

**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **A&A Production**

Po Box 100
Hill City, KS 67642

ATTN: Kitt Noah

3-10s-24w-Graham

Ray #1

Start Date: 2004.07.08 @ 10:07:33

End Date: 2004.07.08 @ 15:23:53

Job Ticket #: 19506 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

A&A Production

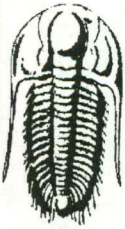
Ray #1

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DST # 1

LKC-"K"

2004.07.08



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A&A Production
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Ray #1
3-10s-24w-Graham
 Job Ticket: 19506 **DST#: 1**
 Test Start: 2004.07.08 @ 10:07:33

GENERAL INFORMATION:

Formation: **LKC-"K"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:29:23
 Time Test Ended: 15:23:53
 Interval: **4008.00 ft (KB) To 4034.00 ft (KB) (TVD)**
 Total Depth: 4034.00 ft (KB) (TVD)
 Hole Diameter: 7.80 inches Hole Condition: Good

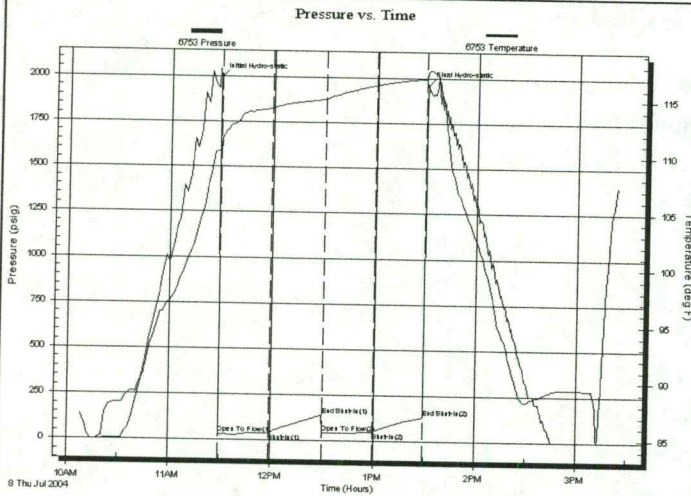
Test Type: Conventional Bottom Hole
 Tester: Jason McLemore
 Unit No: 24
 Reference Elevations: 2491.00 ft (KB)
 2486.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6753

Inside

Press@RunDepth: 50.14 psig @ 4011.00 ft (KB) Capacity: 7000.00 psig
 Start Date: 2004.07.08 End Date: 2004.07.08 Last Calib.: 1899.12.30
 Start Time: 10:08:03 End Time: 15:23:53 Time On Btm: 2004.07.08 @ 11:29:03
 Time Off Btm: 2004.07.08 @ 13:30:13

TEST COMMENT: IFP-Good Blow, BOB in 5 min
 ISI-Weak Surface Blow back after 3 min, Died in 10 min
 FFP-Fair Blow, BOB in 24 min
 FSI-No Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1995.11	110.36	Initial Hydro-static
1	32.97	109.99	Open To Flow (1)
30	40.35	114.23	Shut-In(1)
61	141.67	115.03	End Shut-In(1)
62	46.82	115.03	Open To Flow (2)
91	50.14	116.34	Shut-In(2)
121	132.32	116.94	End Shut-In(2)
122	1959.50	117.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	Frothy Oil VSMW-55%G-35%O-5%W-5%	0.84
30.00	HOcm-10%G-30%O-60%M	0.42
390.00	390Ft GIP	5.47

Gas Rates

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



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TOOL DIAGRAM

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Tool Information

Drill Pipe:	Length: 4002.00 ft	Diameter: 3.80 inches	Volume: 56.14 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 54000.00 lb
			Total Volume: 56.14 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	4008.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	47.00 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			3988.00	
Shut In Tool	5.00			3993.00	
Hydraulic tool	5.00			3998.00	
Packer	5.00			4003.00	21.00 Bottom Of Top Packer
Packer	5.00			4008.00	
Stubb	1.00			4009.00	
Perforations	2.00			4011.00	
Recorder	0.00	6753	Inside	4011.00	
Perforations	20.00			4031.00	
Recorder	0.00	13252	Outside	4031.00	
Bullnose	3.00			4034.00	26.00 Bottom Packers & Anchor

Total Tool Length: 47.00



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FLUID SUMMARY

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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 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Frothy Oil VSMW-55%G-35%O-5%W-5%M	0.842
30.00	HOCM-10%G-30%O-60%M	0.421
390.00	390Ft GIP	5.471

Total Length: 480.00 ft Total Volume: 6.734 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6753

Inside A&A Production

3-10s-24w -Graham

DST Test Number: 1

Pressure vs. Time

