



## DRILL STEM TEST REPORT

Prepared For: **Northern Lights Oil Co.**

PO Box 164  
Andover, KS 67002

ATTN: Jeff Christian

**33-17S-27W Lane**

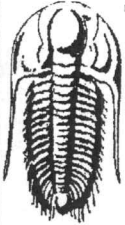
**Christine #1**

Start Date: 2006.03.14 @ 03:44:59

End Date: 2006.03.14 @ 11:23:58

Job Ticket #: 23229                      DST #: 1

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Northern Lights Oil Co.

PO Box 164  
Andover, KS 67002

ATTN: Jeff Christian

**Christine #1**

**33-17S-27W Lane**

Job Ticket: 23229

DST#: 1

Test Start: 2006.03.14 @ 03:44:59

## GENERAL INFORMATION:

Formation: **KC "K"**  
 Deviated: **No** Whipstock: **ft (KB)**  
 Time Tool Opened: 06:01:43  
 Time Test Ended: 11:23:58

Test Type: **Conventional Bottom Hole**  
 Tester: **Chuck Smith**  
 Unit No: **18**

Interval: **4212.00 ft (KB) To 4244.00 ft (KB) (TVD)**  
 Total Depth: **4244.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2656.00 ft (KB)**  
**2551.00 ft (CF)**  
 KB to GR/CF: **105.00 ft**

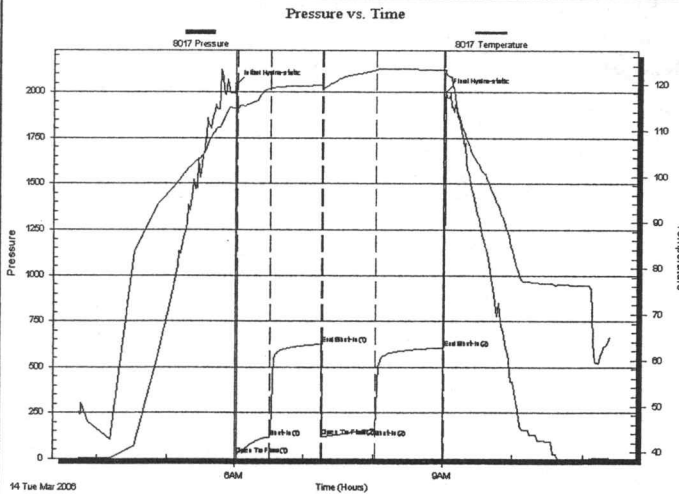
## Serial #: 8017

**Inside**

Press@RunDepth: **163.90 psig @ 4215.00 ft (KB)**  
 Start Date: **2006.03.14** End Date: **2006.03.14**  
 Start Time: **03:44:59** End Time: **11:23:58**

Capacity: **7000.00 psig**  
 Last Calib.: **2006.03.14**  
 Time On Btm: **2006.03.14 @ 06:00:28**  
 Time Off Btm: **2006.03.14 @ 09:01:28**

TEST COMMENT: IF: Surface blow built to 9" over 30 min.  
 IS: No return over 45 min.  
 FF: Surface blow built to 8 1/2" over 45 min.  
 FS: Weak surface blow after 1 min. built to 1/2" over 60 min.



## PRESSURE SUMMARY

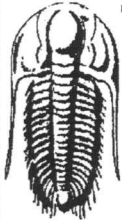
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2044.16	115.01	Initial Hydro-static
2	18.66	114.83	Open To Flow (1)
31	114.25	118.96	Shut-In(1)
75	623.77	119.74	End Shut-In(1)
76	119.34	119.35	Open To Flow (2)
121	163.90	123.05	Shut-In(2)
180	606.17	123.18	End Shut-In(2)
181	1999.72	122.69	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	MCW 15%M 85%W	0.59
60.00	GCOMV 10%G 15%O 35%M 40%W	0.30
120.00	GCOMV 15%G 50%O 10%M 25%W	1.05
50.00	SGMCO 5%G 30%M 65%O	0.70

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Northern Lights Oil Co.

**Christine #1**

PO Box 164  
Andover, KS 67002

**33-17S-27W Lane**

Job Ticket: 23229

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2006.03.14 @ 03:44:59

### Tool Information

Drill Pipe:	Length: 3978.00 ft	Diameter: 3.80 inches	Volume: 55.80 bbl	Tool Weight: 1500.00 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: 250.00 ft	Diameter: 2.25 inches	Volume: 1.23 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 57.03 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	35.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4212.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	51.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

### Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4198.00	
Hydraulic tool	5.00			4203.00	
Packer	5.00			4208.00	19.00 Bottom Of Top Packer
Packer	4.00			4212.00	
Stubb	1.00			4213.00	
Perforations	2.00			4215.00	
Recorder	0.00	8017	Inside	4215.00	
Perforations	24.00			4239.00	
Recorder	0.00	13276	Inside	4239.00	
Bullnose	5.00			4244.00	32.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>51.00</b>				



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## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Northern Lights Oil Co.

**Christine #1**

PO Box 164  
Andover, KS 67002

**33-17S-27W Lane**

Job Ticket: 23229

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2006.03.14 @ 03:44:59

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 9.56 in<sup>3</sup>

Resistivity: 0.00 ohm.m

Salinity: 1500.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API: 0 deg API

Water Salinity: 38000 ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	MCW 15%M 85%W	0.590
60.00	GCOMV 10%G 15%O 35%M 40%W	0.295
120.00	GCOMV 15%G 50%O 10%M 25%W	1.046
50.00	SGMCO 5%G 30%M 65%O	0.701

Total Length: 350.00 ft      Total Volume: 2.632 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments: RW: .246 @ 58 degrees F = 38000.  
GIP 250 feet.

Serial #: 8017

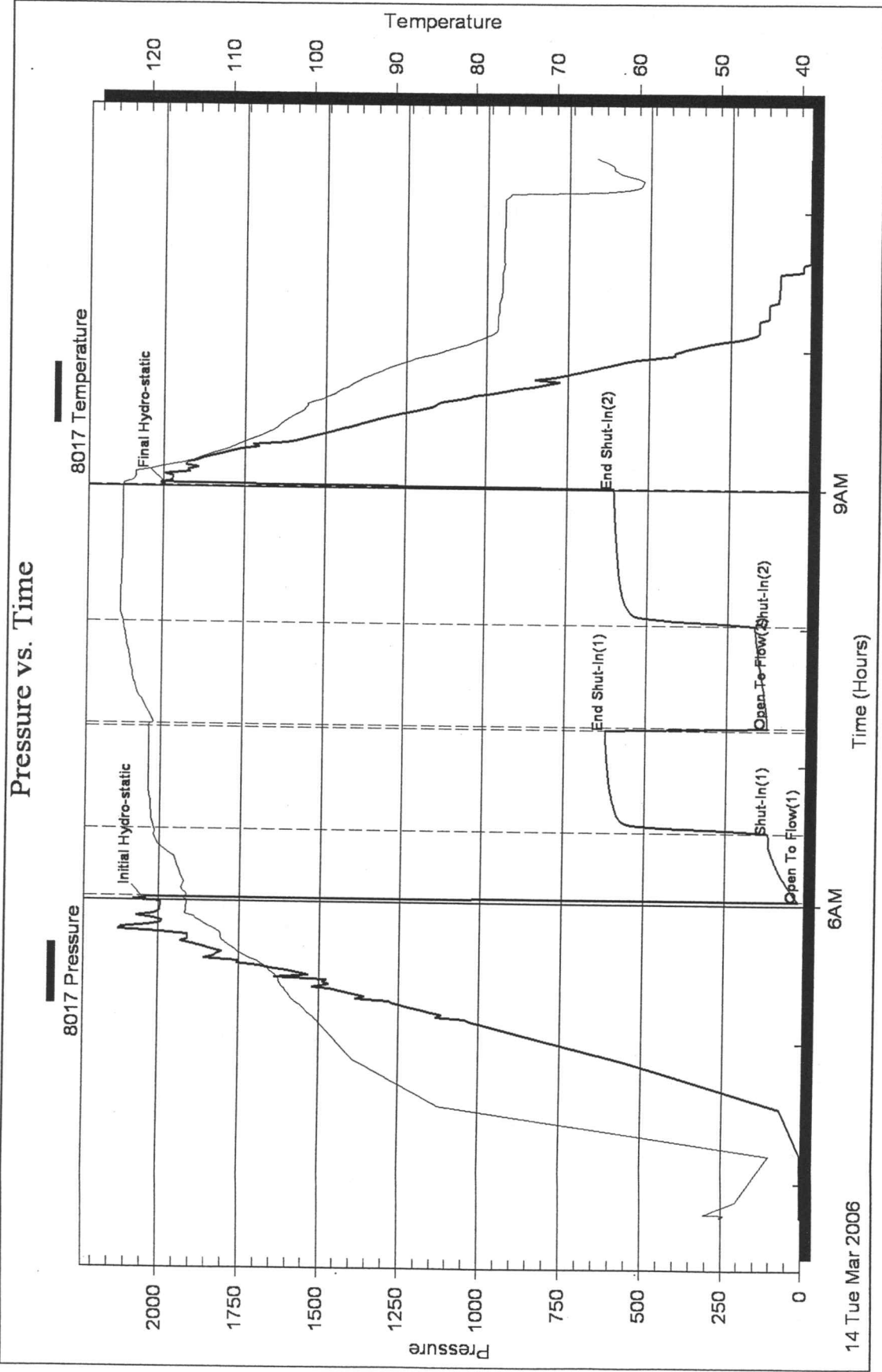
Inside

Northern Lights Oil Co.

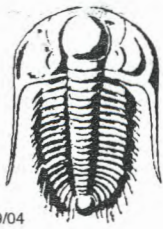
33-17S-27W Lane

DST Test Number: 1

### Pressure vs. Time







# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

8521

No 23229

## Test Ticket

Well Name & No. Christine #1 Test No. 1 Date 3-14-06  
 Company Northern Lights Oil Co. Zone Tested L-KC "K"  
 Address POB 164 Andover, KS 67002 Elevation 2656 KB 2651 GL  
 Co. Rep / Geo. Jeff Christian Cont. Mallard JV Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 33 Twp. 17s Rge. 27w Co. Lane State KS  
 No. of Copies Norm Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 4212 to 4244 Initial Str Wt./Lbs. 50,000 Unseated Str Wt/Lbs. 52,000  
 Anchor Length 32 Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 78,000  
 Top Packer Depth 4208 Tool Weight 1,500  
 Bottom Packer Depth 4212 Hole Size 7 7/8" X Rubber Size 6 3/4" X  
 Total Depth 4244 Wt. Pipe Run 0 Drill Collar Run 250  
 Mud Wt. 9.1 LCM \_\_\_\_\_ Vis. 48 WL 9.6 Drill Pipe Size 4 1/2 XH Ft. Run 3,978

Blow Description IF: Surface blow built to 9in. over 30 min.  
IS: No return over 45 min.  
FF: Surface blow built to 8 1/2 in. over 45 min.  
FS: Weak surface blow after 1 min. built to 1/2" over 60 min.

Recovery - Total Feet	GIP	Ft. in DC	Ft. in DP
<u>350</u>	<u>250</u>	<u>240</u>	<u>110</u>
Rec. <u>50</u> Feet of <u>SGMCO</u>	<u>5</u> %gas	<u>65</u> %oil	<u>30</u> %water <u>10</u> %mud
Rec. <u>120</u> Feet of <u>GCOMW</u>	<u>15</u> %gas	<u>50</u> %oil	<u>25</u> %water <u>10</u> %mud
Rec. <u>60</u> Feet of <u>GCOMW</u>	<u>10</u> %gas	<u>15</u> %oil <u>40 25</u>	<u>35 20</u> %water <u>15</u> %mud
Rec. <u>120</u> Feet of <u>MCW</u>	<u>w/oil spots</u> %gas	<u>85</u> %oil	<u>15</u> %water %mud
BHT <u>123</u> °F Gravity _____	°API D @ _____	°F Corrected Gravity _____	°API _____
RW <u>.246</u> @ <u>58</u> °F	Chlorides <u>38,000</u> ppm	Recovery <u>38,000</u>	Chlorides <u>1,500</u> ppm System

	AK-1	Alpine	Recorder No.	Test X
(A) Initial Hydrostatic Mud	<u>2,044</u> PSI	<u>8017</u>	<u>1100</u>	
(B) First Initial Flow Pressure	<u>19</u> PSI	(depth) <u>4215</u>	Jars _____	
(C) First Final Flow Pressure	<u>114</u> PSI	Recorder No. <u>13276</u>	Safety Jt. _____	
(D) Initial Shut-In Pressure	<u>624</u> PSI	(depth) <u>4239</u>	Circ Sub <u>X</u> <u>N/C</u>	
(E) Second Initial Flow Pressure	<u>119</u> PSI	Recorder No. _____	Sampler _____	
(F) Second Final Flow Pressure	<u>164</u> PSI	(depth) _____	Straddle _____	
(G) Final Shut-In Pressure	<u>606</u> PSI	Initial Opening <u>30</u>	Ext. Packer _____	
(Q) Final Hydrostatic Mud	<u>2,000</u> PSI	Initial Shut-In <u>45</u>	Shale Packer _____	
		Final Flow <u>45</u>	Ruined Packer _____	
		Final Shut-In <u>60</u>	Mileage <u>76 RT</u> <u>95</u>	

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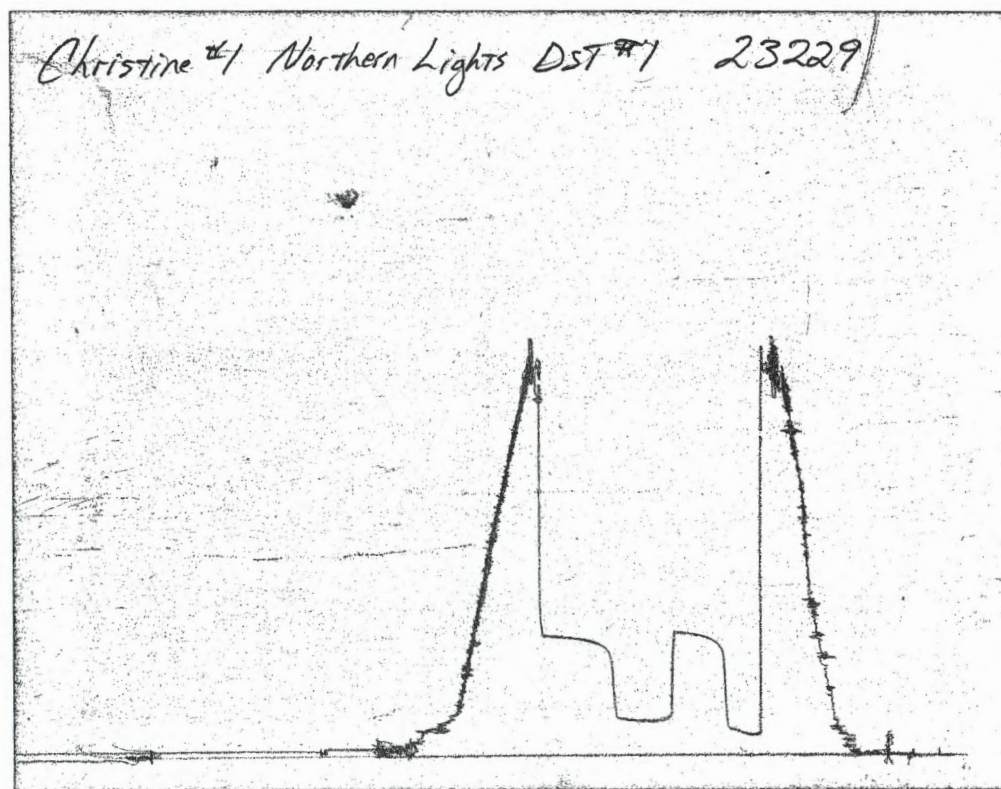
Approved By Jeff Christian  
 Our Representative Chuck Smith

T-Started 02:15am  
 T-Open 03:45am  
 T-Pulled 06:01am  
 T-Out 09:02am  
11:24am

Sub Total: 1195  
 Std. By \_\_\_\_\_  
 Other \_\_\_\_\_  
 Total: \_\_\_\_\_

**CHART PAGE**

This is a photocopy of the actual AK-1 recorder chart.





# TRILOBITE TESTING INC.

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Shane McBride  
Brandon Turley

3-15-06 #23229 Northern Lights

I made a % error on the Fluid page  
of computer. 60° GCOMW should have  
40%W + 35% Mud along with 50%G =  
15% O.

Thanks  
Chuck

**CHART PAGE**

This is a photocopy of the actual AK-1 recorder chart.

