



DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co., Inc.**

10500 E. Berkeley Sq. Pkwy. STE #100
Wichita, KS 67206

ATTN: Kitt Noah

Rose #4-1

1-16s-35w Wichita,KS

Start Date: 2014.08.11 @ 17:42:00

End Date: 2014.08.12 @ 02:53:00

Job Ticket #: 55906 DST #: 1

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

Printed: 2014.08.19 @ 18:00:02



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Hartman Oil Co., Inc.

1-16s-35w Wichita, KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 55906

DST#: 1

ATTN: Kitt Noah

Test Start: 2014.08.11 @ 17:42:00

GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:50:00

Time Test Ended: 02:53:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: #66

Interval: 388.00 ft (KB) To 3908.00 ft (KB) (TVD)

Reference Elevations: 3077.00 ft (KB)

Total Depth: 3908.00 ft (KB) (TVD)

3066.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8874 Inside

Press@RunDepth: 261.25 psig @ 3884.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.11

End Date:

2014.08.12

Last Calib.:

2014.08.12

Start Time: 17:43:00

End Time:

02:53:00

Time On Btm:

2014.08.11 @ 20:47:30

Time Off Btm:

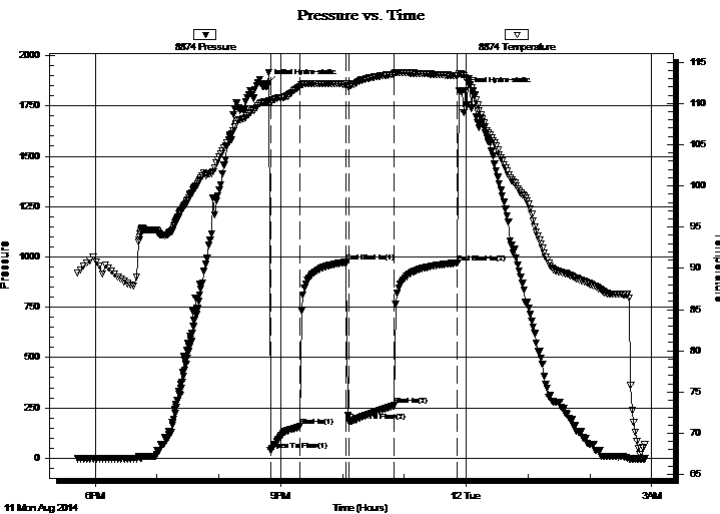
2014.08.11 @ 23:56:30

TEST COMMENT: 30 - IF- BoB in 16 min. 30 sec.

45 - IS- No Return

45 - FF- BoB in 16 min.

60 - FS- No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1859.80	110.21	Initial Hydro-static
3	37.47	110.04	Open To Flow (1)
31	156.88	112.00	Shut-In(1)
76	972.81	112.35	End Shut-In(1)
79	181.47	112.10	Open To Flow (2)
123	261.25	113.55	Shut-In(2)
184	969.85	113.36	End Shut-In(2)
189	1821.19	113.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
248.00	GMCWO 20G 40o 30W 10M	1.22
189.00	GOCWM 10G 30o 30W 30M	2.63
63.00	GOCWM w oG 20o 30W 40M	0.88
63.00	MCO 80o 20M	0.88
5.00	Free Oil 100o	0.07

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 55906

DST#: 1

ATTN: Kitt Noah

Test Start: 2014.08.11 @ 17:42:00

GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:50:00

Time Test Ended: 02:53:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: #66

Interval: 388.00 ft (KB) To 3908.00 ft (KB) (TVD)

Reference Elevations: 3077.00 ft (KB)

Total Depth: 3908.00 ft (KB) (TVD)

3066.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8653 Outside

Press@RunDepth: psig @ 3884.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.11 End Date: 2014.08.12

Last Calib.: 2014.08.12

Start Time: 17:43:00 End Time: 02:51:00

Time On Btm:

Time Off Btm:

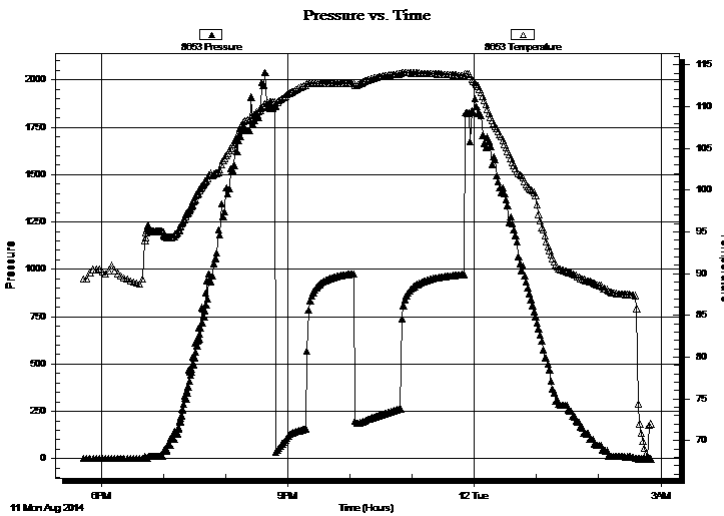
TEST COMMENT: 30 - IF- BoB in 16 min. 30 sec.

45 - IS- No Return

45 - FF- BoB in 16 min.

60 - FS- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
248.00	GMCWO 20G 40o 30W 10M	1.22
189.00	GOCWM 10G 30o 30W 30M	2.63
63.00	GOCWM w oG 20o 30W 40M	0.88
63.00	MCO 80o 20M	0.88
5.00	Free Oil 100o	0.07

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 55906

DST#: 1

ATTN: Kitt Noah

Test Start: 2014.08.11 @ 17:42:00

Tool Information

Drill Pipe:	Length: 3637.00 ft	Diameter: 3.80 inches	Volume: 51.02 bbl	Tool Weight: 2500.00 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: 250.00 ft	Diameter: 2.25 inches	Volume: 1.23 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 52.25 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3883.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	53.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3856.00	
Shut In Tool	5.00			3861.00	
Hydraulic tool	5.00			3866.00	
Jars	5.00			3871.00	
Safety Joint	3.00			3874.00	
Packer	5.00			3879.00	28.00 Bottom Of Top Packer
Packer	4.00			3883.00	
Stubb	1.00			3884.00	
Recorder	0.00	8653	Outside	3884.00	
Recorder	0.00	8874	Inside	3884.00	
Perforations	19.00			3903.00	
Bullnose	5.00			3908.00	25.00 Bottom Packers & Anchor

Total Tool Length: 53.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 55906

DST#: 1

ATTN: Kitt Noah

Test Start: 2014.08.11 @ 17:42:00

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:

43000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.76 in³

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
248.00	GMCWO 20G 40o 30W 10M	1.220
189.00	GOCWM 10G 30o 30W 30M	2.633
63.00	GOCWM w oG 20o 30W 40M	0.884
63.00	MCO 80o 20M	0.884
5.00	Free Oil 100o	0.070

Total Length: 568.00 ft Total Volume: 5.691 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

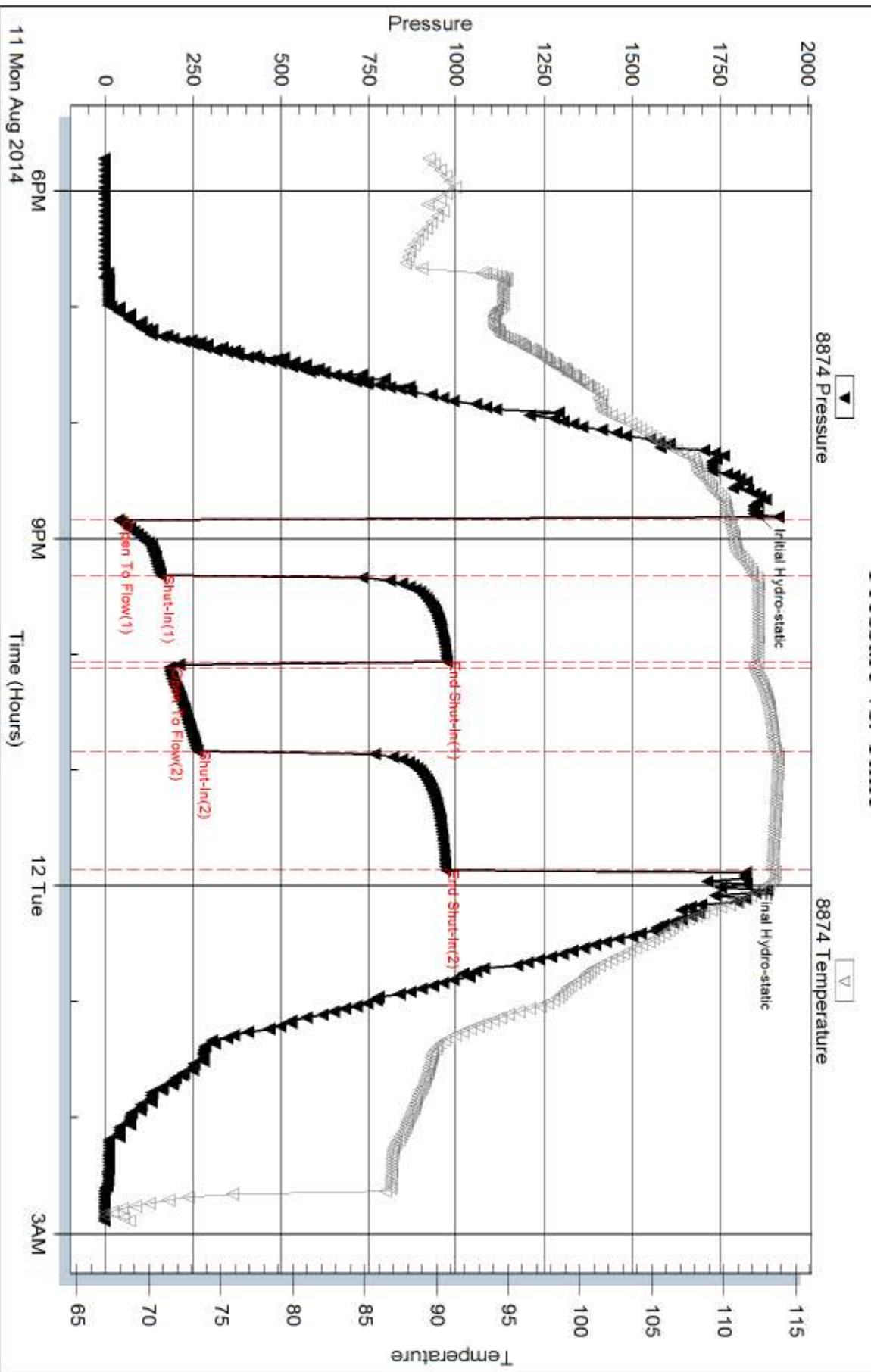
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .15 @ 82 deg = 43000 ppm

Pressure vs. Time

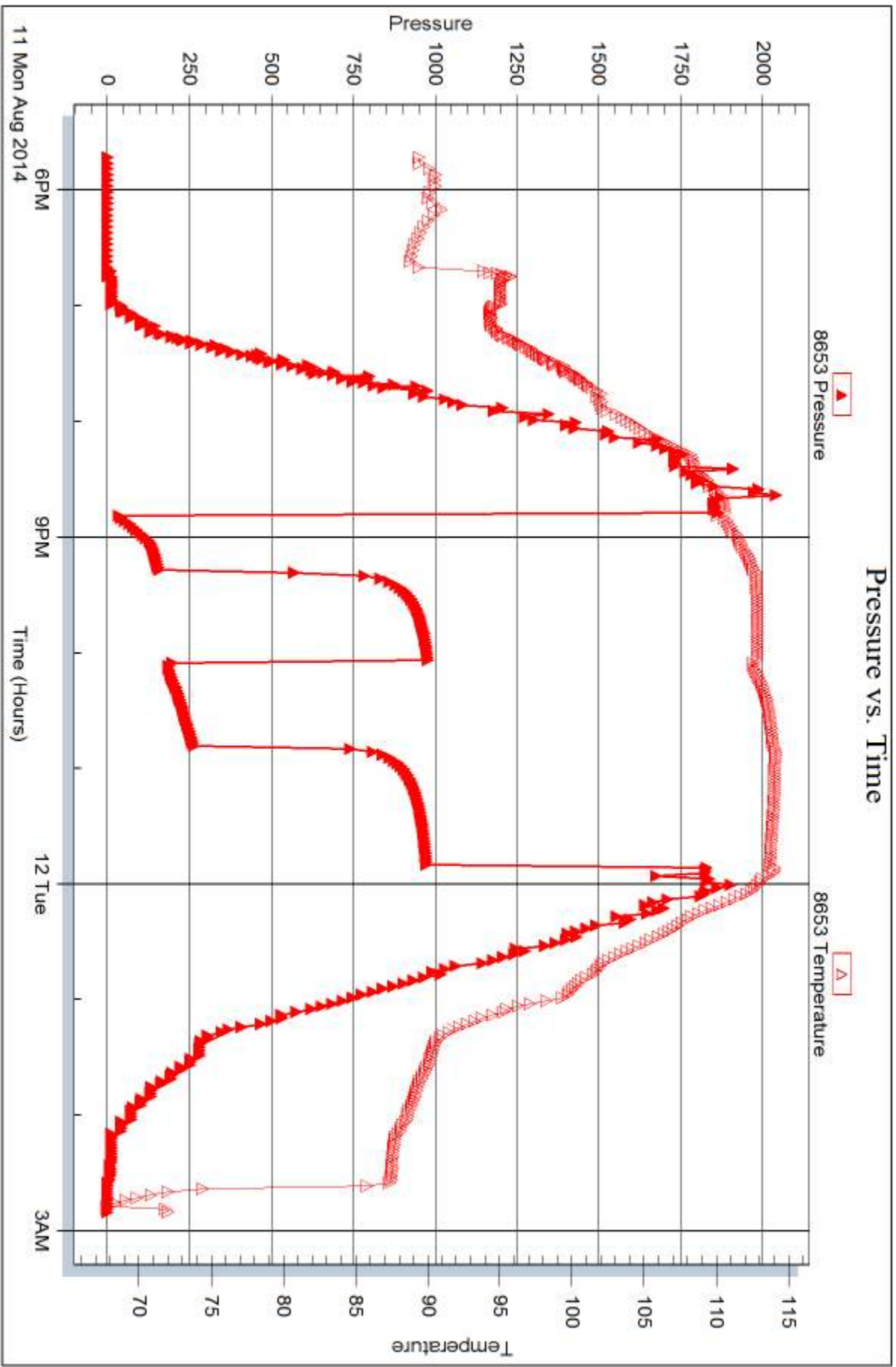


Serial #: 8653

Outside Hartman Oil Co., Inc.

Rose #4-1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 55906

Printed: 2014.08.19 @ 18:00:47



DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co., Inc.**

10500 E. Berkeley Sq. Pkwy. STE #100
Wichita, KS 67206

ATTN: Kitt Noah

Rose #4-1

1-16s-35w Wichita,KS

Start Date: 2014.08.13 @ 02:48:00

End Date: 2014.08.13 @ 10:43:30

Job Ticket #: 56673 DST #: 2

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

Printed: 2014.08.19 @ 17:58:14



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 56673

DST#: 2

ATTN: Kitt Noah

Test Start: 2014.08.13 @ 02:48:00

GENERAL INFORMATION:

Formation: **LKC 'C'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:42:00

Time Test Ended: 10:43:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Justin Harris

Unit No: 60

Interval: 3952.00 ft (KB) To 3974.00 ft (KB) (TVD)

Reference Elevations: 3077.00 ft (KB)

Total Depth: 3974.00 ft (KB) (TVD)

3066.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 11.00 ft

Serial #: 8373

Inside

Press@RunDepth: 69.32 psig @ 3953.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.13

End Date:

2014.08.13

Last Calib.:

2014.08.13

Start Time: 02:48:05

End Time:

10:43:29

Time On Btm:

2014.08.13 @ 05:41:30

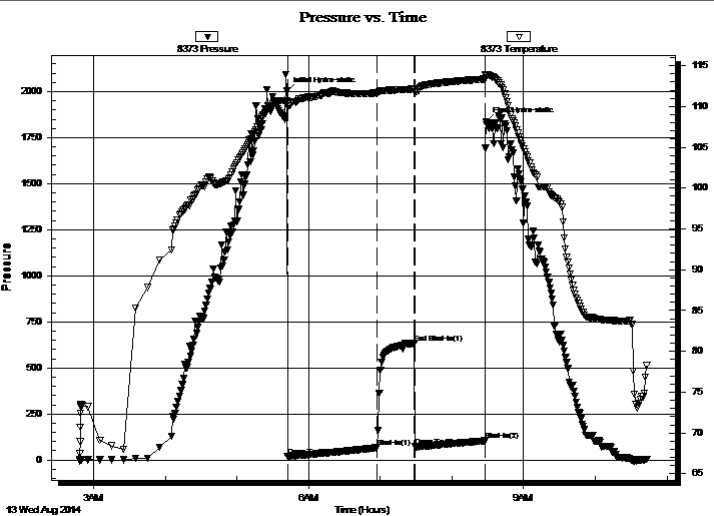
Time Off Btm:

2014.08.13 @ 08:28:30

TEST COMMENT: 75: Weak surface blow build to 1"

30: No Return.

60: No Blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2001.92	110.72	Initial Hydro-static
1	21.82	110.06	Open To Flow (1)
76	69.32	111.64	Shut-In(1)
107	633.29	112.14	End Shut-In(1)
108	73.01	111.80	Open To Flow (2)
166	104.23	113.37	Shut-In(2)
167	1838.03	113.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
94.00	clean oil 98%o 2%g	0.46
94.00	gmco 5%g 45%m 50%o	0.46
62.00	ocm 30%o 70%m	0.30

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Hartman Oil Co., Inc.

1-16s-35w Wichita, KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 56673

DST#: 2

ATTN: Kitt Noah

Test Start: 2014.08.13 @ 02:48:00

GENERAL INFORMATION:

Formation: **LKC 'C'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:42:00

Time Test Ended: 10:43:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Justin Harris

Unit No: 60

Interval: 3952.00 ft (KB) To 3974.00 ft (KB) (TVD)

Reference Elevations: 3077.00 ft (KB)

Total Depth: 3974.00 ft (KB) (TVD)

3066.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 11.00 ft

Serial #: 8166 Outside

Press@RunDepth: psig @ 3953.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.13

End Date:

2014.08.13

Last Calib.:

2014.08.13

Start Time: 02:48:05

End Time:

10:42:29

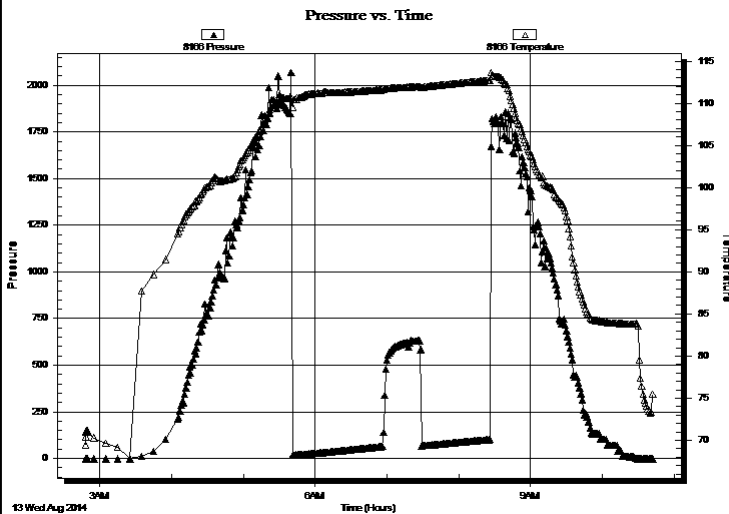
Time On Btm:

Time Off Btm:

TEST COMMENT: 75: Weak surface blow build to 1"

30: No Return.

60: No Blow.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
94.00	clean oil 98%o 2%g	0.46
94.00	gmco 5%g 45%m 50%o	0.46
62.00	ocm 30%o 70%m	0.30

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 56673

DST#: 2

ATTN: Kitt Noah

Test Start: 2014.08.13 @ 02:48:00

Tool Information

Drill Pipe:	Length: 3701.00 ft	Diameter: 3.80 inches	Volume: 51.92 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 250.00 ft	Diameter: 2.25 inches	Volume: 1.23 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 53.15 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	3952.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	22.00 ft				
Tool Length:	50.00 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			3925.00	
Shut In Tool	5.00			3930.00	
Hydraulic tool	5.00			3935.00	
Jars	5.00			3940.00	
Safety Joint	3.00			3943.00	
Packer	5.00			3948.00	28.00 Bottom Of Top Packer
Packer	4.00			3952.00	
Stubb	1.00			3953.00	
Recorder	0.00	8373	Inside	3953.00	
Recorder	0.00	8166	Outside	3953.00	
Perforations	16.00			3969.00	
Bullnose	5.00			3974.00	22.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 56673

DST#: 2

ATTN: Kitt Noah

Test Start: 2014.08.13 @ 02:48:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

26 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
94.00	clean oil 98%o 2%g	0.462
94.00	gmco 5%g 45%m 50%o	0.462
62.00	ocm 30%o 70%m	0.305

Total Length: 250.00 ft Total Volume: 1.229 bbl

Num Fluid Samples: 0

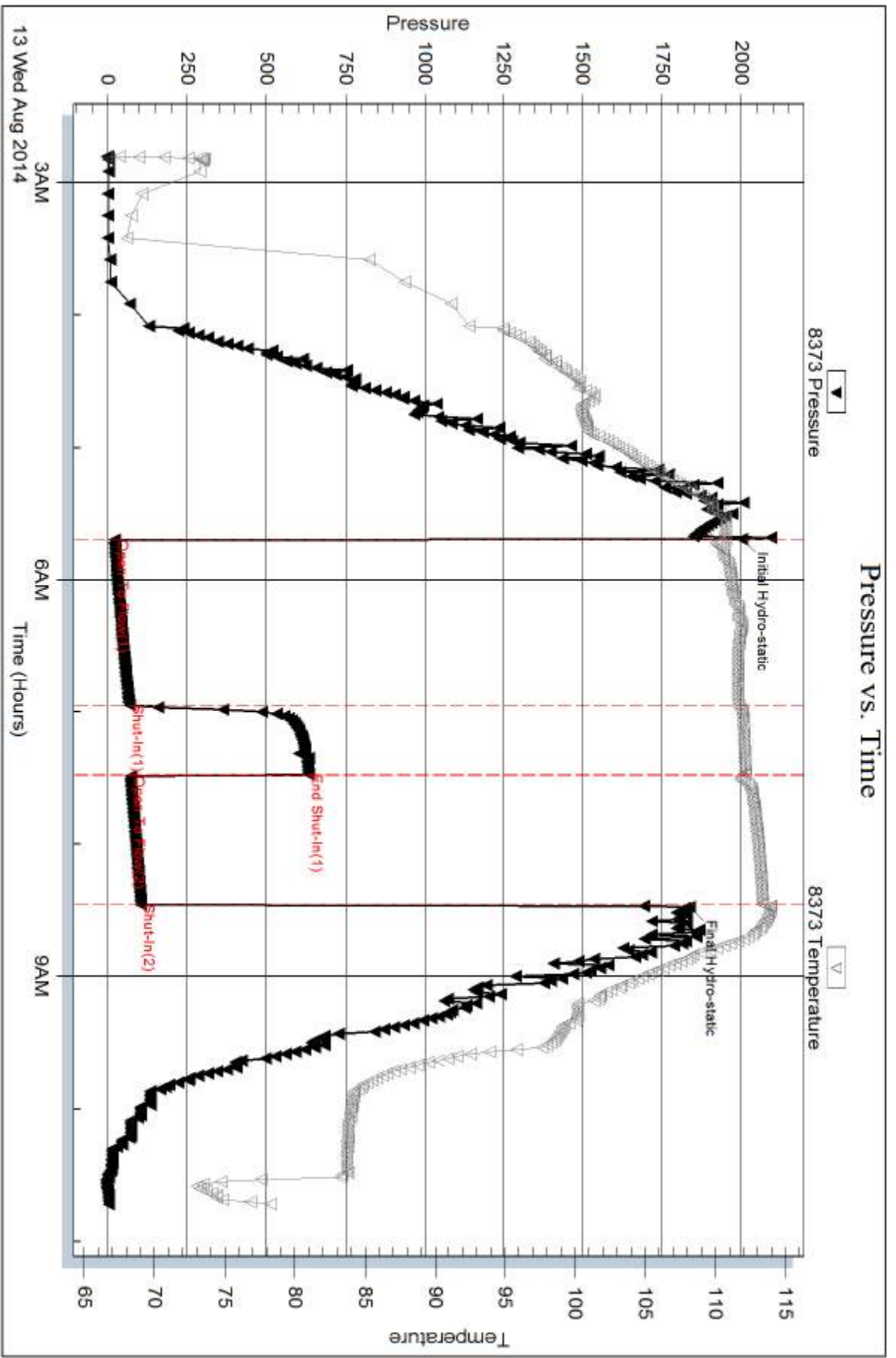
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API 29 @ 90 F =26

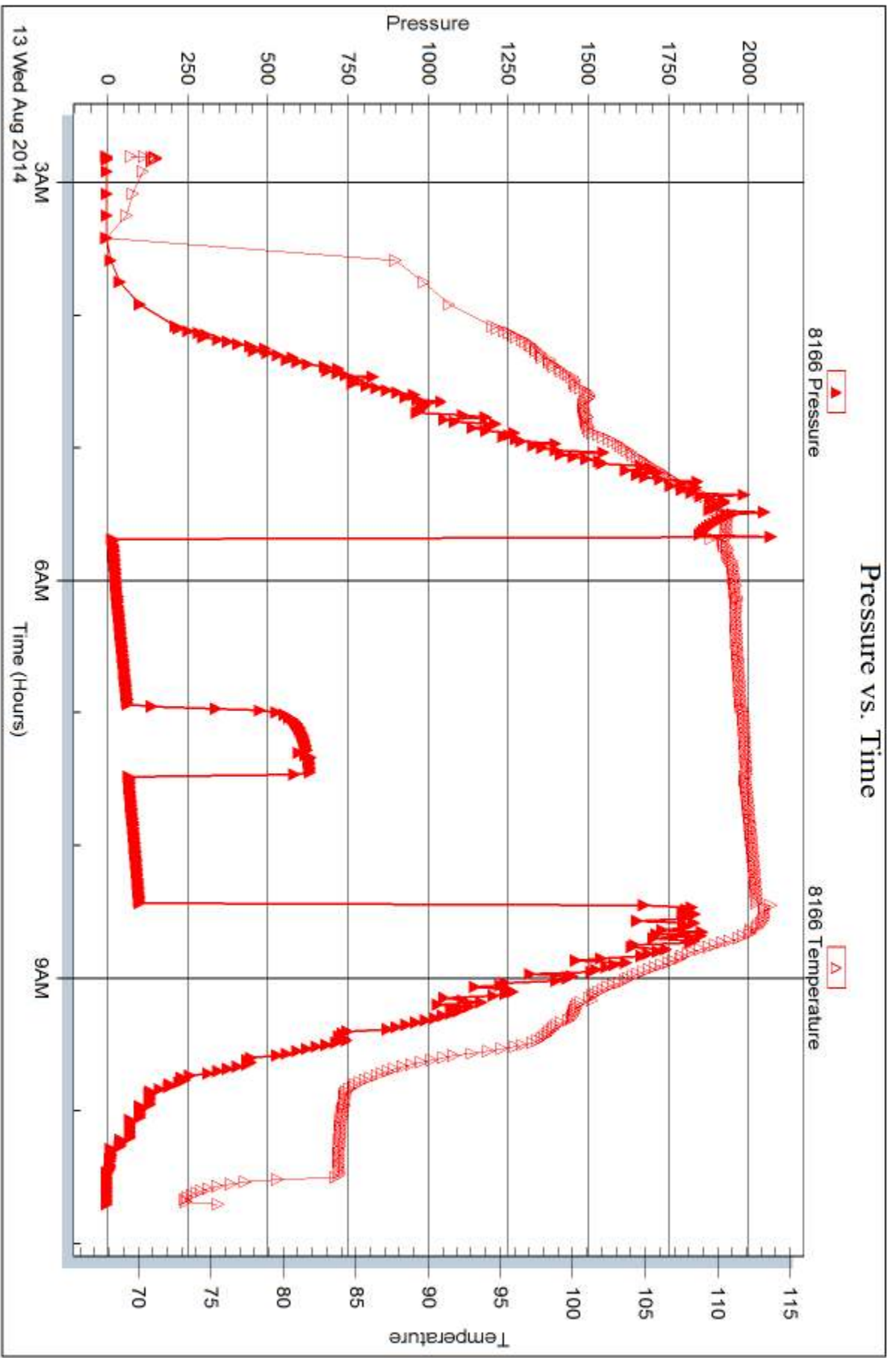


Serial #: 8166

Outside Hartman Oil Co., Inc.

Rose #4-1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 56673

Printed: 2014.08.19 @ 17:59:09



DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co., Inc.**

10500 E. Berkeley Sq. Pkwy. STE #100
Wichita, KS 67206

ATTN: Kitt Noah

Rose #4-1

1-16s-35w Wichita,KS

Start Date: 2014.08.14 @ 10:40:19

End Date: 2014.08.14 @ 19:19:49

Job Ticket #: 59021 DST #: 3

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

Printed: 2014.08.19 @ 17:56:37



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 59021

DST#: 3

ATTN: Kitt Noah

Test Start: 2014.08.14 @ 10:40:19

GENERAL INFORMATION:

Formation: **LKC I**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:03:49

Time Test Ended: 19:19:49

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4157.00 ft (KB) To 4182.00 ft (KB) (TVD)

Reference Elevations: 3077.00 ft (KB)

Total Depth: 4182.00 ft (KB) (TVD)

3066.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8373

Inside

Press@RunDepth: 104.58 psig @ 4158.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.14

End Date: 2014.08.14

Last Calib.: 2014.08.14

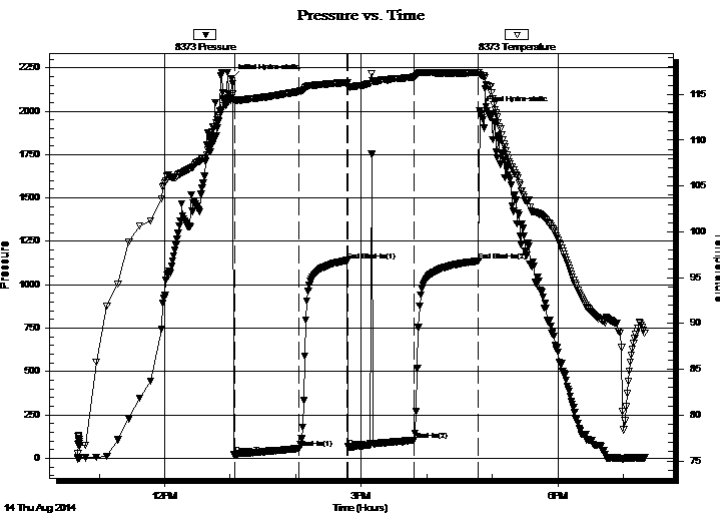
Start Time: 10:40:24

End Time: 19:19:49

Time On Btm: 2014.08.14 @ 13:01:19

Time Off Btm: 2014.08.14 @ 16:48:19

TEST COMMENT: IF: 1/4" blow built to 2 1/2" in 60 min.
IS: No return.
FF: No blow. Flushed tool after 20 min surface blow built to 1"
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2187.00	114.81	Initial Hydro-static
3	23.24	114.36	Open To Flow (1)
62	58.32	115.31	Shut-In(1)
106	1140.23	116.30	End Shut-In(1)
107	66.00	115.83	Open To Flow (2)
167	104.58	116.91	Shut-In(2)
226	1136.93	117.35	End Shut-In(2)
227	2004.31	117.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	ocm 10%o 90%m	0.30
154.00	oil 100%o	0.76

* Recovery from multiple tests

Gas Rates

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



DRILL STEM TEST REPORT

Hartman Oil Co., Inc.

1-16s-35w Wichita, KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 59021

DST#: 3

ATTN: Kitt Noah

Test Start: 2014.08.14 @ 10:40:19

GENERAL INFORMATION:

Formation: **LKC I**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:03:49
 Time Test Ended: 19:19:49
 Interval: **4157.00 ft (KB) To 4182.00 ft (KB) (TVD)**
 Total Depth: 4182.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches
 Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Turley
 Unit No: 60
 Reference Elevations: 3077.00 ft (KB)
 3066.00 ft (CF)
 KB to GR/CF: 11.00 ft

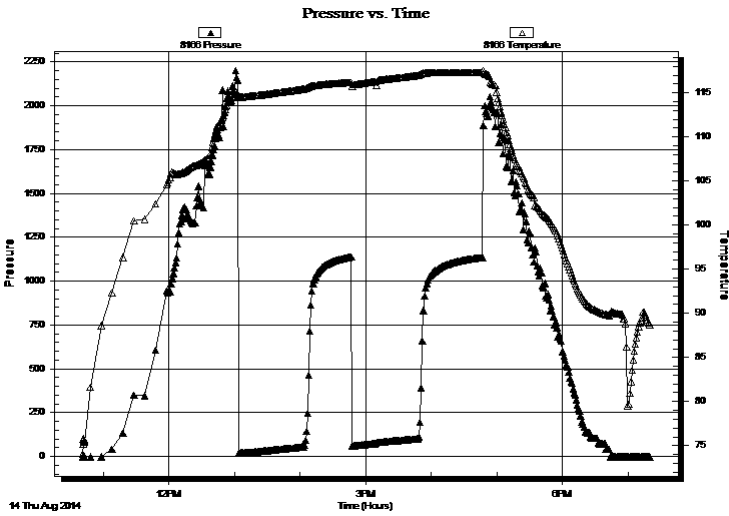
Serial #: 8166

Outside

Press@RunDepth: psig @ 4158.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.08.14 End Date: 2014.08.14 Last Calib.: 2014.08.14
 Start Time: 10:40:55 End Time: 19:19:50 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: 1/4" blow built to 2 1/2" in 60 min.
 IS: No return.
 FF: No blow. Flushed tool after 20 min surface blow built to 1"
 FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
62.00	ocm 10%o 90%m	0.30
154.00	oil 100%o	0.76

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 59021

DST#: 3

ATTN: Kitt Noah

Test Start: 2014.08.14 @ 10:40:19

Tool Information

Drill Pipe:	Length: 3885.00 ft	Diameter: 3.80 inches	Volume: 54.50 bbl	Tool Weight:	2500.00 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: 250.00 ft	Diameter: 2.25 inches	Volume: 1.23 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 55.73 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4157.00 ft			Final	70000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	25.00 ft				
Tool Length:	53.00 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			4130.00	
Shut In Tool	5.00			4135.00	
Hydraulic tool	5.00			4140.00	
Jars	5.00			4145.00	
Safety Joint	3.00			4148.00	
Packer	5.00			4153.00	28.00 Bottom Of Top Packer
Packer	4.00			4157.00	
Stubb	1.00			4158.00	
Recorder	0.00	8373	Inside	4158.00	
Recorder	0.00	8166	Outside	4158.00	
Perforations	19.00			4177.00	
Bullnose	5.00			4182.00	25.00 Bottom Packers & Anchor

Total Tool Length: 53.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 59021

DST#: 3

ATTN: Kitt Noah

Test Start: 2014.08.14 @ 10:40:19

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

26 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	ocm 10%o 90%m	0.305
154.00	oil 100%o	0.757

Total Length: 216.00 ft Total Volume: 1.062 bbl

Num Fluid Samples: 0

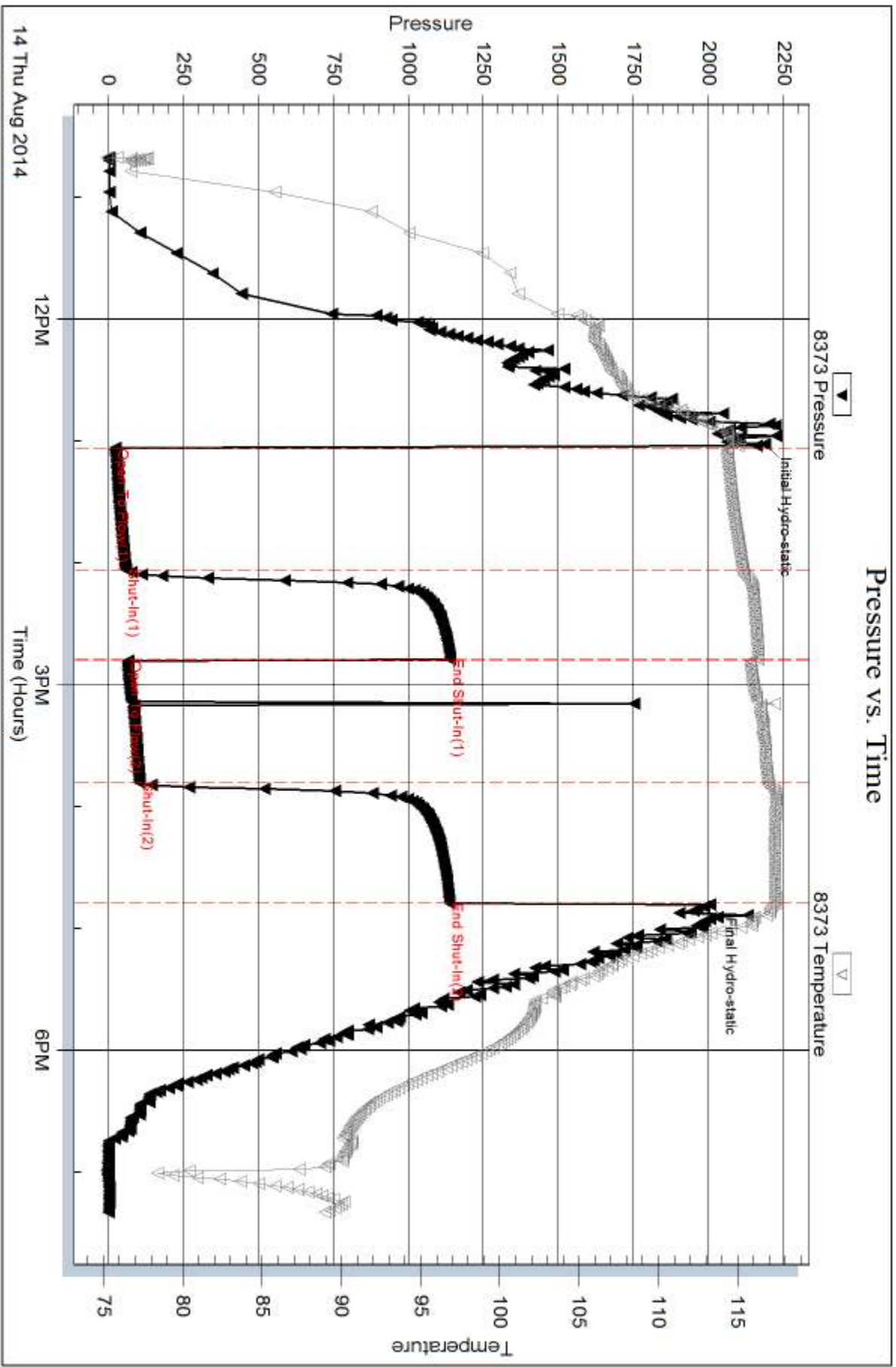
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 29@90=26

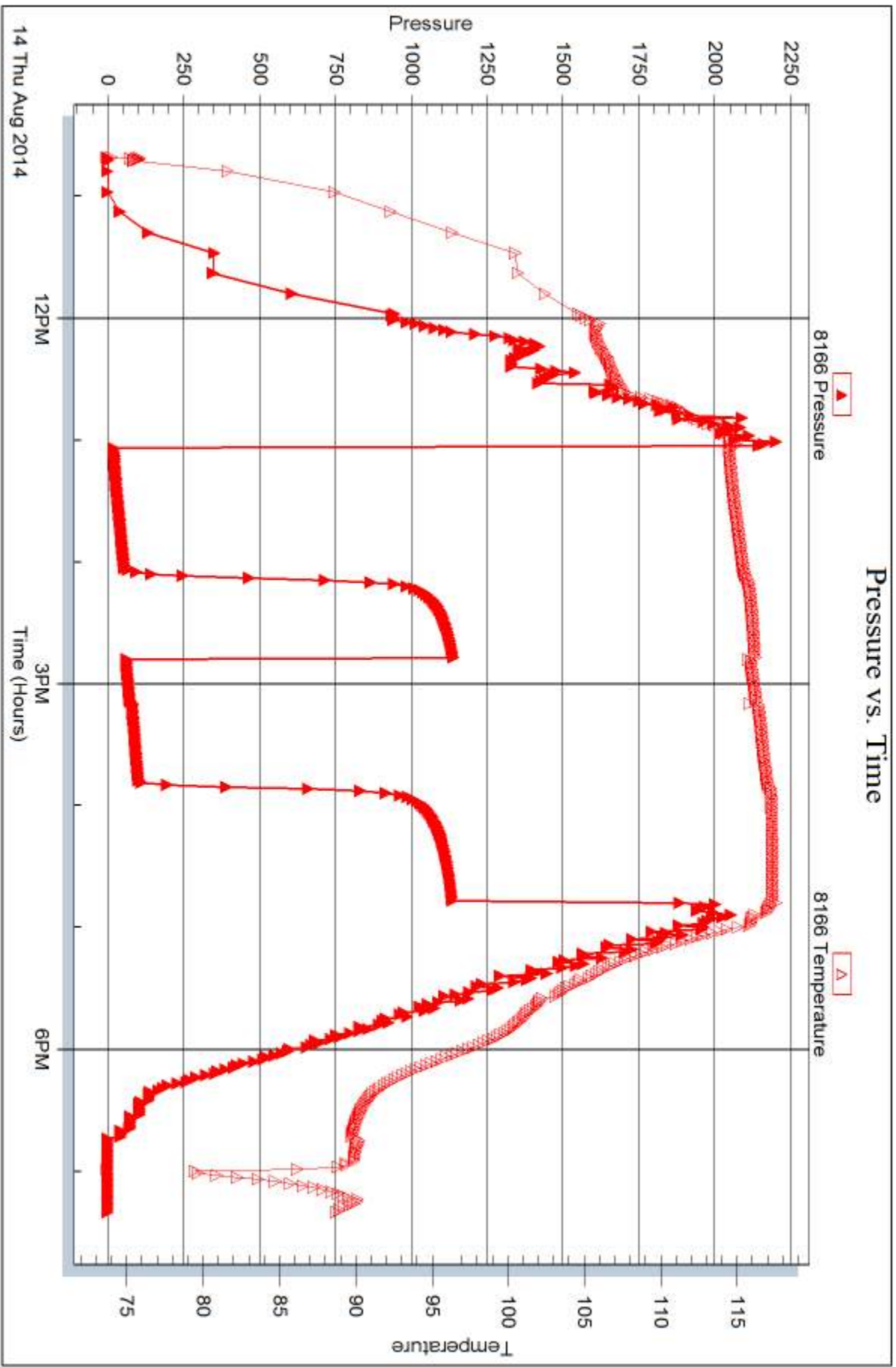


Serial #: 8166

Outside Hartman Oil Co., Inc.

Rose #4-1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 59021

Printed: 2014.08.19 @ 17:57:40



DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co., Inc.**

10500 E. Berkeley Sq. Pkwy. STE #100
Wichita, KS 67206

ATTN: Kitt Noah

Rose #4-1

1-16s-35w Wichita,KS

Start Date: 2014.08.15 @ 05:35:30

End Date: 2014.08.15 @ 13:19:00

Job Ticket #: 59022 DST #: 4

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

Printed: 2014.08.19 @ 17:54:34



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 59022

DST#: 4

ATTN: Kitt Noah

Test Start: 2014.08.15 @ 05:35:30

GENERAL INFORMATION:

Formation: **LKC K Prime**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:08:00

Time Test Ended: 13:19:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4197.00 ft (KB) To 4210.00 ft (KB) (TVD)

Reference Elevations: 3077.00 ft (KB)

Total Depth: 4210.00 ft (KB) (TVD)

3066.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8373

Inside

Press@RunDepth: 288.11 psig @ 4198.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.15

End Date:

2014.08.15

Last Calib.: 2014.08.15

Start Time: 05:35:35

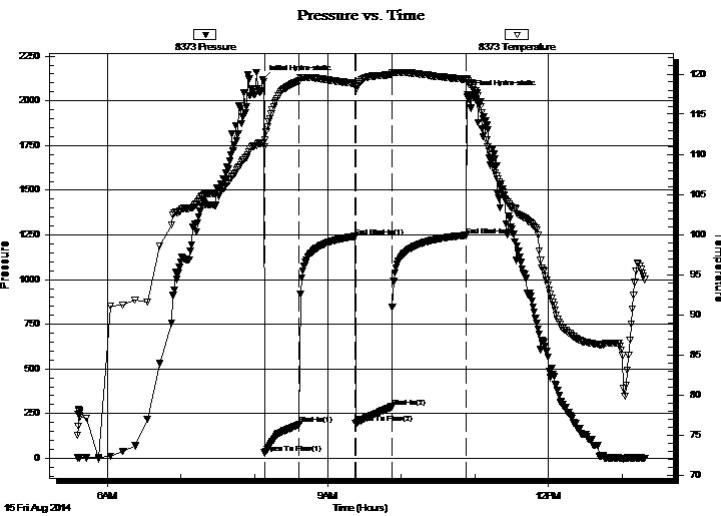
End Time:

13:18:59

Time On Btm: 2014.08.15 @ 08:06:30

Time Off Btm: 2014.08.15 @ 10:54:00

TEST COMMENT: IF: BOB in 14 min.
IS: No return.
FF: BOB in 18 min.
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2118.11	111.39	Initial Hydro-static
2	29.99	110.92	Open To Flow (1)
30	189.85	119.14	Shut-In(1)
76	1241.65	118.82	End Shut-In(1)
76	196.53	118.39	Open To Flow (2)
106	288.11	119.90	Shut-In(2)
166	1247.35	119.35	End Shut-In(2)
168	2035.17	119.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
248.00	mcw 95%w 5%m	1.22
186.00	mcw 90%w 10%m	2.59
164.00	w cm 40%w 60%m	2.30

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

ATTN: Kitt Noah

Job Ticket: 59022

DST#: 4

Test Start: 2014.08.15 @ 05:35:30

GENERAL INFORMATION:

Formation: **LKC K Prime**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:08:00

Time Test Ended: 13:19:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4197.00 ft (KB) To 4210.00 ft (KB) (TVD)

Reference Elevations: 3077.00 ft (KB)

Total Depth: 4210.00 ft (KB) (TVD)

3066.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8166 Outside

Press@RunDepth: psig @ 4198.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.15 End Date: 2014.08.15

Last Calib.: 2014.08.15

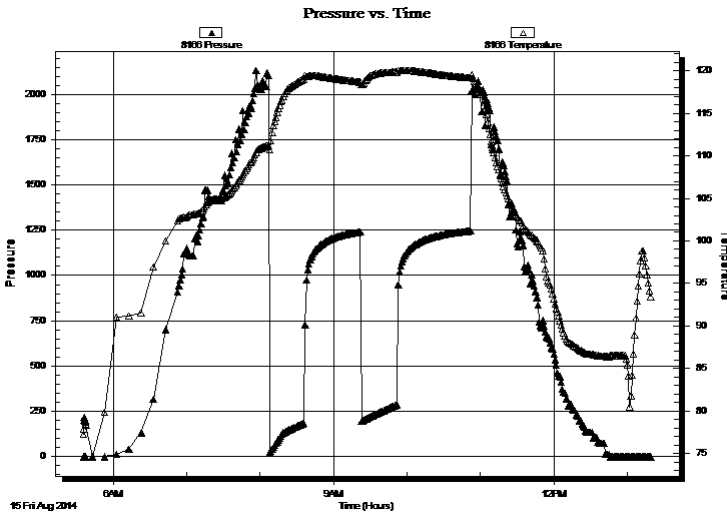
Start Time: 05:35:53 End Time: 13:18:47

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: BOB in 14 min.
IS: No return.
FF: BOB in 18 min.
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
248.00	mcw 95%w 5%m	1.22
186.00	mcw 90%w 10%m	2.59
164.00	w cm 40%w 60%m	2.30

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 59022

DST#: 4

ATTN: Kitt Noah

Test Start: 2014.08.15 @ 05:35:30

Tool Information

Drill Pipe:	Length: 3949.00 ft	Diameter: 3.80 inches	Volume: 55.39 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 250.00 ft	Diameter: 2.25 inches	Volume: 1.23 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 56.62 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4197.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.00 ft			
Tool Length:	41.00 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			4170.00	
Shut In Tool	5.00			4175.00	
Hydraulic tool	5.00			4180.00	
Jars	5.00			4185.00	
Safety Joint	3.00			4188.00	
Packer	5.00			4193.00	28.00 Bottom Of Top Packer
Packer	4.00			4197.00	
Stubb	1.00			4198.00	
Recorder	0.00	8373	Inside	4198.00	
Recorder	0.00	8166	Outside	4198.00	
Perforations	7.00			4205.00	
Bullnose	5.00			4210.00	13.00 Bottom Packers & Anchor

Total Tool Length: 41.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 59022

DST#: 4

ATTN: Kitt Noah

Test Start: 2014.08.15 @ 05:35:30

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

32000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
248.00	mcw 95%w 5%m	1.220
186.00	mcw 90%w 10%m	2.591
164.00	w cm 40%w 60%m	2.300

Total Length: 598.00 ft Total Volume: 6.111 bbl

Num Fluid Samples: 0

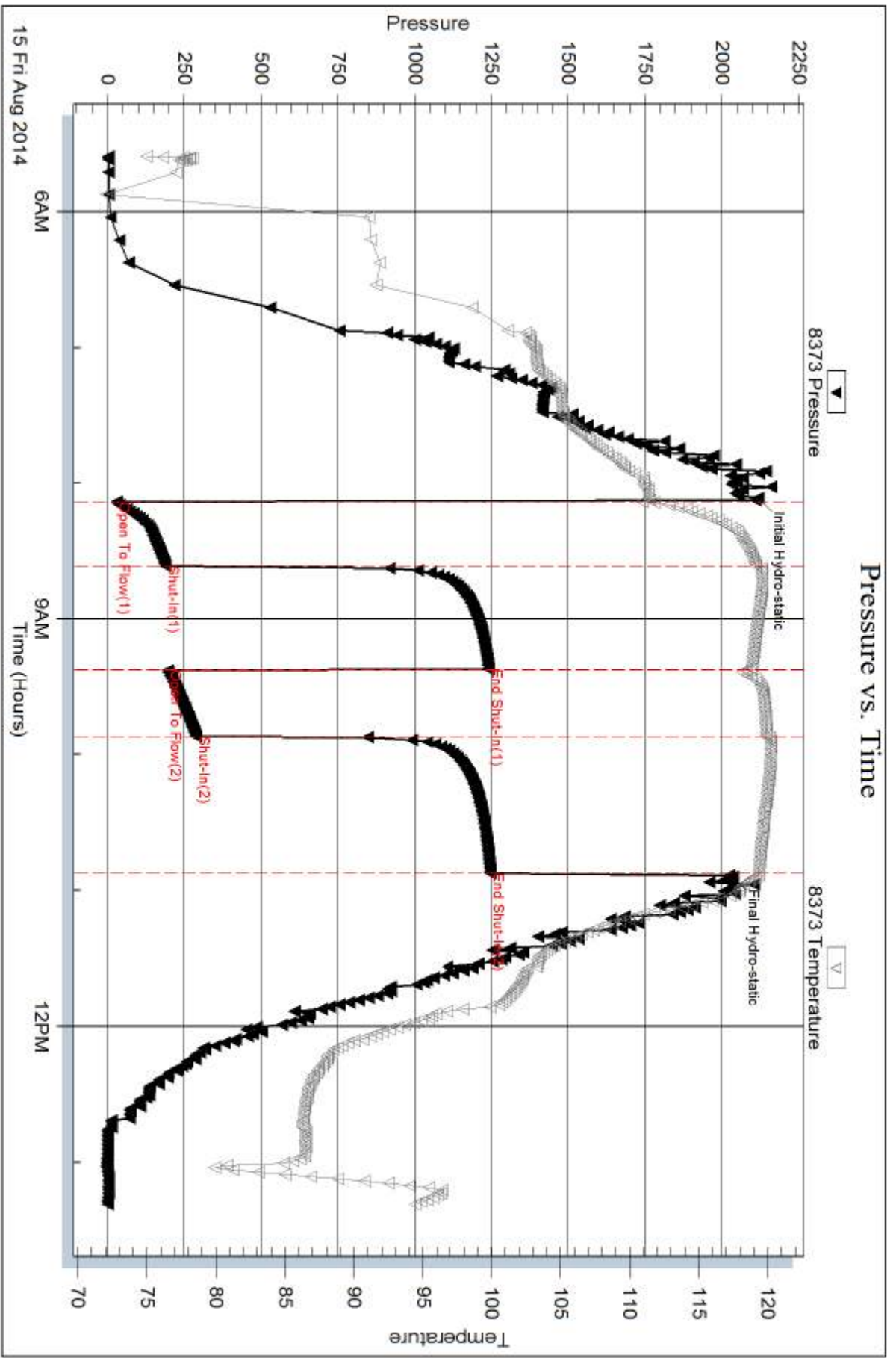
Num Gas Bombs: 0

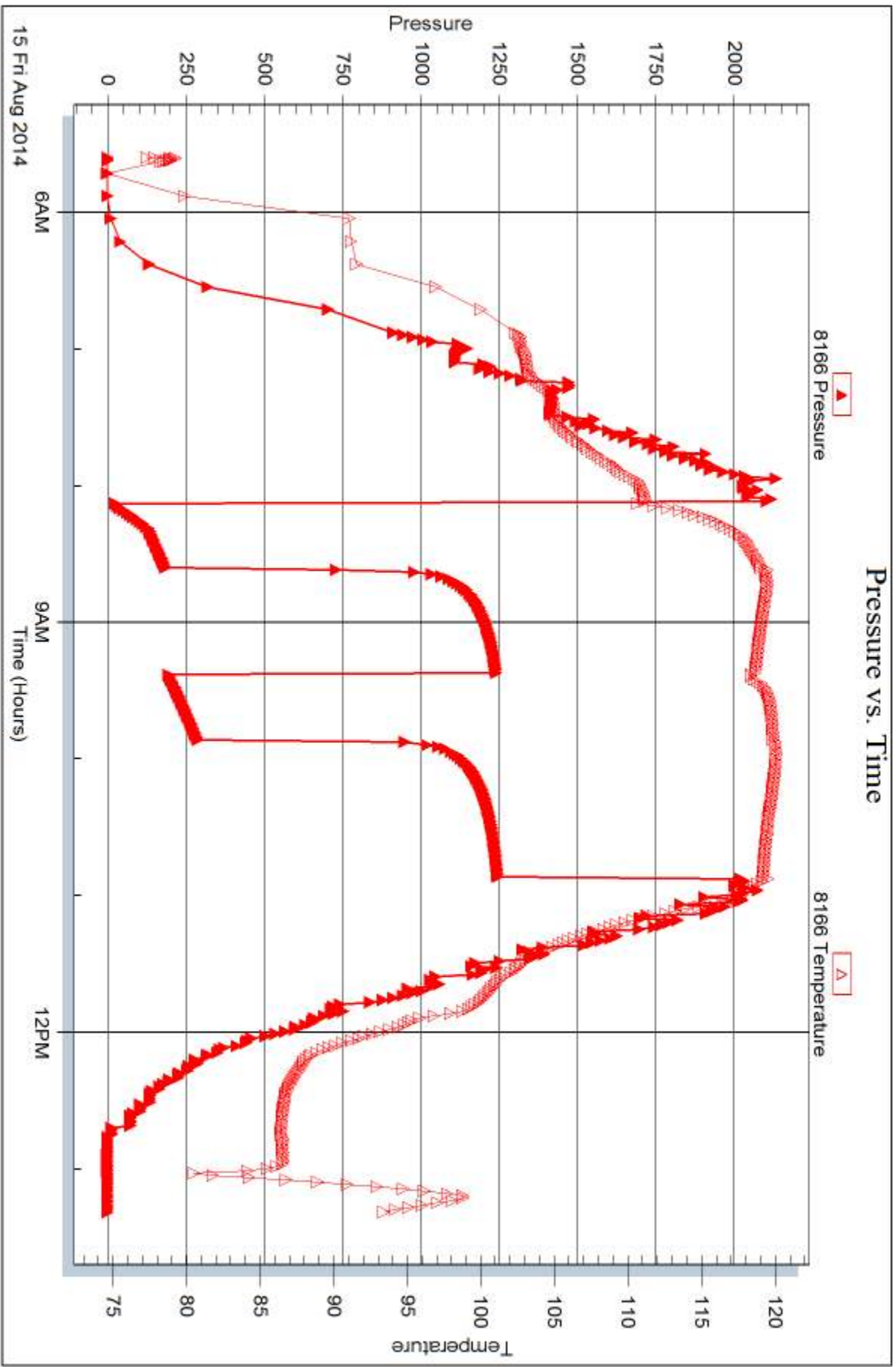
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .15@101= 32000







DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co., Inc.**

10500 E. Berkeley Sq. Pkwy. STE #100
Wichita, KS 67206

ATTN: Kitt Noah

Rose #4-1

1-16s-35w Wichita,KS

Start Date: 2014.08.16 @ 17:12:39

End Date: 2014.08.17 @ 01:22:09

Job Ticket #: 59023 DST #: 5

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

Printed: 2014.08.19 @ 17:52:28



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 59023

DST#: 5

ATTN: Kitt Noah

Test Start: 2014.08.16 @ 17:12:39

GENERAL INFORMATION:

Formation: **Ft Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:02:39

Time Test Ended: 01:22:09

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4462.00 ft (KB) To 4498.00 ft (KB) (TVD)

Reference Elevations: 3077.00 ft (KB)

Total Depth: 4498.00 ft (KB) (TVD)

3066.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8373 Inside

Press@RunDepth: 32.87 psig @ 4463.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.16

End Date:

2014.08.17

Last Calib.:

2014.08.17

Start Time:

17:12:44

End Time:

01:22:08

Time On Btm:

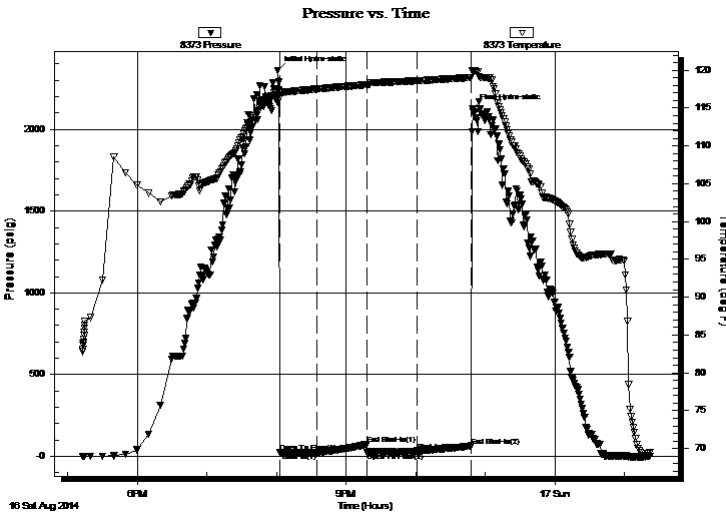
2014.08.16 @ 20:01:09

Time Off Btm:

2014.08.16 @ 22:49:09

TEST COMMENT: IF: Surface blow died in 8 min.
IS: No return.
FF: No blow Flushed tool no blow.
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2360.49	117.34	Initial Hydro-static
2	23.81	116.34	Open To Flow (1)
34	23.66	117.51	Shut-In(1)
77	72.56	118.09	End Shut-In(1)
77	25.52	118.07	Open To Flow (2)
120	32.87	118.60	Shut-In(2)
167	64.00	119.03	End Shut-In(2)
168	2123.89	119.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud oil spots 100%m	0.02

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Hartman Oil Co., Inc.
 10500 E. Berkeley Sq. Pkw y. STE #100
 Wichita, KS 67206
 ATTN: Kitt Noah

1-16s-35w Wichita,KS
Rose #4-1
 Job Ticket: 59023 **DST#: 5**
 Test Start: 2014.08.16 @ 17:12:39

GENERAL INFORMATION:

Formation: **Ft Scott**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:02:39
 Time Test Ended: 01:22:09

Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Turley
 Unit No: 60

Interval: **4462.00 ft (KB) To 4498.00 ft (KB) (TVD)**
 Total Depth: 4498.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good

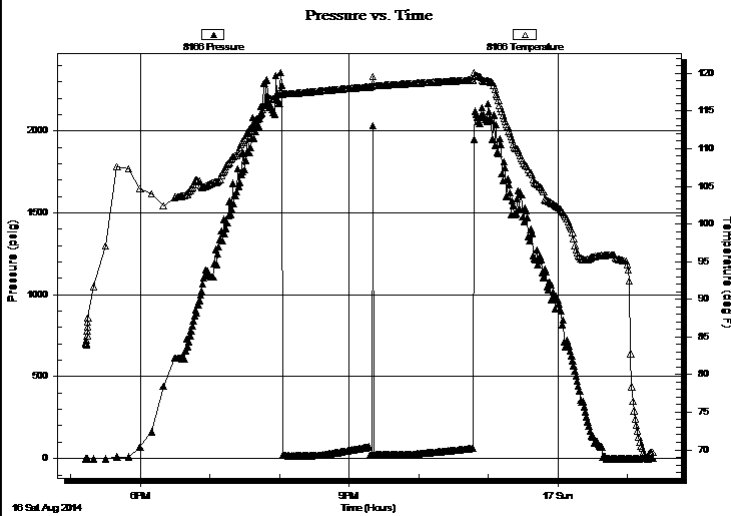
Reference Elevations: 3077.00 ft (KB)
 3066.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8166

Outside

Press@RunDepth: psig @ 4463.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.08.16 End Date: 2014.08.17 Last Calib.: 2014.08.17
 Start Time: 17:12:50 End Time: 01:21:44 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Surface blow died in 8 min.
 IS: No return.
 FF: No blow Flushed tool no blow.
 FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud oil spots 100%m	0.02

* 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., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 59023

DST#: 5

ATTN: Kitt Noah

Test Start: 2014.08.16 @ 17:12:39

Tool Information

Drill Pipe:	Length: 4199.00 ft	Diameter: 3.80 inches	Volume: 58.90 bbl	Tool Weight:	2500.00 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: 250.00 ft	Diameter: 2.25 inches	Volume: 1.23 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 60.13 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	65000.00 lb
Depth to Top Packer:	4462.00 ft			Final	65000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	36.00 ft				
Tool Length:	64.00 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			4435.00	
Shut In Tool	5.00			4440.00	
Hydraulic tool	5.00			4445.00	
Jars	5.00			4450.00	
Safety Joint	3.00			4453.00	
Packer	5.00			4458.00	28.00 Bottom Of Top Packer
Packer	4.00			4462.00	
Stubb	1.00			4463.00	
Recorder	0.00	8373	Inside	4463.00	
Recorder	0.00	8166	Outside	4463.00	
Perforations	30.00			4493.00	
Bullnose	5.00			4498.00	36.00 Bottom Packers & Anchor

Total Tool Length: 64.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil Co., Inc.

1-16s-35w Wichita,KS

10500 E. Berkeley Sq. Pkw y. STE #100
Wichita, KS 67206

Rose #4-1

Job Ticket: 59023

DST#: 5

ATTN: Kitt Noah

Test Start: 2014.08.16 @ 17:12:39

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:

0 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud oil spots 100%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8373

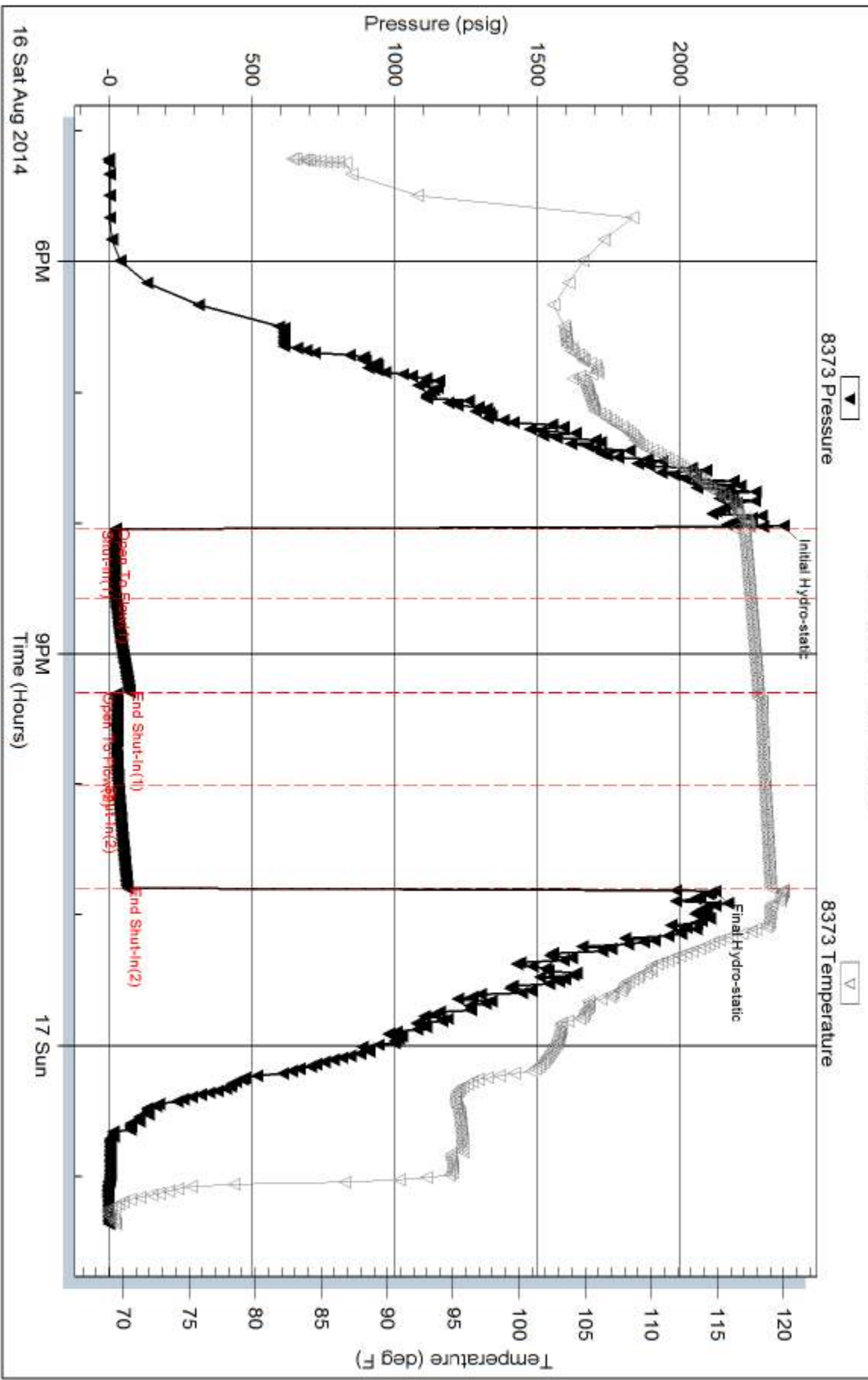
Inside

Hartman Oil Co., Inc.

Rose #4-1

DST Test Number: 5

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 59023

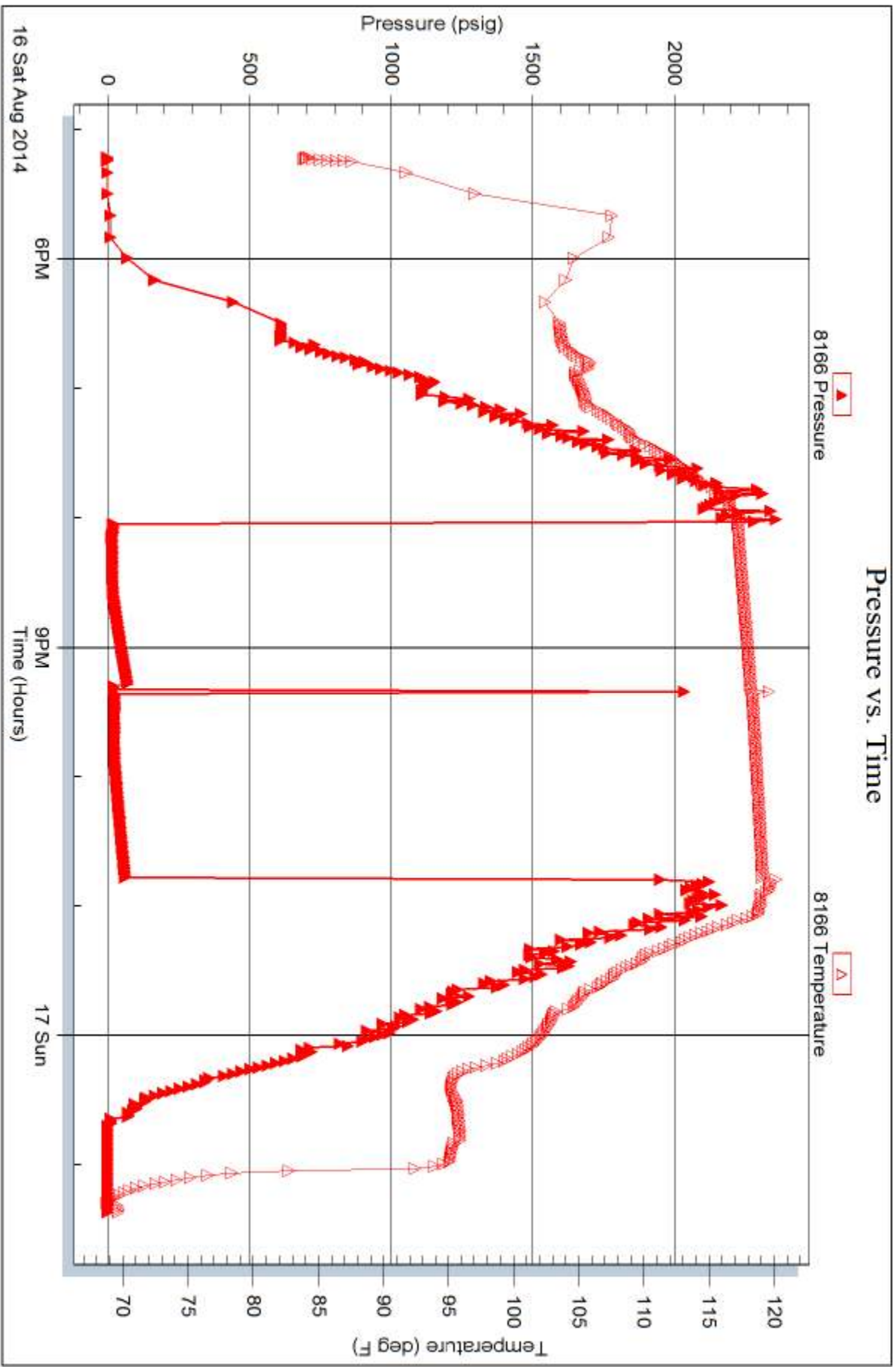
Printed: 2014.08.19 @ 17:53:35

Serial #: 8166

Outside Hartman Oil Co., Inc.

Rose #4-1

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 59023

Printed: 2014.08.19 @ 17:53:35



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55906

Well Name & No. Rose # 4-1 Test No. 1 Date 8-11-14
 Company Hartman Oil Co., Inc. Elevation 3077 KB 3066 GL
 Address 10500 E. Berkeley Sq PKWY STE #1000 Wichita, KS 67206
 Co. Rep / Geo Kitt Noah Rig H2 #2
 Location: Sec. 1 Twp. 16S Rge. 35 W Co. Wichita State KS

Interval Tested 3883 - 3908 Zone Tested Toronto
 Anchor Length 25' Drill Pipe Run 3637' Mud Wt. 9.3
 Top Packer Depth 3879 Drill Collars Run 250' Vis 58
 Bottom Packer Depth 3883 Wt. Pipe Run 0 WL 8.8
 Total Depth 3908 Chlorides 3,000 ppm System LCM 3#
 Blow Description IF - BoB in 16 min. 30 sec.
ISI - No Return
FF - BoB in 16 min.
FSI - No Return

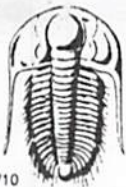
Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Free oil</u>				
<u>63</u>	<u>GOCUM</u>	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>
<u>189</u>	<u>GOCUM</u>	<u>10</u>	<u>30</u>	<u>30</u>	<u>30</u>
<u>248</u>	<u>GMCWO</u>	<u>20</u>	<u>40</u>	<u>30</u>	<u>10</u>
<u>63</u>	<u>MCO</u>		<u>80</u>		<u>20</u>

Rec Total 568' BHT 113 Gravity - API RW .15 @ 82 °F Chlorides 43,000 ppm

(A) Initial Hydrostatic 1859 Test 1150 T-On Location 10:00 AM
 (B) First Initial Flow 37 Jars 250 T-Started 4:40 PM 5:42 PM
 (C) First Final Flow 156 Safety Joint 75 T-Open 8:49 PM
 (D) Initial Shut-In 972 Circ Sub _____ T-Pulled 11:49 PM
 (E) Second Initial Flow 181 Hourly Standby _____ T-Out 2:54 AM
 (F) Second Final Flow 261 Mileage 228 RT X2 Comments Rig Brake down
 (G) Final Shut-In 969 Sampler 89.90+89.90 TOH for test. Drove
 (H) Final Hydrostatic 1821 Straddle _____ home to wait on repairs
 Shale Packer _____ Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1804.80
 Accessibility 150 MP/DST Disc't _____
 Sub Total 1804.80

Approved By _____ Our Representative

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. **56673**

Well Name & No. Rose #4-1 Test No. 2 Date 8-13-14
 Company Hartman Oil Co. Inc Elevation 3077 KB 3066 GL
 Address 10500 E. Berkeley Sq. Pkwy STE #100 Wichita KS 67206
 Co. Rep / Geo. Kitt Noah Rig H2 #2
 Location: Sec. 1 Twp. 16s Rge. 35W Co. Wichita State Ks

Interval Tested 3952 3974 Zone Tested 1ans 'c'
 Anchor Length 22 Drill Pipe Run 3701 Mud Wt. 9.3
 Top Packer Depth 3947 Drill Collars Run 250 Vis 57
 Bottom Packer Depth 3952 Wt. Pipe Run Ø WL 6.4
 Total Depth 3974 Chlorides 3500 ppm System LCM 3

Blow Description 30 weak surface Blow Build to 1"
45 No Return
30 no Blow flush tool
60 No Return

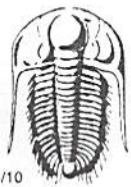
Rec	Feet of	%gas	%oil	%water	%mud
<u>94</u>	<u>clean oil</u>	<u>98%o</u>	<u>2%og</u>	<u>98</u>	<u>2</u>
<u>94</u>	<u>gmc</u>	<u>5%g</u>	<u>45%m</u>	<u>50%o</u>	<u>5%gas</u>
<u>62</u>	<u>30%o</u>	<u>70%m</u>	<u>30</u>	<u>70</u>	<u>70</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 250 BHT 113 Gravity 26 API RW - @ - °F Chlorides - ppm
 (A) Initial Hydrostatic 2062 Test 950 T-On Location 2:20
 (B) First Initial Flow 22 Jars 250 T-Started 2:48
 (C) First Final Flow 37 Safety Joint 75 T-Open 5:42
 (D) Initial Shut-In 66 Circ Sub NC T-Pulled 8:27
 (E) Second Initial Flow 69 Hourly Standby _____ T-Out 10:43
 (F) Second Final Flow 73 Mileage 58 RT 89.90 Comments _____
 (G) Final Shut-In 104 Sampler _____
 (H) Final Hydrostatic 1693 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility 150 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 30
 Final Shut-In 60
 Sub Total 0
 Total ?
 MP/DST Disc't _____

By Kitt Noah Our Representative [Signature]

Triobite Testing Inc. shall not be liable for damaged or 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 instruments 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. 59021

Well Name & No. Rose 4-1 Test No. 3 Date 8-14-14
 Company Hartman Oil Company Elevation 3077 KB 3066 GL
 Address _____
 Co. Rep / Geo. Kitt North Rig H2#2
 Location: Sec. 1 Twp. 16S Rge. 35W Co. Wichita State KS

Interval Tested 4157 4182 Zone Tested LKC F
 Anchor Length 25 Drill Pipe Run 3885 Mud Wt. 9.3
 Top Packer Depth 4152 Drill Collars Run 250 Vis 59
 Bottom Packer Depth 4157 Wt. Pipe Run _____ WL 6.4
 Total Depth 4182 Chlorides 6000 ppm System LCM 3
 Blow Description IF: 44 blow built to 2 1/2 in 60 min.
IS: No return.
FF: No blow. Flushed tool surface blow built to 1,
FS: No return.

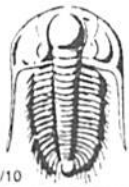
Rec	Feet of	%gas	%oil	%water	%mud
<u>154</u>	<u>oil</u>	<u>100</u>			
<u>62</u>	<u>ocm</u>	<u>10</u>		<u>90</u>	
____	____	____	____	____	____
____	____	____	____	____	____

Rec Total 216 BHT 117 Gravity 26 API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2187</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>9:15</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>10:40</u>
(C) First Final Flow <u>58</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>13:01</u>
(D) Initial Shut-In <u>1140</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIL</u>	T-Pulled <u>16:46</u>
(E) Second Initial Flow <u>66</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>19:16</u>
(F) Second Final Flow <u>104</u>	<input checked="" type="checkbox"/> Mileage <u>58</u> - 89.90	Comments _____
(G) Final Shut-In <u>1136</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>2004</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>60</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1814.90</u>
	<input checked="" type="checkbox"/> Accessibility <u>150</u>	MP/DST Disc't _____
	Sub Total <u>1814.90</u>	

Approved By Kitt North 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. 59022

Well Name & No. Rose 4-1 Test No. 4 Date 8-15-14
 Company Hartman oil company Elevation 3077 KB 3066 GL
 Address _____
 Co. Rep / Geo. Kitt North Rig H2#2
 Location: Sec. 1 Twp. 16S Rge. 35W Co. Wichita State KS

Interval Tested 4197 4210 Zone Tested Lmsing K Prime
 Anchor Length 13 Drill Pipe Run 3949 Mud Wt. 9.5
 Top Packer Depth 4192 Drill Collars Run 250 Vis 45
 Bottom Packer Depth 4197 Wt. Pipe Run — WL 8.8
 Total Depth 4210 Chlorides 7200 ppm System LCM 4
 Blow Description IF: BoB in 14 min.
IS: No return.
FF: BoB in 18 min.
FS: No return.

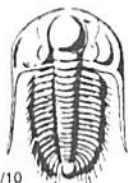
Rec	Feet of	%gas	%oil	%water	%mud
<u>164</u>	<u>WCM</u>		<u>40</u>	<u>60</u>	
<u>186</u>	<u>MCW</u>		<u>90</u>	<u>10</u>	
<u>248</u>	<u>MCW</u>		<u>95</u>	<u>5</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec Total	<u>598</u>	BHT <u>119</u>	Gravity <u>—</u>	API RW <u>.15</u> @ <u>101</u> ° F	Chlorides <u>32,000</u> ppm

(A) Initial Hydrostatic 2118 Test 1250 T-On Location 4:50
 (B) First Initial Flow 29 Jars 250 T-Started 5:35
 (C) First Final Flow 189 Safety Joint 75 T-Open 8:05
 (D) Initial Shut-In 1241 Circ Sub N/L T-Pulled 10:50
 (E) Second Initial Flow 196 Hourly Standby _____ T-Out 13:15
 (F) Second Final Flow 288 Mileage 58 - 89.90 Comments _____
 (G) Final Shut-In 1247 Sampler _____
 (H) Final Hydrostatic 2035 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer 320
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 320
 Day Standby _____ Total 2134.90
 Accessibility 150 MP/DST Disc't _____
 Sub Total 1814.90

Initial Open 30
 Initial Shut-In 45
 Final Flow 30
 Final Shut-In 60

Approved By Kitt North 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. 59023

Well Name & No. Rose 4-1 Test No. 5 Date 8-16-14
 Company Hartman oil company Elevation 3077 KB 3066 GL
 Address _____
 Co. Rep / Geo. Kitt North Rig #2#7
 Location: Sec. 1 Twp. 16S Rge. 35W Co. Wichita State KS

Interval Tested 4462 4498 Zone Tested Ft. Scott
 Anchor Length 36 Drill Pipe Run 4199 Mud Wt. 9.4
 Top Packer Depth 4457 Drill Collars Run 250 Vis 55
 Bottom Packer Depth 4462 Wt. Pipe Run _____ WL 9.6
 Total Depth 4498 Chlorides 6000 ppm System LCM 3

Blow Description IF: Surface blow died in 8 min.
IS: No return.
FF: No blow, Flushed tool NO blow.
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud oil spots</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	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 119 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm
 (A) Initial Hydrostatic 2360 Test 1250 T-On Location 15:00
 (B) First Initial Flow 23 Jars 250 T-Started 17:12
 (C) First Final Flow 23 Safety Joint 75 T-Open 20:00
 (D) Initial Shut-In 72 Circ Sub N/L T-Pulled 22:45
 (E) Second Initial Flow 25 Hourly Standby 3- T-Out 1:20
 (F) Second Final Flow 32 Mileage 58 89.90 Comments _____
 (G) Final Shut-In 64 Sampler _____
 (H) Final Hydrostatic 2123 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 30
 Final Shut-In 60
 Day Standby 1d 1.75h
 Accessibility 150
 Sub Total 1814.90
 Sub Total 58.33
 Total 1873.23
 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.