



DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co.**

10500 E. Berkeley Sq. PKWY.
STE 100
Wichita, KS 67206

ATTN: Max Lovely

Kuhlman #11-2

S11-21s-36w Kearney, KS

Start Date: 2014.01.25 @ 05:55:00

End Date: 2014.01.25 @ 16:54:42

Job Ticket #: 56626 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Hartman Oil Co.

S11-21s-36w Kearney, KS

10500 E. Berkeley Sq. PKWY.
STE 100
Wichita, KS 67206
ATTN: Max Lovely

Kuhlman #11-2

Job Ticket: 56626

DST#: 1

Test Start: 2014.01.25 @ 05:55:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:18:12

Time Test Ended: 16:54:42

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Smith

Unit No: 62

Interval: 4611.00 ft (KB) To 4651.00 ft (KB) (TVD)

Reference Elevations: 3231.00 ft (KB)

Total Depth: 4651.00 ft (KB) (TVD)

3220.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8357

Inside

Press@RunDepth: 595.78 psig @ 4612.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.01.25

End Date:

2014.01.25

Last Calib.:

2014.01.25

Start Time: 05:55:05

End Time:

16:54:41

Time On Btm:

2014.01.25 @ 09:13:18

Time Off Btm:

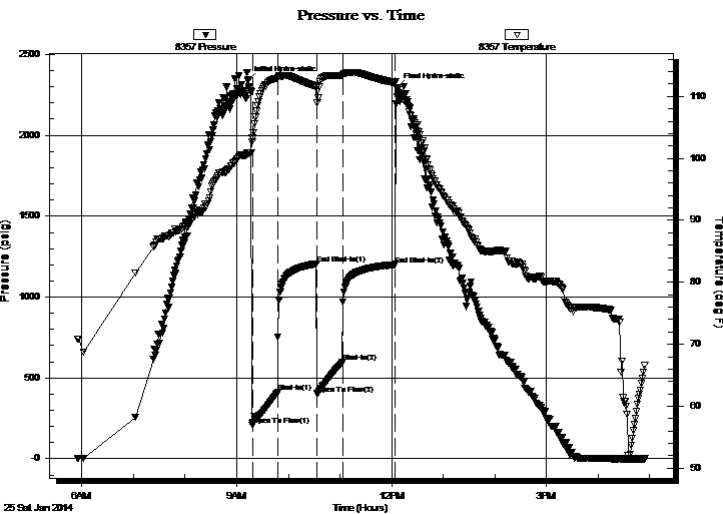
2014.01.25 @ 12:05:54

TEST COMMENT: B.O.B. @ 2 1/4 min.

B.O.B. @ 8 min.

B.O.B. @ 3 min.

B.O.B. @ 10 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2337.68	100.81	Initial Hydro-static
5	208.55	103.25	Open To Flow (1)
35	409.34	112.90	Shut-In(1)
80	1205.74	111.57	End Shut-In(1)
81	402.23	108.96	Open To Flow (2)
110	595.78	113.33	Shut-In(2)
171	1201.15	112.13	End Shut-In(2)
173	2295.05	109.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	2583' GIP	0.00
180.00	OCM 40o 60m	0.89
489.00	GMCO 15g 25m 60o	6.36
496.00	GMCO 20g 5m 75o	6.96
268.00	GO 20g 80o	3.76

Gas Rates

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



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TOOL DIAGRAM

Hartman Oil Co.

S11-21s-36w Kearney, KS

10500 E. Berkeley Sq. PKWY.
STE 100
Wichita, KS 67206
ATTN: Max Lovely

Kuhlman #11-2

Job Ticket: 56626

DST#: 1

Test Start: 2014.01.25 @ 05:55:00

Tool Information

Drill Pipe:	Length: 4364.00 ft	Diameter: 3.80 inches	Volume: 61.22 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 235.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 62.38 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.50 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4611.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	67.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	1.00			4584.50	
Shut In Tool	5.00			4589.50	
Hydraulic tool	5.00			4594.50	
Jars	5.00			4599.50	
Safety Joint	2.50			4602.00	
Packer	5.00			4607.00	27.50 Bottom Of Top Packer
Packer	4.00			4611.00	
Stubb	1.00			4612.00	
Recorder	0.00	8357	Inside	4612.00	
Recorder	0.00	8645	Outside	4612.00	
Perforations	3.00			4615.00	
Change Over Sub	1.00			4616.00	
Drill Pipe	31.00			4647.00	
Change Over Sub	1.00			4648.00	
Bullnose	3.00			4651.00	40.00 Bottom Packers & Anchor

Total Tool Length: 67.50



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FLUID SUMMARY

Hartman Oil Co.

S11-21s-36w Kearney, KS

10500 E. Berkeley Sq. PKWY.
STE 100
Wichita, KS 67206
ATTN: Max Lovely

Kuhlman #11-2

Job Ticket: 56626

DST#: 1

Test Start: 2014.01.25 @ 05:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 7.98 in³

Resistivity: ohm.m

Salinity: 6500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

33 deg API

Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	2583' GIP	0.000
180.00	OCM 40o 60m	0.885
489.00	GMCO 15g 25m 60o	6.358
496.00	GMCO 20g 5m 75o	6.958
268.00	GO 20g 80o	3.759

Total Length: 1433.00 ft Total Volume: 17.960 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API: 33 @ 60 Degrees F = 33.

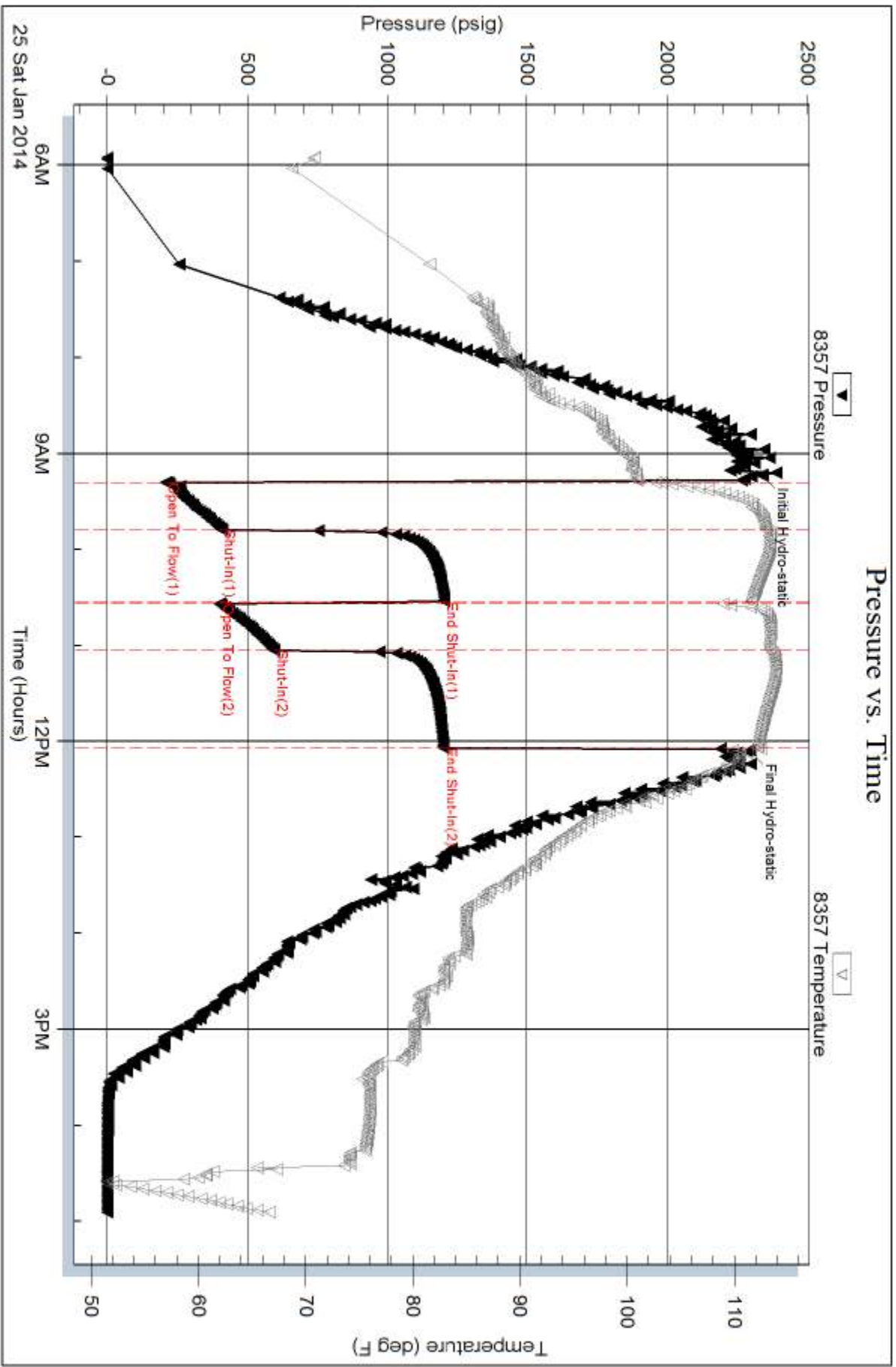
Serial #: 8357

Inside

Hartman Oil Co.

Kuhman #11-2

DST Test Number: 1

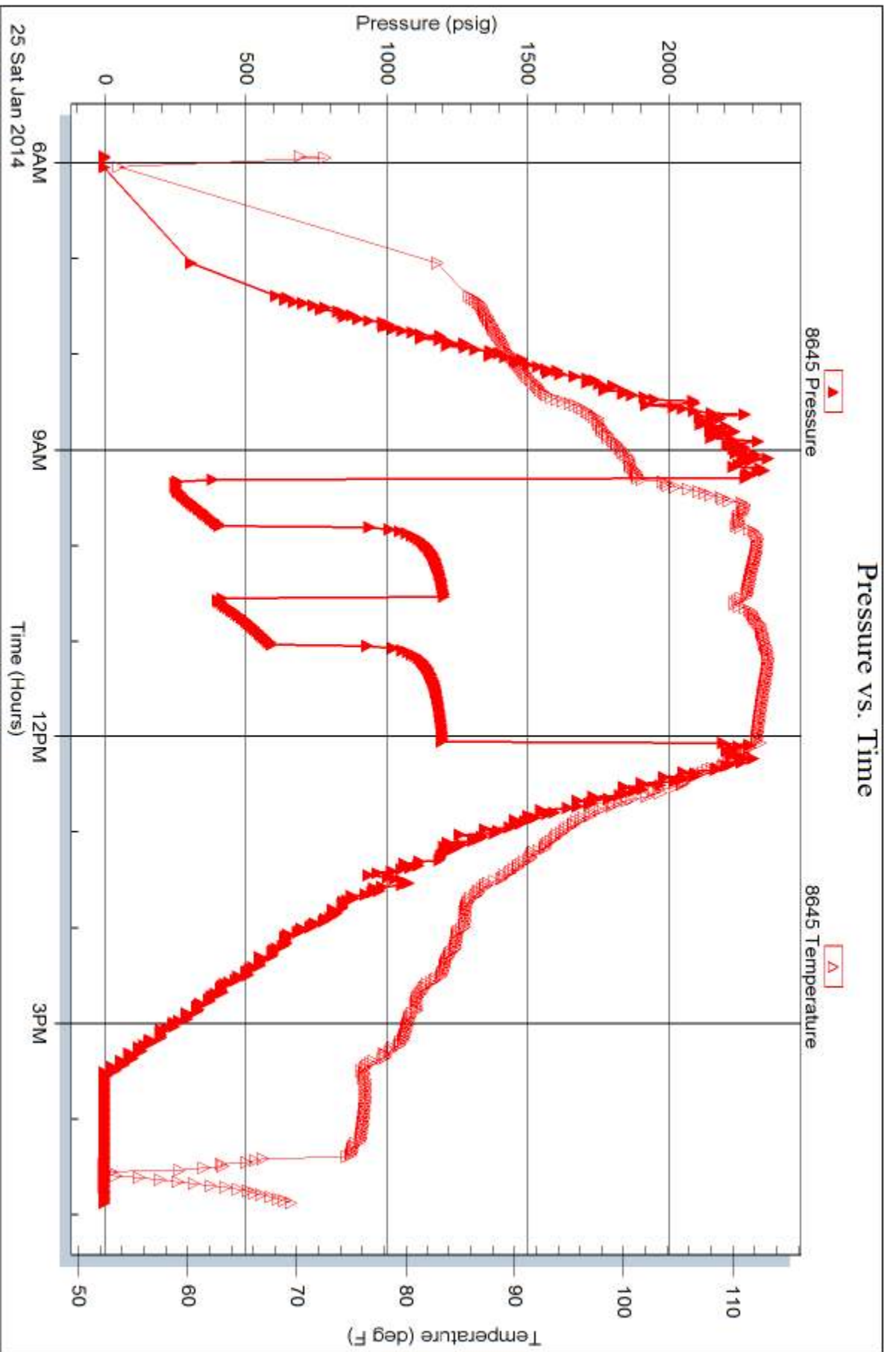


Serial #: 8645

Outside Hartman Oil Co.

Kuhman #11-2

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 56626

Printed: 2014.01.28 @ 09:03:58



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56626

4/10

Well Name & No. Kuhlman 11-2 Test No. 1 Date 1-25-14
 Company Hartman Oil Co. Elevation 3231 KB 3220 GL
 Address 10500 E. Berkeley Sq. PKWY STE 100 Wichita, KS 67206
 Co. Rep / Geo. Max Lovely Rig H2 #2
 Location: Sec. 11 Twp. 21s Rge. 36w Co. Kearney State Ks

Interval Tested 4611 - 4651 Zone Tested Pawnee
 Anchor Length 40 Drill Pipe Run 4364 Mud Wt. 9.5
 Top Packer Depth 4607 Drill Collars Run 235 Vis 50
 Bottom Packer Depth 4611 Wt. Pipe Run 0 WL 8.0
 Total Depth 4651 Chlorides 6500 ppm System LCM 2nd
 Blow Description B.O.B. @ 2 1/4 min.
B.O.B. @ 8 min.
B.O.B. @ 3 min.
B.O.B. @ 10 min.

Rec	Feet of	%gas	%oil	%water	%mud
	<u>2583' GIP</u>				
Rec <u>286</u>	Feet of <u>60 20g</u>	<u>20</u>	<u>80</u>		
Rec <u>496</u>	Feet of <u>GMCO</u>	<u>20</u>	<u>75</u>		<u>5</u>
Rec <u>489</u>	Feet of <u>GMCO</u>	<u>15</u>	<u>60</u>		<u>25</u>
Rec <u>180</u>	Feet of <u>OCM</u>		<u>40</u>		<u>60</u>

Rec Total 1433 BHT 112 Gravity 33 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 2338 Test 1250 T-On Location 5:15
 (B) First Initial Flow 209 Jars 250 T-Started 5:55
 (C) First Final Flow 409 Safety Joint 75 T-Open 9:18
 (D) Initial Shut-In 1206 Circ Sub T-Pulled 12:04
 (E) Second Initial Flow 402 Hourly Standby 1 3/4 1h 100 T-Out 16:55
 (F) Second Final Flow 596 Mileage 101RT X2 313.10
 (G) Final Shut-In 1201 Sampler
 (H) Final Hydrostatic 2295 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 800
 Day Standby 1d 14.5h Total 2938.10
 Accessibility 150 MP/DST Disc't
 Sub Total 2138.10

Approved By Max Lovely Our Representative Chuck Smith

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