



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Coachman Energy Operating Co., LLC

23-15S-20W Ellis, KS

1125 17th St.
Suite 410
Denver, CO 80202
ATTN: Charlie Sturdavant

Wasinger #1-23-15-20

Job Ticket: 63199 **DST#: 3**

Test Start: 2017.06.25 @ 10:59:19

GENERAL INFORMATION:

Formation: **LKC "G-I"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:57:55
 Time Test Ended: 17:15:55
 Interval: **3495.00 ft (KB) To 3540.00 ft (KB) (TVD)**
 Total Depth: 3540.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brannan Lonsdale
 Unit No: 73
 Reference Elevations: 2074.00 ft (KB)
 2066.00 ft (CF)
 KB to GR/CF: 8.00 ft

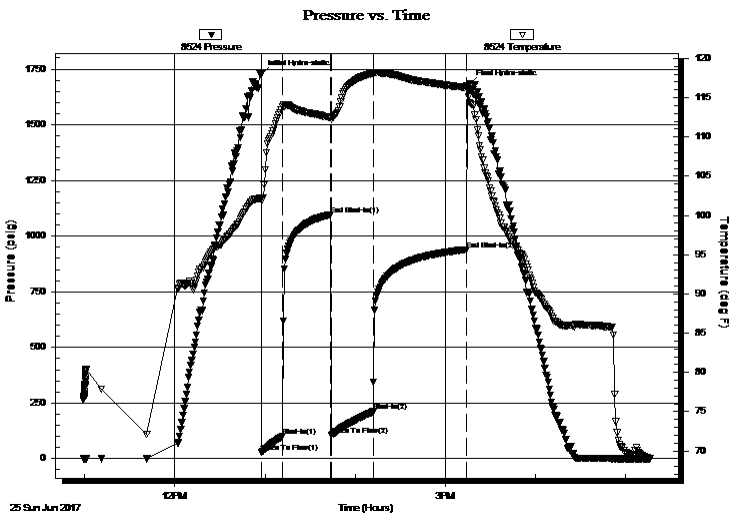
Serial #: 8524

Outside

Press@RunDepth: 211.51 psig @ 3507.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.06.25 End Date: 2017.06.25 Last Calib.: 2017.06.25
 Start Time: 10:59:20 End Time: 17:15:55 Time On Btm: 2017.06.25 @ 12:57:40
 Time Off Btm: 2017.06.25 @ 15:15:55

TEST COMMENT: 15- IF- BOB 7mins
 30- IS- No blow
 30- FF- BOB 10mins
 60- FSI- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1724.88	102.19	Initial Hydro-static
1	28.67	101.94	Open To Flow (1)
14	100.47	113.87	Shut-In(1)
46	1095.76	112.54	End Shut-In(1)
47	105.86	112.27	Open To Flow (2)
75	211.51	118.08	Shut-In(2)
136	939.58	116.31	End Shut-In(2)
139	1682.21	114.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	WM, 15%W 85%M	1.77
280.00	MW, 35%M 65%W	3.97

* Recovery from multiple tests

Gas Rates

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



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Job Ticket: 63199 **DST#: 3**
Test Start: 2017.06.25 @ 10:59:19

GENERAL INFORMATION:

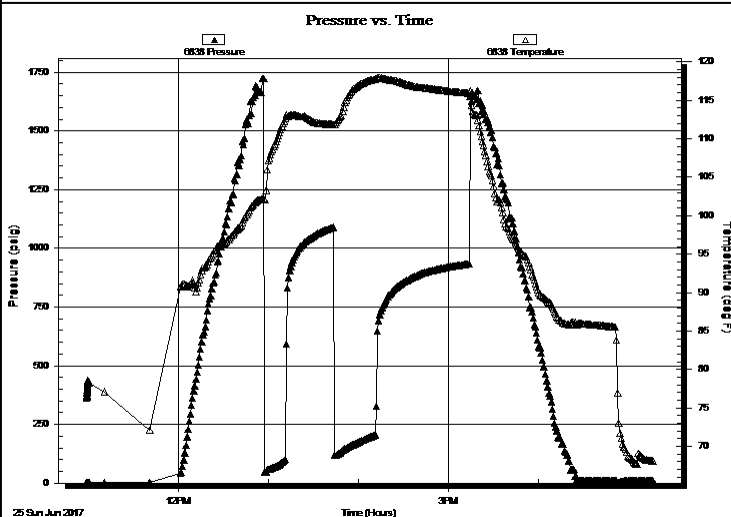
Formation: LKC "G-I"			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)	
Time Tool Opened: 12:57:55		Tester: Brannan Lonsdale	
Time Test Ended: 17:15:55		Unit No: 73	
Interval: 3495.00 ft (KB) To 3540.00 ft (KB) (TVD)		Reference Elevations: 2074.00 ft (KB)	
Total Depth: 3540.00 ft (KB) (TVD)		2066.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 8.00 ft	

Serial #: 6838

Inside

Press@RunDepth:	psig @	3507.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2017.06.25	End Date:	2017.06.25	Last Calib.:	2017.06.25
Start Time:	10:59:07	End Time:	17:15:42	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: 15- IF- BOB 7mins
30- IS- No blow
30- FF- BOB 10mins
60- FS- No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
125.00	WM, 15%W 85%M	1.77
280.00	MW, 35%M 65%W	3.97

Gas Rates

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

* Recovery from multiple tests



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FLUID SUMMARY

Coachman Energy Operating Co., LLC

23-15S-20W Ellis, KS

1125 17th St.
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ATTN: Charlie Sturdavant

Wasinger #1-23-15-20

Job Ticket: 63199

DST#: 3

Test Start: 2017.06.25 @ 10:59:19

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 45.00 sec/qt
Water Loss: 7.80 in³
Resistivity: ohm.m
Salinity: 12800.00 ppm
Filter Cake: inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: 90000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	WM, 15%W 85%M	1.772
280.00	MW, 35%M 65%W	3.969

Total Length: 405.00 ft Total Volume: 5.741 bbl

Num Fluid Samples: 0

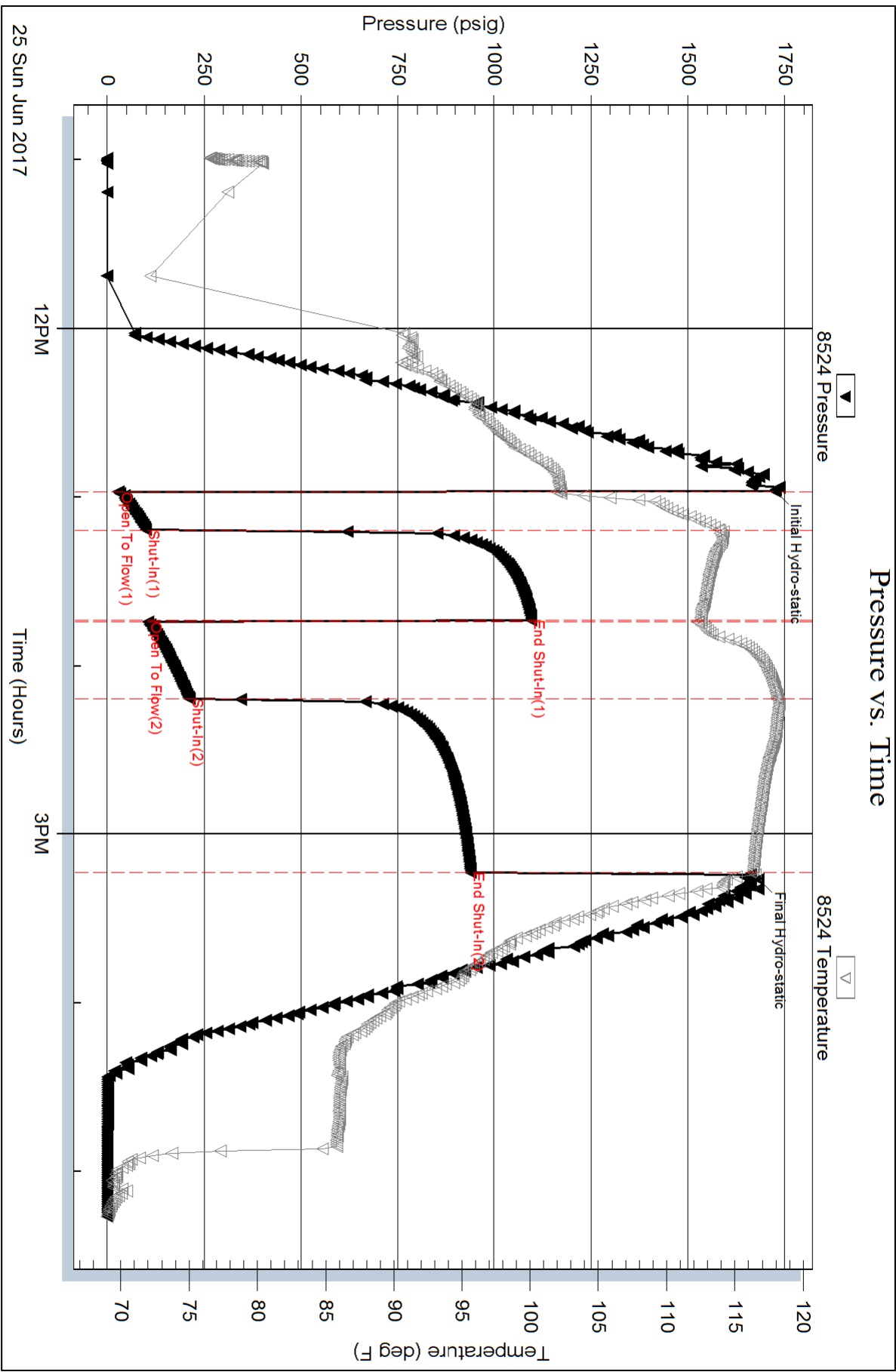
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler: 600mL M & 1400mL W @ 600 PSI
RW: .08 @ 65deg



Serial #: 6838

Inside

Coachman Energy Operating Co., LLC

Wasinger #1-23-15-20

DST Test Number: 3

