01.19
 Start Time: 03:00:05 End Time: 10:09:29 Time On Btm: 2013.01.19 @ 05:23:00
 Time Off Btm: 2013.01.19 @ 07:29:00

TEST COMMENT: IF-BOB in 1 1/2 min
 ISI-No blow
 FF-BOB in 1 1/2 min
 FSI-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1643.18	98.89	Initial Hydro-static
1	66.67	98.62	Open To Flow (1)
30	461.98	112.75	Shut-In(1)
60	1087.15	110.81	End Shut-In(1)
61	485.75	110.60	Open To Flow (2)
90	757.14	113.70	Shut-In(2)
125	1086.29	111.59	End Shut-In(2)
126	1556.50	111.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
630.00	Water	8.55
125.00	Oil spotted SMCW 90%W 10%M	1.75
310.00	VSOMCW 2%O 88%W 10%M	4.35
335.00	VSOMCW 5%O 85%W 10%M	4.70
210.00	VSOWCM 2%O 5%W 93%M	2.95

* 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

PO Box 352
Russell, KS 67665

ATTN: Austin Klaus

2-15s-14w Russell KS

Camp #1

Job Ticket: 50259

DST#: 6

Test Start: 2013.01.19 @ 03:00:00

GENERAL INFORMATION:

Formation: **Arb**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:24:00

Time Test Ended: 10:09:30

Test Type: Conventional Straddle (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: **3104.00 ft (KB) To 3156.00 ft (KB) (TVD)**

Total Depth: 3210.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1708.00 ft (KB)

1700.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: **8319** Below (Straddle)

Press @ Run Depth: psig @ 3204.00 ft (KB)

Start Date: 2013.01.19

End Date: 2013.01.19

Capacity: 8000.00 psig

Last Calib.: 2013.01.19

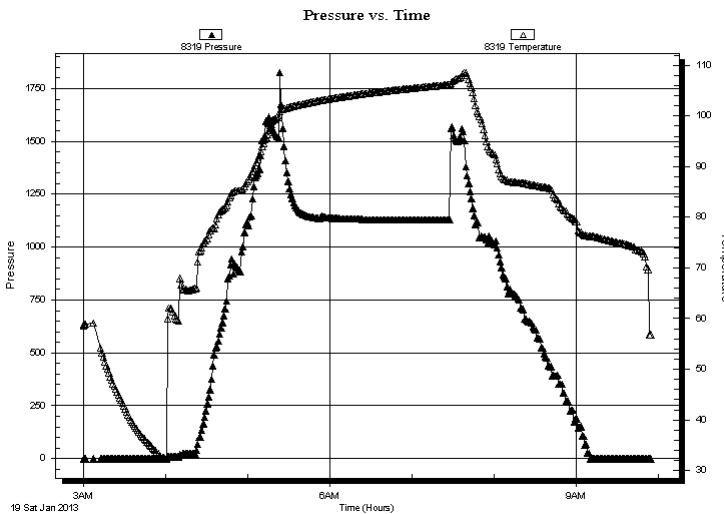
Start Time: 03:00:05

End Time: 09:54:29

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-BOB in 1 1/2 min
ISI-No blow
FF-BOB in 1 1/2 min
FSI-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
630.00	Water	8.55
125.00	Oil spotted SMCW 90%W 10%M	1.75
310.00	V SOMCW 2%O 88%W 10%M	4.35
335.00	V SOMCW 5%O 85%W 10%M	4.70
210.00	V SOWCM 2%O 5%W 93%M	2.95

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

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50259

DST#: 6

ATTN: Austin Klaus

Test Start: 2013.01.19 @ 03:00:00

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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 43.21 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3104.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	3156.00 ft			
Interval between Packers:	52.00 ft			
Tool Length:	129.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		
Tool Comments:				

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

Change Over Sub	1.00			3085.00	
Shut In Tool	5.00			3090.00	
Hydraulic tool	5.00			3095.00	
Packer	4.00			3099.00	20.00 Bottom Of Top Packer
Packer	5.00			3104.00	
Stubb	1.00			3105.00	
Perforations	4.00			3109.00	
change Over Sub	1.00			3110.00	
Blank Spacing	31.00			3141.00	
change Over Sub	1.00			3142.00	
Recorder	0.00	8166	Inside	3142.00	
Recorder	0.00	6753	Outside	3142.00	
Perforations	10.00			3152.00	
Blank Off Sub	4.00			3156.00	52.00 Tool Interval
Packer	4.00			3160.00	
Stubb	1.00			3161.00	
perforations	10.00			3171.00	
Change Over Sub	1.00			3172.00	
Blank Spacing	32.00			3204.00	
Recorder	0.00	8319	Below	3204.00	
Change Over Sub	1.00			3205.00	
Perforations	5.00			3210.00	
Bullnose	3.00			3213.00	57.00 Bottom Packers & Anchor
Total Tool Length:	129.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O. Farmer Inc

2-15s-14w Russell KS

PO Box 352
Russell, KS 67665

Camp #1

Job Ticket: 50259

DST#: 6

ATTN: Austin Klaus

Test Start: 2013.01.19 @ 03:00:00

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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
630.00	Water	8.555
125.00	Oil spotted SMCW 90%W 10%M	1.753
310.00	VSOMCW 2%O 88%W 10%M	4.348
335.00	VSOMCW 5%O 85%W 10%M	4.699
210.00	VSOWCM 2%O 5%W 93%M	2.946

Total Length: 1610.00 ft Total Volume: 22.301 bbl

Num Fluid Samples: 0

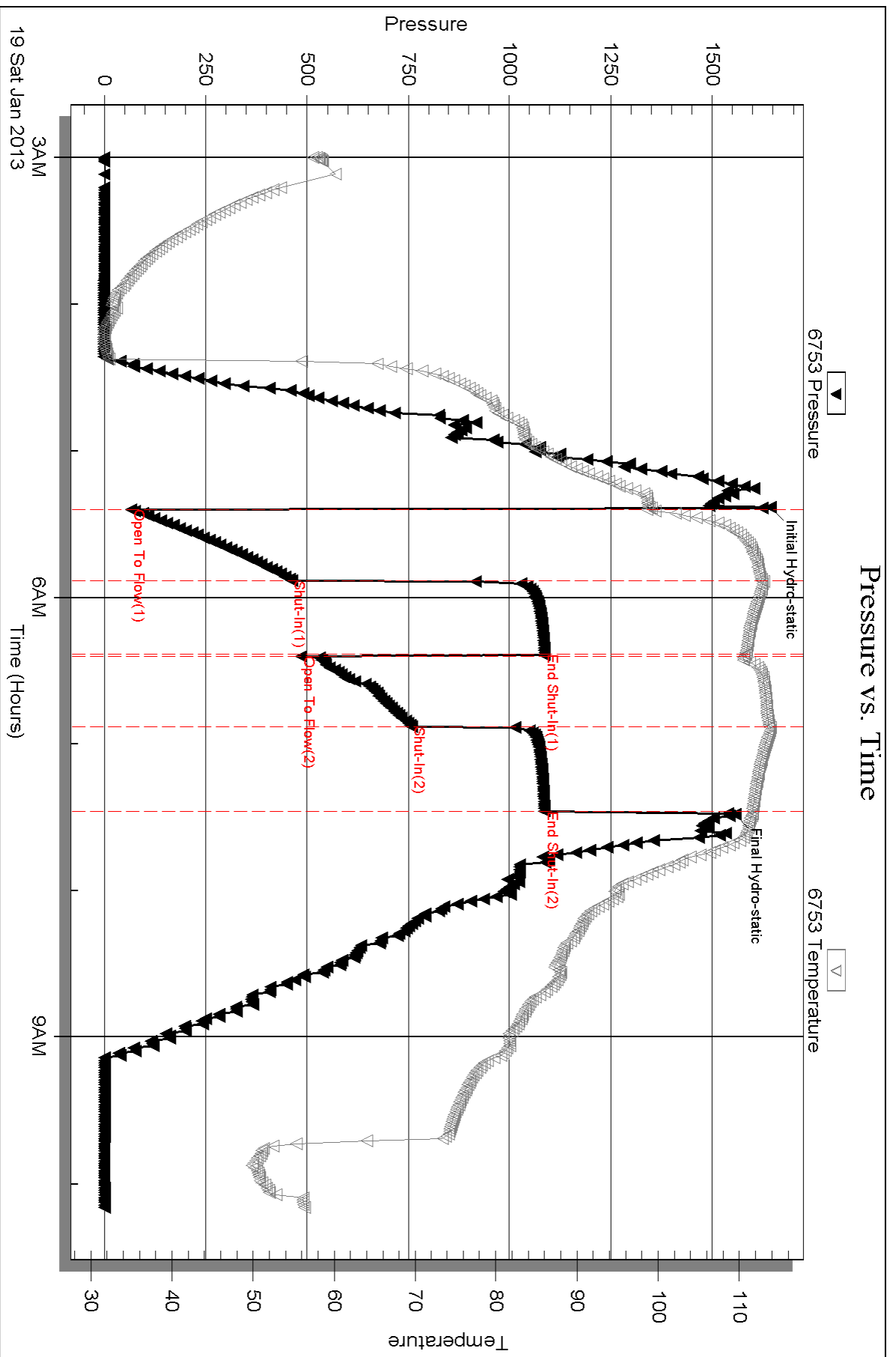
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

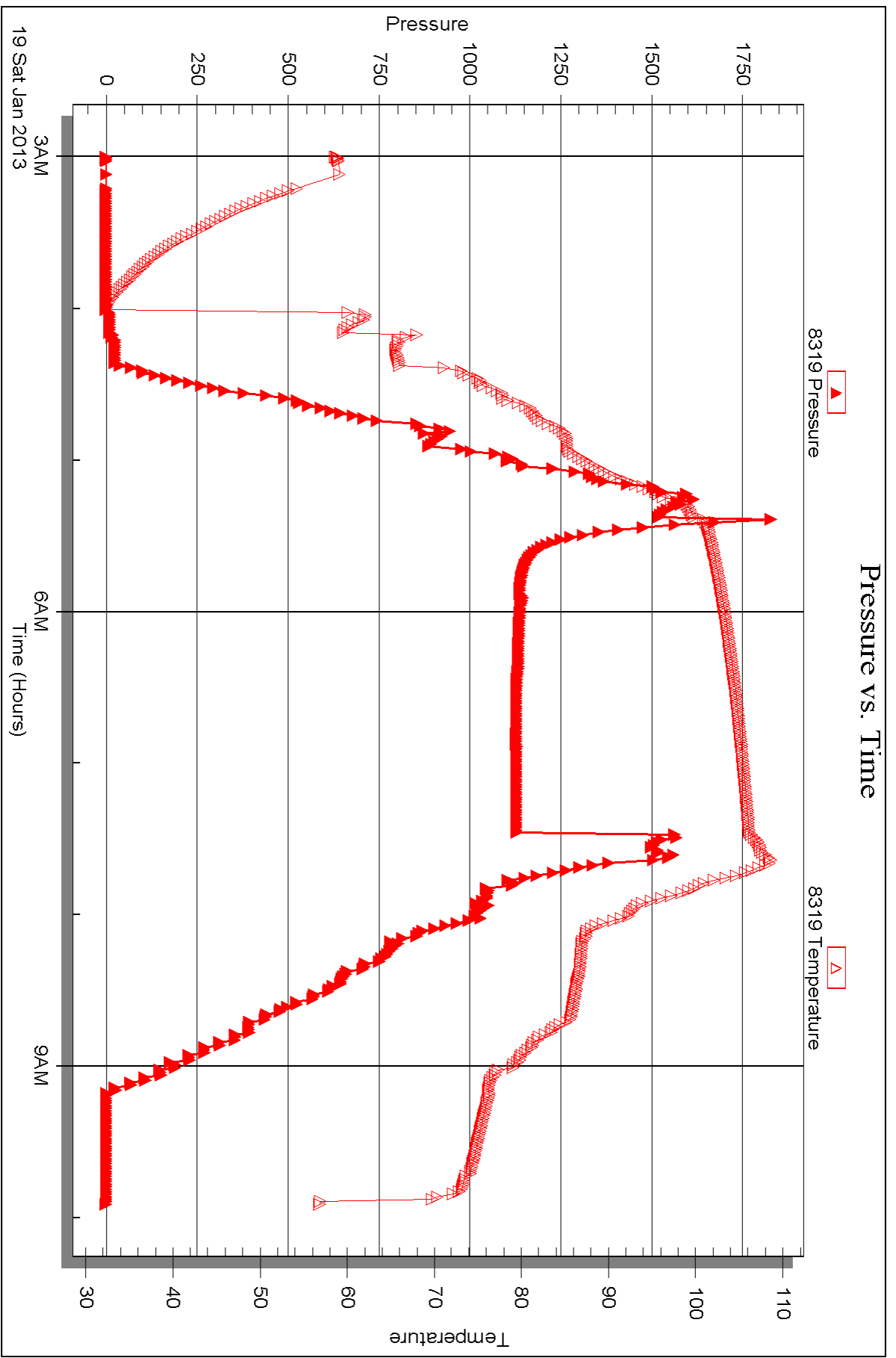


Serial #: 8319

Below (Straddled) Farmer Inc

Camp #1

DST Test Number: 6



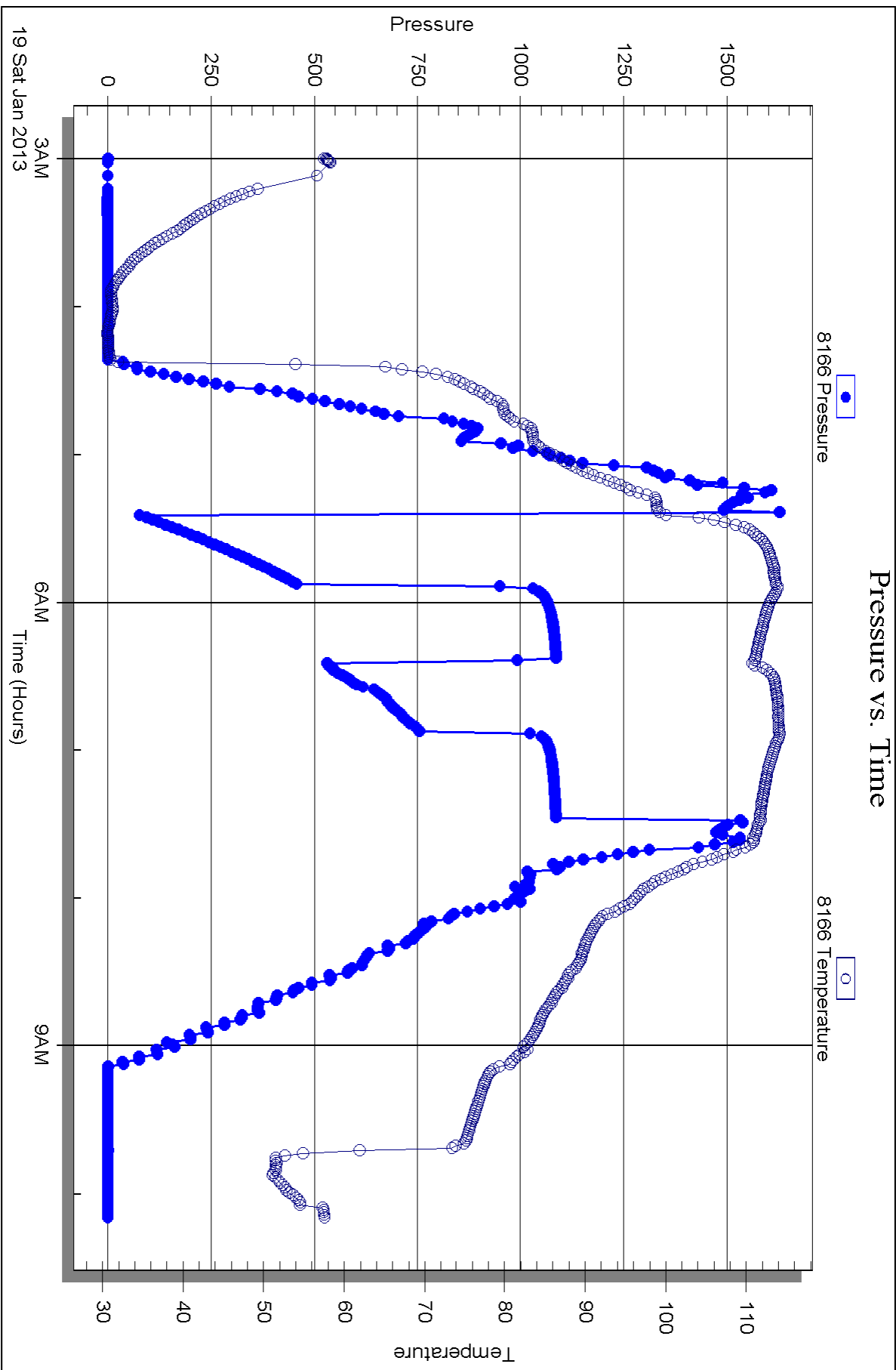
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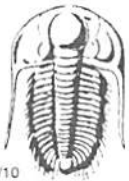
Inside

John O. Farmer Inc

Camp #1

DST Test Number: 6





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51576

Well Name & No. Camp #1 Test No. 1 Date 1-15-13
 Company John O. Farmer Inc Elevation ~~1700~~ KB ~~1708~~ GL
 Address Po Box 352, Russell KS, 67665
 Co. Rep / Geo. Austin Klaus Rig Discovery #2
 Location: Sec. 2 Twp. 15S Rge. 14W Co. Russell State KS

Interval Tested 2249-2319 Zone Tested ~~QD~~ Sand - Grand Haven
 Anchor Length 70' Drill Pipe Run ~~225'~~ 225' Mud Wt. 8-6
 Top Packer Depth 2244 Drill Collars Run ~~135'~~ 31 Vis 60
 Bottom Packer Depth 2249 Wt. Pipe Run - WL -
 Total Depth 2319 Chlorides - ppm System LCM -
 Blow Description IF - B.O.B. instantly
ISI - No blow back.
FF - B.O.B. instantly
FSI -

Rec	Feet of	%gas	%oil	%water	%mud
<u>45'</u>	<u>G.SOCWM</u>	<u>8</u>	<u>10</u>	<u>2</u>	<u>80</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>124' of G.I.P</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

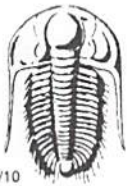
Rec Total 45' BHT 84° Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 1099 Test 1150 T-On Location 2:20am
 (B) First Initial Flow 48 Jars - T-Started 4:30am
 (C) First Final Flow 60 Safety Joint - T-Open 6:30am
 (D) Initial Shut-In 261 Circ Sub - T-Pulled 8:30am
 (E) Second Initial Flow 57 Hourly Standby - T-Out 10:03am
 (F) Second Final Flow 63 Mileage 35 RT 108.50 Comments -
 (G) Final Shut-In 301 Sampler -
 (H) Final Hydrostatic 1076 Straddle -
 Ruined Shale Packer
 Ruined Packer

Initial Open ~~30~~ 30 Extra Packer - Extra Copies -
 Initial Shut-In ~~30~~ 30 Extra Recorder - Sub Total 0
 Final Flow 30 Day Standby - Total 1258.50
 Final Shut-In 30 Accessibility - MP/DST Disc't -
 Sub Total 1258.50

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. 50255

4/10

Well Name & No. Camp #1 Test No. 2 Date 1/15/13
 Company John O. Farmer Inc. Elevation 1708 KB 1700 GL
 Address PO Box 352, Russell KS, 67665
 Co. Rep / Geo. Austin Klaus Rig Discovering #2
 Location: Sec. 2 Twp. 15s Rge. 14w Co. Russell State KS

Interval Tested 2327-2370 Zone Tested Tarkio
 Anchor Length 43 Drill Pipe Run 2287 Mud Wt. 8.9
 Top Packer Depth 2322 Drill Collars Run 31 Vis 50
 Bottom Packer Depth 2327 Wt. Pipe Run - WL 7.2
 Total Depth 2370 Chlorides 2800 ppm System LCM 27
 Blow Description IF - 6in blow
ISI - No blow
FF - 7 1/2 in blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>vsomcu</u>	<u>2</u>	<u>58</u>	<u>40</u>	<u></u>
<u>45</u>	<u>vsowcm</u>	<u>2</u>	<u>10</u>	<u>88</u>	<u></u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 165 BHT 88 Gravity _____ API RW .35 @ 30 ° F Chlorides 50,000 ppm

(A) Initial Hydrostatic 1109 Test 1150 T-On Location 15:40
 (B) First Initial Flow 54 Jars _____ T-Started 16:00
 (C) First Final Flow 69 Safety Joint _____ T-Open 17:13
 (D) Initial Shut-In 629 Circ Sub _____ T-Pulled 20:13
 (E) Second Initial Flow 72 Hourly Standby _____ T-Out 21:43
 (F) Second Final Flow 95 Mileage 70 RT 108.50 Comments _____
 (G) Final Shut-In 607 Sampler _____
 (H) Final Hydrostatic 1,073 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 60
 Final Shut-In 60
 Sub Total 1258.50
 Total 1258.50
 MP/DST Disc't _____

Approved By _____ Our Representative Brian D...

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50256

Well Name & No. Camp #1 Test No. 3 Date 1/16/13
 Company John O. Farmer, Inc. Elevation 1708 KB 1700 GL
 Address PO Box 352, Russell KS, 67665
 Co. Rep / Geo. Austin Klaus Rig Discovery #2
 Location: Sec. 2 Twp. 15s Rge. 14w Co. Russell State KS

Interval Tested 2886 - 2930 Zone Tested KC" A - C"
 Anchor Length 44 Drill Pipe Run _____ Mud Wt. 9.2
 Top Packer Depth 2881 Drill Collars Run 31 Vis 47
 Bottom Packer Depth 2886 Wt. Pipe Run _____ WL 9.6
 Total Depth 2930 Chlorides 5,000 ppm System LCM 1
 Blow Description IF - 5 1/2 in blow
ISI - No blow
FF - 3 in blow
FSI - No blow

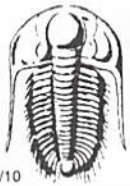
Rec	Feet of	%gas	%oil	%water	%mud
<u>35</u>	<u>VSOCM</u>	<u>2</u>		<u>98</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 35 BHT 98 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic	<u>1,451</u>	<input checked="" type="checkbox"/> Test	<u>1150</u>	T-On Location	<u>22:25</u>
(B) First Initial Flow	<u>17</u>	<input type="checkbox"/> Jars		T-Started	<u>22:40</u>
(C) First Final Flow	<u>25</u>	<input type="checkbox"/> Safety Joint		T-Open	<u>23:55</u>
(D) Initial Shut-In	<u>89</u>	<input type="checkbox"/> Circ Sub		T-Pulled	<u>2:55</u>
(E) Second Initial Flow	<u>24</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>4:25</u>
(F) Second Final Flow	<u>32</u>	<input checked="" type="checkbox"/> Mileage	<u>70 ft</u> 108.50	Comments	
(G) Final Shut-In	<u>142</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>1,403</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Shale Packer	
Initial Open	<u>30</u>	<input type="checkbox"/> Shale Packer		<input type="checkbox"/> Ruined Packer	
Initial Shut-In	<u>30</u>	<input type="checkbox"/> Extra Packer		<input type="checkbox"/> Extra Copies	
Final Flow	<u>60</u>	<input type="checkbox"/> Extra Recorder		Sub Total	<u>25</u>
Final Shut-In	<u>60</u>	<input checked="" type="checkbox"/> Day Standby	<u>24 3/4 hrs</u>	Total	<u>1283.50</u>
		<input type="checkbox"/> Accessibility		MP/DST Disc't	
		Sub Total	<u>1258.50</u>		

Approved By _____ Our Representative Burt Dine

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50257

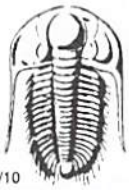
Well Name & No. Camp #1 Test No. 4 Date 1/17/13
 Company John O. Farmer, Inc. Elevation 1708 KB 1700 GL
 Address PO Box 352, Russell KS, 67665
 Co. Rep / Geo. Austin Klaus Rig Discovery #2
 Location: Sec. 2 Twp. 15s Rge. 14w Co. Russell State KS

Interval Tested 2944 - 2988 Zone Tested KC"E-6"
 Anchor Length 44 Drill Pipe Run 2913 Mud Wt. 9.4
 Top Packer Depth 2939 Drill Collars Run 31 Vis 56
 Bottom Packer Depth 2944 Wt. Pipe Run - WL 8.8
 Total Depth 2988 Chlorides 4,000 ppm System LCM 1
 Blow Description IF - 4 in blow
ISF - No blow
EF - 2 1/2 in blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Free Oil</u>				
<u>64</u>	<u>wcm</u>			<u>40</u>	<u>60</u>

Rec Total 65 BHT 99 Gravity _____ API RW .3 @ 40 ° F Chlorides 42,000 ppm
 (A) Initial Hydrostatic 1,501 Test 1150 T-On Location 12:30
 (B) First Initial Flow 17 Jars _____ T-Started 13:00
 (C) First Final Flow 36 Safety Joint _____ T-Open 14:20
 (D) Initial Shut-In 557 Circ Sub _____ T-Pulled 17:20
 (E) Second Initial Flow 38 Hourly Standby _____ T-Out 18:50
 (F) Second Final Flow 50 Mileage 70 RT 108.50 Comments _____
 (G) Final Shut-In 544 Sampler _____
 (H) Final Hydrostatic 1,460 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30 Shale Packer _____
 Initial Shut-In 30 Extra Packer _____
 Final Flow 60 Extra Recorder _____ Sub Total 0
 Final Shut-In 60 Day Standby _____ Total 1258.50
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1258.50

Approved By _____ Our Representative Butt Dahn
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50258

4/10

Well Name & No. Camp #1 Test No. 5 Date 1/18/13
 Company John O. Farmer, Inc. Elevation 1708 KB 1700 GL
 Address PO Box 352, Russell KS, 67665
 Co. Rep / Geo. Austin Klaus Rig Discovery #2
 Location: Sec. 2 Twp. 15s Rge. 14w Co. Russell State KS

Interval Tested 3039 - 3105 Zone Tested KC" J-L"
 Anchor Length 66 Drill Pipe Run 3007 Mud Wt. 9.4
 Top Packer Depth 3034 Drill Collars Run 31 Vis 56
 Bottom Packer Depth 3039 Wt. Pipe Run - WL 8.8
 Total Depth 3105 Chlorides 4,000 ppm System LCM 1[#]

Blow Description IF - 1 in blow
ISF - No blow
IF - very weak surface blow died in 15 min
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>				

Rec Total 5 BHT 98 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1,528 Test 1150 T-On Location 5:40
 (B) First Initial Flow 17 Jars _____ T-Started 6:00
 (C) First Final Flow 19 Safety Joint _____ T-Open 7:55
 (D) Initial Shut-In 44 Circ Sub _____ T-Pulled 9:55
 (E) Second Initial Flow 18 Hourly Standby _____ T-Out 11:20
 (F) Second Final Flow 20 Mileage 70 or 1 108.50 Comments _____
 (G) Final Shut-In 30 Sampler _____
 (H) Final Hydrostatic 1,506 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 30 Extra Recorder _____ Sub Total 0
 Final Flow 30 Day Standby _____ Total 1258.50
 Final Shut-In 30 Accessibility _____ MP/DST Disc't _____
 Sub Total 1258.50

Approved By _____ Our Representative Butt Duden

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50259

4/10

Well Name & No. Camp #1 Test No. 6 Date 1/19/13
 Company John O. Farmer Inc. Elevation 1708 KB 1700 GL
 Address PO Box 352, Russell KS, 67665
 Co. Rep / Geo. Austin Klaus Rig Discovery #2
 Location: Sec. 2 Twp. 15s Rge. 14w Co. Russell State KS

Interval Tested 3104-3156 Zone Tested Arb
 Anchor Length 52 Drill Pipe Run 3070 Mud Wt. 9.4
 Top Packer Depth 3099, 3104 Drill Collars Run 31 Vis 49
 Bottom Packer Depth 3156 Wt. Pipe Run - WL 9.2
 Total Depth 3210 Chlorides 6,000 ppm System LCM

Blow Description FF - BOB in 1 1/2 min
FSI - No blow
FF - BOB in 1 1/2 min
FSI -

Rec	Feet of	%gas	%oil	%water	%mud
630	water				
125	oil spotted SMCW		90	10	
310	vsomcw	2	88	10	
335	vsomcw	5	85	10	
210	vsomcw	2	5	93	

Rec Total 1610 BHT 112 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1643 Test 1150 T-On Location 2:25
 (B) First Initial Flow 67 Jars _____ T-Started 3:00
 (C) First Final Flow 462 Safety Joint _____ T-Open 5:20
 (D) Initial Shut-In 1087 Circ Sub _____ T-Pulled 7:20
 (E) Second Initial Flow 486 Hourly Standby _____ T-Out 10:05
 (F) Second Final Flow 757 Mileage 70.7 108.50 Comments _____
 (G) Final Shut-In 1086 Sampler _____
 (H) Final Hydrostatic 1557 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 1858.50
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 30 Sub Total 1858.50

Approved By _____

Our Representative But

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.