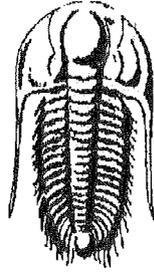


15-051-25649

3-125-18w



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Diehl Oil Inc**

PO Box 234  
Hays KS 67601

ATTN: Glenn D. Diehl

**3 12 18 Ellis KS**

**Leikam # 3**

Start Date: 2007.06.26 @ 10:38:06

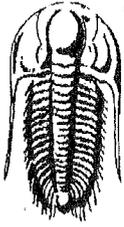
End Date: 2007.06.26 @ 16:30:36

Job Ticket #: 28019                      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

Diehl Oil Inc  
PO Box 234  
Hays KS 67601  
ATTN: Glenn D.Diehl

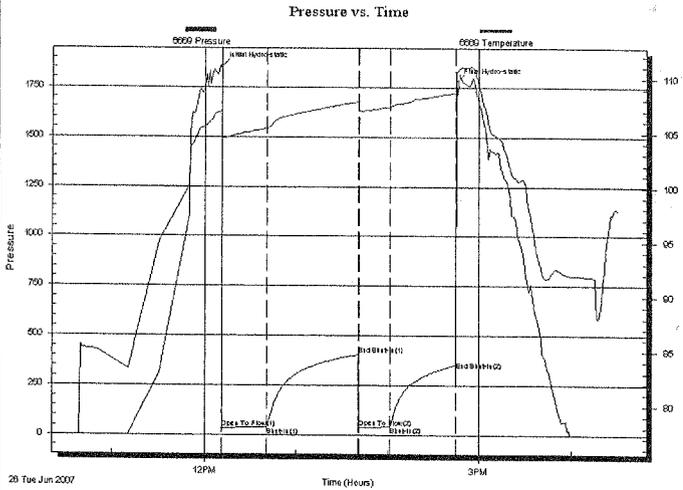
**Leikam # 3**  
**3 12 18 Ellis KS**  
Job Ticket: 28019      **DST#: 1**  
Test Start: 2007.06.26 @ 10:38:06

## GENERAL INFORMATION:

Formation: **Arbuckle**  
Deviated: No      Whipstock:      ft (KB)  
Time Tool Opened: 12:11:36  
Time Test Ended: 16:30:36  
Interval: **3651.00 ft (KB) To 3694.00 ft (KB) (TVD)**  
Total Depth: 3694.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches      Hole Condition: Fair  
Test Type: Conventional Bottom Hole  
Tester: John Schmidt  
Unit No: 31  
Reference Elevations: 2163.00 ft (KB)  
2158.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 6669      Inside**  
Press@RunDepth: 41.99 psig @ 3654.00 ft (KB)      Capacity: 7000.00 psig  
Start Date: 2007.06.26      End Date: 2007.06.26      Last Calib.: 2007.06.26  
Start Time: 10:38:11      End Time: 16:30:35      Time On Btm: 2007.06.26 @ 12:11:06  
Time Off Btm: 2007.06.26 @ 14:45:36

TEST COMMENT: IF Weak surface built to 1 "  
ISI Dead  
FF Dead  
FSI Dead



## PRESSURE SUMMARY

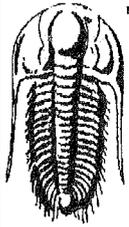
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1854.18	106.98	Initial Hydro-static
1	34.21	104.49	Open To Flow (1)
30	40.35	105.41	Shut-In(1)
89	404.84	107.84	End Shut-In(1)
90	40.42	107.04	Open To Flow (2)
110	41.99	107.37	Shut-In(2)
154	326.91	108.61	End Shut-In(2)
155	1779.28	110.52	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	Oil spotted Mud w/Oil scum on top	0.84

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Diehl Oil Inc  
PO Box 234  
Hays KS 67601

**Leikam # 3**

**3 12 18 Ellis KS**

Job Ticket: 28019

**DST#: 1**

ATTN: Glenn D.Diehl

Test Start: 2007.06.26 @ 10:38:06

**Tool Information**

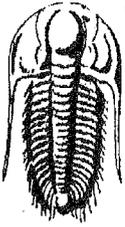
Drill Pipe:	Length: 3657.00 ft	Diameter: 3.80 inches	Volume: 51.30 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 51.30 bbl</u>	Tool Chased 5.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	3651.00 ft			Final 35000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	43.00 ft			
Tool Length:	63.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

**Tool Description**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3632.00	
Shut In Tool	5.00			3637.00	
Hydraulic tool	5.00			3642.00	
Packer	4.00			3646.00	20.00 Bottom Of Top Packer
Packer	5.00			3651.00	
Stubb	1.00			3652.00	
Perforations	1.00			3653.00	
Change Over Sub	1.00			3654.00	
Recorder	0.00	6669	Inside	3654.00	
Blank Spacing	31.00			3685.00	
Change Over Sub	1.00			3686.00	
Perforations	5.00			3691.00	
Recorder	0.00	13308	Outside	3691.00	
Bullnose	3.00			3694.00	43.00 Bottom Packers & Anchor

**Total Tool Length: 63.00**



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

# DRILL STEM TEST REPORT

FLUID SUMMARY

Diehl Oil Inc  
PO Box 234  
Hays KS 67601

ATTN: Glenn D.Diehl

**Leikam # 3**

**3 12 18 Ellis KS**

Job Ticket: 28019

**DST#: 1**

Test Start: 2007.06.26 @ 10:38:06

## 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:	ppm
Viscosity:	48.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.59 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
60.00	Oil spotted Mud w/Oil scum on top	0.842

Total Length: 60.00 ft      Total Volume: 0.842 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

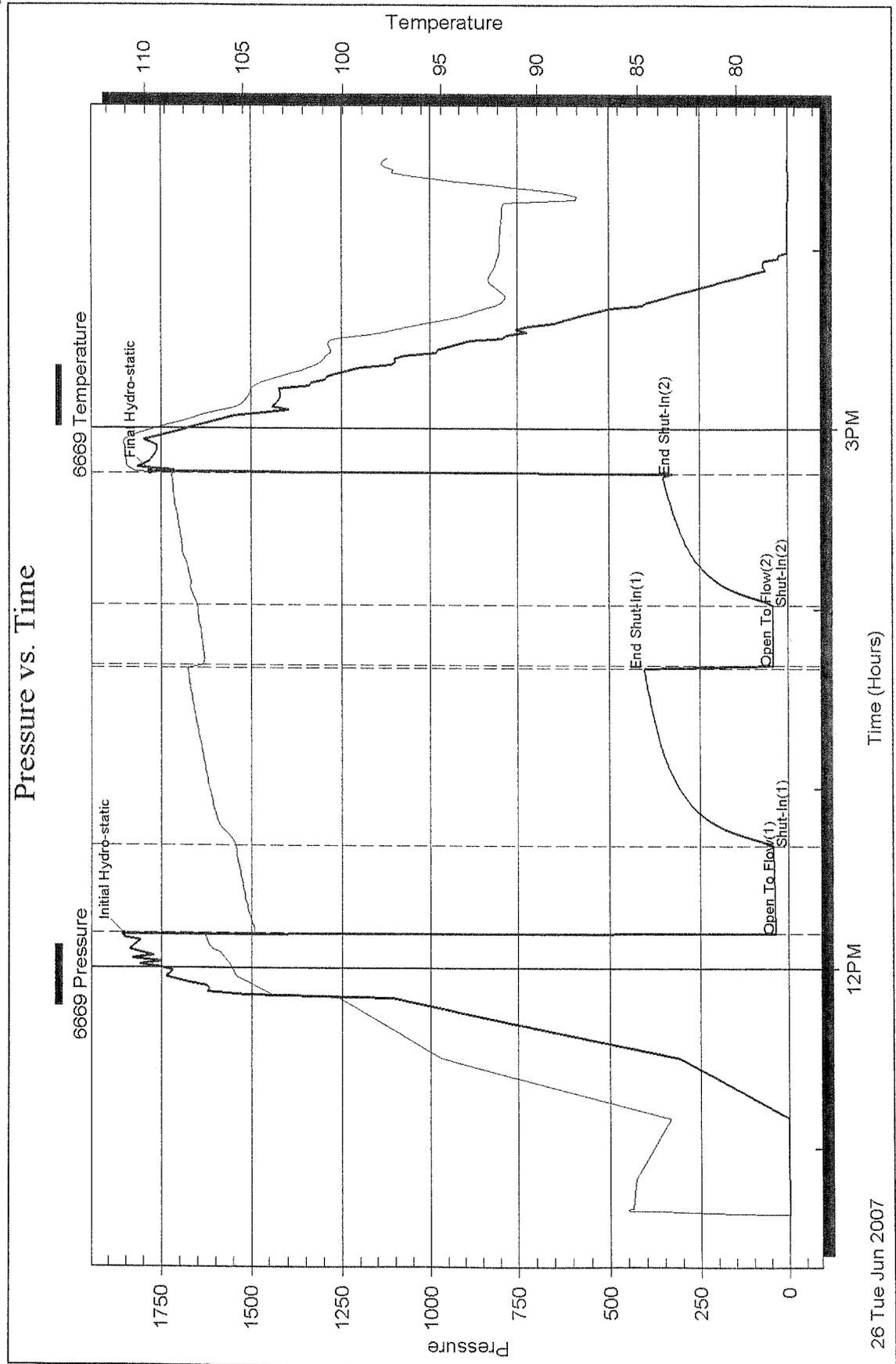
Serial #: 6669

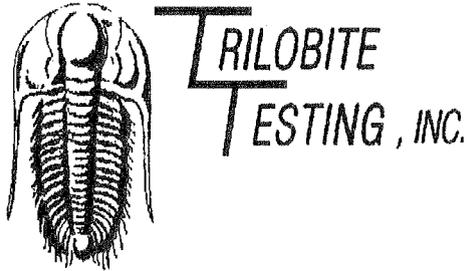
Inside

Dehl Oil Inc

3 12 18 Ellis KS

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Diehl Oil Inc**

PO Box 234  
Hays KS 67601

ATTN: Glenn D.Diehl

**3 12 18 Ellis KS**

**Leikam # 3**

Start Date: 2007.06.26 @ 21:48:00

End Date: 2007.06.27 @ 04:05:00

Job Ticket #: 28020      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Diehl Oil Inc

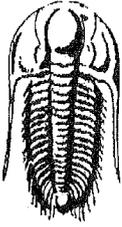
Leikam # 3

3 12 18 Ellis KS

DST # 2

Arbuckle

2007.06.26



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Diehl Oil Inc  
 PO Box 234  
 Hays KS 67601

ATTN: Glenn D. Diehl

**Leikam # 3**

**3 12 18 Ellis KS**

Job Ticket: 28020

**DST#: 2**

Test Start: 2007.06.26 @ 21:48:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 23:18:30  
 Time Test Ended: 04:05:00

Test Type: Conventional Bottom Hole  
 Tester: John Schmidt  
 Unit No: 31

Interval: **3688.00 ft (KB) To 3710.00 ft (KB) (TVD)**  
 Total Depth: 3710.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2163.00 ft (KB)  
 2158.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 6669

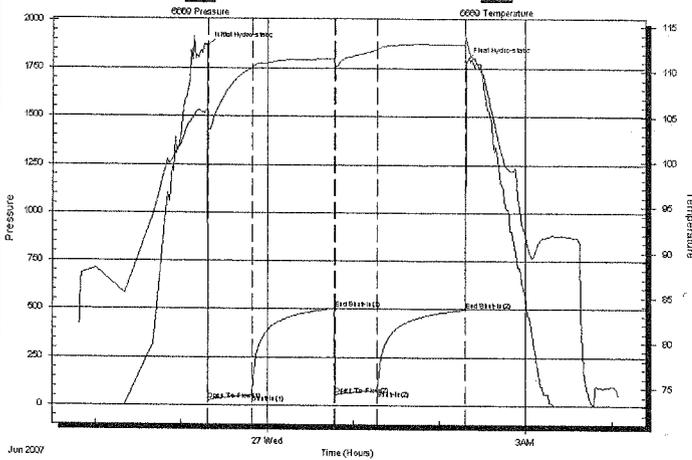
Inside

Press@RunDepth: 79.56 psig @ 3690.00 ft (KB)  
 Start Date: 2007.06.26 End Date: 2007.06.27  
 Start Time: 21:48:05 End Time: 04:04:59

Capacity: 7000.00 psig  
 Last Calib.: 2007.06.27  
 Time On Btm: 2007.06.26 @ 23:18:00  
 Time Off Btm: 2007.06.27 @ 02:18:30

TEST COMMENT: IF Good built to 8 "  
 ISI Dead  
 FF Good built to 5 "  
 FSI Dead

Pressure vs. Time



## PRESSURE SUMMARY

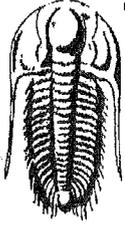
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1864.80	105.78	Initial Hydro-static
1	25.71	103.51	Open To Flow (1)
32	54.01	110.33	Shut-In(1)
89	503.57	111.46	End Shut-In(1)
90	56.74	110.55	Open To Flow (2)
119	79.56	112.41	Shut-In(2)
180	497.15	113.05	End Shut-In(2)
181	1786.64	113.87	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
75.00	OMCW 5%O 45%M 50%VW	1.05
60.00	OCM 15%O 85%M	0.84
5.00	Clean Oil	0.07

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Diehl Oil Inc  
PO Box 234  
Hays KS 67601

**Leikam # 3**  
**3 12 18 Ellis KS**

Job Ticket: 28020      **DST#: 2**  
Test Start: 2007.06.26 @ 21:48:00

ATTN: Glenn D.Diehl

**Tool Information**

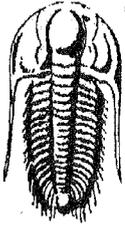
Drill Pipe:	Length: 3689.00 ft	Diameter: 3.80 inches	Volume: 51.75 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 51.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	3688.00 ft			Final 36000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	42.00 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			3669.00	
Shut In Tool	5.00			3674.00	
Hydraulic tool	5.00			3679.00	
Packer	4.00			3683.00	20.00      Bottom Of Top Packer
Packer	5.00			3688.00	
Stubb	1.00			3689.00	
Perforations	1.00			3690.00	
Recorder	0.00	6669	Inside	3690.00	
Perforations	17.00			3707.00	
Recorder	0.00	13308	Outside	3707.00	
Bullnose	3.00			3710.00	22.00      Bottom Packers & Anchor

**Total Tool Length:    42.00**



**TRILOBITE**  
TESTING, INC

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Diehl Oil Inc  
PO Box 234  
Hays KS 67601  
ATTN: Glenn D.Diehl

**Leikam # 3**  
**3 12 18 Ellis KS**  
Job Ticket: 28020      **DST#: 2**  
Test Start: 2007.06.26 @ 21:48:00

**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:	20000 ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.58 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
75.00	OMCW 5%O 45%M 50%W	1.052
60.00	OCM 15%O 85%M	0.842
5.00	Clean Oil	0.070

Total Length: 140.00 ft      Total Volume: 1.964 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

Serial #: 6669

Inside Diehl Oil Inc

3 12 18 Ellis KS

DST Test Number: 2

### Pressure vs. Time

