



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: 63197 **DST#: 1**

Test Start: 2017.06.23 @ 21:47:56

GENERAL INFORMATION:

Formation: **LKC "A-D"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 01:41:47
 Tester: Brannan Lonsdale
 Time Test Ended: 06:08:02
 Unit No: 73
 Interval: **3354.00 ft (KB) To 3420.00 ft (KB) (TVD)**
 Reference Elevations: 2074.00 ft (KB)
 Total Depth: 3420.00 ft (KB) (TVD)
 2066.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 8.00 ft

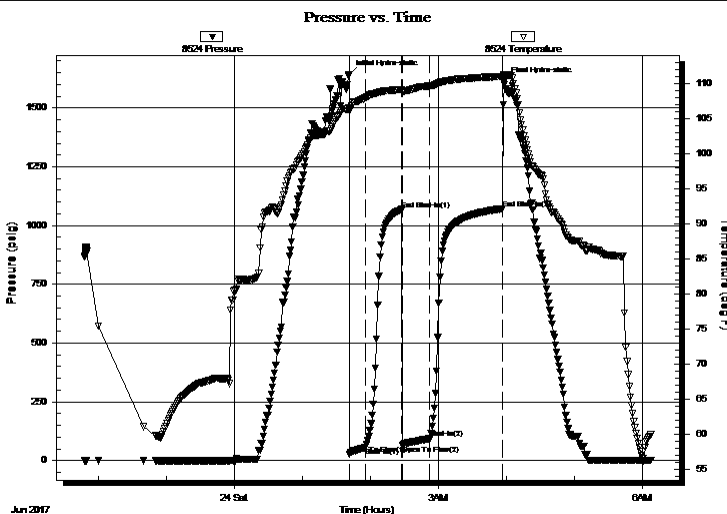
Serial #: 8524

Outside

Press@RunDepth: 93.07 psig @ 3385.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.06.23 End Date: 2017.06.24 Last Calib.: 2017.06.24
 Start Time: 21:47:57 End Time: 06:08:02 Time On Btm: 2017.06.24 @ 01:41:32
 Time Off Btm: 2017.06.24 @ 03:58:17

TEST COMMENT: 15- IF- BOB 5mins
 30- IS- Surface blow died in 10mins
 30- FF- BOB instantly
 60- FSI- Built to 2" then died back to 1"

PRESSURE SUMMARY



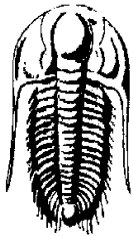
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1642.70	106.58	Initial Hydro-static
1	27.62	106.24	Open To Flow (1)
15	56.37	108.03	Shut-In(1)
46	1068.11	109.20	End Shut-In(1)
48	63.27	108.94	Open To Flow (2)
72	93.07	109.72	Shut-In(2)
136	1071.49	111.07	End Shut-In(2)
137	1611.55	111.33	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	GMCO, 30%G 25%M 45%O	2.64

Gas Rates

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



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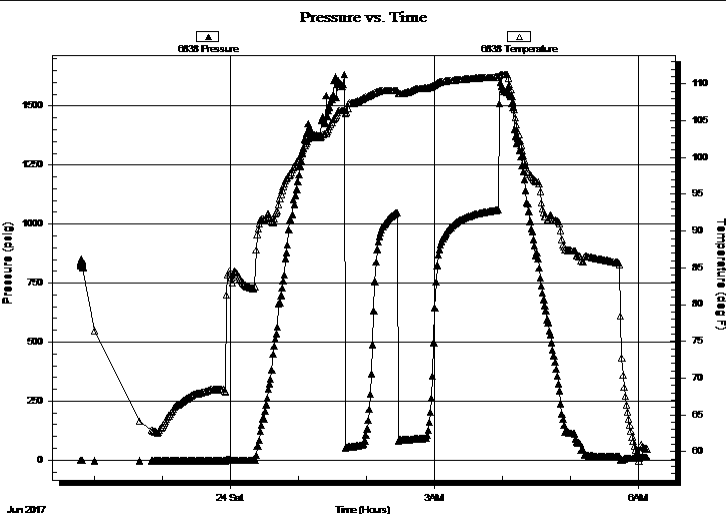
Job Ticket: 63197 DST#: 1
Test Start: 2017.06.23 @ 21:47:56

GENERAL INFORMATION:

Formation: LKC "A-D"			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Initial)	
Time Tool Opened: 01:41:47		Tester: Brannan Lonsdale	
Time Test Ended: 06:08:02		Unit No: 73	
Interval: 3354.00 ft (KB) To 3420.00 ft (KB) (TVD)		Reference Elevations: 2074.00 ft (KB)	
Total Depth: 3420.00 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 @ 3385.00 ft (KB)	Capacity:	8000.00 psig
Start Date: 2017.06.23	End Date: 2017.06.24	Last Calib.:	2017.06.24
Start Time: 21:47:31	End Time: 06:07:36	Time On Btm:	
		Time Off Btm:	

TEST COMMENT: 15- IF- BOB 5mins
30- IS- Surface blow died in 10mins
30- FF- BOB instantly
60- FSI- Built to 2" then died back to 1"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
186.00	GMCO, 30%G 25%M 45%O	2.64

Gas Rates

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



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TESTING, INC.**

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FLUID SUMMARY

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: 63197

DST#: 1

Test Start: 2017.06.23 @ 21:47:56

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.00 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	GMCO, 30%G 25%M 45%O	2.637

Total Length: 186.00 ft Total Volume: 2.637 bbl

Num Fluid Samples: 0

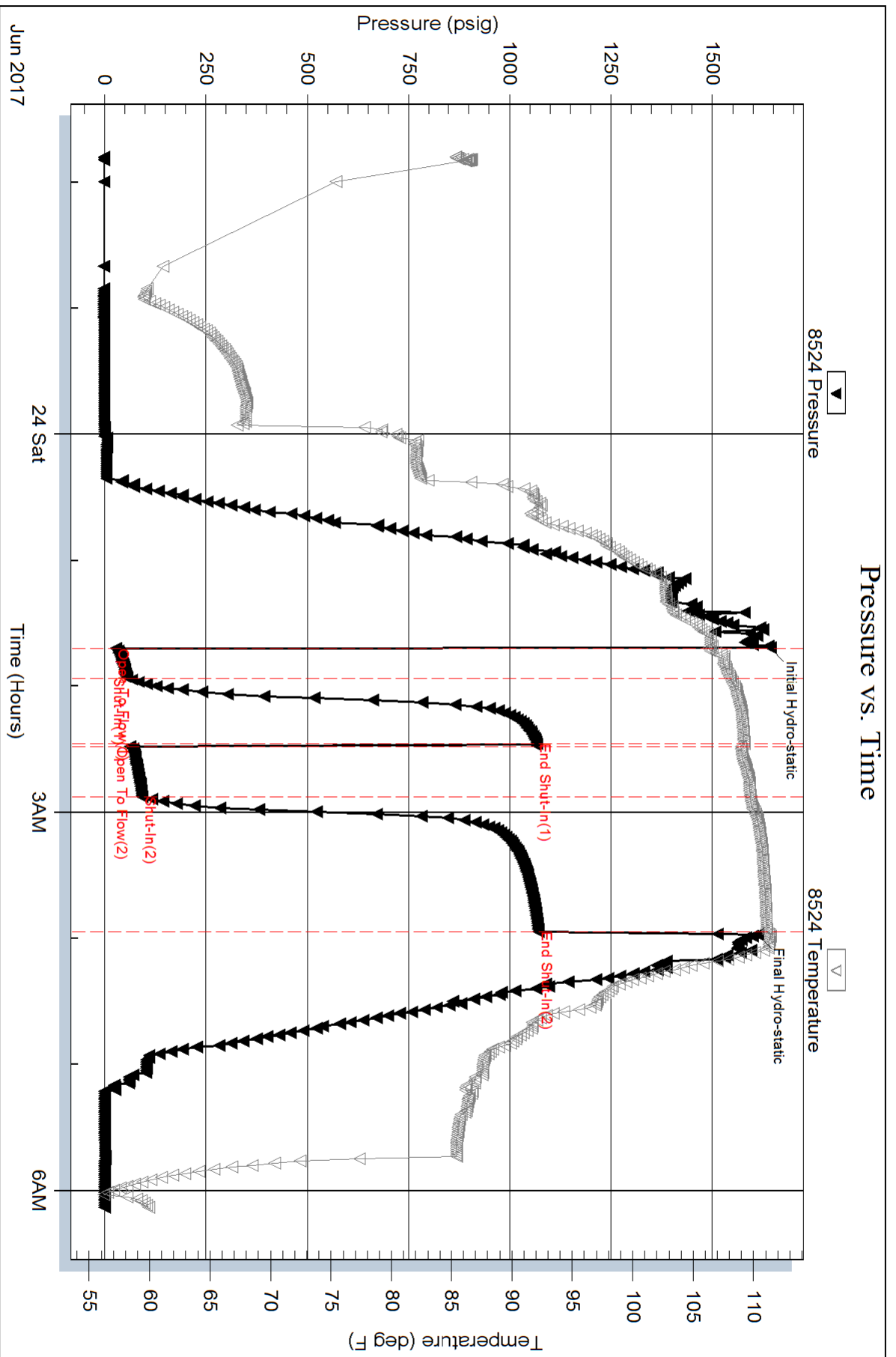
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler: 2000mL O @ 1170 PSI



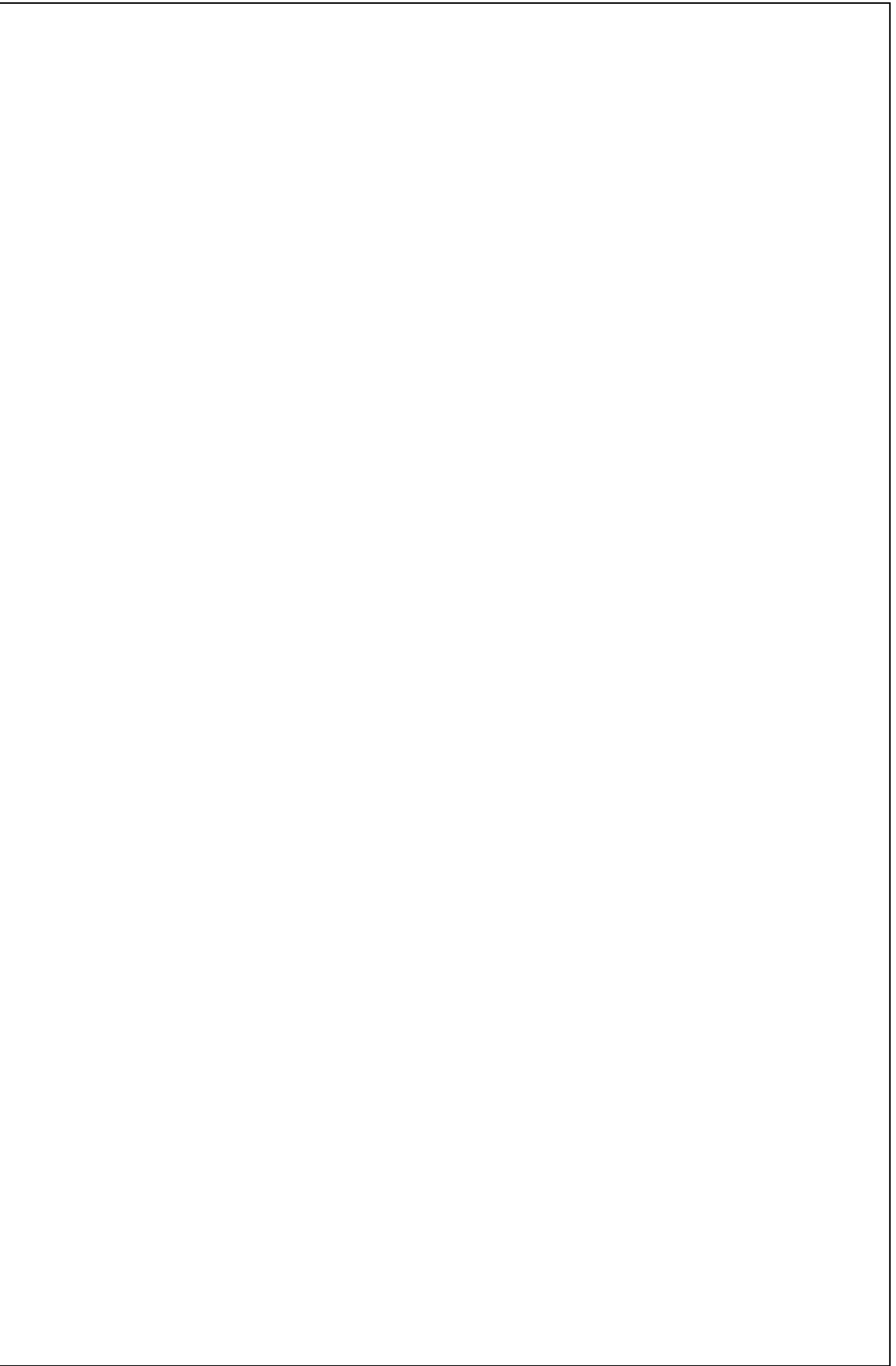
Serial #: 6838

Inside

Coachman Energy Operating Co., LLC

Wasinger #1-23-15-20

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 63197

Printed: 2017.06.24 @ 07:57:15