



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Samuel Gary Jr & Associates

31-11S-12W Trego

1515 Wynkoop STE 700
Denver CO 80202

John Nilhas 1-31

Job Ticket: 56194

DST#: 1

ATTN: Dan Pritchard

Test Start: 2014.02.25 @ 17:51:00

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:26:30

Time Test Ended: 05:30:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Tim Phillips

Unit No: 48

Interval: 3398.00 ft (KB) To 3422.00 ft (KB) (TVD)

Reference Elevations: 2343.00 ft (KB)

Total Depth: 3422.00 ft (KB) (TVD)

2338.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8321

Inside

Press@RunDepth: 148.35 psig @ 3399.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.25

End Date:

2014.02.26

Last Calib.:

2014.02.26

Start Time: 17:51:01

End Time:

05:30:00

Time On Btm:

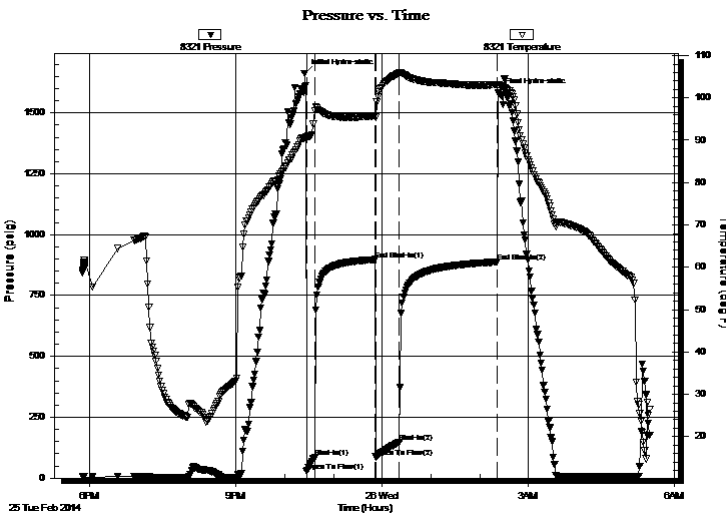
2014.02.25 @ 22:24:00

Time Off Btm:

2014.02.26 @ 02:23:00

TEST COMMENT: IFP- Blow built to 5 in
ISI- Blow back built to less than 1/4 in
FF- BOB in 24 min
FSI- Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1662.42	90.55	Initial Hydro-static
3	26.74	90.44	Open To Flow (1)
13	83.97	97.02	Shut-In(1)
87	897.78	95.79	End Shut-In(1)
88	87.09	95.42	Open To Flow (2)
117	148.35	105.89	Shut-In(2)
238	887.54	103.10	End Shut-In(2)
239	1584.39	103.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
260.00	MW 10% M, 90% W	2.50

Gas Rates

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



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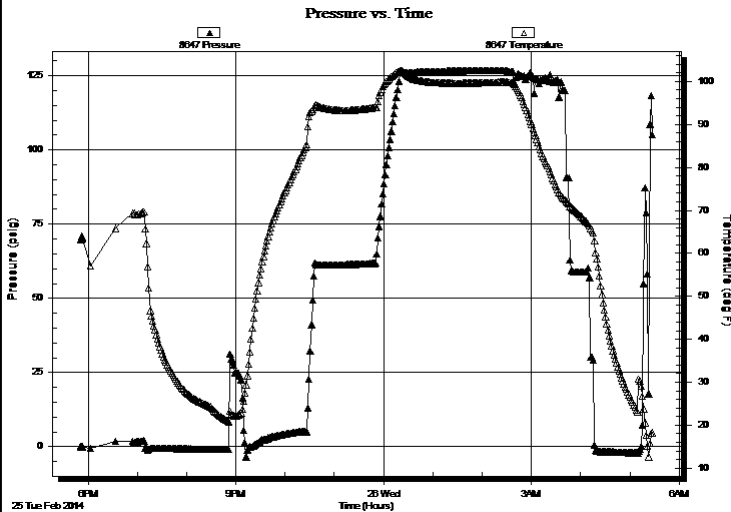
Test Start: 2014.02.25 @ 17:51:00

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:26:30
Time Test Ended: 05:30:00
Interval: **3398.00 ft (KB) To 3422.00 ft (KB) (TVD)**
Total Depth: 3422.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Reference Elevations: 2343.00 ft (KB)
2338.00 ft (CF)
KB to GR/CF: 5.00 ft
Test Type: Conventional Bottom Hole (Initial)
Tester: Tim Phillips
Unit No: 48

Serial #: 8647 Fluid
Press@RunDepth: psig @ 3368.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.02.25 End Date: 2014.02.26 Last Calib.: 2014.02.26
Start Time: 17:51:01 End Time: 05:28:00 Time On Btm:
Time Off Btm:

TEST COMMENT: IFP- Blow built to 5 in
IS-Blow back built to less than 1/4 in
FF- BOB in 24 min
FS-Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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Recovery

Length (ft)	Description	Volume (bbl)
260.00	MW 10% M, 90% W	2.50

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr & Associates

31-11S-12W Trego

1515 Wynkoop STE 700
Denver CO 80202

John Nilhas 1-31

Job Ticket: 56194

DST#: 1

ATTN: Dan Pritchard

Test Start: 2014.02.25 @ 17:51:00

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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 750.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
260.00	MW 10% M, 90% W	2.499

Total Length: 260.00 ft Total Volume: 2.499 bbl

Num Fluid Samples: 0

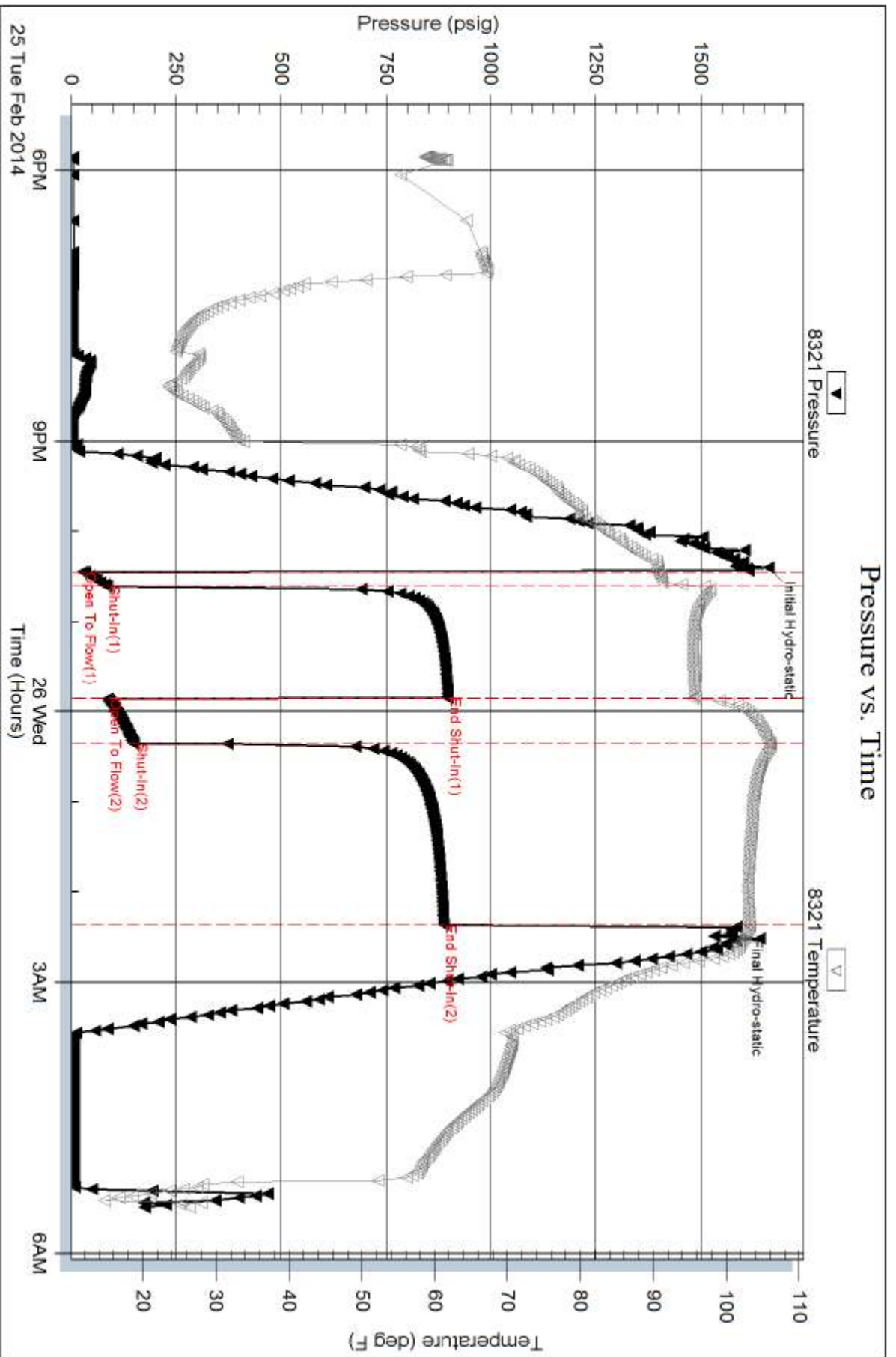
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler: 2500 ml MW



Serial #: 8647

Fluid

Samuel Gary Jr & Associates

John Nilnas 1-31

DST Test Number: 1

