



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1163177
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
-----------------------------------	-----------------	---

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: _____



1163177

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
----------------	-------	---------	------------	---

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <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> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	Hartman Oil Co., Inc.
Well Name	Noll 1-21
Doc ID	1163177

All Electric Logs Run

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

Form	ACO1 - Well Completion
Operator	Hartman Oil Co., Inc.
Well Name	Noll 1-21
Doc ID	1163177

Tops

Name	Top	Datum
Pleasanton	4450	-1319
Marmaton	4500	-1369
Pawnee	4584	-1453
Ft Scott	4611	-1480
Cherokee Shale	4624	-1493
L/Cherokee Shale	4655	-1529
Johnson	4714	-1583
Morrow	4784	-1653
Mississippian	4880	-1749
LTD	4990	-1859

PO Box 93999
Southlake, TX 76092

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

INVOICE

Invoice Number: 138720

Invoice Date: Sep 19, 2013

Page: 1

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

Now Includes:



Customer ID	Field Ticket #	Payment Terms	
Hart	61153	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Sep 19, 2013	10/19/13

Quantity	Item	Description	Unit Price	Amount
		Noll #1-21 85033		
225.00	CEMENT MATERIALS	Class A Common	17.90	4,027.50
4.00	CEMENT MATERIALS	Gel	23.40	93.60
8.00	CEMENT MATERIALS	Chloride	64.00	512.00
243.30	CEMENT SERVICE	Cubic Feet	2.48	603.38
610.71	CEMENT SERVICE	Ton Mileage	2.60	1,587.85
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
55.00	CEMENT SERVICE	Pump Truck Mileage	7.70	423.50
1.00	CEMENT SERVICE	Manifold Rental	275.00	275.00
55.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	242.00
1.00	CEMENT SUPERVISOR	Alan Ryan		
1.00	OPERATOR ASSISTANT	Kevin Ryan		

**NEW WELL
DRILLED**

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

\$ 2,412.04

ONLY IF PAID ON OR BEFORE
Oct 14, 2013

Subtotal	9,277.08
Sales Tax	377.60
Total Invoice Amount	9,654.68
Payment/Credit Applied	
TOTAL	9,654.68

Handwritten signature

9-30-13

ALLIED OIL & GAS SERVICES, LLC 061153

Federal Tax I.D. # 20-8651475

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

SERVICE POINT: Oakley K's

DATE <u>9/19/13</u>	SEC <u>8</u>	TWP. <u>17S</u>	RANGE <u>34W</u>	CALLED OUT	ON LOCATION	JOB START <u>1:00pm</u>	JOB FINISH <u>1:30pm</u>
LEASE <u>Nell</u>	WELL# <u>1-21</u>	LOCATION <u>Scott Co. N 10 190 W 30</u>			COUNTY <u>Scott</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>NEW</u>			Character <u>1W Windo</u>				

CONTRACTOR H2 #4
 TYPE OF JOB Surface
 HOLE SIZE 12 1/4 T.D. 345'
 CASING SIZE 8 5/8 DEPTH 245' 65
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG. 15'
 PERFS.
 DISPLACEMENT

OWNER Same
 CEMENT AMOUNT ORDERED 225 Com 370CC
290 gal

COMMON	<u>225</u>	@	<u>17.20</u>	<u>4027.50</u>
POZMIX		@		
GEL	<u>4</u>	@	<u>23.40</u>	<u>93.60</u>
CHLORIDE	<u>8</u>	@	<u>64.00</u>	<u>512.00</u>
ASC		@		

EQUIPMENT

PUMP TRUCK	CEMENTER	<u>Alan Ryan</u>
# <u>23-281</u>	HELPER	<u>Kevin Ryan</u>
BULK TRUCK		
# <u>396</u>	DRIVER	<u>Elio (TMS)</u>
BULK TRUCK		
#	DRIVER	

HANDLING	<u>243.3</u>	@	<u>2.40</u>	<u>603.96</u>
MILEAGE	<u>2 @ 7mi/mile 11.104 70mi</u>			<u>1587.80</u>
				TOTAL <u>6824.35</u>

REMARKS:
Run Cpg, Calculate Max Cement, Displace
Cement. Slur in.
Cement bid Armed
T. Mark
Alan, Kevin, SPOB

SERVICE

DEPTH OF JOB				
PUMP TRUCK CHARGE			<u>1572.25</u>	
EXTRA FOOTAGE		@		
MILEAGE	<u>55 miles</u>	@	<u>7.20</u>	<u>423.50</u>
MANIFOLD		@		<u>225.00</u>
	<u>Lite Vehicle 55 Miles</u>	@	<u>4.00</u>	<u>242.00</u>
				TOTAL <u>2452.75</u>

CHARGE TO: Hartman Oil
 STREET _____
 CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
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.

PRINTED NAME Gary Artell
 SIGNATURE [Signature]

SALES TAX (If Any) _____
 TOTAL CHARGES 9,277.10
 DISCOUNT 2,412.04 IF PAID IN 30 DAYS
6,865.05 Net.



Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

October 17, 2013

Stan Mitchell
Hartman Oil Co., Inc.
10500 E BERKELEY SQ PKWY STE 100
WICHITA, KS 67206

Re: ACO1
API 15-171-20986-00-00
Noll 1-21
SE/4 Sec.21-17S-34W
Scott County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Stan Mitchell



DRILL STEM TEST REPORT

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

10500 E. Berkeley SQ
Pkwy St. 100
Wichita KS 67206

ATTN: Wes Hansen

Noll #1-21

21-17s-34w Scott, KS

Start Date: 2013.09.24 @ 01:46:15

End Date: 2013.09.24 @ 10:07:00

Job Ticket #: 52922 DST #: 1

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

Printed: 2013.10.01 @ 10:48:29



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Hartman Oil Company, Inc.

21-17s-34w Scott, KS

10500 E. Berkeley SQ
Pkw y St. 100
Wichita KS 67206
ATTN: Wes Hansen

Noll #1-21

Job Ticket: 52922

DST#: 1

Test Start: 2013.09.24 @ 01:46:15

GENERAL INFORMATION:

Formation: **Pleasanton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:39:00

Time Test Ended: 10:07:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Unit No: 65

Interval: 4448.00 ft (KB) To 4480.00 ft (KB) (TVD)

Reference Elevations: 3131.00 ft (KB)

Total Depth: 4480.00 ft (KB) (TVD)

3121.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8846 Outside

Press @ Run Depth: 80.04 psig @ 4450.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.24

End Date:

2013.09.24

Last Calib.: 2013.09.25

Start Time: 01:46:15

End Time:

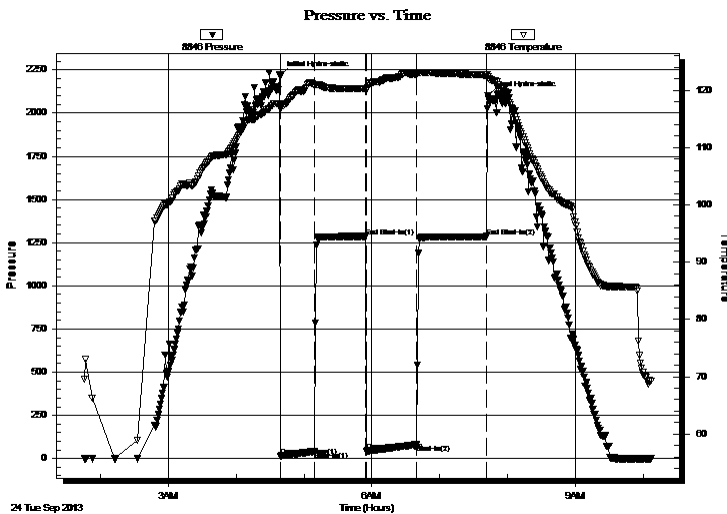
10:07:00

Time On Btm: 2013.09.24 @ 04:38:45

Time Off Btm: 2013.09.24 @ 07:42:30

TEST COMMENT: IF: Built to 1 1/2" blow
IS: No return blow
FF: Built to 1/8" blow
FS: No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2214.94	117.71	Initial Hydro-static
1	13.91	116.69	Open To Flow (1)
31	40.43	120.82	Shut-In(1)
76	1286.11	120.24	End Shut-In(1)
77	43.72	120.04	Open To Flow (2)
121	80.04	122.80	Shut-In(2)
183	1285.50	122.64	End Shut-In(2)
184	2100.27	122.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	mcsw 15%m 85% sw	0.91

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hartman Oil Company, Inc.

21-17s-34w Scott, KS

10500 E. Berkeley SQ
Pky St. 100
Wichita KS 67206
ATTN: Wes Hansen

Noll #1-21

Job Ticket: 52922

DST#: 1

Test Start: 2013.09.24 @ 01:46:15

Tool Information

Drill Pipe:	Length: 4203.00 ft	Diameter: 3.80 inches	Volume: 58.96 bbl	Tool Weight: 1500.00 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 60.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4448.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	60.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			4421.00	
Shut In Tool	5.00			4426.00	
Hydraulic tool	5.00			4431.00	
Jars	5.00			4436.00	
Safety Joint	3.00			4439.00	
Packer	5.00			4444.00	28.00 Bottom Of Top Packer
Packer	4.00			4448.00	
Stubb	1.00			4449.00	
Perforations	1.00			4450.00	
Recorder	0.00	8737	Inside	4450.00	
Recorder	0.00	8846	Outside	4450.00	
Perforations	25.00			4475.00	
Bullnose	5.00			4480.00	32.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil Company, Inc.

21-17s-34w Scott, KS

10500 E. Berkeley SQ
Pky St. 100
Wichita KS 67206
ATTN: Wes Hansen

NoII #1-21

Job Ticket: 52922

DST#: 1

Test Start: 2013.09.24 @ 01:46:15

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:

13000 ppm

Viscosity: 41.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.33 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	mcsw 15%m 85% sw	0.915

Total Length: 186.00 ft Total Volume: 0.915 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

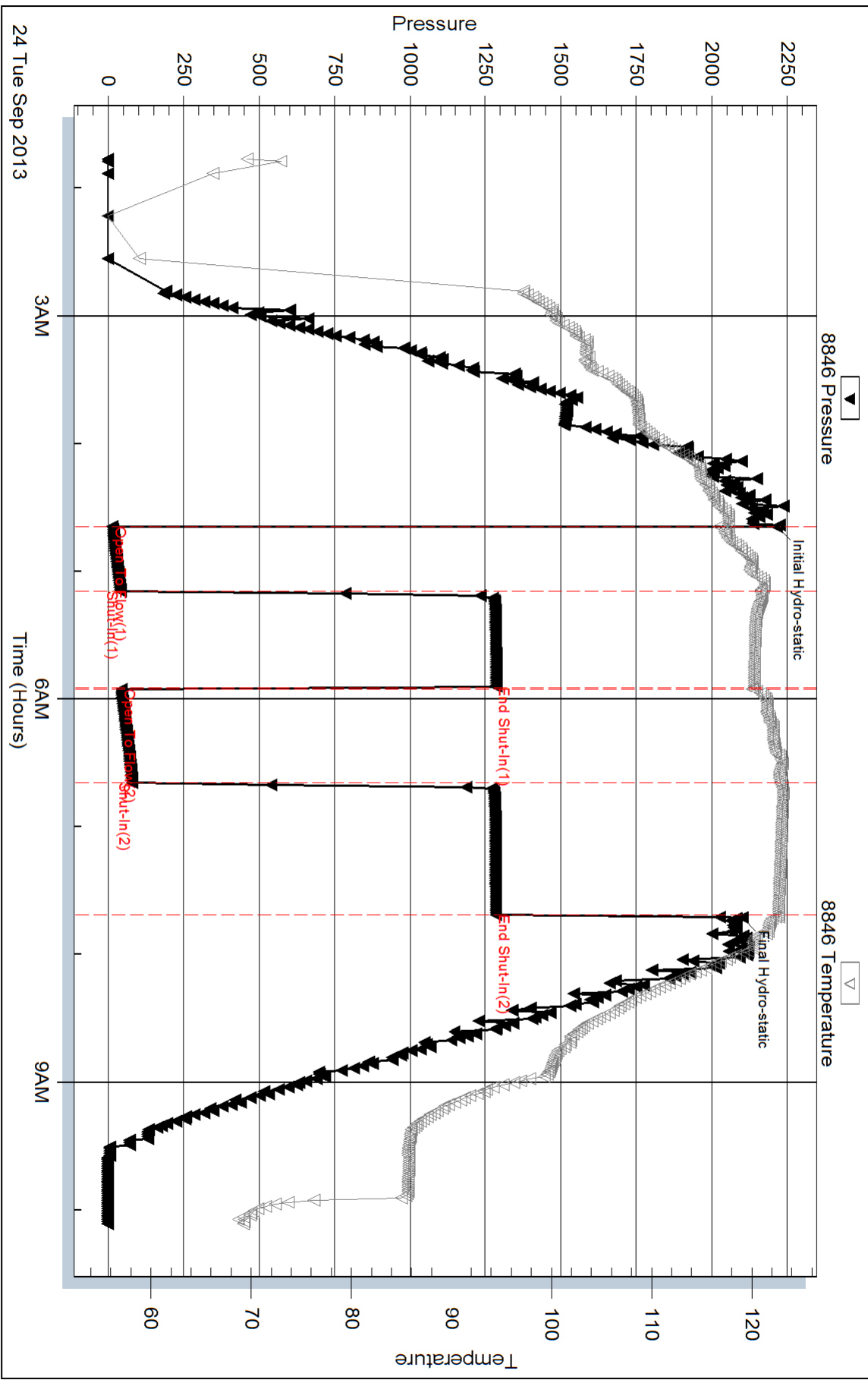
Serial #:

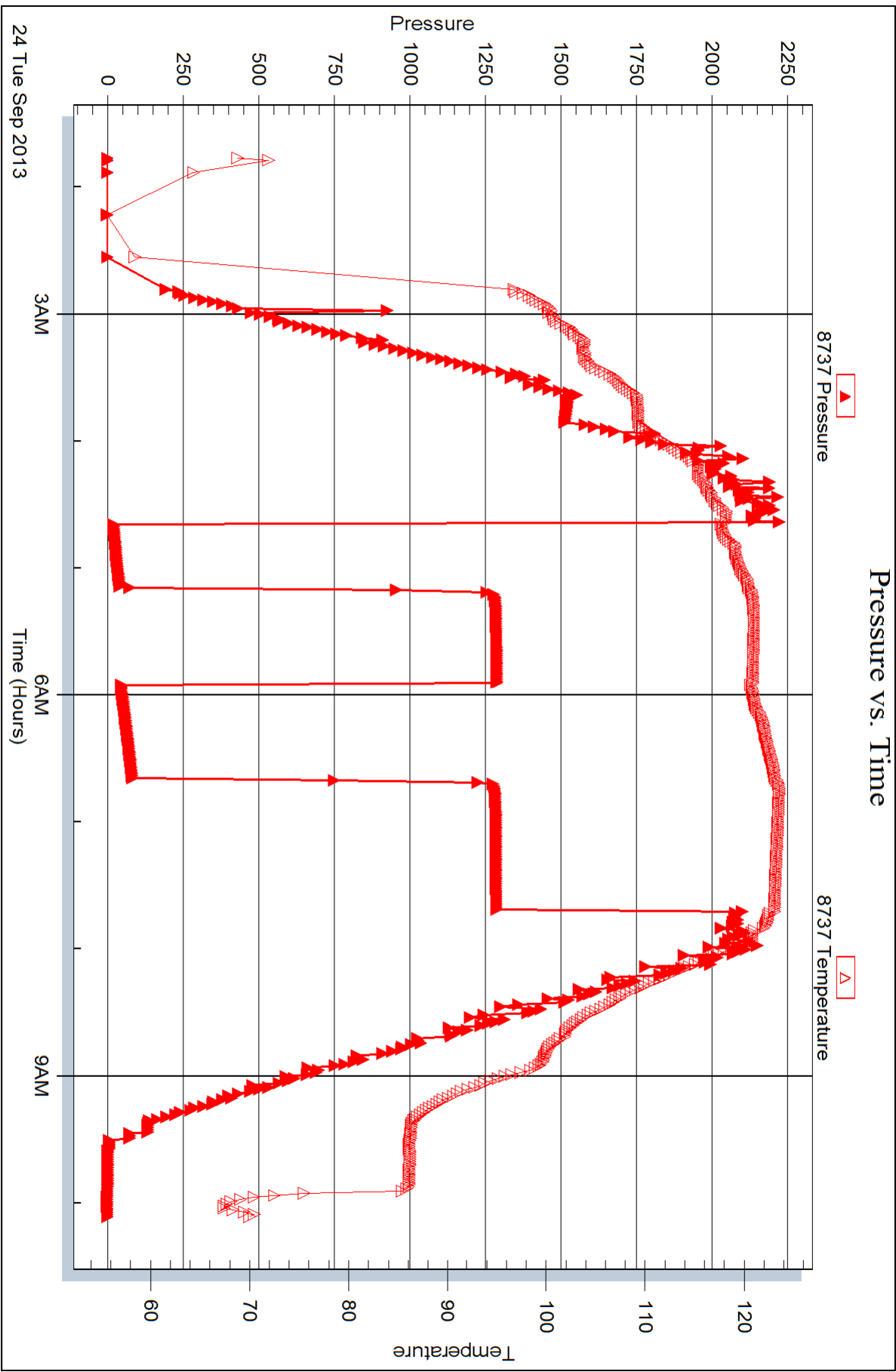
Laboratory Name:

Laboratory Location:

Recovery Comments: RW= .584@64*=13000 ppm

Pressure vs. Time







DRILL STEM TEST REPORT

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

10500 E. Berkeley SQ
Pkwy St. 100
Wichita KS 67206

ATTN: Wes Hansen

Noll #1-21

21-17s-34w Scott, KS

Start Date: 2013.09.25 @ 00:41:15

End Date: 2013.09.25 @ 08:07:00

Job Ticket #: 52923 DST #: 2

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

Printed: 2013.10.01 @ 10:48:02



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Hartman Oil Company, Inc.

21-17s-34w Scott, KS

10500 E. Berkeley SQ
Pkw y St. 100
Wichita KS 67206
ATTN: Wes Hansen

Noll #1-21

Job Ticket: 52923

DST#: 2

Test Start: 2013.09.25 @ 00:41:15

GENERAL INFORMATION:

Formation: **Altamont "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:50:30

Time Test Ended: 08:07:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 65

Interval: 4526.00 ft (KB) To 4556.00 ft (KB) (TVD)

Reference Elevations: 3131.00 ft (KB)

Total Depth: 4556.00 ft (KB) (TVD)

3121.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8846 Outside

Press @ Run Depth: 16.72 psig @ 4527.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.26

End Date:

2013.09.26

Last Calib.:

2013.09.26

Start Time: 00:41:15

End Time:

08:07:00

Time On Btm:

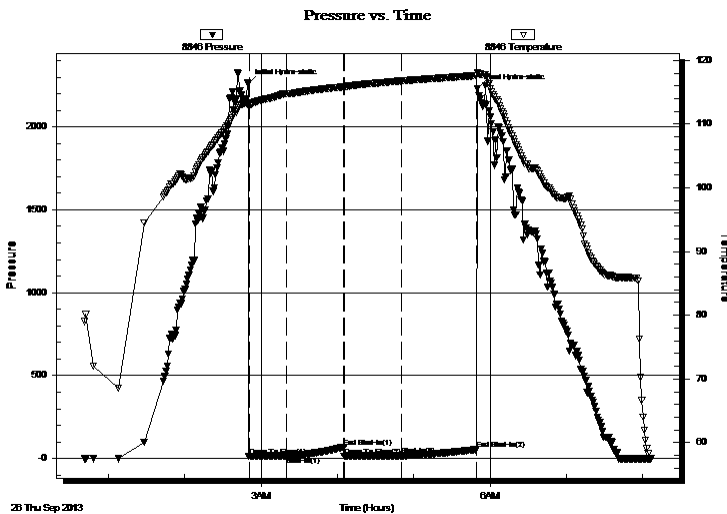
2013.09.26 @ 02:49:45

Time Off Btm:

2013.09.26 @ 05:50:15

TEST COMMENT: IF:Weak surface blow
IS:No return blow
FF:No blow
FS:No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2261.71	113.24	Initial Hydro-static
1	15.31	112.96	Open To Flow (1)
31	15.87	114.74	Shut-In(1)
76	68.77	115.85	End Shut-In(1)
76	14.59	115.84	Open To Flow (2)
121	16.72	116.78	Shut-In(2)
180	54.37	117.62	End Shut-In(2)
181	2231.88	118.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	ocm 1%o 99%m	0.02

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 Company, Inc.

21-17s-34w Scott, KS

10500 E. Berkeley SQ
Pky St. 100
Wichita KS 67206
ATTN: Wes Hansen

Noll #1-21

Job Ticket: 52923

DST#: 2

Test Start: 2013.09.25 @ 00:41:15

Tool Information

Drill Pipe:	Length: 4265.00 ft	Diameter: 3.80 inches	Volume: 59.83 bbl	Tool Weight: 1500.00 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 80000.00 lb
		Total Volume: 61.05 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4526.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			4499.00	
Shut In Tool	5.00			4504.00	
Hydraulic tool	5.00			4509.00	
Jars	5.00			4514.00	
Safety Joint	3.00			4517.00	
Packer	5.00			4522.00	28.00 Bottom Of Top Packer
Packer	4.00			4526.00	
Stubb	1.00			4527.00	
Recorder	0.00	8737	Inside	4527.00	
Recorder	0.00	8846	Outside	4527.00	
Perforations	24.00			4551.00	
Bullnose	5.00			4556.00	30.00 Bottom Packers & Anchor

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil Company, Inc.

21-17s-34w Scott, KS

10500 E. Berkeley SQ
Pky St. 100
Wichita KS 67206
ATTN: Wes Hansen

NoII #1-21

Job Ticket: 52923

DST#: 2

Test Start: 2013.09.25 @ 00:41:15

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.55 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
5.00	ocm 1%o 99%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

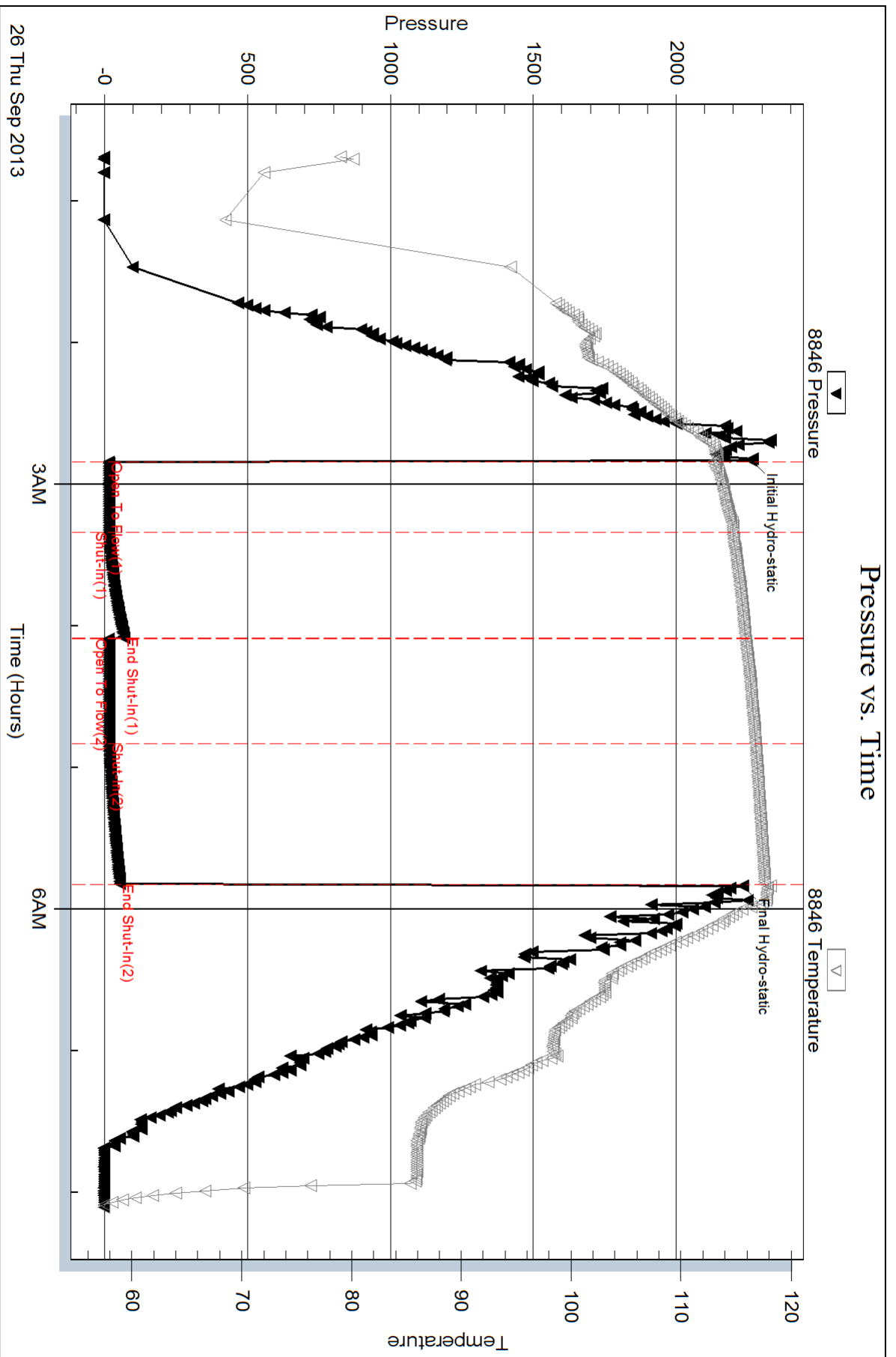
Num Gas Bombs: 0

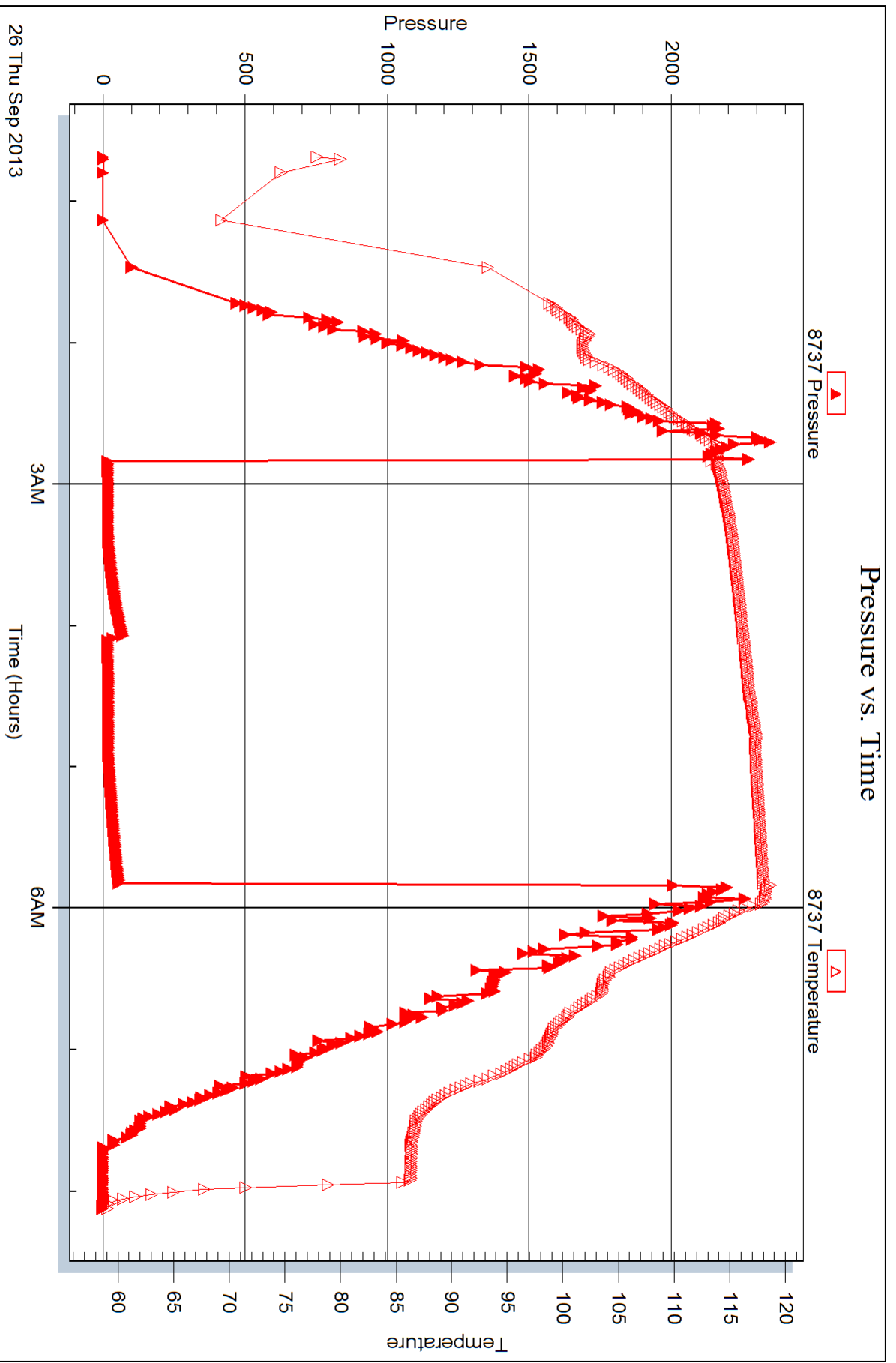
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

10500 E. Berkeley SQ
Pkwy St. 100
Wichita KS 67206

ATTN: Wes Hansen

Noll #1-21

21-17s-34w Scott, KS

Start Date: 2013.09.26 @ 17:54:15

End Date: 2013.09.27 @ 01:42:15

Job Ticket #: 52924 DST #: 3

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

Printed: 2013.10.01 @ 10:47:35



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Hartman Oil Company, Inc.

21-17s-34w Scott, KS

10500 E. Berkeley SQ
Pkw y St. 100
Wichita KS 67206
ATTN: Wes Hansen

Noll #1-21

Job Ticket: 52924

DST#: 3

Test Start: 2013.09.26 @ 17:54:15

GENERAL INFORMATION:

Formation: **Altamont "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:30:00

Time Test Ended: 01:42:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 65

Interval: 4546.00 ft (KB) To 4590.00 ft (KB) (TVD)

Reference Elevations: 3131.00 ft (KB)

Total Depth: 4590.00 ft (KB) (TVD)

3121.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8846

Inside

Press @ Run Depth: 19.54 psig @ 4547.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.26

End Date:

2013.09.27

Last Calib.:

2013.09.27

Start Time:

17:54:15

End Time:

01:42:15

Time On Btm:

2013.09.26 @ 20:29:45

Time Off Btm:

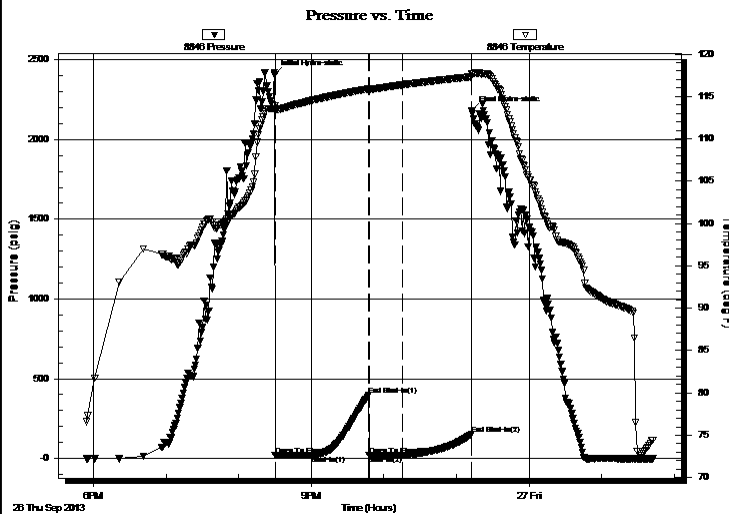
2013.09.26 @ 23:12:45

TEST COMMENT: IF: Weak blow died in 7 min.

IS: No return blow

FF: No blow

FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2405.25	113.87	Initial Hydro-static
1	18.92	113.25	Open To Flow (1)
31	21.99	114.52	Shut-In(1)
78	396.75	115.89	End Shut-In(1)
78	19.45	115.73	Open To Flow (2)
106	19.54	116.35	Shut-In(2)
163	152.51	117.32	End Shut-In(2)
163	2179.49	117.66	Final Hydro-static

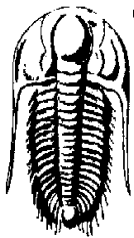
Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w / oil spots	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 Company, Inc.

21-17s-34w Scott, KS

10500 E. Berkeley SQ
Pky y St. 100
Wichita KS 67206
ATTN: Wes Hansen

Noll #1-21

Job Ticket: 52924

DST#: 3

Test Start: 2013.09.26 @ 17:54:15

GENERAL INFORMATION:

Formation: **Altamont "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:30:00

Time Test Ended: 01:42:15

Interval: **4546.00 ft (KB) To 4590.00 ft (KB) (TVD)**

Total Depth: 4590.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 65

Reference Elevations: 3131.00 ft (KB)

3121.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: **8737**

Outside

Press @ RunDepth: psig @ 4547.00 ft (KB)

Start Date: 2013.09.26

End Date: 2013.09.27

Start Time: 17:54:15

End Time: 01:42:30

Capacity: 8000.00 psig

Last Calib.: 2013.09.27

Time On Btm:

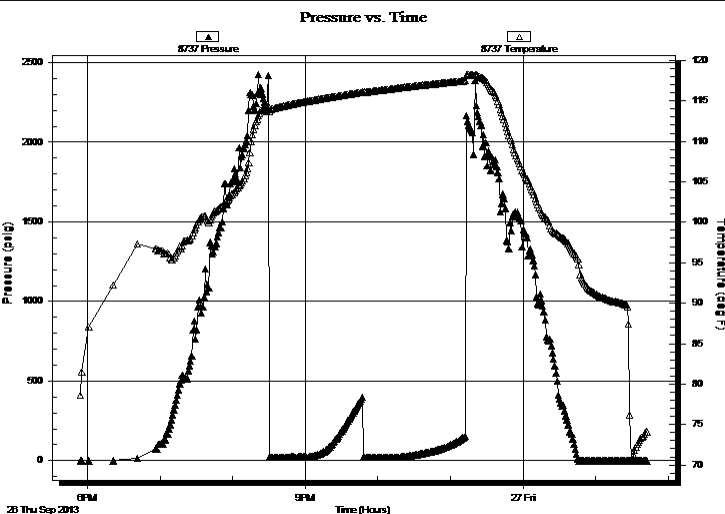
Time Off Btm:

TEST COMMENT: IF:Weak blow died in 7 min.

IS:No return blow

FF:No blow

FS:No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w / oil spots	0.02

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 Company, Inc.

21-17s-34w Scott, KS

10500 E. Berkeley SQ
Pky St. 100
Wichita KS 67206
ATTN: Wes Hansen

Noll #1-21

Job Ticket: 52924

DST#: 3

Test Start: 2013.09.26 @ 17:54:15

Tool Information

Drill Pipe:	Length: 4289.00 ft	Diameter: 3.80 inches	Volume: 60.16 bbl	Tool Weight: 1500.00 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 80000.00 lb
		Total Volume: 61.38 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4546.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	73.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4518.00	
Shut In Tool	5.00			4523.00	
Hydraulic tool	5.00			4528.00	
Jars	5.00			4533.00	
Safety Joint	3.00			4536.00	
Packer	5.00			4541.00	29.00 Bottom Of Top Packer
Packer	5.00			4546.00	
Stubb	1.00			4547.00	
Recorder	0.00	8846	Inside	4547.00	
Recorder	0.00	8737	Outside	4547.00	
Perforations	4.00			4551.00	
Change Over Sub	1.00			4552.00	
Drill Pipe	32.00			4584.00	
Change Over Sub	1.00			4585.00	
Bullnose	5.00			4590.00	44.00 Bottom Packers & Anchor

Total Tool Length: 73.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil Company, Inc.

21-17s-34w Scott, KS

10500 E. Berkeley SQ
Pky St. 100
Wichita KS 67206
ATTN: Wes Hansen

NoII #1-21

Job Ticket: 52924

DST#: 3

Test Start: 2013.09.26 @ 17:54:15

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: 10.32 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5600.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud w / oil spots	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

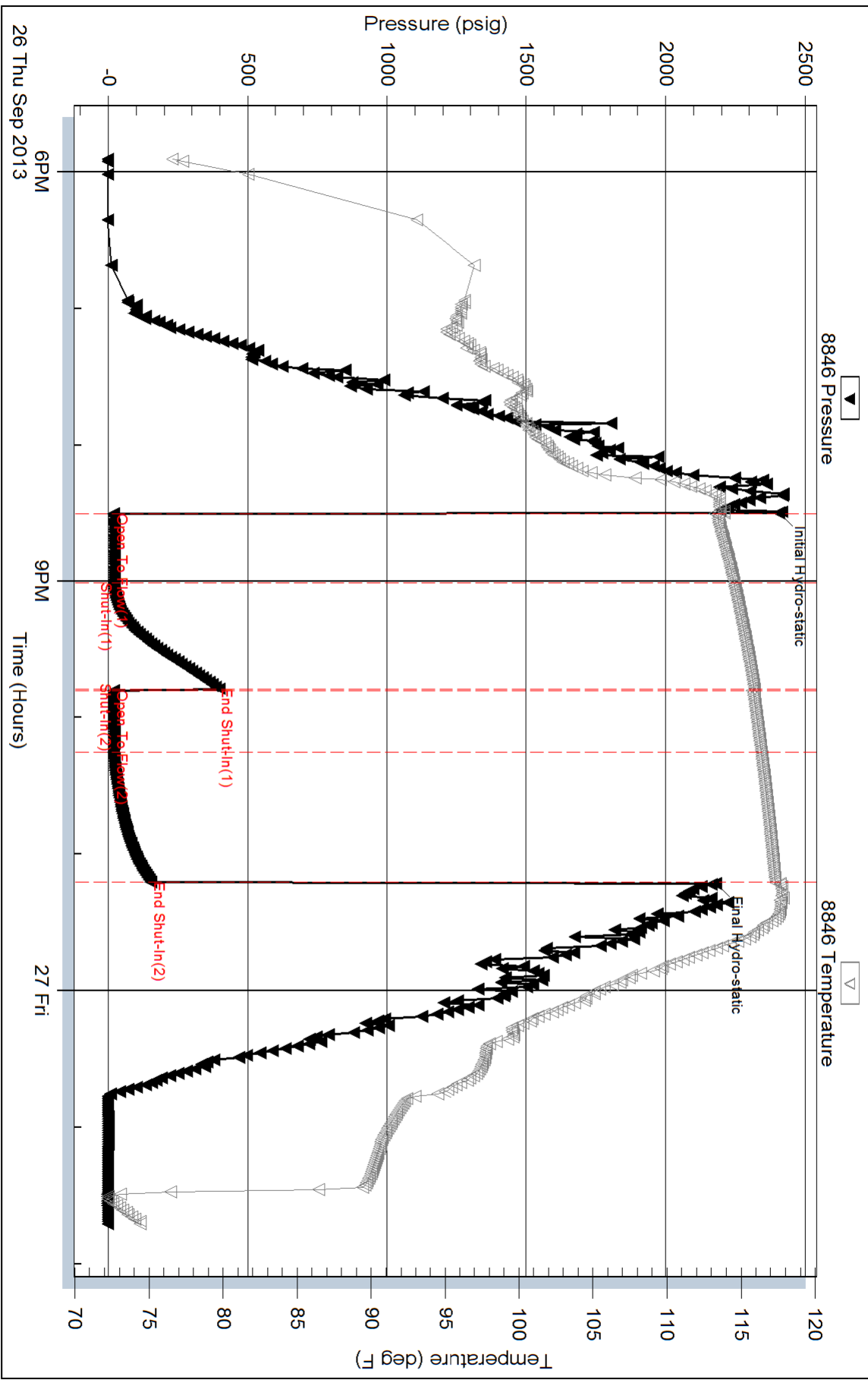
Serial #:

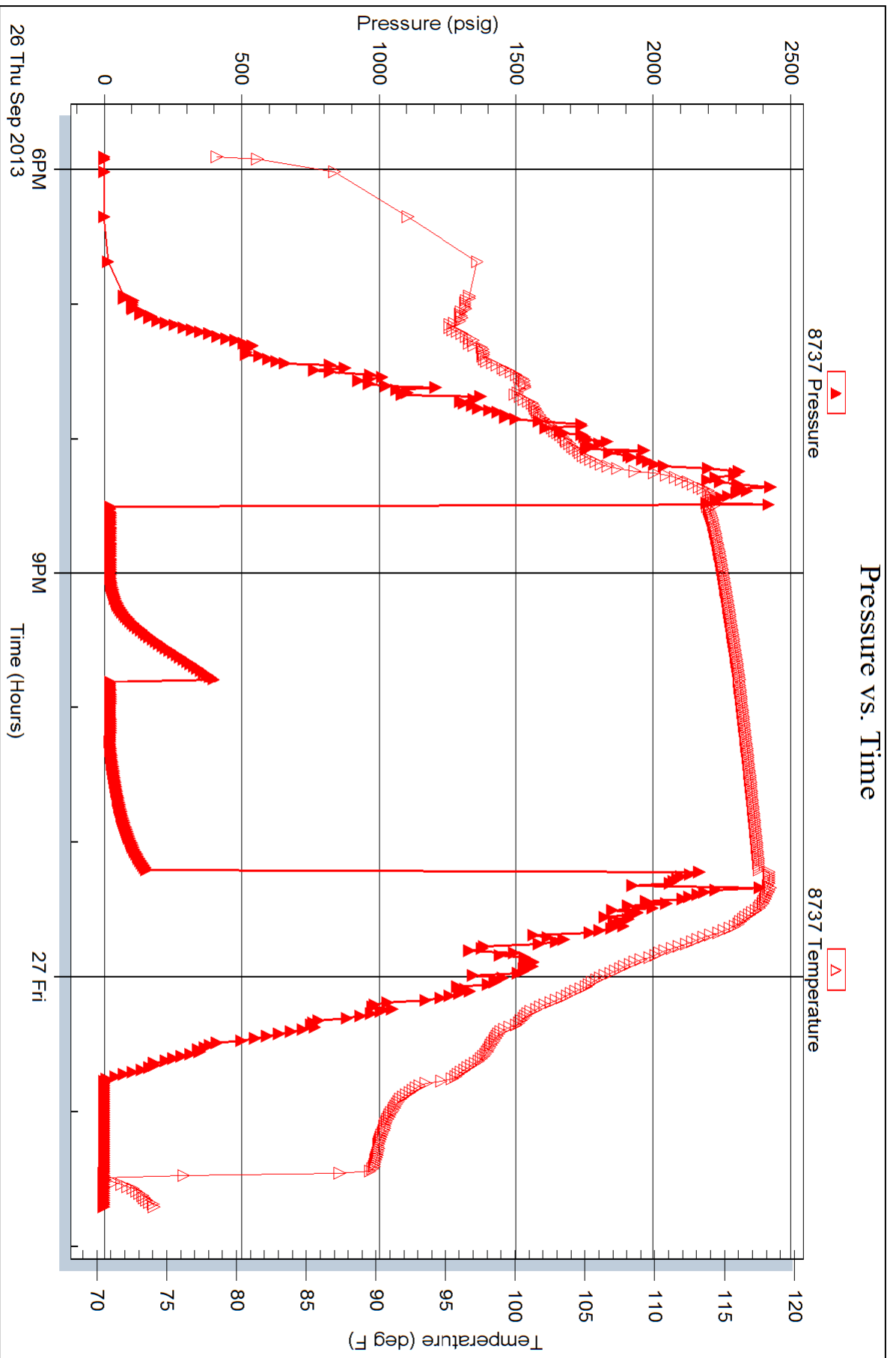
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52922

Well Name & No. Noll 1-21 Test No. 1 Date 9-24-13
 Company Hartman Oil Company Inc. Elevation 3131 KB 3121 GL
 Address 10500 E Berkeley Sq Pkwy ST100 Wichita KS 67206
 Co. Rep / Geo. Wes Hansen Rig ~~FE~~ HZ#4
 Location: Sec. 21 Twp. 17S Rge. 34W Co. SCOTT State KS

Interval Tested 4448 - 4480 Zone Tested Pleasanton
 Anchor Length 32 Drill Pipe Run 4203 Mud Wt. 9.4
 Top Packer Depth 4444 Drill Collars Run 248 Vis 41
 Bottom Packer Depth 4448 Wt. Pipe Run Ø WL 10.4
 Total Depth 4480 Chlorides 4000 ppm System LCM 2#

Blow Description IF: Built to 1 1/2" Blow
FS: No Return Blow
FF: Built to 1/8" Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>186</u>	<u>masw</u>		<u>85</u>	<u>15</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

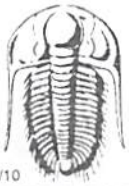
Rec Total 186 BHT 120 Gravity — API RW 584 @ 64 ° F Chlorides 13,000 ppm

(A) Initial Hydrostatic <u>2214</u>	<input checked="" type="checkbox"/> Test <u>1250.00/-</u>	T-On Location <u>22:30</u>
(B) First Initial Flow <u>13</u>	<input checked="" type="checkbox"/> Jars <u>250.00/-</u>	T-Started <u>01:46</u>
(C) First Final Flow <u>40</u>	<input checked="" type="checkbox"/> Safety Joint <u>75.00/-</u>	T-Open <u>04:39</u>
(D) Initial Shut-In <u>1286</u>	<input checked="" type="checkbox"/> Circ Sub <u>NL</u>	T-Pulled <u>07:39</u>
(E) Second Initial Flow <u>43</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>10:07</u>
(F) Second Final Flow <u>80</u>	<input checked="" type="checkbox"/> Mileage <u>30 RT 46.50/-</u>	Comments
(G) Final Shut-In <u>1285</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2100</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open 30 Shale Packer
 Initial Shut-In 45 Shale Packer
 Final Flow 45 Extra Packer
 Final Shut-In 60 Extra Recorder
 Day Standby
 Accessibility #150.00/-
 Sub Total #1771.50/-

Approved By Wesley Hansen Our Representative Mike Roberts

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. 52923

Well Name & No. Noll 1-21 Test No. 2 Date 9-25-13
 Company Hartman Oil Company Inc. Elevation 3131 KB 3121 GL
 Address 10500 E. Berkeley SQ Pkwy ST 100 Wichita KS 67206
 Co. Rep / Geo. Wes Hansen Rig H2 #4
 Location: Sec. 21 Twp. 17S Rge. 34W Co. SCOTT State KS

Interval Tested 4526-4556 Zone Tested Altamont "B"
 Anchor Length 30' Drill Pipe Run 4265 Mud Wt. 9.4
 Top Packer Depth 4522 Drill Collars Run 248 Vis 51
 Bottom Packer Depth 4526 Wt. Pipe Run 0 WL 9.6
 Total Depth 4556 Chlorides 5400 ppm System LCM 2
 Blow Description IF: Weak Surface Blow
IS: NO Return Blow
FF: NO Blow
FS: NO Return Blow

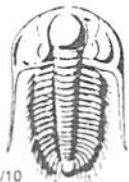
Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>OCM</u>		<u>1</u>		<u>98</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 121 Gravity — API RW — @ —° F Chlorides — ppm

(A) Initial Hydrostatic <u>2261</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>22:30</u>
(B) First Initial Flow <u>15</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>12:41</u>
(C) First Final Flow <u>15</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>02:50</u>
(D) Initial Shut-In <u>68</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>05:50</u>
(E) Second Initial Flow <u>14</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>08:07</u>
(F) Second Final Flow <u>16</u>	<input checked="" type="checkbox"/> Mileage <u>30 RT</u> 46.50	Comments
(G) Final Shut-In <u>54</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2231</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</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>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1771.50</u>
	<input checked="" type="checkbox"/> Accessibility <u>150</u>	MP/DST Disc't
	Sub Total <u>1771.50</u>	

Approved By Wesley Hansen Our Representative Mike Roberts

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. 52924

Well Name & No. Noll 1-21 Test No. 3 Date 9-26-13
 Company Hartman Oil Company Inc Elevation 3131 KB 3121 GL
 Address 10500 E. Berkeley SQ Pkwy St 100 Wichita KS 67206
 Co. Rep / Geo. Wrs Hansen Rig H2 Rig#4
 Location: Sec. 21 Twp. 17S Rge. 34w Co. Scott State KS

Interval Tested 4546-4590 Zone Tested Altamont 'E''
 Anchor Length 44' Drill Pipe Run 4289 Mud Wt. 9.2
 Top Packer Depth 4542 Drill Collars Run 248 Vis 51
 Bottom Packer Depth 4546 Wt. Pipe Run Ø WL 8.8
 Total Depth 4590 Chlorides 5600 ppm System LCM 2
 Blow Description IF: Weak Blow Died in 7 Min
FS: NO Return Blow
FF: NO Blow
FS: NO Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>MUD with 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 118 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>2405</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>17:00</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>17:54</u>
(C) First Final Flow <u>21</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>20:30</u>
(D) Initial Shut-In <u>396</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>28:00</u>
(E) Second Initial Flow <u>19</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>01:42</u>
(F) Second Final Flow <u>19</u>	<input checked="" type="checkbox"/> Mileage <u>30 RT X 2</u> 93	Comments <u>Loaded tools</u>
(G) Final Shut-In <u>152</u>	<input type="checkbox"/> Sampler	<u>9-27-13 19:30</u>
(H) Final Hydrostatic <u>2179</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</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>45 30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>45 45</u>	<input type="checkbox"/> Day Standby	Total <u>1818</u>
	<input checked="" type="checkbox"/> Accessibility 150	MP/DST Disc't
	Sub Total <u>1818</u>	

Approved By Wesley Hansen Our Representative Mike Rohlf

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.