

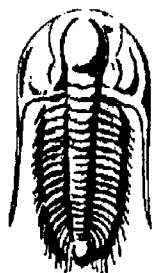
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OCT 10 2003

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TRILOBITE
TESTING, INC.

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OCT 10 2003

KCC WICHITA

DRILL STEM TEST REPORT

Prepared For: **Oxy U.S.A.**

PO Box 2528
Liberal, KS 67905

ATTN: Oxy U.S.A.

18-27-34 Haskell, Ks

Berger B-1

Start Date: 2003.07.04 @ 02:03:15

End Date: 2003.07.04 @ 10:33:43

Job Ticket #: 17514

DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Oxy U.S.A.

Berger B-1

18-27-34 Haskell, Ks

DST # 1

morrow

2003.07.04

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ORIGINAL

99403

**TRILOBITE
TESTING, INC.****DRILL STEM TEST REPORT**

Oxy U.S.A.

KCC**Berger B-1**PO Box 2528
Liberal, KS 67905**18-27-34 Haskell, Ks**

Job Ticket: 17514

DST#: 1

ATTN: Oxy U.S.A.

Test Start: 2003.07.04 @ 02:03:15

GENERAL INFORMATION:Formation: **morrow**Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 05:00:28

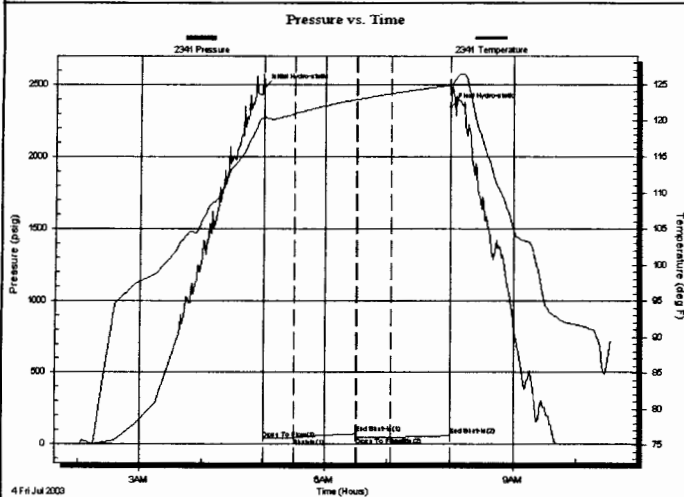
Time Test Ended: 10:33:43

Test Type: **Conventional Bottom Hole**Tester: **Shane McBride**Unit No: **25**Interval: **5055.00 ft (KB) To 5217.00 ft (KB) (TVD)**Reference Elevations: **3017.00 ft (KB)**Total Depth: **5217.00 ft (KB) (TVD)****3006.00 ft (CF)**Hole Diameter: **7.88 inches** Hole Condition: **Fair**KB to GR/CF: **11.00 ft****Serial #: 2341****Inside**Press@RunDepth: **49.99 psig @ 5056.00 ft (KB)**Capacity: **7000.00 psig**Start Date: **2003.07.04**

End Date:

2003.07.04Last Calib.: **1899.12.30**Start Time: **02:03:15**

End Time:

10:33:43Time On Btm: **2003.07.04 @ 05:00:13**Time Off Btm: **2003.07.04 @ 08:00:28**TEST COMMENT: **1/2" in @ open built to 3/4" in.****No return****Bubble to open tool, No blow****No return****PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2476.91	120.53	Initial Hydro-static
1	38.73	120.55	Open To Flow (1)
30	45.69	120.97	Shut-In (1)
90	73.54	122.95	End Shut-In (1)
91	47.98	122.97	Open To Flow (2)
123	49.99	123.75	Shut-In (2)
180	60.50	124.91	End Shut-In (2)
181	2345.45	124.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	mud 100% m	0.10

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC.**
DRILL STEM TEST REPORT
TOOL DIAGRAM

Oxy U.S.A.

 PO Box 2528
 Liberal, KS 67905

ATTN: Oxy U.S.A.

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 OCT 10 2003

Berger B-1
18-27-34 Haskell, Ks

Job Ticket: 17514

Test Start: 2003.07.04 @ 02:03:15

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Tool Information

Drill Pipe:	Length: 4467.00 ft	Diameter: 3.80 inches	Volume: 62.66 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: 30000.00 lb
Drill Collar:	Length: 578.00 ft	Diameter: 2.25 inches	Volume: 2.84 bbl	Weight to Pull Loose: 100000.0 lb
			Total Volume: 65.50 bbl	Tool Chased: 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	5055.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	162.00 ft			
Tool Length:	192.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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C.O. Sub	1.00			5026.00	
S.I. Tool	5.00			5031.00	
Sampler	3.00			5034.00	
HMV	5.00			5039.00	
Jars	5.00			5044.00	
Safety Joint	2.00			5046.00	
Packer	5.00			5051.00	30.00 Bottom Of Top Packer
Packer	4.00			5055.00	
Stubb	1.00			5056.00	
Recorder	0.00	2341	Inside	5056.00	
Perforations	28.00			5084.00	
C.O. Sub	1.00			5085.00	
drillpipe	126.00			5211.00	
C.O. Sub	1.00			5212.00	
Recorder	0.00	11058	Outside	5212.00	
Bullnose	5.00			5217.00	162.00 Bottom Packers & Anchor
Total Tool Length:	192.00				

99403

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT		FLUID SUMMARY																												
	Oxy U.S.A. PO Box 2528 Liberal, KS 67905 ATTN: Oxy U.S.A.	Berger B-1 18-27-34 Haskell, Ks Job Ticket: 17514 DST#: 1 Test Start: 2003.07.04 @ 02:03:15																													
Mud and Cushion Information																															
<table style="width: 100%; border: none;"> <tr> <td style="width: 45%;">Mud Type: Gel Chem</td> <td style="width: 25%;">Cushion Type:</td> <td style="width: 15%;">Oil API:</td> <td style="width: 15%;">deg API</td> </tr> <tr> <td>Mud Weight: 9.00 lb/gal</td> <td>Cushion Length: ft</td> <td>Water Salinity:</td> <td>700 ppm</td> </tr> <tr> <td>Viscosity: 49.00 sec/qt</td> <td>Cushion Volume: bbl</td> <td></td> <td></td> </tr> <tr> <td>Water Loss: 9.16 in³</td> <td>Gas Cushion Type:</td> <td></td> <td></td> </tr> <tr> <td>Resistivity: 0.00 ohm.m</td> <td>Gas Cushion Pressure: psig</td> <td></td> <td></td> </tr> <tr> <td>Salinity: 700.00 ppm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Filter Cake: 2.00 inches</td> <td></td> <td></td> <td></td> </tr> </table>				Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API	Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	700 ppm	Viscosity: 49.00 sec/qt	Cushion Volume: bbl			Water Loss: 9.16 in ³	Gas Cushion Type:			Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig			Salinity: 700.00 ppm				Filter Cake: 2.00 inches			
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Recovery Table <table border="1" style="margin: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 15%;">Length ft</th> <th style="width: 55%;">Description</th> <th style="width: 30%;">Volume bbl</th> </tr> </thead> <tbody> <tr> <td>20.00</td> <td>mud 100% m</td> <td>0.098</td> </tr> </tbody> </table> Total Length: 20.00 ft Total Volume: 0.098 bbl Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: Laboratory Name: Laboratory Location: Recovery Comments: 4000 ml. mud in sampler RW 6.1 @ 89°F = 700 chlorides in sampler				Length ft	Description	Volume bbl	20.00	mud 100% m	0.098																						
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Pressure vs. Time

