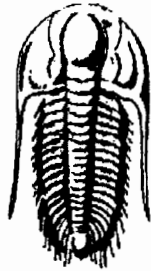


15-135-24352



**TRILOBITE**  
**TESTING, INC.**

**DRILL STEM TEST REPORT**

Prepared For: **Mull Drilling Co. Inc.**

**CONFIDENTIAL**

P.O. Box 2758  
Wichita, Ks. 67201-2758

**ORIGINAL**

**KCC**  
**AUG 03 2005**

ATTN: Mark Shreve

22-16s-23w **CONFIDENTIAL**

**Henning # 1-22**

Start Date: 2005.05.17 @ 09:30:16

End Date: 2005.05.17 @ 16:19:46

Job Ticket #: 21148                      DST #: 1

**RECEIVED**  
**AUG 05 2005**  
**KCC WICHITA**

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

Mull Drilling Co. Inc.

Henning # 1-22

22-16s-23w Ness

DST # 1

L.K.C.-J&J

2005.05.17



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Mull Drilling Co. Inc.  
P.O.Box 2758  
Wichita, Ks. 67201-2758  
  
ATTN: Mark Shreve

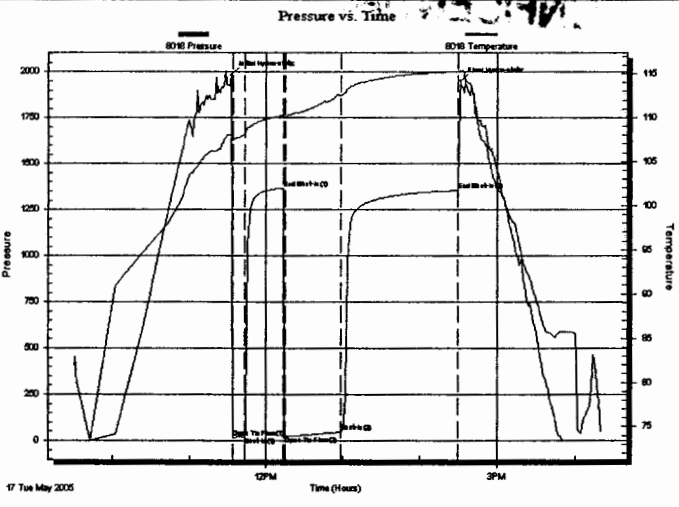
**Henning # 1-22**  
**22-16s-23w Ness**  
Job Ticket: 21148      **DST#: 1**  
Test Start: 2005.05.17 @ 09:30:16

### GENERAL INFORMATION:

Formation: **L.Kc.-I&J**  
Deviated: **No** Whipstock: **ft (KB)**  
Time Tool Opened: 11:33:46  
Time Test Ended: 16:19:46  
  
Interval: **4060.00 ft (KB) To 4120.00 ft (KB) (TVD)**  
Total Depth: **4120.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
  
Test Type: **Conventional Bottom Hole**  
Tester: **John Schmidt**  
Unit No: **31**  
  
Reference Elevations: **2483.00 ft (KB)**  
**2474.00 ft (CF)**  
KB to GR/CF: **9.00 ft**

**Serial #: 8018**      **Inside**  
Press@RunDepth: **46.31 psig @ 4065.00 ft (KB)**      Capacity: **7000.00 psig**  
Start Date: **2005.05.17**      End Date: **2005.05.17**      Last Calib.: **2005.05.17**  
Start Time: **09:30:17**      End Time: **16:19:46**      Time On Btm: **2005.05.17 @ 11:32:46**  
Time Off Btm: **2005.05.17 @ 14:31:46**

**TEST COMMENT:** **F-Weak surface.**      **IS-Dead**  
**FF-Weak built to 1" in.**      **FSI-Dead**



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1985.97	108.11	Initial Hydro-static
1	14.50	107.33	Open To Flow (1)
11	21.30	108.21	Shut-In(1)
41	1367.51	110.25	End Shut-In(1)
42	23.51	110.02	Open To Flow (2)
86	46.31	112.54	Shut-In(2)
177	1355.00	115.24	End Shut-In(2)
179	1950.27	115.29	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
70.00	Muddy Salt water-40%M-60%W	0.98

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Mull Drilling Co. Inc.

**Henning # 1-22**

P.O.Box 2758  
Wichita, Ks. 67201-2758

**22-16s-23w Ness**

Job Ticket: 21148      **DST#: 1**

ATTN: Mark Shreve

Test Start: 2005.05.17 @ 09:30:16

### Tool Information

Drill Pipe:	Length: 4067.00 ft	Diameter: 3.80 inches	Volume: 57.05 bbl	Tool Weight: 2200.00 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: 56000.00 lb
			<u>Total Volume: 57.05 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	4060.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	80.00 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			4041.00	
Shut In Tool	5.00			4046.00	
Hydraulic tool	5.00			4051.00	
Packer	4.00			4055.00	20.00      Bottom Of Top Packer
Packer	5.00			4060.00	
Stubb	1.00			4061.00	
Perforations	3.00			4064.00	
Change Over Sub	1.00			4065.00	
Recorder	0.00	8018	Inside	4065.00	
Blank Spacing	31.00			4096.00	
Change Over Sub	1.00			4097.00	
Recorder	0.00	11084	Outside	4097.00	
Perforations	20.00			4117.00	
Bullnose	3.00			4120.00	60.00      Bottom Packers & Anchor

**Total Tool Length: 80.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Mull Drilling Co. Inc.  
P.O.Box 2758  
Wichita, Ks. 67201-2758  
ATTN: Mark Shreve

Henning # 1-22  
22-16s-23w Ness  
Job Ticket: 21148      DST#: 1  
Test Start: 2005.05.17 @ 09:30:16

**Mud and Cushion Information**

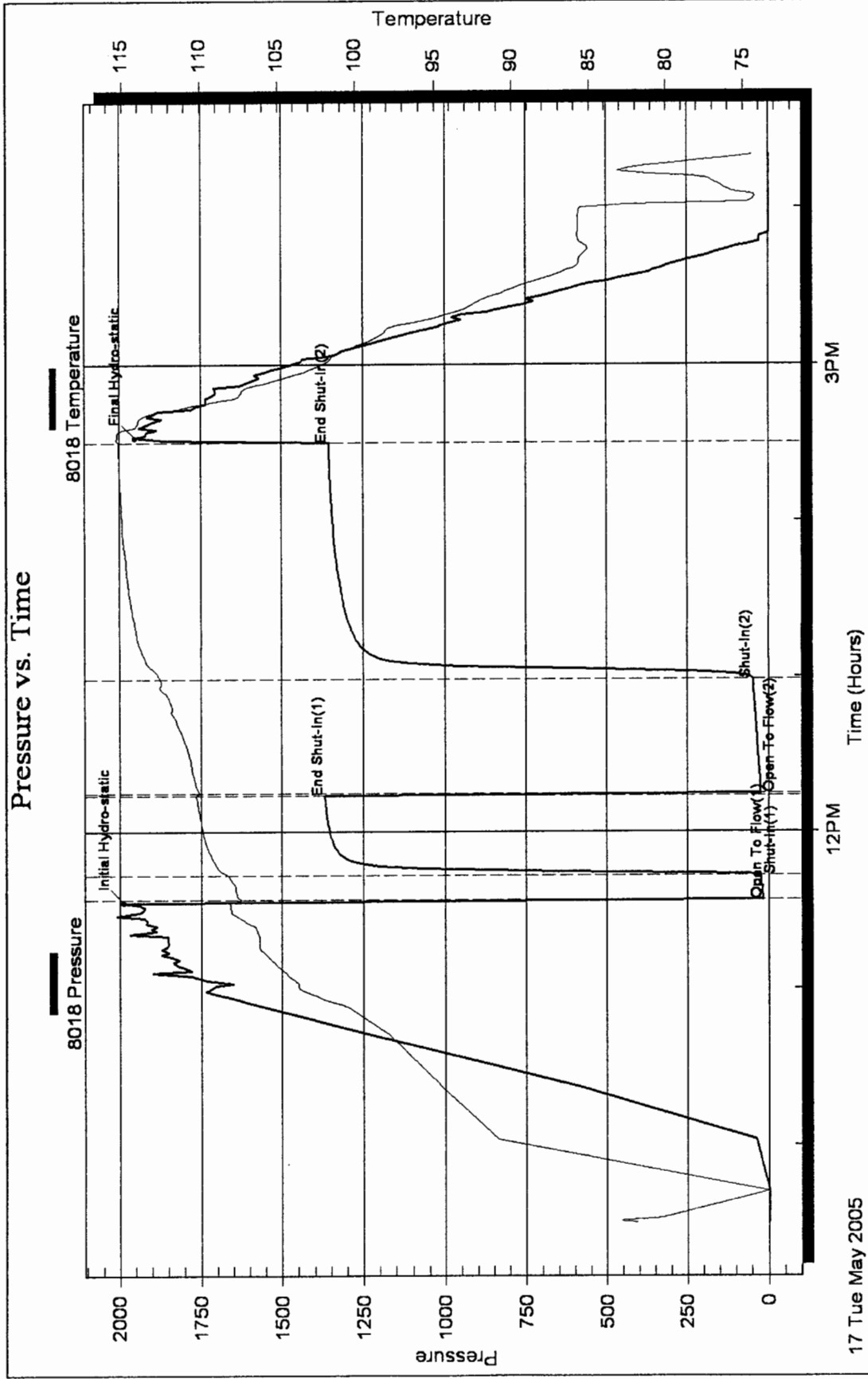
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	60000 ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: ppm			
Filter Cake: inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
70.00	Muddy Salt w ater-40%M--60%W	0.982

Total Length: 70.00 ft      Total Volume: 0.982 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Co. Inc.**

P.O.Box 2758  
Wichita, Ks. 67201-2758

ATTN: Mark Shreve

**22-16s-23w Ness**

**Henning # 1-22**

Start Date: 2005.05.19 @ 00:27:16

End Date: 2005.05.19 @ 10:07:46

Job Ticket #: 21149                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Mull Drilling Co. Inc.

Henning # 1-22

22-16s-23w Ness

DST # 2

Fr. Scott-Cherokee

2005.05.19



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Mull Drilling Co. Inc.  
P.O.Box 2758  
Wichita, Ks. 67201-2758  
ATTN: Mark Shreve

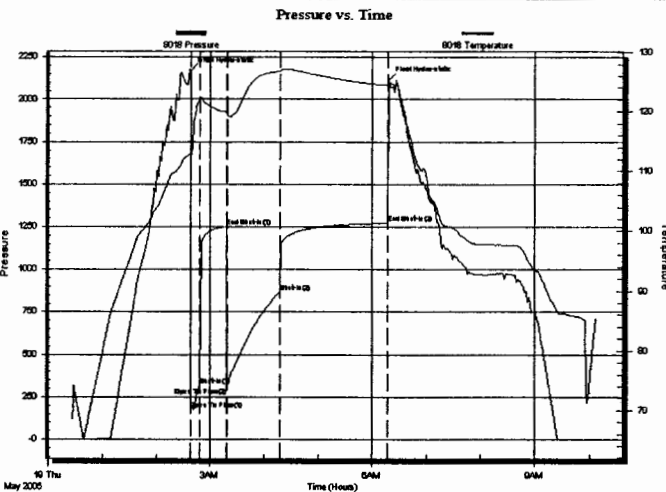
**Henning # 1-22**  
**22-16s-23w Ness**  
Job Ticket: 21149      **DST#: 2**  
Test Start: 2005.05.19 @ 00:27:16

### GENERAL INFORMATION:

Formation: **Ft.Scott-Cherokee**  
Deviated: **No** Whipstock:      ft (KB)  
Time Tool Opened: 02:38:16  
Time Test Ended: 10:07:46  
Interval: **4350.00 ft (KB) To 4461.00 ft (KB) (TVD)**  
Total Depth: **4461.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
Test Type: **Conventional Bottom Hole**  
Tester: **John Schmidt**  
Unit No: **31**  
Reference Elevations: **2483.00 ft (KB)**  
**2474.00 ft (CF)**  
KB to GR/CF: **9.00 ft**

**Serial #: 8018**      **Inside**  
Press@RunDepth: **868.02 psig @ 4355.00 ft (KB)**      Capacity: **7000.00 psig**  
Start Date: **2005.05.19**      End Date: **2005.05.19**      Last Calib.: **1899.12.30**  
Start Time: **00:27:17**      End Time: **10:07:46**      Time On Btm: **2005.05.19 @ 02:37:46**  
Time Off Btm: **2005.05.19 @ 06:18:16**

**TEST COMMENT:** **F-Strong B.O.B.2 min.**      **ISI-Weak surface blow back.**  
**FF-Strong B.O.B.2 min.**      **FSI-Weak surface blow back.**



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2170.22	112.85	Initial Hydro-static
1	177.22	112.26	Open To Flow (1)
11	315.95	122.11	Shut-in(1)
41	1252.43	119.90	End Shut-in(1)
41	306.07	119.53	Open To Flow (2)
100	868.02	126.81	Shut-in(2)
220	1273.20	124.44	End Shut-in(2)
221	2116.96	124.73	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
2370.00	clean oil	33.24
0.00	60' gas in pipe	0.00

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Co. Inc.

Henning # 1-22

P.O.Box 2758  
Wichita, Ks. 67201-2758

22-16s-23w Ness

Job Ticket: 21149

DST#: 2

ATTN: Mark Shreve

Test Start: 2005.05.19 @ 00:27:16

### Tool Information

Drill Pipe:	Length: 4353.00 ft	Diameter: 3.80 inches	Volume: 61.06 bbl	Tool Weight: 2600.00 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: 60000.00 lb
			<u>Total Volume: 61.06 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	4350.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	111.00 ft			
Tool Length:	136.00 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			4326.00	
Shut In Tool	5.00			4331.00	
Hydraulic tool	5.00			4336.00	
Jars	5.00			4341.00	
Packer	4.00			4345.00	25.00 Bottom Of Top Packer
Packer	5.00			4350.00	
Stubb	1.00			4351.00	
Perforations	3.00			4354.00	
Change Over Sub	1.00			4355.00	
Recorder	0.00	8018	Inside	4355.00	
Blank Spacing	63.00			4418.00	
Recorder	0.00	11084	Outside	4418.00	
Blank Spacing	32.00			4450.00	
Change Over Sub	1.00			4451.00	
Perforations	7.00			4458.00	
Bullnose	3.00			4461.00	111.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>136.00</b>				



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Mull Drilling Co. Inc.

**Henning # 1-22**

P.O.Box 2758  
Wichita, Ks. 67201-2758

**22-16s-23w Ness**

Job Ticket: 21149

**DST#: 2**

ATTN: Mark Shreve

Test Start: 2005.05.19 @ 00:27:16

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

44 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2370.00	clean oil	33.245
0.00	60' gas in pipe	0.000

Total Length: 2370.00 ft      Total Volume: 33.245 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: reversed into tank truck  
45@70

