



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Darrah Oil Company LLC

14-9s-22w Graham KS

125 N Market Suite 1425
Wichita KS 67202+1720

Van Loenen

ATTN: Wyatt Urban

Job Ticket: 65993

DST#: 4

Test Start: 2019.09.11 @ 01:35:00

GENERAL INFORMATION:

Formation: **Lwr Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:22:32

Time Test Ended: 05:42:17

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J Staab

Unit No: 84

Interval: 3896.00 ft (KB) To 3916.00 ft (KB) (TVD)

Reference Elevations: 2035.00 ft (KB)

Total Depth: 3935.00 ft (KB) (TVD)

2030.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8374

Inside

Press@RunDepth: 753.16 psig @ 3897.00 ft (KB)

Capacity: psig

Start Date: 2019.09.11

End Date:

2019.09.11

Last Calib.:

2019.09.11

Start Time: 01:35:01

End Time:

05:42:17

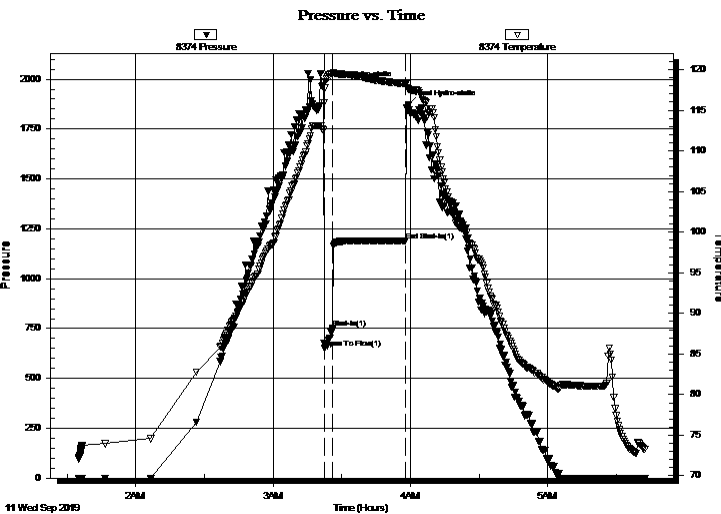
Time On Btm:

2019.09.11 @ 03:21:47

Time Off Btm:

2019.09.11 @ 03:59:02

TEST COMMENT: 5-IF-BOB 10 secs; Built to 95"
30-ISI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1967.62	112.54	Initial Hydro-static
1	650.86	117.73	Open To Flow (1)
5	753.16	119.51	Shut-In(1)
36	1189.84	118.24	End Shut-In(1)
38	1869.97	117.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
640.00	MCW 10%M 90%W	8.79
180.00	SWCM 5%W 95%M	2.55

Gas Rates

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

* Recovery from multiple tests



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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:

24000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
640.00	MCW 10%M 90%W	8.795
180.00	SWCM 5%W 95%M	2.552

Total Length: 820.00 ft Total Volume: 11.347 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 3#LCM

RW=.270@73F

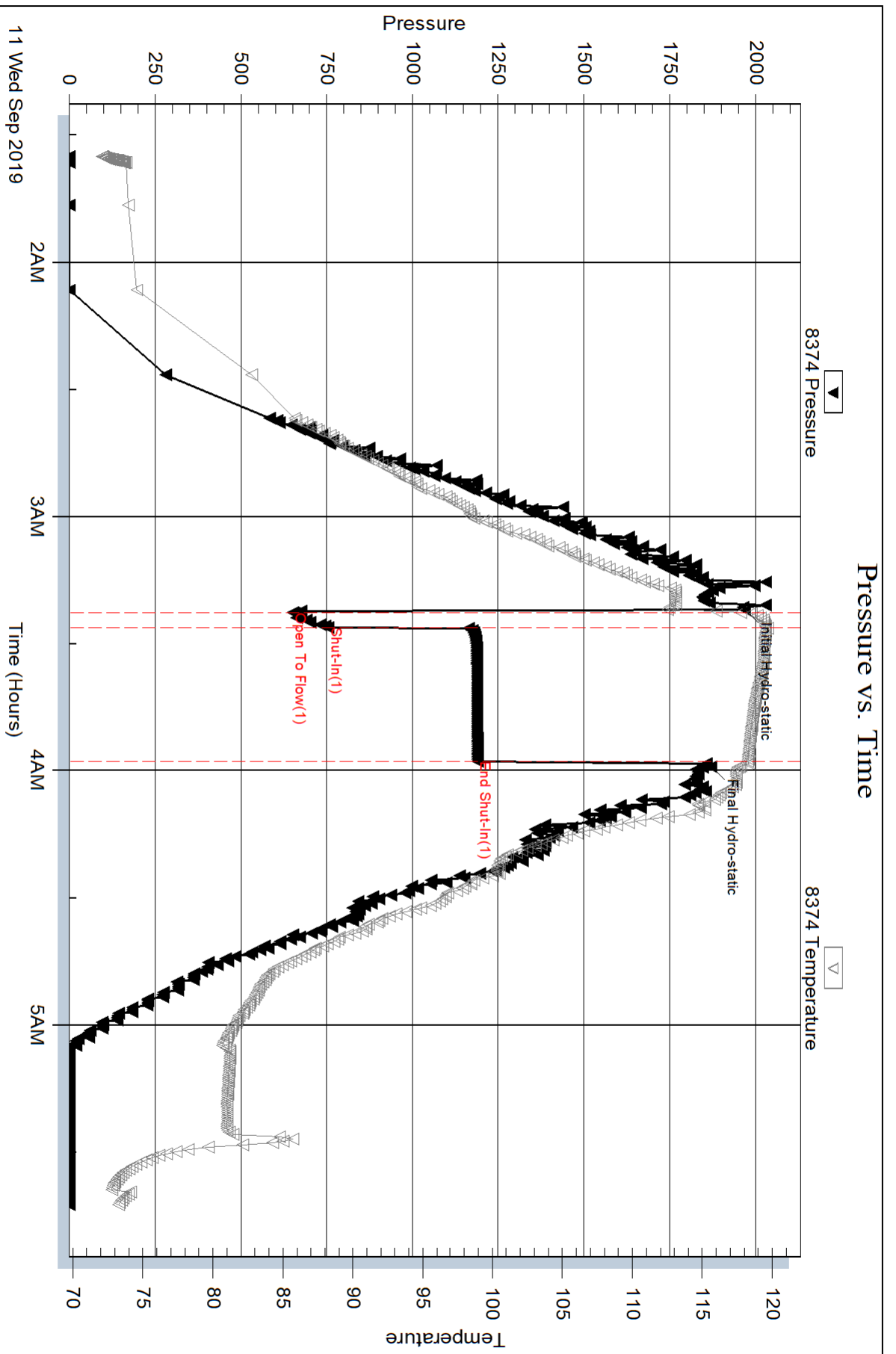
Serial #: 8374

Inside

Darrah Oil Company LLC

Van Loenen

DST Test Number: 4



Serial #: 8372

Outside

Darrah Oil Company LLC

Van Loenen

DST Test Number: 4

