



DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co.**

10500 E Berkeley SQ Pkwy
STE 100 Wichita Kansas 67206

ATTN: Derek Patterson

Brooks 1-19

19-05s-22w-Norton

Start Date: 2013.08.26 @ 02:32:00

End Date: 2013.08.26 @ 08:53:00

Job Ticket #: 18551 DST #: 4

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2013.08.26 @ 07:06:22

Hartman Oil Co.
19-05s-22w-Norton
Brooks 1-19
DST # 4
Lansing H-J
2013.08.26



DRILL STEM TEST REPORT

Hartman Oil Co.
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 STE 100 Wichita Kansas 67206
 ATTN: Derek Patterson

19-05s-22w-Norton
Brooks 1-19
 Job Ticket: 18551 **DST#: 4**
 Test Start: 2013.08.26 @ 02:32:00

GENERAL INFORMATION:

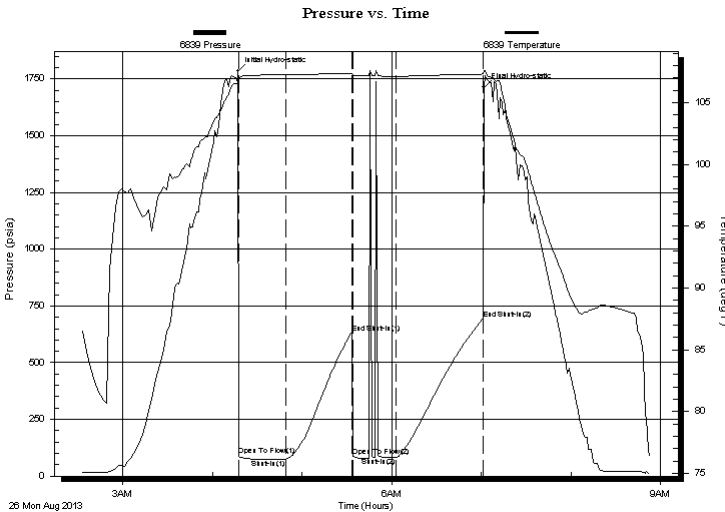
Formation: **Lansing H-J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:17:30
 Time Test Ended: 08:53:00
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Dustin Ellis
 Unit No: 3315-Hay-236
 Interval: **3508.00 ft (KB) To 3570.00 ft (KB) (TVD)**
 Total Depth: 3570.00 ft (KB) (TVD)
 Reference Elevations: 2226.00 ft (KB)
 2217.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 KB to GR/CF: 9.00 ft

Serial #: 6839 Outside

Press @ RunDepth: 82.57 psia @ 3567.45 ft (KB) Capacity: 5000.00 psia
 Start Date: 2013.08.26 End Date: 2013.08.26 Last Calib.: 2013.08.26
 Start Time: 02:32:00 End Time: 08:53:00 Time On Btm: 2013.08.26 @ 04:17:00
 Time Off Btm: 2013.08.26 @ 07:01:30

TEST COMMENT: 1st Open 30 minutes Weak 1 inch blow threw out
 1st Shut in 45 minutes No blow back
 2nd Open 30 minutes Dead Flushed tool no help.
 2nd Shut in 60 minutes No blow back

PRESSURE SUMMARY



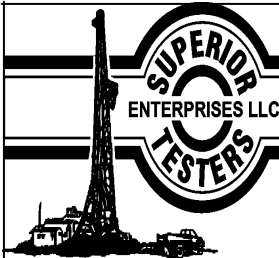
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1784.06	106.64	Initial Hydro-static
1	90.95	106.66	Open To Flow (1)
32	75.36	107.24	Shut-In(1)
77	628.34	107.37	End Shut-In(1)
77	89.34	107.23	Open To Flow (2)
106	82.57	107.12	Shut-In(2)
164	694.04	107.31	End Shut-In(2)
165	1713.65	107.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud 100%	0.07

Gas Rates

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



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Brooks 1-19

Job Ticket: 18551

DST#: 4

ATTN: Derek Patterson

Test Start: 2013.08.26 @ 02:32:00

GENERAL INFORMATION:

Formation: **Lansing H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:17:30

Time Test Ended: 08:53:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Ellis

Unit No: 3315-Hay-236

Interval: **3508.00 ft (KB) To 3570.00 ft (KB) (TVD)**

Reference Elevations: 2226.00 ft (KB)

Total Depth: 3570.00 ft (KB) (TVD)

2217.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8524

Inside

Press @ RunDepth: 699.90 psia @ 3566.45 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.08.26 End Date: 2013.08.26

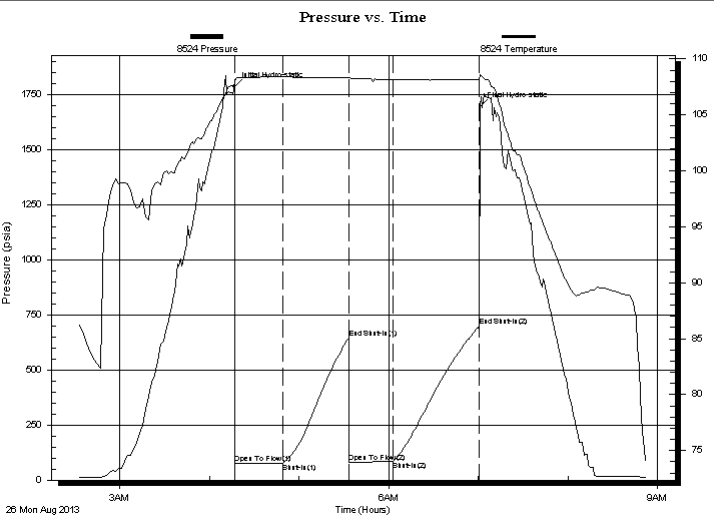
Last Calib.: 2013.08.26

Start Time: 02:32:00 End Time: 08:52:30

Time On Btm: 2013.08.26 @ 04:16:30

Time Off Btm: 2013.08.26 @ 07:01:00

TEST COMMENT: 1st Open 30 minutes Weak 1 inch blow threw out
1st Shut in 45 minutes No blow back
2nd Open 30 minutes Dead Flushed tool no help.
2nd Shut in 60 minutes No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1784.17	107.67	Initial Hydro-static
1	75.14	107.93	Open To Flow (1)
33	77.61	108.39	Shut-In(1)
77	647.00	108.36	End Shut-In(1)
77	79.27	108.31	Open To Flow (2)
107	84.77	108.14	Shut-In(2)
164	699.90	108.18	End Shut-In(2)
165	1696.40	108.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud 100%	0.07

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Hartman Oil Co.
 10500 E Berkeley SQ Pkwy
 STE 100 Wichita Kansas 67206
 ATTN: Derek Patterson

19-05s-22w-Norton
Brooks 1-19
 Job Ticket: 18551 **DST#: 4**
 Test Start: 2013.08.26 @ 02:32:00

Tool Information

Drill Pipe:	Length: 3273.00 ft	Diameter: 3.80 inches	Volume: 45.91 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 234.79 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose:	82000.00 lb
			<u>Total Volume: 47.06 bbl</u>	Tool Chased	3.00 ft
Drill Pipe Above KB:	19.79 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	3508.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	62.45 ft				
Tool Length:	82.45 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut-In Tool	5.00			3493.00	
Hydraulic Tool	5.00			3498.00	
Packer	5.00			3503.00	20.00 Bottom Of Top Packer
Packer	5.00			3508.00	
Anchor	5.00			3513.00	
Change Over Sub	0.75			3513.75	
Drill Pipe	31.95			3545.70	
Change Over Sub	0.75			3546.45	
Anchor	19.00			3565.45	
Recorder	1.00	8524	Inside	3566.45	
Recorder	1.00	6839	Outside	3567.45	
Bull Plug	3.00			3570.45	62.45 Bottom Packers & Anchor

Total Tool Length: 82.45



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FLUID SUMMARY

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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:	54.00 sec/qt	Cushion Volume:	bbbl		
Water Loss:	5.80 in ³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psia		
Salinity:	1000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Mud 100%	0.074

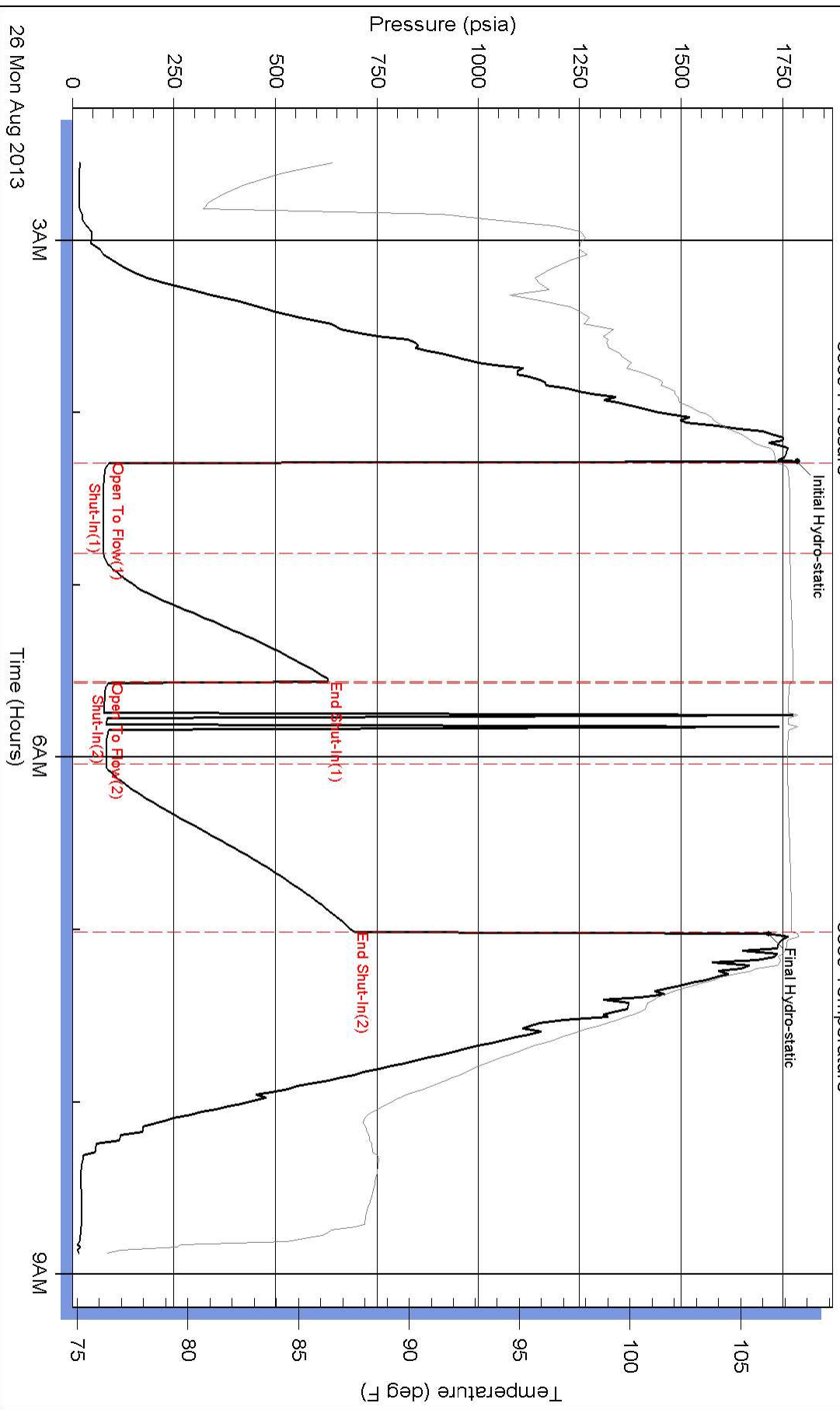
Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time



Pressure vs. Time

