

15-163-23578-00-00

20-7-20W



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Hertel Oil Company LLC**

704 E 12th Street
Hays KS 67601

ATTN: Randy Killian

20 7S 20W Rooks KS

Satran #1

Start Date: 2007.01.31 @ 22:21:20

End Date: 2007.02.01 @ 06:13:40

Job Ticket #: 26078

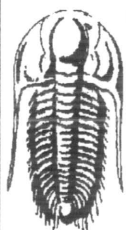
DST #: 1

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MAR 30 2007
KCC WICHITA

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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DRILL STEM TEST REPORT

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Job Ticket: 26078

DST#: 1

Test Start: 2007.01.31 @ 22:21:20

GENERAL INFORMATION:

Formation: **Toronto-LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:01:40

Time Test Ended: 06:13:40

Test Type: Conventional Bottom Hole

Tester: Jake Fahrenbruch

Unit No: 22

Interval: **3282.00 ft (KB) To 3363.00 ft (KB) (TVD)**

Total Depth: 3363.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2100.00 ft (KB)

2092.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6799

Inside

Press@RunDepth: 205.05 psig @ 3283.00 ft (KB)

Start Date: 2007.01.31

End Date:

2007.02.01

Start Time: 22:21:22

End Time:

06:13:40

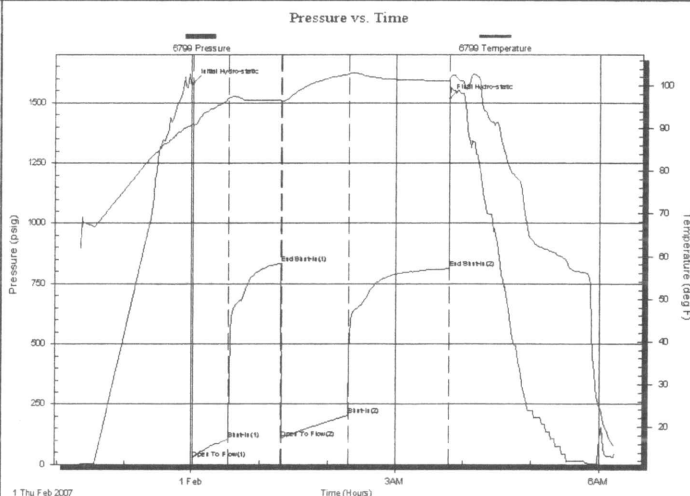
Capacity: 7000.00 psig

Last Calib.: 2007.02.01

Time On Btm: 2007.02.01 @ 00:01:30

Time Off Btm: 2007.02.01 @ 03:47:30

TEST COMMENT: IF Strong blow building to BOB in 11 minutes
ISI Bled off weak blow back @ .75 " in bucket
FF Strong blow building to BOB in 12 minutes
FSI Bled off blow back building to 2.5 " in bucket



PRESSURE SUMMARY

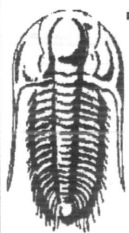
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1582.66	91.05	Initial Hydro-static
1	24.78	90.63	Open To Flow (1)
31	105.05	97.14	Shut-In (1)
77	833.23	96.71	End Shut-In (1)
78	108.90	96.46	Open To Flow (2)
137	205.05	102.74	Shut-In (2)
226	811.70	101.16	End Shut-In (2)
226	1517.67	101.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
135.00	GCOM 10%G 42%O 48%M	1.61
150.00	GCWMO 20%G 5%W 10%M 65%O	2.10
165.00	GCWOCM 22%G 14%W 25%O 39%M	2.31

Gas Rates

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

Hertel Oil Company LLC

704 E 12th Street
Hays KS 67601

ATTN: Randy Killian

Satran #1

20 7S 20W Rooks KS

Job Ticket: 26078

DST#: 1

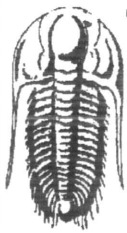
Test Start: 2007.01.31 @ 22:21:20

Tool Information

Drill Pipe:	Length: 3248.00 ft	Diameter: 3.80 inches	Volume: 45.56 bbl	Tool Weight:	3000.00 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	62000.00 lb
		Total Volume:	45.71 bbl	Tool Chased	1.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	3282.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	81.00 ft				
Tool Length:	101.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3267.00	
Hydraulic tool	5.00			3272.00	
Packer	5.00			3277.00	20.00 Bottom Of Top Packer
Packer	5.00			3282.00	
Stubb	1.00			3283.00	
Recorder	0.00	6799	Inside	3283.00	
Perforations	11.00			3294.00	
Blank Spacing	66.00			3360.00	
Recorder	0.00	3354	Outside	3360.00	
Bullnose	3.00			3363.00	81.00 Bottom Packers & Anchor
Total Tool Length:	101.00				



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FLUID SUMMARY

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20 7S 20W Rooks KS

Job Ticket: 26078

DST#: 1

ATTN: Randy Killian

Test Start: 2007.01.31 @ 22:21:20

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: 45.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 0.07 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
135.00	GCOM 10%G 42%O 48%M	1.611
150.00	GCWMCO 20%G 5%W 10%M 65%O	2.104
165.00	GCWOCM 22%G 14%W 25%O 39%M	2.315

Total Length: 450.00 ft

Total Volume: 6.030 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

