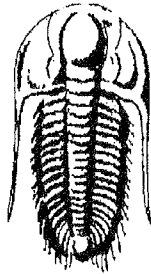


32-145-19w



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Road
Hays KS 67601

ATTN: Duane Stecklein

32 14 19 Ellis KS

Johnson A-1

Start Date: 2008.01.01 @ 23:00:19

End Date: 2008.01.02 @ 05:50:19

Job Ticket #: 30244 DST #: 1

15-051-25707-0000

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

**CONFIDENTIAL
FEB 11 2008
KCC**

TDI Inc

Johnson A-1

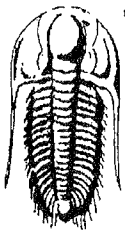
32 14 19 Ellis KS

DST # 1

LKC-"C-D-E-F"

2008.01.01

32-145-19w



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TDI Inc
1310 Bison Road
Hays KS 67601
ATTN: Duane Stecklein

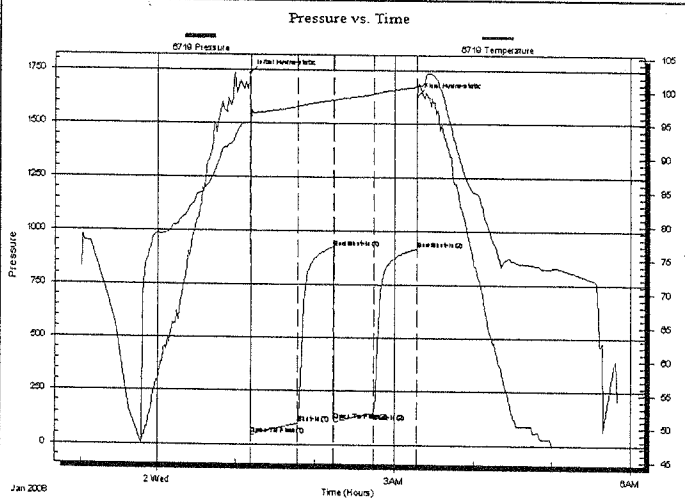
Johnson A-1
32 14 19 Ellis KS
Job Ticket: 30244 DST#: 1
Test Start: 2008.01.01 @ 23:00:19

GENERAL INFORMATION:

Formation: **LKC-"C-D-E-F"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:11:19
Time Test Ended: 05:50:19
Interval: **3420.00 ft (KB) To 3480.00 ft (KB) (TVD)**
Total Depth: 3480.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good
Test Type: Conventional Bottom Hole
Tester: Jason McLemore
Unit No: 32
Reference Elevations: 2084.00 ft (KB)
2079.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6719 **Inside**
Press@RunDepth: 147.28 psig @ 3425.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2008.01.01 End Date: 2008.01.02 Last Calib.: 2008.01.02
Start Time: 23:00:21 End Time: 05:50:19 Time On Btm: 2008.01.02 @ 01:10:49
Time Off Btm: 2008.01.02 @ 03:16:49

TEST COMMENT: IFP Strong Blow BOB in 1-1/2 Mn.
ISI Blow back Built to 2 "
FFP Strong Blow BOB in 3 Min.
FSI Blow back Built to BOB in 25 Mn.



PRESSURE SUMMARY

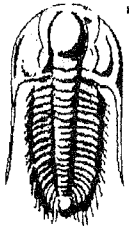
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1732.32	95.30	Initial Hydro-static
1	44.33	95.13	Open To Flow (1)
36	99.47	97.65	Shut-In(1)
63	920.30	98.65	End Shut-In(1)
64	109.80	98.52	Open To Flow (2)
94	147.28	99.52	Shut-In(2)
126	916.21	100.62	End Shut-In(2)
126	1627.05	100.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	OCM 30%O 70%M	0.70
130.00	GO 15%G 85%O	1.82
130.00	MWCGO 10%G 70%O 10%W 10%M	1.82

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc

Johnson A-1

1310 Bison Road
Hays KS 67601

32 14 19 Ellis KS

Job Ticket: 30244

DST#: 1

ATTN: Duane Stecklein

Test Start: 2008.01.01 @ 23:00:19

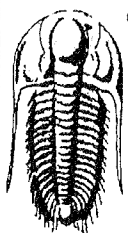
Tool Information

Drill Pipe:	Length: 3429.00 ft	Diameter: 3.80 inches	Volume: 48.10 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: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 48.10 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3420.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	83.00 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			3398.00	
Shut In Tool	5.00			3403.00	
Hydraulic tool	5.00			3408.00	
Safety Joint	2.00			3410.00	
Packer	5.00			3415.00	23.00 Bottom Of Top Packer
Packer	5.00			3420.00	
Stubb	1.00			3421.00	
Perforations	3.00			3424.00	
Change Over Sub	1.00			3425.00	
Recorder	0.00	6719	Inside	3425.00	
Blank Spacing	31.00			3456.00	
Change Over Sub	1.00			3457.00	
Perforations	20.00			3477.00	
Recorder	0.00	8360	Outside	3477.00	
Bullnose	3.00			3480.00	60.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc
1310 Bison Road
Hays KS 67601

ATTN: Duane Stecklein

Johnson A-1
32 14 19 Ellis KS
Job Ticket: 30244 **DST#: 1**
Test Start: 2008.01.01 @ 23:00:19

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 40 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 25000 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.79 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 7000.00 ppm		
Filter Cake: inches		

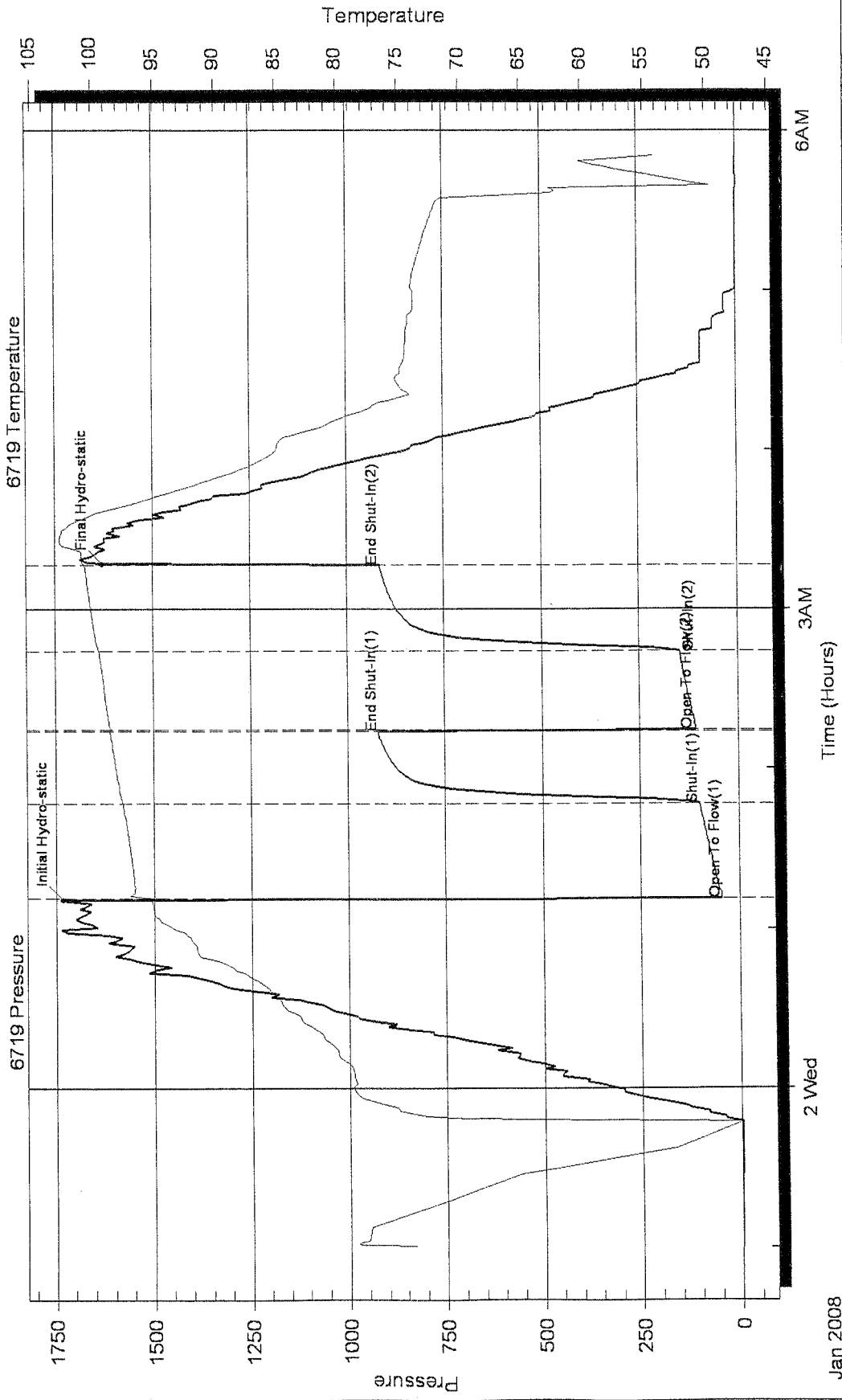
Recovery Information

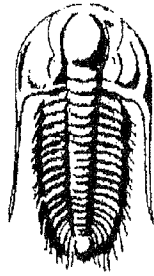
Recovery Table

Length ft	Description	Volume bbl
50.00	OCM 30%O 70%M	0.701
130.00	GO 15%G 85%O	1.824
130.00	MWCGO 10%G 70%O 10%W 10%M	1.824

Total Length: 310.00 ft Total Volume: 4.349 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Road
Hays KS 67601

ATTN: Duane Stecklein

32 14 19 Ellis KS

Johnson A-1

Start Date: 2008.01.03 @ 21:38:04

End Date: 2008.01.04 @ 04:10:04

Job Ticket #: 30245 DST #: 2

TDI Inc

Johnson A-1

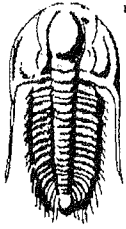
32 14 19 Ellis KS

DST # 2

Arbuckle

2008.01.03

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc

Johnson A-1

1310 Bison Road
Hays KS 67601

32 14 19 Ellis KS

Job Ticket: 30245

DST#: 2

ATTN: Duane Stecklein

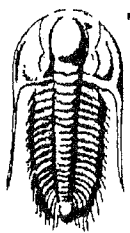
Test Start: 2008.01.03 @ 21:38:04

Tool Information

Drill Pipe:	Length: 3616.00 ft	Diameter: 3.80 inches	Volume: 50.72 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: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 42000.00 lb
			Total Volume: 50.72 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3620.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	3722.00 ft			
Interval between Packers:	102.00 ft			
Tool Length:	199.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3600.00	
Shut In Tool	5.00			3605.00	
Hydraulic tool	5.00			3610.00	
Packer	5.00			3615.00	21.00 Bottom Of Top Packer
Packer	5.00			3620.00	
Stubb	1.00			3621.00	
Perforations	2.00			3623.00	
Change Over Sub	1.00			3624.00	
Blank Spacing	88.00			3712.00	
Change Over Sub	1.00			3713.00	
Recorder	0.00	6719	Inside	3713.00	
Perforations	5.00			3718.00	
Blank Off Sub	1.00			3719.00	
Blank Spacing	3.00			3722.00	102.00 Tool Interval
Packer	1.00			3723.00	
Stubb	1.00			3724.00	
Perforations	6.00			3730.00	
Change Over Sub	1.00			3731.00	
Blank Spacing	63.00			3794.00	
Change Over Sub	1.00			3795.00	
Recorder	0.00	8360	Below	3795.00	
Bullnose	3.00			3798.00	76.00 Bottom Packers & Anchor
Total Tool Length:	199.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc
1310 Bison Road
Hays KS 67601

Johnson A-1

32 14 19 Ellis KS

Job Ticket: 30245

DST#: 2

ATTN: Duane Stecklein

Test Start: 2008.01.03 @ 21:38:04

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 51.00 sec/qt

Water Loss: 9.59 in³

Resistivity: ohm.m

Salinity: 7000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

