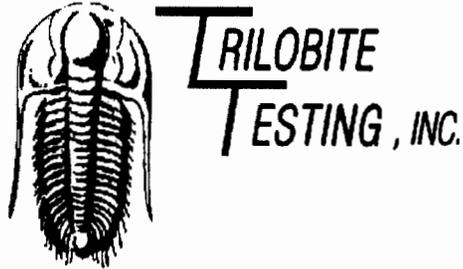


15-051-25868

9-15-18w



DRILL STEM TEST REPORT

Prepared For: **TDI Inc.**

1310 Bison RD
Hays Ks 67601

ATTN: Tom Denning

9 15 18 Ellis KS

Werth- Dinges Unit #1

Start Date: 2009.07.29 @ 23:52:52

End Date: 2009.07.30 @ 08:13:22

Job Ticket #: 36413 DST #: 1

KCC
SEP 2 4 2009
CONFIDENTIAL

RECEIVED
KANSAS CORPORATION COMMISSION

SEP 2 5 2009

CONSERVATION DIVISION
WICHITA, KS

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

TDI Inc.

Werth- Dinges Unit #1

9 15 18 Ellis KS

DST # 1

Arb.

2009.07.29



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TDI Inc.
1310 Bison RD
Hays Ks 67601

ATTN: Tom Denning

Werth- Dinges Unit #1
9 15 18 Ellis KS
Job Ticket: 36413 **DST#: 1**
Test Start: 2009.07.29 @ 23:52:52

GENERAL INFORMATION:

Formation: **Arb.**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 02:43:22
Time Test Ended: 08:13:22

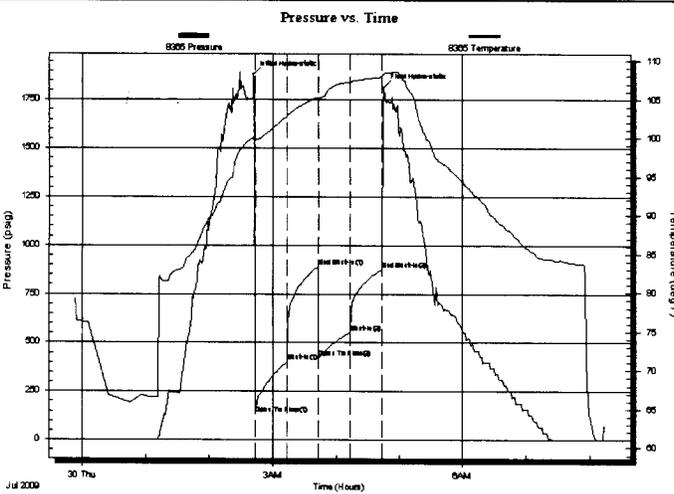
Interval: **3608.00 ft (KB) To 3656.00 ft (KB) (TVD)**
Total Depth: 3728.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

Test Type: Conventional Straddle
Tester: Brett Dickinson
Unit No: 42

Reference Elevations: 2031.00 ft (KB)
2026.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8365 Inside
Press@RunDepth: 553.44 psig @ 3622.01 ft (KB) Capacity: 7000.00 psig
Start Date: 2009.07.29 End Date: 2009.07.30 Last Calib.: 2009.07.30
Start Time: 23:52:57 End Time: 08:13:21 Time On Btm: 2009.07.30 @ 02:41:52
Time Off Btm: 2009.07.30 @ 04:45:21

TEST COMMENT: IF- BOB in 1.5min
IS- 3.25in blow
FF- BOB in 1min
FS- Very weak surface blow died in 16min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1879.60	100.04	Initial Hydro-static
2	131.81	99.70	Open To Flow (1)
32	404.90	102.78	Shut-In (1)
62	889.77	105.27	End Shut-In (1)
62	425.60	105.14	Open To Flow (2)
92	553.44	107.27	Shut-In (2)
122	876.81	107.89	End Shut-In (2)
124	1813.81	108.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	VSOCM 10%G 10%O 80%M	0.42
180.00	MCO 5%G 80%O 15%M	1.27
1270.00	GO 15%% 85%O	16.95

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc.
1310 Bison RD
Hays Ks 67601

ATTN: Tom Denning

Werth- Dinges Unit #1

9 15 18 Ellis KS

Job Ticket: 36413

DST#: 1

Test Start: 2009.07.29 @ 23:52:52

Tool Information

Drill Pipe:	Length: 3245.00 ft	Diameter: 3.80 inches	Volume: 45.52 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 364.00 ft	Diameter: 2.70 inches	Volume: 2.58 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: 61000.00 lb
			<u>Total Volume: 48.10 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3608.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	3656.02 ft			
Interval between Packers:	48.02 ft			
Tool Length:	148.02 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			3588.00	
Shut In Tool	5.00			3593.00	
Hydraulic tool	5.00			3598.00	
Packer	5.00			3603.00	21.00 Bottom Of Top Packer
Packer	5.00			3608.00	
Stubb	1.00			3609.00	
Perforations	13.00			3622.00	
Recorder	0.01	8365	Inside	3622.01	
Recorder	0.01	6625	Outside	3622.02	
Change Over Sub	1.00			3623.02	
Blank Spacing	31.00			3654.02	
Change Over Sub	1.00			3655.02	
Blank Off Sub	1.00			3656.02	48.02 Tool Interval
Packer	5.00			3661.02	
Perforations	3.00			3664.02	
Change Over Sub	1.00			3665.02	
Drill Pipe	61.00			3726.02	
Change Over Sub	1.00			3727.02	
Perforations	5.00			3732.02	
Bullnose	3.00			3735.02	79.00 Bottom Packers & Anchor
Total Tool Length:	148.02				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc.
1310 Bison RD
Hays Ks 67601

ATTN: Tom Denning

Werth- Dinges Unit #1
9 15 18 Ellis KS
Job Ticket: 36413 **DST#: 1**
Test Start: 2009.07.29 @ 23:52:52

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	34 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 47.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2400.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	VSOCM 10%G 10%O 80%M	0.425
180.00	MCO 5%G 80%O 15%M	1.275
1270.00	GO 15%% 85%O	16.953

Total Length: 1510.00 ft Total Volume: 18.653 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

