



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Sam Gary & Assoc. Inc.

1 5 24w Norton Ks.

1515 Wynkoop
STE. 700 Denver Co.
80202
ATTN: Clayton Camozzi

Neurnberger #1-1

Job Ticket: 56816 **DST#: 4**
Test Start: 2014.03.27 @ 10:00:00

GENERAL INFORMATION:

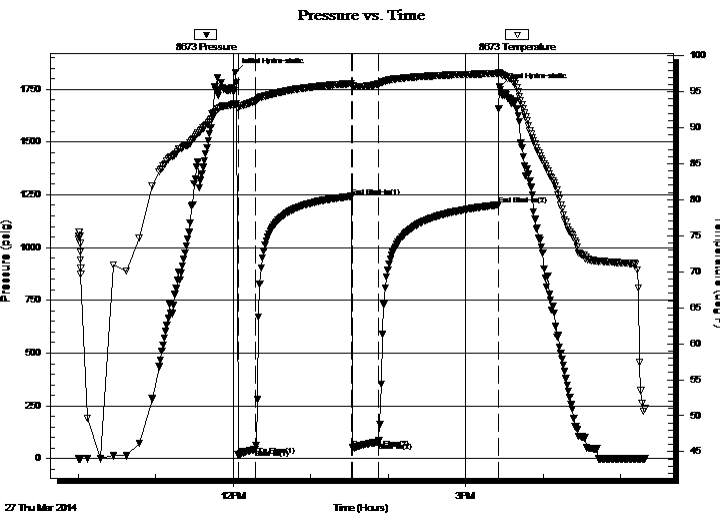
Formation: **LKC-G,F**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:03:30
 Time Test Ended: 17:18:30
 Interval: **3590.00 ft (KB) To 3644.00 ft (KB) (TVD)**
 Total Depth: 3644.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Kreuzer Jr.
 Unit No: 61
 Reference Elevations: 2373.00 ft (KB)
 2363.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8673

Inside

Press @ Run Depth: 77.82 psig @ 3593.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.03.27 End Date: 2014.03.27 Last Calib.: 2014.03.27
 Start Time: 10:00:05 End Time: 17:18:29 Time On Btm: 2014.03.27 @ 12:01:30
 Time Off Btm: 2014.03.27 @ 15:26:00

TEST COMMENT: IF: Weak blow , Built to 2 in. over 10 mins.
 IS: No blow back
 FF: 1 in. blow over 20 mins
 FS: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1829.76	93.32	Initial Hydro-static
2	18.65	92.69	Open To Flow (1)
16	45.41	93.71	Shut-In(1)
90	1242.85	96.11	End Shut-In(1)
91	51.28	95.76	Open To Flow (2)
111	77.82	96.06	Shut-In(2)
204	1202.19	97.54	End Shut-In(2)
205	1760.03	97.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	sampler-- 2000 ml of mud- 100PSI	0.00
119.00	mud w ith oil specs	0.59
15.00	Ho-100%	0.21

* Recovery from multiple tests

Gas Rates

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



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Job Ticket: 56816 **DST#: 4**
Test Start: 2014.03.27 @ 10:00:00

GENERAL INFORMATION:

Formation: **LKC-G,F**

Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)

Time Tool Opened: 12:03:30 Tester: Chuck Kreutzer Jr.

Time Test Ended: 17:18:30 Unit No: 61

Interval: 3590.00 ft (KB) To 3644.00 ft (KB) (TVD)

Total Depth: 3644.00 ft (KB) (TVD) Reference Elevations: 2373.00 ft (KB)

Hole Diameter: 7.88 inchesHole Condition: Fair 2363.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8791 Fluid

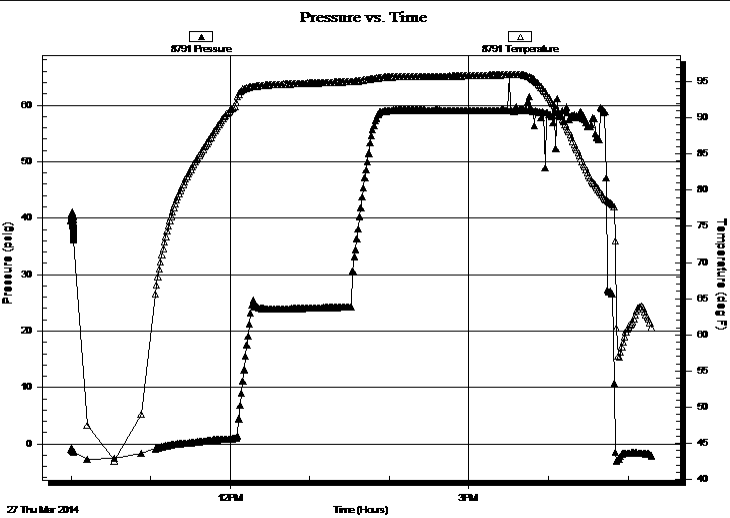
Press @ RunDepth: psig @ 3555.00 ft (KB) Capacity: 8000.00 psig

Start Date: 2014.03.27 End Date: 2014.03.27 Last Calib.: 2014.03.27

Start Time: 10:00:01 End Time: 17:17:30 Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Weak blow , Built to 2 in. over 10 mins.
IS! No blow back
FF: 1 in. blow over 20 mins
FS! No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	sampler-- 2000 ml of mud- 100PSI	0.00
119.00	mud w ith oil specs	0.59
15.00	Ho-100%	0.21

Gas Rates

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

* Recovery from multiple tests



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FLUID SUMMARY

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1 5 24w Norton Ks.

1515 Wynkoop
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80202

Neurnberger #1-1

Job Ticket: 56816

DST#: 4

ATTN: Clayton Camozzi

Test Start: 2014.03.27 @ 10:00:00

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: 53.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.00 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
0.00	sampler-- 2000 ml of mud- 100PSI	0.000
119.00	mud w ith oil specs	0.585
15.00	Ho-100%o	0.210

Total Length: 134.00 ft Total Volume: 0.795 bbf

Num Fluid Samples: 0

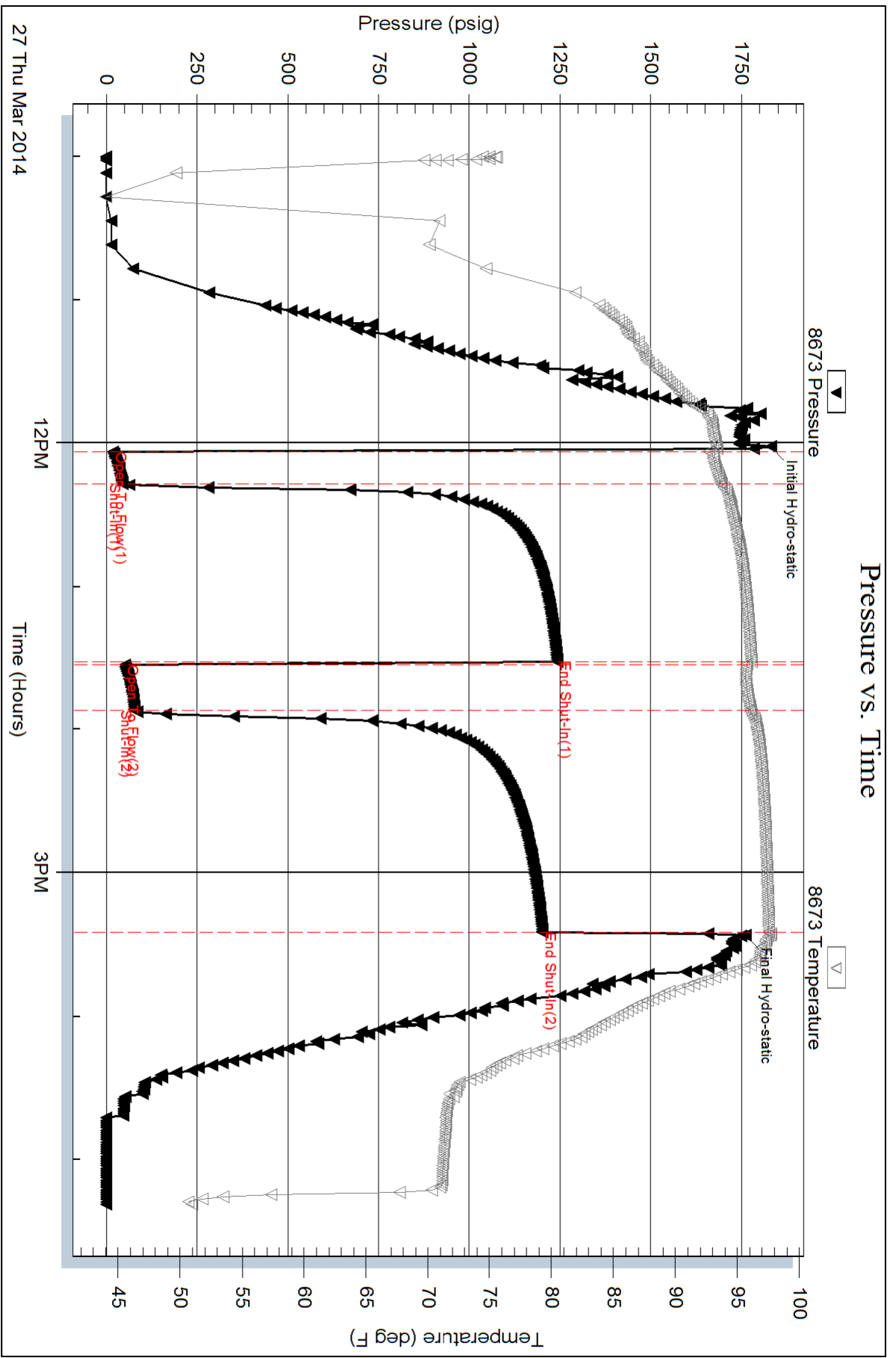
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Serial #: 8791

Fluid

Sam Gary & Assoc. Inc.

Neumberger #1-1

DST Test Number: 4

