

## DRILL STEM TEST REPORT

Prepared For: **Charles N Griffin**

PO Box 347  
Pratt, KS 67124

ATTN: Bruce Reid

**29-32s-9w Harper KS**

**Ferguson #1**

Start Date: 2010.11.08 @ 19:10:33

End Date: 2010.11.09 @ 02:33:33

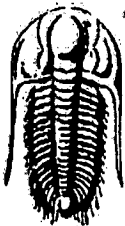
Job Ticket #: 039222      DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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





**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Charles N Griffin

Ferguson #1

PO Box 347  
Pratt, KS 67124

29-32s-9w Harper KS

Job Ticket: 039222

DST#: 1

ATTN: Bruce Reid

Test Start: 2010.11.08 @ 19:10:33

**Tool Information**

Drill Pipe:	Length: 4326.00 ft	Diameter: 3.80 inches	Volume: 60.68 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 66000.00 lb
			<b>Total Volume: 60.68 bbl</b>	Tool Chased: ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4316.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	54.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

**Tool Description      Length (ft)    Serial No.    Position    Depth (ft)    Accum. Lengths**

Shut In Tool	5.00			4301.00	
Hydraulic tool	5.00			4306.00	
Packer	5.00			4311.00	20.00      Bottom Of Top Packer
Packer	5.00			4316.00	
Stubb	1.00			4317.00	
Recorder	0.00	6798	Inside	4317.00	
Recorder	0.00	8367	Outside	4317.00	
Perforations	30.00			4347.00	
Bullnose	3.00			4350.00	34.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>54.00</b>				



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**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Charles N Griffin

Ferguson #1

PO Box 347  
Pratt, KS 67124

29-32s-9w Harper KS

Job Ticket: 039222      DST#: 1

ATTN: Bruce Reid

Test Start: 2010.11.08 @ 19:10:33

**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:	5500 ppm
Viscosity: 46.00 sec/qt	Cushion Volume: bbl		
Water Loss: 12.34 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 5500.00 ppm			
Filter Cake: 0.20 inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
30.00	DRLG MUD	0.421

Total Length: 30.00 ft      Total Volume: 0.421 bbl

Num Fluid Samples: 0      Num Gas Bombs: 1      Serial#: GP-1

Laboratory Name: Caraway      Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE  
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# DRILL STEM TEST REPORT

**GAS RATES**

Charles N Griffin

**Ferguson #1**

PO Box 347  
Pratt, KS 67124

**29-32s-9w Harper KS**

Job Ticket: 039222      **DST#: 1**

ATTN: Bruce Reid

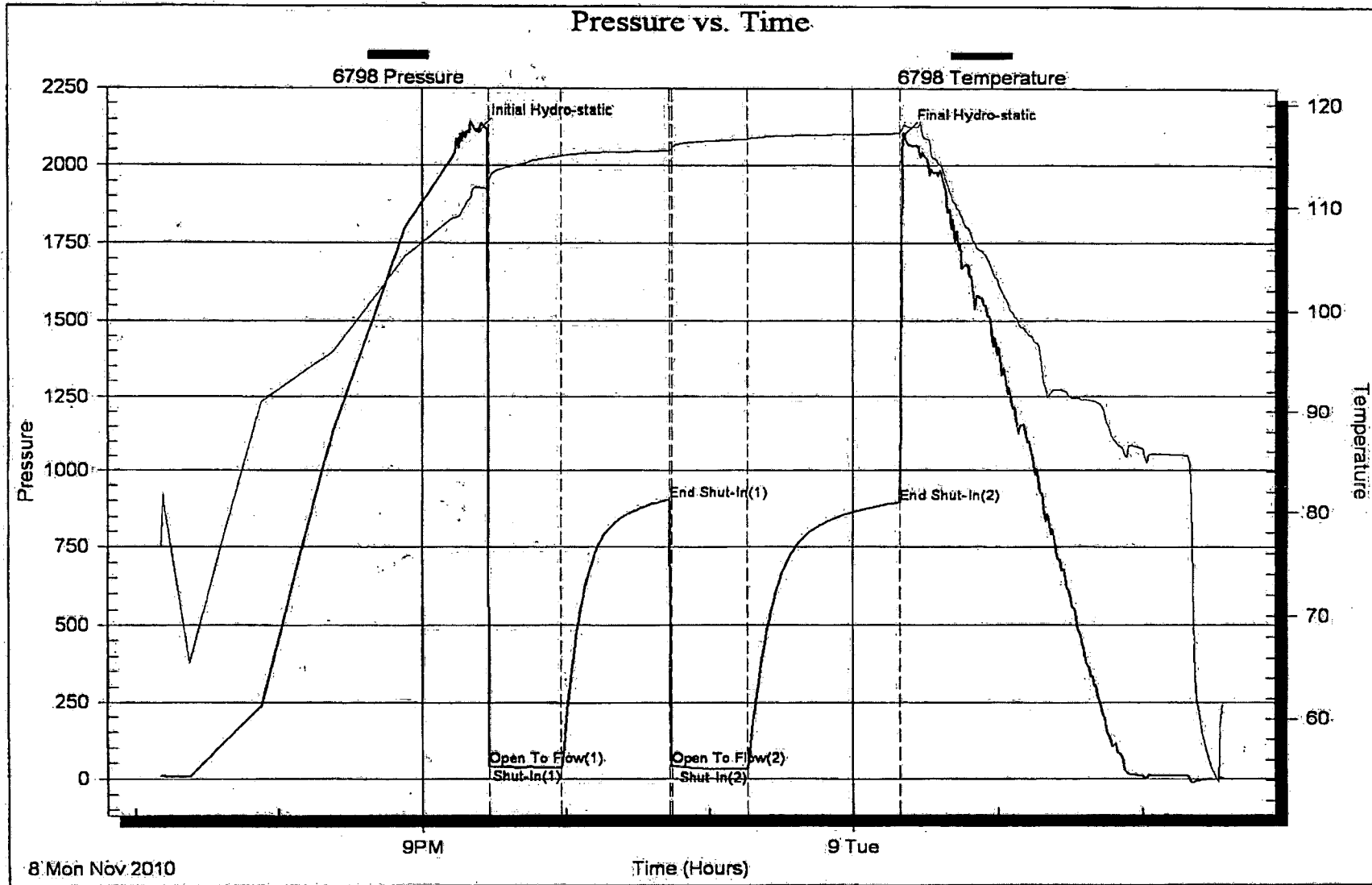
Test Start: 2010.11.08 @ 19:10:33

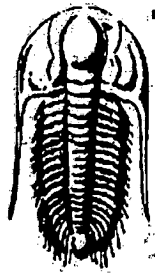
## Gas Rates Information

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)
2	10	0.25	1.50	25.38
2	10	0.25	1.50	25.38
2	20	0.25	1.50	25.38





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Charles N Griffin**

PO Box 347  
Pratt, KS 67124

ATTN: Bruce Reid

**29-32s-9w Harper KS**

**Ferguson #1**

Start Date: 2010.11.09 @ 11:56:25

End Date: 2010.11.09 @ 18:25:10

Job Ticket #: 039223          DST #: 2

Trilobite Testing, Inc

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

Charles N Griffin

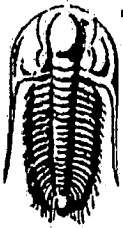
Ferguson #1

29-32s-9w Harper KS

DST # 2

Mississippi

2010.11.09



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Charles N Griffin

Ferguson #1

PO Box 347  
Pratt, KS 67124

29-32s-9w Harper KS

Job Ticket: 039223 DST#: 2

ATTN: Bruce Reid

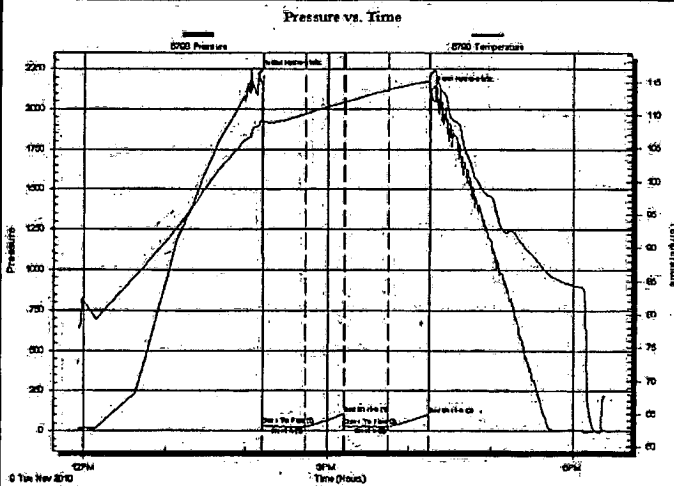
Test Start: 2010.11.09 @ 11:56:25

### GENERAL INFORMATION:

Formation: **Mississippi**  
 Deviated: **No Whipstock** ft (KB)  
 Test Type: **Conventional Bottom Hole**  
 Time Tool Opened: **14:11:55**  
 Tester: **Leal Cason**  
 Time Test Ended: **18:25:10**  
 Unit No.: **45**  
 Interval: **4350.00 ft (KB) To 4365.00 ft (KB) (TVD)**  
 Reference Elevations: **1406.00 ft (KB)**  
 Total Depth: **4350.00 ft (KB) (TVD)**  
**1399.00 ft (CF)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Poor**  
 KB to GR/CF: **7.00 ft**

**Serial #: 6798** Inside  
 Press@RunDepth: **26.69 psig @ 4351.00 ft (KB)** Capacity: **8000.00 psig**  
 Start Date: **2010.11.09** End Date: **2010.11.09** Last Calib.: **2010.11.09**  
 Start Time: **11:56:26** End Time: **18:25:10** Time On Btm: **2010.11.09 @ 14:08:55**  
 Time Off Btm: **2010.11.09 @ 16:15:55**

**TEST COMMENT:** IF: Weak blow, built to 2 in  
 IS: Bleed off, No blow back  
 FF: Weak blow, built to 1 1/2 in  
 FS: Bleed off, No blow back



### PRESSURE SUMMARY

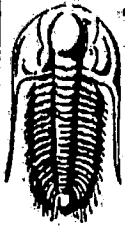
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2219.60	108.35	Initial Hydro-static
3	37.10	108.95	Open To Flow (1)
35	26.24	110.17	Shut-In(1)
64	105.85	111.95	End Shut-In(1)
65	27.93	112.00	Open To Flow (2)
96	26.69	113.81	Shut-In(2)
127	100.76	115.16	End Shut-In(2)
127	2119.17	116.10	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
5.00	DRLG MUD	0.07

### Gas Rates

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



**TRILOBITE  
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**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Charles N Griffin

Ferguson #1

PO Box 347  
Pratt, KS 67124

29-32s-9w Harper KS

Job Ticket: 039223

DST#: 2

ATTN: Bruce Reid

Test Start: 2010.11.09 @ 11:56:25

**Tool Information:**

Drill Pipe:	Length: 4360.00 ft	Diameter: 3.80 inches	Volume: 61.16 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<b>Total Volume: 61.16 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4350.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	15.00 ft			
Tool Length:	35.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4335.00	
Hydraulic tool	5.00			4340.00	
Packer	5.00			4345.00	20.00 Bottom Of Top Packer
Packer	5.00			4350.00	
Stubb	1.00			4351.00	
Recorder	0.00	6798	Inside	4351.00	
Recorder	0.00	8367	Outside	4351.00	
Perforations	11.00			4362.00	
Bullnose	3.00			4365.00	15.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>35.00</b>				



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Charles N Griffin

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PO Box 347  
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29-32s-9w Harper KS

Job Ticket: 039223      DST#: 2

ATTN: Bruce Reid

Test Start: 2010.11.09 @ 11:56:25

**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:

6000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 12.33 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 0.20 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbbl
5.00	DRLG.MUD	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl

Num Fluid Samples: 0

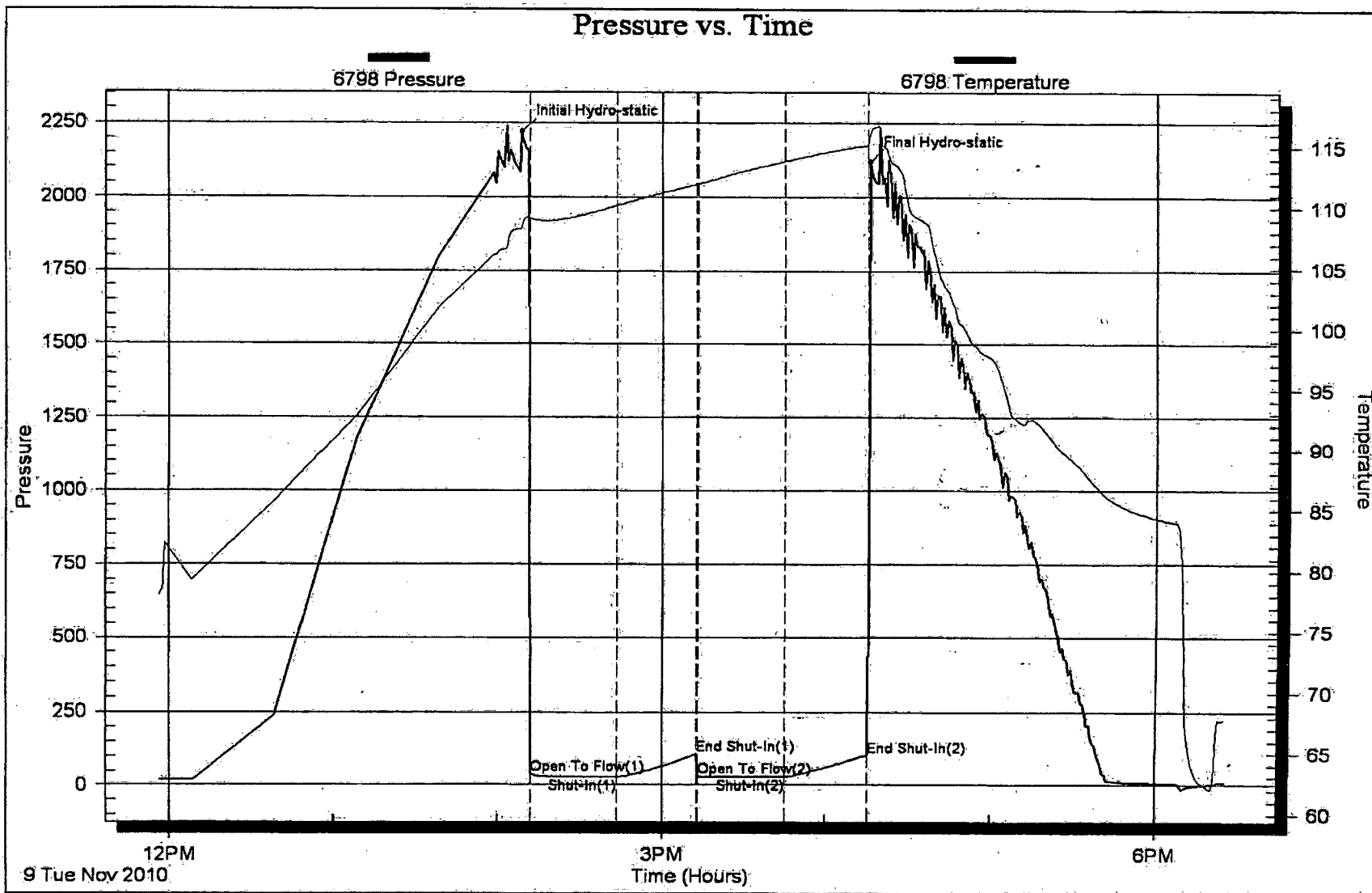
Num Gas Bombs: 0

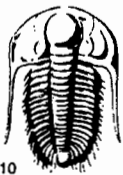
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED

NOV 10 2010

## Test Ticket

NO. 039222 15061

4/10

Well Name & No. Ferguson #1 Test No. 1 Date 11/08/10  
 Company Charles N Griffin Elevation 1406 KB 1399 GL  
 Address PO Box 347 Pratt, KS 67124  
 Co. Rep / Geo. Bruce Reed Rig Mavericks # 106  
 Location: Sec. 29 Twp. 32S Rge. 9W Co. Harper State KS

Interval Tested 4316 - 4350 Zone Tested Mississippi  
 Anchor Length 34 Drill Pipe Run 4326 Mud Wt. 9.3  
 Top Packer Depth 4311 Drill Collars Run 0 Vis 46  
 Bottom Packer Depth 4316 Wt. Pipe Run 0 WL 12.2  
 Total Depth 4350 Chlorides 5500 ppm System LCM 0

Blow Description FF: Strong Blow, BOB in 2 minutes  
ISI: Bled off, No Blowback  
FF: Strong Blow, BOB Immediate, GTS in 8 minutes, Gauged Gas  
ESS: No Blow

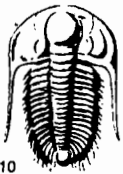
Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>DRLG MUD</u>				

Rec Total 30' BHT 117° Gravity N/A API RW N.C. @ °F Chlorides 5500 ppm  
 (A) Initial Hydrostatic 2112  Test 12250 T-On Location 18:18  
 (B) First Initial Flow 42  Jars \_\_\_\_\_ T-Started 19:10  
 (C) First Final Flow 35  Safety Joint \_\_\_\_\_ T-Open 21:27  
 (D) Initial Shut-In 902  Circ Sub \_\_\_\_\_ T-Pulled 00:18  
 (E) Second Initial Flow 42  Hourly Standby \_\_\_\_\_ T-Out 02:33  
 (F) Second Final Flow 32  Mileage 100 125 Comments \_\_\_\_\_  
 (G) Final Shut-In 895  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2099  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 45  Extra Recorder \_\_\_\_\_ Sub Total \_\_\_\_\_  
 Final Flow 30  Day Standby \_\_\_\_\_ Total 1350.00  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1350.00

Approved By Bruce Reed Our Representative Cory Twohams

TriLOBite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 039223

RECEIVED  
NOV 15 2010

Well Name & No. Ferguson #1 BY: \_\_\_\_\_ Test No. 2 Date 11/09/10  
 Company Charles N Griffin Elevation 1406 KB 1399 GL  
 Address PO Box 347 Pratt KS 67124  
 Co. Rep / Geo. Bruce Reid Rig Maverick 106  
 Location: Sec. 29 Twp. 32S Rge. 9W Co. Harper State KS

Interval Tested 4350 - 4365 Zone Tested MISSISSIPPI  
 Anchor Length 15 Drill Pipe Run 4360 Mud Wt. 9.3  
 Top Packer Depth 4345 Drill Collars Run 0 Vis 50  
 Bottom Packer Depth 4350 Wt. Pipe Run 0 WL 12.4  
 Total Depth 4365 Chlorides 6000 ppm System LCM 2#

Blow Description IF: Weak Blow, Built to 2 inches  
ISI: Bled off, NO Blowback  
FF: Weak Blow, Built to 1 1/2 inches  
FSI: Bled off, NO Blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>DRLG Mud</u>				

Rec Total 5 BHT 1150 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2220  Test 1225 T-On Location 11:20  
 (B) First Initial Flow 37  Jars \_\_\_\_\_ T-Started 11:56  
 (C) First Final Flow 26  Safety Joint \_\_\_\_\_ T-Open 14:21  
 (D) Initial Shut-In 106  Circ Sub \_\_\_\_\_ T-Pulled 16:15  
 (E) Second Initial Flow 28  Hourly Standby \_\_\_\_\_ T-Out 18:25  
 (F) Second Final Flow 27  Mileage 100 @ 125 Comments \_\_\_\_\_  
 (G) Final Shut-In 101  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2119  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1350  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1350

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30

Approved By Bruce Reid Our Representative [Signature]

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