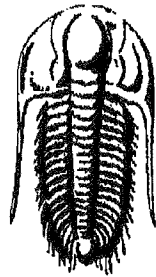


15-077-21642

22-31s-5w



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water, Ste. 300
Wichita, KS 67202

CONFIDENTIAL

DEC 22 2008

KCC

ATTN: Joe Baker

22-31s-5w Harper

Yarrow #1-22

Start Date: 2008.09.03 @ 13:44:39

End Date: 2008.09.04 @ 01:08:39

Job Ticket #: 31748

DST #: 1

RECEIVED
KANSAS CORPORATION COMMISSION

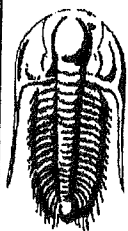
DEC 24 2008

CONSERVATION DIVISION
WICHITA, KS

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water, Ste. 300
Wichita, KS 67202

ATTN: Joe Baker

Yarrow #1-22

22-31s-5w Harper

Job Ticket: 31748

DST#: 1

Test Start: 2008.09.03 @ 13:44:39

GENERAL INFORMATION:

Formation: **Simpson Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:29:39

Time Test Ended: 01:08:39

Interval: **4638.00 ft (KB) To 4648.00 ft (KB) (TVD)**

Total Depth: 4648.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Esak Hadley

Unit No: 23

Reference Elevations: 1298.00 ft (KB)

1288.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8370

Inside

Press@RunDepth: 1594.88 psig @ 4639.00 ft (KB)

Start Date: 2008.09.03

End Date:

2008.09.04

Start Time: 13:44:44

End Time:

01:08:39

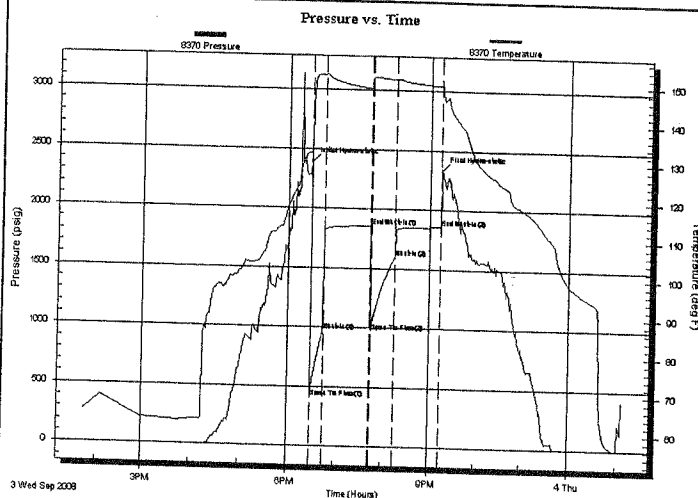
Capacity: 7000.00 psig

Last Calib.: 2008.09.04

Time On Btm: 2008.09.03 @ 18:29:23

Time Off Btm: 2008.09.03 @ 21:15:53

TEST COMMENT: IF Fair to strong blow BOB in 65 sec.
ISI Weak blow Slow increase to 8"
FF Strong blow BOB in 20 sec.
FSI Weak blow Slow increase to 3"



PRESSURE SUMMARY

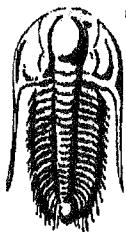
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2393.31	132.41	Initial Hydro-static
1	412.43	131.58	Open To Flow (1)
16	972.78	152.25	Shut-In (1)
76	1853.18	148.82	End Shut-In (1)
76	973.47	149.41	Open To Flow (2)
107	1594.88	151.15	Shut-In (2)
166	1851.60	149.66	End Shut-In (2)
167	2331.62	147.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
822.00	MCW 40% m 60% w	7.17
823.00	MCW 25% m 75% w	11.54
822.00	MCW 15% m 85% w	11.53
823.00	SMCW 5% m 95% w	11.54
0.00	Rw .14 @ 60 deg. = 60000 ppm	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

250 N. Water, Ste. 300
Wichita, KS 67202

ATTN: Joe Baker

Yarrow #1-22

22-31s-5w Harper

Job Ticket: 31748

DST#: 1

Test Start: 2008.09.03 @ 13:44:39

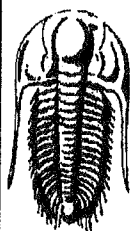
Tool Information

Drill Pipe:	Length: 4153.00 ft	Diameter: 3.80 inches	Volume: 58.26 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 479.00 ft	Diameter: 2.25 inches	Volume: 2.36 bbl	Weight to Pull Loose: 80000.00 lb
			Total Volume: 60.62 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4638.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	33.00 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			4616.00	
Shut In Tool	5.00			4621.00	
Hydraulic tool	5.00			4626.00	
Safety Joint	3.00			4629.00	
Packer	4.00			4633.00	23.00 Bottom Of Top Packer
Packer	5.00			4638.00	
Stubb	1.00			4639.00	
Recorder	0.00	8370	Inside	4639.00	
Recorder	0.00	8289	Inside	4639.00	
Perforations	4.00			4643.00	
Bullnose	5.00			4648.00	10.00 Bottom Packers & Anchor

Total Tool Length: 33.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

Yarrow #1-22

250 N. Water, Ste. 300
Wichita, KS 67202

22-31s-5w Harper

Job Ticket: 31748

DST#: 1

ATTN: Joe Baker

Test Start: 2008.09.03 @ 13:44:39

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 62.00 sec/qt

Water Loss: 10.39 in³

Resistivity: 0.00 ohm.m

Salinity: 6800.00 ppm

Filter Cake: 0.20 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

deg API

Water Salinity:

60000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
822.00	MCW 40% _m 60% _w	7.167
823.00	MCW 25% _m 75% _w	11.545
822.00	MCW 15% _m 85% _w	11.530
823.00	SMCW 5% _m 95% _w	11.545
0.00	R _w .14 @ 60 deg. = 60000 ppm	0.000

Total Length: 3290.00 ft

Total Volume: 41.787 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 1

22-31s-5w Harper

Murfin Drilling Co., Inc.

Inside

Serial #: 8370

