



DRILL STEM TEST REPORT

Prepared For: **TDI inc**

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

Rosemary #1

9-15s-19w Ellis,KS

Start Date: 2012.08.21 @ 11:16:05

End Date: 2012.08.21 @ 17:06:09

Job Ticket #: 47918 DST #: 1

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

Printed: 2012.08.27 @ 11:39:57

TDI inc
9-15s-19w Ellis,KS
Rosemary #1
DST # 1
LKC-C"
2012.08.21



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TESTING, INC.**

DRILL STEM TEST REPORT

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1310 Bison Rd
Hays KS 67601
ATTN: Herb Deines

9-15s-19w Ellis,KS
Rosemary #1
Job Ticket: 47918 **DST#: 1**
Test Start: 2012.08.21 @ 11:16:05

GENERAL INFORMATION:

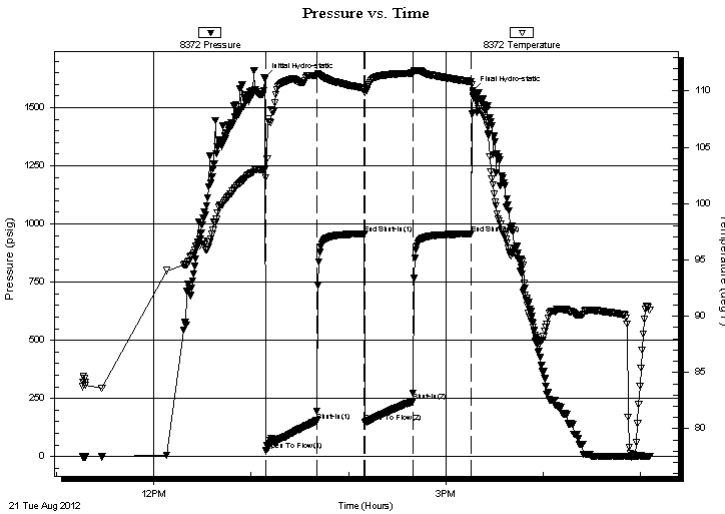
Formation: **LKC"C"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:09:10
Time Test Ended: 17:06:09
Interval: **3344.00 ft (KB) To 3364.00 ft (KB) (TVD)**
Total Depth: 3364.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor
Test Type: Conventional Bottom Hole (Initial)
Tester: Andy Carreira
Unit No: 39
Reference Elevations: 2029.00 ft (KB)
2019.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8372 Outside

Press @ Run Depth: 237.41 psig @ 3345.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.08.21 End Date: 2012.08.21 Last Calib.: 2012.08.21
Start Time: 11:16:05 End Time: 17:06:10 Time On Btm: 2012.08.21 @ 13:08:10
Time Off Btm: 2012.08.21 @ 15:16:50

TEST COMMENT: IF:(30min) 3" in 2 min, 6" in 5 min, BOB in 15 min.
ISl:(30min) No Return
FF:(30min) 3" in 4 min, 6" in 9 min, 11" in 28 min.
FSl:(30min) No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1629.93	102.97	Initial Hydro-static
1	25.14	102.31	Open To Flow (1)
33	153.84	111.35	Shut-In(1)
62	958.03	110.22	End Shut-In(1)
62	147.57	109.85	Open To Flow (2)
92	237.41	111.58	Shut-In(2)
128	957.25	110.82	End Shut-In(2)
129	1572.51	109.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
500.00	GMW	7.01
0.00	GIP= 30 ft	0.00

Gas Rates

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



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TOOL DIAGRAM

TDI inc
1310 Bison Rd
Hays KS 67601
ATTN: Herb Deines

9-15s-19w Ellis,KS
Rosemary #1
Job Ticket: 47918 **DST#: 1**
Test Start: 2012.08.21 @ 11:16:05

Tool Information

Drill Pipe:	Length: 3356.00 ft	Diameter: 3.80 inches	Volume: 47.08 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 42000.00 lb
			<u>Total Volume: 47.08 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	3344.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	40.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3325.00	
Shut In Tool	5.00			3330.00	
Hydraulic tool	5.00			3335.00	
Packer	5.00			3340.00	20.00 Bottom Of Top Packer
Packer	4.00			3344.00	
Stubb	1.00			3345.00	
Recorder	0.00	8017	Inside	3345.00	
Recorder	0.00	8372	Outside	3345.00	
Perforations	16.00			3361.00	
Bullnose	3.00			3364.00	20.00 Bottom Packers & Anchor
Total Tool Length:	40.00				



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FLUID SUMMARY

TDI inc	9-15s-19w Ellis,KS
1310 Bison Rd Hays KS 67601	Rosemary #1
ATTN: Herb Deines	Job Ticket: 47918 DST#: 1
	Test Start: 2012.08.21 @ 11:16:05

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: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.59 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3900.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

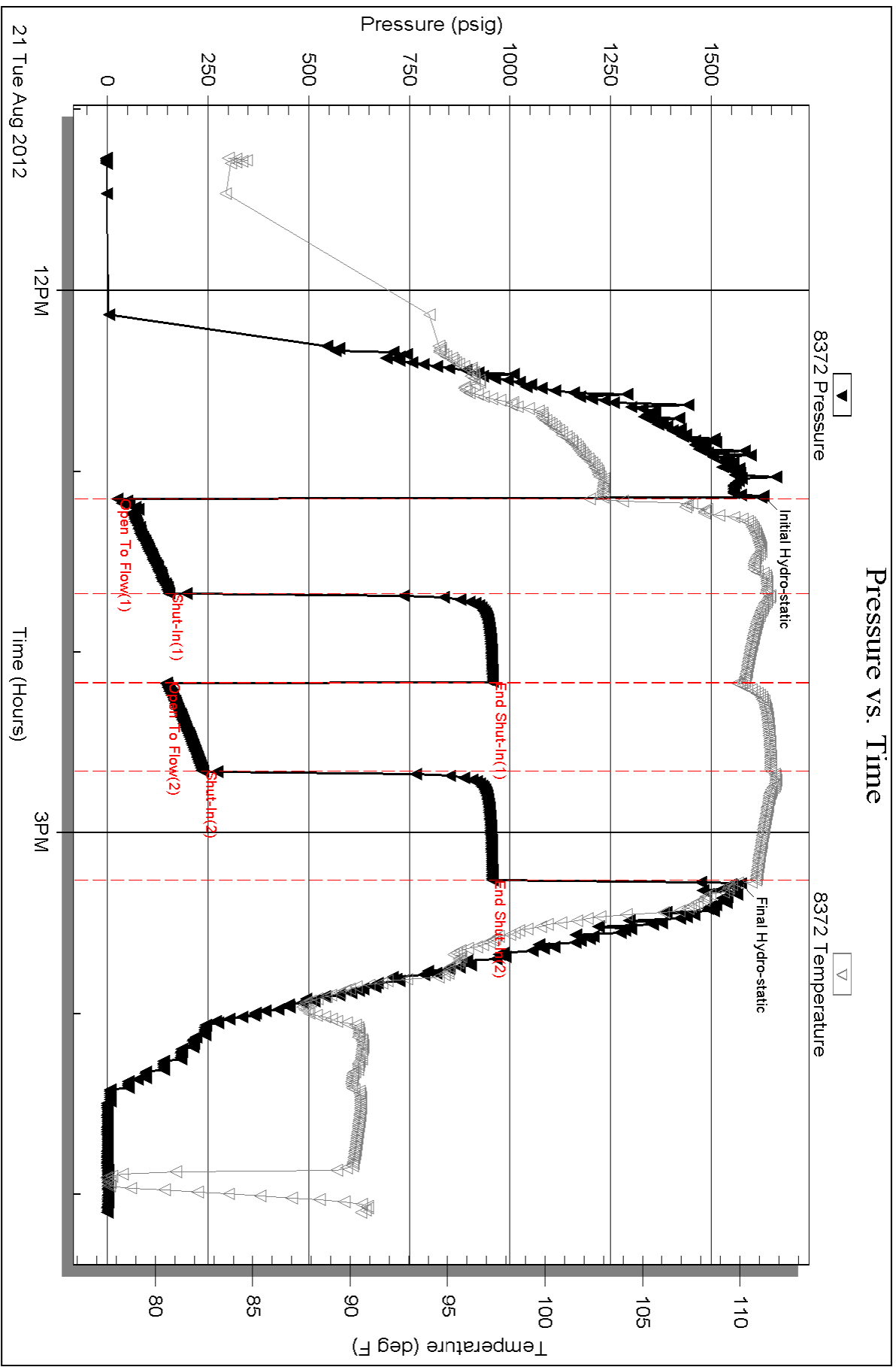
Length ft	Description	Volume bbl
500.00	GMW	7.014
0.00	GIP= 30 ft	0.000

Total Length: 500.00 ft Total Volume: 7.014 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:



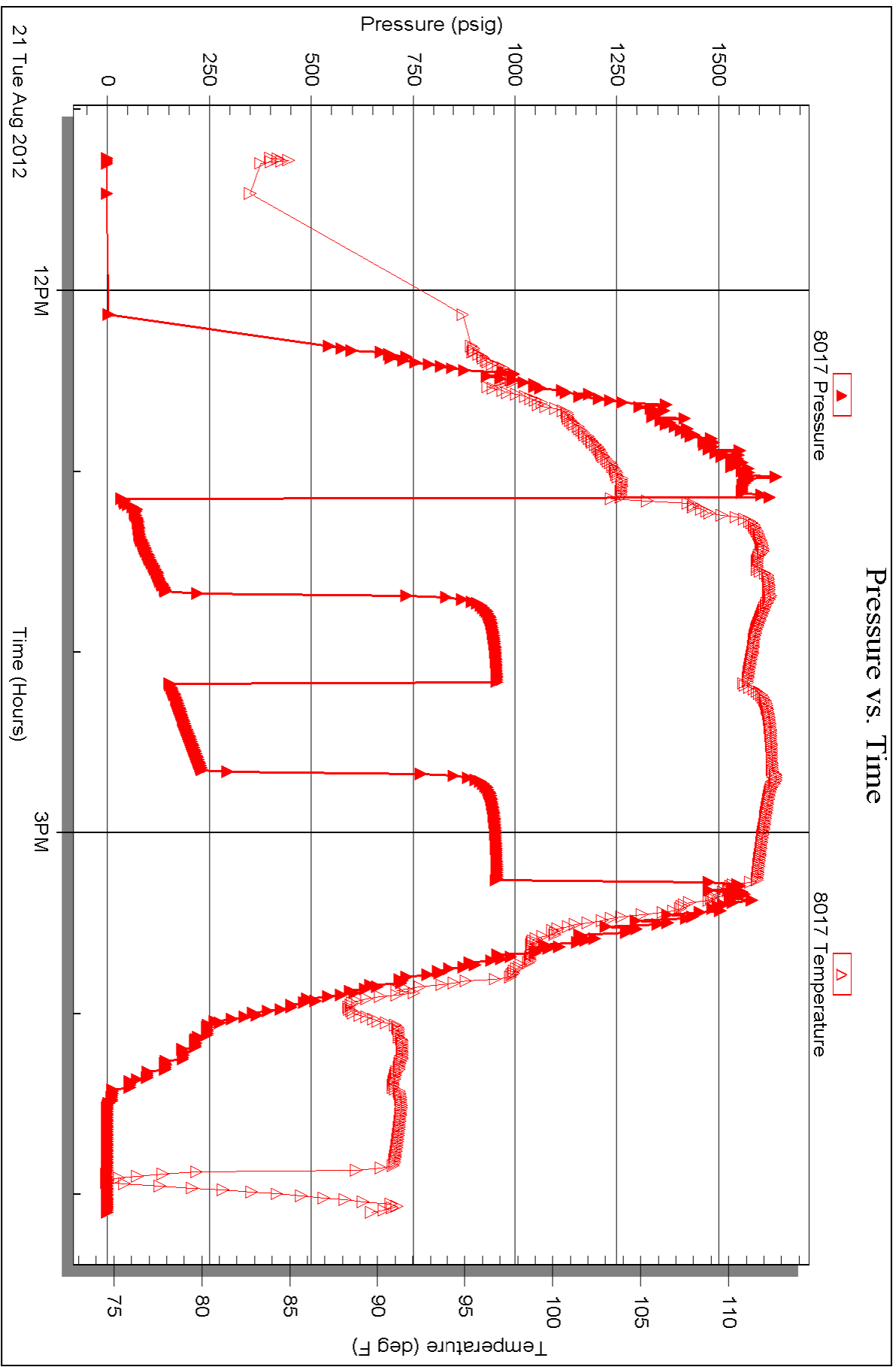
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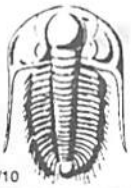
Inside

TD/Inc

Rosemary #1

DST Test Number: 1





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47918

Well Name & No. ROSEMARY #1 Test No. 1 Date 8-21-12
 Company TDE INC Elevation 2029 KB 2019 GL
 Address 1310 BISON RD Hays, Ks 67601
 Co. Rep / Geo. Herb Deines Rig Southwind #1
 Location: Sec. 9 Twp. 15 Rge. 19 Co. Ellis State Ks

Interval Tested 3344-3364 Zone Tested LKC "C"
 Anchor Length 20' Drill Pipe Run 3356 Mud Wt. 9.1
 Top Packer Depth 3339 Drill Collars Run — Vis 52
 Bottom Packer Depth 3344 Wt. Pipe Run — WL 7.6
 Total Depth 3364 Chlorides 3900 ppm System LCM 3.5#

Blow Description LF: 3" IN 2min, 6" IN 5min, BOB 15min
450: NO RETURN
FF: 3" IN 4min, 6" IN 9min, 11" IN 28min.
FSD: NO RETURN

Rec	Feet of	%gas	%oil	%water	%mud
<u>500</u>	<u>Feet of BMW</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>Feet of GIP</u>				
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 500 BHT 110° Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1629 Test @ 1150 T-On Location 10:10
 (B) First Initial Flow 25 Jars _____ T-Started 11:16
 (C) First Final Flow 153 Safety Joint _____ T-Open 13:10
 (D) Initial Shut-In 958 Circ Sub _____ T-Pulled 15:10
 (E) Second Initial Flow 147 Hourly Standby _____ T-Out 17:06
 (F) Second Final Flow 237 Mileage 36RTE 55.80 Comments _____
 (G) Final Shut-In 957 Sampler _____
 (H) Final Hydrostatic 1572 Straddle _____

Initial Open 30 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 30 Extra Packer _____ Ruined Packer _____
 Final Flow 30 Extra Recorder _____ Extra Copies _____
 Final Shut-In 30 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1205.80
 Sub Total 1205.80 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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