



## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co**

10500 E Berkeley Sq Pkwy Ste 100  
Wichita, KS 67206

ATTN: Chris Peters

**H-M Unit #1-11**

**11-16-35 Wichita,KS**

Start Date: 2017.06.17 @ 06:04:37

End Date: 2017.06.17 @ 12:05:37

Job Ticket #: 63816                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.06.22 @ 10:05:38



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Hartman Oil Co  
10500 E Berkeley Sq Pkwy Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

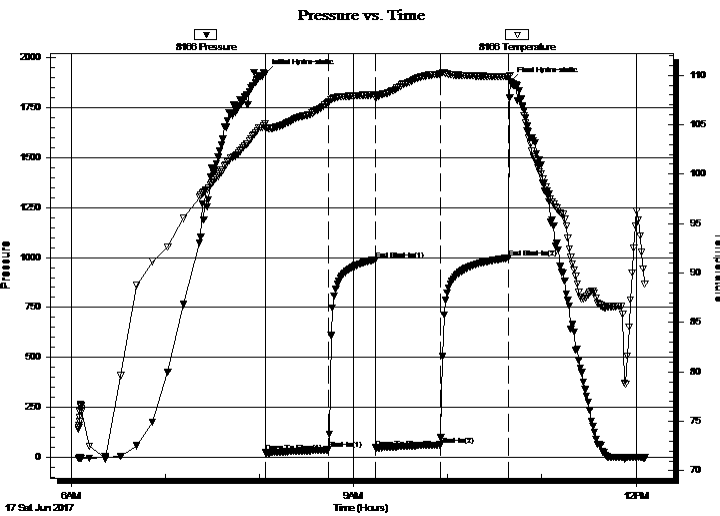
**11-16-35 Wichita, KS**  
**H-M Unit #1-11**  
Job Ticket: 63816 **DST#: 1**  
Test Start: 2017.06.17 @ 06:04:37

## GENERAL INFORMATION:

Formation: **Toronto**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 08:04:07  
Time Test Ended: 12:05:37  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Brandon Turley  
Unit No: 79  
Interval: **4010.00 ft (KB) To 4030.00 ft (KB) (TVD)**  
Reference Elevations: 3191.00 ft (KB)  
Total Depth: 4030.00 ft (KB) (TVD) 3181.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 10.00 ft

**Serial #: 8166 Outside**  
Press@RunDepth: 63.44 psig @ 4011.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2017.06.17 End Date: 2017.06.17 Last Calib.: 2017.06.17  
Start Time: 06:04:42 End Time: 12:05:36 Time On Btm: 2017.06.17 @ 08:03:37  
Time Off Btm: 2017.06.17 @ 10:40:07

**TEST COMMENT:** IF: Surface blow built to 1 1/2"  
IS: No return.  
FF: Surface blow built to 1 1/2"  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1920.15	105.12	Initial Hydro-static
1	23.76	104.65	Open To Flow (1)
41	39.96	107.29	Shut-In(1)
70	988.76	108.03	End Shut-In(1)
71	48.02	107.77	Open To Flow (2)
112	63.44	110.12	Shut-In(2)
155	997.24	109.84	End Shut-In(2)
157	1880.49	109.37	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
63.00	mcw 80%w 20%m	0.88
57.00	w cm oil spots 10%w 90%m	0.80

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Co  
10500 E Berkeley Sq Pkwy Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**11-16-35 Wichita, KS**  
**H-M Unit #1-11**  
Job Ticket: 63816      **DST#: 1**  
Test Start: 2017.06.17 @ 06:04:37

**Tool Information**

Drill Pipe:	Length: 3994.00 ft	Diameter: 3.80 inches	Volume: 56.03 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: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 56.03 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	4010.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Stubb	1.00			3984.00	
Shut In Tool	5.00			3989.00	
Hydraulic tool	5.00			3994.00	
Jars	5.00			3999.00	
Safety Joint	2.00			4001.00	
Packer	5.00			4006.00	27.00      Bottom Of Top Packer
Packer	4.00			4010.00	
Stubb	1.00			4011.00	
Recorder	0.00	8875	Inside	4011.00	
Recorder	0.00	8166	Outside	4011.00	
Perforations	24.00			4035.00	
Bullnose	5.00			4040.00	30.00      Bottom Packers & Anchor

**Total Tool Length: 57.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Hartman Oil Co  
10500 E Berkeley Sq Pkwy Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**11-16-35 Wichita,KS**  
**H-M Unit #1-11**  
Job Ticket: 63816      **DST#: 1**  
Test Start: 2017.06.17 @ 06:04:37

### Mud and Cushion Information

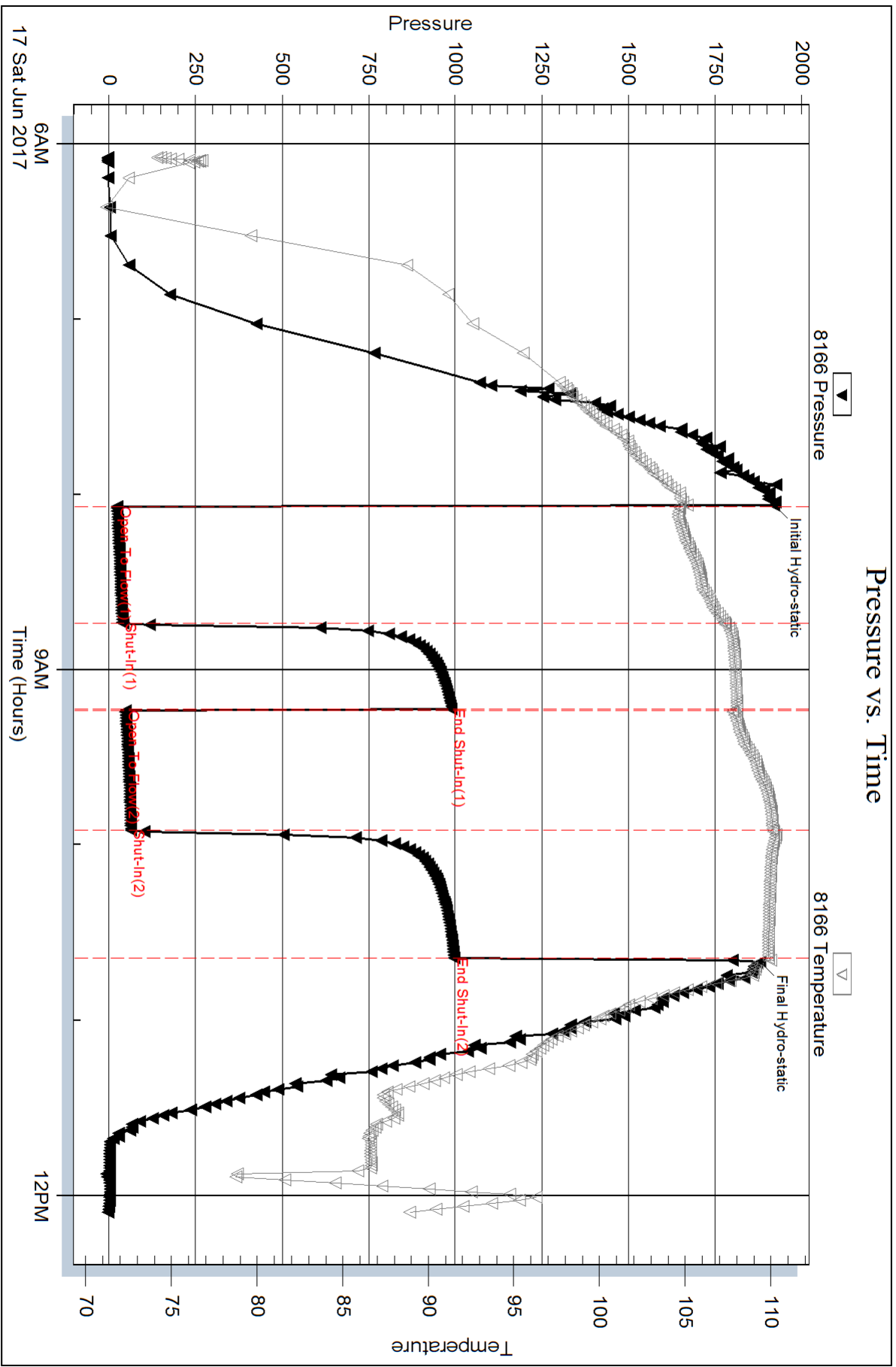
Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 25000 ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.19 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 2500.00 ppm		
Filter Cake: 1.00 inches		

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	mcw 80%w 20%m	0.884
57.00	wcm oil spots 10%w 90%m	0.800

Total Length: 120.00 ft      Total Volume: bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: .21@91=25000



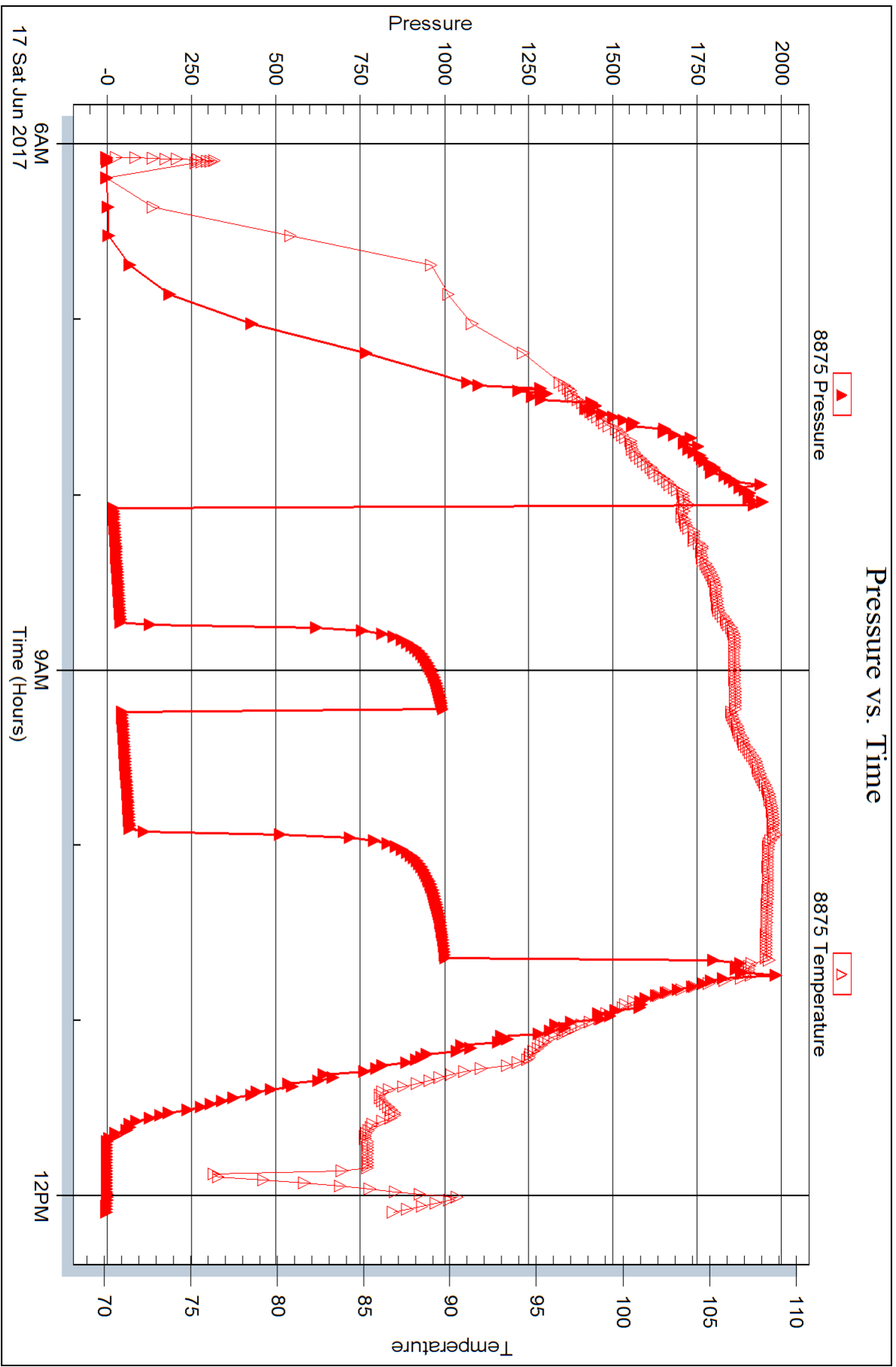
Serial #: 8875

Inside

Hartman Oil Co

H-M Unit #1-11

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 63816

Printed: 2017.06.22 @ 10:05:39



## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co**

10500 E Berkeley Sq Pkwy Ste 100  
Wichita, KS 67206

ATTN: Chris Peters

**H-M Unit #1-11**

**11-16-35 Wichita,KS**

Start Date: 2017.06.17 @ 21:55:40

End Date: 2017.06.18 @ 05:08:40

Job Ticket #: 63817                      DST #: 2

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.06.22 @ 10:05:07









**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Co  
10500 E Berkeley Sq Pkwy Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**11-16-35 Wichita, KS**  
**H-M Unit #1-11**  
Job Ticket: 63817      **DST#: 2**  
Test Start: 2017.06.17 @ 21:55:40

**Tool Information**

Drill Pipe:	Length: 4090.00 ft	Diameter: 3.80 inches	Volume: 57.37 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 57.37 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	4086.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	47.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4064.00	
Shut In Tool	5.00			4069.00	
Hydraulic tool	5.00			4074.00	
Jars	5.00			4079.00	
Safety Joint	2.00			4081.00	
Packer	5.00			4086.00	23.00      Bottom Of Top Packer
Packer - Shale	4.00			4090.00	
Stubb	1.00			4091.00	
Recorder	0.00	8875	Inside	4091.00	
Recorder	0.00	8166	Outside	4091.00	
Perforations	14.00			4105.00	
Bullnose	5.00			4110.00	24.00      Anchor Tool

**Total Tool Length: 47.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Hartman Oil Co  
10500 E Berkeley Sq Pkwy Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**11-16-35 Wichita,KS**  
**H-M Unit #1-11**  
Job Ticket: 63817      **DST#: 2**  
Test Start: 2017.06.17 @ 21:55:40

### Mud and Cushion Information

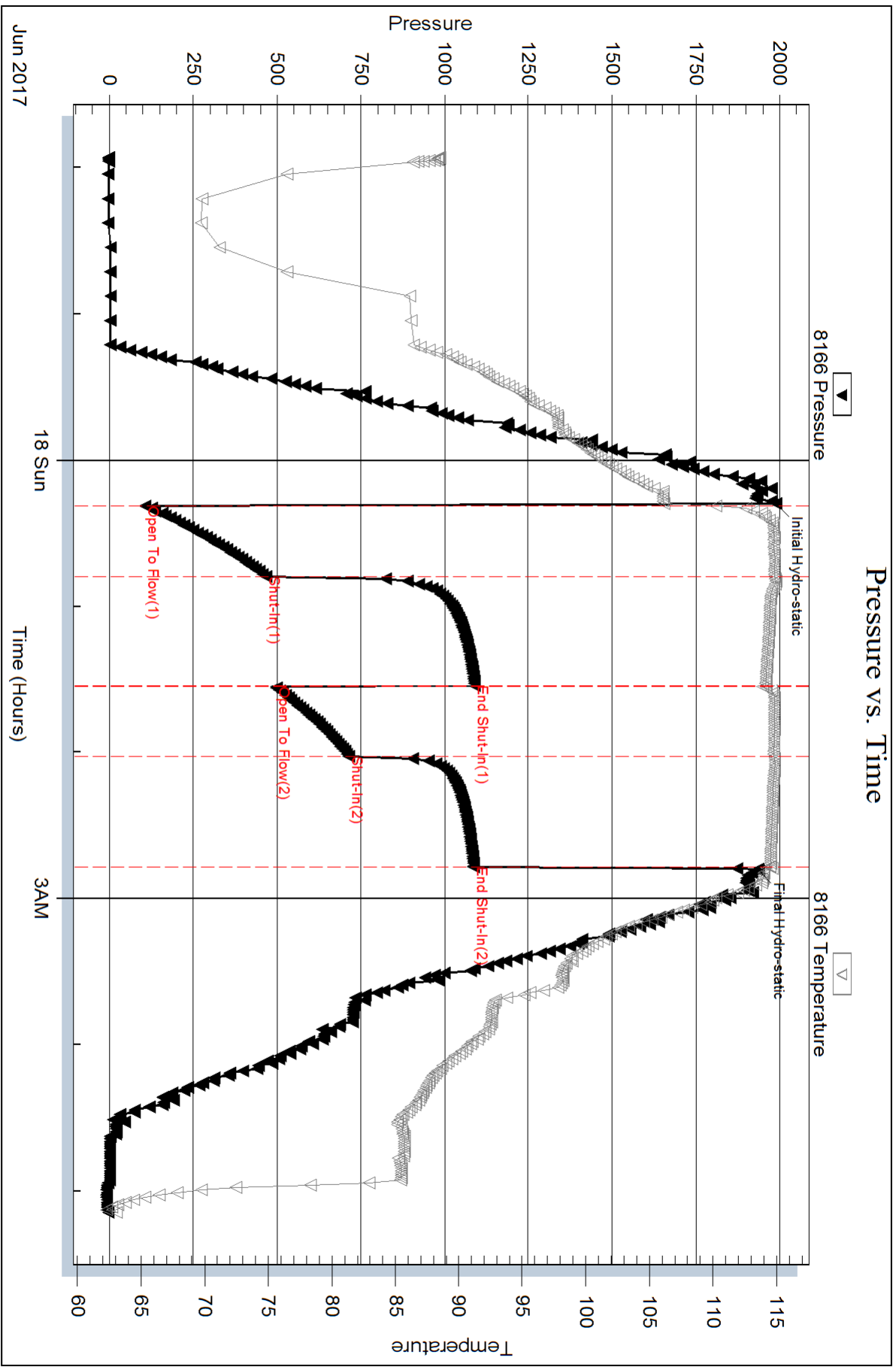
Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 23000 ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.99 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 3000.00 ppm		
Filter Cake: 1.00 inches		

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1260.00	water 100%w	17.674
272.00	mcw 70%w 30%m	3.815

Total Length: 1532.00 ft      Total Volume: 21.489 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: .31@68=23000



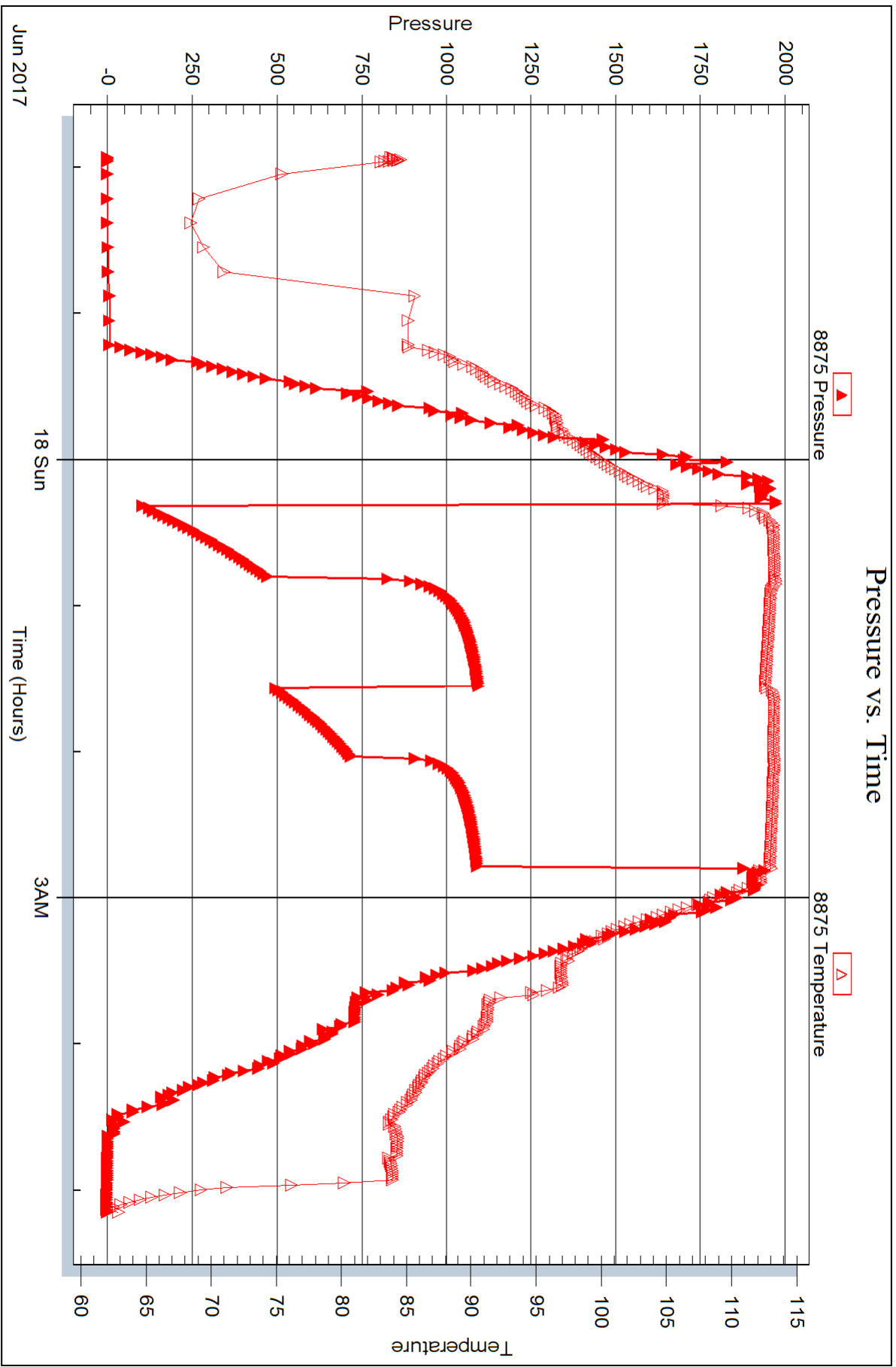
Serial #: 8875

Inside

Hartman Oil Co

H-M Unit #1-11

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 63817

Printed: 2017.06.22 @ 10:05:08



## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co**

10500 E Berkeley Sq Pkwy Ste 100  
Wichita, KS 67206

ATTN: Chris Peters

**H-M Unit #1-11**

**11-16-35 Wichita,KS**

Start Date: 2017.06.18 @ 21:27:46

End Date: 2017.06.19 @ 04:00:46

Job Ticket #: 63818                      DST #: 3

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.06.22 @ 10:04:42



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Hartman Oil Co  
 10500 E Berkeley Sq Pkwy Ste 100  
 Wichita, KS 67206  
 ATTN: Chris Peters

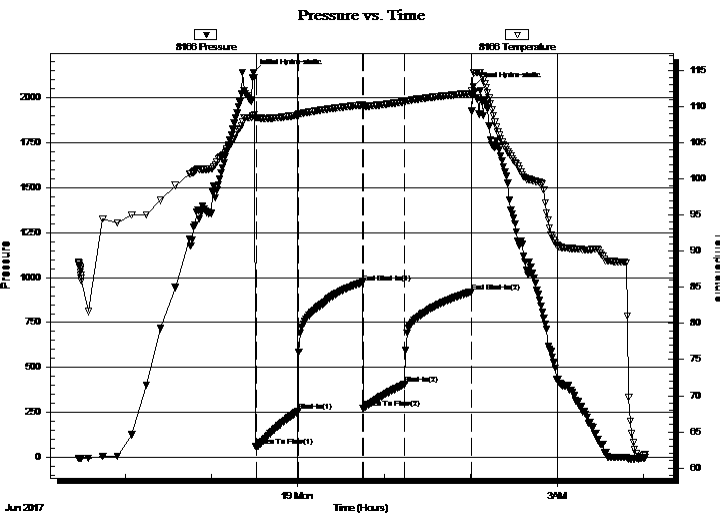
**11-16-35 Wichita, KS**  
**H-M Unit #1-11**  
 Job Ticket: 63818 **DST#: 3**  
 Test Start: 2017.06.18 @ 21:27:46

## GENERAL INFORMATION:

Formation: **LKC H**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 23:31:16 Tester: Brandon Turley  
 Time Test Ended: 04:00:46 Unit No: 79  
 Interval: **4236.00 ft (KB) To 4278.00 ft (KB) (TVD)** Reference Elevations: 3191.00 ft (KB)  
 Total Depth: 4278.00 ft (KB) (TVD) 3181.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 10.00 ft

**Serial #: 8166 Outside**  
 Press@RunDepth: 406.38 psig @ 4241.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.06.18 End Date: 2017.06.19 Last Calib.: 2017.06.19  
 Start Time: 21:27:51 End Time: 04:00:45 Time On Btm: 2017.06.18 @ 23:29:16  
 Time Off Btm: 2017.06.19 @ 02:01:46

TEST COMMENT: IF: BOB in 4 min.  
 IS: No return.  
 FF: BOB in 6 min.  
 FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2136.86	108.73	Initial Hydro-static
2	60.29	108.45	Open To Flow (1)
31	256.37	108.81	Shut-In(1)
76	973.06	110.20	End Shut-In(1)
76	271.98	110.02	Open To Flow (2)
105	406.38	110.65	Shut-In(2)
151	921.21	111.82	End Shut-In(2)
153	2060.75	114.69	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
693.00	water 100%w	9.72
189.00	mcw 80%w 20%m	2.65

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Co  
10500 E Berkeley Sq Pkwy Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**11-16-35 Wichita, KS**  
**H-M Unit #1-11**  
Job Ticket: 63818      **DST#: 3**  
Test Start: 2017.06.18 @ 21:27:46

**Tool Information**

Drill Pipe:	Length: 4216.00 ft	Diameter: 3.80 inches	Volume: 59.14 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: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 59.14 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	4236.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	69.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Stubb	1.00			4214.00	
Shut In Tool	5.00			4219.00	
Hydraulic tool	5.00			4224.00	
Jars	5.00			4229.00	
Safety Joint	2.00			4231.00	
Packer	5.00			4236.00	23.00      Bottom Of Top Packer
Packer - Shale	4.00			4240.00	
Stubb	1.00			4241.00	
Recorder	0.00	8875	Inside	4241.00	
Recorder	0.00	8166	Outside	4241.00	
Perforations	3.00			4244.00	
Change Over Sub	1.00			4245.00	
Drill Pipe	31.00			4276.00	
Change Over Sub	1.00			4277.00	
Bullnose	5.00			4282.00	46.00      Anchor Tool

**Total Tool Length: 69.00**



**TRILOBITE  
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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Hartman Oil Co  
10500 E Berkeley Sq Pkwy Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**11-16-35 Wichita,KS**  
**H-M Unit #1-11**  
Job Ticket: 63818      **DST#: 3**  
Test Start: 2017.06.18 @ 21:27:46

## Mud and Cushion Information

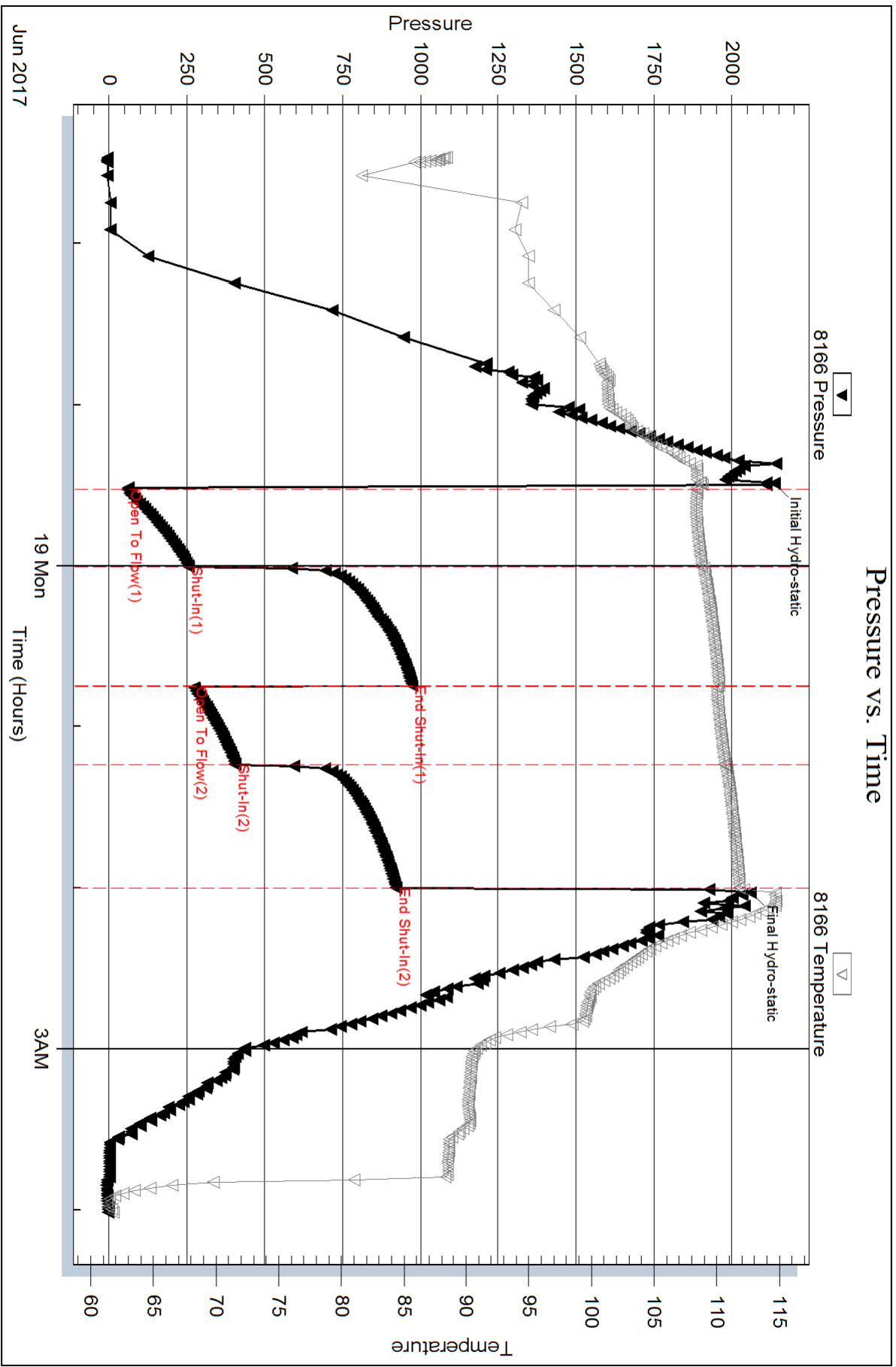
Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 26000 ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl	
Water Loss: 9.59 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 4500.00 ppm		
Filter Cake: 1.00 inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
693.00	water 100%w	9.721
189.00	mcw 80%w 20%m	2.651

Total Length: 882.00 ft      Total Volume: 12.372 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: .28@65=26000



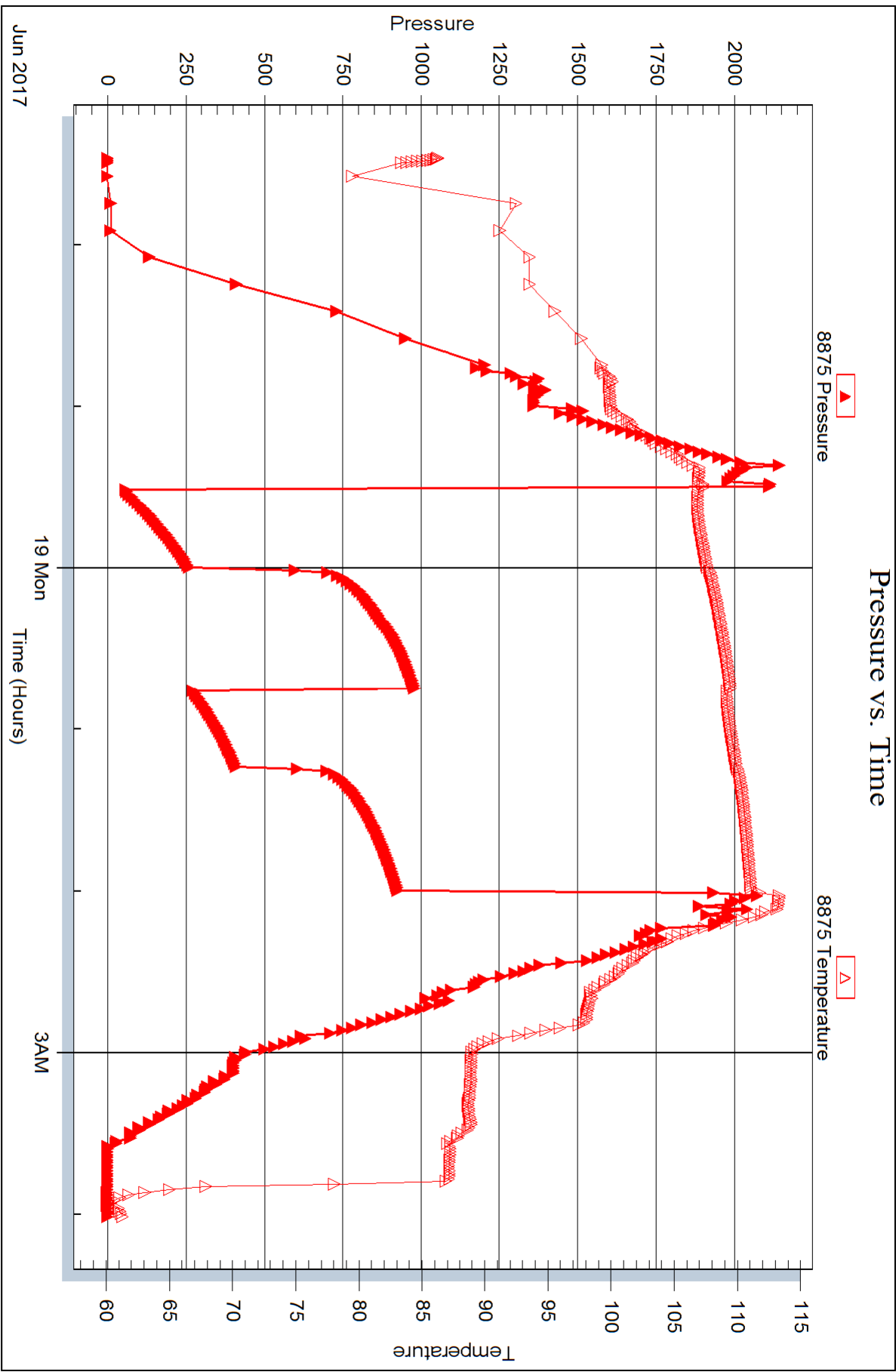
Serial #: 8875

Inside

Hartman Oil Co

H-M Unit #1-11

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co**

10500 E Berkeley Sq Pkwy Ste 100  
Wichita, KS 67206

ATTN: Chris Peters

**H-M Unit #1-11**

**11-16-35 Wichita,KS**

Start Date: 2017.06.19 @ 11:55:08

End Date: 2017.06.19 @ 18:35:08

Job Ticket #: 63819                      DST #: 4

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.06.22 @ 10:04:09



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Hartman Oil Co  
 10500 E Berkeley Sq Pkwy Ste 100  
 Wichita, KS 67206  
 ATTN: Chris Peters

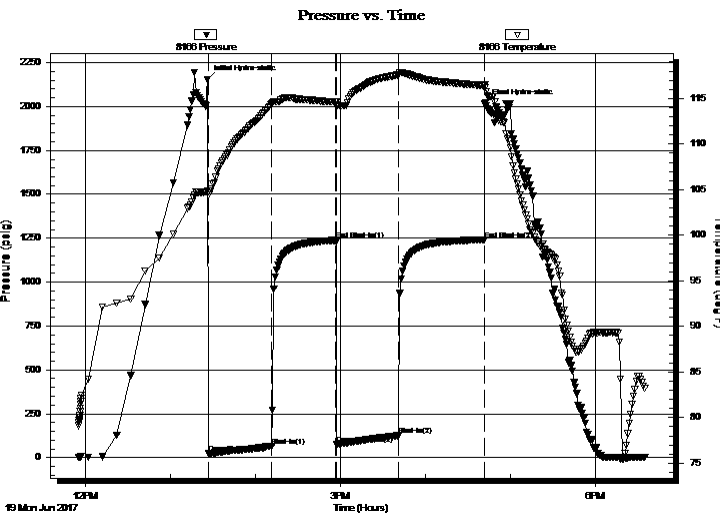
**11-16-35 Wichita, KS**  
**H-M Unit #1-11**  
 Job Ticket: 63819 **DST#: 4**  
 Test Start: 2017.06.19 @ 11:55:08

## GENERAL INFORMATION:

Formation: **LKC I**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:27:08  
 Time Test Ended: 18:35:08  
 Interval: **4280.00 ft (KB) To 4300.00 ft (KB) (TVD)**  
 Total Depth: 4300.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brandon Turley  
 Unit No: 79  
 Reference Elevations: 3191.00 ft (KB)  
 3181.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8166 Outside**  
 Press@RunDepth: 125.23 psig @ 4285.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.06.19 End Date: 2017.06.19 Last Calib.: 2017.06.19  
 Start Time: 11:55:13 End Time: 18:35:07 Time On Btm: 2017.06.19 @ 13:26:08  
 Time Off Btm: 2017.06.19 @ 16:42:38

**TEST COMMENT:** IF: 1/4" blow built to 8"  
 IS: No return.  
 FF: Surface blow built to 7"  
 FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2154.56	104.89	Initial Hydro-static
1	22.35	104.44	Open To Flow (1)
46	66.76	114.38	Shut-In(1)
91	1238.42	114.60	End Shut-In(1)
92	76.34	114.27	Open To Flow (2)
135	125.23	117.58	Shut-In(2)
196	1241.20	116.42	End Shut-In(2)
197	2018.97	116.18	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
126.00	mcw 80%w 20%m	1.77
126.00	w cm some oil spots 30%w 70%m	1.77

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Co  
10500 E Berkeley Sq Pkwy Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**11-16-35 Wichita, KS**  
**H-M Unit #1-11**  
Job Ticket: 63819      **DST#: 4**  
Test Start: 2017.06.19 @ 11:55:08

**Tool Information**

Drill Pipe:	Length: 4279.00 ft	Diameter: 3.80 inches	Volume: 60.02 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: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 60.02 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	4280.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	47.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Stubb	1.00			4258.00	
Shut In Tool	5.00			4263.00	
Hydraulic tool	5.00			4268.00	
Jars	5.00			4273.00	
Safety Joint	2.00			4275.00	
Packer	5.00			4280.00	23.00      Bottom Of Top Packer
Packer - Shale	4.00			4284.00	
Stubb	1.00			4285.00	
Recorder	0.00	8875	Inside	4285.00	
Recorder	0.00	8166	Outside	4285.00	
Perforations	14.00			4299.00	
Bullnose	5.00			4304.00	24.00      Anchor Tool

**Total Tool Length: 47.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Hartman Oil Co  
10500 E Berkeley Sq Pkwy Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**11-16-35 Wichita,KS**  
**H-M Unit #1-11**  
Job Ticket: 63819      **DST#: 4**  
Test Start: 2017.06.19 @ 11:55:08

### Mud and Cushion Information

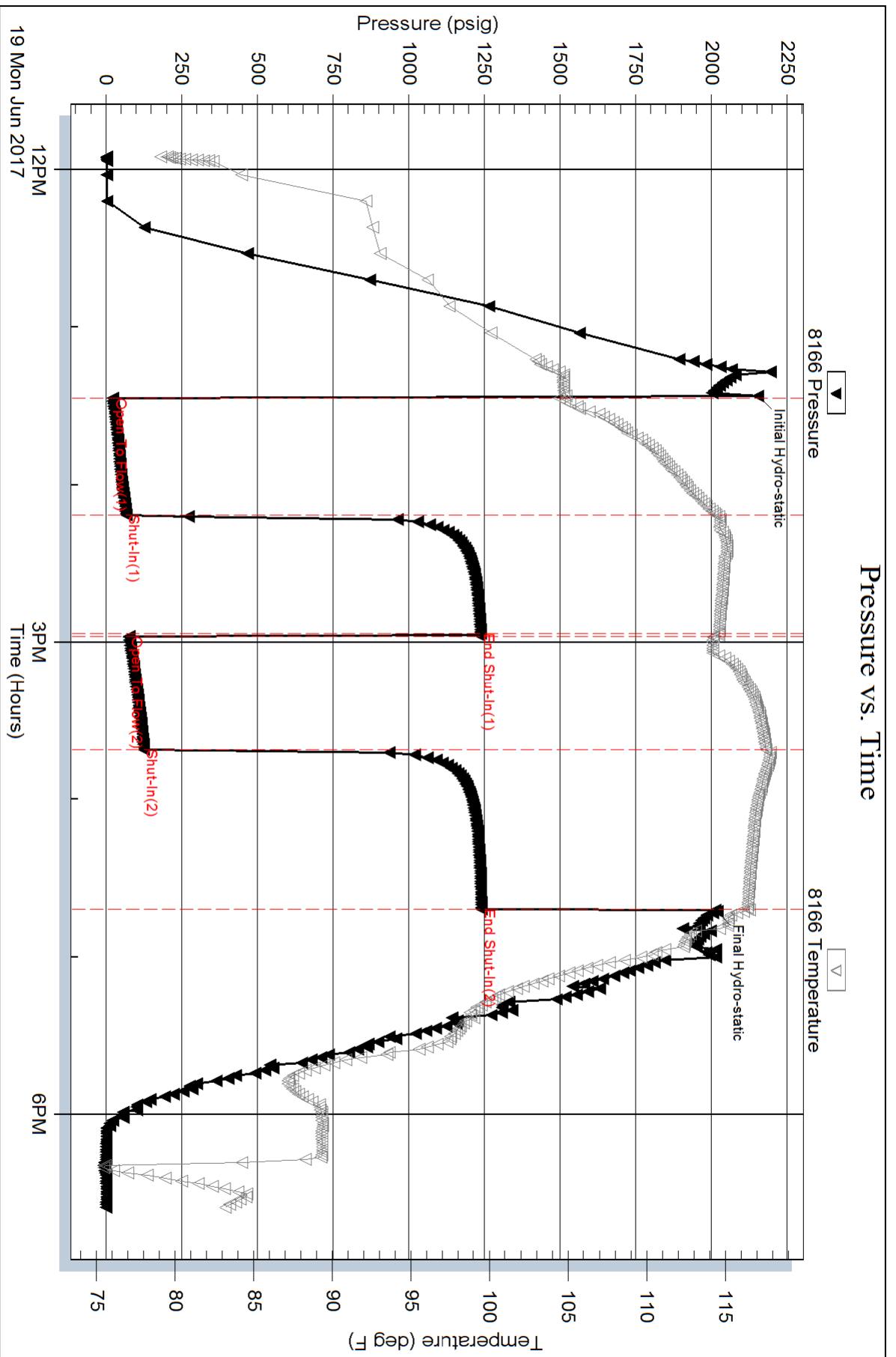
Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 31000 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl	
Water Loss: 9.59 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 5000.00 ppm		
Filter Cake: 1.00 inches		

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
126.00	mcw 80%w 20%m	1.767
126.00	w cm some oil spots 30%w 70%m	1.767

Total Length: 252.00 ft      Total Volume: 3.534 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: .17@89=31000



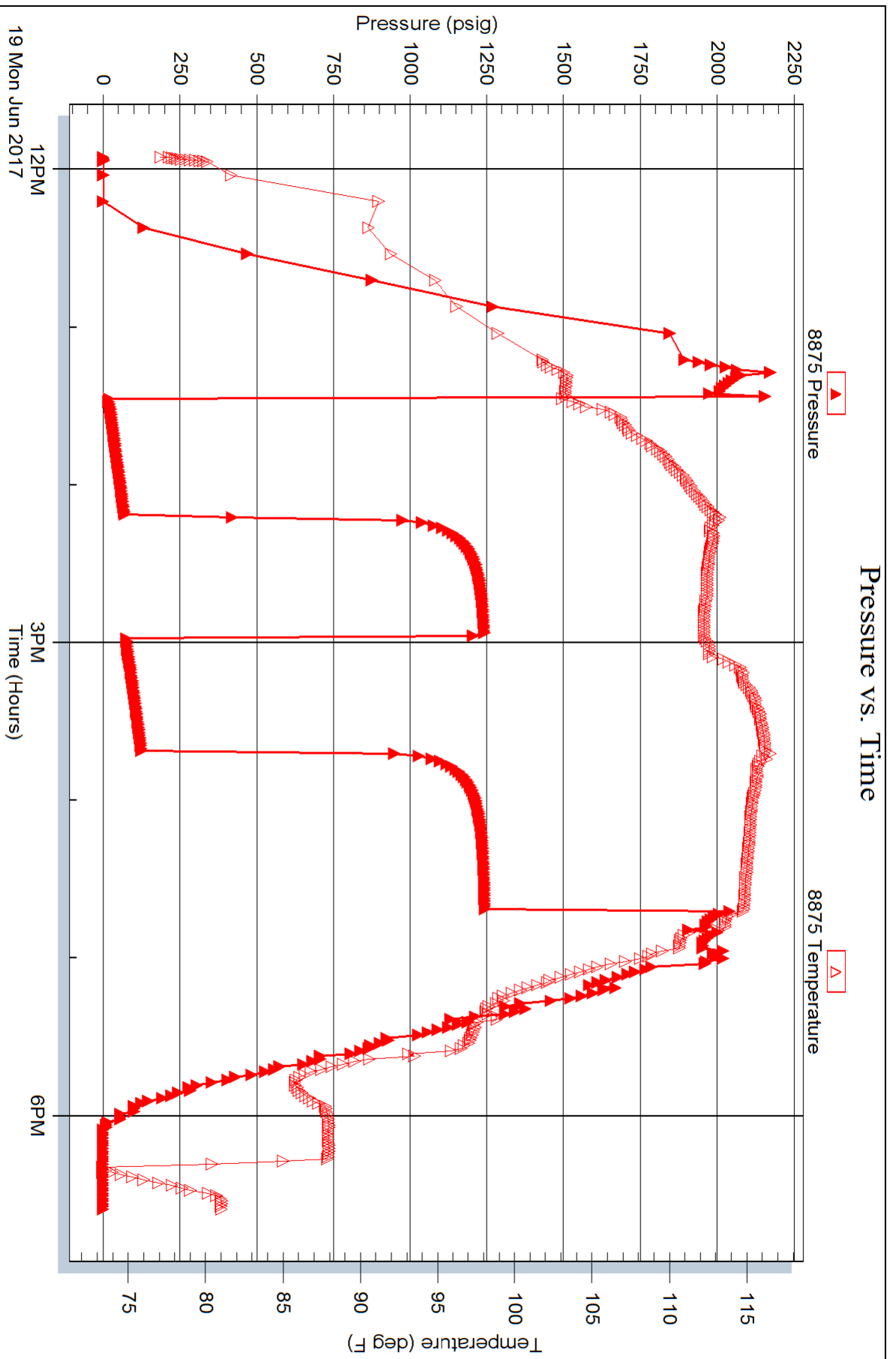
Serial #: 8875

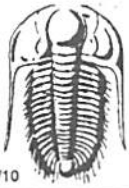
Inside

Hartman Oil Co

H-M Unit #1-11

DST Test Number: 4





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **63816**

Well Name & No. H-M Unit 1-11 Test No. 1 Date 6-17-17  
 Company Hartman oil Co Elevation 3191 KB 3181 GL  
 Address 10500 E. Berkeley sq Pkwy Ste 100 Wichita, KS 67206  
 Co. Rep / Geo. Chris Peters Rig Southwind #1  
 Location: Sec. 11 Twp. 16 Rge. 35 Co. Wichita State KS

Interval Tested 4010 4030 Zone Tested  Toronto  
 Anchor Length 30 Drill Pipe Run 3994 Mud Wt. 8.6  
 Top Packer Depth 4005 Drill Collars Run — Vis 54  
 Bottom Packer Depth 4010 Wt. Pipe Run — WL 7.2  
 Total Depth 4030 Chlorides 2500 ppm System LCM 2

Blow Description ±FI Surface blow built to 1 1/2.  
IS: NO return.  
FF: Surface blow built to 1 1/2.  
FS: NO return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>57</u>	<u>wcm oil spots</u>		<u>10</u>	<u>90</u>	
<u>63</u>	<u>mcw</u>		<u>80</u>	<u>20</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 120 BHT 109 Gravity — API RW .21 @ 91 °F Chlorides 25,000 ppm

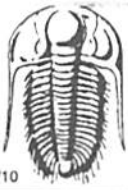
(A) Initial Hydrostatic 1920  Test 1150 T-On Location 4:20  
 (B) First Initial Flow 23  Jars 250 T-Started 6:04  
 (C) First Final Flow 39  Safety Joint 75 T-Open 8:03  
 (D) Initial Shut-In 988  Circ Sub N/C T-Pulled 10:38  
 (E) Second Initial Flow 48  Hourly Standby \_\_\_\_\_ T-Out 12:07  
 (F) Second Final Flow 63  Mileage 65 - 48.75  
 (G) Final Shut-In 997  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1880  Straddle \_\_\_\_\_

Initial Open 40  Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Final Flow 40  Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Shut-In 45  Day Standby \_\_\_\_\_ Sub Total 0  
 Accessibility \_\_\_\_\_ Total 1523.75  
 Sub Total 1523.75 MP/DST Disc't \_\_\_\_\_

Approved By [Signature] Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **63817**

Well Name & No. H-M unit 1-11 Test No. 2 Date 6-17-17  
 Company Hartman oil CG Elevation 3191 KB 3181 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Chris Peters Rig Southwind #1  
 Location: Sec. 11 Twp. 16 Rge. 35 Co. Wichita State KJ

Interval Tested 4086 4106 Zone Tested Pansing - C  
 Anchor Length 20 Drill Pipe Run 4090 Mud Wt. 8.9  
 Top Packer Depth 4081 Drill Collars Run - Vis 54  
 Bottom Packer Depth 4086 Wt. Pipe Run - WL 8.0  
 Total Depth 4106 Chlorides 3000 ppm System LCM 2

Blow Description IF: BoB in 2 min.  
IS: No return.  
KF: BoB in 3 min.  
KS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>272</u>	<u>MCW</u>		<u>70</u>	<u>30</u>	
<u>1260</u>	<u>Water</u>		<u>100</u>		
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1532 BHT 114 Gravity - API RW .31 @ 68 °F Chlorides 23,000 ppm

(A) Initial Hydrostatic 1988  Test 1150 T-On Location 20:00  
 (B) First Initial Flow 106  Jars 250 T-Started 21:55  
 (C) First Final Flow 466  Safety Joint 75 T-Open 00:17  
 (D) Initial Shut-In 1090  Circ Sub NIC T-Pulled 2:47  
 (E) Second Initial Flow 497  Hourly Standby \_\_\_\_\_ T-Out 5:10  
 (F) Second Final Flow 714  Mileage 65- 48.75  
 (G) Final Shut-In 1088  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1934  Straddle \_\_\_\_\_

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Packer \_\_\_\_\_  
 Initial Shut-In 45  Extra Recorder \_\_\_\_\_  
 Final Flow 30  Day Standby \_\_\_\_\_  
 Final Shut-In 45  Accessibility \_\_\_\_\_  
 Sub Total 1773.75

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **63818**

Well Name & No. H-M unit 1-11 Test No. 3 Date 6-18-17  
 Company Hartman oil Co Elevation 3191 KB 3181 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Chris Peters Rig Southwind #1  
 Location: Sec. 11 Twp. 16 Rge. 35 Co. Wichita State KS

Interval Tested 4236 4278 Zone Tested H  
 Anchor Length 42 Drill Pipe Run 4216 Mud Wt. 9.0  
 Top Packer Depth 4331 Drill Collars Run — Vis 48  
 Bottom Packer Depth 4236 Wt. Pipe Run — WL 9.6  
 Total Depth 4278 Chlorides 4500 ppm System LCM 2  
 Blow Description IF! BoB in 4 min.  
IS: No return.  
FF: BoB in 6 min.  
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>189</u>	<u>mcw</u>		<u>80</u>	<u>20</u>	
<u>693</u>	<u>water</u>		<u>100</u>		
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 882 BHT 111 Gravity — API RW .28 @ 65° F Chlorides 26,000 ppm

(A) Initial Hydrostatic <u>2136</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>21:00</u>
(B) First Initial Flow <u>60</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>21:27</u>
(C) First Final Flow <u>256</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>23:29</u>
(D) Initial Shut-In <u>973</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>1:59</u>
(E) Second Initial Flow <u>221</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>4:00</u>
(F) Second Final Flow <u>406</u>	<input checked="" type="checkbox"/> Mileage <u>65</u> 48.75	Comments _____
(G) Final Shut-In <u>921</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>2060</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Total <u>1773.75</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1773.75</u>	

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **63819**

Well Name & No. H-M unit 1-11 Test No. 4 Date 6-19-17  
 Company Hartman oil CO Elevation 3191 KB 3181 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Chris Peters Rig Southwind #1  
 Location: Sec. 11 Twp. 16 Rge. 35 Co. Wichita State K.S

Interval Tested 4280 4300 Zone Tested I  
 Anchor Length 20 Drill Pipe Run 4279 Mud Wt. 9.1  
 Top Packer Depth 4275 Drill Collars Run — Vis 55  
 Bottom Packer Depth 4280 Wt. Pipe Run — WL 9.6  
 Total Depth 4300 Chlorides 5000 ppm System LCM 2  
 Blow Description IF: 1/4 blow built to 8.  
IS: No return.  
FF: Surface blow built to 7.  
F5: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>126</u>	<u>WCM some oil spots</u>		<u>30</u>	<u>70</u>	
<u>126</u>	<u>MCW</u>		<u>80</u>	<u>20</u>	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Rec Total 252 BHT 116 Gravity — API RW .49 @ 89 °F Chlorides 31,000 ppm

(A) Initial Hydrostatic <u>2154</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>11:50</u>
(B) First Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>11:55</u>
(C) First Final Flow <u>66</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>13:26</u>
(D) Initial Shut-In <u>1238</u>	<input checked="" type="checkbox"/> Circ Sub _____	T-Pulled <u>16:46</u>
(E) Second Initial Flow <u>76</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>18:37</u>
(F) Second Final Flow <u>125</u>	<input checked="" type="checkbox"/> Mileage <u>65-</u> 97.50	Comments <u>logged</u>
(G) Final Shut-In <u>1241</u>	<input type="checkbox"/> Sampler _____	<u>6-21-17 23:00</u>
(H) Final Hydrostatic <u>2018</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>45</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>800</u>
Final Shut-In <u>60</u>	<input checked="" type="checkbox"/> Day Standby <u>1.5d 16.5h</u>	Total <u>2622.50</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1822.50</u>	

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