



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

35-4s-23w Norton KS

1515 Wynkoop STE 700
Denver CO, 80202

Hager-Sproul 1-35

Job Ticket: 52189

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2013.05.12 @ 23:41:00

GENERAL INFORMATION:

Formation: **Lansing "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:20:30

Time Test Ended: 10:10:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 66

Interval: 3428.00 ft (KB) To 3477.00 ft (KB) (TVD)

Reference Elevations: 2335.00 ft (KB)

Total Depth: 3477.00 ft (KB) (TVD)

2327.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8354 Inside

Press @ Run Depth: 819.04 psig @ 3463.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.12

End Date:

2013.05.13

Last Calib.:

2013.05.13

Start Time: 23:51:00

End Time:

10:10:30

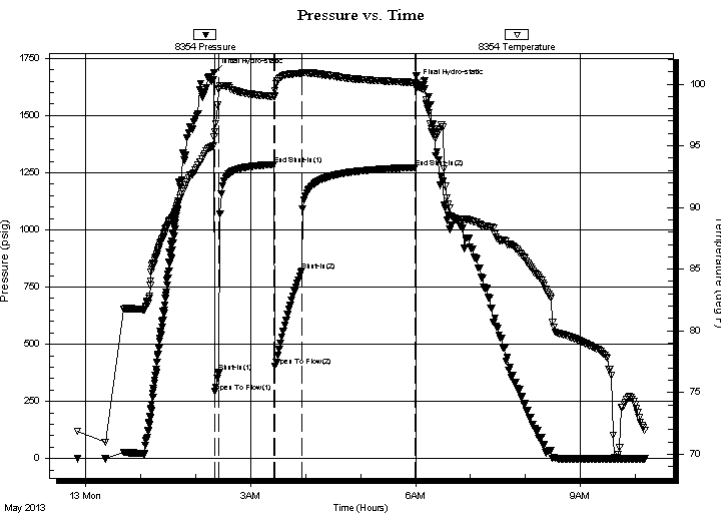
Time On Btm:

2013.05.13 @ 02:20:00

Time Off Btm:

2013.05.13 @ 06:00:00

TEST COMMENT: 05 - IFF- B.O.B. in 30 Seconds
60 - ISF- No return
30 - FFP- B.O.B. in 20 Seconds
120 - FSF- 6" return in 78 Minutes, died back to a 1/2" blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1688.70	95.73	Initial Hydro-static
1	292.29	96.15	Open To Flow (1)
6	377.54	99.63	Shut-In(1)
65	1285.44	98.97	End Shut-In(1)
66	402.99	99.02	Open To Flow (2)
96	819.04	100.84	Shut-In(2)
220	1272.54	100.12	End Shut-In(2)
220	1639.61	100.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	GSOCWM, 10%G, 10%O, 30%W, 50%M	1.46
1985.00	GMCO, 5%M, 20%G, 75%O	27.84
186.00	GMCO, 10%M, 20%G, 70%O	2.61
0.00	372' of G.I.P.	0.00

Gas Rates

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



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Tester: Cody Bloedorn

Unit No: 66

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Reference Elevations: 2335.00 ft (KB)

Total Depth: 3477.00 ft (KB) (TVD)

2327.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8653 Fluid

Press @ Run Depth: psig @ 3394.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.12 End Date: 2013.05.13

Last Calib.: 2013.05.13

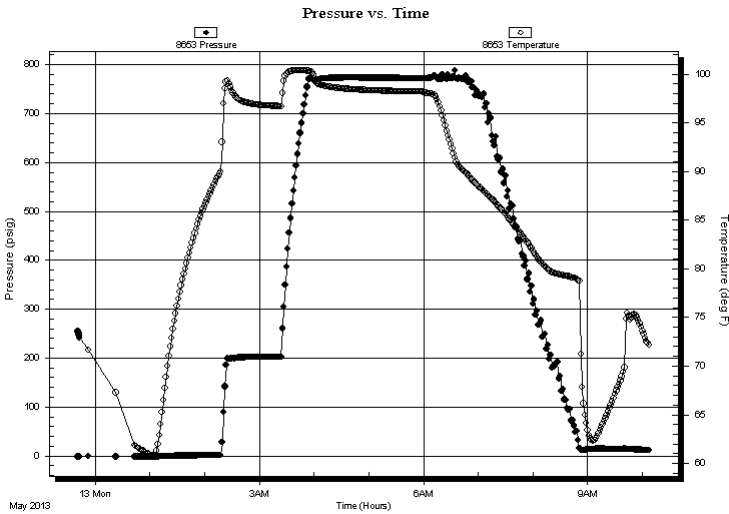
Start Time: 23:41:01 End Time: 10:07:30

Time On Btm:

Time Off Btm:

TEST COMMENT: 05 - IFF- B.O.B. in 30 Seconds
 60 - ISI- No return
 30 - FFP- B.O.B. in 20 Seconds
 120 - FSI- 6" return in 78 Minutes, died back to a 1/2" blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	GSOCWM, 10%G, 10%O, 30%W, 50%M	1.46
1985.00	GMCO, 5%M, 20%G, 75%O	27.84
186.00	GMCO, 10%M, 20%G, 70%O	2.61
0.00	372' of G.I.P.	0.00

Gas Rates

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



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FLUID SUMMARY

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35-4s-23w Norton KS

1515 Wynkoop STE 700
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Job Ticket: 52189

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2013.05.12 @ 23:41:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 66.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	GSOCWM, 10%G, 10%O, 30%W, 50%M	1.457
1985.00	GMCO, 5%M, 20%G, 75%O	27.844
186.00	GMCO, 10%M, 20%G, 70%O	2.609
0.00	372' of G.I.P.	0.000

Total Length: 2295.00 ft Total Volume: 31.910 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

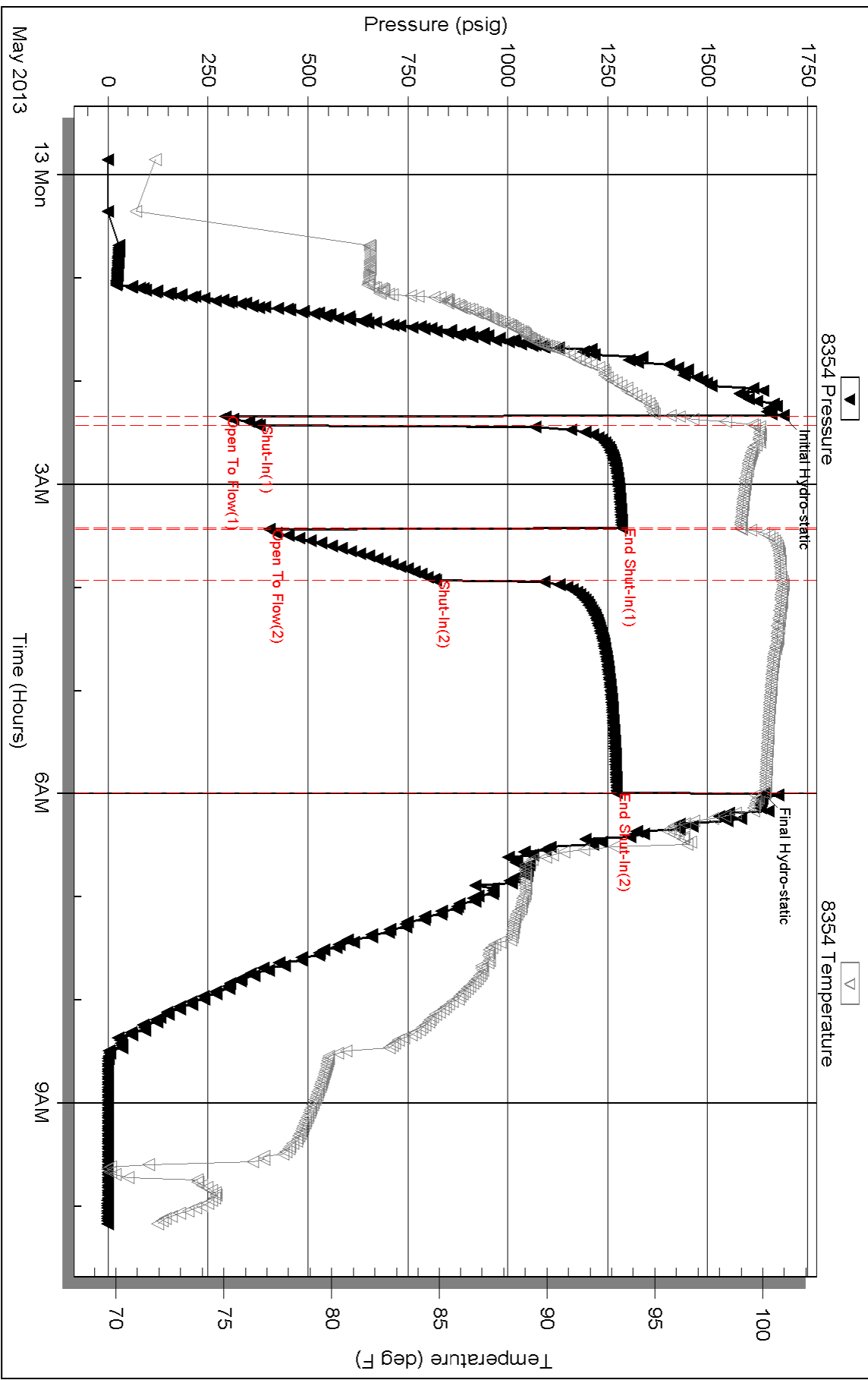
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity 31 @ 60 Degrees = 31
Could not get water sample.

Pressure vs. Time



Serial #: 8653

Fluid

Samuel Gary Jr. & Associates

Hager-Sprout 1-35

DST Test Number: 1

