



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Assoc. Inc.

12-5s-24w Norton KS

1515 Wynkoop, STE 700
Denver, CO, 80202

F&R Realty # 1-12

ATTN: Dan Pritchard

Job Ticket: 60077

DST#: 2

Test Start: 2014.09.23 @ 16:35:00

GENERAL INFORMATION:

Formation: **LKC "C - E"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:14:30
 Time Test Ended: 23:54:30
 Interval: **3500.00 ft (KB) To 3558.00 ft (KB) (TVD)**
 Total Depth: 3558.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 57
 Reference Elevations: 2344.00 ft (KB)
 2336.00 ft (CF)
 KB to GR/CF: 8.00 ft

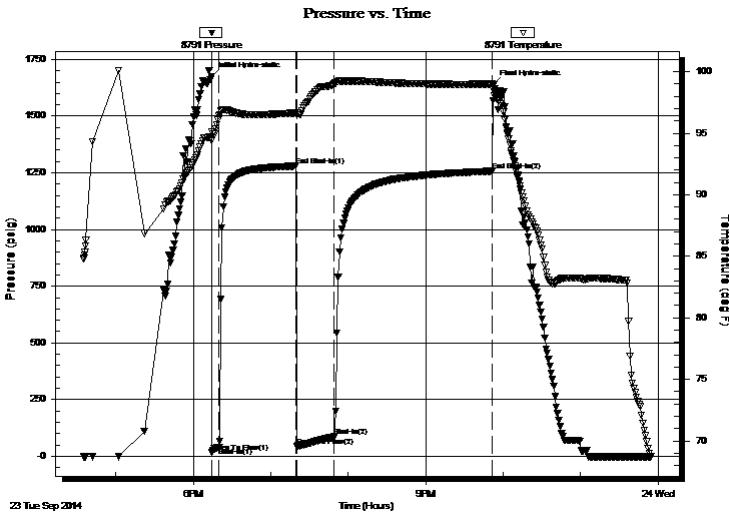
Serial #: 8791

Inside

Press@RunDepth: 86.91 psig @ 3501.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.09.23 End Date: 2014.09.23 Last Calib.: 2014.09.24
 Start Time: 16:35:05 End Time: 23:54:29 Time On Btm: 2014.09.23 @ 18:14:15
 Time Off Btm: 2014.09.23 @ 21:52:30

TEST COMMENT: 5 - IF: Blow built to 4"
 60 - IS: No blow back
 30 - FF: Blow built to BOB (11") at 16 1/4 min.
 120 - FS: Blow back built to 1/2"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1675.60	95.12	Initial Hydro-static
1	19.58	94.37	Open To Flow (1)
6	41.28	96.43	Shut-In(1)
66	1280.05	96.65	End Shut-In(1)
66	44.68	96.46	Open To Flow (2)
95	86.91	98.99	Shut-In(2)
218	1257.55	98.98	End Shut-In(2)
219	1639.42	98.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
67.00	OMCW 51%w, 38%m, 7%o, 4%g	0.62
68.00	OWCM 57%m, 30%w, 11%o, 2%g	0.95
30.00	SMCO 92%o, 6%g, 2%m	0.42
0.00	GIP = 90'	0.00

* Recovery from multiple tests

Gas Rates

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



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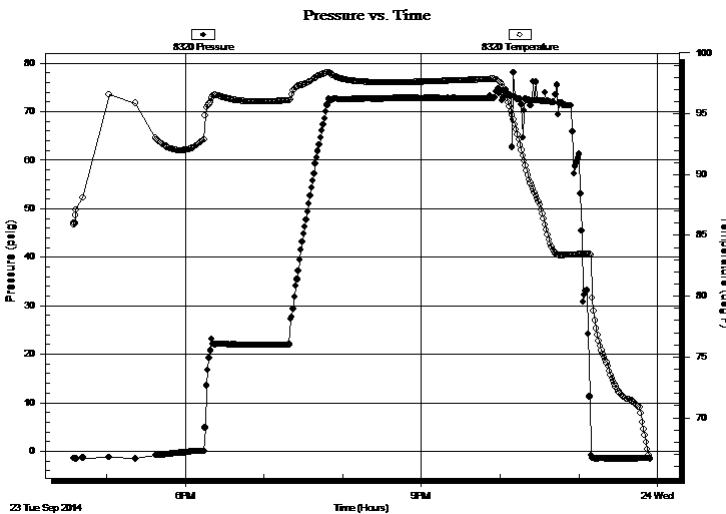
Serial #: 8320

Fluid

Press@RunDepth: psig @ 3465.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.09.23 End Date: 2014.09.23 Last Calib.: 2014.09.24
 Start Time: 16:35:05 End Time: 23:54:59 Time On Btm:
 Time Off Btm:

TEST COMMENT: 5 - IF: Blow built to 4"
 60 - ISI: No blow back
 30 - FF: Blow built to BOB (11") at 16 1/4 min.
 120 - FSI: Blow back built to 1/2"

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
67.00	OMCW 51%w , 38%m, 7%o, 4%g	0.62
68.00	OWCM 57%m, 30%w , 11%o, 2%g	0.95
30.00	SMCO 92%o, 6%g, 2%m	0.42
0.00	GIP = 90'	0.00

* Recovery from multiple tests

Gas Rates

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



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FLUID SUMMARY

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F&R Realty # 1-12

Job Ticket: 60077

DST#: 2

ATTN: Dan Pritchard

Test Start: 2014.09.23 @ 16:35:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

29.2 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

37000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbf

Water Loss: 8.74 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
67.00	OMCW 51%w , 38%m, 7%o, 4%g	0.621
68.00	OWCM 57%m, 30%w , 11%o, 2%g	0.954
30.00	SMCO 92%o, 6%g, 2%m	0.421
0.00	GIP = 90'	0.000

Total Length: 165.00 ft Total Volume: 1.996 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: gravity = 30 api @ 68 deg F corrected gravity = 29.2 api
RW = .211 ohms @ 66.5 deg F Chlorides = 37,000 ppm
Sampler = 550 psi, 2000 mL SMCWO 57%o, 33%w , 5%m, 5%g
(converts to - 1140 mL O, 660 mL w , 100 mL m, 100 mL g)

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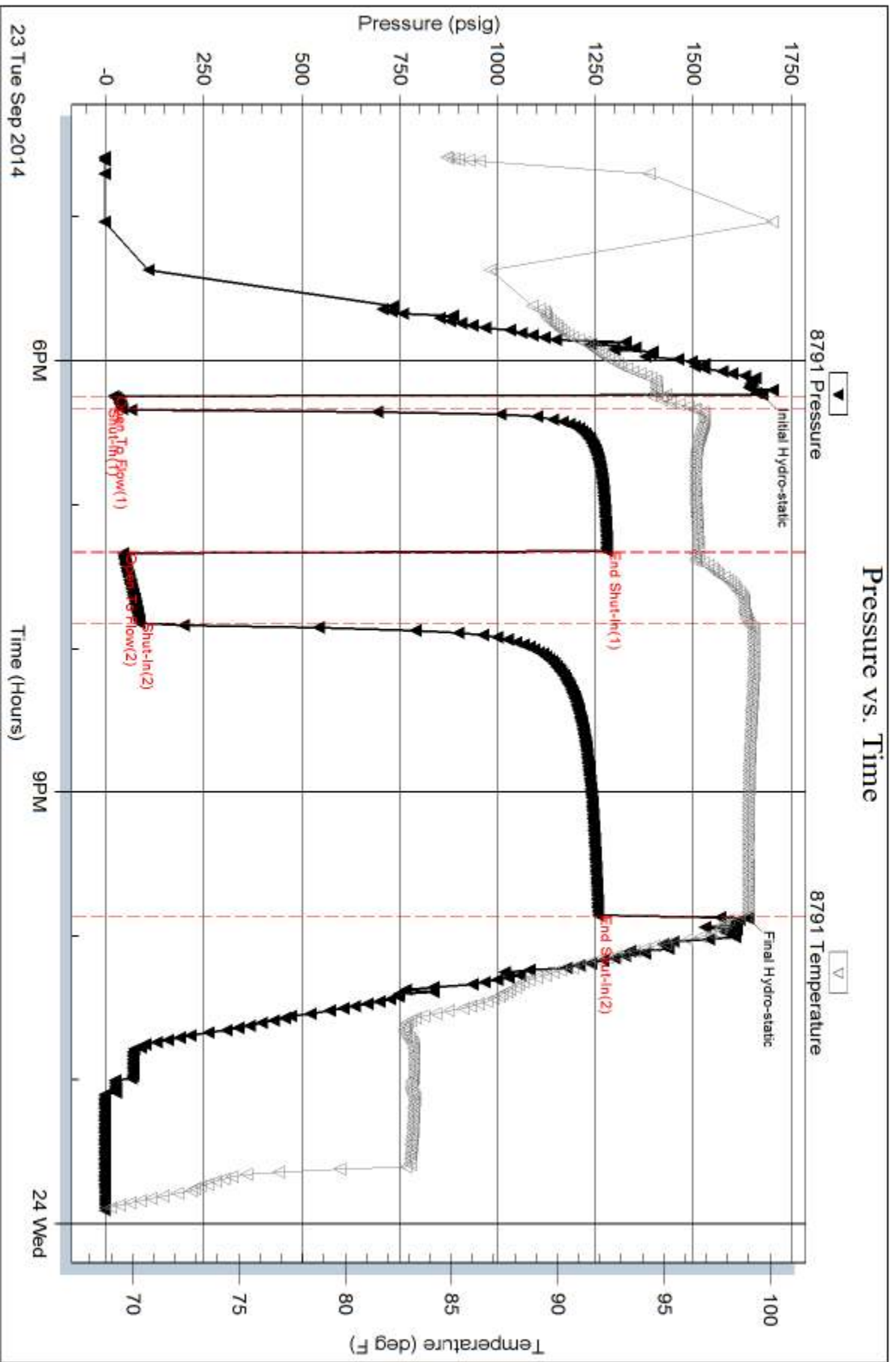
Inside

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DST Test Number: 2

Pressure vs. Time



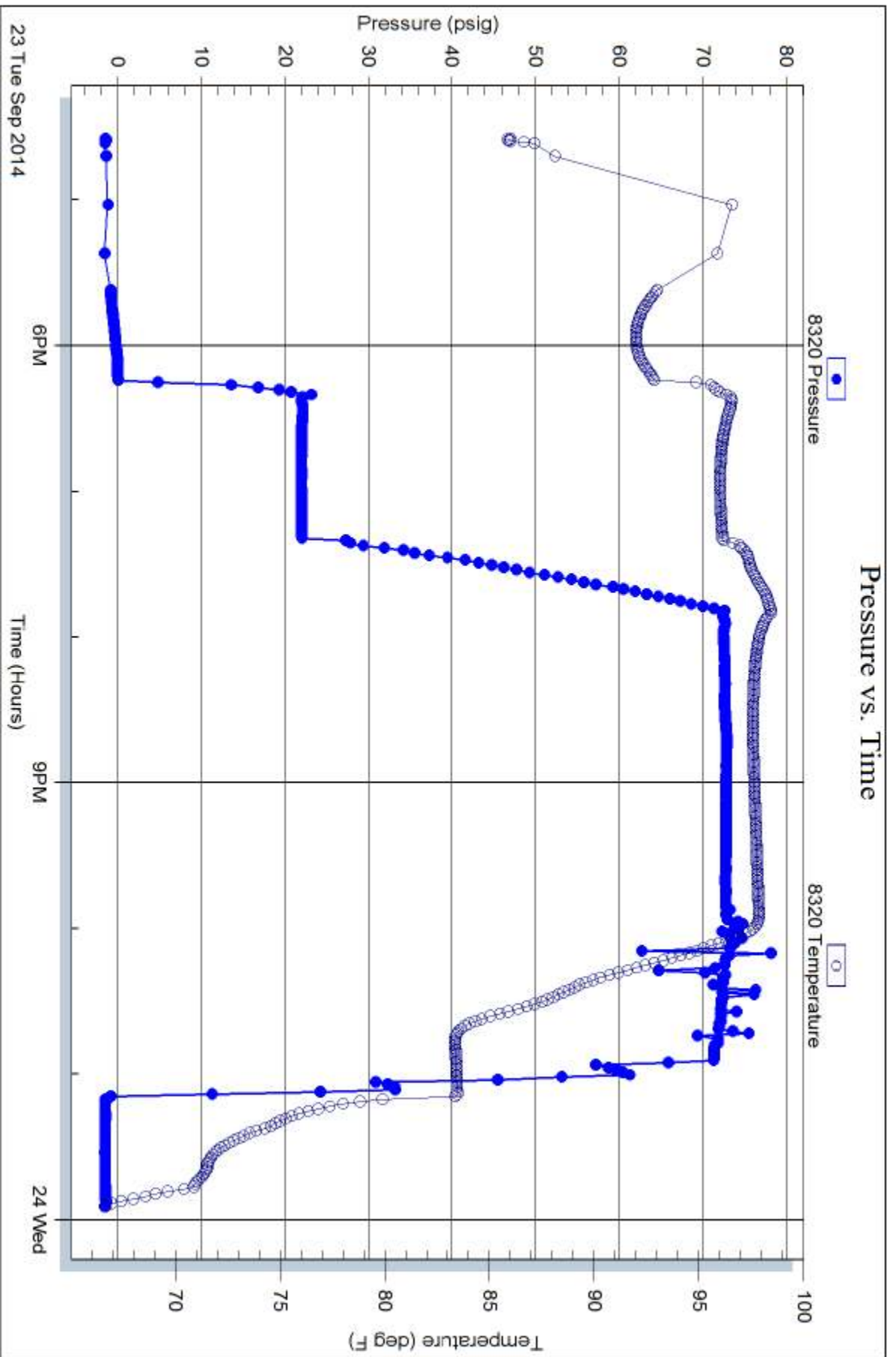
Serial #: 8320

Fluid

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