



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Sam Gary Jr&Associates Inc
 1515 Wynkoop
 Ste 700
 Denver Co 80202
 ATTN: Spencer Musgrove,Jim

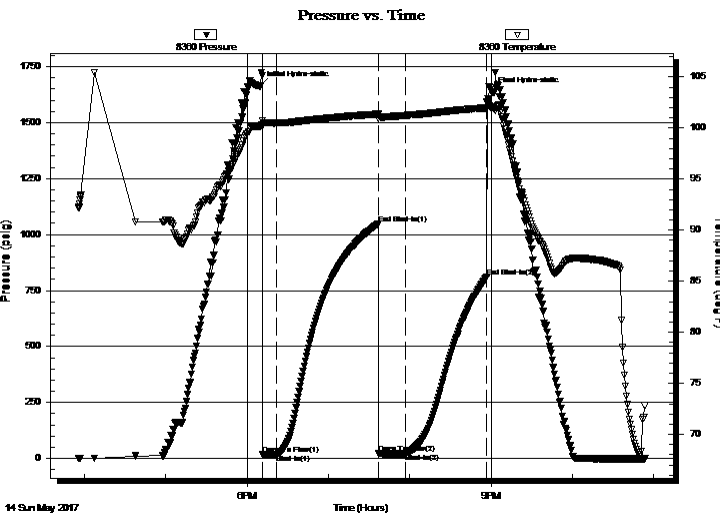
15-5s-23w Norton
Hilderbrand #1-15
 Job Ticket: 63953 **DST#: 3**
 Test Start: 2017.05.14 @ 15:55:44

GENERAL INFORMATION:

Formation: **LKC**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:11:39
 Time Test Ended: 22:53:38
Interval: 3490.00 ft (KB) To 3547.00 ft (KB) (TVD)
 Total Depth: 3547.00 ft (KB) (TVD)
 Hole Diameter: 7.85 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 77
 Reference Elevations: 2212.00 ft (KB)
 2204.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8360 **Inside**
 Press@RunDepth: 22.45 psig @ 3492.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.05.14 End Date: 2017.05.14 Last Calib.: 2017.05.14
 Start Time: 15:55:44 End Time: 22:53:38 Time On Btm: 2017.05.14 @ 18:09:54
 Time Off Btm: 2017.05.14 @ 21:00:23

TEST COMMENT: 10-IFP-surface bl , died in 8 min
 75-ISIP-no bl
 20-FFP-no bl
 60-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1662.83	100.15	Initial Hydro-static
2	18.74	100.30	Open To Flow (1)
12	20.14	100.50	Shut-In(1)
87	1048.06	101.38	End Shut-In(1)
87	21.84	100.91	Open To Flow (2)
108	22.45	101.25	Shut-In(2)
167	810.38	101.98	End Shut-In(2)
171	1636.42	102.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM 10%O90%M	0.07

* Recovery from multiple tests

Gas Rates

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



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ATTN: Spencer Musgrove,Jim

Hilderbrand #1-15

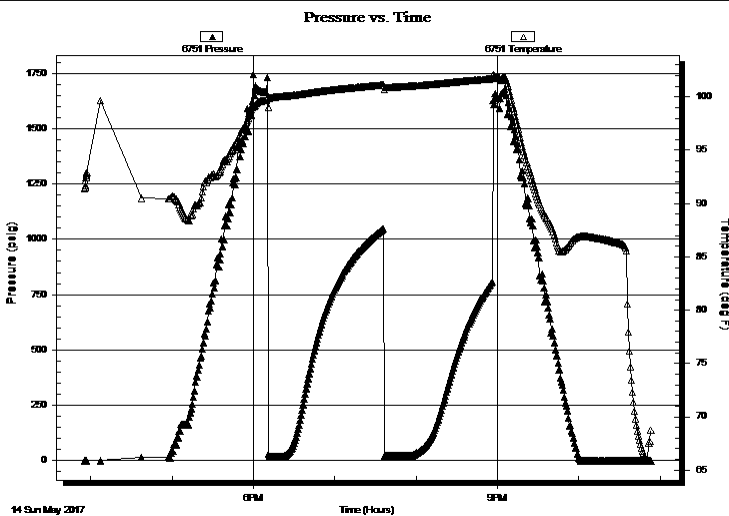
Job Ticket: 63953 **DST#: 3**
Test Start: 2017.05.14 @ 15:55:44

GENERAL INFORMATION:

Formation: **LKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:11:39
Time Test Ended: 22:53:38
Interval: **3490.00 ft (KB) To 3547.00 ft (KB) (TVD)**
Total Depth: 3547.00 ft (KB) (TVD)
Hole Diameter: 7.85 inchesHole Condition: Fair
Reference Elevations: 2212.00 ft (KB)
2204.00 ft (CF)
KB to GR/CF: 8.00 ft
Test Type: Conventional Bottom Hole (Reset)
Tester: Ray Schwager
Unit No: 77

Serial #: 6751 Outside
Press@RunDepth: psig @ 3492.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.05.14 End Date: 2017.05.14 Last Calib.: 2017.05.14
Start Time: 15:55:29 End Time: 22:53:08 Time On Btm:
Time Off Btm:

TEST COMMENT: 10-IFP-surface bl , died in 8 min
75-ISIP-no bl
20-FFP-no bl
60-FSIP-no bl



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM 10%O90%M	0.07

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Sam Gary Jr&Associates Inc

15-5s-23w Norton

1515 Wynkoop
Ste 700
Denver Co 80202

Hilderbrand #1-15

Job Ticket: 63953

DST#: 3

ATTN: Spencer Musgrove,Jim

Test Start: 2017.05.14 @ 15:55:44

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: 6.80 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OCM 10%O90%M	0.071

Total Length: 10.00 ft Total Volume: 0.071 bbl

Num Fluid Samples: 0

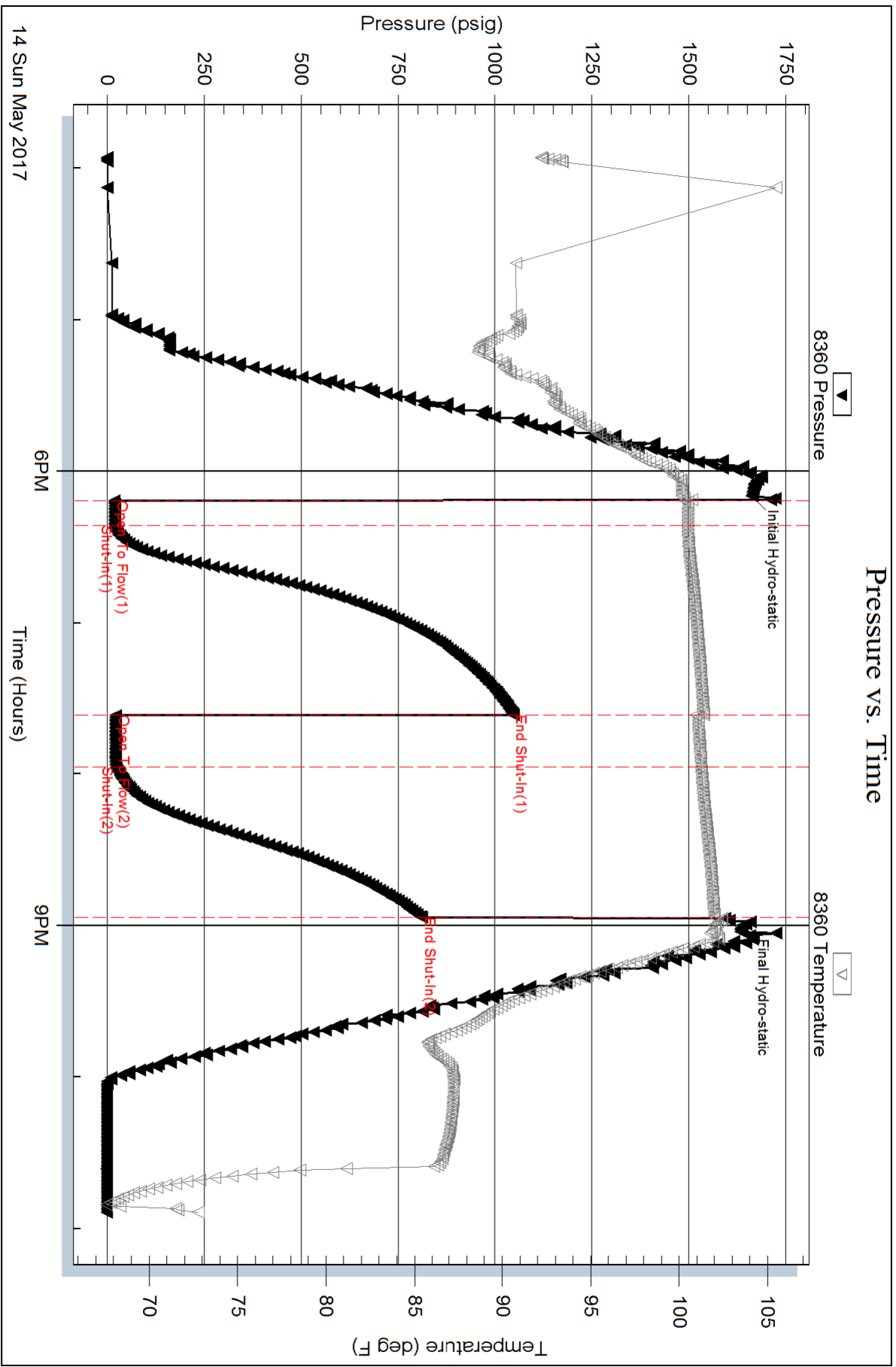
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data: PSI :

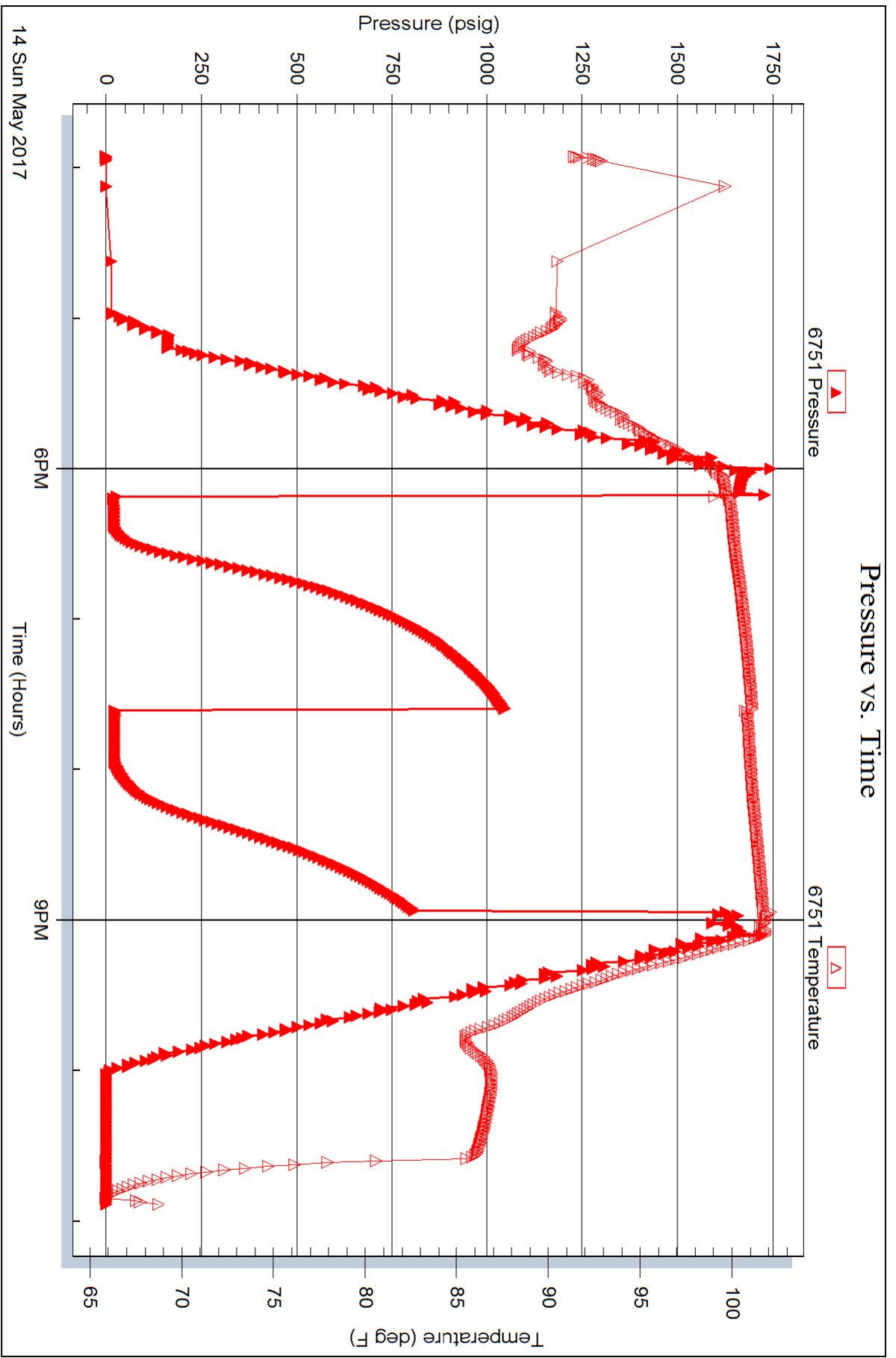


Serial #: 6751

Outside Sam Gary Jr&Associates Inc

Hilderbrand #1-15

DST Test Number: 3



Serial #: 8373

Fluid

Sam Gary Jr&Associates Inc

Hilderbrand #1-15

DST Test Number: 3



14 Sun May 2017

6PM

Time (Hours)

9PM

Trilobite Testing, Inc

Ref. No: 63953

Printed: 2017.05.14 @ 23:19:40