



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Resource Development Technology LLC.

1-16s-45w-Cheyenne Co, Colorado

P.O. Box 1020
Morrison, Co 80465

Nininger #11-1-1645

Job Ticket: 55530

DST#: 3

ATTN: Phil Askey

Test Start: 2013.10.15 @ 03:16:00

GENERAL INFORMATION:

Formation: **Marmaton - Ft.Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:36:20

Time Test Ended: 11:30:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 62

Interval: **4695.00 ft (KB) To 4790.00 ft (KB) (TVD)**

Total Depth: 4790.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 4356.00 ft (KB)

4345.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6741 Inside

Press @ Run Depth: 181.75 psig @ 4700.00 ft (KB)

Start Date: 2013.10.15

End Date:

2013.10.15

Start Time: 03:16:02

End Time:

11:30:30

Capacity: 8000.00 psig

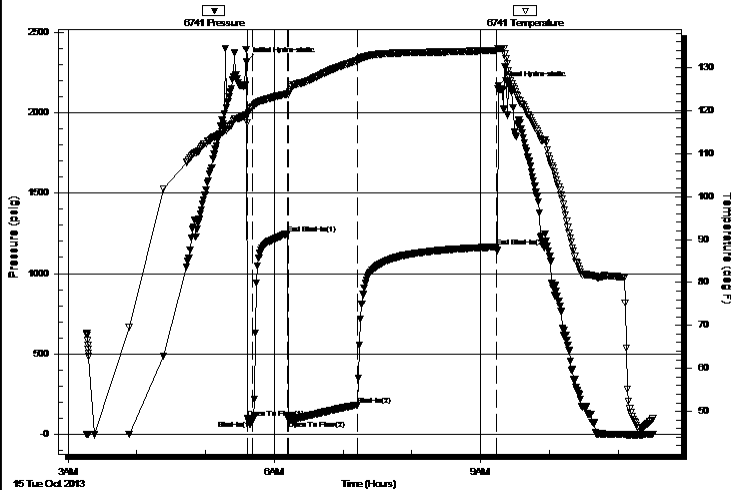
Last Calib.: 2013.10.15

Time On Btm: 2013.10.15 @ 05:35:40

Time Off Btm: 2013.10.15 @ 09:15:30

TEST COMMENT: 8" Blow.
Surface return.
B.O.B. @ 8 min.
8" Return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2316.90	118.84	Initial Hydro-static
1	98.75	117.22	Open To Flow (1)
6	89.10	120.96	Shut-In(1)
36	1248.72	123.87	End Shut-In(1)
37	89.24	123.83	Open To Flow (2)
97	181.75	131.61	Shut-In(2)
219	1165.58	134.01	End Shut-In(2)
220	2171.92	134.34	Final Hydro-static

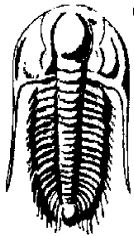
Recovery

Length (ft)	Description	Volume (bbl)
0.00	RW: .237 @ 50 Degrees F = 45000 PPM	0.00
181.00	GOSMW 5g 35m 60w	0.89
125.00	GOSWM 15g 5w 80m	1.75
75.00	GOCM 10g 10o 80m	1.05
0.00	930' weak GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



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FLUID SUMMARY

Resource Development Technology LLC.

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P.O. Box 1020
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Nininger #11-1-1645

Job Ticket: 55530

DST#: 3

ATTN: Phil Askey

Test Start: 2013.10.15 @ 03:16:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 63.00 sec/qt

Water Loss: 8.79 in³

Resistivity: ohm.m

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API: deg API

Water Salinity: 45000 ppm

ft
bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	RW: .237 @ 50 Degrees F = 45000 PPM	0.000
181.00	GOSMW 5g 35m 60w	0.890
125.00	GOSWM 15g 5w 80m	1.753
75.00	GOCM 10g 10o 80m	1.052
0.00	930' weak GIP	0.000

Total Length: 381.00 ft Total Volume: 3.695 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 14# LCM Spotted a 20 BBL pill before TOH

Serial #: 6741

Inside

Resource Development Technology LLC.

Nininger #11-1-1645

DST Test Number: 3

