



**Company: Hartman Oil
Company, Inc.
Lease: Lillie #5**

SEC: 32 TWN: 16S RNG: 25W
County: NESS
State: Kansas
Drilling Contractor: H2 Drilling, LLC -
Rig 4
Elevation: 2583 EGL
Field Name: Arnold SW
Pool: Infield
Job Number: 289

Operation:
Uploading recovery &
pressures

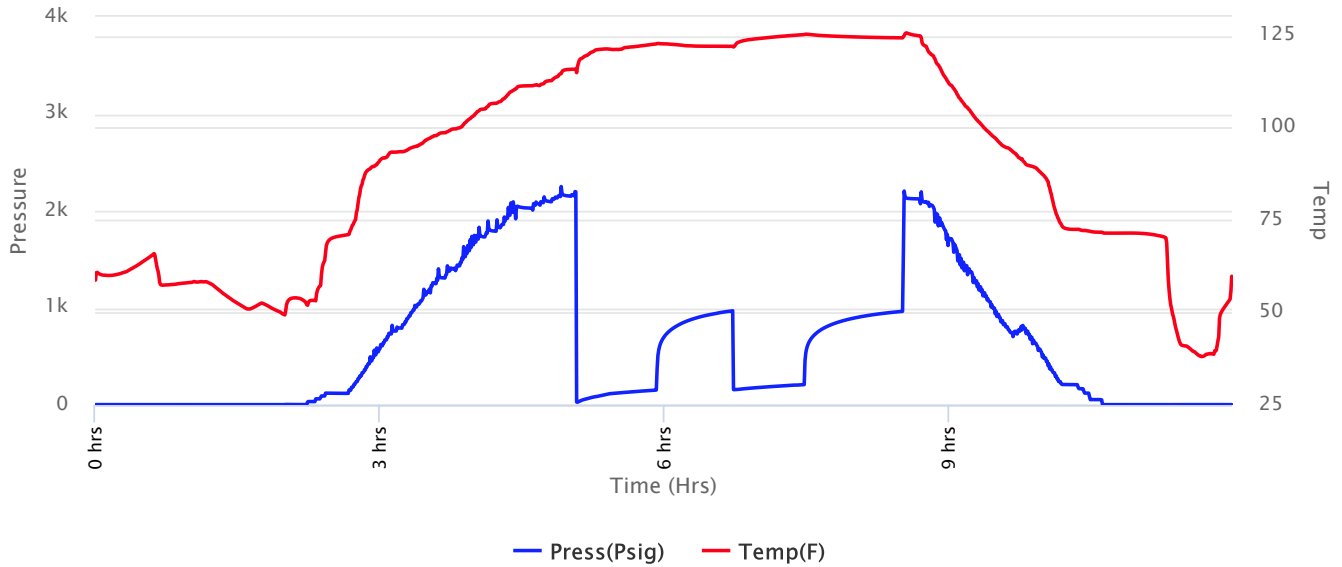
DATE
December
04
2018

DST #1 **Formation:** **Test Interval: 4492 -** **Total Depth: 4527'**
Mississippian **4527'**
Time On: 00:16 12/04 Time Off: 11:55 12/04
Time On Bottom: 05:11 12/04 Time Off Bottom: 08:31 12/04

Electronic Volume
Estimate:
550'

<u>1st Open</u>	<u>1st Close</u>	<u>2nd Open</u>	<u>2nd Close</u>
Minutes: 50	Minutes: 45	Minutes: 40	Minutes: 60
Current Reading: 19.2" at 50 min	Current Reading: .7" at 45 min	Current Reading: 13.5" at 40 min	Current Reading: 1.0" at 60 min
Max Reading: 19.2"	Max Reading: .7"	Max Reading: 13.5"	Max Reading: 1.0"

Inside Recorder



— Press(Psig) — Temp(F)



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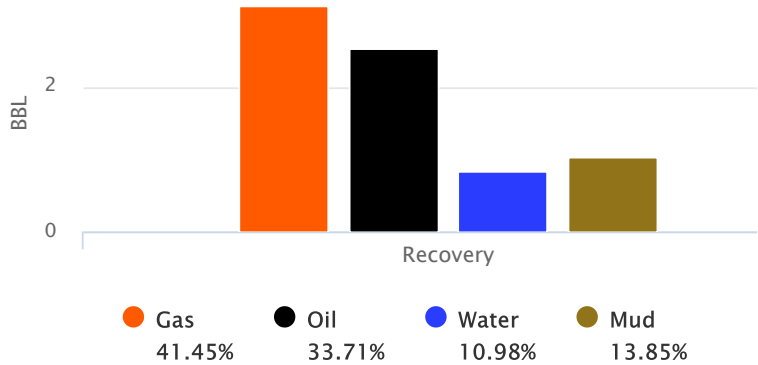
Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
205	2.91715	G	100	0	0	0
125	1.77875	SLGCO	4	96	0	0
175	1.9234572	SLGCSLWCHOCM	5	40	12	43
180	0.8856	SLGCSLOCMCW	3	6	67	24

Total Recovered: 685 ft
 Total Barrels Recovered: 7.5049572

Reversed Out
 NO

Initial Hydrostatic Pressure	2154	PSI
Initial Flow	27 to 151	PSI
Initial Closed in Pressure	969	PSI
Final Flow Pressure	156 to 207	PSI
Final Closed in Pressure	963	PSI
Final Hydrostatic Pressure	2148	PSI
Temperature	126	°F
Pressure Change Initial Close / Final Close	0.6	%

Recovery at a glance





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BUCKET MEASUREMENT:

1st Open: 14" blow building to BOB 26 min.
1st Close: 1/4" BB
2nd Open: Surface blow building to BOB 37 1/2 min.
2nd Close: 1/2" BB

REMARKS:

Tool Sample: 1% Gas 42% Oil 49% Water 8% Mud
Gravity: 38.1 @ 60 °F
Ph: 7.0
Measured RW: .68 @ 59 degrees °F
RW at Formation Temp: 0.337 @ 126 °F
Chlorides: 11,000 ppm



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Down Hole Makeup

Heads Up: 31.91 FT	Packer 1: 4486.5 FT
Drill Pipe: 4249.96 FT <i>ID-3 1/2</i>	Packer 2: 4492 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4475.92 FT
Collars: 240.88 FT <i>ID-2 1/4</i>	Bottom Recorder: 4494 FT
Test Tool: 34.07 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 35	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 0 FT <i>4 1/2-FH</i>	
Change Over: 0 FT	
Drill Pipe: (in anchor): 0 FT <i>ID-3 1/2</i>	
Change Over: 0 FT	
Perforations: (below): 34 FT <i>4 1/2-FH</i>	



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Mud Properties

Mud Type: Chemical **Weight:** 8.9 **Viscosity:** 49 **Filtrate:** 6.0 **Chlorides:** 1,100 ppm



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Gas Volume Report

1st Open

2nd Open

Time	Orifice	PSI	MCF/D
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Time	Orifice	PSI	MCF/D
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