



DRILL STEM TEST REPORT

Prepared For: **Bach Oil Productions**

PO Box 723
Alma, NE 68920

ATTN: Bob Petersen

Delimont #2

8-2s-19w Phillips,KS

Start Date: 2013.06.08 @ 09:36:00

End Date: 2013.06.08 @ 16:34:00

Job Ticket #: 52683 DST #: 1

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

Printed: 2013.06.11 @ 14:53:59



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Bach Oil Productions

8-2s-19w Phillips,KS

PO Box 723
Alma, NE 68920

Delimont #2

Job Ticket: 52683

DST#: 1

ATTN: Bob Petersen

Test Start: 2013.06.08 @ 09:36:00

GENERAL INFORMATION:

Formation: **Toronto - LKC "F"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:25:30
 Time Test Ended: 16:34:00
 Interval: **3415.00 ft (KB) To 3545.00 ft (KB) (TVD)**
 Total Depth: 3545.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ryan Nichols
 Unit No: 66
 Reference Elevations: 2242.00 ft (KB)
 2237.00 ft (CF)
 KB to GR/CF: 5.00 ft

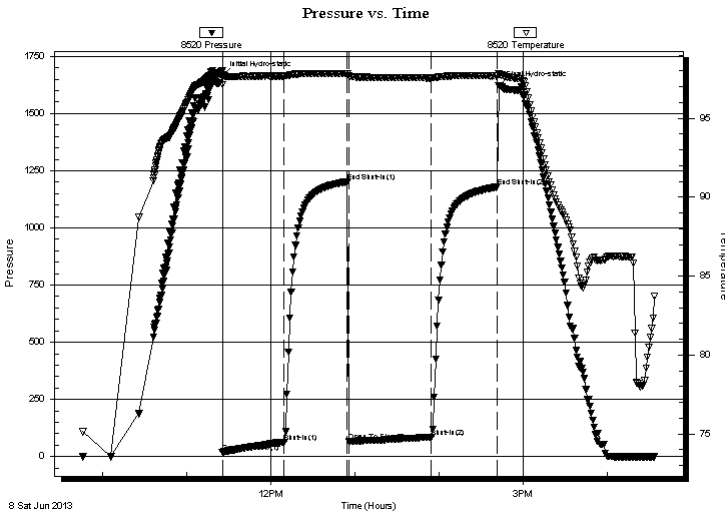
Serial #: 8520

Outside

Press @ Run Depth: 84.02 psig @ 3416.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.08 End Date: 2013.06.08 Last Calib.: 2013.06.08
 Start Time: 09:46:00 End Time: 16:34:00 Time On Btm: 2013.06.08 @ 11:25:20
 Time Off Btm: 2013.06.08 @ 14:42:30

TEST COMMENT: 45 IF - Surface blow built to 2"
 45 ISI - No return
 60 FF - Surface blow built to 2 1/4"
 45 FSI - No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1665.47	98.03	Initial Hydro-static
1	18.83	97.14	Open To Flow (1)
45	61.82	97.68	Shut-In(1)
90	1201.75	97.84	End Shut-In(1)
91	65.38	97.68	Open To Flow (2)
150	84.02	97.55	Shut-In(2)
197	1179.67	97.68	End Shut-In(2)
198	1623.37	97.80	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM - 5%G - 2%o - 93%M	0.30
60.00	GOCM - 2%G - 5%o - 93%M	0.59
25.00	OCM - 10%o - 90%M	0.35

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Productions

8-2s-19w Phillips,KS

PO Box 723
Alma, NE 68920

Delimont #2

Job Ticket: 52683

DST#: 1

ATTN: Bob Petersen

Test Start: 2013.06.08 @ 09:36:00

Tool Information

Drill Pipe:	Length: 3304.00 ft	Diameter: 3.80 inches	Volume: 46.35 bbl	Tool Weight: 2500.00 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: 88.00 ft	Diameter: 2.25 inches	Volume: 0.43 bbl	Weight to Pull Loose: 56000.00 lb
			Total Volume: 46.78 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3415.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	130.00 ft			
Tool Length:	158.00 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			3388.00	
Shut In Tool	5.00			3393.00	
Hydraulic tool	5.00			3398.00	
Jars	5.00			3403.00	
Safety Joint	3.00			3406.00	
Packer	5.00			3411.00	28.00 Bottom Of Top Packer
Packer	4.00			3415.00	
Stubb	1.00			3416.00	
Recorder	0.00	8354	Inside	3416.00	
Recorder	0.00	8520	Outside	3416.00	
Perforations	29.00			3445.00	
Change Over Sub	1.00			3446.00	
Drill Pipe	93.00			3539.00	
Change Over Sub	1.00			3540.00	
Bullnose	5.00			3545.00	130.00 Bottom Packers & Anchor

Total Tool Length: 158.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Productions

8-2s-19w Phillips,KS

PO Box 723
Alma, NE 68920

Delimont #2

Job Ticket: 52683

DST#: 1

ATTN: Bob Petersen

Test Start: 2013.06.08 @ 09:36:00

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: 5.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	GOCM - 5%G - 2%o - 93%M	0.295
60.00	GOCM - 2%G - 5%o - 93%M	0.587
25.00	OCM - 10%o - 90%M	0.351

Total Length: 145.00 ft

Total Volume: 1.233 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

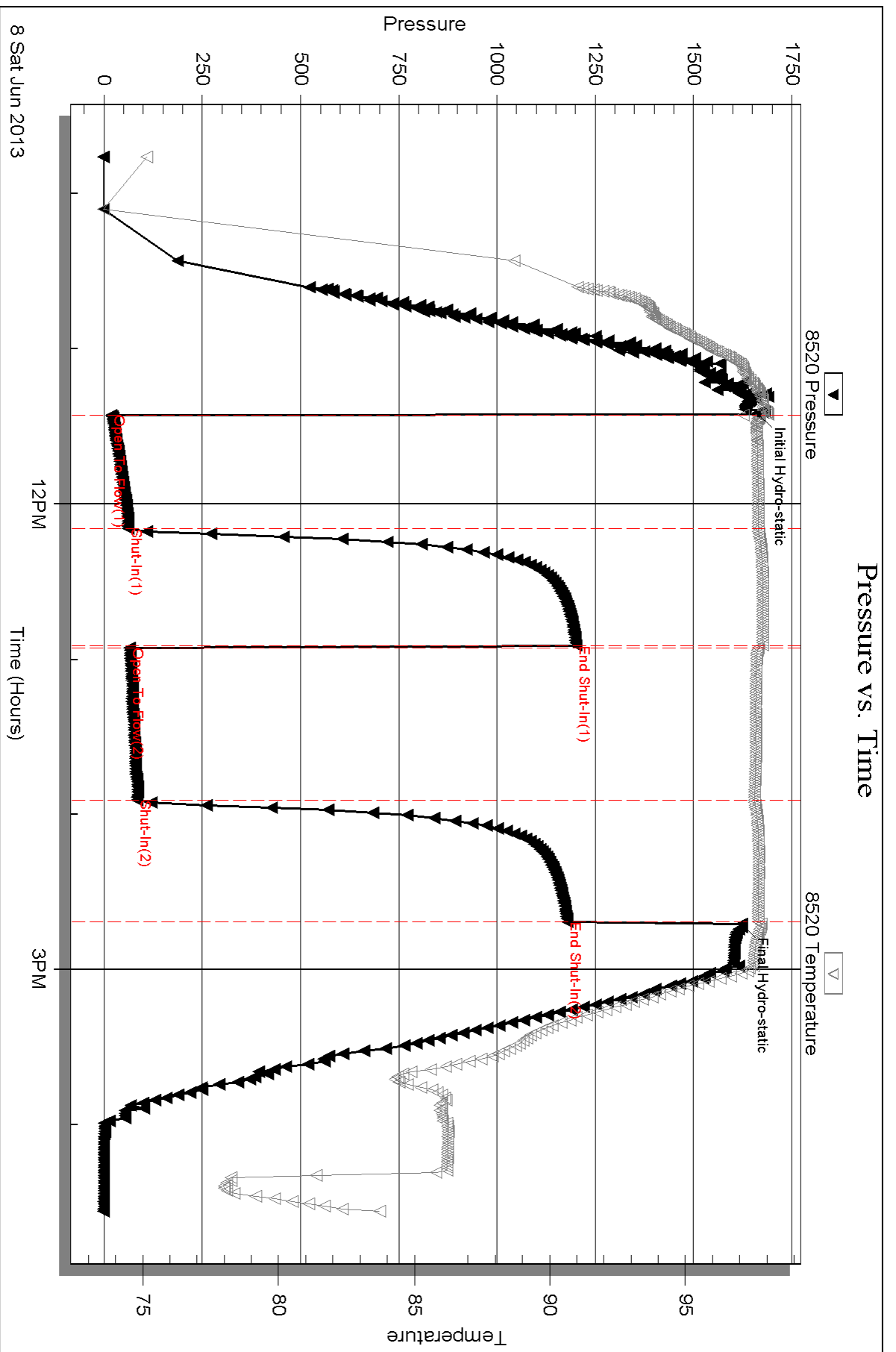
Recovery Comments:

Serial #: 8520

Outside Bach Oil Productions

Delmont #2

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 52683

Printed: 2013.06.11 @ 14:54:02

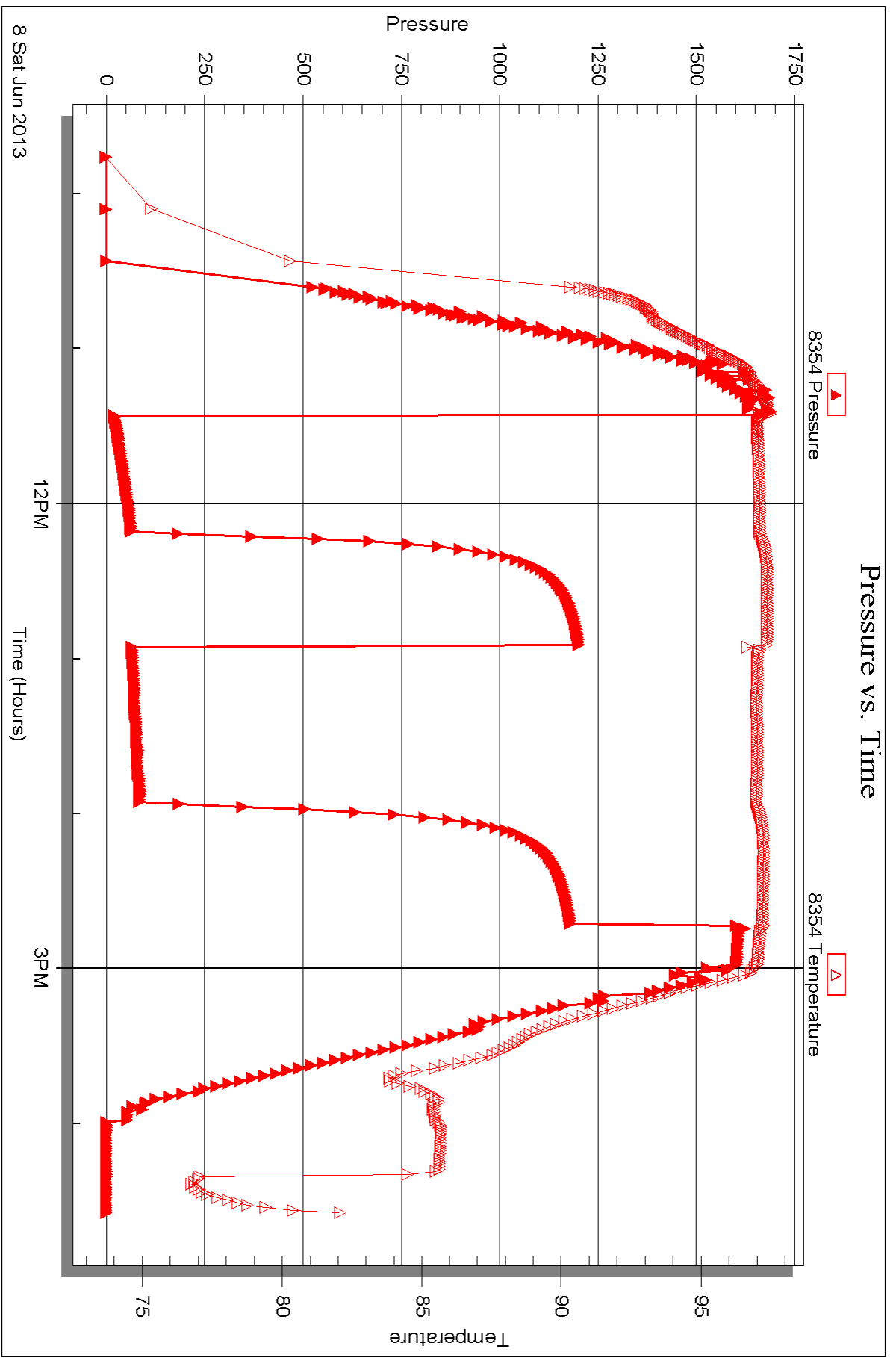
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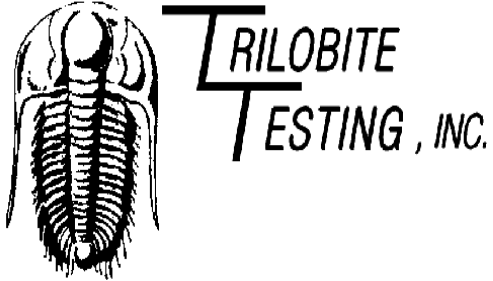
Inside

Bach Oil Productions

Delmont #2

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Bach Oil Productions**

PO Box 723
Alma, NE 68920

ATTN: Bob Petersen

Delimont #2

8-2s-19w Phillips,KS

Start Date: 2013.06.09 @ 03:58:00

End Date: 2013.06.09 @ 09:26:00

Job Ticket #: 52684 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.06.11 @ 14:53:18



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bach Oil Productions

8-2s-19w Phillips,KS

PO Box 723
Alma, NE 68920

Delimont #2

Job Ticket: 52684

DST#: 2

ATTN: Bob Petersen

Test Start: 2013.06.09 @ 03:58:00

GENERAL INFORMATION:

Formation: **LKC "I - J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:27:50

Time Test Ended: 09:26:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 66

Interval: 3598.00 ft (KB) To 3640.00 ft (KB) (TVD)

Reference Elevations: 2242.00 ft (KB)

Total Depth: 3640.00 ft (KB) (TVD)

2237.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8520 Outside

Press @ Run Depth: 20.41 psig @ 3599.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.06.09

End Date: 2013.06.09

Last Calib.: 2013.06.09

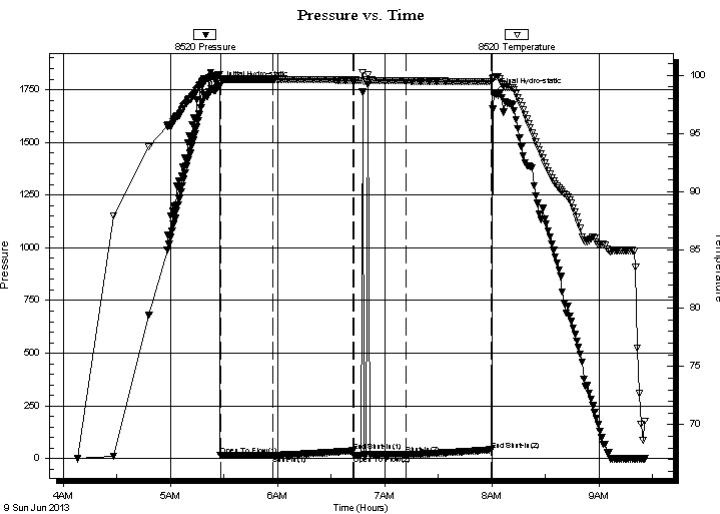
Start Time: 04:08:00

End Time: 09:26:00

Time On Btm: 2013.06.09 @ 05:27:30

Time Off Btm: 2013.06.09 @ 08:01:00

TEST COMMENT: 30 IF - Surface blow died @ 17 mins
45 ISI - No return
30 FF - No blow flushed @ 5 mins surged then no blow
45 FSI - No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1767.44	100.03	Initial Hydro-static
1	15.89	99.66	Open To Flow (1)
30	16.82	99.67	Shut-In(1)
75	37.10	99.58	End Shut-In(1)
75	15.87	99.57	Open To Flow (2)
105	20.41	99.53	Shut-In(2)
152	41.64	99.44	End Shut-In(2)
154	1737.23	99.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w/oil spots - 100%M	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Productions

8-2s-19w Phillips,KS

PO Box 723
Alma, NE 68920

Delimont #2

Job Ticket: 52684

DST#: 2

ATTN: Bob Petersen

Test Start: 2013.06.09 @ 03:58:00

Tool Information

Drill Pipe:	Length: 3492.00 ft	Diameter: 3.80 inches	Volume: 48.98 bbl	Tool Weight:	2500.00 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: 88.00 ft	Diameter: 2.25 inches	Volume: 0.43 bbl	Weight to Pull Loose:	lb
			<u>Total Volume: 49.41 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3598.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	42.00 ft				
Tool Length:	70.00 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			3571.00	
Shut In Tool	5.00			3576.00	
Hydraulic tool	5.00			3581.00	
Jars	5.00			3586.00	
Safety Joint	3.00			3589.00	
Packer	5.00			3594.00	28.00 Bottom Of Top Packer
Packer	4.00			3598.00	
Stubb	1.00			3599.00	
Recorder	0.00	8354	Inside	3599.00	
Recorder	0.00	8520	Outside	3599.00	
Perforations	3.00			3602.00	
Change Over Sub	1.00			3603.00	
Drill Pipe	31.00			3634.00	
Change Over Sub	1.00			3635.00	
Bullnose	5.00			3640.00	42.00 Bottom Packers & Anchor

Total Tool Length: 70.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Productions

8-2s-19w Phillips,KS

PO Box 723
Alma, NE 68920

Delimont #2

Job Ticket: 52684

DST#: 2

ATTN: Bob Petersen

Test Start: 2013.06.09 @ 03:58:00

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: bbl

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud w /oil spots - 100%M	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:

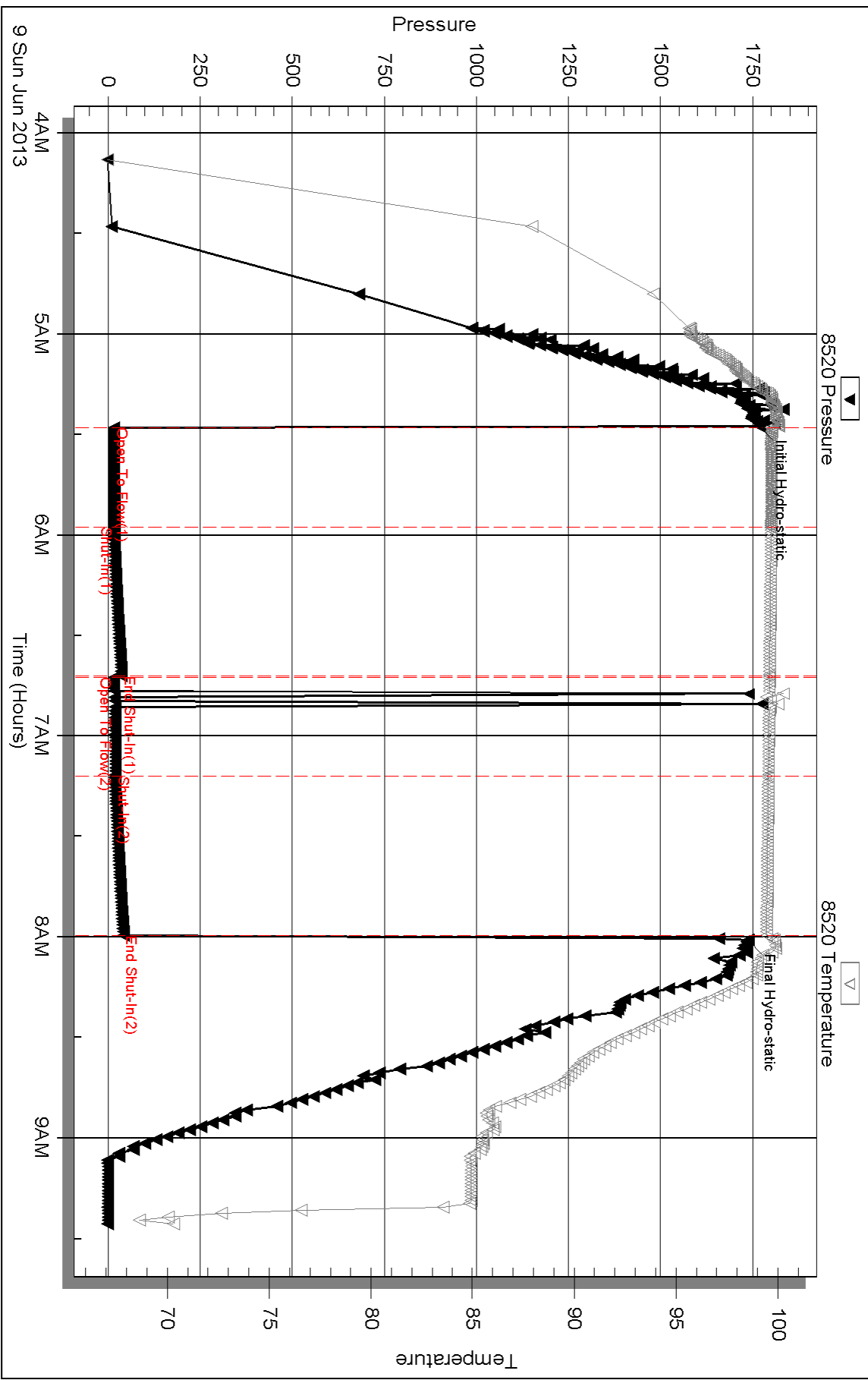
Serial #: 8520

Outside Bach Oil Productions

Delmont #2

DST Test Number: 2

Pressure vs. Time



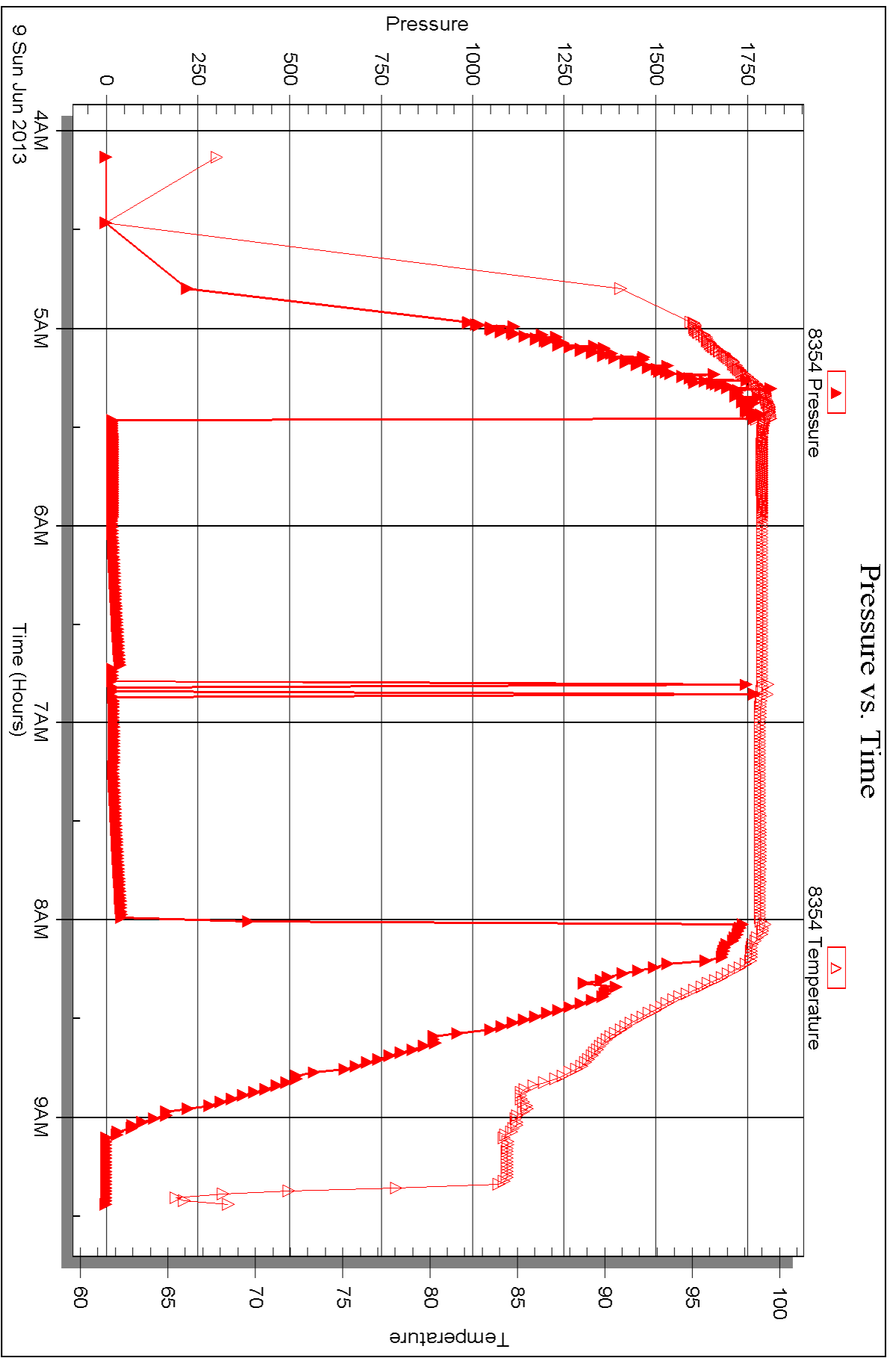
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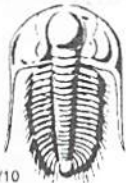
Inside

Bach Oil Productions

Delmont #2

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52683

4/10

Well Name & No. Delimant #2 Test No. 1 Date 6/8/13
 Company Bach Oil Production Elevation 2242 KB 2237 GL
 Address P.O. Box 723 Alma NE 68920
 Co. Rep / Geo. Bob ~~Paterson~~ Petersen Rig Martin #24
 Location: Sec. 8 Twp. 20S Rge. 19 W Co. Phillips State KS

Interval Tested 3415-3545 Zone Tested Toronto & LKC "A-F"
 Anchor Length 130' Drill Pipe Run ~~3304'~~ Mud Wt. 9.1
 Top Packer Depth 3410 Drill Collars Run 88' Vis 60
 Bottom Packer Depth 3415 Wt. Pipe Run 0' WL 5.2
 Total Depth 3545 Chlorides 500 ppm System LCM 3 1/2

Blow Description IF - Surface blow built to 2"
ISI - No return
FF - Surface blow built to 2 1/4"
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>OCM</u>	<u>10</u>		<u>90</u>	
<u>60</u>	<u>GOCM</u>	<u>2</u>	<u>5</u>	<u>93</u>	
<u>60</u>	<u>GOCM</u>	<u>5</u>	<u>2</u>	<u>93</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 145 BHT 98° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1665</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>07:30</u>
(B) First Initial Flow <u>19</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>09:36</u>
(C) First Final Flow <u>62</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>11:26</u>
(D) Initial Shut-In <u>1202</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>14:41</u>
(E) Second Initial Flow <u>65</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>16:34</u>
(F) Second Final Flow <u>84</u>	<input checked="" type="checkbox"/> Mileage <u>140 RT</u> 217	Comments
(G) Final Shut-In <u>1180 1180</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1623</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>45</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby	Total <u>1692</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1692</u>	

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. 52684

4/10

Well Name & No. Delimont # 2 Test No. 2 Date 6/9/13
 Company Bach Oil Productions Elevation 2242 KB 2237 GL
 Address P.O. Box 723 Alma, NE 68920
 Co. Rep / Geo. Bob Petersen Rig Martin # 24
 Location: Sec. 8 Twp. 2S Rge. 19W Co. Phillips State KS

Interval Tested 3598 - 3640 Zone Tested LKC "I-J"
 Anchor Length 42' Drill Pipe Run ~~5800~~ 3492' Mud Wt. 9.1
 Top Packer Depth 3593 Drill Collars Run 88' Vis 60
 Bottom Packer Depth 3598 Wt. Pipe Run 0' WL 5.2
 Total Depth 3640 Chlorides 500 ppm System LCM 3 1/2

Blow Description IF - Surface blow died @ 17 mins
ISI - No return
FF - No blow flushed @ 5 mins, surged then no blow
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>5'</u>	<u>Mud w/oil spots</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 5' BHT 99° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1767</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>03:30</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>03:58</u>
(C) First Final Flow <u>17</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>05:28</u>
(D) Initial Shut-In <u>37</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>07:58</u>
(E) Second Initial Flow <u>16</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>09:26</u>
(F) Second Final Flow <u>20</u>	<input checked="" type="checkbox"/> Mileage <u>140 RT</u> 217	Comments
(G) Final Shut-In <u>42</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1737</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>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby	Total <u>1692</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1692</u>	

Approved By _____ Our Representative Ryan M. White

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.