



DRILL STEM TEST REPORT

Prepared For: **Bennett & Schulte Oil Co**

PO Box 329
Russell, KS 67665

ATTN: Frank Schulte

J I & H Froelich #10

27-12s-16w Ellis,KS

Start Date: 2013.09.10 @ 09:46:32

End Date: 2013.09.10 @ 17:13:09

Job Ticket #: 52397 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.09.11 @ 08:32:13



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bennett & Schulte Oil Co

27-12s-16w Ellis,KS

PO Box 329
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J I & H Froelich #10

Job Ticket: 52397

DST#: 1

ATTN: Frank Schulte

Test Start: 2013.09.10 @ 09:46:32

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:02:17

Time Test Ended: 17:13:09

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 45

Interval: 3542.00 ft (KB) To 3585.00 ft (KB) (TVD)

Reference Elevations: 2112.00 ft (KB)

Total Depth: 3585.00 ft (KB) (TVD)

2106.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 6.00 ft

Serial #: 6798 Inside

Press @ Run Depth: 992.45 psig @ 3543.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.10

End Date:

2013.09.10

Last Calib.:

2013.09.10

Start Time: 09:46:33

End Time:

17:13:09

Time On Btm:

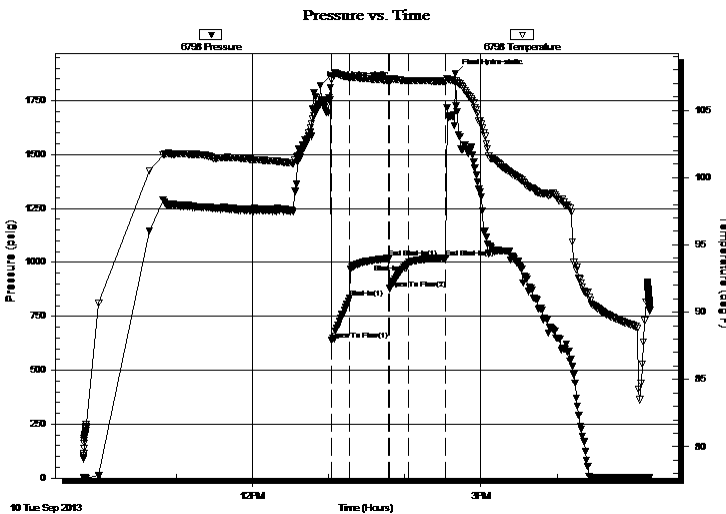
2013.09.10 @ 12:53:17

Time Off Btm:

2013.09.10 @ 14:40:02

TEST COMMENT: IF: Strong Blow , BOB in 45 seconds
IS: No Blow Back
FF: Strong Blow , BOB in 45 seconds
FS: No Blow Back

PRESSURE SUMMARY



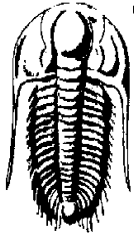
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1820.41	105.44	Initial Hydro-static
9	640.18	107.29	Open To Flow (1)
23	835.42	107.41	Shut-In(1)
54	1018.89	107.22	End Shut-In(1)
55	878.47	107.17	Open To Flow (2)
70	992.45	107.18	Shut-In(2)
99	1022.00	107.16	End Shut-In(2)
107	1876.34	107.22	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	Water	1.68
1306.00	MCW 10%M 90%W	18.32
310.00	OSMW 1%O 20%M 79%W	4.35
434.00	SOWCM 5%O 35%W 60%M	6.09

Gas Rates

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



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Job Ticket: 52397

DST#: 1

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Time Test Ended: 17:13:09

Interval: 3542.00 ft (KB) To 3585.00 ft (KB) (TVD)

Total Depth: 3585.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 45

Reference Elevations: 2112.00 ft (KB)

2106.00 ft (CF)

KB to GR/CF: 6.00 ft

Serial #: 8367 Outside

Press @RunDepth: psig @ 3543.00 ft (KB)

Start Date: 2013.09.10 End Date: 2013.09.10

Start Time: 09:46:33 End Time: 17:14:02

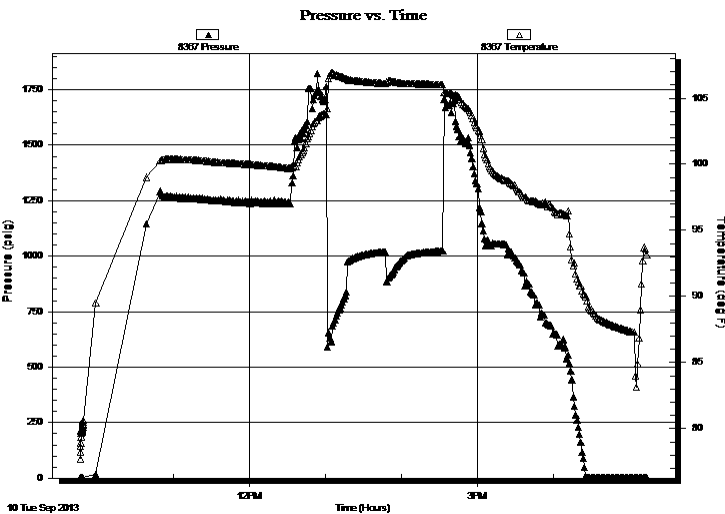
Capacity: 8000.00 psig

Last Calib.: 2013.09.10

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Strong Blow , BOB in 45 seconds
IS: No Blow Back
FF: Strong Blow , BOB in 45 seconds
FS: No Blow Back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
120.00	Water	1.68
1306.00	MCW 10%M 90%W	18.32
310.00	OSMW 1%O 20%M 79%W	4.35
434.00	SOWCM 5%O 35%W 60%M	6.09

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bennett & Schulte Oil Co

27-12s-16w Ellis,KS

PO Box 329
Russell, KS 67665

J I & H Froelich #10

Job Ticket: 52397

DST#: 1

ATTN: Frank Schulte

Test Start: 2013.09.10 @ 09:46:32

Tool Information

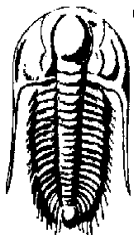
Drill Pipe:	Length: 3525.00 ft	Diameter: 3.80 inches	Volume: 49.45 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 49.45 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3542.00 ft			Final 66000.00 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: Dropped Bar

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3526.00	
Hydraulic tool	5.00			3531.00	
Safety Joint	2.00			3533.00	
Packer	5.00			3538.00	21.00 Bottom Of Top Packer
Packer	4.00			3542.00	
Stubb	1.00			3543.00	
Recorder	0.00	6798	Inside	3543.00	
Recorder	0.00	8367	Outside	3543.00	
Perforations	5.00			3548.00	
Change Over Sub	1.00			3549.00	
Drill Pipe	32.00			3581.00	
Change Over Sub	1.00			3582.00	
Bullnose	3.00			3585.00	43.00 Bottom Packers & Anchor

Total Tool Length: 64.00



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TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bennett & Schulte Oil Co

27-12s-16w Ellis,KS

PO Box 329
Russell, KS 67665

J I & H Froelich #10

Job Ticket: 52397

DST#: 1

ATTN: Frank Schulte

Test Start: 2013.09.10 @ 09:46:32

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: 70.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	Water	1.683
1306.00	MCW 10%M 90%W	18.320
310.00	OSMW 1%O 20%M 79%W	4.348
434.00	SOWCM 5%O 35%W 60%M	6.088

Total Length: 2170.00 ft Total Volume: 30.439 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

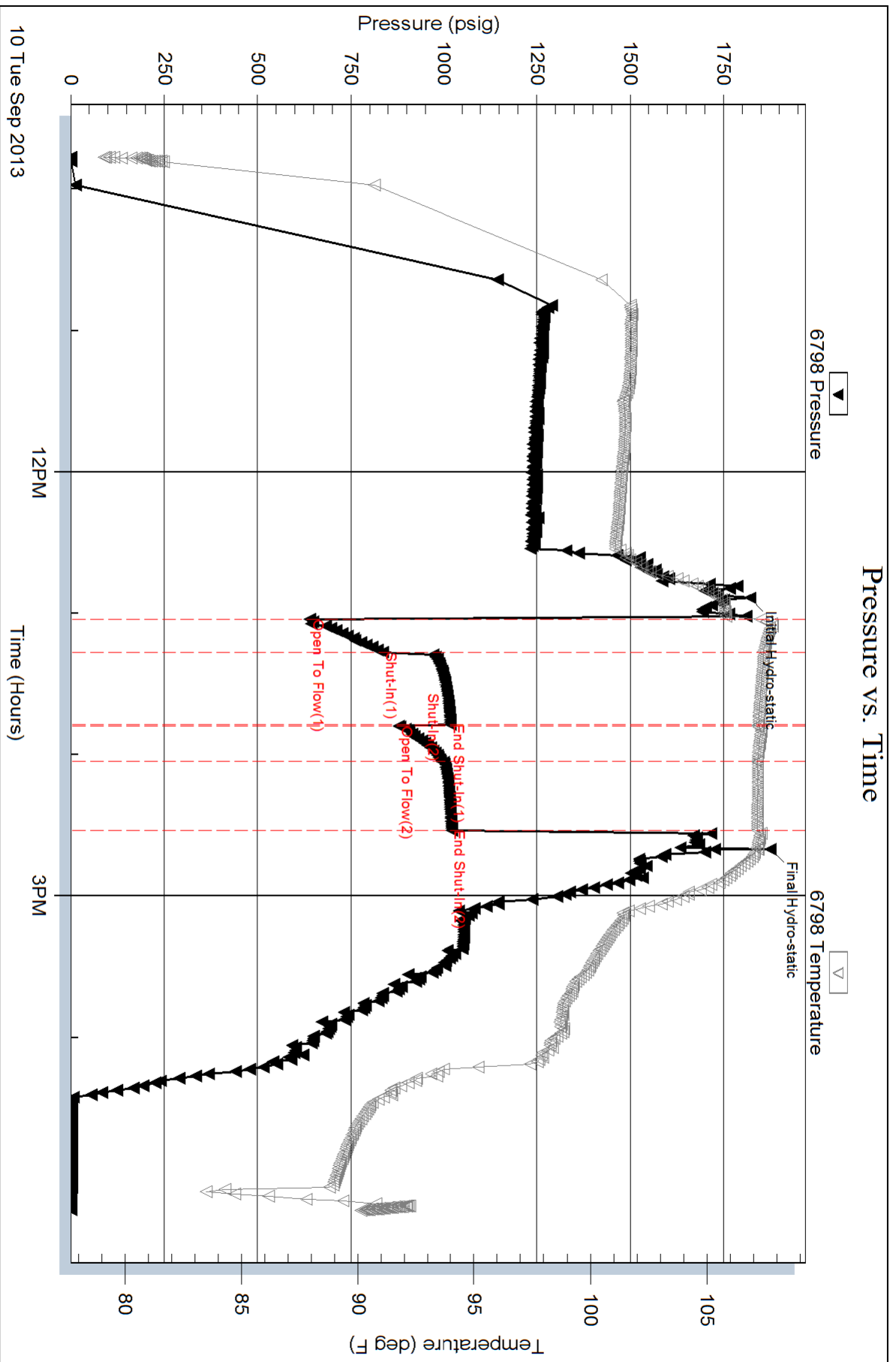
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .15 @ 85 degrees

Pressure vs. Time

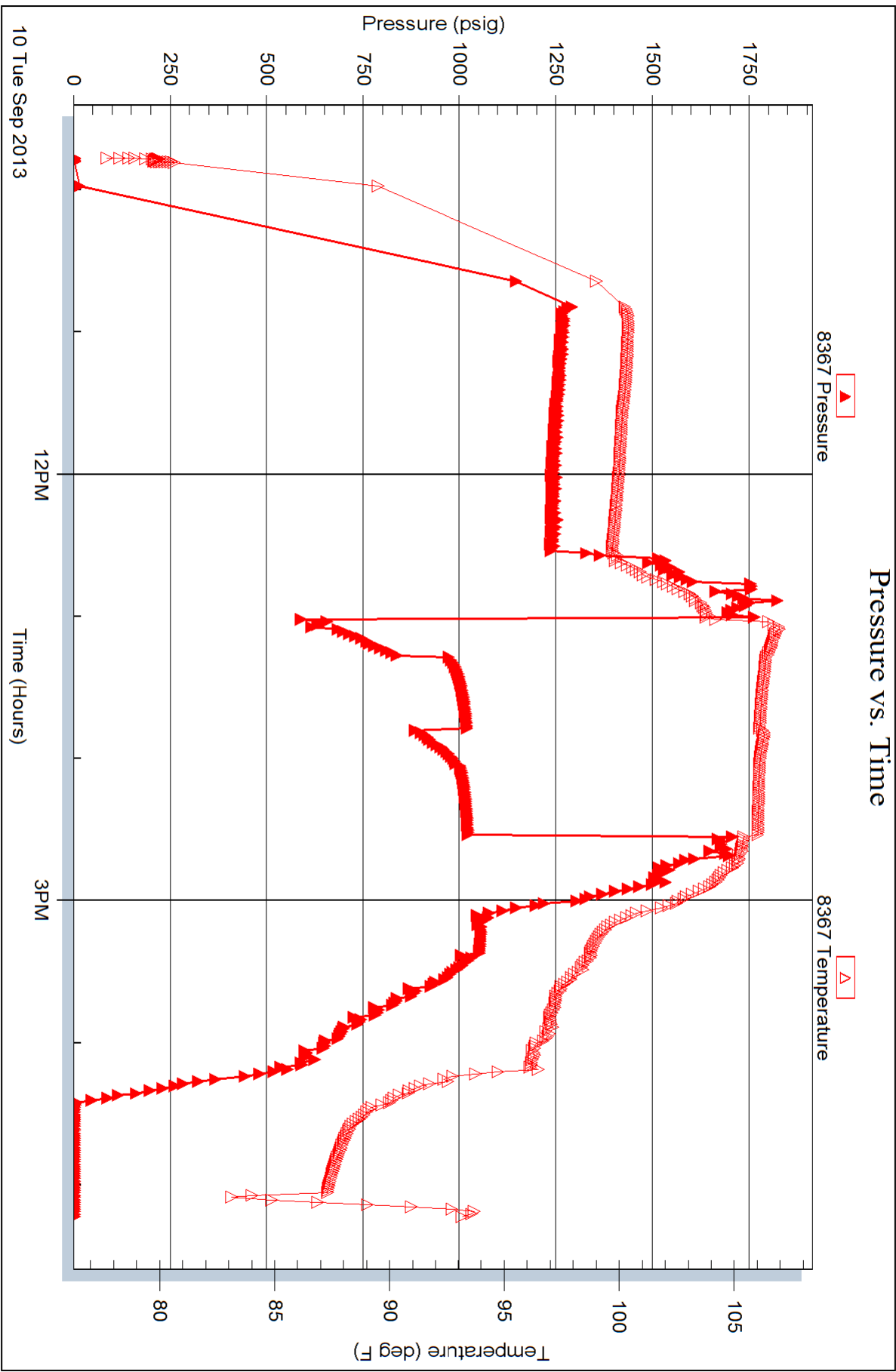


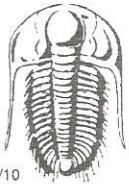
Serial #: 8367

Outside Bennett & Schulte Oil Co

J1 & H Foelich #10

DST Test Number: 1





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52397

Well Name & No. J I + H Froelich 10 Test No. 1 Date 09/10/13
 Company Bennett + Schulte oil co Elevation 2112 KB 2106 GL
 Address Po Box 329 Russell, KS 67665
 Co. Rep / Geo. Frank Schulte Rig Royal 1
 Location: Sec. 27 Twp. 12 S Rge. 16 W Co. Ellis State KS

Interval Tested 3542 - 3585 Zone Tested Arbuckle
 Anchor Length 43 Drill Pipe Run 3525 Mud Wt. 8.9
 Top Packer Depth 3538 Drill Collars Run 0 Vis 70
 Bottom Packer Depth 3542 Wt. Pipe Run 0 WL 8.0
 Total Depth 3585 Chlorides 3500 ppm System LCM 1/2

Blow Description IF: Strong Blow, BOB in 45 seconds
ISJ: NO Blow Back
FF: Strong Blow, BOB in 45 seconds
FSJ:

Rec	Feet of	%gas	%oil	%water	%mud
<u>434</u>	<u>50wcm</u>		<u>5</u>	<u>35</u>	<u>60</u>
<u>310</u>	<u>OS MW</u>	<u>0</u>	<u>1</u>	<u>77</u>	<u>20</u>
<u>1306</u>	<u>MCW</u>		<u>90</u>	<u>10</u>	
<u>120</u>	<u>water</u>				

Rec Total 2170 BHT 107 Gravity NIC API RW 30 @ 85 ° F Chlorides 40,000 ppm

(A) Initial Hydrostatic <u>1820</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>08:45</u>
(B) First Initial Flow <u>640</u>	<input type="checkbox"/> Jars	T-Started <u>09:46</u>
(C) First Final Flow <u>835</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>13:02</u>
(D) Initial Shut-In <u>1019</u>	<input type="checkbox"/> Circ Sub <u>50</u>	T-Pulled <u>14:32</u>
(E) Second Initial Flow <u>878</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>17:13</u>
(F) Second Final Flow <u>992</u>	<input checked="" type="checkbox"/> Mileage <u>50</u> <u>77.50</u>	Comments <u>dropped Bar</u>
(G) Final Shut-In <u>1022</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1976</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>15</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>15</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1352.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1352.50</u>	

Approved By [Signature] Our Representative [Signature]

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