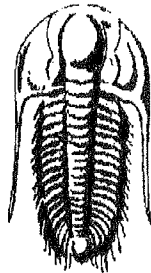


15-033-21528

32-32s-20w

IND



**TRILOBITE  
TESTING, INC.**

### DRILL STEM TEST REPORT

Prepared For: **John O Farmer**  
370 W Wichita Ave  
PO Box 352  
Russell KS 67665-2635

ATTN: Steve Murphy

**32 32 20 Comanche K**

**Frink Unit A #1**

Start Date: 2008.07.05 @ 19:46:19  
End Date: 2008.07.06 @ 10:06:19  
Job Ticket #: 33152                      DST #: 1

**KCC**  
**OCT 16 2008**  
**CONFIDENTIAL**

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

John O Farmer

Frink Unit A #1

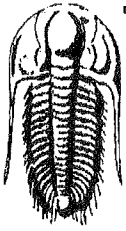
32 32 20 Comanche K

DST # 1

Marrow

2008.07.05





**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer

**Frink Unit A #1**

370 W Wichita Ave  
PO Box 352  
Russell KS 67665-2635  
ATTN: Steve Murphy

**32 32 20 Comanche K**

Job Ticket: 33152

**DST#: 1**

Test Start: 2008.07.05 @ 19:46:19

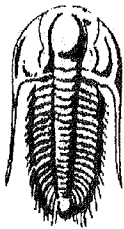
### Tool Information

Drill Pipe:	Length: 5100.00 ft	Diameter: 3.80 inches	Volume: 71.54 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 160000.0 lb
			<u>Total Volume: 71.54 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 75000.00 lb
Depth to Top Packer:	5122.00 ft			Final 110000.0 lb
Depth to Bottom Packer:	5195.00 ft			
Interval between Packers:	73.00 ft			
Tool Length:	166.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			5099.00	
Hydraulic tool	5.00			5104.00	
Jars	5.00			5109.00	
Safety Joint	3.00			5112.00	
Packer	5.00			5117.00	28.00 Bottom Of Top Packer
Packer	5.00			5122.00	
Recorder	0.00	8359	Inside	5122.00	
Perforations	6.00			5128.00	
Change Over Sub	1.00			5129.00	
Drill Pipe	63.00			5192.00	
Change Over Sub	1.00			5193.00	
Perforations	1.00			5194.00	
Recorder	0.00	13266	Inside	5194.00	
Blank Off Sub	1.00			5195.00	73.00 Tool Interval
Packer	5.00			5200.00	
Recorder	0.00	8354	Inside	5200.00	
Change Over Sub	1.00			5201.00	
Drill Pipe	59.00			5260.00	65.00 Bottom Packers & Anchor

**Total Tool Length: 166.00**



**TRILOBITE**  
TESTING, INC

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer  
370 W Wichita Ave  
PO Box 352  
Russell KS 67665-2635  
ATTN: Steve Murphy

**Frink Unit A #1**  
**32 32 20 Comanche K**  
Job Ticket: 33152      **DST#: 1**  
Test Start: 2008.07.05 @ 19:46:19

## 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: 180000 ppm	
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.05 ohm.m	Gas Cushion Pressure: psig		
Salinity: 7500.00 ppm			
Filter Cake: 0.20 inches			

## Recovery Information

Recovery Table

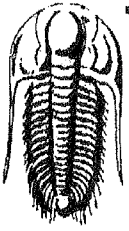
Length ft	Description	Volume bbl
60.00	GMW 5%G 90%W 5%M	0.842
60.00	GMWw/scumO 10%G 70%W 20%M	0.842

Total Length: 120.00 ft      Total Volume: 1.684 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments: after 45 mins of final flow fluid came to surface shut tool in bled off/dropped the bar to circ. out.



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

John O Farmer  
370 W Wichita Ave  
PO Box 352  
Russell KS 67665-2635  
ATTN: Steve Murphy

**Frink Unit A #1**  
**32 32 20 Comanche K**  
Job Ticket: 33152      **DST#: 1**  
Test Start: 2008.07.05 @ 19:46:19

### Gas Rates Information

Temperature: 59 deg C  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m <sup>3</sup> /d)
1	13	0.13	1.00	5.76
1	13	0.13	1.00	5.76
1	20	0.13	2.00	6.14
2	10	0.38	5.00	71.07
2	20	0.13	0.00	5.39
2	30	0.13	4.00	6.89
0	-	-999999.00	-999999.00	-999999.00

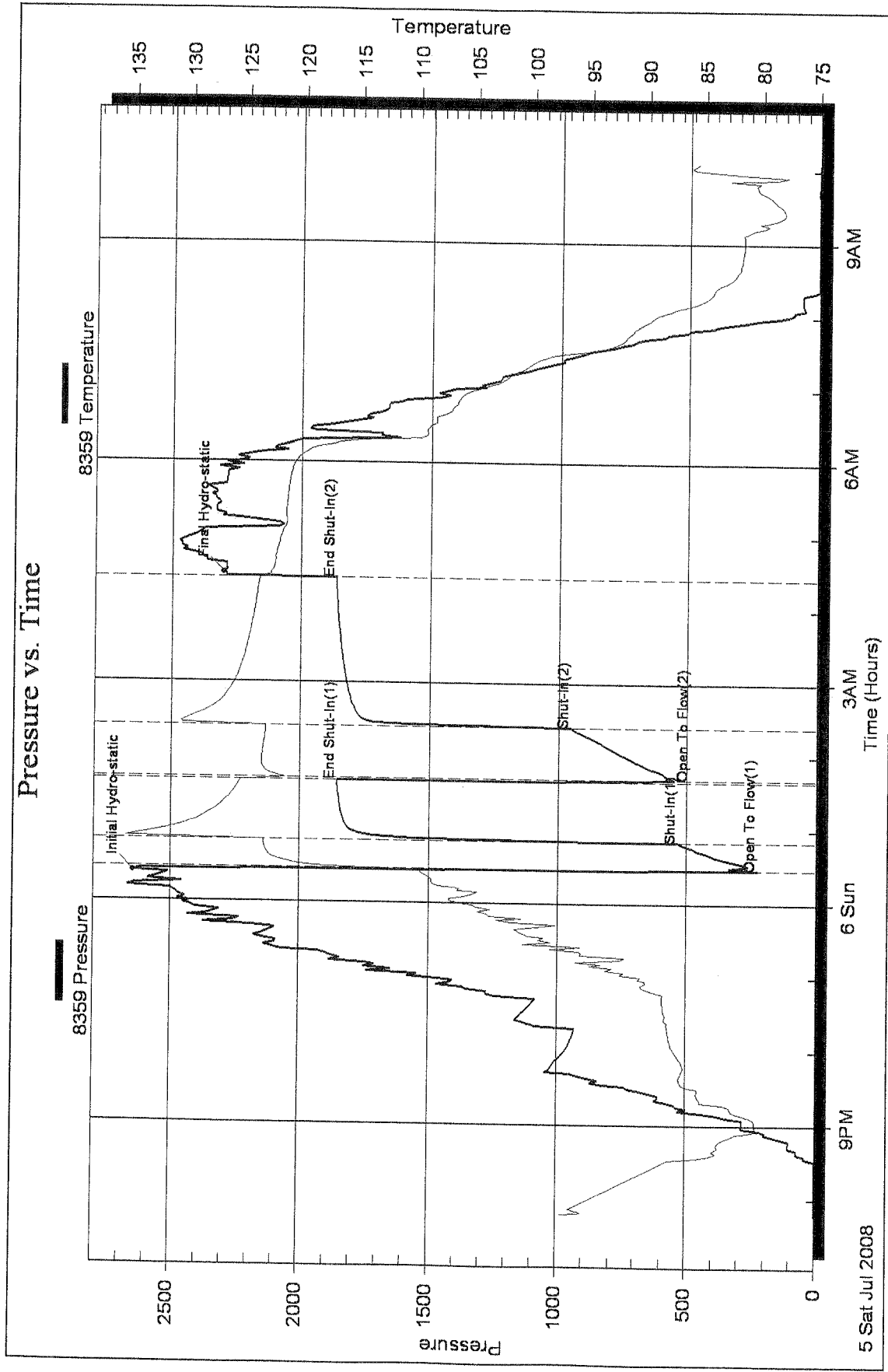
Serial #: 8359

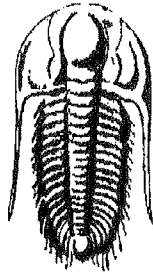
Inside

John O Farmer

32 32 20 Comanche K

DST Test Number: 1





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **John O Farmer**

370 W Wichita Ave  
PO Box 352  
Russell KS 67665-2635

ATTN: Steve Murphy

**32 32 20 Comanche K**

**Frink Unit A #1**

Start Date: 2008.07.06 @ 21:04:02

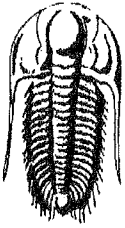
End Date: 2008.07.07 @ 12:03:32

Job Ticket #: 33153                      DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer  
370 W Wichita Ave  
PO Box 352  
Russell KS 67665-2635  
ATTN: Steve Murphy

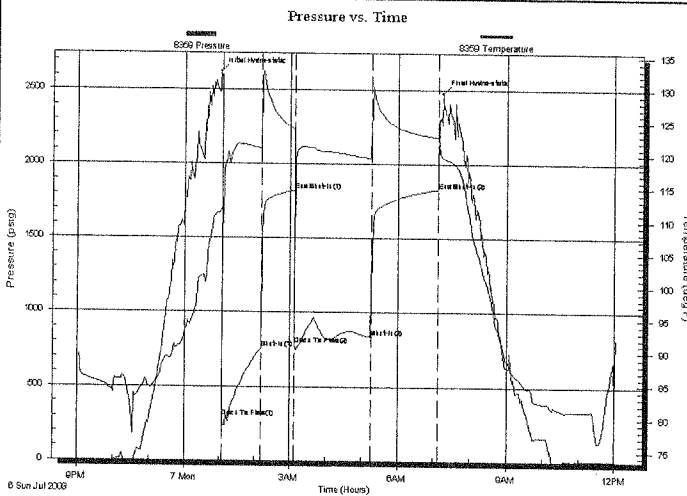
**Frink Unit A #1**  
**32 32 20 Comanche K**  
Job Ticket: 33153      **DST#: 2**  
Test Start: 2008.07.06 @ 21:04:02

## GENERAL INFORMATION:

Formation: **Marrow**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 01:06:02  
Time Test Ended: 12:03:32  
Interval: **5122.00 ft (KB) To 5197.00 ft (KB) (TVD)**  
Total Depth: 5260.00 ft (KB) (TVD)  
Hole Diameter: 7.80 inches Hole Condition: Good  
Test Type: Conventional Straddle  
Tester: Travy Cushenbery  
Unit No: 30  
Reference Elevations: 1886.00 ft (KB)  
1876.00 ft (CF)  
KB to GR/CF: 10.00 ft

**Serial #: 8359**      **Inside**  
Press@RunDepth: 837.08 psig @ 5122.00 ft (KB)      Capacity: 7000.00 psig  
Start Date: 2008.07.06      End Date: 2008.07.07      Last Calib.: 2008.07.07  
Start Time: 21:04:07      End Time: 12:03:32      Time On Btm: 2008.07.07 @ 01:02:32  
Time Off Btm: 2008.07.07 @ 07:15:02

**TEST COMMENT:** IF Strong blow BOB immed. GTS in 8 mins. gas report  
ISI Bled off fluid misting from blow line 3 mins. after shutting  
FF Strong blow weak 1st-15 mins. fluid in 28 mins. fluid&gas surged



## PRESSURE SUMMARY

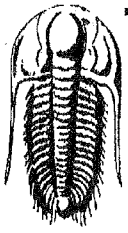
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2619.72	111.46	Initial Hydro-static
4	287.71	110.08	Open To Flow (1)
69	760.10	121.07	Shut-In(1)
125	1823.55	124.00	End Shut-In(1)
125	785.43	101.62	Open To Flow (2)
253	837.08	119.57	Shut-In(2)
366	1830.20	122.75	End Shut-In(2)
373	2480.68	119.74	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
900.00	MGWw/scumO 6%G 90%W 4%M	12.62
240.00	GWw/scumO 4%G 96%W	3.37
180.00	OcGW 10%G 4%O 86%W	2.52
20.00	MOcW 20%O 78%W 2%M	0.28

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	2.00	6.14
Last Gas Rate			
Max. Gas Rate	0.13	45.00	22.23



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer

**Frink Unit A #1**

370 W Wichita Ave  
PO Box 352  
Russell KS 67665-2635  
ATTN: Steve Murphy

**32 32 20 Comanche K**  
Job Ticket: 33153      **DST#: 2**  
Test Start: 2008.07.06 @ 21:04:02

### Tool Information

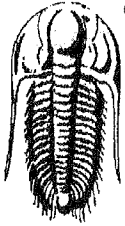
Drill Pipe:	Length: 5100.00 ft	Diameter: 3.80 inches	Volume: 71.54 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 140000.0 lb
			<u>Total Volume: 71.54 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 75000.00 lb
Depth to Top Packer:	5122.00 ft			Final 96000.00 lb
Depth to Bottom Packer:	5195.00 ft			
Interval between Packers:	73.00 ft			
Tool Length:	166.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

### Tool Comments:

FSI Bled of let stand 2hrs pulled tool when safe no blow

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			5099.00	
Hydraulic tool	5.00			5104.00	
Jars	5.00			5109.00	
Safety Joint	3.00			5112.00	
Packer	5.00			5117.00	28.00      Bottom Of Top Packer
Packer	5.00			5122.00	
Recorder	0.00	8359	Inside	5122.00	
Perforations	6.00			5128.00	
Change Over Sub	1.00			5129.00	
Drill Pipe	63.00			5192.00	
Change Over Sub	1.00			5193.00	
Perforations	1.00			5194.00	
Recorder	0.00	13266	Inside	5194.00	
Blank Off Sub	1.00			5195.00	73.00      Tool Interval
Packer	5.00			5200.00	
Recorder	0.00	8354	Inside	5200.00	
Change Over Sub	1.00			5201.00	
Drill Pipe	59.00			5260.00	65.00      Bottom Packers & Anchor

**Total Tool Length: 166.00**



**TRILOBITE**  
TESTING, INC

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer  
370 W Wichita Ave  
PO Box 352  
Russell KS 67665-2635  
ATTN: Steve Murphy

**Frink Unit A #1**  
**32 32 20 Comanche K**  
Job Ticket: 33153      **DST#: 2**  
Test Start: 2008.07.06 @ 21:04:02

## 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: 250000 ppm	
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.04 ohm.m	Gas Cushion Pressure: psig		
Salinity: 7500.00 ppm			
Filter Cake: 0.20 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
900.00	MGWw /scumO 6%G 90%W 4%M	12.625
240.00	GWw /scumO 4%G 96%W	3.367
180.00	OcGW 10%G 4%O 86%W	2.525
20.00	MOcW 20%O 78%W 2%M	0.281

Total Length: 1340.00 ft      Total Volume: 18.798 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

