



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

1-5S-24W - Norton, KS

Nuernberger #3-1

Job Ticket: 60854

DST#: 3

ATTN: Dan Pritchard

Test Start: 2014.10.21 @ 15:33:00

GENERAL INFORMATION:

Formation: **LKC "H & I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:31:30

Time Test Ended: 00:48:00

Test Type: Conventional Straddle (Initial)

Tester: Donovan Baumann

Unit No: 66

Interval: 3564.00 ft (KB) To 3624.00 ft (KB) (TVD)

Reference Elevations: 2316.00 ft (KB)

Total Depth: 3624.00 ft (KB) (TVD)

2308.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8874 Inside

Press@RunDepth: 47.44 psig @ 3565.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.21

End Date: 2014.10.22

Last Calib.: 2014.10.22

Start Time: 15:34:00

End Time: 00:48:00

Time On Btm: 2014.10.21 @ 17:31:20

Time Off Btm: 2014.10.21 @ 22:27:30

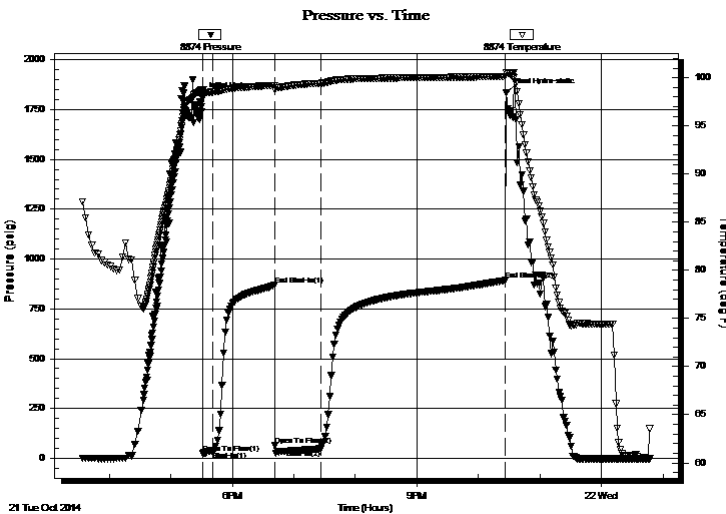
TEST COMMENT: 10 - IF - Weak surface blow built to 2 in. in 10 min.

60 - ISI - No return

45 - FF - Strong surface blow built to

180 - FSI - No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1816.32	98.78	Initial Hydro-static
1	22.94	97.99	Open To Flow (1)
10	37.56	98.53	Shut-In(1)
70	869.41	99.21	End Shut-In(1)
71	63.53	98.73	Open To Flow (2)
115	47.44	99.44	Shut-In(2)
295	893.02	100.14	End Shut-In(2)
297	1836.54	100.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	MCO - 30M - 70o	0.28
45.00	Oil - 100o	0.63

Gas Rates

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



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Total Depth: 3624.00 ft (KB) (TVD)

2308.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8520 Fluid

Press@RunDepth: psig @ 3534.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.21

End Date:

2014.10.22

Last Calib.:

2014.10.22

Start Time: 15:34:00

End Time:

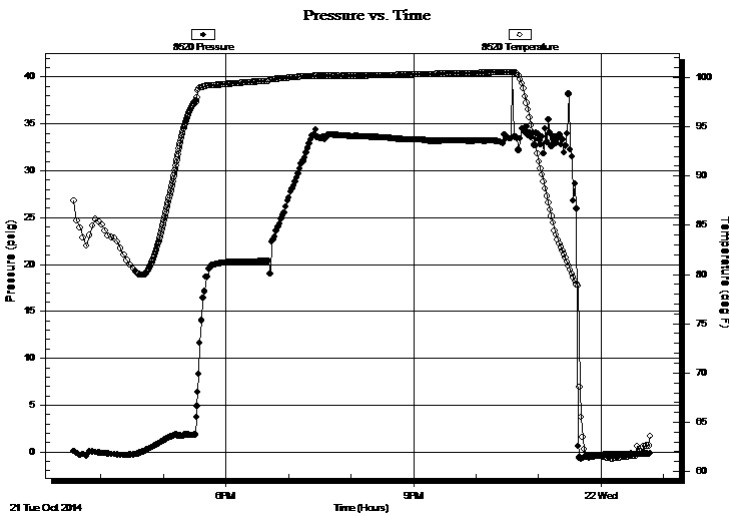
00:48:00

Time On Btm:

Time Off Btm:

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PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
40.00	MCO - 30M - 70o	0.28
45.00	Oil - 100o	0.63

Gas Rates

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



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DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr. & Associates

1-5S-24W - Norton, KS

Nuernberger #3-1

Job Ticket: 60854

DST#: 3

ATTN: Dan Pritchard

Test Start: 2014.10.21 @ 15:33:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 57.00 sec/qt

Water Loss: 9.59 in³

Resistivity: 0.00 ohm.m

Salinity: 500.00 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
40.00	MCO - 30M - 70o	0.279
45.00	Oil - 100o	0.631

Total Length: 85.00 ft Total Volume: 0.910 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8874

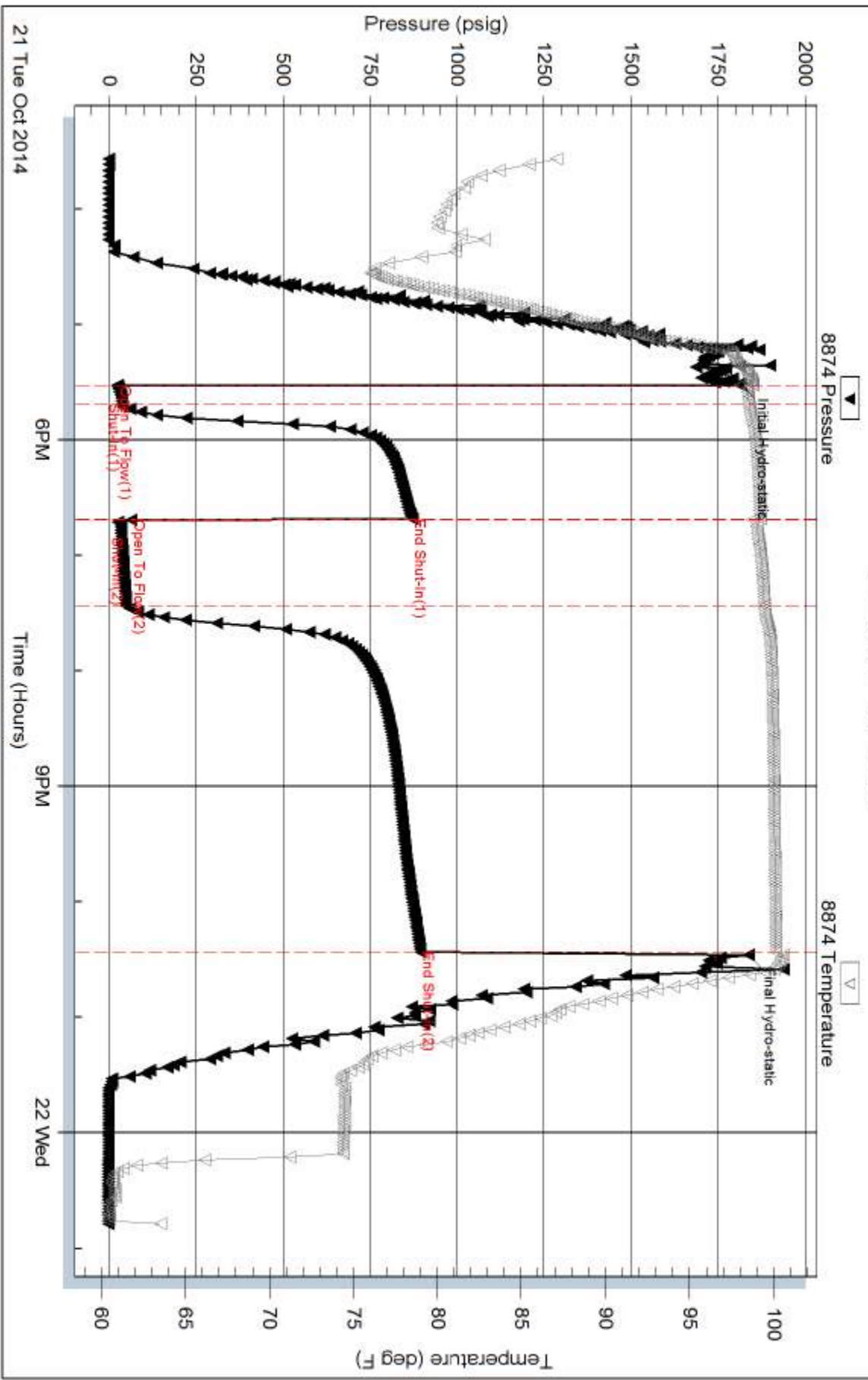
Inside

Samuel Gary Jr. & Associates

Nuumberger #3-1

DST Test Number: 3

Pressure vs. Time



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Ref. No: 60854

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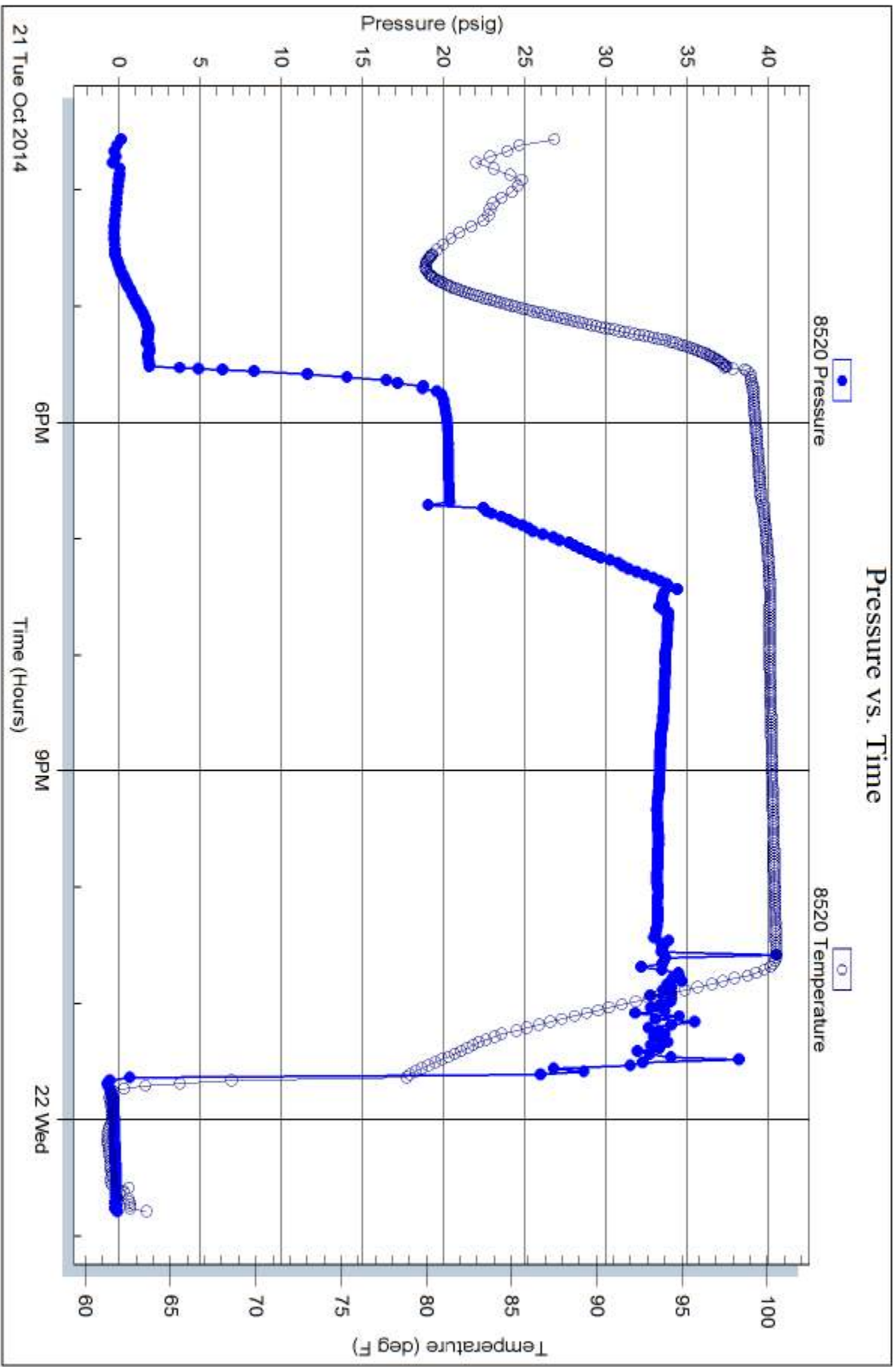
Serial #: 8520

Fluid

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Numberger #3-1

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