



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

36-4S-35W Rawlins, KS

1515 Wynkoop St. STE #700
Denver, CO 80202

Loeffler #1-36

Job Ticket: 60201

DST#: 3

ATTN: Chris Mitchell

Test Start: 2014.11.01 @ 18:37:00

GENERAL INFORMATION:

Formation: **LKC "G-H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:07:30

Time Test Ended: 03:57:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 4214.00 ft (KB) To 4295.00 ft (KB) (TVD)

Total Depth: 4295.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3220.00 ft (KB)

3215.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8874

Inside

Press @ Run Depth: 1241.97 psig @ 4215.00 ft (KB)

Start Date: 2014.11.01

End Date: 2014.11.02

Start Time: 18:38:00

End Time: 03:57:30

Capacity: 8000.00 psig

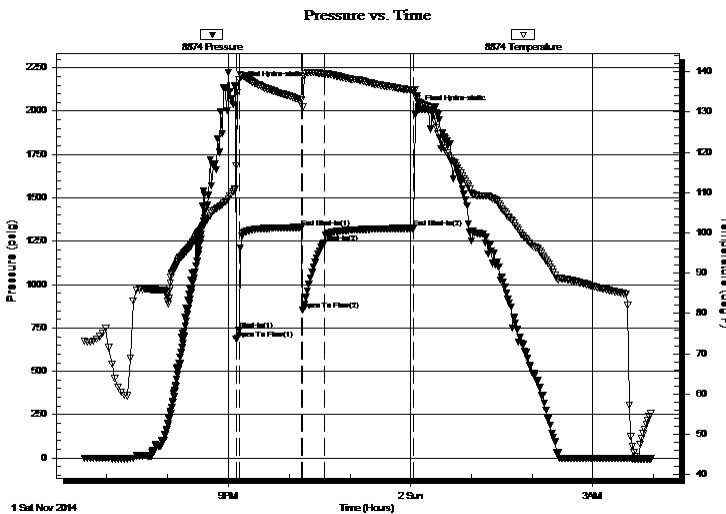
Last Calib.: 2014.11.02

Time On Btm: 2014.11.01 @ 21:06:30

Time Off Btm: 2014.11.02 @ 00:08:00

TEST COMMENT: 5 - IF- BoB in 45 sec.
60 - IS- Surface Return started at 2 min. Did not build or die
30 - FF- BoB in 40 sec.
120 - FS- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2145.16	110.94	Initial Hydro-static
1	685.09	116.63	Open To Flow (1)
4	738.02	138.04	Shut-In(1)
66	1329.53	132.89	End Shut-In(1)
67	855.10	131.18	Open To Flow (2)
88	1241.97	139.41	Shut-In(2)
177	1325.20	135.32	End Shut-In(2)
182	2010.50	132.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud (Heavy) 100M	0.05
1313.00	MW 5M 95W	16.81
630.00	MW 20M 80W	8.84
315.00	MW 40M 60W	4.42
315.00	WM 30W 70M	4.42

Gas Rates

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



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Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

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Total Depth: 4295.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3220.00 ft (KB)

3215.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8520

Fluid

Press @ Run Depth: psig @ 4184.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.01

End Date: 2014.11.02

Last Calib.: 2014.11.02

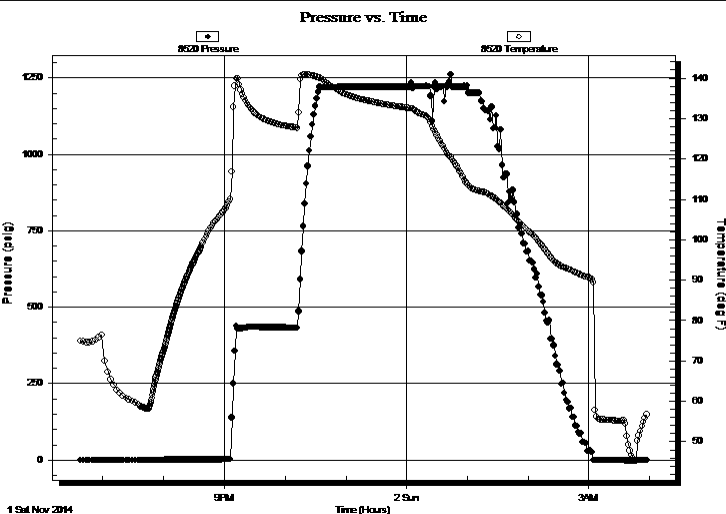
Start Time: 18:38:00

End Time: 03:57:30

Time On Btm:

Time Off Btm:

TEST COMMENT: 5 - IF- BoB in 45 sec.
60 - ISF- Surface Return started at 2 min. Did not build or die
30 - FF- BoB in 40 sec.
120 - FSI- No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud (Heavy) 100M	0.05
1313.00	MW 5M 95W	16.81
630.00	MW 20M 80W	8.84
315.00	MW 40M 60W	4.42
315.00	WM 30W 70M	4.42

Gas Rates

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



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FLUID SUMMARY

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Denver, CO 80202

Loeffler #1-36

Job Ticket: 60201

DST#: 3

ATTN: Chris Mitchell

Test Start: 2014.11.01 @ 18:37:00

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:

50000 ppm

Viscosity: 77.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 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 bbl
10.00	Mud (Heavy) 100M	0.049
1313.00	MW 5M 95W	16.815
630.00	MW 20M 80W	8.837
315.00	MW 40M 60W	4.419
315.00	WM 30W 70M	4.419

Total Length: 2583.00 ft Total Volume: 34.539 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

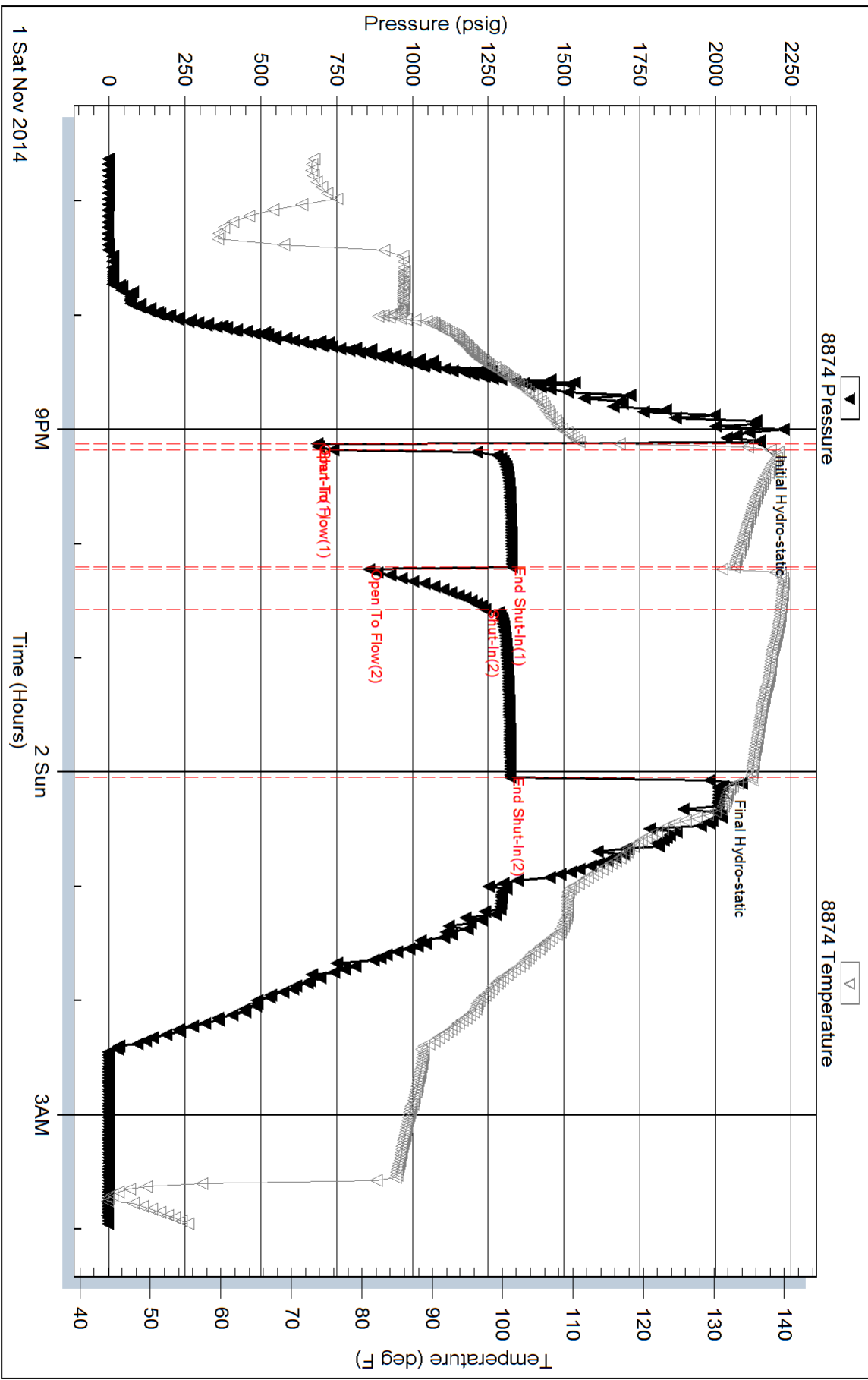
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .18 @ 62 deg = 50,000ppm

Pressure vs. Time

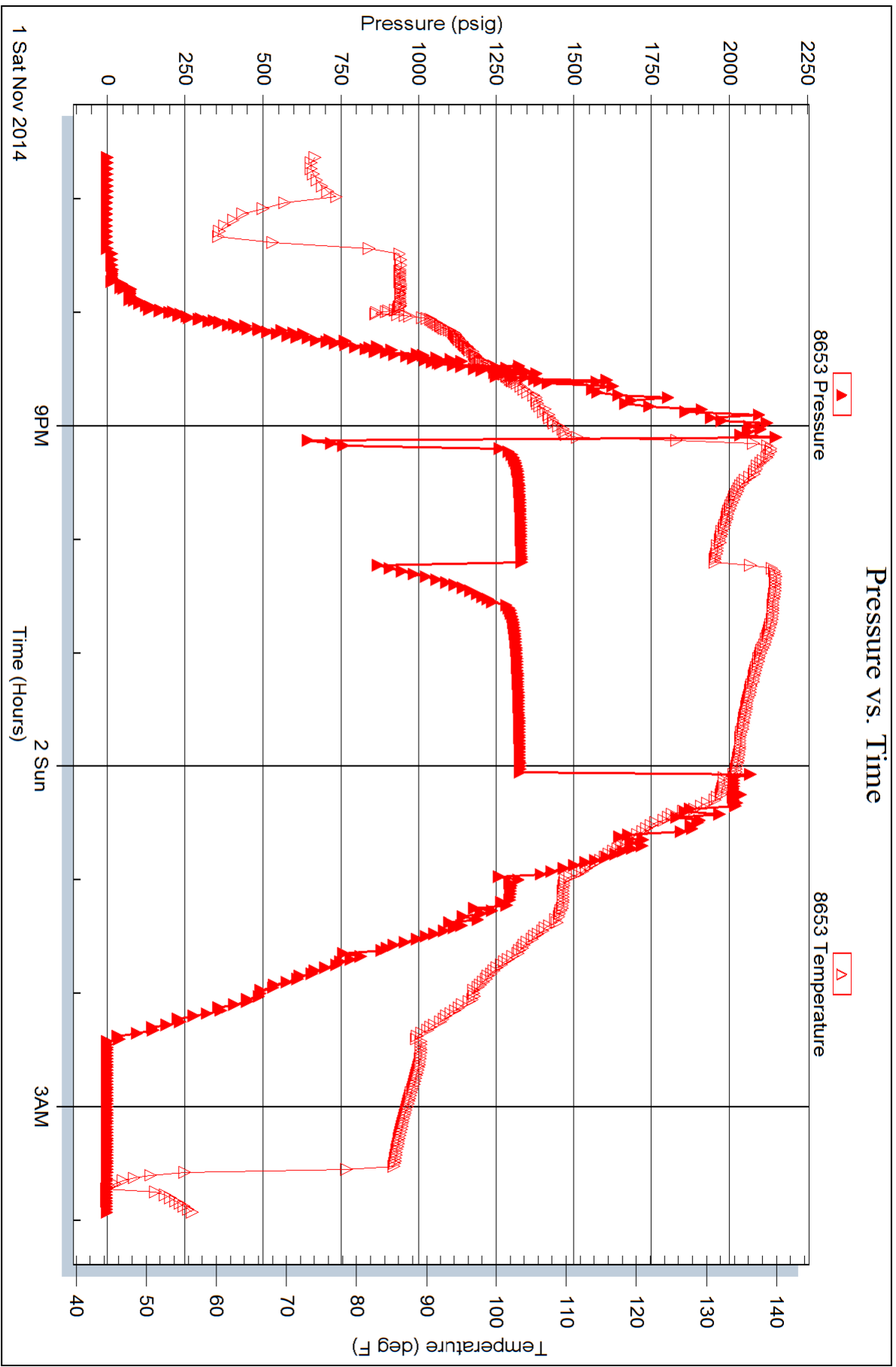


Serial #: 8653

Outside Samuel Gary Jr. & Associates

Loeffler #1-36

DST Test Number: 3



Serial #: 8520

Fluid

Samuel Gary Jr. & Associates

Loeffler #1-36

DST Test Number: 3

