



## DRILL STEM TEST REPORT

Prepared For: **Mikol Oil LLC**

2094 260th Ave  
Hays KS 67601

ATTN: Marc Downing

**Rupp-Staab #1-28**

**28-12s-18w Ellis,KS**

Start Date: 2018.07.24 @ 20:49:00

End Date: 2018.07.25 @ 02:48:20

Job Ticket #: 64458                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.07.26 @ 15:45:50

Mikol Oil LLC  
28-12s-18w Ellis,KS  
Rupp-Staab #1-28  
DST # 1  
LKC-"C"  
2018.07.24



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Mkol Oil LLC  
 2094 260th Ave  
 Hays KS 67601  
 ATTN: Marc Downing

**28-12s-18w Ellis,KS**  
**Rupp-Staab #1-28**  
 Job Ticket: 64458 **DST#: 1**  
 Test Start: 2018.07.24 @ 20:49:00

## GENERAL INFORMATION:

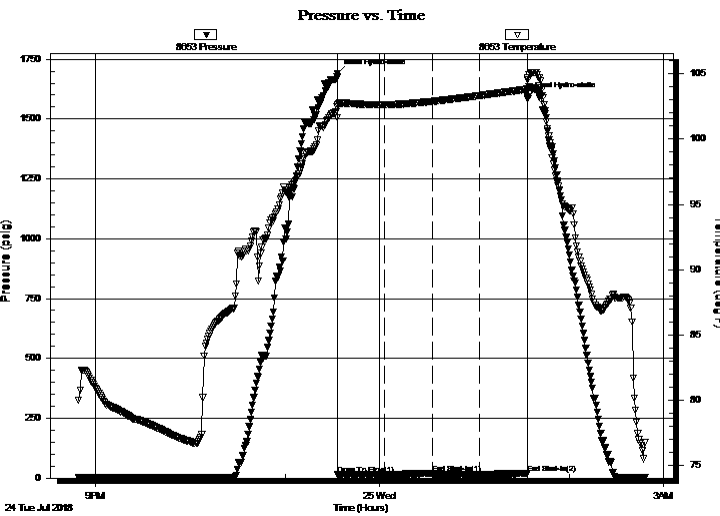
Formation: **LKC-"C"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 23:33:03  
 Time Test Ended: 02:48:20  
 Interval: **3471.00 ft (KB) To 3497.00 ft (KB) (TVD)**  
 Total Depth: 3497.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Cade Gerhard  
 Unit No: 65  
 Reference Elevations: 2161.00 ft (KB)  
 2153.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 8653

Inside

Press@RunDepth: 15.58 psig @ 3472.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.07.24 End Date: 2018.07.25 Last Calib.: 2018.07.25  
 Start Time: 20:49:01 End Time: 02:48:20 Time On Btm: 2018.07.24 @ 23:33:01  
 Time Off Btm: 2018.07.25 @ 01:33:53

TEST COMMENT: IF-30- Weak blow ; Built to 1 1/2"  
 IS-30- No blow back  
 FF-30- Very weak surface blow ; Built to 1/2"  
 FS-30- No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1690.83	102.60	Initial Hydro-static
1	16.54	101.61	Open To Flow (1)
31	16.50	102.63	Shut-In(1)
61	19.85	102.89	End Shut-In(1)
61	17.51	102.88	Open To Flow (2)
91	15.58	103.32	Shut-In(2)
121	19.43	103.82	End Shut-In(2)
121	1594.19	104.68	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	M 100%M	

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Mkol Oil LLC  
2094 260th Ave  
Hays KS 67601  
ATTN: Marc Downing

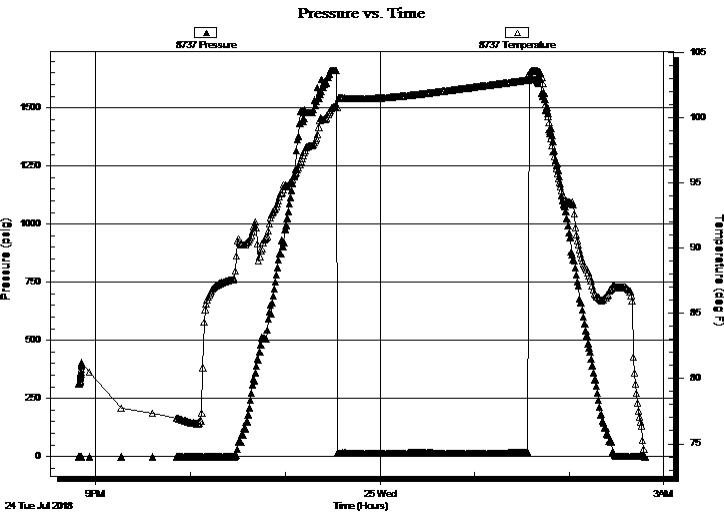
**28-12s-18w Ellis,KS**  
**Rupp-Staab #1-28**  
Job Ticket: 64458      **DST#: 1**  
Test Start: 2018.07.24 @ 20:49:00

**GENERAL INFORMATION:**

Formation: **LKC-"C"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 23:33:03  
Time Test Ended: 02:48:20  
**Interval: 3471.00 ft (KB) To 3497.00 ft (KB) (TVD)**  
Total Depth: 3497.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Cade Gerhard  
Unit No: 65  
Reference Elevations: 2161.00 ft (KB)  
2153.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 8737      Outside**  
Press@RunDepth:      psig @ 3472.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2018.07.24      End Date: 2018.07.25      Last Calib.: 2018.07.25  
Start Time: 20:49:01      End Time: 02:48:20      Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IF-30- Weak blow ; Built to 1 1/2"  
IS-30- No blow back  
FF-30- Very weak surface blow ; Built to 1/2"  
FS-30- No blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery		
Length (ft)	Description	Volume (bbl)
1.00	M 100%M	

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Mkol Oil LLC  
2094 260th Ave  
Hays KS 67601  
ATTN: Marc Downing

**28-12s-18w Ellis,KS**  
**Rupp-Staab #1-28**  
Job Ticket: 64458      **DST#: 1**  
Test Start: 2018.07.24 @ 20:49:00

**Tool Information**

Drill Pipe:	Length: 3158.00 ft	Diameter: 3.82 inches	Volume: 44.77 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 315.00 ft	Diameter: inches	Volume: 3059981 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: ft	Diameter: inches	Volume: - bbl	Weight to Pull Loose: 57000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3471.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	46.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

**Tool Description**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3452.00	
Shut In Tool	5.00			3457.00	
Hydraulic tool	5.00			3462.00	
Packer	5.00			3467.00	20.00      Bottom Of Top Packer
Packer	4.00			3471.00	
Stubb	1.00			3472.00	
Recorder	0.00	8653	Inside	3472.00	
Recorder	0.00	8737	Outside	3472.00	
Perforations	22.00			3494.00	
Bullnose	3.00			3497.00	26.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>46.00</b>				



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Mkol Oil LLC  
2094 260th Ave  
Hays KS 67601  
ATTN: Marc Downing

**28-12s-18w Ellis,KS**  
**Rupp-Staab #1-28**  
Job Ticket: 64458      **DST#: 1**  
Test Start: 2018.07.24 @ 20:49:00

**Mud and Cushion Information**

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 8.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.19 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6500.00 ppm			
Filter Cake: inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
1.00	M 100%M	

Total Length: 1.00 ft      Total Volume: bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: LCM- 2 1/2#

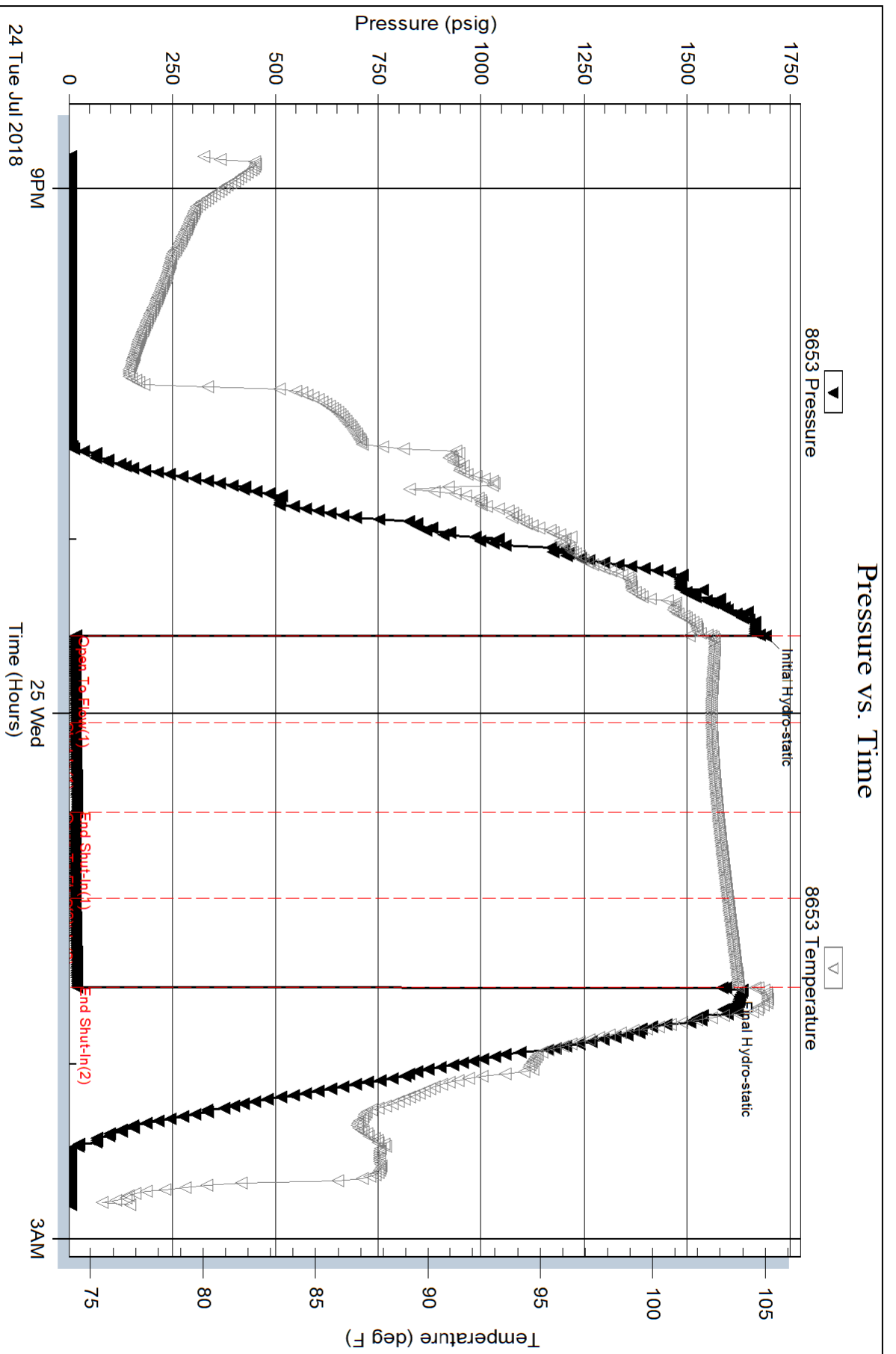
Serial #: 8653

Inside

Mkol Oil LLC

Rupp-Staab #1-28

DST Test Number: 1

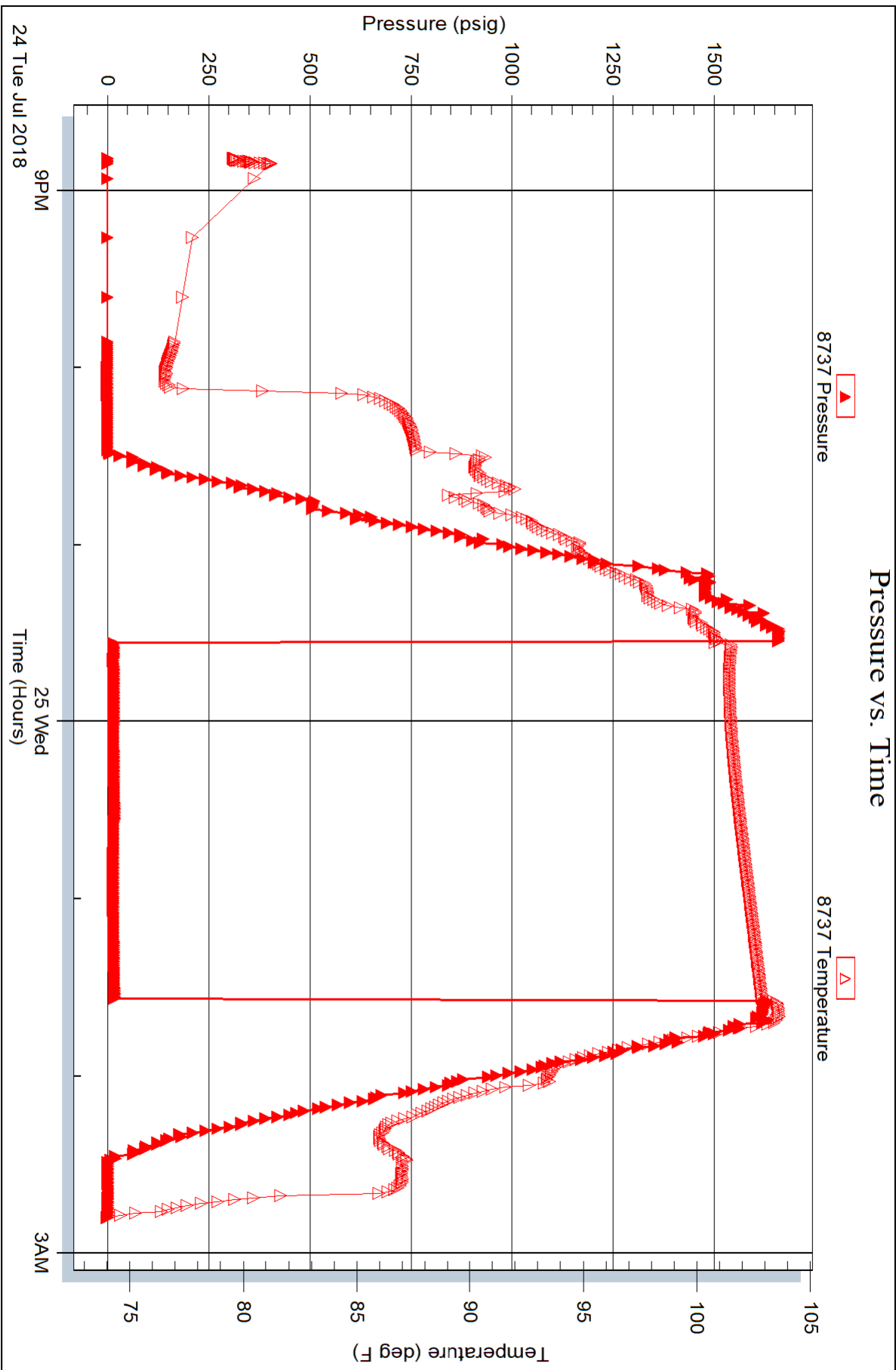


Serial #: 8737

Outside Mikol Oil LLC

Rupp-Staab #1-28

DST Test Number: 1





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64458

Well Name & No. Rupp-Staab #1-29 Test No. 1 Date 7-24-18  
 Company Mikal Oil LLC Elevation 2161 KB 2153 GL  
 Address 2094 260th AVE Hays KS 67601  
 Co. Rep / Geo. Marc Downing Rig Discovery #2  
 Location: Sec. 28 Twp 12<sup>th</sup> Rge. 18<sup>W</sup> Co. Ellis State KS

Interval Tested 3471-3497 Zone Tested LKC - "C"  
 Anchor Length 26' Drill Pipe Run ~~3173~~ 3158' Mud Wt. 8.5  
 Top Packer Depth 3466 Drill Collars Run - Vis 50  
 Bottom Packer Depth 3471 Wt. Pipe Run 315' WL 8.2  
 Total Depth 3497 Chlorides 6500 ppm System LCM 2 1/2 #  
 Blow Description IF - Weak blow; Built to 1 1/2"  
ISI - No blow back  
FF - Very weak surface blow; Built to 6/16"  
ISI - No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>M</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1' BHT 103° Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1690  Test 1050 T-On Location 20:33  
 (B) First Initial Flow 16  Jars \_\_\_\_\_ T-Started 20:49  
 (C) First Final Flow 16  Safety Joint \_\_\_\_\_ T-Open 23:33  
 (D) Initial Shut-In 19  Circ Sub \_\_\_\_\_ T-Pulled 01:33  
 (E) Second Initial Flow 17  Hourly Standby \_\_\_\_\_ T-Out 02:48  
 (F) Second Final Flow 15  Mileage 23 14 RT X 2 Comments \_\_\_\_\_  
 (G) Final Shut-In 19  Sampler 14+14 loaded tools 7/26 11:00  
 (H) Final Hydrostatic 1594  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1078

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

Sub Total 0  
 Total 1078  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]  
 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.