



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates, Inc.

18-12-16

1515 Wynkoop, Ste 700
Denver, CO 80202

Brungardt 1-18

Job Ticket: 54426

DST#: 1

ATTN: Chris Mitchell

Test Start: 2013.08.16 @ 21:00:00

GENERAL INFORMATION:

Formation: **Lansing A-E**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:32:30

Time Test Ended: 02:53:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan L

Unit No: 59

Interval: **3266.00 ft (KB) To 3343.00 ft (KB) (TVD)**

Reference Elevations: 2061.00 ft (KB)

Total Depth: 3343.00 ft (KB) (TVD)

2053.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753

Inside

Press @ Run Depth: 50.63 psig @ 3275.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.08.16

End Date:

2013.08.17

Last Calib.: 2013.08.17

Start Time: 21:00:05

End Time:

02:52:59

Time On Btm: 2013.08.16 @ 22:32:00

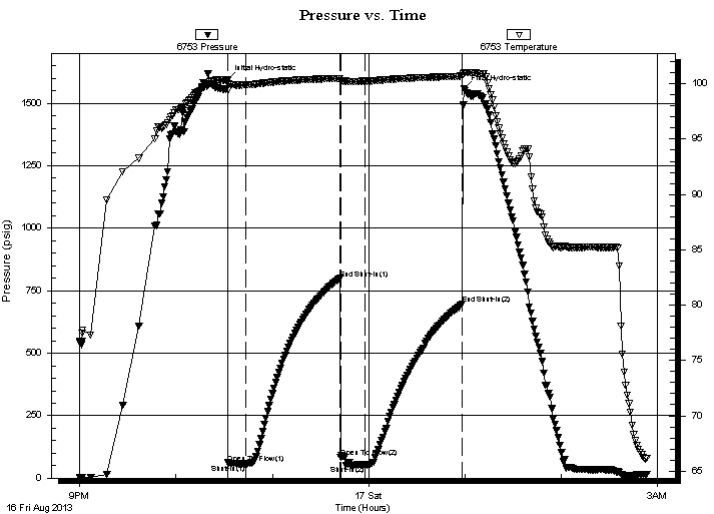
Time Off Btm: 2013.08.17 @ 00:59:30

TEST COMMENT: 10- IF- Surface blow

60- ISI- No blow

15- FF- No blow

60- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1595.29	100.33	Initial Hydro-static
1	60.81	99.43	Open To Flow (1)
12	56.90	99.92	Shut-In(1)
70	798.55	100.49	End Shut-In(1)
71	83.21	100.26	Open To Flow (2)
86	50.63	100.23	Shut-In(2)
146	696.55	100.69	End Shut-In(2)
148	1556.41	100.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mw / show of O, 100%M	0.05

Gas Rates

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



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Formation: **Lansing A-E**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:32:30

Time Test Ended: 02:53:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan L

Unit No: 59

Interval: 3266.00 ft (KB) To 3343.00 ft (KB) (TVD)

Reference Elevations: 2061.00 ft (KB)

Total Depth: 3343.00 ft (KB) (TVD)

2053.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8319

Press @ Run Depth: psig @ ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.08.16

End Date: 2013.08.17

Last Calib.: 2013.08.17

Start Time: 21:00:05

End Time: 02:52:59

Time On Btm:

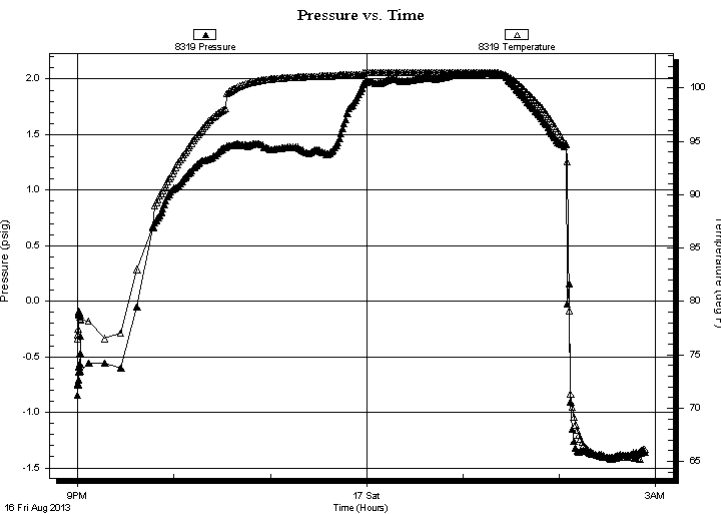
Time Off Btm:

TEST COMMENT: 10- IF- Surface blow

60- ISI- No blow

15- FF- No blow

60- FSI- No blow



PRESSURE SUMMARY

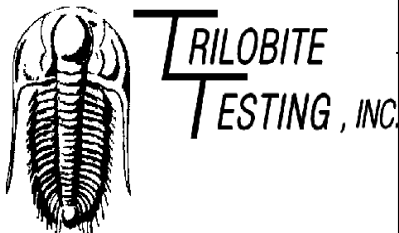
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mw / show of O, 100%M	0.05

Gas Rates

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



DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates, Inc.

18-12-16

1515 Wynkoop, Ste 700
Denver, CO 80202

Brungardt 1-18

Job Ticket: 54426 **DST#: 1**

ATTN: Chris Mitchell

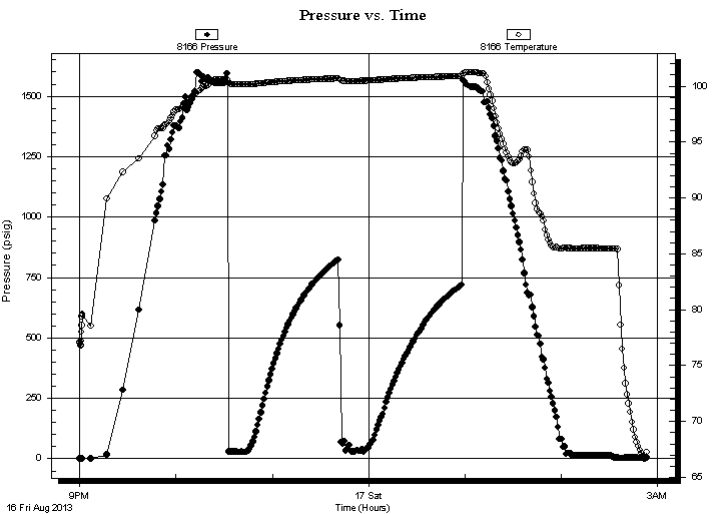
Test Start: 2013.08.16 @ 21:00:00

GENERAL INFORMATION:

Formation: Lansing A-E			
Deviated: No Whipstock:	ft (KB)	Test Type:	Conventional Bottom Hole (Initial)
Time Tool Opened: 22:32:30		Tester:	Brannan L
Time Test Ended: 02:53:00		Unit No:	59
Interval: 3266.00 ft (KB) To 3343.00 ft (KB) (TVD)		Reference Elevations:	2061.00 ft (KB)
Total Depth: 3343.00 ft (KB) (TVD)			2053.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF:	8.00 ft

Serial #: 8166	Outside		
Press @ Run Depth: psig @	3275.00 ft (KB)	Capacity:	8000.00 psig
Start Date: 2013.08.16	End Date: 2013.08.17	Last Calib.:	2013.08.17
Start Time: 21:00:05	End Time: 02:52:59	Time On Btm:	
		Time Off Btm:	

TEST COMMENT: 10- IF- Surface blow
60- IS- No blow
15- FF- No blow
60- FSI- No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mw / show of O, 100%M	0.05

Gas Rates

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



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DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr. & Associates, Inc.

18-12-16

1515 Wynkoop, Ste 700
Denver, CO 80202

Brungardt 1-18

Job Ticket: 54426

DST#: 1

ATTN: Chris Mitchell

Test Start: 2013.08.16 @ 21:00:00

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: ppm

Viscosity: 50.00 sec/qt

Cushion Volume: bbl

Water Loss: 8.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mw/ show of O, 100%M	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

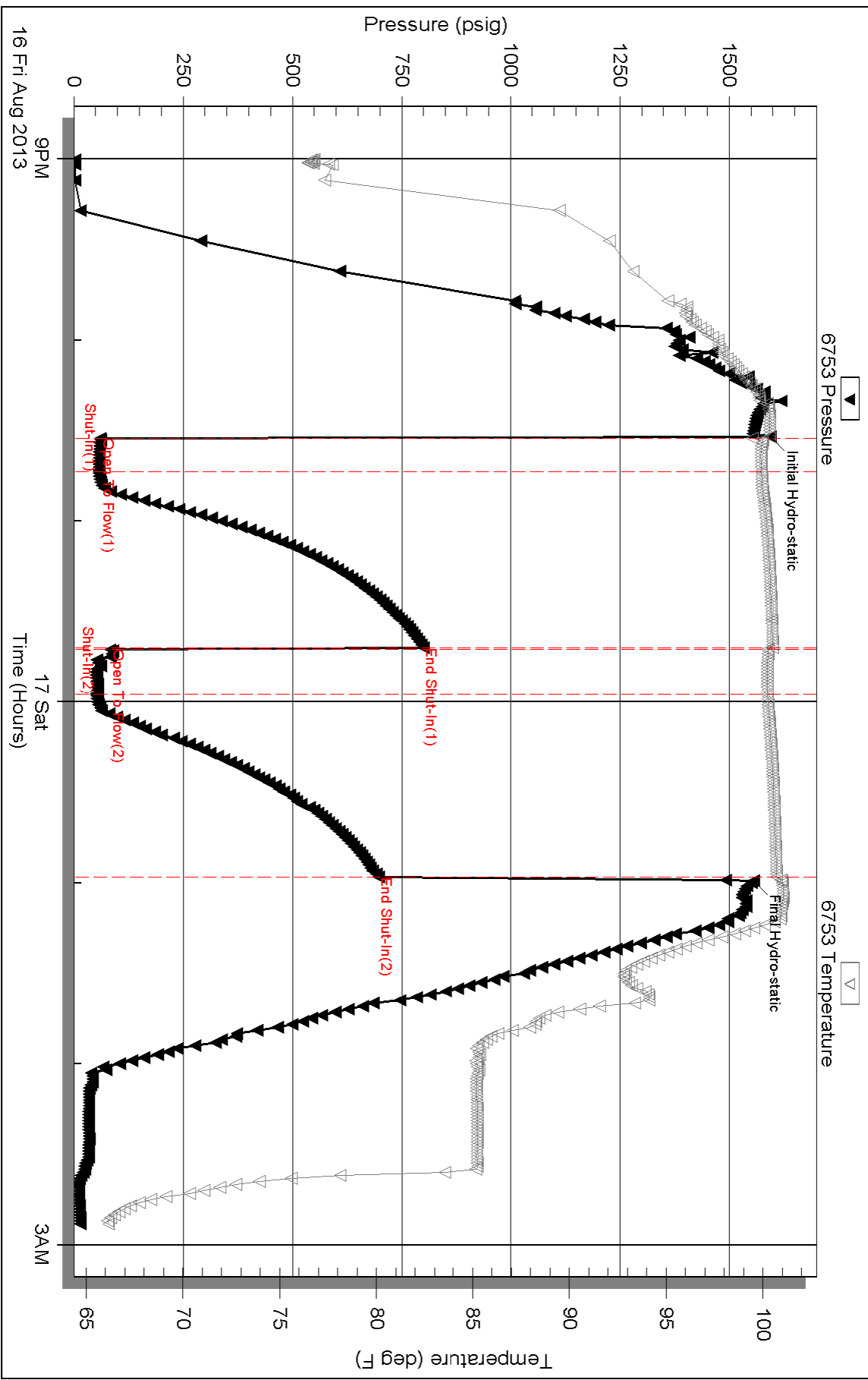
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





Serial #: 8166

Outside Samuel Gary Jr. & Associates, Inc.

Brungradt 1-18

DST Test Number: 1

