TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **K&B Norton Oil & Investments**

PO Box 860891
Shawnee KS 66826

ATTN: Steve Murphy

Bender #3

21-15s-14w Russell,KS

Start Date: 2013.12.17 @ 20:15:00
End Date: 2013.12.18 @ 01:45:16
Job Ticket #: 55489 DST #: 1

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

Printed: 2013.12.20 @ 10:40:51

DRILL STEM TEST REPORT

K&B Norton Oil & Investments

PO Box 860891
Shaw nee KS 66826

ATTN: Steve Murphy

21-15s-14w Russell,KS

Bender #3

Job Ticket: 55489 **DST#: 1**

Test Start: 2013.12.17 @ 20:15:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:11:08
Time Test Ended: 01:45:16

Test Type: Conventional Bottom Hole (Initial)
Tester: Brett Dickinson
Unit No: 59

Interval: 3306.00 ft (KB) To 3334.00 ft (KB) (TVD)
Total Depth: 3334.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

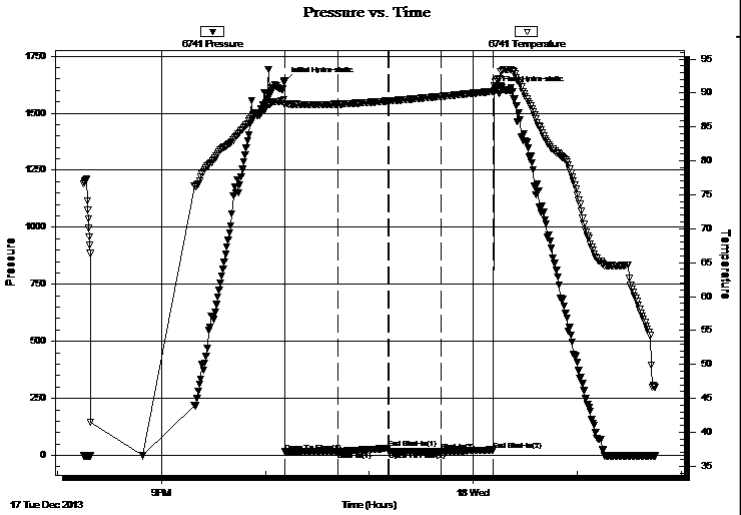
Reference Elevations: 1873.00 ft (KB)
1868.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6741 **Inside**

Press@RunDepth: 17.25 psig @ 3307.00 ft (KB)
Start Date: 2013.12.17 End Date: 2013.12.18
Start Time: 20:15:05 End Time: 01:45:15

Capacity: 8000.00 psig
Last Calib.: 2013.12.18
Time On Btm: 2013.12.17 @ 22:10:53
Time Off Btm: 2013.12.18 @ 00:12:53

TEST COMMENT: IF-1/8" blow
ISI-No blow
FF-Very w eak surface blow died in 18 min
FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1640.08	88.96	Initial Hydro-static
1	15.09	88.30	Open To Flow (1)
31	16.42	88.37	Shut-In(1)
60	30.68	88.83	End Shut-In(1)
61	16.94	88.83	Open To Flow (2)
91	17.25	89.51	Shut-In(2)
121	24.02	90.26	End Shut-In(2)
122	1600.83	91.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud	0.04

Gas Rates

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

DRILL STEM TEST REPORT

K&B Norton Oil & Investments

PO Box 860891
Shawnee KS 66826

ATTN: Steve Murphy

21-15s-14w Russell,KS

Bender #3

Job Ticket: 55489 **DST#: 1**

Test Start: 2013.12.17 @ 20:15:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:11:08
Time Test Ended: 01:45:16

Test Type: Conventional Bottom Hole (Initial)
Tester: Brett Dickinson
Unit No: 59

Interval: 3306.00 ft (KB) To 3334.00 ft (KB) (TVD)
Total Depth: 3334.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

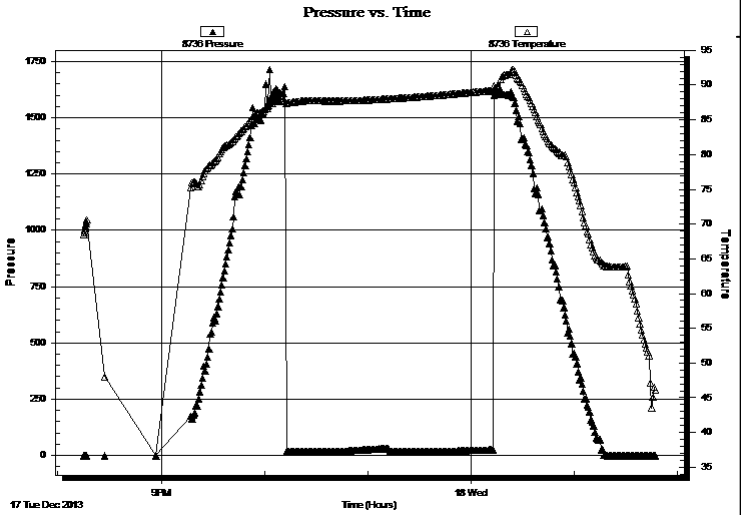
Reference Elevations: 1873.00 ft (KB)
1868.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8736 **Outside**

Press@RunDepth: psig @ 3307.00 ft (KB)
Start Date: 2013.12.17 End Date: 2013.12.18
Start Time: 20:15:05 End Time: 01:47:44

Capacity: 8000.00 psig
Last Calib.: 2013.12.18
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-1/8" blow
ISI-No blow
FF-Very weak surface blow died in 18 min
FSI-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud	0.04

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

K&B Norton Oil & Investments

PO Box 860891
Shaw nee KS 66826

ATTN: Steve Murphy

21-15s-14w Russell,KS

Bender #3

Job Ticket: 55489 **DST#: 1**

Test Start: 2013.12.17 @ 20:15:00

Tool Information

Drill Pipe:	Length:	2836.00 ft	Diameter:	3.80	inches	Volume:	39.78	bbl	
Heavy Wt. Pipe:	Length:	467.00 ft	Diameter:	2.70	inches	Volume:	3.31	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25	inches	Volume:	0.00	bbl	
						Total Volume:	43.09	bbl	

Drill Pipe Above KB:	25.00 ft
Depth to Top Packer:	3306.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	28.00 ft
Tool Length:	56.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		65000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	40000.00 lb
	Final	40000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3279.00		
Shut In Tool	5.00			3284.00		
Hydraulic tool	5.00			3289.00		
Jars	5.00			3294.00		
Safety Joint	2.00			3296.00		
Packer	5.00			3301.00	28.00	Bottom Of Top Packer
Packer	5.00			3306.00		
Stubb	1.00			3307.00		
Recorder	0.00	6741	Inside	3307.00		
Recorder	0.00	8736	Outside	3307.00		
Perforations	24.00			3331.00		
Bullnose	3.00			3334.00	28.00	Bottom Packers & Anchor
Total Tool Length:	**56.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

K&B Norton Oil & Investments

PO Box 860891
Shawnee KS 66826

ATTN: Steve Murphy

21-15s-14w Russell,KS

Bender #3

Job Ticket: 55489 **DST#: 1**

Test Start: 2013.12.17 @ 20:15:00

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:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4800.00 ppm				
Filter Cake:	inches				

Recovery Information

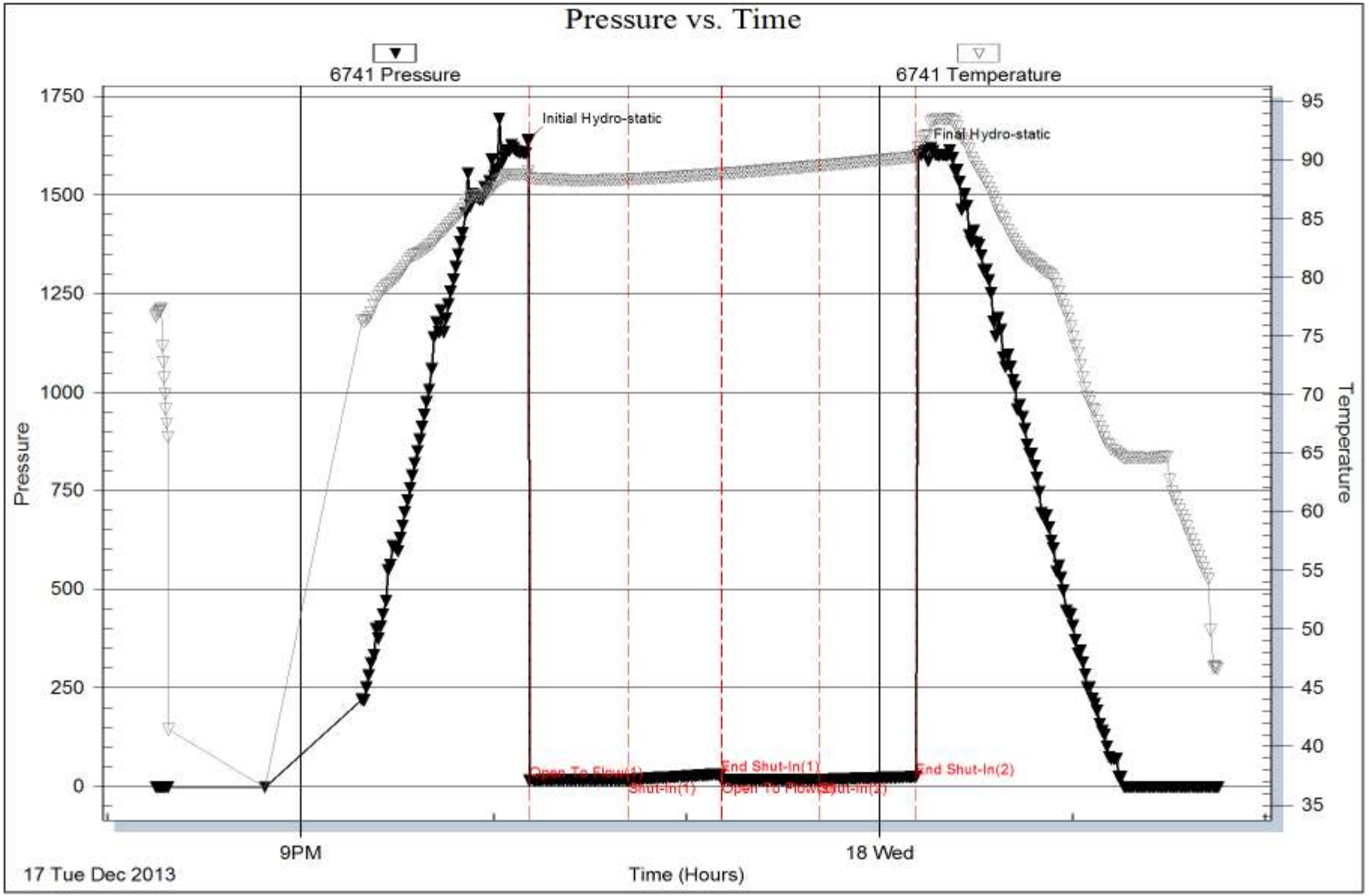
Recovery Table

Length ft	Description	Volume bbl
5.00	mud	0.035

Total Length: 5.00 ft Total Volume: 0.035 bbl

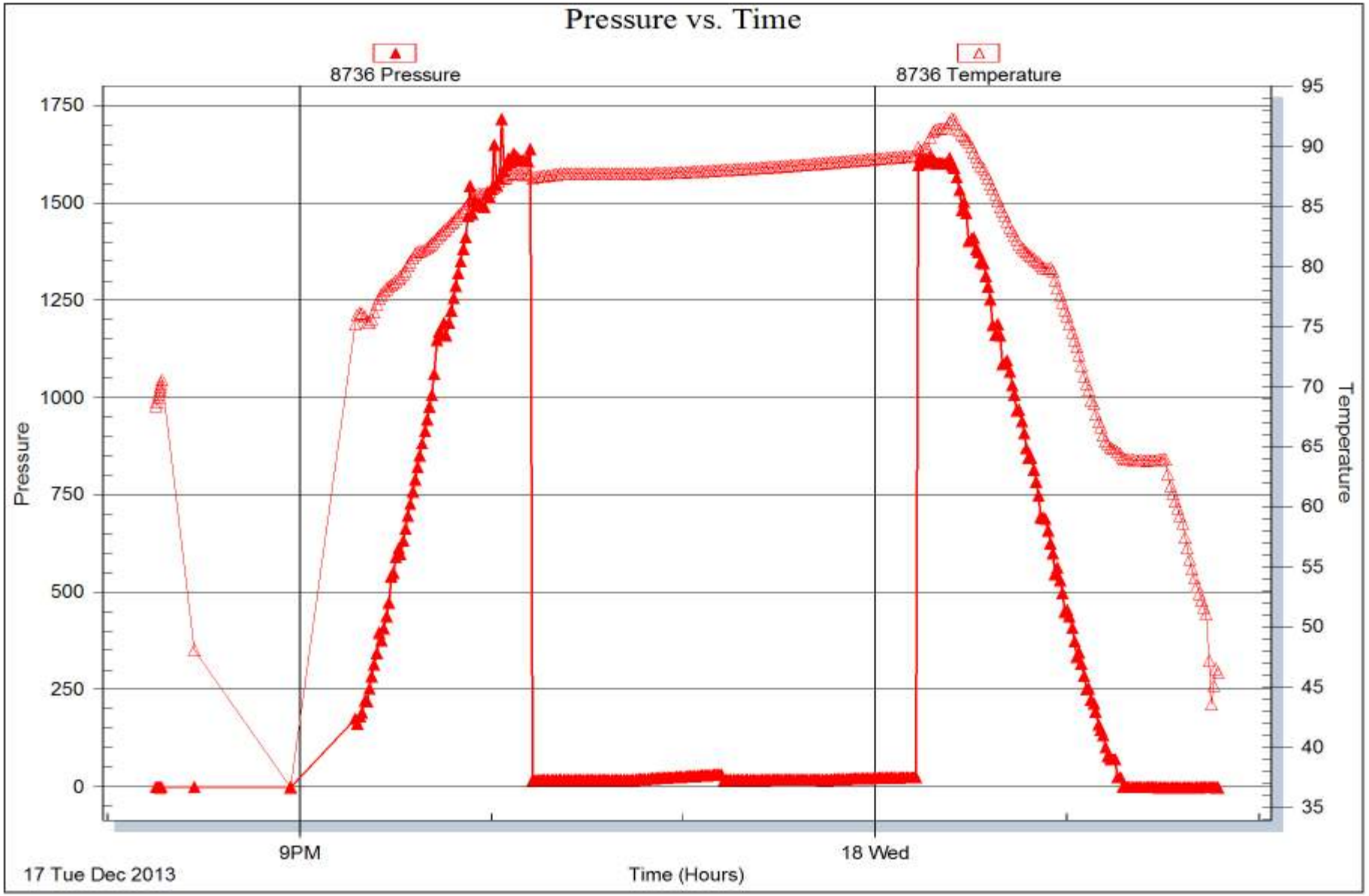
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6741 **Inside** K&B Norton Oil & Investments Bender #3 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 55489 Printed: 2013.12.20 @ 10:40:54

Serial #: 8736 **Outside** K&B Norton Oil & Investments Bender #3 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 55489 Printed: 2013.12.20 @ 10:40:54

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **K&B Norton Oil & Investments**

PO Box 860891
Shawnee KS 66826

ATTN: Steve Murphy

Bender #3

21-15s-14w Russell,KS

Start Date: 2013.12.18 @ 09:30:00
End Date: 2013.12.18 @ 14:51:58
Job Ticket #: 55490 DST #: 2

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

Printed: 2013.12.20 @ 11:23:30

DRILL STEM TEST REPORT

K&B Norton Oil & Investments

PO Box 860891
Shaw nee KS 66826

ATTN: Steve Murphy

21-15s-14w Russell,KS

Bender #3

Job Ticket: 55490 **DST#: 2**

Test Start: 2013.12.18 @ 09:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:15:28
Time Test Ended: 14:51:58

Test Type: Conventional Bottom Hole (Reset)
Tester: Brett Dickinson
Unit No: 59

Interval: 3310.00 ft (KB) To 3346.00 ft (KB) (TVD)
Total Depth: 3346.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

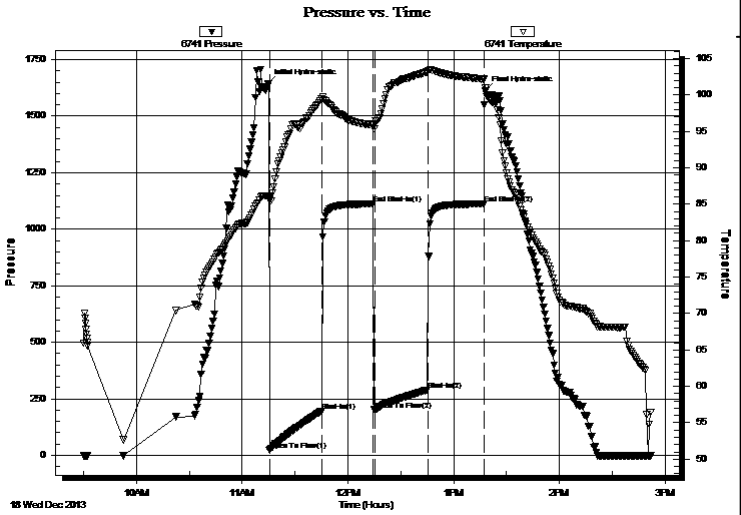
Reference Elevations: 1873.00 ft (KB)
1868.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6741 **Inside**

Press@RunDepth: 290.10 psig @ 3311.00 ft (KB)
Start Date: 2013.12.18 End Date: 2013.12.18
Start Time: 09:30:05 End Time: 14:51:58

Capacity: 8000.00 psig
Last Calib.: 2013.12.18
Time On Btm: 2013.12.18 @ 11:14:43
Time Off Btm: 2013.12.18 @ 13:17:58

TEST COMMENT: IF-BOB in 9 min
ISI-No blow
FF-BOB in 12 min
FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1643.30	86.20	Initial Hydro-static
1	22.51	85.56	Open To Flow (1)
31	196.23	99.46	Shut-In(1)
60	1111.79	95.95	End Shut-In(1)
61	200.72	96.09	Open To Flow (2)
91	290.10	103.11	Shut-In(2)
123	1112.06	102.15	End Shut-In(2)
124	1613.04	100.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
346.00	MCW 20%M 80%W	2.45
120.00	VSOMCW 2%O 50%W 48%M	0.85
120.00	VSOWCM 2%O 10%W 78%M	1.68
1.00	Free Oil	0.01

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

K&B Norton Oil & Investments

PO Box 860891
Shawnee KS 66826

ATTN: Steve Murphy

21-15s-14w Russell,KS

Bender #3

Job Ticket: 55490 **DST#: 2**

Test Start: 2013.12.18 @ 09:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
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Time Test Ended: 14:51:58

Test Type: Conventional Bottom Hole (Reset)
Tester: Brett Dickinson
Unit No: 59

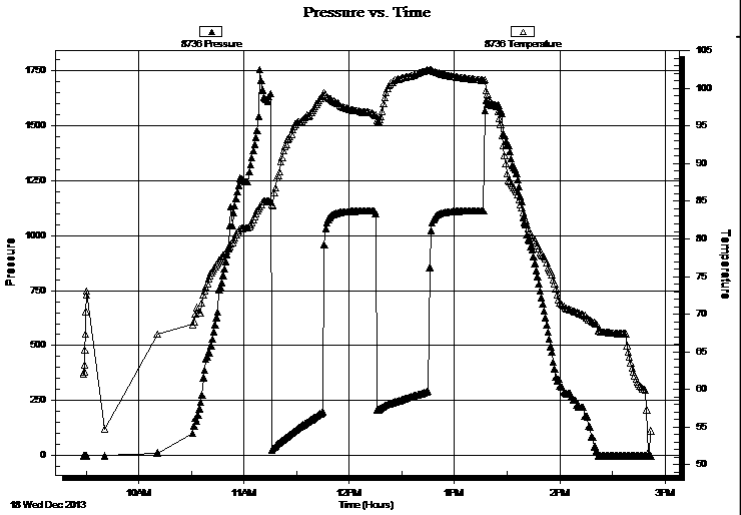
Interval: 3310.00 ft (KB) To 3346.00 ft (KB) (TVD)
Total Depth: 3346.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1873.00 ft (KB)
1868.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8736 **Outside**
Press@RunDepth: psig @ 3311.00 ft (KB)
Start Date: 2013.12.18 End Date: 2013.12.18
Start Time: 09:28:35 End Time: 14:51:59

Capacity: 8000.00 psig
Last Calib.: 2013.12.18
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-BOB in 9 min
ISI-No blow
FF-BOB in 12 min
FSI-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
346.00	MCW 20%M 80%W	2.45
120.00	VSOMCW 2%O 50%W 48%M	0.85
120.00	VSOWCM 2%O 10%W 78%M	1.68
1.00	Free Oil	0.01

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

K&B Norton Oil & Investments

PO Box 860891
Shaw nee KS 66826

ATTN: Steve Murphy

21-15s-14w Russell,KS

Bender #3

Job Ticket: 55490 **DST#: 2**

Test Start: 2013.12.18 @ 09:30:00

Tool Information

Drill Pipe:	Length:	2836.00 ft	Diameter:	3.80 inches	Volume:	39.78 bbl	
Heavy Wt. Pipe:	Length:	467.00 ft	Diameter:	2.70 inches	Volume:	3.31 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	
					Total Volume:	43.09 bbl	

Drill Pipe Above KB:	21.00 ft
Depth to Top Packer:	3310.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	36.00 ft
Tool Length:	64.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		45000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	42000.00 lb
	Final	45000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3283.00		
Shut In Tool	5.00			3288.00		
Hydraulic tool	5.00			3293.00		
Jars	5.00			3298.00		
Safety Joint	2.00			3300.00		
Packer	5.00			3305.00	28.00	Bottom Of Top Packer
Packer	5.00			3310.00		
Stubb	1.00			3311.00		
Recorder	0.00	6741	Inside	3311.00		
Recorder	0.00	8736	Outside	3311.00		
Perforations	32.00			3343.00		
Bullnose	3.00			3346.00	36.00	Bottom Packers & Anchor
Total Tool Length:	**64.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

K&B Norton Oil & Investments

PO Box 860891
Shawnee KS 66826

ATTN: Steve Murphy

21-15s-14w Russell,KS

Bender #3

Job Ticket: 55490 **DST#: 2**

Test Start: 2013.12.18 @ 09:30:00

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:	40000 ppm
Viscosity:	59.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.79 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5100.00 ppm				
Filter Cake:	inches				

Recovery Information

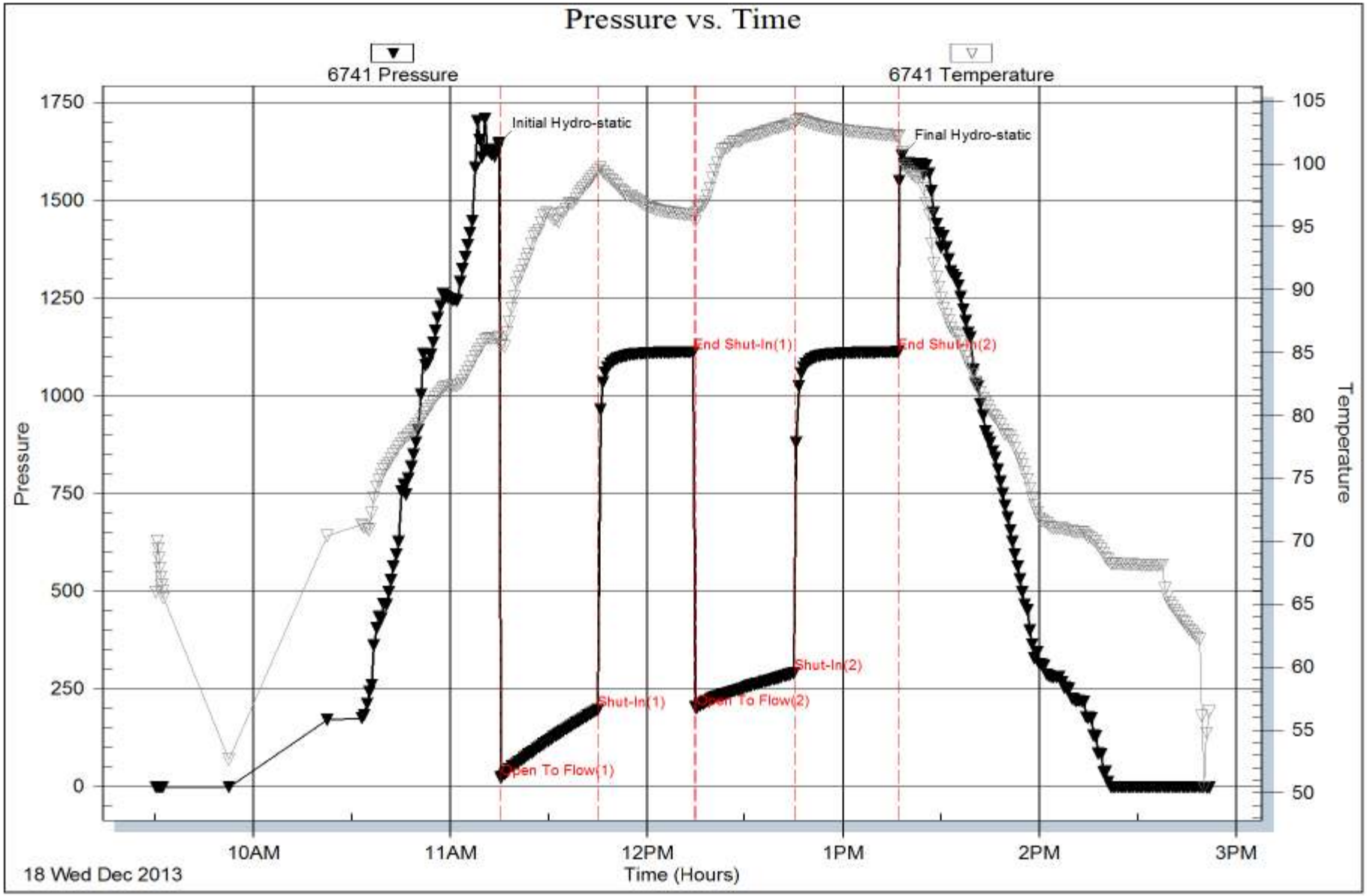
Recovery Table

Length ft	Description	Volume bbl
346.00	MCW 20%M 80%W	2.450
120.00	VSOMCW 2%O 50%W 48%M	0.850
120.00	VSOWCM 2%O 10%W 78%M	1.676
1.00	Free Oil	0.014

Total Length: 587.00 ft Total Volume: 4.990 bbl

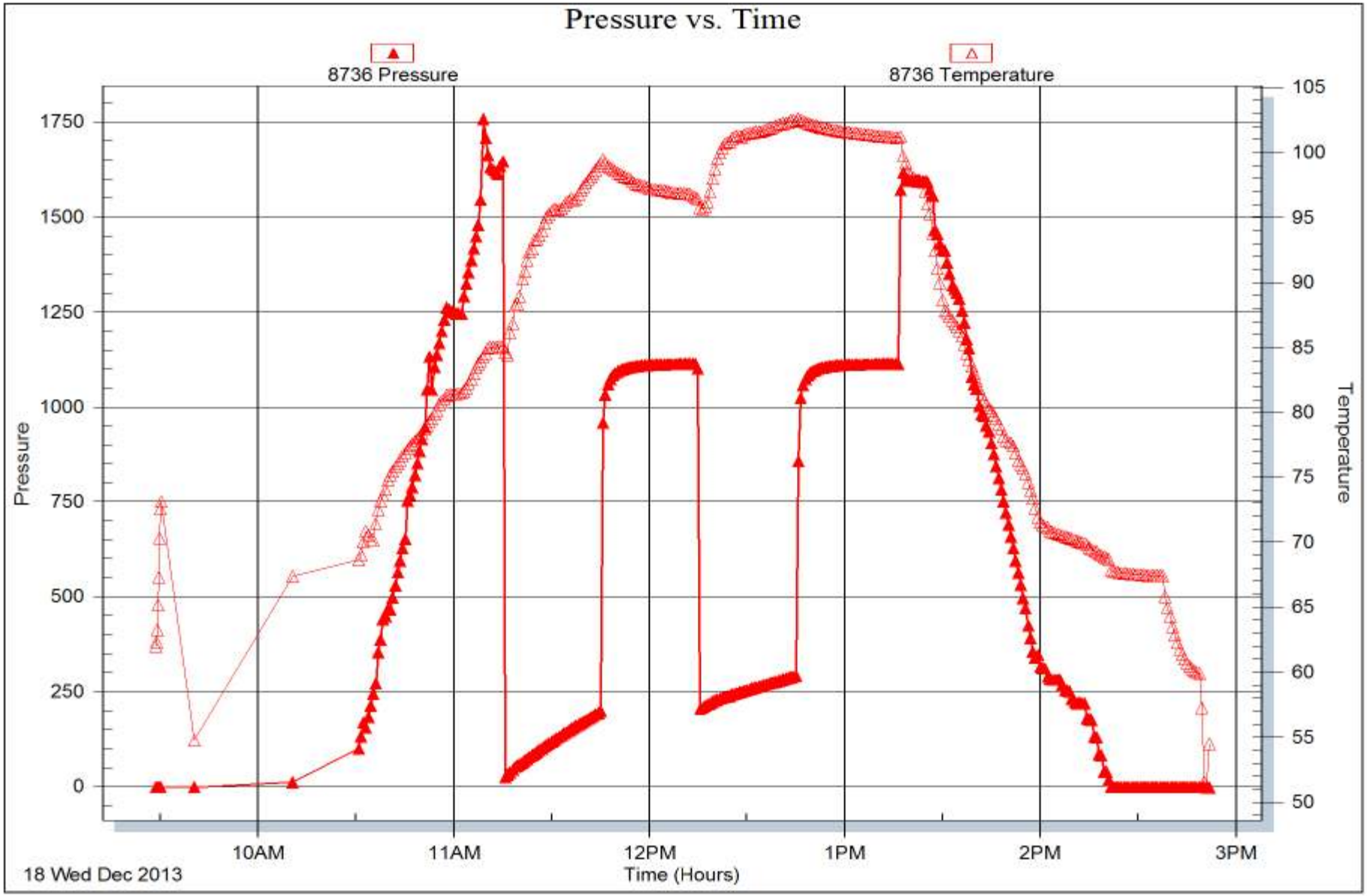
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6741 **Inside** K&B Norton Oil & Investments Bender #3 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 55490 Printed: 2013.12.20 @ 11:23:32

Serial #: 8736 **Outside** K&B Norton Oil & Investments Bender #3 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 55490 Printed: 2013.12.20 @ 11:23:32

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 55489

Well Name & No. Bender #3 Test No. 1 Date 12/12/13

Company K & B Norton Oil & Investments, LLC Elevation 1873 KB 1868 GL

Address PO Box 860891 Shawnee KS [redacted] 66826

Co. Rep / Geo. _____ Rig Shields

Location: Sec. 21 Twp. 15 Rge. 14 Co. Russell State KS

Interval Tested 3306 - 3334 Zone Tested Arb

Anchor Length 28 Drill Pipe Run 2836 Mud Wt. 9.1

Top Packer Depth 3301 Drill Collars Run — Vis 55

Bottom Packer Depth 3306 Wt. Pipe Run 467 WL 8.0

Total Depth 3334 Chlorides 4,800 ppm System LCM 1#

Blow Description IF - 1/8 in blow

ISI - No blow

FF - Very weak surface blow died in 18 min

FSI - No blow

Rec 5	Feet of Mud	%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	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 90 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic	1,640	☒ Test	1150	T-On Location	19:45
(B) First Initial Flow	15	☒ Jars	250	T-Started	20:03
(C) First Final Flow	16	☒ Safety Joint	75	T-Open	22:07
(D) Initial Shut-In	31	☐ Circ Sub		T-Pulled	00:07
(E) Second Initial Flow	17	☐ Hourly Standby		T-Out	1:42
(F) Second Final Flow	17	☒ Mileage 73.T	113.15	Comments	
(G) Final Shut-In	24	☐ Sampler			
(H) Final Hydrostatic	1,601	☐ 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	1588.15
Final Shut-In	30	☐ Accessibility		MP/DST Disc't	
		Sub Total	1588.15		

Approved By _____ Our Representative Bert D

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 55490

Well Name & No. Bender #3 Test No. 2 Date 12/18/13

Company K & B Morton Oil & Investments, LLC Elevation 1873 KB 1868 GL

Address

Co. Rep / Geo. Steve Mur Rig Shields

Location: Sec. 21 Twp. 15 Rge. 14 Co. Russell State KS

Interval Tested 3310 - 3346 Zone Tested Arb.

Anchor Length 36 Drill Pipe Run Mud Wt. 9.3

Top Packer Depth 3305 Drill Collars Run Vis 59

Bottom Packer Depth 3310 Wt. Pipe Run 467 WL 7.8

Total Depth 3346 Chlorides 5,100 ppm System LCM 1#

Blow Description IF - BOB in 9min
ISI - No blow
FF - BOB in 12 min
FSI - No blow

Rec 346	Feet of MCW	%gas	%oil 80	%water 20	%mud	
Rec 120	Feet of VSOMCW	%gas 2	%oil 50	%water 48	%mud	
Rec 120	Feet of VSOWCM	%gas 2	%oil 10	%water 78	%mud	
Rec 1	Feet of Free Oil	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 587 BHT 102 Gravity API RW 22 @ 60 °F Chlorides 40,000 ppm

(A) Initial Hydrostatic 1,643	☒ Test 1150	T-On Location 9:00
(B) First Initial Flow 23	☒ Jars 250	T-Started 9:30
(C) First Final Flow 196	☒ Safety Joint 75	T-Open 11:18
(D) Initial Shut-In 1,112	☐ Circ Sub	T-Pulled 13:18
(E) Second Initial Flow 201	☐ Hourly Standby	T-Out 14:53
(F) Second Final Flow 290	☒ Mileage 73FT 113.15	Comments
(G) Final Shut-In 1,112	☐ Sampler	
(H) Final Hydrostatic 1,613	☐ 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 1588.15
Final Shut-In 30	☐ Accessibility	MP/DST Disc't
	Sub Total 1588.15	

Approved By Our Representative Brett Dickey

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.