



DRILL STEM TEST REPORT

Prepared For: **John O Farmer**

PO Box 352
Russell KS 67665

ATTN: Austin Klaus

Johnson "C" #1

27-1s-18w Phillips,KS

Start Date: 2013.11.02 @ 07:50:00

End Date: 2013.11.02 @ 14:05:30

Job Ticket #: 54875 DST #: 1

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

Printed: 2013.11.13 @ 10:58:50

John O Farmer
27-1s-18w Phillips,KS
Johnson "C" #1
DST # 1
LKC "C-D"
2013.11.02



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O Farmer

27-1s-18w Phillips,KS

PO Box 352
Russell KS 67665

Johnson "C" #1

Job Ticket: 54875

DST#: 1

ATTN: Austin Klaus

Test Start: 2013.11.02 @ 07:50:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:17:30

Time Test Ended: 14:05:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Bob Hamel

Unit No: 66

Interval: 3374.00 ft (KB) To 3422.00 ft (KB) (TVD)

Reference Elevations: 2151.00 ft (KB)

Total Depth: 3422.00 ft (KB) (TVD)

2143.00 ft (CF)

Hole Diameter: inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8874

Inside

Press@RunDepth: 45.29 psig @ 3410.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.11.02

End Date:

2013.11.02

Last Calib.:

2013.11.02

Start Time: 07:51:00

End Time:

14:05:30

Time On Btm:

2013.11.02 @ 10:17:00

Time Off Btm:

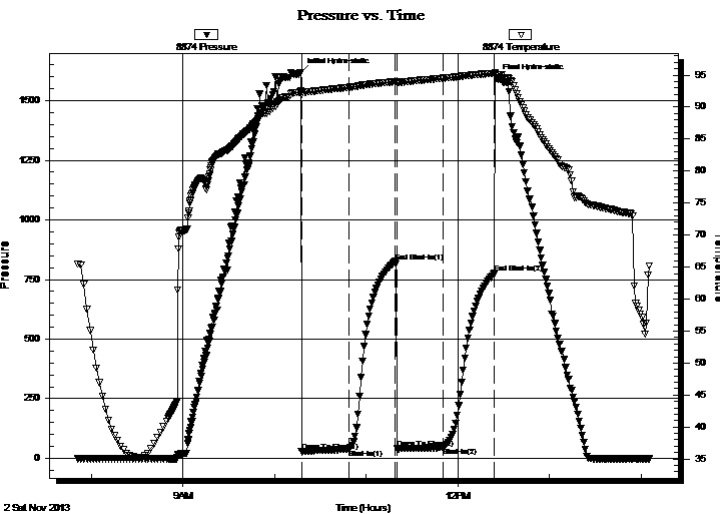
2013.11.02 @ 12:25:00

TEST COMMENT: I.F. - 30 - Weak surface blow died in 2 min

I.S.I. - 30 - No blow back

F.F. - 30 - No blow

F.S.I. - 30 - No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1617.39	92.52	Initial Hydro-static
1	28.41	92.01	Open To Flow (1)
32	37.78	93.10	Shut-In(1)
62	825.46	93.99	End Shut-In(1)
63	39.53	93.80	Open To Flow (2)
93	45.29	94.52	Shut-In(2)
127	775.46	95.30	End Shut-In(2)
128	1594.64	95.08	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM 2%OIL 98%MUD	0.05

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

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PO Box 352
Russell KS 67665

Johnson "C" #1

ATTN: Austin Klaus

Job Ticket: 54875

DST#: 1

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Total Depth: 3422.00 ft (KB) (TVD)

Hole Diameter: inches Hole Condition: Good

Reference Elevations: 2151.00 ft (KB)

2143.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8653 Outside

Press@RunDepth: psig @ 3410.00 ft (KB)

Start Date: 2013.11.02

End Date:

2013.11.02

Start Time: 07:51:00

End Time:

14:04:30

Capacity: 8000.00 psig

Last Calib.:

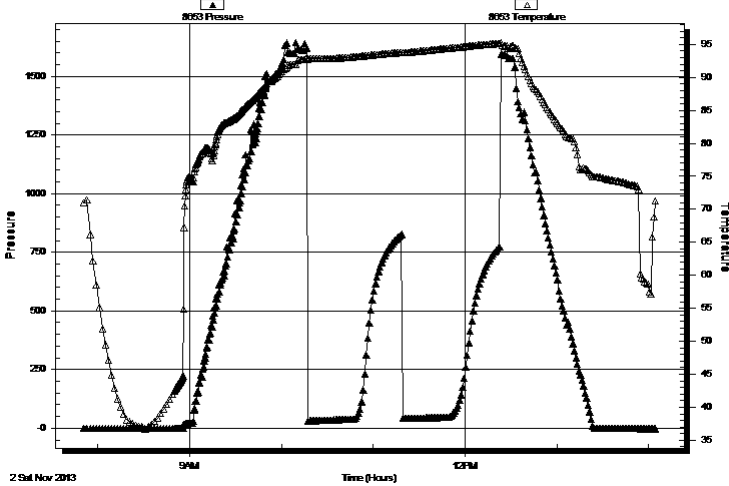
2013.11.02

Time On Btm:

Time Off Btm:

TEST COMMENT: I.F. - 30 - Weak surface blow died in 2 min
I.S.I. - 30 - No blow back
F.F. - 30 - No blow
F.S.I. - 30 - No blow back

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM 2% OIL 98% MUD	0.05

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer

27-1s-18w Phillips,KS

PO Box 352
Russell KS 67665

Johnson "C" #1

Job Ticket: 54875

DST#: 1

ATTN: Austin Klaus

Test Start: 2013.11.02 @ 07:50:00

Tool Information

Drill Pipe:	Length: 3261.00 ft	Diameter: 3.80 inches	Volume: 45.74 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	64000.00 lb
			<u>Total Volume: 46.34 bbl</u>	Tool Chased	5.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	3374.00 ft			Final	60000.00 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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3355.00	
Shut In Tool	5.00			3360.00	
Hydraulic tool	5.00			3365.00	
Packer	5.00			3370.00	20.00 Bottom Of Top Packer
Packer	4.00			3374.00	
Stubb	1.00			3375.00	
Perforations	2.00			3377.00	
Change Over Sub	1.00			3378.00	
Drill Pipe	31.00			3409.00	
Change Over Sub	1.00			3410.00	
Recorder	0.00	8653	Outside	3410.00	
Recorder	0.00	8874	Inside	3410.00	
Perforations	7.00			3417.00	
Bullnose	5.00			3422.00	48.00 Bottom Packers & Anchor

Total Tool Length: 68.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer

27-1s-18w Phillips,KS

PO Box 352
Russell KS 67665

Johnson "C" #1

Job Ticket: 54875

DST#: 1

ATTN: Austin Klaus

Test Start: 2013.11.02 @ 07:50:00

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: 5.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OCM 2%OIL 98%MUD	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

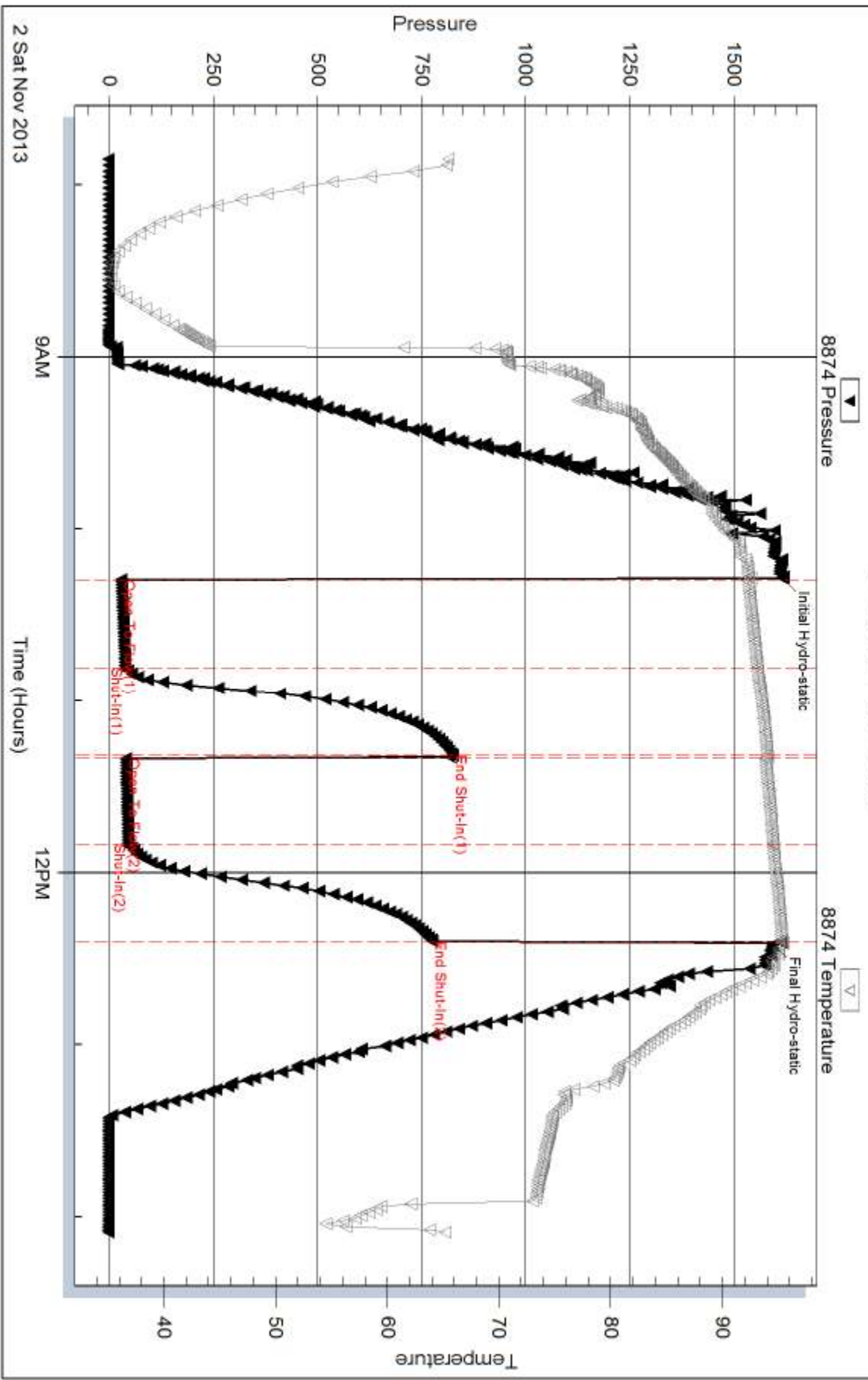
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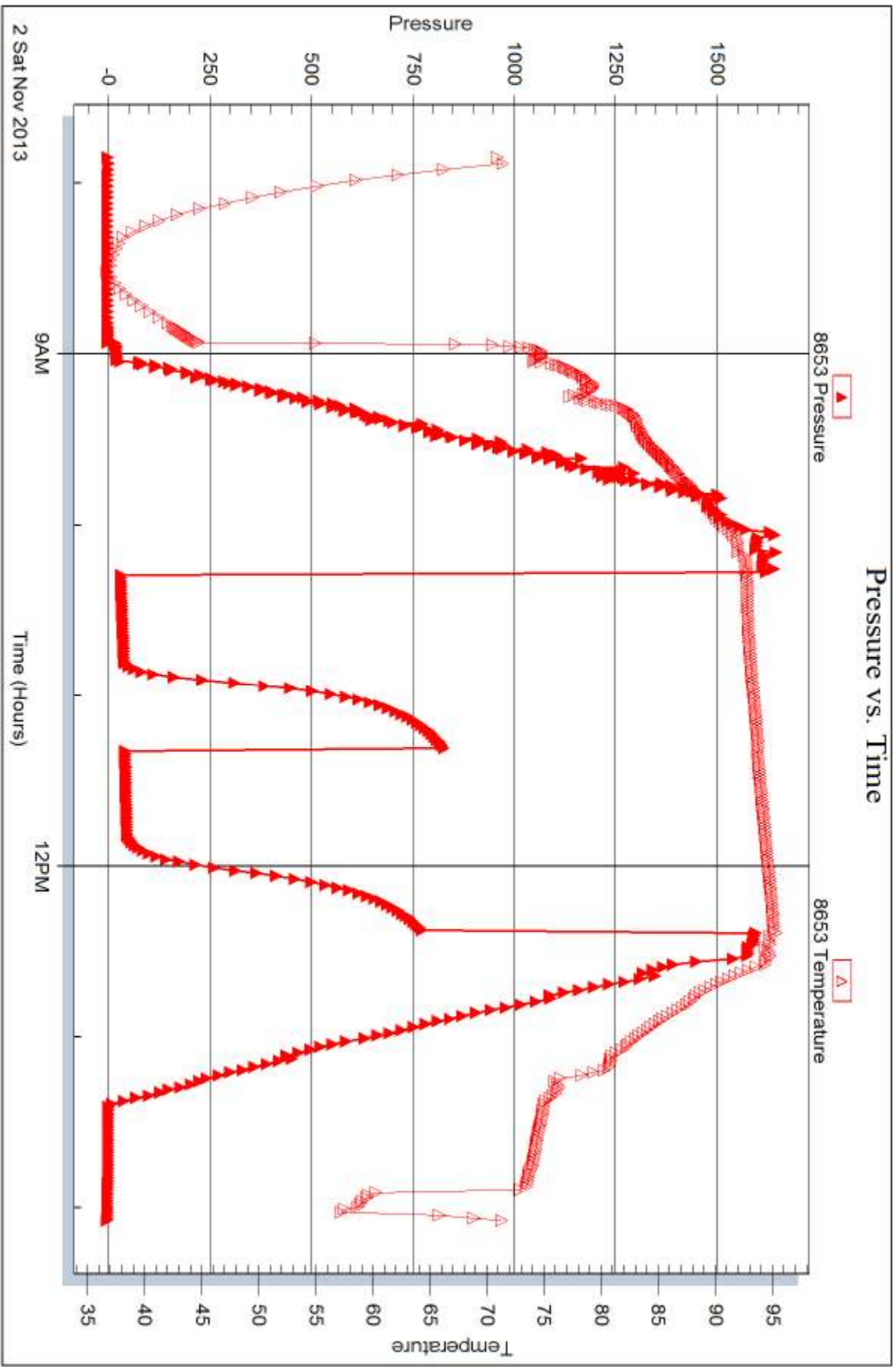
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **John O Farmer**

PO Box 352
Russell KS 67665

ATTN: Austin Klaus

Johnson "C" #1

27-1s-18w Phillips,KS

Start Date: 2013.11.03 @ 06:40:00

End Date: 2013.11.03 @ 15:28:00

Job Ticket #: 55851 DST #: 2

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

Printed: 2013.11.13 @ 10:58:14



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O Farmer

27-1s-18w Phillips,KS

PO Box 352
Russell KS 67665

Johnson "C" #1

Job Ticket: 55851

DST#: 2

ATTN: Austin Klaus

Test Start: 2013.11.03 @ 06:40:00

GENERAL INFORMATION:

Formation: **L.K.C. "H-L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:09:00

Time Test Ended: 15:28:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bob Hamel / Kevin Ma

Unit No: 66

Interval: 3457.00 ft (KB) To 3585.00 ft (KB) (TVD)

Reference Elevations: 2151.00 ft (KB)

Total Depth: 3585.00 ft (KB) (TVD)

2143.00 ft (CF)

Hole Diameter: inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8874

Inside

Press@RunDepth: 212.69 psig @ 3555.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.11.03

End Date:

2013.11.03

Last Calib.: 2013.11.03

Start Time: 06:41:00

End Time:

15:28:00

Time On Btm: 2013.11.03 @ 09:08:30

Time Off Btm: 2013.11.03 @ 12:15:30

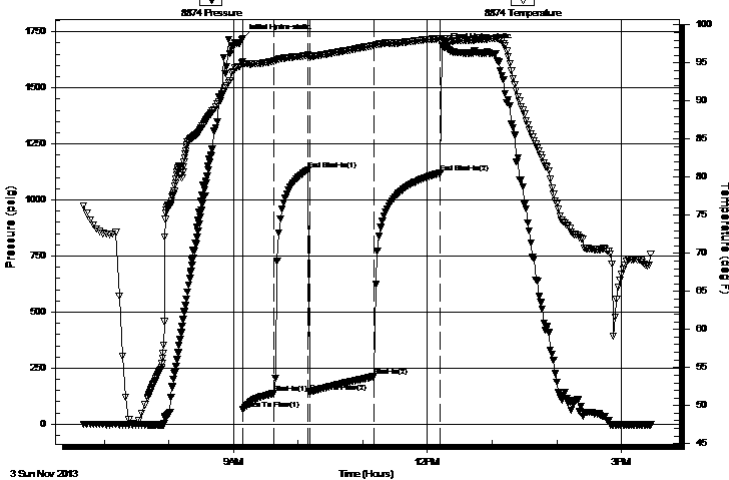
TEST COMMENT: I.F. - 30 - BOB in 24 3/4 min

I.S.I - 30 - No blow back

F.F. - 60 - BOB in 32 min

F.S.I. - 60 - No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1720.81	95.18	Initial Hydro-static
1	67.02	94.86	Open To Flow (1)
29	137.37	95.25	Shut-In(1)
61	1133.13	96.03	End Shut-In(1)
62	143.63	95.83	Open To Flow (2)
122	212.69	97.31	Shut-In(2)
184	1120.62	98.23	End Shut-In(2)
187	1681.92	98.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW 95W 5M	0.59
30.00	MW 85W 15M	0.39
144.00	OSMW 50W 50M (oil spots)	2.02
30.00	Free Oil 100o	0.42

* Recovery from multiple tests

Gas Rates

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



DRILL STEM TEST REPORT

John O Farmer

27-1s-18w Phillips,KS

PO Box 352
Russell KS 67665

Johnson "C" #1

Job Ticket: 55851

DST#: 2

ATTN: Austin Klaus

Test Start: 2013.11.03 @ 06:40:00

GENERAL INFORMATION:

Formation: **L.K.C. "H-L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:09:00

Time Test Ended: 15:28:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bob Hamel / Kevin Ma

Unit No: 66

Interval: **3457.00 ft (KB) To 3585.00 ft (KB) (TVD)**

Total Depth: 3585.00 ft (KB) (TVD)

Hole Diameter: inches Hole Condition: Good

Reference Elevations: 2151.00 ft (KB)

2143.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: **8653** Outside

Press@RunDepth: psig @ 3555.00 ft (KB)

Start Date: 2013.11.03

Start Time: 06:41:00

End Date:

End Time:

Capacity: 8000.00 psig

Last Calib.: 2013.11.03

Time On Btm:

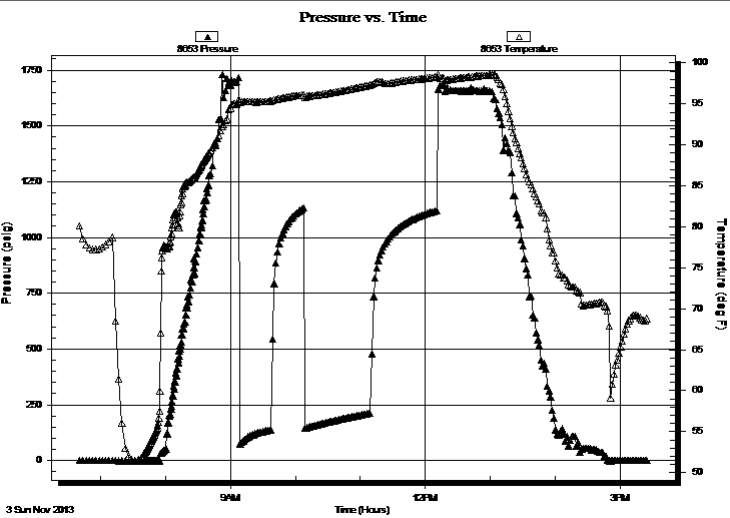
Time Off Btm:

TEST COMMENT: I.F. - 30 - BOB in 24 3/4 min

I.S.I. - 30 - No blow back

F.F. - 60 - BOB in 32 min

F.S.I. - 60 - No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW 95W 5M	0.59
30.00	MW 85W 15M	0.39
144.00	OSMW 50W 50M (oil spots)	2.02
30.00	Free Oil 100o	0.42

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

27-1s-18w Phillips,KS

PO Box 352
Russell KS 67665

Johnson "C" #1

Job Ticket: 55851

DST#: 2

ATTN: Austin Klaus

Test Start: 2013.11.03 @ 06:40:00

Tool Information

Drill Pipe:	Length: 3325.00 ft	Diameter: 3.80 inches	Volume: 46.64 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 47.24 bbl</u>	Tool Chased	3.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	3457.00 ft			Final	64000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	128.00 ft				
Tool Length:	148.00 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			3438.00	
Shut In Tool	5.00			3443.00	
Hydraulic tool	5.00			3448.00	
Packer	5.00			3453.00	20.00 Bottom Of Top Packer
Packer	4.00			3457.00	
Stubb	1.00			3458.00	
Perforations	2.00			3460.00	
Change Over Sub	1.00			3461.00	
Drill Pipe	93.00			3554.00	
Change Over Sub	1.00			3555.00	
Recorder	0.00	8653	Outside	3555.00	
Recorder	0.00	8874	Inside	3555.00	
Perforations	25.00			3580.00	
Bullnose	5.00			3585.00	128.00 Bottom Packers & Anchor

Total Tool Length: 148.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer

27-1s-18w Phillips,KS

PO Box 352
Russell KS 67665

Johnson "C" #1

Job Ticket: 55851

DST#: 2

ATTN: Austin Klaus

Test Start: 2013.11.03 @ 06:40:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

42000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbf

Water Loss: 5.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
120.00	MW 95W 5M	0.590
30.00	MW 85W 15M	0.393
144.00	OSMW 50W 50M (oil spots)	2.020
30.00	Free Oil 100o	0.421

Total Length: 324.00 ft Total Volume: 3.424 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

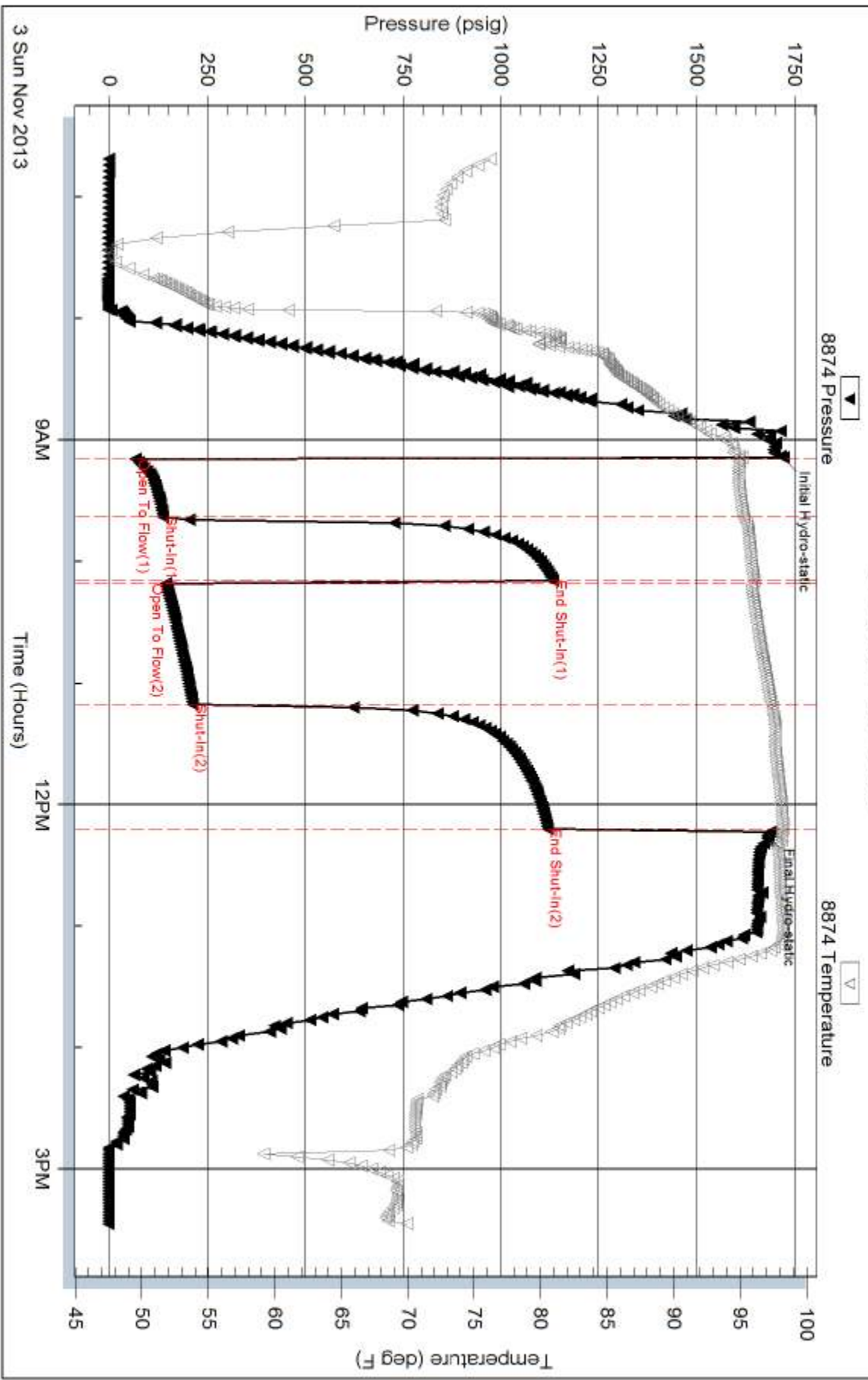
Laboratory Name:

Laboratory Location:

Recovery Comments: Oil API 35 @ 70 deg = 34 cor

RW .186 @ 70 deg = 42,000ppm

Pressure vs. Time

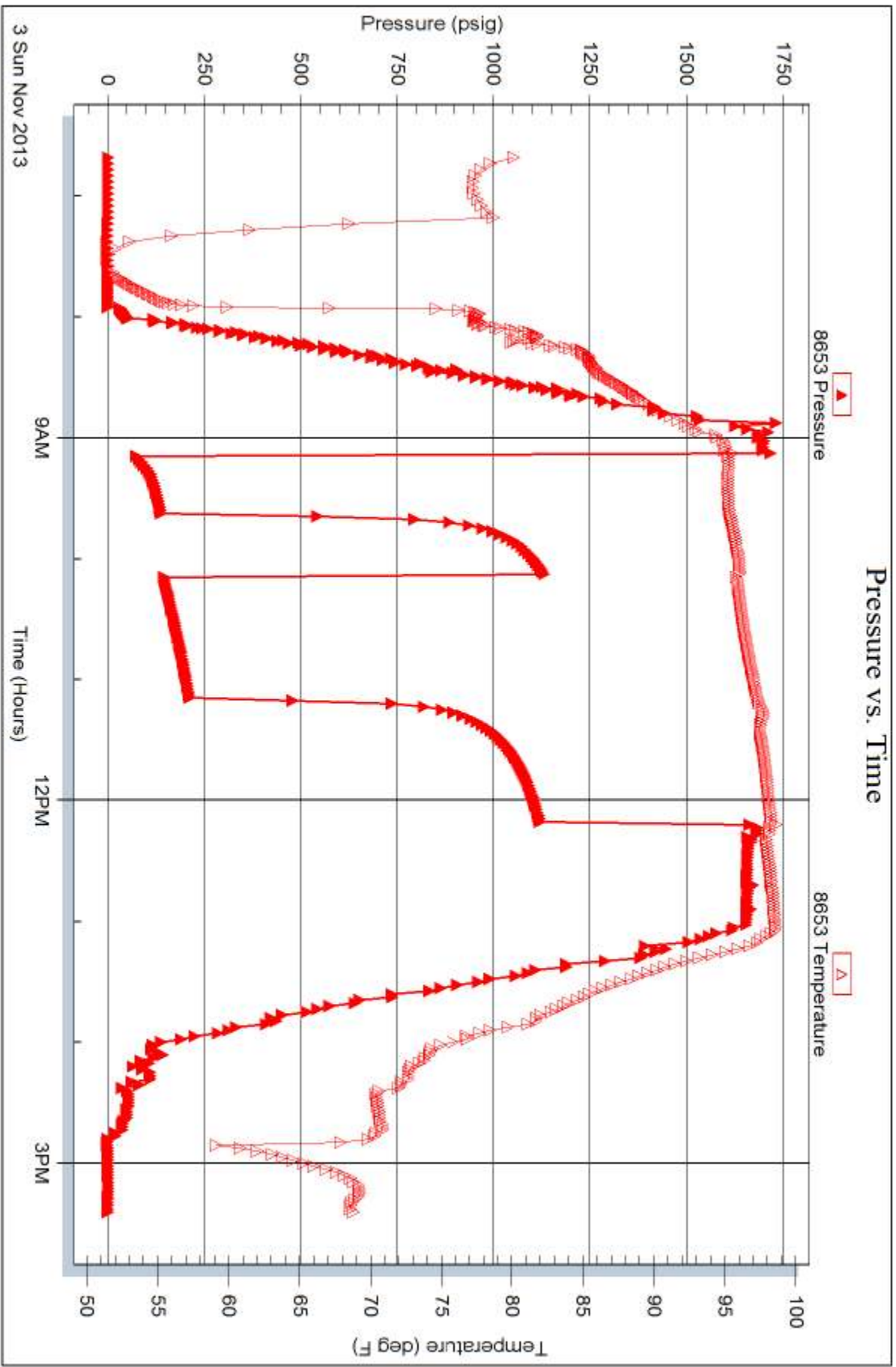


Serial #: 8653

Outside John O Farmer

Johnson "C" #1

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **54875**

Well Name & No. Johnson "C" #1 Test No. 1 Date 11-2-13
 Company John O. Farmer INC. Elevation 2151 KB 2143 GL
 Address 370 W. Wichita Ave. P.O. Box 352 Russell KS 67665
 Co. Rep / Geo. Austin Claus Rig W.W. Rig 12
 Location: Sec. 27 Twp. 15 Rge. 18 W Co. Phillips State KS.

Interval Tested 3374-3422 Zone Tested Zans. "C & D"
 Anchor Length 48 Drill Pipe Run 3,261 Mud Wt. 8.6
 Top Packer Depth 3469 Drill Collars Run 123 Vis 60
 Bottom Packer Depth 3474 Wt. Pipe Run _____ WL 5.4
 Total Depth 3422 Chlorides 400 ppm System LCM 3

Blow Description I.F. - 30 - 1/4 INT. Blow Died in 2 min...
I.S.I - 30 - No B.B.
F.F. - 30 - No Blow
F.S.I - 30 - No B.B.

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>OCM</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

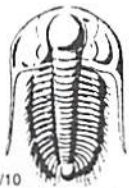
Rec Total 10 BHT 95 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1,618 Test 1150 T-On Location 06:00:00
 (B) First Initial Flow 28 Jars _____ T-Started 07:50:00
 (C) First Final Flow 38 Safety Joint _____ T-Open 10:20:00
 (D) Initial Shut-In 825 Circ Sub _____ T-Pulled 12:20:00
 (E) Second Initial Flow 40 Hourly Standby _____ T-Out 14:05:00
 (F) Second Final Flow 45 Mileage 160 R.T. 248 Comments Tool slid 5' to Bottom.
 (G) Final Shut-In 775 Sampler _____ Thank-you
 (H) Final Hydrostatic 1,595 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1398
 Accessibility _____ MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Sub Total 1398

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. 55851

Well Name & No. Johnson "C" #1 Test No. 2 Date 11-3-13
 Company John O. Farmer Inc. Elevation 2151 KB 2143 GL
 Address 370 W. Wichita Ave. P.O. Box 352 Russell KS. 67665
 Co. Rep / Geo. Austin Claus Rig W.W. Rig 12
 Location: Sec. 27 Twp. 1-S Rge. 18-W Co. Phillips State KS.

Interval Tested 3,457 - 3585 Zone Tested A.K.C. "H-L"
 Anchor Length 128 Drill Pipe Run 3325 Mud Wt. 9.2
 Top Packer Depth 3452 Drill Collars Run 123 Vis 52
 Bottom Packer Depth 3457 Wt. Pipe Run --- WL 5.8
 Total Depth 3585 Chlorides 900 ppm System LCM 2

Blow Description I.F. - 30 - 1/4 INT. Blow B.O.B. in 24 3/4 min.
I.S.I - 30 - No B.B.
F.F. - 60 - 1/4 INT. Blow Bu'lt to B.O.B. in 32 min.
F.S.I - 60 - No B.B.

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>Free Oil</u>		<u>100</u>		
<u>144</u>	<u>OSmw</u>		<u>SPOTS</u>	<u>50</u>	<u>50</u>
<u>30</u>	<u>MW</u>		<u>85</u>	<u>15</u>	
<u>120</u>	<u>MW</u>		<u>95</u>	<u>5</u>	

Rec Total 324' BHT 98 Gravity 34 API RW .186 @ 70 °F Chlorides 42,000 ppm

(A) Initial Hydrostatic 1720 Test 1150 T-On Location 05:30:00
 (B) First Initial Flow 67 Jars T-Started 06:40:00
 (C) First Final Flow 137 Safety Joint T-Open 09:10:00
 (D) Initial Shut-In 1133 Circ Sub T-Pulled 13:10:00
 (E) Second Initial Flow 143 Hourly Standby T-Out 7:00 PM
 (F) Second Final Flow 212 Mileage 160 R. + 248 Comments SPLIT ticket
 (G) Final Shut-In 1120 Sampler 50/50 between Bob & Kevin
 (H) Final Hydrostatic 1681 Straddle Thank-you

Initial Open 30 Ruined Shale Packer
 Initial Shut-In 30 Ruined Packer
 Final Flow 60 Extra Copies
 Final Shut-In 60 Extra Recorder Sub Total 0
 Day Standby Total 1398
 Accessibility MP/DST Disc't
 Sub Total 1398

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.