



DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Rd
Hays KS 67601-9696

ATTN: Tom Denning

Moore Pond #1

8-15s-19w Ellis,KS

Start Date: 2012.10.01 @ 23:26:04

End Date: 2012.10.02 @ 04:51:00

Job Ticket #: 48691 DST #: 1

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

Printed: 2012.10.04 @ 09:52:47

TDI Inc
8-15s-19w Ellis,KS
Moore Pond #1
DST # 1
LKC B-D
2012.10.01



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TESTING, INC.**

DRILL STEM TEST REPORT

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Hays KS 67601-9696
ATTN: Tom Denning

8-15s-19w Ellis,KS
Moore Pond #1
Job Ticket: 48691 **DST#: 1**
Test Start: 2012.10.01 @ 23:26:04

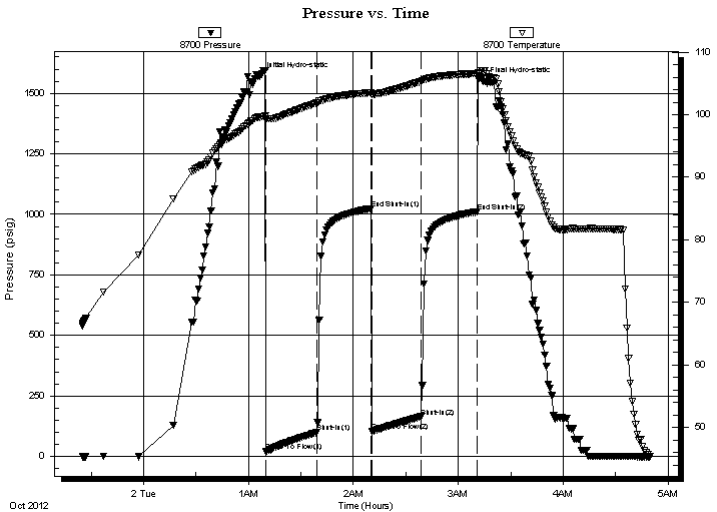
GENERAL INFORMATION:

Formation: **LKC B-D**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:10:59
Time Test Ended: 04:51:00
Interval: **3280.00 ft (KB) To 3350.00 ft (KB) (TVD)**
Total Depth: 3350.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Ray Schwager
Unit No: 42
Reference Elevations: 2001.00 ft (KB)
1993.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8700 Outside
Press @ Run Depth: 163.99 psig @ 3284.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.10.01 End Date: 2012.10.02 Last Calib.: 2012.10.02
Start Time: 23:25:04 End Time: 04:49:58 Time On Btm: 2012.10.02 @ 01:06:29
Time Off Btm: 2012.10.02 @ 03:14:29

TEST COMMENT: 30-IFP-w k to strg in 12 min
30-ISIP-no bl
30-FFP-w k to strg in 27 min
30-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1567.85	99.62	Initial Hydro-static
4	19.34	99.21	Open To Flow (1)
33	98.98	101.90	Shut-In(1)
64	1023.37	103.52	End Shut-In(1)
64	101.96	103.24	Open To Flow (2)
92	163.99	105.32	Shut-In(2)
124	1010.21	106.57	End Shut-In(2)
128	1546.96	107.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	O&GCWM 5%G5%O35%W55%M	1.68
60.00	MW w/show of oil	0.84
120.00	Water	1.68

Gas Rates

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



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TOOL DIAGRAM

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Test Start: 2012.10.01 @ 23:26:04

Tool Information

Drill Pipe:	Length: 3269.00 ft	Diameter: 3.80 inches	Volume: 45.86 bbl	Tool Weight:	2200.00 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: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 45.86 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	30000.00 lb
Depth to Top Packer:	3280.00 ft			Final	34000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	70.00 ft				
Tool Length:	91.00 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			3260.00	
Shut In Tool	5.00			3265.00	
Hydraulic tool	5.00			3270.00	
Packer	5.00			3275.00	21.00 Bottom Of Top Packer
Packer	5.00			3280.00	
Stubb	1.00			3281.00	
Perforations	3.00			3284.00	
Recorder	0.00	8369	Inside	3284.00	
Recorder	0.00	8700	Outside	3284.00	
Blank Spacing	63.00			3347.00	
Bullnose	3.00			3350.00	70.00 Bottom Packers & Anchor

Total Tool Length: 91.00



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FLUID SUMMARY

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Moore Pond #1
Job Ticket: 48691 **DST#: 1**
Test Start: 2012.10.01 @ 23:26:04

Mud and Cushion Information

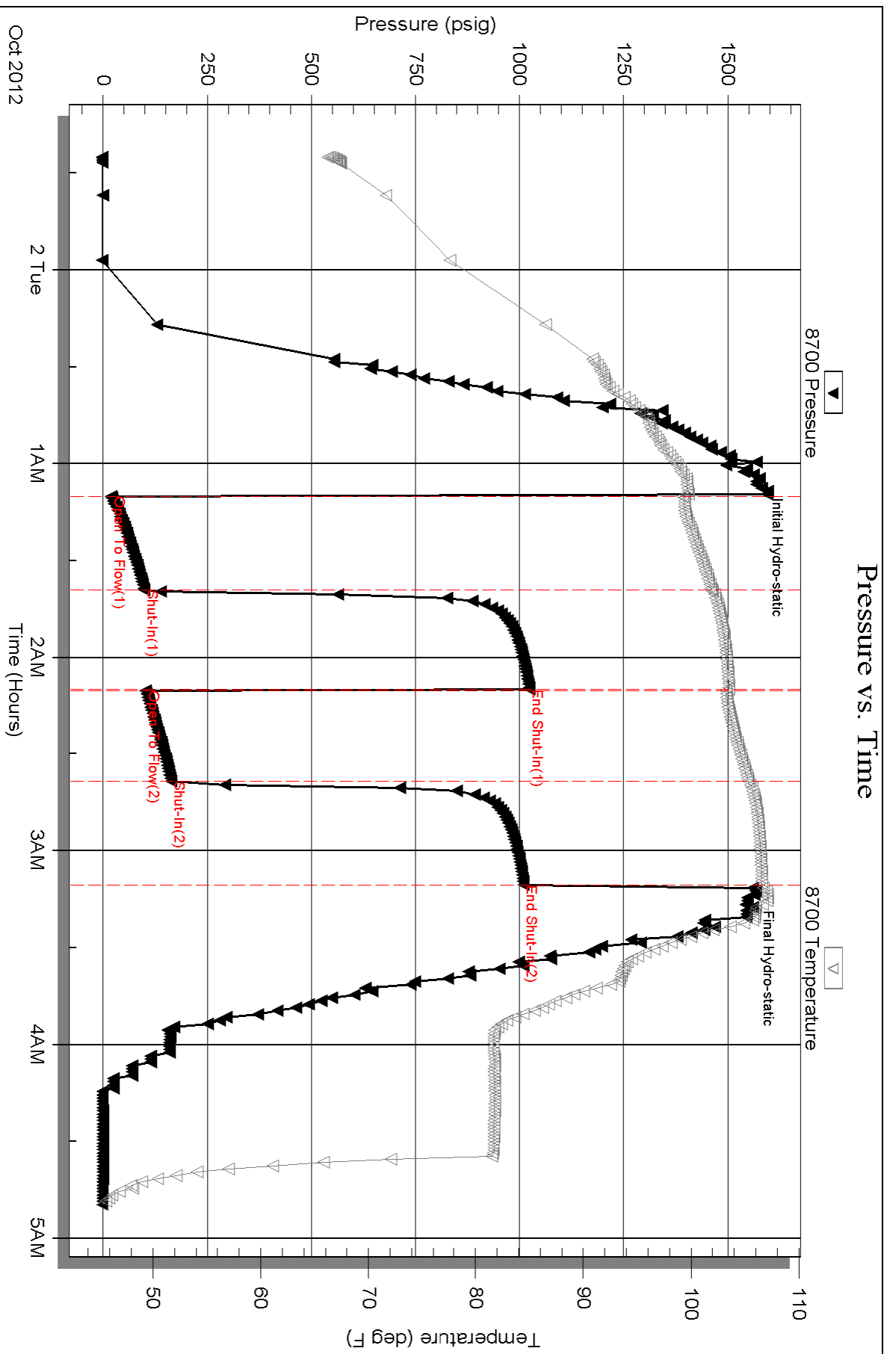
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 97000 ppm	
Viscosity: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.77 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3800.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	O&GCWM 5%G5%O35%W55%M	1.683
60.00	MW w/show of oil	0.842
120.00	Water	1.683

Total Length: 300.00 ft Total Volume: 4.208 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: RW .09 @ 60F



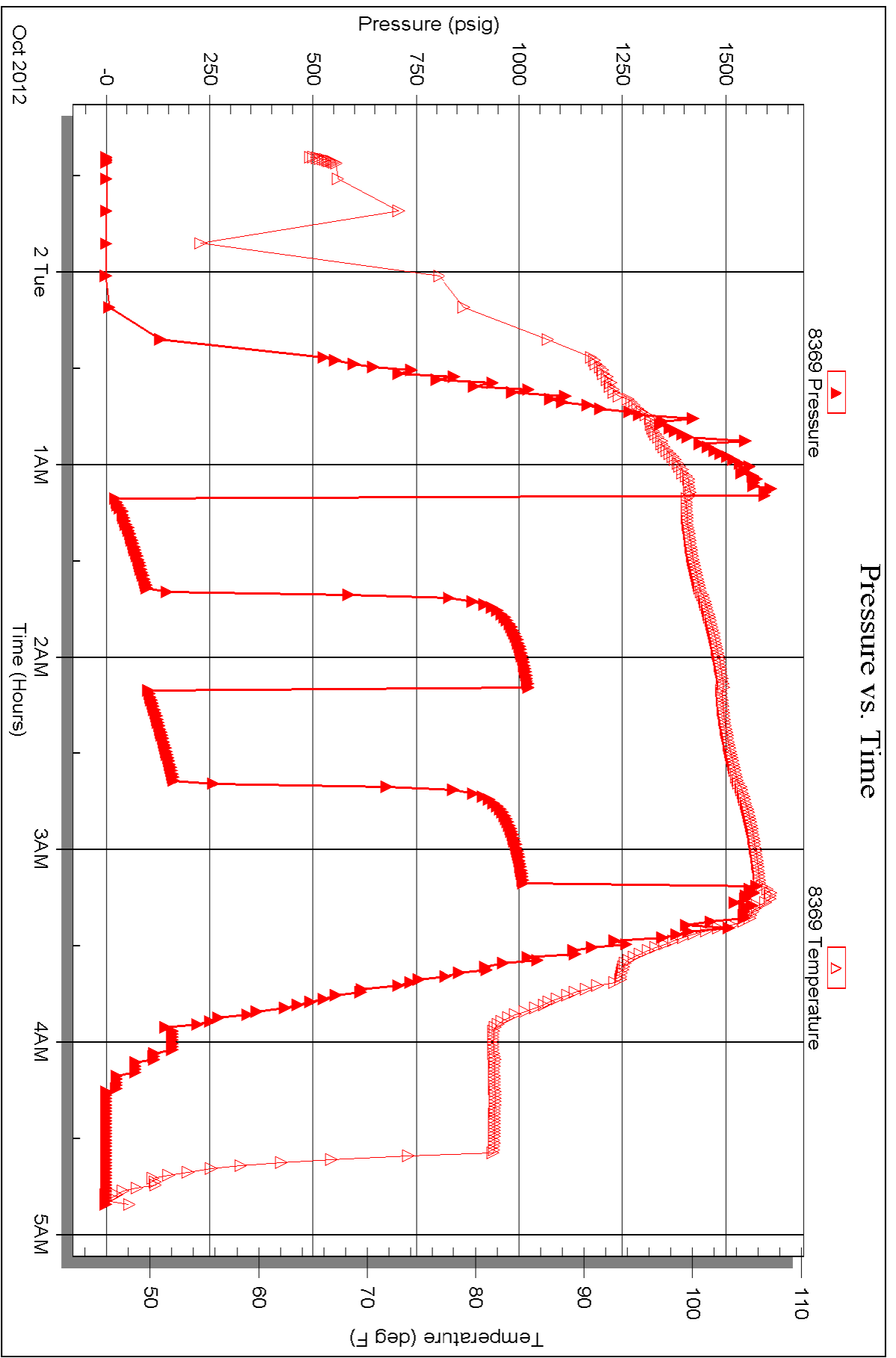
Serial #: 8369

Inside

TDI Inc

Moore Pond #1

DST Test Number: 1





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48691

4/10

Well Name & No. Moore Pond #1 Test No. 1 Date 10-1-12
 Company TOT, Inc Elevation 2001 KB 1993 GL
 Address 1310 Bison Rd Hays, Ks 67601-9696
 Co. Rep / Geo. Herb Dienes Rig Southwind rig 1
 Location: Sec. 8 Twp. 15^s Rge. 19^w Co. Ellis State Ks

Interval Tested 3280-3350 Zone Tested LKC B-0
 Anchor Length 70 Drill Pipe Run 3269 Mud Wt. 9.2
 Top Packer Depth 3275 Drill Collars Run - Vis 48
 Bottom Packer Depth 3280 Wt. Pipe Run - WL 7.8
 Total Depth 3350 Chlorides 3800 ppm System LCM #1
 Blow Description I FP - WEAK TO STRONG IW 12min
I STP - NO BLOW
F FP - WEAK TO STRONG IW 27min
F STP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>0-6 C WM</u>	<u>5</u>	<u>5</u>	<u>35</u>	<u>55</u>
<u>60</u>	<u>MW w/showfo. l</u>			<u>90</u>	<u>10</u>
<u>120</u>	<u>WATER</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 300 BHT 106 Gravity - API RW .09 @ 60 °F Chlorides 97000 ppm

(A) Initial Hydrostatic 1567 Test 1150 T-On Location 2105
 (B) First Initial Flow 19 Jars - T-Started 2328
 (C) First Final Flow 98 Safety Joint - T-Open 0115
 (D) Initial Shut-In 1023 Circ Sub - T-Pulled 0315
 (E) Second Initial Flow 101 Hourly Standby - T-Out 0451
 (F) Second Final Flow 163 Mileage 38RT x2 117.80 Comments loaded tools 9/23 16:00
 (G) Final Shut-In 1010 Sampler -
 (H) Final Hydrostatic 1546 Straddle - Ruined Shale Packer -
 Shale Packer - Ruined Packer -
 Extra Packer - Extra Copies -
 Initial Open 30 Extra Recorder - Sub Total 800
 Initial Shut-In 30 Day Standby 1d 12hrs Total 2067.80
 Final Flow 30 Accessibility - MP/DST Disc't -
 Final Shut-In 30 Sub Total 1267.80

Approved By _____

Our Representative Ray Schwager Thank you

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