



## DRILL STEM TEST REPORT

Prepared For: **Habit Petroleum LLC**

PO Box 243  
Hays KS 67601-9530

ATTN: Jerry Green, Irvin Ha

**HFM #2-33**

**33-14s-18w Ellis,KS**

Start Date: 2018.09.06 @ 09:00:40

End Date: 2018.09.06 @ 15:00:34

Job Ticket #: 63786                      DST #: 1

Trilobite Testing, Inc  
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**TRILOBITE TESTING, INC.**

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Test Start: 2018.09.06 @ 09:00:40

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:22:05

Time Test Ended: 15:00:34

Test Type: Conventional Straddle (Initial)

Tester: Ray Schwager

Unit No: 77

**Interval: 3617.00 ft (KB) To 3665.00 ft (KB) (TVD)**

Reference Elevations: ft (KB)

Total Depth: 3698.00 ft (KB) (TVD)

ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: ft

**Serial #: 8360**

**Inside**

Press@RunDepth: 78.41 psig @ 3627.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.09.06

End Date:

2018.09.06

Last Calib.: 2018.09.06

Start Time: 09:00:40

End Time:

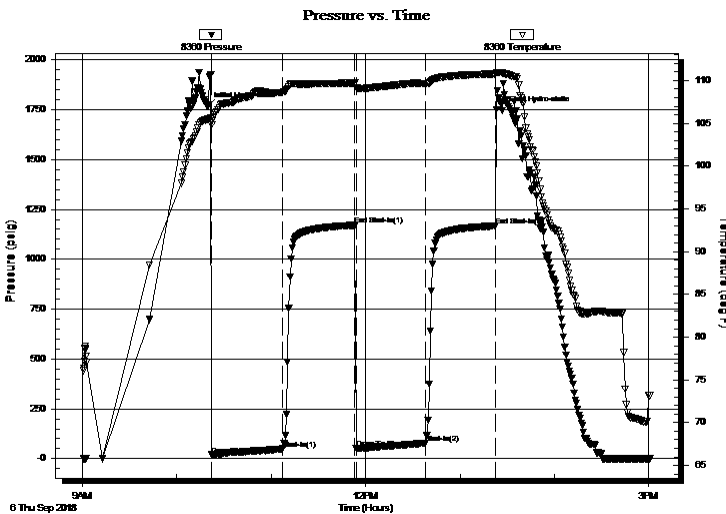
15:00:34

Time On Btm: 2018.09.06 @ 10:19:35

Time Off Btm: 2018.09.06 @ 13:26:50

**TEST COMMENT:** 45-IFP-w eak blow 1/2" to 2blow  
45-ISIP-no blow  
45-FFP-w eak blow 1/2" to 1 3/4" blow  
45-FSIP-no blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1765.88	105.50	Initial Hydro-static
3	19.25	104.83	Open To Flow (1)
48	48.58	108.61	Shut-In(1)
94	1170.63	109.71	End Shut-In(1)
95	51.68	109.19	Open To Flow (2)
139	78.41	109.58	Shut-In(2)
183	1167.10	110.77	End Shut-In(2)
188	1745.75	110.89	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
50.00	MGO 15%G30%M55%O	0.70
110.00	CO	1.54
0.00	85' GIP	0.00

## Gas Rates

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







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**TOOL DIAGRAM**

Habit Petroleum LLC

**33-14s-18w Ellis,KS**

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Job Ticket: 63786

**DST#: 1**

ATTN: Jerry Green, Irvin Ha

Test Start: 2018.09.06 @ 09:00:40

## Tool Information

Drill Pipe:	Length: 3616.00 ft	Diameter: 3.80 inches	Volume: 50.72 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 50.72 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3617.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	3665.00 ft			
Interval between Packers:	48.00 ft			
Tool Length:	104.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3597.00	
Shut In Tool	5.00			3602.00	
Hydraulic tool	5.00			3607.00	
Packer	5.00			3612.00	21.00 Bottom Of Top Packer
Packer	5.00			3617.00	
Stubb	1.00			3618.00	
Perforations	9.00			3627.00	
Recorder	0.00	8360	Inside	3627.00	
Recorder	0.00	8673	Outside	3627.00	
Blank Spacing	33.00			3660.00	
Perforations	1.00			3661.00	
Blank Off Sub	1.00			3662.00	
Blank Spacing	3.00			3665.00	48.00 Tool Interval
Packer	5.00			3670.00	
Recorder	0.00	8373	Below	3670.00	
Blank Spacing	30.00			3700.00	35.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>104.00</b>				



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**FLUID SUMMARY**

Habit Petroleum LLC

**33-14s-18w Ellis,KS**

PO Box 243  
Hays KS 67601-9530

**HFM #2-33**

Job Ticket: 63786

**DST#: 1**

ATTN: Jerry Green, Irvin Ha

Test Start: 2018.09.06 @ 09:00:40

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.76 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	MGO 15%G30%M55%O	0.701
110.00	CO	1.543
0.00	85' GIP	0.000

Total Length: 160.00 ft      Total Volume: 2.244 bbl

Num Fluid Samples: 0

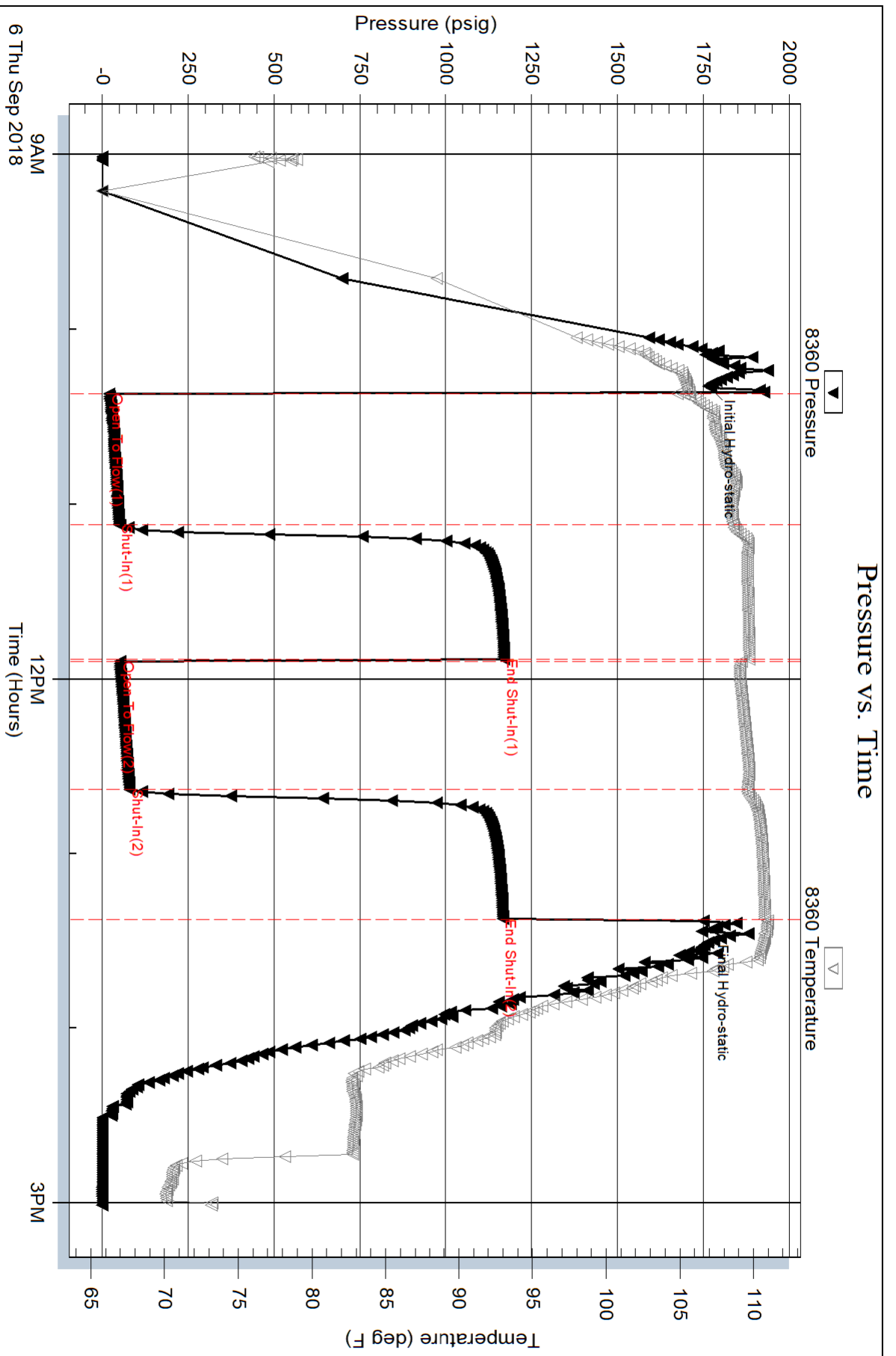
Num Gas Bombs: 0

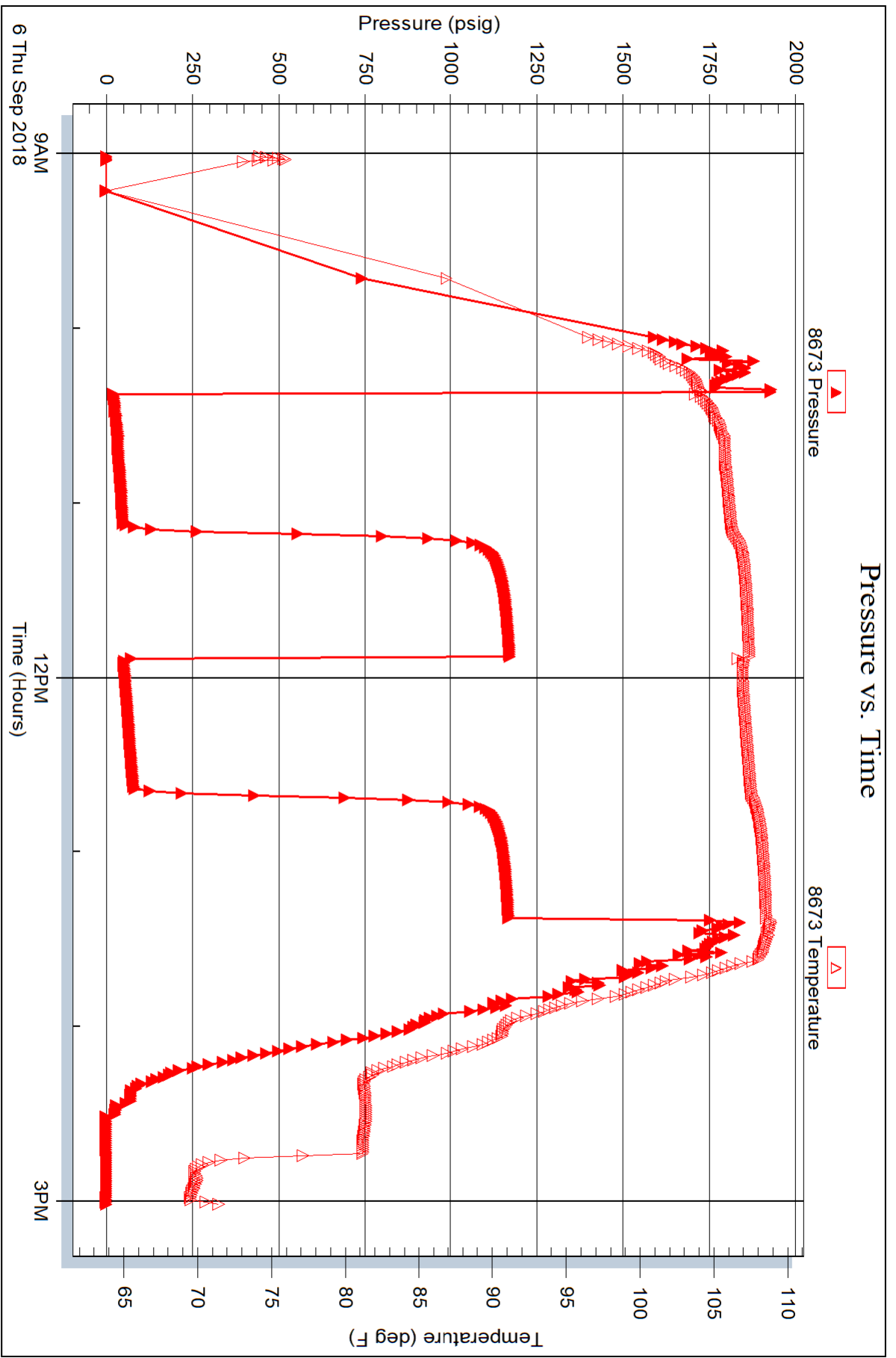
Serial #:

Laboratory Name:

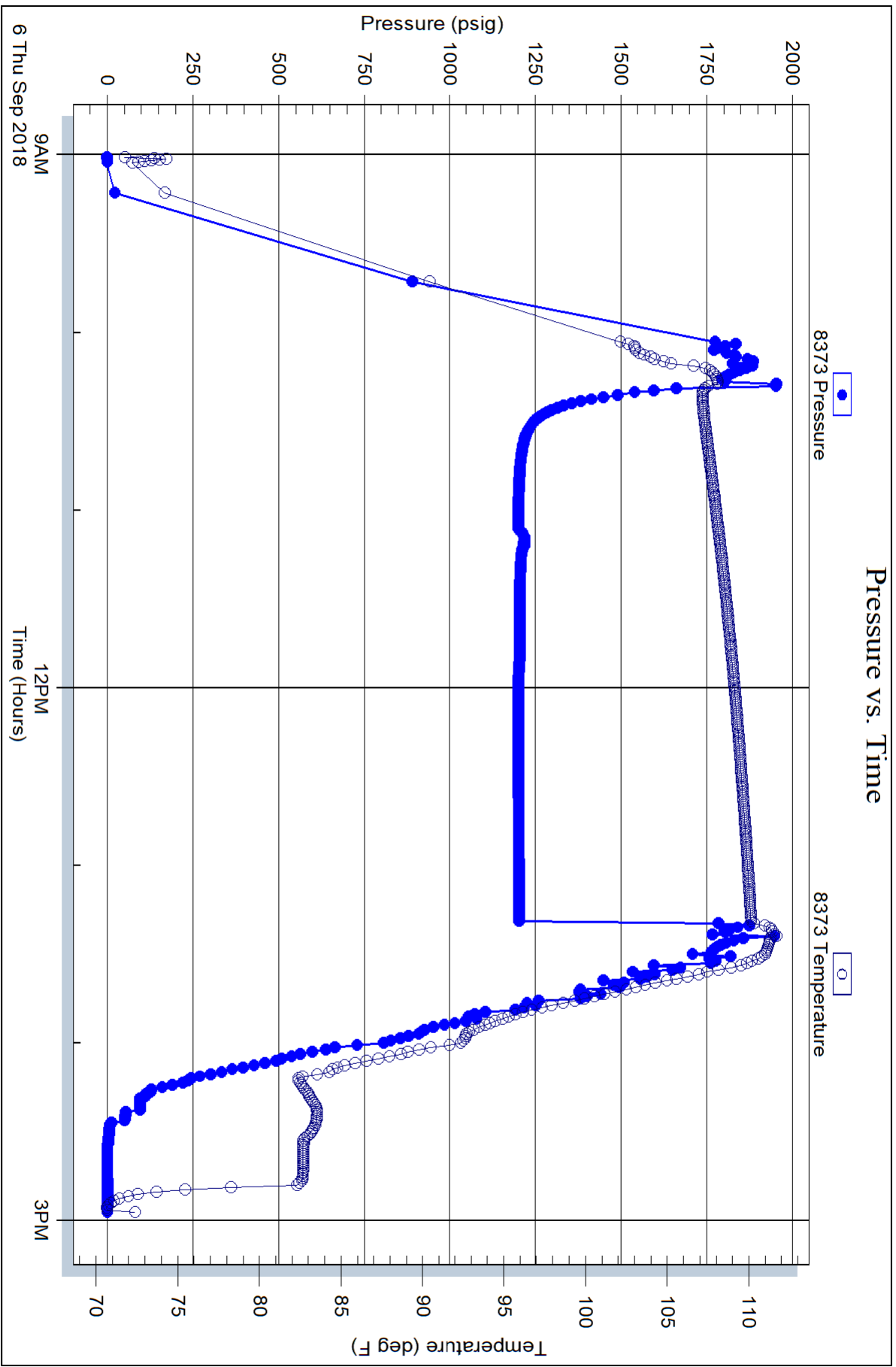
Laboratory Location:

Recovery Comments:











# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63786

Well Name & No. HFM # 2-33 Test No. 1 Date 9-6-18  
 Company Habit Petroleum LLC Elevation 2055 KB 2050 GL  
 Address 639 280<sup>th</sup> Ave PO Box 243 Hays, KS 67601-9530  
 Co. Rep / Geo. Jerry Green Rig White Knight rig 1  
 Location: Sec. 33 Twp 14<sup>s</sup> Rge. 18<sup>w</sup> Co. FLLS State Ks

Interval Tested 3617-3665 Zone Tested Arbuckle  
 Anchor Length 48 Drill Pipe Run 3616 Mud Wt. 9.3  
 Top Packer Depth 3617-3612 Drill Collars Run — Vis 49  
 Bottom Packer Depth 3665 Wt. Pipe Run — WL 10.8  
 Total Depth 3698 Chlorides 8000 ppm System LCM 2#  
 Blow Description IFP - WEAK Blow 1/2" To 2" Blow  
ISTP - NO Blow  
FFP - WEAK Blow 1/2" To 1 3/4" Blow  
FSTP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>85</u>	<u>GIP</u>				
<u>110</u>	<u>CO</u>				
<u>50</u>	<u>MGO</u>	<u>15</u>	<u>55</u>		<u>30</u>

Rec Total 1600 BHT 110 Gravity 28 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1765  Test 1050 T-On Location 0800  
 (B) First Initial Flow 19  Jars \_\_\_\_\_ T-Started 0900  
 (C) First Final Flow 48  Safety Joint \_\_\_\_\_ T-Open 1020  
 (D) Initial Shut-In 1170  Circ Sub \_\_\_\_\_ T-Pulled 1320  
 (E) Second Initial Flow 51  Hourly Standby \_\_\_\_\_ T-Out 1500  
 (F) Second Final Flow 78  Mileage 15 rt Comments \_\_\_\_\_  
 (G) Final Shut-In 1167  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1745  Straddle 600  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1665  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1665

Approved By \_\_\_\_\_ Our Representative Ray Shuman Thank you

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