



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Grand Mesa Operating Company

**21-16s-33w**

1700 N Waterfront PKWY  
BLDG 600 Wichita KS  
67206-5514  
ATTN: John Goldsmith

**Unruh 1-21**

Job Ticket: 44332

**DST#: 1**

Test Start: 2011.10.20 @ 16:40:00

## GENERAL INFORMATION:

Formation: **Kansas City "L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:29:15

Time Test Ended: 22:14:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Jace McKinney

Unit No: 28

**Interval: 4336.00 ft (KB) To 4361.00 ft (KB) (TVD)**

Reference Elevations: 3082.00 ft (KB)

Total Depth: 4361.00 ft (KB) (TVD)

3077.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8675 Inside**

Press @ Run Depth: 18.88 psig @ 4337.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.10.20

End Date: 2011.10.20

Last Calib.: 2011.10.20

Start Time: 16:40:01

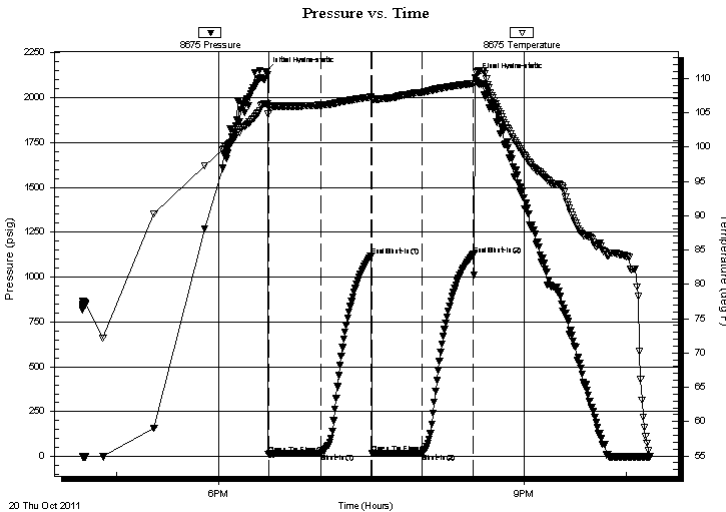
End Time: 22:14:15

Time On Btm: 2011.10.20 @ 18:28:00

Time Off Btm: 2011.10.20 @ 20:31:00

**TEST COMMENT:** Surface blow  
No return blow  
No blow  
No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2145.64	106.38	Initial Hydro-static
2	14.38	104.86	Open To Flow (1)
32	19.32	106.11	Shut-In(1)
62	1118.57	107.29	End Shut-In(1)
63	17.68	106.85	Open To Flow (2)
92	18.88	107.98	Shut-In(2)
122	1126.57	109.25	End Shut-In(2)
123	2109.97	110.10	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	100% Mud	0.00

## Gas Rates

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



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## FLUID SUMMARY

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Test Start: 2011.10.20 @ 16:40:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 56.00 sec/qt

Water Loss: 7.99 in<sup>3</sup>

Resistivity: 0.00 ohm.m

Salinity: 3600.00 ppm

Filter Cake: 1.00 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
1.00	100% Mud	0.005

Total Length: 1.00 ft      Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8675

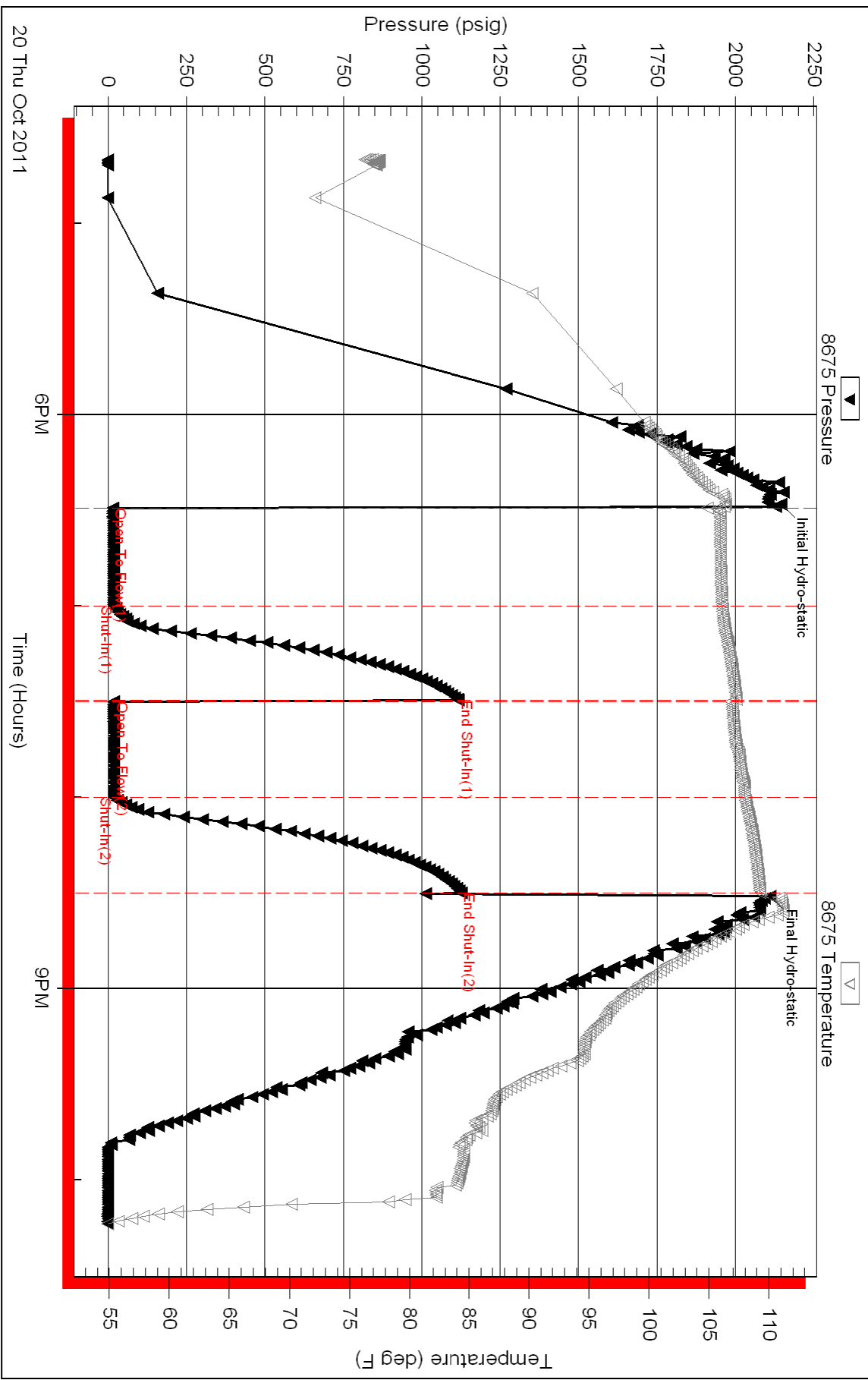
Inside

Grand Mesa Operating Company

Unruh 1-21

DST Test Number: 1

# Pressure vs. Time



Triobite Testing, Inc

Ref. No: 44332

Printed: 2011.10.21 @ 08:19:36