



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1200787  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx)      (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

*(Data must be collected from the Reserve Pit)*

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1200787

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
--	---

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
---	--

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Hartman Oil Co., Inc.
Well Name	Sproul 29-1
Doc ID	1200787

All Electric Logs Run

Microlog
Dual Spaced Neutron Spectral Density
Array Compensated True Resistivity
Borehole Compensated Sonic Array

Form	ACO1 - Well Completion
Operator	Hartman Oil Co., Inc.
Well Name	Sproul 29-1
Doc ID	1200787

Tops

Name	Top	Datum
Toronto	3436	-1153
Lansing	3452	-1169
Mun Creek	3550	-1267
Stark	3605	-1322
B/KC	3642	-1359
Gorham Sd	not present	not present
Arbuckle	3700	-1417
Reagan Sd	3728	-1445
Gran Wash	3754	-1471
LTD	3787	-1504





## DRILL STEM TEST REPORT

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

10500 E Berkeley SQ Pkwy STE 100  
Wichita KS, 67206

ATTN: Kitt Noah

### **Sproul #29-1**

#### **29-4s-22w Norton KS**

Start Date: 2014.04.14 @ 14:48:00

End Date: 2014.04.15 @ 00:41:30

Job Ticket #: 54027                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.04.19 @ 12:40:39



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Hartman Oil, Inc.  
10500 E Berkeley SQ Pkwy STE 100  
Wichita KS, 67206  
ATTN: Kitt Noah

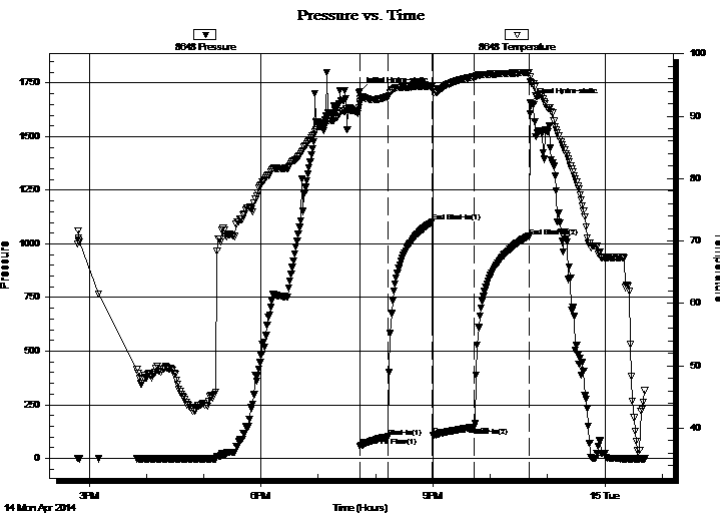
**29-4s-22w Norton KS**  
**Sproul #29-1**  
Job Ticket: 54027 **DST#: 1**  
Test Start: 2014.04.14 @ 14:48:00

## GENERAL INFORMATION:

Formation: **Tor - A**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 19:43:45  
Time Test Ended: 00:41:30  
Interval: **3415.00 ft (KB) To 3480.00 ft (KB) (TVD)**  
Total Depth: 3480.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Cody Bloedorn  
Unit No: 73  
Reference Elevations: 2274.00 ft (KB)  
2264.00 ft (CF)  
KB to GR/CF: 10.00 ft

**Serial #: 8648 Inside**  
Press@RunDepth: 146.44 psig @ 3454.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2014.04.14 End Date: 2014.04.15 Last Calib.: 2014.04.15  
Start Time: 14:48:05 End Time: 00:41:30 Time On Btm: 2014.04.14 @ 19:43:30  
Time Off Btm: 2014.04.14 @ 22:42:00

TEST COMMENT: 30 - IF- 6" blow  
45 - IS- No return  
45 - FF- 1" blow  
60 - FS- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1710.83	92.30	Initial Hydro-static
1	55.59	91.99	Open To Flow (1)
30	100.91	93.14	Shut-In(1)
76	1101.65	94.84	End Shut-In(1)
77	106.35	94.34	Open To Flow (2)
120	146.44	96.32	Shut-In(2)
177	1032.63	97.01	End Shut-In(2)
179	1655.88	95.59	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
140.00	Mud, 100%M	0.69

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil, Inc.

**29-4s-22w Norton KS**

10500 E Berkeley SQ Pkwy STE 100  
Wichita KS, 67206

**Sproul #29-1**

Job Ticket: 54027

**DST#: 1**

ATTN: Kitt Noah

Test Start: 2014.04.14 @ 14:48:00

## Tool Information

Drill Pipe:	Length: 3174.00 ft	Diameter: 3.80 inches	Volume: 44.52 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: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 45.70 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	3415.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	65.00 ft			
Tool Length:	94.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: slid 10' to bottom.

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3387.00	
Shut In Tool	5.00			3392.00	
Hydraulic tool	5.00			3397.00	
Jars	5.00			3402.00	
Safety Joint	3.00			3405.00	
Packer	5.00			3410.00	29.00 Bottom Of Top Packer
Packer	5.00			3415.00	
Stubb	1.00			3416.00	
Perforations	5.00			3421.00	
Change Over Sub	1.00			3422.00	
Drill Pipe	31.00			3453.00	
Change Over Sub	1.00			3454.00	
Recorder	0.00	8648	Inside	3454.00	
Recorder	0.00	8940	Outside	3454.00	
Perforations	23.00			3477.00	
Bullnose	3.00			3480.00	65.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>94.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Hartman Oil, Inc.

**29-4s-22w Norton KS**

10500 E Berkeley SQ Pkw y STE 100  
Wichita KS, 67206

**Sproul #29-1**

Job Ticket: 54027

**DST#: 1**

ATTN: Kitt Noah

Test Start: 2014.04.14 @ 14:48:00

## 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:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
140.00	Mud, 100%M	0.688

Total Length: 140.00 ft      Total Volume: 0.688 bbl

Num Fluid Samples: 0

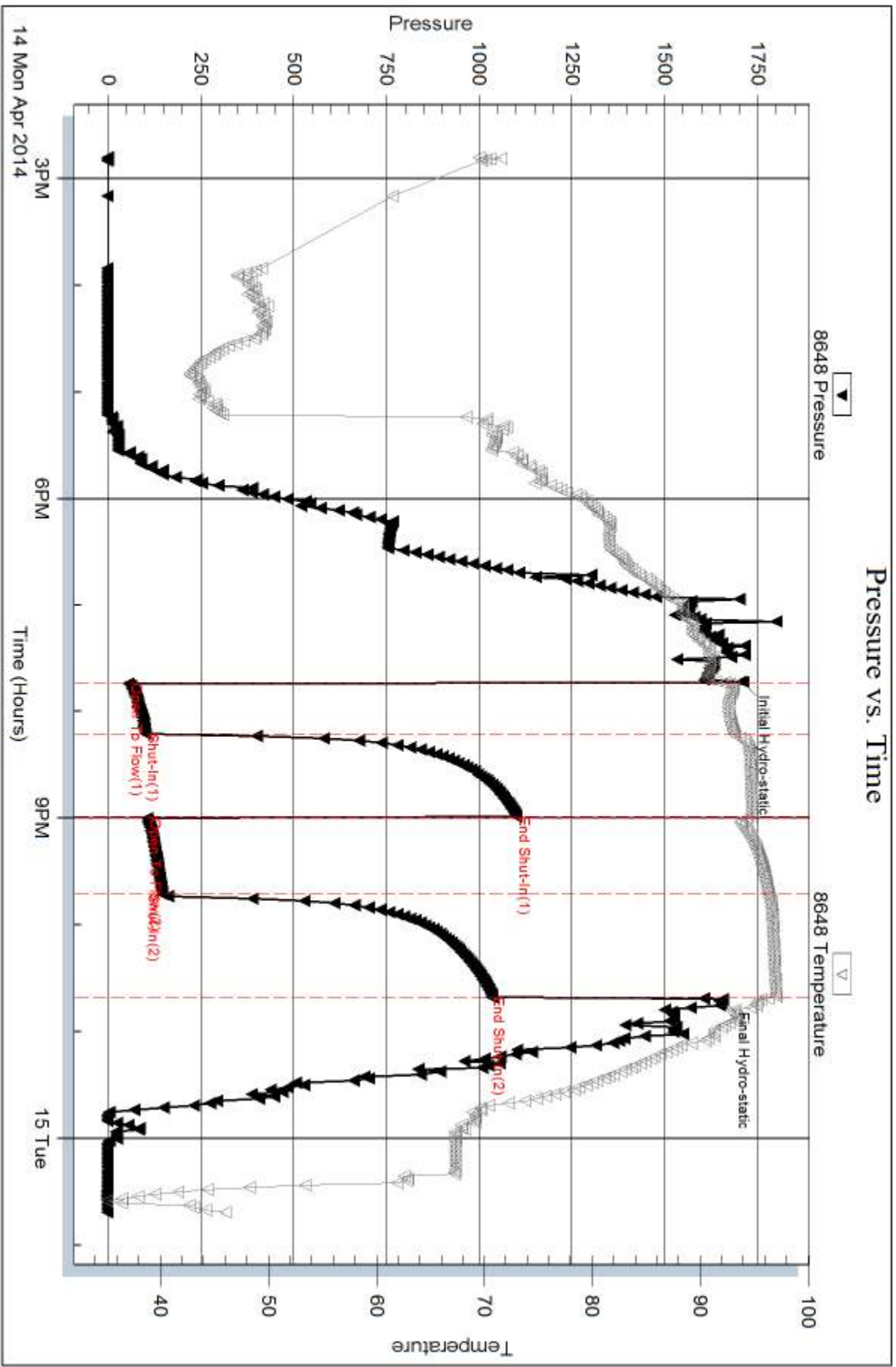
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

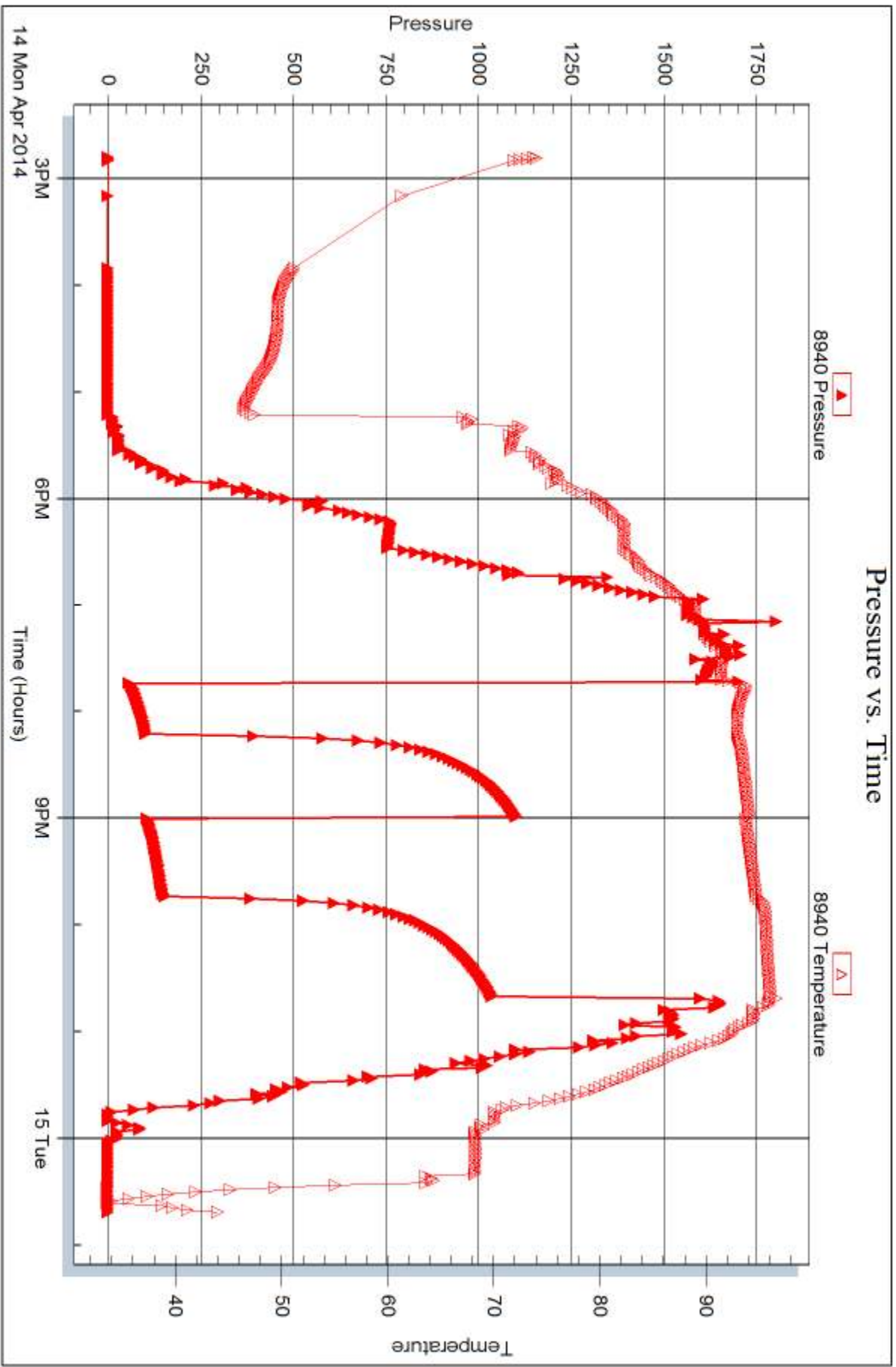


Serial #: 8940

Outside Hartman Oil, Inc.

Sprout #29-1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 54027

Printed: 2014.04.19 @ 12:40:41



## DRILL STEM TEST REPORT

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

10500 E Berkeley SQ Pkwy STE 100  
Wichita KS, 67206

ATTN: Kitt Noah

### **Sproul #29-1**

#### **29-4s-22w Norton KS**

Start Date: 2014.04.16 @ 03:00:00

End Date: 2014.04.16 @ 10:37:30

Job Ticket #: 54028                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.04.19 @ 12:40:11

Hartman Oil, Inc. 29-4s-22w Norton KS Sproul #29-1 DST # 2 Gorham Sand 2014.04.16



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Hartman Oil, Inc.  
 10500 E Berkeley SQ Pkwy STE 100  
 Wichita KS, 67206  
 ATTN: Kitt Noah

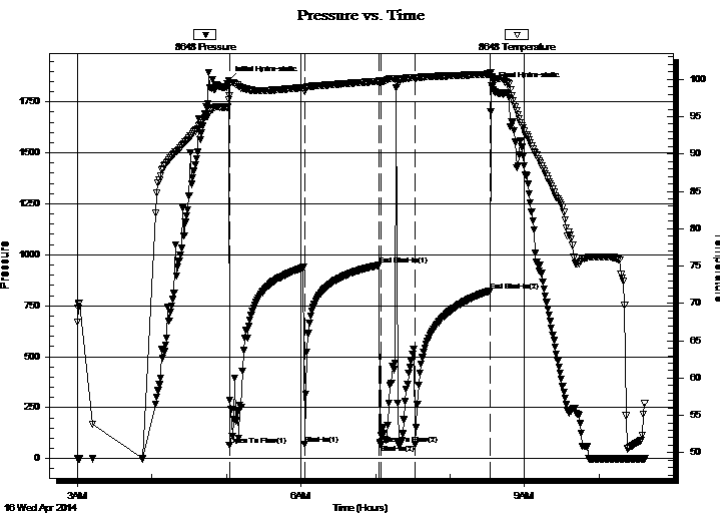
**29-4s-22w Norton KS**  
**Sproul #29-1**  
 Job Ticket: 54028 **DST#: 2**  
 Test Start: 2014.04.16 @ 03:00:00

## GENERAL INFORMATION:

Formation: **Gorham Sand**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:02:15  
 Time Test Ended: 10:37:30  
 Interval: **3711.00 ft (KB) To 3723.00 ft (KB) (TVD)**  
 Total Depth: 3723.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Cody Bloedorn  
 Unit No: 73  
 Reference Elevations: 2274.00 ft (KB)  
 2264.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8648 Inside**  
 Press@RunDepth: 67.65 psig @ 3712.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.04.16 End Date: 2014.04.16 Last Calib.: 2014.04.16  
 Start Time: 03:00:05 End Time: 10:37:29 Time On Btm: 2014.04.16 @ 05:01:45  
 Time Off Btm: 2014.04.16 @ 08:33:30

**TEST COMMENT:** 60 - IF- 3 1/2" in 20 minutes, died back to a 2 1/2" blow , surged 1st 20 Minutes  
 60 - IS- No return  
 30 - FF- No blow for 10 minutes, flushed tool. Surged and died  
 60 - FS- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1855.65	97.25	Initial Hydro-static
1	64.47	97.87	Open To Flow (1)
61	70.77	98.39	Shut-In(1)
121	948.83	99.76	End Shut-In(1)
123	67.95	99.59	Open To Flow (2)
150	67.65	100.03	Shut-In(2)
211	823.61	100.71	End Shut-In(2)
212	1827.22	100.32	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
70.00	Mud, 100%M	0.34

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

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

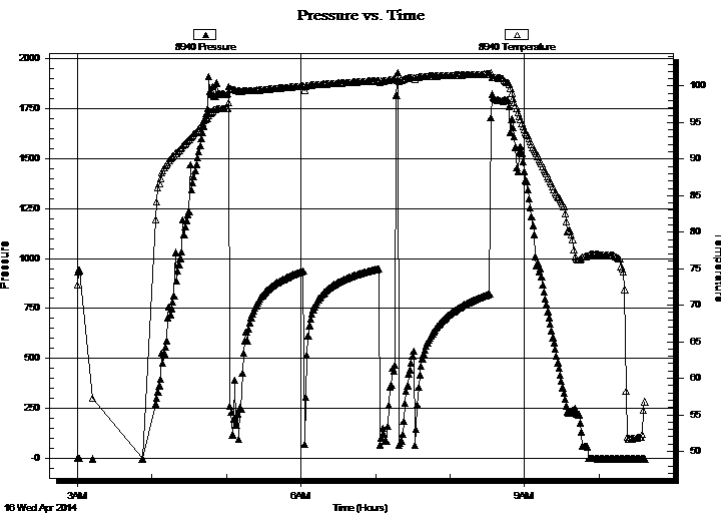
**29-4s-22w Norton KS**  
**Sproul #29-1**  
Job Ticket: 54028      **DST#: 2**  
Test Start: 2014.04.16 @ 03:00:00

**GENERAL INFORMATION:**

Formation: <b>Gorham Sand</b>		
Deviated: No Whipstock: ft (KB)	Test Type: Conventional Bottom Hole (Reset)	
Time Tool Opened: 05:02:15	Tester: Cody Bloedorn	
Time Test Ended: 10:37:30	Unit No: 73	
<b>Interval: 3711.00 ft (KB) To 3723.00 ft (KB) (TVD)</b>	Reference Elevations: 2274.00 ft (KB)	
Total Depth: 3723.00 ft (KB) (TVD)	2264.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 10.00 ft

<b>Serial #: 8940</b>	<b>Outside</b>			
Press@RunDepth: psig @ 3712.00 ft (KB)	Capacity: 8000.00 psig			
Start Date: 2014.04.16	End Date: 2014.04.16	Last Calib.: 2014.04.16		
Start Time: 03:00:05	End Time: 10:37:29	Time On Btm:		
		Time Off Btm:		

**TEST COMMENT:** 60 - IF- 3 1/2" in 20 minutes, died back to a 2 1/2" blow , surged 1st 20 Minutes  
60 - IS- No return  
30 - FF- No blow for 10 minutes, flushed tool. Surged and died  
60 - FS- No return



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
70.00	Mud, 100%M	0.34

**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, Inc.

**29-4s-22w Norton KS**

10500 E Berkeley SQ Pkwy STE 100  
Wichita KS, 67206

**Sproul #29-1**

Job Ticket: 54028

**DST#: 2**

ATTN: Kitt Noah

Test Start: 2014.04.16 @ 03:00:00

## Tool Information

Drill Pipe:	Length: 3455.00 ft	Diameter: 3.80 inches	Volume: 48.46 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:	30000.00 lb
Drill Collar:	Length: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 49.64 bbl</u>	Tool Chased	8.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	3711.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	12.00 ft				
Tool Length:	33.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments: slid 8' to bottom, on first open, started out surging for first 20 minutes

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3691.00	
Shut In Tool	5.00			3696.00	
Hydraulic tool	5.00			3701.00	
Packer	5.00			3706.00	21.00 Bottom Of Top Packer
Packer	5.00			3711.00	
Stubb	1.00			3712.00	
Recorder	0.00	8648	Inside	3712.00	
Recorder	0.00	8940	Outside	3712.00	
Perforations	8.00			3720.00	
Bullnose	3.00			3723.00	12.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>33.00</b>				





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Hartman Oil, Inc.

**29-4s-22w Norton KS**

10500 E Berkeley SQ Pkw y STE 100  
Wichita KS, 67206

**Sproul #29-1**

Job Ticket: 54028

**DST#: 2**

ATTN: Kitt Noah

Test Start: 2014.04.16 @ 03:00:00

### 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:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
70.00	Mud, 100%M	0.344

Total Length: 70.00 ft      Total Volume: 0.344 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

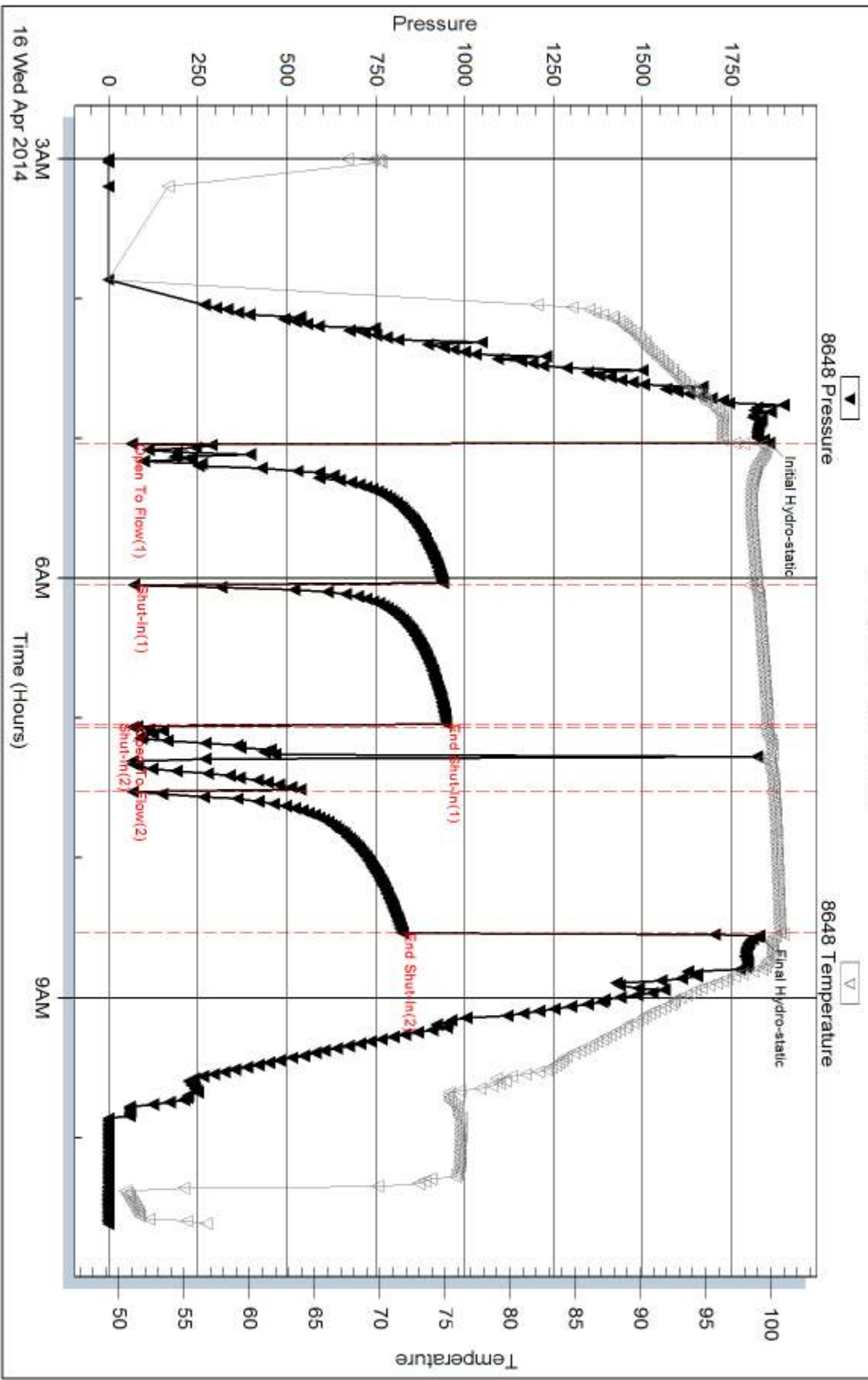
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

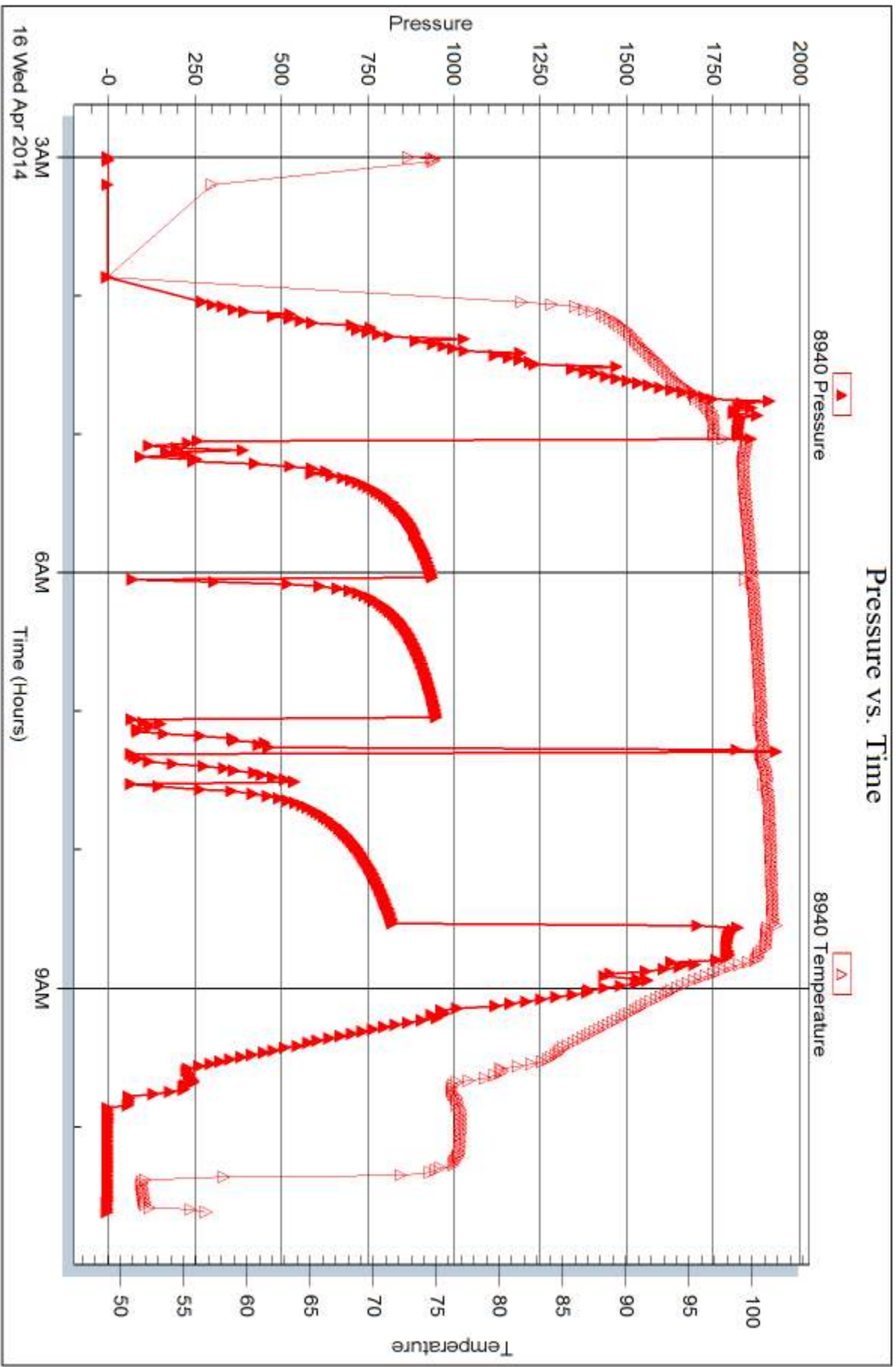


Serial #: 8940

Outside Hartman Oil, Inc.

Sprout #29-1

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 54028

Printed: 2014.04.19 @ 12:40:14



## DRILL STEM TEST REPORT

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

10500 E Berkeley SQ Pkwy STE 100  
Wichita KS, 67206

ATTN: Kitt Noah

### **Sproul #29-1**

#### **29-4s-22w Norton KS**

Start Date: 2014.04.16 @ 19:30:00

End Date: 2014.04.17 @ 02:46:45

Job Ticket #: 54029                      DST #: 3

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.04.19 @ 12:39:21



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

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

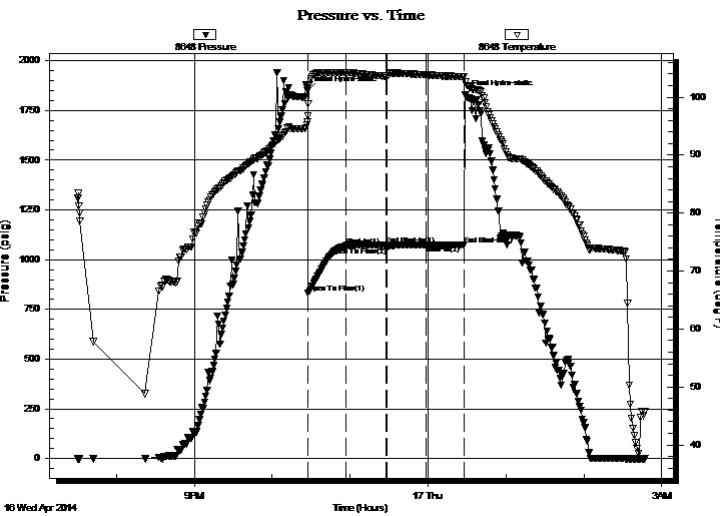
**29-4s-22w Norton KS**  
**Sproul #29-1**  
 Job Ticket: 54029 **DST#: 3**  
 Test Start: 2014.04.16 @ 19:30:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 22:27:30  
 Time Test Ended: 02:46:45  
 Interval: **3725.00 ft (KB) To 3741.00 ft (KB) (TVD)**  
 Total Depth: 3741.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Cody Bloedorn  
 Unit No: 73  
 Reference Elevations: 2274.00 ft (KB)  
 2264.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8648 Inside**  
 Press@RunDepth: 1074.02 psig @ 3726.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.04.16 End Date: 2014.04.17 Last Calib.: 2014.04.17  
 Start Time: 19:30:05 End Time: 02:46:44 Time On Btm: 2014.04.16 @ 22:27:00  
 Time Off Btm: 2014.04.17 @ 00:28:45

TEST COMMENT: 30 - IF- B.O.B. instantly  
 30 - IS- No return  
 30 - FF- 6" blow  
 30 - FS- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1849.12	95.74	Initial Hydro-static
1	831.29	96.73	Open To Flow (1)
30	1067.47	104.23	Shut-In(1)
61	1073.58	103.63	End Shut-In(1)
61	1064.77	103.62	Open To Flow (2)
92	1074.02	103.83	Shut-In(2)
121	1074.17	103.52	End Shut-In(2)
122	1829.96	102.61	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	MW, 30%M, 70%W	0.61
1426.00	MW, 5%M, 95%W	18.95
310.00	WM, 10%W, 90%M	4.35

\* 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, Inc.

**29-4s-22w Norton KS**

10500 E Berkeley SQ Pkwy STE 100  
Wichita KS, 67206

**Sproul #29-1**

Job Ticket: 54029

**DST#: 3**

ATTN: Kitt Noah

Test Start: 2014.04.16 @ 19:30:00

## Tool Information

Drill Pipe:	Length: 3486.00 ft	Diameter: 3.80 inches	Volume: 48.90 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: 30000.00 lb
Drill Collar:	Length: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 50.08 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	3725.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	45.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: went straight to bottom.

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3697.00	
Shut In Tool	5.00			3702.00	
Hydraulic tool	5.00			3707.00	
Jars	5.00			3712.00	
Safety Joint	3.00			3715.00	
Packer	5.00			3720.00	29.00 Bottom Of Top Packer
Packer	5.00			3725.00	
Stubb	1.00			3726.00	
Recorder	0.00	8648	Inside	3726.00	
Recorder	0.00	8940	Outside	3726.00	
Perforations	12.00			3738.00	
Bullnose	3.00			3741.00	16.00 Bottom Packers & Anchor

**Total Tool Length: 45.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

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

**29-4s-22w Norton KS**  
**Sproul #29-1**  
Job Ticket: 54029      **DST#: 3**  
Test Start: 2014.04.16 @ 19:30:00

### 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: 56000 ppm	
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 900.00 ppm			
Filter Cake: 2.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	MW, 30%M, 70%W	0.610
1426.00	MW, 5%M, 95%W	18.946
310.00	WM, 10%W, 90%M	4.348

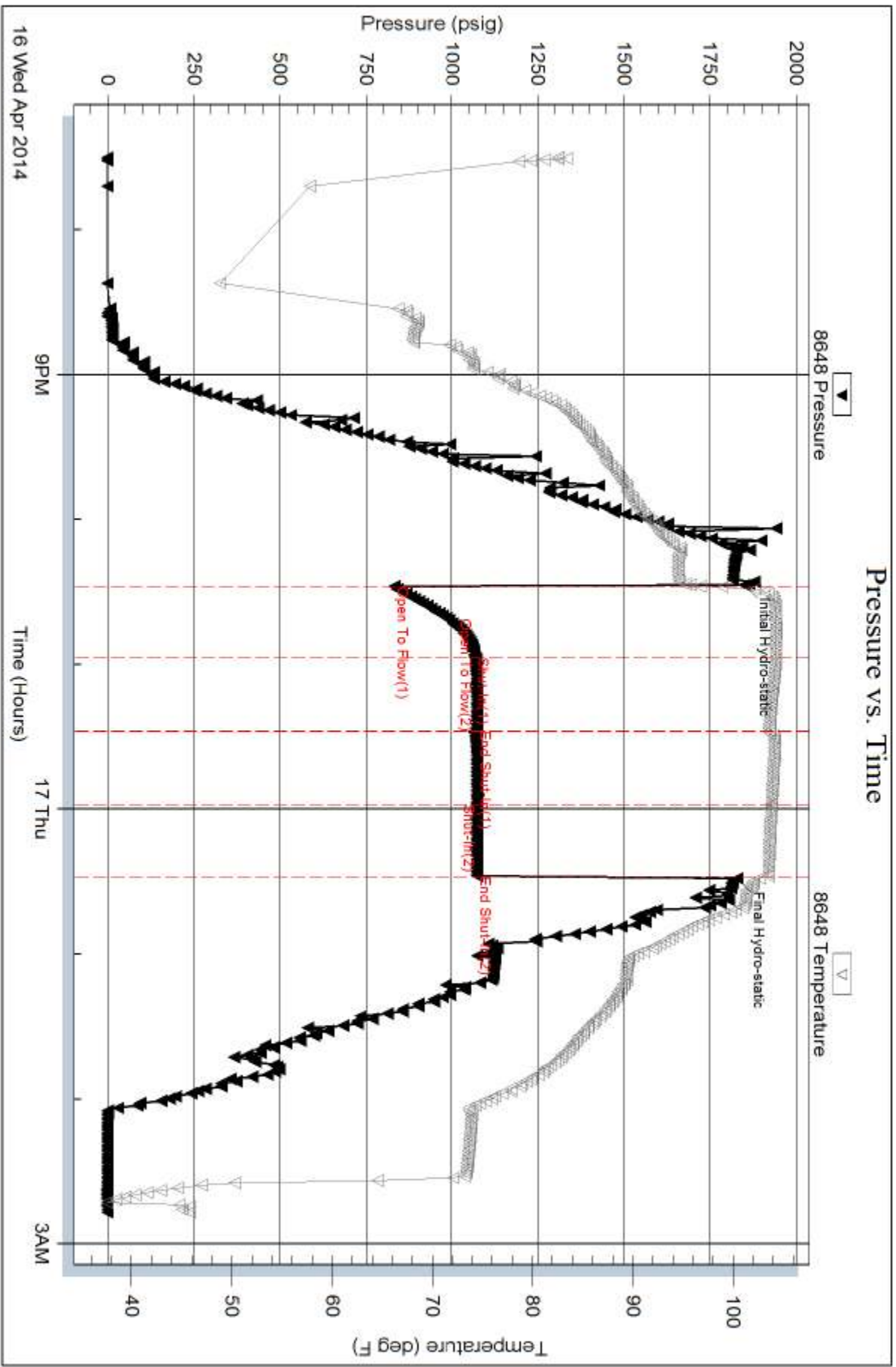
Total Length: 1860.00 ft      Total Volume: 23.904 bbl

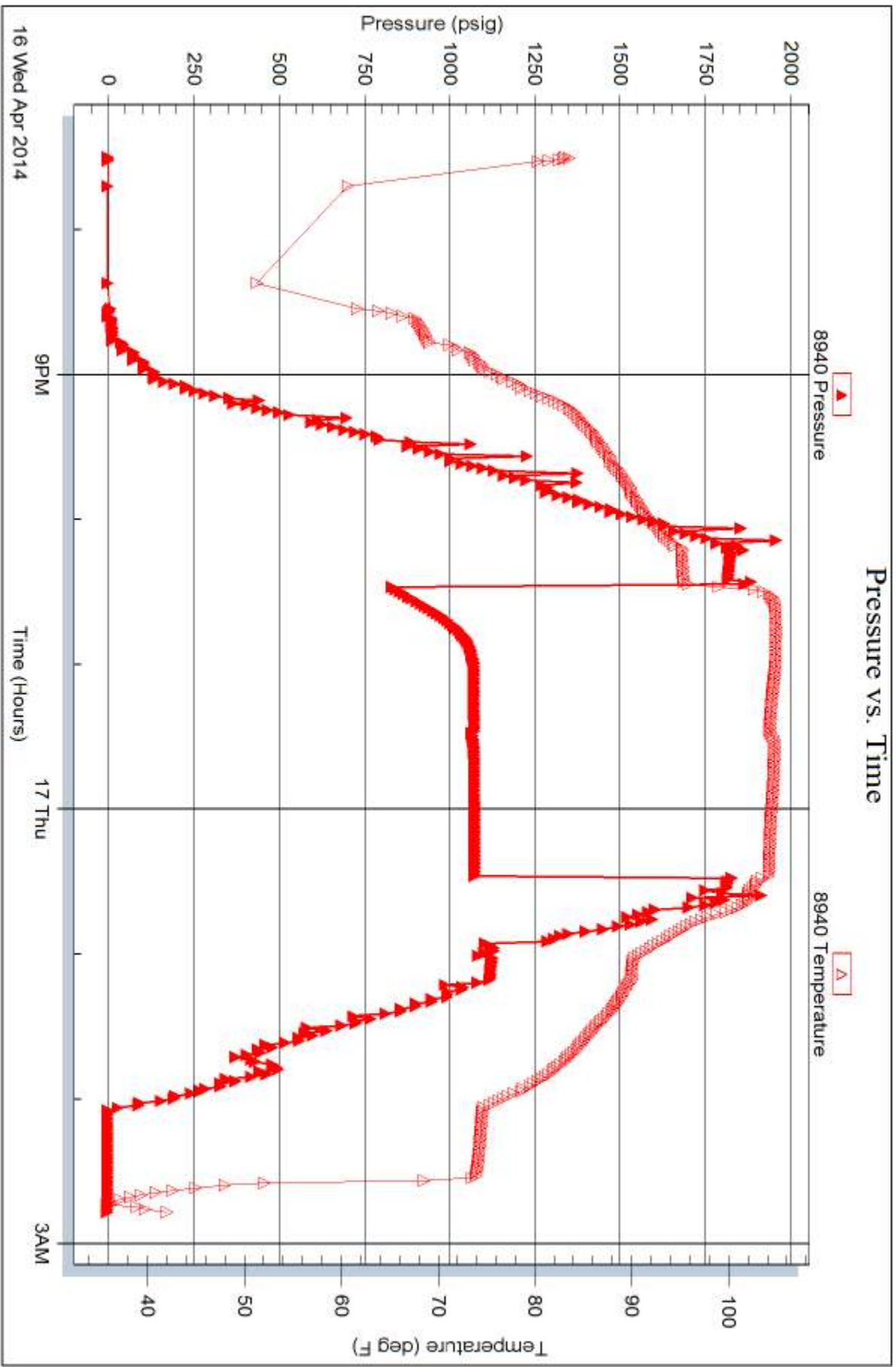
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

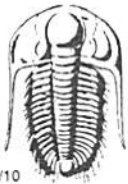
Laboratory Name:      Laboratory Location:

Recovery Comments: Chlorides: .24 @ 41 Degrees = 56,000









# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54027

Well Name & No. Sprawl 29-1 Test No. 1 Date 4-14-14  
 Company Hartman Oil Co., Inc Elevation 2274 KB 2264 GL  
 Address 10500 E Berkeley Sq Pkway Ste 100, Wichita KS, 67206  
 Co. Rep / Geo. Chris Peters Rig H2 #2  
 Location: Sec. 29 Twp. 4s Rge. 22w Co. Norton State KS

Interval Tested 3415 - 3480 Zone Tested Tor - "A"  
 Anchor Length 65' Drill Pipe Run 3174' Mud Wt. 8.9  
 Top Packer Depth 3410 Drill Collars Run 240' Vis 51  
 Bottom Packer Depth 3415 Wt. Pipe Run — WL 5.4  
 Total Depth 3480 Chlorides 500 ppm System LCM —

Blow Description IF-6" blow  
ISI - No return  
FF-1" blow  
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>140</u>	<u>Mud</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 140' BHT 97° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1710</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1425</u>
(B) First Initial Flow <u>55</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1448</u>
(C) First Final Flow <u>100</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1945</u>
(D) Initial Shut-In <u>1101</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>2215</u>
(E) Second Initial Flow <u>106</u>	<input checked="" type="checkbox"/> Hourly Standby	T-Out <u>1242</u>
(F) Second Final Flow <u>146</u>	<input checked="" type="checkbox"/> Mileage <u>174RT 96rt 148.80</u>	Comments
(G) Final Shut-In <u>1032</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1655</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

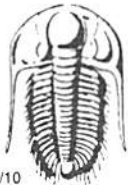
Initial Open 30  
 Initial Shut-In 45  
 Final Flow 45  
 Final Shut-In 60

Shale Packer  
 Extra Packer  
 Extra Recorder  
 Day Standby  
 Accessibility No stairs 150  
 Sub Total 1773.80

Sub Total 0  
 Total 1773.80  
 MP/DST Disc't

Approved By \_\_\_\_\_ Our Representative Cody Black

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. 54028

Well Name & No. Sprawl 29-1 Test No. 2 Date 4-16-14  
 Company Hartman Oil Co Inc Elevation 2274 KB 2264 GL  
 Address 10500 E. Berkley SQ PKWY Ste 100, Wichita KS, 67601  
 Co. Rep / Geo. Kitt Noah Rig H2 #2  
 Location: Sec. 29 Twp. 4s Rge. 22w Co. Norton State KS

Interval Tested 3711 - 3723 Zone Tested Gorham Sand  
 Anchor Length 12' Drill Pipe Run 3455' Mud Wt. 9.1  
 Top Packer Depth 3706 Drill Collars Run 240' Vis 55  
 Bottom Packer Depth 3711 Wt. Pipe Run — WL 6.0  
 Total Depth 3723 Chlorides 700 ppm System LCM 2#

Blow Description IF - 3 1/2" blow @ 20 minutes, died back to a 2 1/2" blow. Surged 1<sup>st</sup> 20 min.  
ISI - No return  
FF - No blow for 10 minutes, flushed tool. Surged & died  
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>70</u>	<u>Mud</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

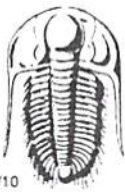
Rec Total 70' BHT 100° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1855  Test 950 T-On Location 0242  
 (B) First Initial Flow 64  ~~Start~~ T-Started 3:00  
 (C) First Final Flow 70  ~~Start/Noisy~~ T-Open 0504  
 (D) Initial Shut-In 948  Circ Sub T-Pulled 0834  
 (E) Second Initial Flow 67  Hourly Standby T-Out 1039  
 (F) Second Final Flow 67  Mileage 174RT 148.80 Comments Did NOT run -  
Jars or Joints?  
 (G) Final Shut-In 823  Sampler  Ruined Shale Packer  
 (H) Final Hydrostatic 1827  Straddle  Ruined Packer

Initial Open 60  Extra Packer  Extra Copies  
 Initial Shut-In 60  Extra Recorder Sub Total 66.67  
 Final Flow 30  Day Standby 1d 2h Total 1315.47  
 Final Shut-In 60  Accessibility 150 MP/DST Disc't  
 Sub Total 1248.80

Approved By \_\_\_\_\_ Our Representative Cody Blah

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54029

Well Name & No. Sprawl 29-1 Test No. 3 Date 4-16-14  
 Company Hartman Oil Co Inc Elevation 2274 KB 2264 GL  
 Address 10500 E. Berkeley Sq PKWY Ste 100, Wichita KS, 67206  
 Co. Rep / Geo. Chris Peters/Kitt Noah Rig H2 #2  
 Location: Sec. 29 Twp. 4s Rge. 22W Co. Norton State KS

Interval Tested 3725-3741 Zone Tested Arbuckle  
 Anchor Length 16' Drill Pipe Run 3486' Mud Wt. 9.3  
 Top Packer Depth 3720 Drill Collars Run 240' Vis 55  
 Bottom Packer Depth 3725 Wt. Pipe Run - WL 5.8  
 Total Depth 3741 Chlorides 900 ppm System LCM 2H

Blow Description IF- B.O.B. instantly  
ISI- No return  
FF- 6" blow  
FSI- No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>124</u>	<u>MW</u>		<u>70</u>	<u>30</u>	
<u>1426</u>	<u>MW</u>		<u>9.5</u>	<u>5</u>	
<u>310</u>	<u>WM</u>		<u>10</u>	<u>90</u>	

Rec Total 1860' BHT 103° Gravity - API RW .24 @ 41° F Chlorides 561000 ppm

(A) Initial Hydrostatic <u>1849</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1904</u>
(B) First Initial Flow <u>831</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1930</u>
(C) First Final Flow <u>1067</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2228</u>
(D) Initial Shut-In <u>1073</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1228</u>
(E) Second Initial Flow <u>1064</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0247</u>
(F) Second Final Flow <u>1074</u>	<input checked="" type="checkbox"/> Mileage <u>174RTx2</u> 297.60	Comments <u>Load tools 4-18-14</u>
(G) Final Shut-In <u>1074</u>	<input type="checkbox"/> Sampler	<u>@ 12:35am</u>
(H) Final Hydrostatic <u>1829</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1922.60</u>
Final Shut-In <u>30</u>	<input checked="" type="checkbox"/> Accessibility <u>150</u>	MP/DST Disc't
	Sub Total <u>1922.60</u>	

Approved By \_\_\_\_\_ Our Representative Gody Blodorn

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# INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 142690  
Invoice Date: Apr 18, 2014  
Page: 1

Voice: (817) 546-7282  
Fax: (817) 246-3361

<b>Bill To:</b>
Hartman Oil Co., Inc. H2 Drilling & H2 Trucking 3545 W. Jones Avenue Garden City, KS 67846

Customer ID	Field Ticket #	Payment Terms	
Hart	63390	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-03	Oakley	Apr 18, 2014	5/18/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Sproul #29-1 <i>81534</i>		
165.00	CEMENT MATERIALS	Class A Common	17.90	2,953.50
110.00	CEMENT MATERIALS	Pozmix	9.35	1,028.50
9.00	CEMENT MATERIALS	Gel	23.40	210.60
69.00	CEMENT MATERIALS	Flo Seal	2.97	204.93
295.37	CEMENT SERVICE	Cubic Feet Charge	2.48	732.52
1,109.97	CEMENT SERVICE	Ton Mileage Charge	2.60	2,885.92
1.00	CEMENT SERVICE	Rotary Plug	2,600.47	2,600.47
90.00	CEMENT SERVICE	Pump Truck Mileage	7.70	693.00
90.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	396.00
1.00	CEMENT SUPERVISOR	Alan Ryan		
1.00	EQUIPMENT OPERATOR	Kevin Ryan		

**NEW WELL DRILLED**

*DATA* *to Mitchell*  
*4-29-14*

Subtotal	11,705.44
Sales Tax	807.68
Total Invoice Amount	12,513.12
Payment/Credit Applied	
<b>TOTAL</b>	<b>12,513.12</b>

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

\$ 3,043.42

ONLY IF PAID ON OR BEFORE  
May 13, 2014

# ALLIED OIL & GAS SERVICES, LLC

Federal Tax I.D. # 20-8651475

063390  
15570  
946  
15.77

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:  
Dallas, TX

DATE <u>11/8/14</u>	SEC <u>29</u>	TWP <u>4</u>	RANGE <u>22</u>	CALLED OUT	ON LOCATION	JOB START <u>11:00</u>	JOB FINISH <u>12:00</u>
LEASE <u>Spind</u>	WELL # <u>29-1</u>	LOCATION <u>Edmond W side N 70 Curve</u>			COUNTY <u>WAGON</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)		WTO Curve N 70 Rd.			314 E Sinda		

CONTRACTOR H2 - 2

TYPE OF JOB Plg - Rotary

HOLE SIZE 7 7/8 7.0

CASING SIZE 8 7/8 DEPTH

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG.

PERFS.

DISPLACEMENT

OWNER Same

CEMENT AMOUNT ORDERED 275 SK 60/40  
4070 gal 14 Flu

EQUIPMENT

PUMP TRUCK CEMENTER Alan Ryan

# 424-281 HELPER Kevin Ryan

BULK TRUCK

# 373 DRIVER John T (TWS)

BULK TRUCK

# DRIVER

COMMON	<u>165</u>	@	<u>12.20</u>	<u>2953.50</u>
POZMIX	<u>110</u>	@	<u>9.25</u>	<u>1022.50</u>
GEL	<u>9</u>	@	<u>23.40</u>	<u>210.60</u>
CHLORIDE		@		
ASC		@		
Flo Seal	<u>69</u>	@	<u>2.97</u>	<u>204.93</u>
HANDLING	<u>37</u>	@	<u>2.40</u>	<u>89.28</u>
MILEAGE	<u>295</u>	@	<u>2.10</u>	<u>619.50</u>
				TOTAL <u>8015.97</u>

(2084.15/26%)

REMARKS:

50 SK @ 3703 FT

25 SK @ 1936 FT

100 SK @ 1149 FT

40 SK @ 402 FT

10 SK @ 40 FT

15 SK MH

30 SK RH

SERVICE

DEPTH OF JOB 37

PUMP TRUCK CHARGE 2600.00

EXTRA FOOTAGE @

MILEAGE 90 @ 7.70 693.00

MANIFOLD @

Citric Acid 90 @ 4.40 396.00

(959.26/26%) TOTAL 3629.42

CHARGE TO: Hartman Oil

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PLUG & FLOAT EQUIPMENT

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

070 TOTAL \_\_\_\_\_

To: Allied Oil & Gas Services, LLC.

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES 11,705.44

DISCOUNT 3,043.41 (26%) IF PAID IN 30 DAYS

8,662.02 Net

PRINTED NAME STEVEN CRAIG

SIGNATURE Steven Craig

