

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54295

Well Name & No. Musselman #4-34 Test No. 1 Date 7/23/13
 Company Herman L. Loeb, LLC Elevation 1997 KB 1985 GL
 Address PO BOX 838 Lawrenceville IL 62439
 Co. Rep / Geo. Jon Christensen Rig Steering #5
 Location: Sec. 34 Twp. 21s Rge. 16w Co. Pawnee State KS

Interval Tested 3514-3550 Zone Tested KC "A+B"
 Anchor Length 36 Drill Pipe Run 3187 Mud Wt. 8.8
 Top Packer Depth 3509 Drill Collars Run 330 Vis 48
 Bottom Packer Depth 3514 Wt. Pipe Run — WL 8.8
 Total Depth 3550 Chlorides 5,700 ppm System LCM
 Blow Description IF - Surface blow built to 1/2 in
ISI - No blow
FF - Surface blow built to 4 1/4 in
FSI - No blow

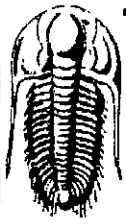
Rec	Feet of	%gas	%oil	%water	%mud
30	vswocm	10	5	85	

Rec Total 30 BHT 107 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1,725</u>	<input checked="" type="checkbox"/> Test _____	T-On Location <u>3:45</u>
(B) First Initial Flow <u>24</u>	<input type="checkbox"/> Jars _____	T-Started <u>5:15</u>
(C) First Final Flow <u>30</u>	<input checked="" type="checkbox"/> Safety Joint _____	T-Open <u>9:10</u>
(D) Initial Shut-In <u>1,104</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>11:40</u>
(E) Second Initial Flow <u>30</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>13:30</u>
(F) Second Final Flow <u>36</u>	<input checked="" type="checkbox"/> Mileage <u>129 rt</u>	Comments _____
(G) Final Shut-In <u>962</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>1,704</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	Sub Total _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Total _____
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility _____	
	Sub Total _____	

Approved By _____ Our Representative Brett Dickinson

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

DRILL STEM TEST REPORT

Herman L. Loeb, LLC
 PO Box 838
 Lawrenceville IL 62439
 ATTN: Jon Christensen

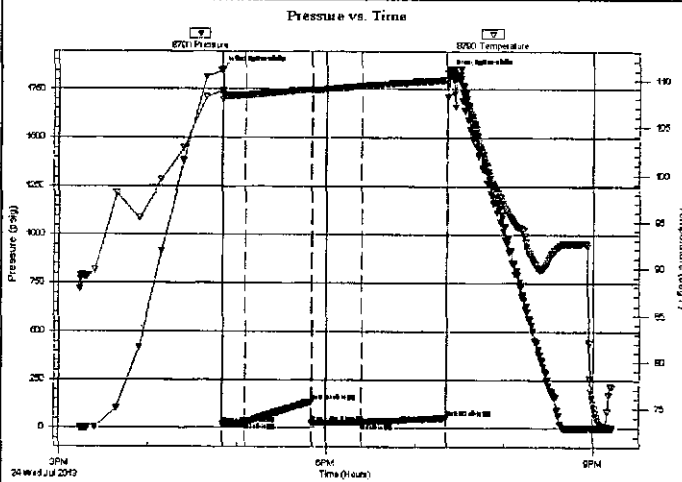
34-21-16, Pawnee, KS
 Musselman #4-34
 Job Ticket: 52340 DST#: 2
 Test Start: 2013.07.24 @ 15:14:14

GENERAL INFORMATION:

Formation: Congl. / Simpson Sd.
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 16:50:29
 Tester: Ryan Reynolds
 Time Test Ended: 21:13:14
 Unit No: 48
 Interval: 3746.00 ft (KB) To 3842.00 ft (KB) (TVD)
 Reference Elevations: 1997.00 ft (KB)
 Total Depth: 3842.00 ft (KB) (TVD)
 1985.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 KB to GR/CF: 12.00 ft

Serial #: 8790 Inside
 Press@RunDepth: 26.99 psig @ 3747.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.07.24 End Date: 2013.07.24 Last Calib.: 2013.07.24
 Start Time: 15:14:14 End Time: 21:13:14 Time On Btm: 2013.07.24 @ 16:49:44
 Time Off Btm: 2013.07.24 @ 19:22:44

TEST COMMENT: IF: Weak blow, Surf. - 1/2"
 IS: NO blow
 FF: No blow
 FS: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1850.37	108.82	Initial Hydro-static
1	19.77	107.92	Open To Flow (1)
16	22.46	108.41	Shut-In(1)
61	135.84	109.02	End Shut-In(1)
61	24.31	108.97	Open To Flow (2)
95	26.99	109.36	Shut-In(2)
152	53.02	110.06	End Shut-In(2)
153	1834.52	111.07	Final Hydro-static

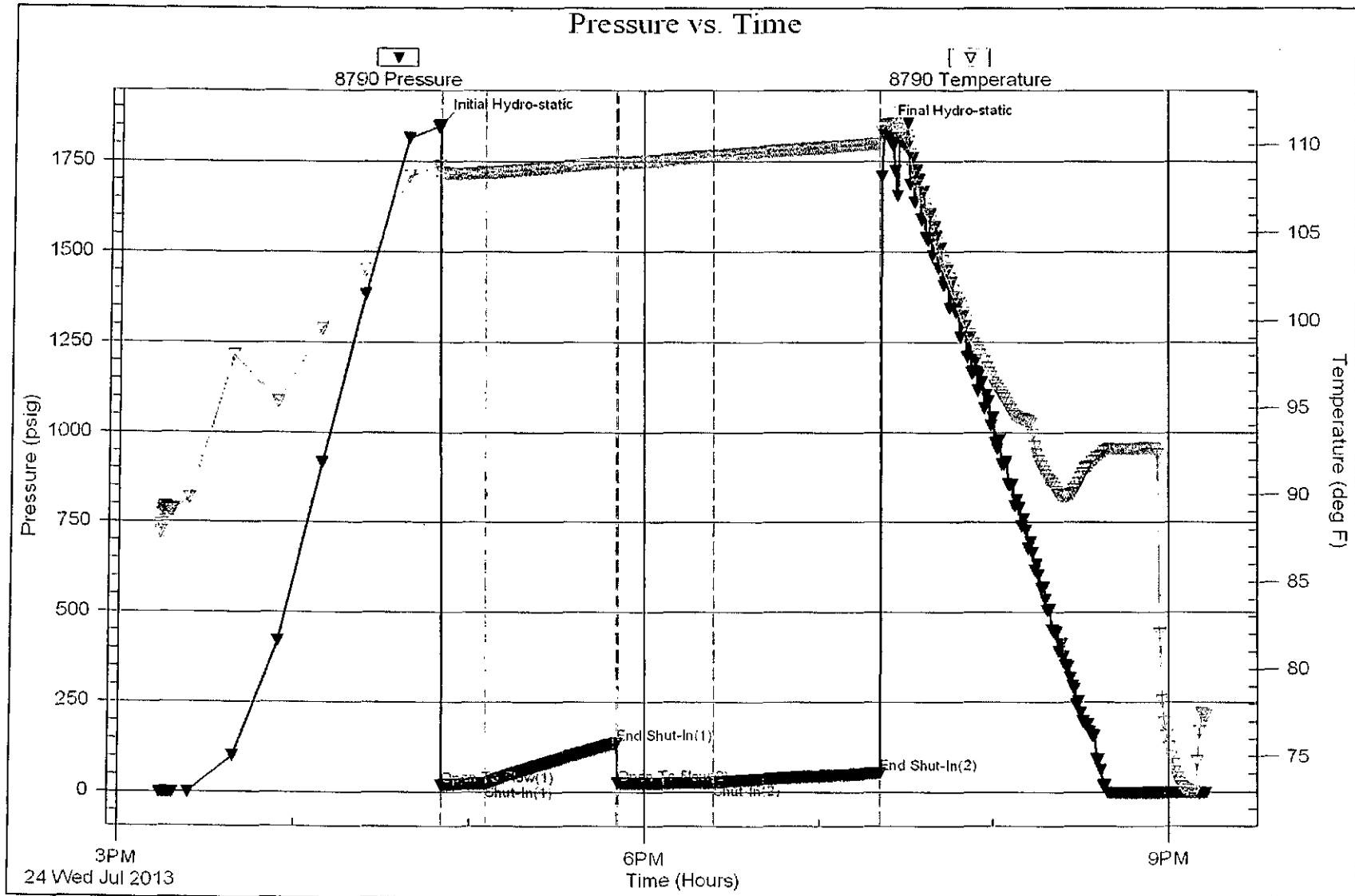
Recovery

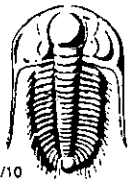
Length (ft)	Description	Volume (bbl)
10.00	Orig mud 100% mud	0.05

* Recovery from multiple tests

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcft/d)





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Test Ticket

No. 52340

Well Name & No. Musselman 5-34 Test No. 2 Date 7-24-13
 Company Herman L. Loeb, LLC. Elevation 1997 KB 1985 GL
 Address P.O. Box 838 Lawrenceville, IL 62439
 Co. Rep / Geo. Jon Christensen Rig Sterling 5
 Location: Sec. 34 Twp. 21s. Rge. 16w Co. Pawnee State KS

Interval Tested 3746-3842 Zone Tested Congl. / Simpson
 Anchor Length 96 Drill Pipe Run 3410 Mud Wt. 9.3
 Top Packer Depth 3741 Drill Collars Run 330 Vis 52
 Bottom Packer Depth 3746 Wt. Pipe Run Ø WL 11.2
 Total Depth 3842 Chlorides 6200 ppm System LCM Tr.
 Blow Description IF: Weak blow. Surf. - 1/2" ISI: No blow
FF: No blow FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Dry mud</u>			<u>100</u>	
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 111 Gravity N/C API RW N/C @ N/C °F Chlorides 6200 ppm

(A) Initial Hydrostatic <u>1850</u>	<input checked="" type="checkbox"/> Test	T-On Location <u>1345</u>
(B) First Initial Flow <u>20</u>	<input type="checkbox"/> Jars	T-Started <u>1514</u>
(C) First Final Flow <u>22</u>	<input checked="" type="checkbox"/> Safety Joint	T-Open <u>1650</u>
(D) Initial Shut-In <u>136</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1920</u>
(E) Second Initial Flow <u>24</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2113</u>
(F) Second Final Flow <u>27</u>	<input checked="" type="checkbox"/> Mileage <u>115</u>	Comments
(G) Final Shut-In <u>53</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1835</u>	<input type="checkbox"/> Straddle	
	<input type="checkbox"/> Shale Packer	
Initial Open <u>15</u>	<input type="checkbox"/> Extra Packer	
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder	
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Sub Total
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	Total
	Sub Total	MP/DST Disc't

Approved By [Signature]

Our Representative Ryan Reynolds

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