



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1231520  
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: \_\_\_\_\_



1231520

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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:  Yes  No

Date of First, Resumed Production, SWD or ENHR. \_\_\_\_\_ Producing Method:  
 Flowing    Pumping    Gas Lift    Other *(Explain)* \_\_\_\_\_

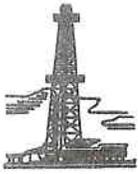
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Hupfer Operating, Inc.
Well Name	Heine A-2
Doc ID	1231520

Tops

Name	Top	Datum
Anhydrite	390	+1347
Topeka	2529	-793
Heebner	2802	-1065
Toronto	2826	-1089
Douglas	2833	-1096
Brown Lime	2929	-1192
Lansing	2953	-1216
Arbuckle	3290	-1553
RTD	3325	-1588



# Discovery Drilling

P.O. Box 763 • Hays, KS 67601 • OFFICE (785) 623-2920 • CELLULAR (785) 635-1511

## DRILLER'S LOG

Operator: Hupfer Operating, Inc. Lic# 30380 Contractor: Discovery Drilling Co., Inc. LIC#31548  
P.O. Box 3912 PO Box 763  
Shawnee, KS 66203-0912 Hays, KS 67601

Lease: Heine "A" # 2 Location: 1630 FSL - 1650 FEL  
S/2-SE-NW-SE  
Section 25/ 19S/ 10W  
Rice County, KS

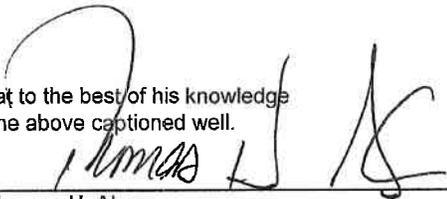
Loggers Total Depth: No Log API#15- 159-22,786-00-00  
Rotary Total Depth: 3325' Elevation: 1729 GL - 1737 KB  
Commenced: 9/11/2014 Completed: 9/16/2014  
Casing: 8 5/8" @ 263'W/225sks Status: D & A

### DEPTHS & FORMATIONS (All from KB)

Surface, Sand & Shale	<u>0'</u>	Shale	<u>395'</u>
Dakota Sand	<u>71'</u>	Shale & Lime	<u>1244'</u>
Shale	<u>101'</u>	Shale	<u>1652'</u>
Cedar Hill Sand	<u>131'</u>	Shale & Lime	<u>1969'</u>
Red Bed Shale	<u>188'</u>	Lime & Shale	<u>3045'</u>
Anhydrite	<u>390'</u>	RTD	<u>3325'</u>
Base Anhydrite	<u>395'</u>		

STATE OF KANSAS )  
) ss  
COUNTY OF ELLIS )

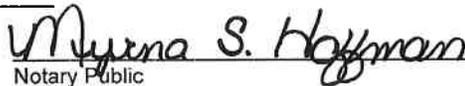
Thomas H. Alm of Discovery Drilling states that to the best of his knowledge the above and foregoing is a true and correct log of the above captioned well.

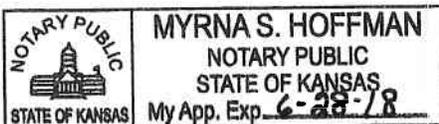
  
\_\_\_\_\_  
Thomas H. Alm

Subscribed and sworn to before me on 9-18-14

My Commission expires: 6-28-18

(Place stamp or seal below)

  
\_\_\_\_\_  
Notary Public



# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 633

Date	Sec.	Twp.	Range	County	State	On Location	Finish
9-11-14	25	19	10	Rice	KS		9:15 PM

Location ~~QWB~~ Ellinwood E to 6 Rd 1 W 1/2 E Ninto

Lease	Well No.	Owner	
Heine	A-2	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Contractor	Type Job	Charge To	
Discovery 2	Surface	Hup for operating	
Hole Size	T.D.	Street	
12 1/4	262		
Csg.	Depth	City	
8 5/8	262	State	
Tbg. Size	Depth	The above was done to satisfaction and supervision of owner agent or contractor.	
		Cement Amount Ordered 225 com 3% cc 2% gel	
Cement Left in Csg.	Shoe Joint	1/4 lb flow seal	
15	15		
Meas Line	Displace		
	15 1/2		

**EQUIPMENT**

Pumptrk	No.	Cementer	Helper	Common
PU		Rick		225
Bulktrk	No.	Driver	Driver	Poz. Mix
16		Billy		5
Bulktrk	No.	Driver	Driver	Calcium
3		Rajn		9

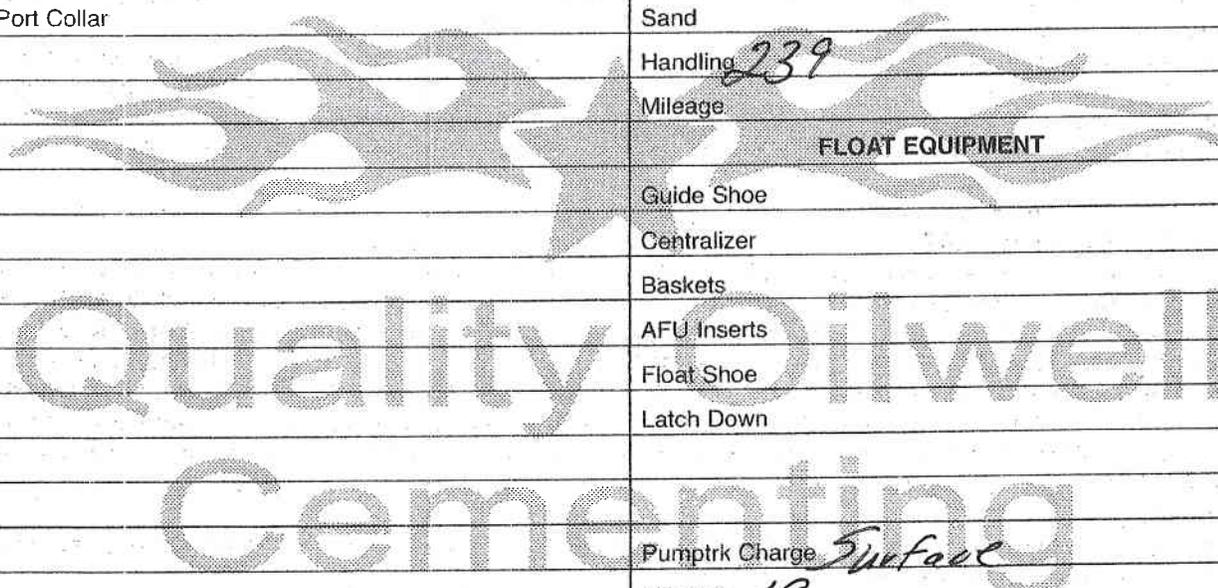
**JOB SERVICES & REMARKS**

Remarks:	Hulls
Cement Die Circulate	Salt
Rat Hole	Flowseal 56#
Mouse Hole	Kol-Seal
Centralizers	Mud CLR 48
Baskets	CFL-117 or CD110 CAF 38
D/V or Port Collar	Sand
	Handling 239
	Mileage

**FLOAT EQUIPMENT**

Guide Shoe	Pumptrk Charge
Centralizer	Surface
Baskets	Mileage
AFU Inserts	19
Float Shoe	
Latch Down	

Signature	Tax
<i>Paul G. [Signature]</i>	Discount
	Total Charge



# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 550

Date	9-16-14	Sec.	25	Twp.	19	Range	10	County	Rice	State	KS	On Location		Finish	11:30 AM
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Location Ellinwood E to 6th Rd 1/4 E

Lease Heine "A" Well No. 2 Owner N. Int'l

Contractor Discovery #2  
Type Job Plug  
Hole Size 7 3/4 T.D. 3289'  
Csg. Drill Pipe Depth  
Tbg. Size Depth  
Tool Depth

To Quality Oilwell Cementing, Inc.  
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To Hupfer Operating

Cement Left in Csg. Shoe Joint  
Meas Line Displace

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 215 60/40 4% Gel 1/4 flo

**EQUIPMENT**

Pumptrk <u>5</u> No.	Cementer <u>David</u>	Common	<u>129</u>
Bulktrk <u>15</u> No.	Helper <u>David</u>	Poz. Mix	<u>86</u>
Bulktrk <u>Pu</u> No.	Driver <u>Ryan</u>	Gel.	<u>8</u>
	Driver <u>Brett</u>	Calcium	

**JOB SERVICES & REMARKS**

Remarks:	Salt
Rat Hole - <u>30 sx</u>	Flowseal <u>50#</u>
Mouse Hole - <u>20 sx</u>	Kol-Seal
Centralizers	Mud CLR 48
Baskets	CFL-117 or CD110 CAF 38
D/V or Port Collar	Sand

1st @ 3289 w/ 35 sx

2nd @ 1225 w/ 35 sx

3rd @ 825 w/ 35 sx

4th @ 315 w/ 35 sx

5th @ 60 w/ 25 sx

Handling 223

Mileage 8 5/8

**FLOAT EQUIPMENT**

Guide Shoe

Centralizer

Baskets

AFU Inserts

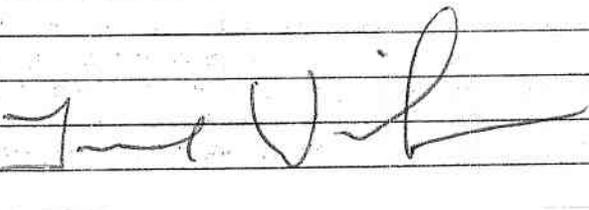
Float Shoe

Latch Down

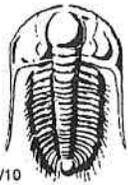
Pumptrk Charge plug

Mileage 19

X Signature



Tax	
Discount	
Total Charge	



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 038

4/10

Well Name & No. <u>Heine # A-2</u>	Test No. <u>1</u>	Date <u>9-15-14</u>
Company <u>Huffer Operating, Inc.</u>	Elevation <u>1737</u>	KB <u>1731</u> GL
Address <u>P.O. Box 3912 Shawnee, KS 66202-0912</u>		
Co. Rep / Geo. <u>Kurt Talbot</u>	Rig <u>Discovery # 2</u>	
Location: Sec. <u>25</u> Twp. <u>19 S</u> Rge. <u>10 W</u> Co. <u>Rice</u> State <u>KS</u>		

Interval Tested <u>3226 - 3296</u>	Zone Tested <u>Arbuckle</u>
Anchor Length <u>70</u>	Drill Pipe Run <u>2911</u> Mud Wt. <u>9.1</u>
Top Packer Depth <u>3221</u>	Drill Collars Run <u>0</u> Vis <u>55</u>
Bottom Packer Depth <u>3226</u>	Wt. Pipe Run <u>310'</u> WL <u>9.2</u>
Total Depth <u>3296</u>	Chlorides <u>4000</u> ppm System LCM <u>1</u>
Blow Description <u>1<sup>st</sup> Open - water blow built to 3 inches into bucket of water, 1<sup>st</sup> Shut In - No blow back, 2<sup>nd</sup> Open - blow built to 4 inches into water, 2<sup>nd</sup> Shut In - No blow back.</u>	

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	<u>no gas in pipe</u>				
<u>3848</u>	<u>mud</u>			<u>100</u>	
<u>31</u>	<u>watery mud</u>		<u>20</u>	<u>80</u>	
<u>62</u>	<u>watery mud</u>		<u>25</u>	<u>75</u>	

Rec Total 139 BHT \_\_\_\_\_ Gravity 1 API RW 21 @ 40 °F Chlorides 29000 ppm

(A) Initial Hydrostatic <u>1599</u>	<input checked="" type="checkbox"/> Test _____	T-On Location <u>14:00</u>
(B) First Initial Flow <u>54</u>	<input type="checkbox"/> Jars _____	T-Started <u>1600</u>
(C) First Final Flow <u>72</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>1730</u>
(D) Initial Shut-In <u>940</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>1930 2000</u>
(E) Second Initial Flow <u>79</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>21:30</u>
(F) Second Final Flow <u>108</u>	<input checked="" type="checkbox"/> Mileage <u>48</u>	Comments _____
(G) Final Shut-In <u>934</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1552</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 _____
Final Flow <u>45</u>	<input type="checkbox"/> Day Standby _____	Total _____
Final Shut-In <u>45</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total _____	

Approved By \_\_\_\_\_ 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.

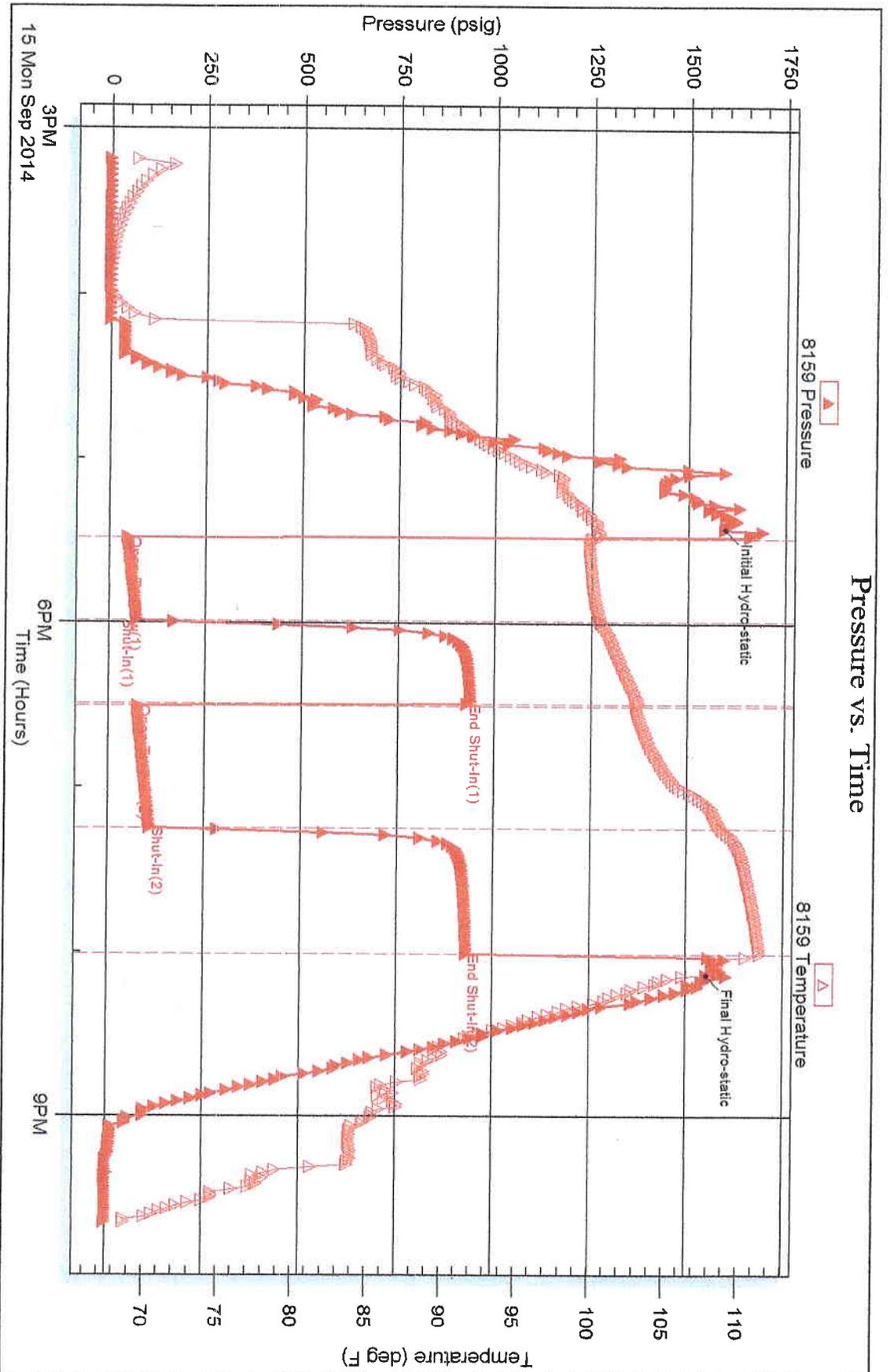
Serial #: 8159

Outside Hüpfner Operating, Inc.

Heine #A-2

DST Test Number: 1

### Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 60457

Printed: 2014.09.15 @ 23:03:30

HEINE A-2 SE/4 Sec 26-19-10W

RICE COUNTY

DST's

DST #1 - Arbuckle: 3226' to 3296'. 30-30-45-45. Recovered 139' muddy water. ISIP 940,  
FSIP 934, IFP 54-72, FFP 79-108.