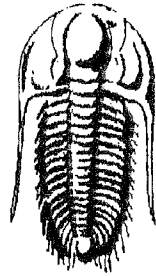


15-065-23404-0000

4-10s-24w



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **A & A Discovery LLC**

748 S 4th Ave
Hill City KS 67642

ATTN: Darrell Anderson

4 10 24 Graham KS

Critchfield # 1

Start Date: 2008.02.04 @ 11:00:18

End Date: 2008.02.04 @ 17:06:18

Job Ticket #: 31448 DST #: 1

15-065-23404
SE NE NW NE
595 FNL 1615 FEL

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

A & A Discovery LLC

Critchfield # 1

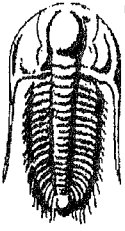
4 10 24 Graham KS

DST # 1

K-L

LKC

2008.02.04



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

A & A Discovery LLC

748 S 4th Ave
Hill City KS 67642

ATTN: Darrell Anderson

Critchfield # 1

4 10 24 Graham KS

Job Ticket: 31448

DST#: 1

Test Start: 2008.02.04 @ 11:00:18

GENERAL INFORMATION:

Formation: **K-L LKC**
 Deviated: **No Whipstock:** ft (KB)
 Time Tool Opened: 13:17:48
 Time Test Ended: 17:06:18

Test Type: Conventional Bottom Hole
 Tester: Dan Bangle
 Unit No: 38

Interval: **4025.00 ft (KB) To 4072.00 ft (KB) (TVD)**
 Total Depth: **4072.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2518.00 ft (KB)**
2513.00 ft (CF)
 KB to GR/CF: **5.00 ft**

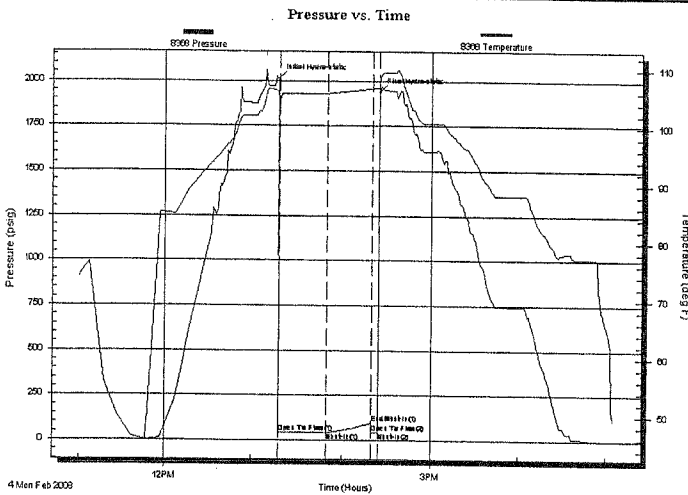
Serial #: 8368

Outside

Press@RunDepth: **42.89 psig @ 4031.00 ft (KB)**
 Start Date: **2008.02.04** End Date: **2008.02.04**
 Start Time: **11:00:19** End Time: **17:06:18**

Capacity: **7000.00 psig**
 Last Calib.: **2008.02.04**
 Time On Btm: **2008.02.04 @ 13:17:18**
 Time Off Btm: **2008.02.04 @ 14:23:48**

TEST COMMENT: IF Weak died in 6 min
 FF No blow



PRESSURE SUMMARY

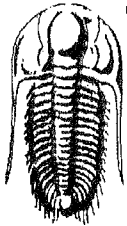
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2013.33	106.11	Initial Hydro-static
1	42.48	104.84	Open To Flow (1)
32	42.89	105.96	Shut-In(1)
62	95.15	106.80	End Shut-In(1)
62	42.88	106.80	Open To Flow (2)
66	43.03	106.99	Shut-In(2)
67	1938.57	107.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
155.00	DM	2.17

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

A & A Discovery LLC

Critchfield # 1

748 S 4th Ave
Hill City KS 67642

4 10 24 Graham KS

Job Ticket: 31448

DST#: 1

ATTN: Darrell Anderson

Test Start: 2008.02.04 @ 11:00:18

Tool Information

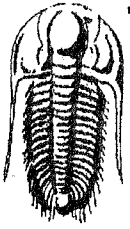
Drill Pipe:	Length: 4023.00 ft	Diameter: 3.80 inches	Volume: 56.43 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 56.43 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	4025.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.00 ft			
Tool Length:	68.00 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			4005.00	
Shut In Tool	5.00			4010.00	
Hydraulic tool	5.00			4015.00	
Packer	5.00			4020.00	21.00 Bottom Of Top Packer
Packer	5.00			4025.00	
Stubb	1.00			4026.00	
Perforations	5.00			4031.00	
Recorder	0.00	8370	Inside	4031.00	
Recorder	0.00	8368	Outside	4031.00	
Drill Pipe	31.00			4062.00	
Perforations	7.00			4069.00	
Bullnose	3.00			4072.00	47.00 Bottom Packers & Anchor

Total Tool Length: 68.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

A & A Discovery LLC

Critchfield # 1

748 S 4th Ave
Hill City KS 67642

4 10 24 Graham KS

Job Ticket: 31448

DST#: 1

ATTN: Darrell Anderson

Test Start: 2008.02.04 @ 11:00:18

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 55.00 sec/qt

Water Loss: 9.59 in³

Resistivity: ohm.m

Salinity: 2800.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
155.00	DM	2.174

Total Length: 155.00 ft

Total Volume: 2.174 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

