

**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Chieftain Oil Co Inc**

605 S 6th Po Box 124
Kiowa KS 67070-1912

ATTN: Ron Molz

21-33s-11w Barber KS

Lake #1

Start Date: 2011.04.27 @ 08:53:53

End Date: 2011.04.27 @ 15:26:32

Job Ticket #: 41649

DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Printed: 2011.05.03 @ 21:26:34 Page 1

Chieftain Oil Co Inc

Lake #1

21-33s-11w Barber KS

DST # 1

Viola

2011.04.27



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Chieftain Oil Co Inc

605 S 6th Po Box 124
Kiowa KS 67070-1912

ATTN: Ron Molz

Lake #1

21-33s-11w Barber KS

Job Ticket: 41649

DST#: 1

Test Start: 2011.04.27 @ 08:53:53

GENERAL INFORMATION:

Formation: Viola

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 15:26:32

Test Type: Conventional Bottom Hole

Tester: Chris Staats

Unit No: 34

Interval: 4742.00 ft (KB) To 4760.00 ft (KB) (TVD)

Total Depth: 4760.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1386.00 ft (KB)

1376.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6773

Outside

Press@RunDepth: psig @ 4743.00 ft (KB)

Start Date: 2011.04.27

End Date:

2011.04.27

Capacity: 8000.00 psig

Last Calib.: 2011.04.27

Start Time: 08:53:53

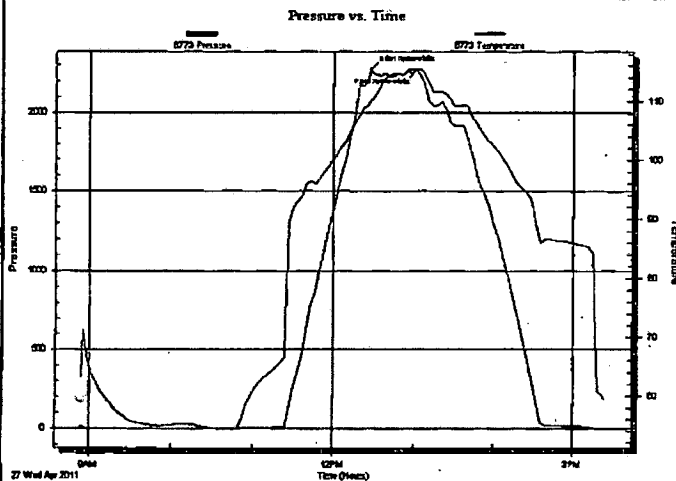
End Time:

15:26:32

Time On Btm: 2011.04.27 @ 12:28:03

Time Off Btm: 2011.04.27 @ 13:01:33

TEST COMMENT: Miss run LOST CIRCULATION



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2271.57	110.11	Initial Hydro-static
34	2267.82	115.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mc/d)
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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Chieftain Oil Co Inc

Lake #1

605 S 6th Po Box 124
Klowa KS 67070-1912

21-33s-11w Barber KS

Job Ticket: 41649

DST#: 1

ATTN: Ron Molz

Test Start: 2011.04.27 @ 08:53:53

Tool Information

Drill Pipe:	Length: 4810.00 ft	Diameter: 3.80 inches	Volume: 64.67 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 28000.00 lb
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 78000.00 lb
			Total Volume: 65.27 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	4742.00 ft			Final 78000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	42.00 ft			
Number of Packers:	2	Diameter: 6.25 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4719.00	
Shut In Tool	5.00			4724.00	
Hydraulic tool	5.00			4729.00	
Safety Joint	3.00			4732.00	
Packer	5.00			4737.00	24.00 Bottom Of Top Packer
Packer	5.00			4742.00	
Stubb	1.00			4743.00	
Recorder	0.00	6773	Outside	4743.00	
Recorder	0.00	8166	Outside	4743.00	
Perforations	14.00			4757.00	
Bullnose	3.00			4760.00	18.00 Bottom Packers & Anchor

Total Tool Length: 42.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Chieftain Oil Co Inc

Lake #1

605 S 6th Po Box 124
Kiowa KS 67070-1912

21-33s-11w Barber KS

Job Ticket: 41649

DST#: 1

ATTN: Ron Molz

Test Start: 2011.04.27 @ 08:53:53

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: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl

Total Length:

ft

Total Volume:

bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

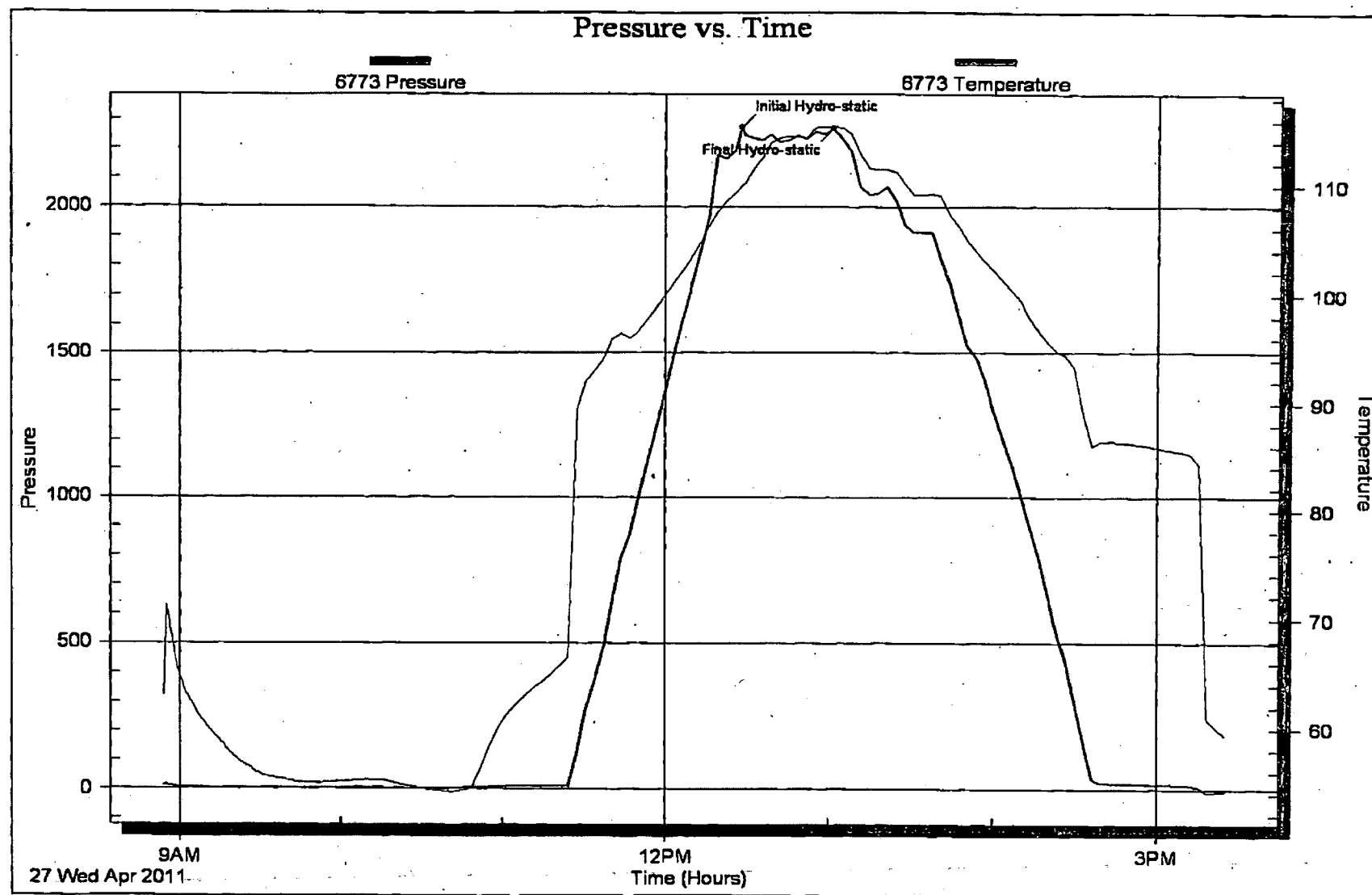
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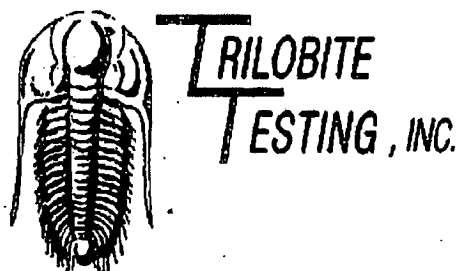
Serial #: 6773

Outside Chieftain Oil Co Inc

21-33s-11w Barber KS

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Chieftain Oil Co Inc**

605 S 6th Po Box 124
Kiowa KS 67070-1912

ATTN: Ron Molz

21-33s-11w Barber KS

Lake #1

Start Date: 2011.04.27 @ 21:51:44

End Date: 2011.04.28 @ 07:47:14

Job Ticket #: 41650 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Chieftain Oil Co Inc

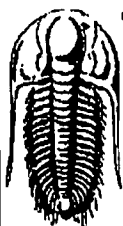
Lake #1

21-33s-11w Barber KS

DST # 2

Viola

2011.04.27



**TRIBOLITE
TESTING, INC.**

DRILL STEM TEST REPORT

Chieftain Oil Co Inc
605 S 6th Po Box 124
Kiowa KS 67070-1912
ATTN: Ron Molz

Lake #1
21-33s-11w Barber KS
Job Ticket: 41650 DST#: 2
Test Start: 2011.04.27 @ 21:51:44

GENERAL INFORMATION:

Formation: Viola
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:43:29
Time Test Ended: 07:47:14

Test Type: Conventional Bottom Hole
Tester: Chris Staats
Unit No: 34

Interval: 4742.00 ft (KB) To 4760.00 ft (KB) (TVD)
Total Depth: 4760.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1386.00 ft (KB)
1376.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6773

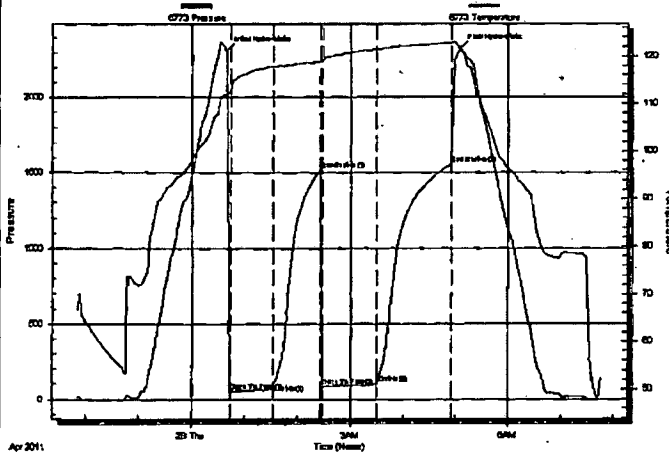
Outside

Press@RunDepth: 104.74 psig @ 4743.00 ft (KB)
Start Date: 2011.04.27 End Date: 2011.04.28
Start Time: 21:51:49 End Time: 07:47:14

Capacity: 8000.00 psig
Last Calib.: 2011.04.28
Time On Btm: 2011.04.28 @ 00:39:29
Time Off Btm: 2011.04.28 @ 05:05:29

TEST COMMENT: IF: Strong blow BOB in 18 min
IS: No blow back
FF: Strong blow BOB 47 min
FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

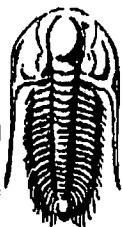
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2316.52	111.81	Initial Hydro-static
4	50.30	112.71	Open To Flow (1)
54	94.11	117.86	Shut-In(1)
107	1517.64	118.81	End Shut-In(1)
109	82.65	119.49	Open To Flow (2)
170	104.74	121.49	Shut-In(2)
256	1553.94	122.79	End Shut-In(2)
266	2331.21	121.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	560' GIP	0.00
152.00	G.O,CW,M 2%oil 8%gas 45%w ater 45%ml 1.03	

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Chieftain Oil Co Inc

Lake #1

605 S 6th Po Box 124
Kiowa KS 67070-1912

21-33s-11w Barber KS

Job Ticket: 41650

DST#: 2

ATTN: Ron Molz

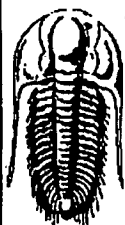
Test Start: 2011.04.27 @ 21:51:44

Tool Information

Drill Pipe:	Length: 4610.00 ft	Diameter: 3.80 inches	Volume: 64.67 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	28000.00 lb
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	65000.00 lb
		Total Volume:	65.27 bbl	Tool Chased	2.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4742.00 ft			Final	63000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	18.00 ft				
Tool Length:	42.00 ft				
Number of Packers:	2	Diameter:	6.25 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4719.00	
Shut In Tool	5.00			4724.00	
Hydraulic tool	5.00			4729.00	
Safety Joint	3.00			4732.00	
Packer	5.00			4737.00	24.00 Bottom Of Top Packer
Packer	5.00			4742.00	
Stubb	1.00			4743.00	
Recorder	0.00	6773	Outside	4743.00	
Recorder	0.00	8166	Outside	4743.00	
Perforations	14.00			4757.00	
Bullnose	3.00			4760.00	18.00 Bottom Packers & Anchor

Total Tool Length: 42.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Chieftain Oil Co Inc

Lake #1

605 S 6th Po Box 124
Kiowa KS 67070-1912

21-33s-11w Barber KS

Job Ticket: 41650

DST#: 2

ATTN: Ron Molz

Test Start: 2011.04.27 @ 21:51:44

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: 51.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	560' GIP	0.000
152.00	G.O.C.W.M 2%oil 8%gas 45%water 45% mud	1.030

Total Length: 152.00 ft

Total Volume: 1.030 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

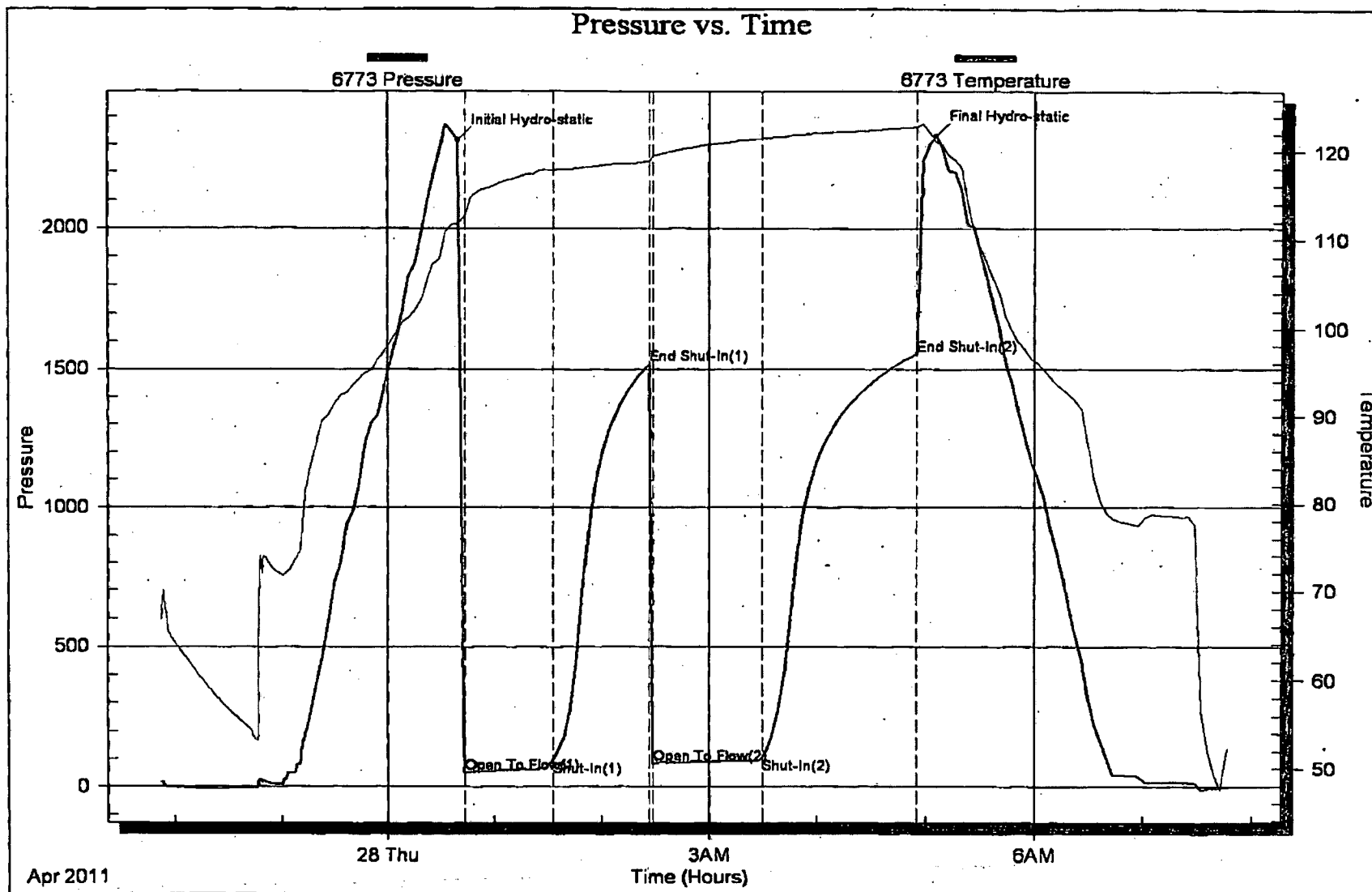
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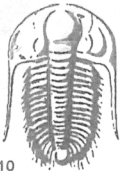
Serial #: 6773

Outside Chieftain Oil Co Inc

21-33s-11w Barber KS

DST Test Number: 2





**TRILOBITE
TESTING INC.**

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 04164915687

Well Name & No. Lake #1 Test No. 1 Date 4-27-11
Company Chieftain Oil Co INC Elevation 1386 KB 1376 GL
Address 605 S 6th PO Box 124 Kiowa KS 67070 + 1912
Co. Rep / Geo. RON MOLZ \ ARDEN RATZLAFF Rig Hardt Rig #1
Location: Sec. 21 Twp. 33s Rge. 11w Co. Barber State KS

Interval Tested 4742 - 4760 Zone Tested VIOL₉
Anchor Length 18' Drill Pipe Run 4610' Mud Wt. 9.4
Top Packer Depth 4737 Drill Collars Run 121' Vis 50
Bottom Packer Depth 4742 Wt. Pipe Run 0 WL 7.2
Total Depth 4760 Chlorides 4800 ppm System LCM 2#

Blow Description IF: MISS RUN LOST CIRCULATION

ISI:

FF:

FSI:

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	Feet of	%gas	%oil	%water	%mud

Rec Total _____ BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic _____

☒ Test 1025

T-On Location 7:45

(B) First Initial Flow _____

☐ Jars _____

T-Started 8:48

(C) First Final Flow _____

☒ Safety Joint 75

T-Open _____

(D) Initial Shut-In _____

☐ Circ Sub _____

T-Pulled 13:15

(E) Second Initial Flow _____

☐ Hourly Standby _____

T-Out 15:30

(F) Second Final Flow _____

☒ Mileage 100 miles 125

Comments MISS RUN

(G) Final Shut-In _____

☐ Sampler _____

LOST CIRCULATION

(H) Final Hydrostatic _____

☐ Straddle _____

1

Initial Open _____

☐ Extra Packer _____

☐ Ruined Shale Packer _____

Initial Shut-In _____

☐ Extra Recorder _____

☐ Ruined Packer _____

Final Flow _____

☐ Day Standby _____

☐ Extra Copies _____

Final Shut-In _____

☐ Accessibility _____

Sub Total 0

Total 1225

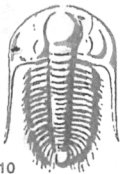
MP/DST Disc't _____

Sub Total 1225

Approved By Arden Ratzlaff

Our Representative Ch' S to

TriLOBITE TESTING Inc. shall not be liable for damages 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. 041650

MAY 02 2011

Well Name & No. Lake #1 Test No. 2 Date 4-28-11
 Company Chieftain Oil Co INC Elevation _____ KB _____ GL _____
 Address 605 S 6th PO Box 124 Kiowa KS 67070 + 1912
 Co. Rep / Geo. RON MOLZ \ ARDEN RATZLAFF Rig Hardt DRLg Rig #1
 Location: Sec. 21 Twp. 33s Rge. 11w Co. Barber State KS

Interval Tested 4742 - 4760 Zone Tested Viola
 Anchor Length 18' Drill Pipe Run 4610' Mud Wt. 9.4
 Top Packer Depth 4737 Drill Collars Run 121' Vis 51
 Bottom Packer Depth 4742 Wt. Pipe Run 0 WL 8.0
 Total Depth 4760 Chlorides 4000 ppm System LCM 2nd

Blow Description IF: Strong blow BOB 18min
ISI: NO blow back
FF: Strong blow BOB 47min
FSI: NO blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>560'</u>	<u>GIP</u>	<u>100</u>			
<u>152</u>	<u>G.O.C.W.M</u>	<u>8</u>	<u>2</u>	<u>45</u>	<u>45</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 712' BHT 122 Gravity NA API RW MC @ — °F Chlorides 4000 ppm

(A) Initial Hydrostatic <u>2316</u>	☒ Test <u>1225</u>	T-On Location <u>21:30</u>
(B) First Initial Flow <u>50</u>	☐ Jars	T-Started <u>21:51</u>
(C) First Final Flow <u>94</u>	☒ Safety Joint <u>75</u>	T-Open <u>00:43:29</u>
(D) Initial Shut-In <u>1518</u>	☐ Circ Sub	T-Pulled <u>5:00</u>
(E) Second Initial Flow <u>83</u>	☐ Hourly Standby	T-Out <u>7:30</u>
(F) Second Final Flow <u>105</u>	☒ Mileage <u>100ML 125</u>	Comments
(G) Final Shut-In <u>1554</u>	☐ Sampler	
(H) Final Hydrostatic <u>2331</u>	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
	☐ Extra Packer	☐ Extra Copies
	☐ Extra Recorder	Sub Total <u>8</u>
	☐ Day Standby	Total <u>1425</u>
	☐ Accessibility	MP/DST Disc't
	Sub Total <u>1425</u>	

Initial Open 45
 Initial Shut-In 160
 Final Flow 60
 Final Shut-In 90

Approved By Arden Ratzlaff

Our Representative Chris Stant

Trilobite Testing Inc. shall not be liable for damaged or 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.