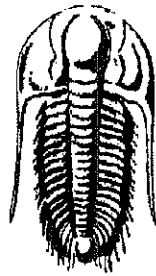


KGS ✓



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Crawford Oil & Gas Co**

PO Box 1366  
1780 Jason Dr  
El Dorado , Ks 67042

ATTN: Ted Yokeum

**3-15s-21w Trego, Ks**

**JA Crawford #1-3**

Start Date: 2008.11.03 @ 18:35:05

End Date: 2008.11.03 @ 23:25:14

Job Ticket #: 33422                      DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Crawford Oil & Gas Co

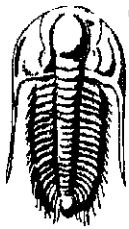
JA Crawford #1-3

3-15s-21w Trego, Ks

DST # 1

Cherokee

2008.11.03



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Crawford Oil & Gas Co

**JA Crawford #1-3**

PO Box 1366  
1780 Jason Dr  
El Dorado, Ks 67042  
ATTN: Ted Yokeum

**3-15s-21w Trego, Ks**

Job Ticket: 33422

**DST#: 1**

Test Start: 2008.11.03 @ 18:35:05

### GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:41:30

Time Test Ended: 23:25:14

Test Type: Conventional Bottom Hole

Tester: Shane McBride

Unit No: 40

Interval: **3803.00 ft (KB) To 3840.00 ft (KB) (TVD)**

Reference Elevations: 2082.00 ft (KB)

Total Depth: 3840.00 ft (KB) (TVD)

2077.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6667** Inside

Press@RunDepth: 20.89 psig @ 3804.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2008.11.03

End Date: 2008.11.03

Last Calib.: 2008.11.03

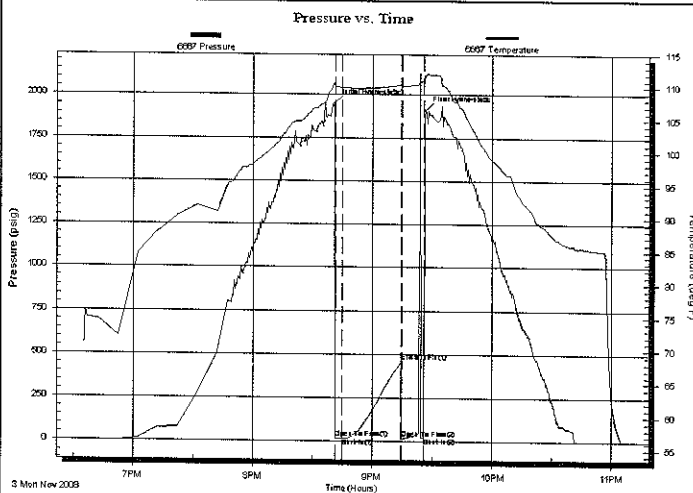
Start Time: 18:35:05

End Time: 23:05:14

Time On Btm: 2008.11.03 @ 20:41:15

Time Off Btm: 2008.11.03 @ 21:26:45

TEST COMMENT: 1/4" in blow  
No return  
No blow, Flush tool good surge, no blow, pull tool



### PRESSURE SUMMARY

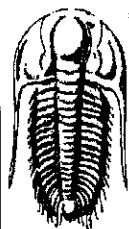
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1951.38	110.66	Initial Hydro-static
1	17.91	110.18	Open To Flow (1)
4	20.89	109.91	Shut-In(1)
34	459.87	110.38	End Shut-In(1)
34	20.37	110.20	Open To Flow(2)
45	22.87	110.87	Shut-In(2)
46	1912.99	111.84	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
2.00	mud 100% m	0.01

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Crawford Oil & Gas Co

**JA Crawford #1-3**

PO Box 1366  
1780 Jason Dr  
El Dorado, Ks 67042  
ATTN: Ted Yokeum

**3-15s-21w Trego, Ks**  
Job Ticket: 33422      **DST#: 1**  
Test Start: 2008.11.03 @ 18:35:05

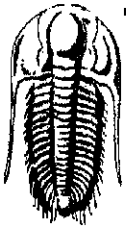
### Tool Information

Drill Pipe:	Length: 3668.00 ft	Diameter: 3.80 inches	Volume: 51.45 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: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 52.06 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3803.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	37.00 ft			
Tool Length:	64.00 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			3777.00	
Shut In Tool	5.00			3782.00	
Hydraulic tool	5.00			3787.00	
Jars	5.00			3792.00	
Safety Joint	2.00			3794.00	
Packer	5.00			3799.00	27.00      Bottom Of Top Packer
Packer	4.00			3803.00	
Stubb	1.00			3804.00	
Recorder	0.00	6667	Inside	3804.00	
Recorder	0.00	6771	Outside	3804.00	
Perforations	31.00			3835.00	
Bullnose	5.00			3840.00	37.00      Bottom Packers & Anchor

**Total Tool Length: 64.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Crawford Oil & Gas Co  
PO Box 1366  
1780 Jason Dr  
El Dorado, Ks 67042  
ATTN: Ted Yokeum

**JA Crawford #1-3**  
**3-15s-21w Trego, Ks**  
Job Ticket: 33422      **DST#: 1**  
Test Start: 2008.11.03 @ 18:35:05

**Mud and Cushion Information**

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	57.00 sec/qt	Cushion Volume:	bbbl		
Water Loss:	7.98 in <sup>3</sup>	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1600.00 ppm				
Filter Cake:	2.00 inches				

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbbl
2.00	mud 100% <sub>m</sub>	0.010

Total Length:      2.00 ft      Total Volume:      0.010 bbl  
Num Fluid Samples: 0      Num Gas Bombs:      0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

### Pressure vs. Time

