



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Woolsey Operating Co.
125 N Market STE 1000
Wichita, KS 67202
ATTN: Bill Klaver

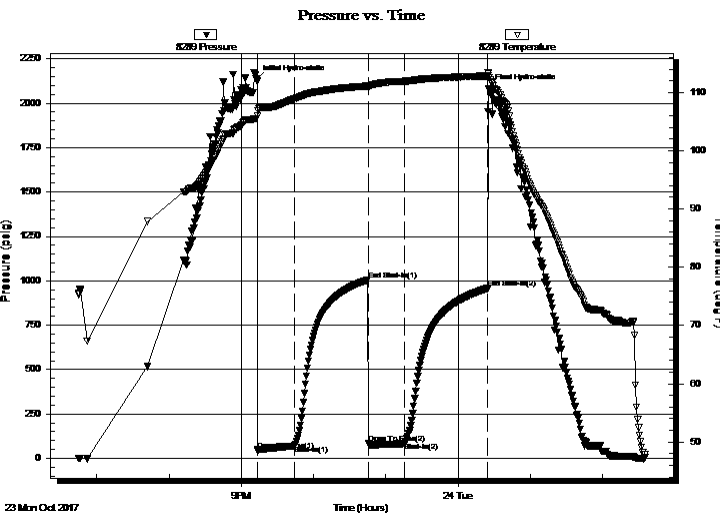
23/25S/21W
Hubbell #2
Job Ticket: 59472 **DST#: 1**
Test Start: 2017.10.23 @ 18:45:00

GENERAL INFORMATION:

Formation: **Lansing/Stanton**
Deviated: No Whipstock: 2322.00 ft (KB)
Time Tool Opened: 21:13:30
Time Test Ended: 02:34:50
Interval: **4131.00 ft (KB) To 4150.00 ft (KB) (TVD)**
Total Depth: 4150.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Initial)
Tester: Chris Hagman
Unit No: 75
Reference Elevations: 2322.00 ft (KB)
2310.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8289 Inside
Press@RunDepth: 87.99 psig @ 4147.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.10.23 End Date: 2017.10.24 Last Calib.: 1899.12.30
Start Time: 18:45:02 End Time: 02:34:49 Time On Btm: 2017.10.23 @ 21:12:45
Time Off Btm: 2017.10.24 @ 00:25:00

TEST COMMENT: IF: BOB 15 min., strong steady blow
IS: No blow back
FF: 4.5 inches in 30 min., weak building blow
FS: No blow back



PRESSURE SUMMARY

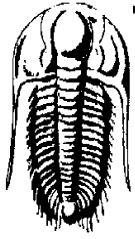
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2130.58	105.52	Initial Hydro-static
1	45.76	105.92	Open To Flow (1)
32	73.58	108.95	Shut-In(1)
93	1005.20	111.11	End Shut-In(1)
93	86.32	110.79	Open To Flow (2)
124	87.99	111.92	Shut-In(2)
192	957.16	112.83	End Shut-In(2)
193	2081.50	113.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
123.00	oil spotted muddy w ater 40%M, 60%W	0.60
23.00	oil spotted w atery mud 30%W, 70%M	0.32

Gas Rates

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



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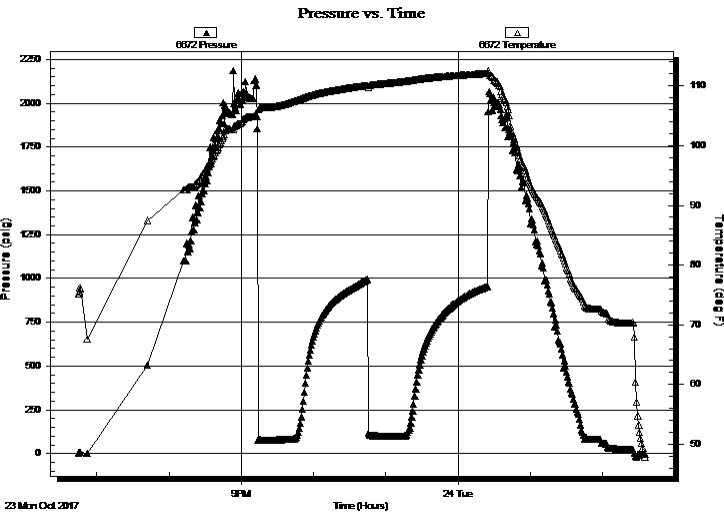
23/25S/21W
Hubbell #2
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Total Depth: 4150.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Initial)
Tester: Chris Hagman
Unit No: 75
Reference Elevations: 2322.00 ft (KB)
2310.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 6672 Outside
Press@RunDepth: psig @ 4147.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.10.23 End Date: 2017.10.24 Last Calib.: 1899.12.30
Start Time: 18:45:02 End Time: 02:35:10 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: BOB 15 min., strong steady blow
IS: No blow back
FF: 4.5 inches in 30 min., weak building blow
FS: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
123.00	oil spotted muddy w ater 40%M, 60%W	0.60
23.00	oil spotted w atery mud 30%W, 70%M	0.32

Gas Rates

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



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DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co.

23/25S/21W

125 N Market STE 1000
Wichita, KS 67202

Hubbell #2

Job Ticket: 59472

DST#: 1

ATTN: Bill Klaver

Test Start: 2017.10.23 @ 18:45:00

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:

36000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
123.00	oil spotted muddy w ater 40%M, 60%W	0.605
23.00	oil spotted w atery mud 30%W, 70%M	0.323

Total Length: 146.00 ft Total Volume: 0.928 bbl

Num Fluid Samples: 0

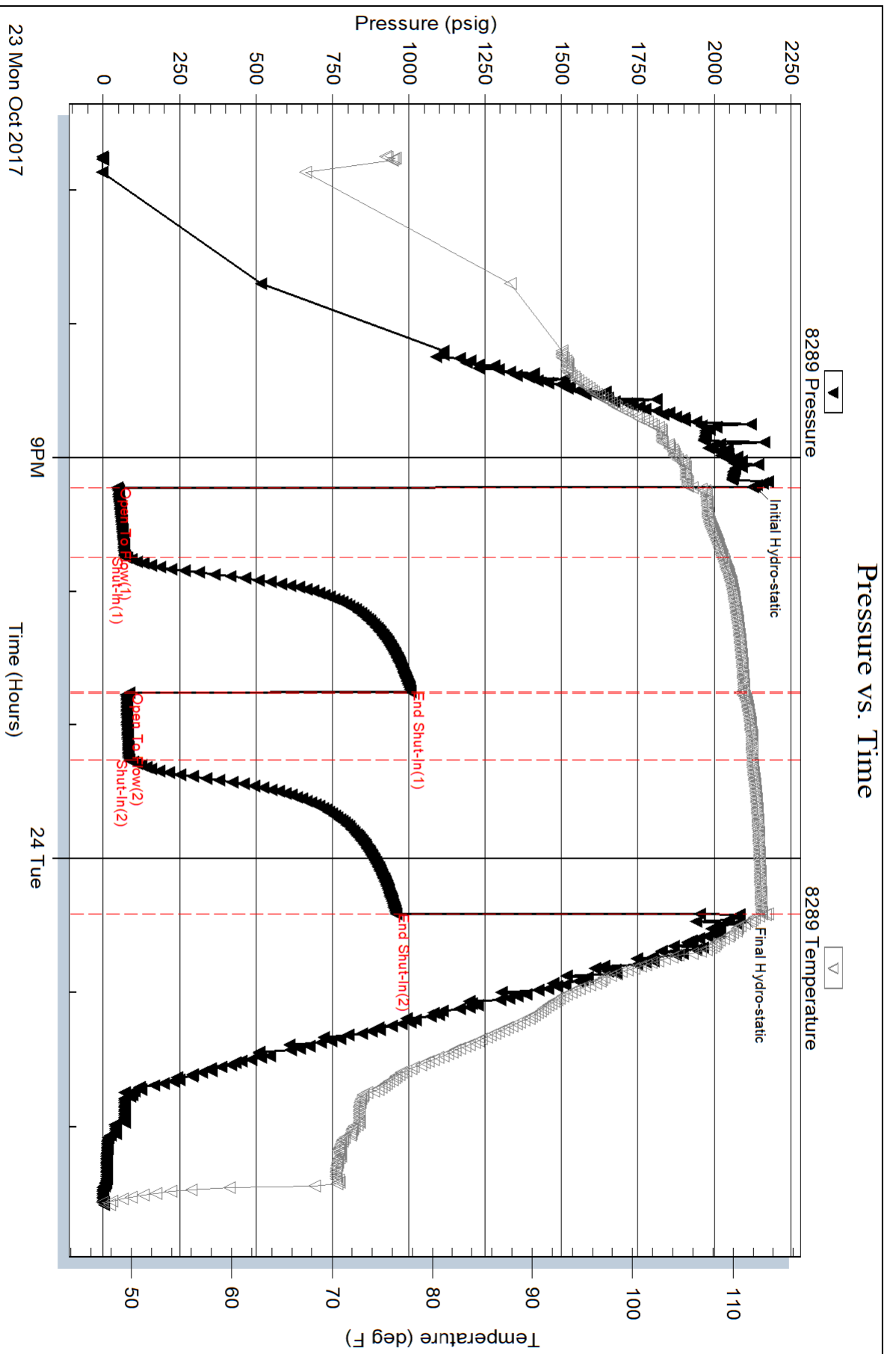
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW=.245@57F=36000ppm



Serial #: 6672

Outside Woodsey Operating Co.

Hubbell #2

DST Test Number: 1

