



Confidentiality Requested:

Yes  No

**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: \_\_\_\_\_

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
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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> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	Carson 3-25
Doc ID	1217627

All Electric Logs Run

Array Induction
Photo Density
Comp Neutron
Microlog
Sonic

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	Carson 3-25
Doc ID	1217627

Tops

Name	Top	Datum
Base Anhydrite	2454	+660
Heebner	3984	-870
Lansing	4025	-911
Muncie Creek	4210	-1096
Stark Shale	4308	-1194
Hushpuckney	4354	-1240
Pawnee	4530	-1416
L. Cherokee Shale	4611	-1497
Johnson	4656	-1542
Mississippian	4778	-1664





# INVOICE

PO Box 93999  
Southlake, TX 76092

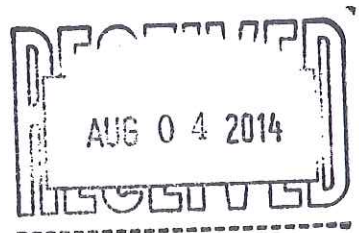
Invoice Number: 144459  
Invoice Date: Jul 13, 2014  
Page: 1

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

<b>Bill To:</b>
Shakespeare Oil Co., Inc. 202 West Main St. Salem, IL 62881

Customer ID	Field Ticket #	Payment Terms	
Shak	63327	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-09	Oakley	May 30, 2014	8/12/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	<u>Carson #3-25</u>		
100.00	CEMENT MATERIALS	Class A Common	17.90	1,790.00
4.00	CEMENT MATERIALS	Chloride	64.00	256.00
103.40	CEMENT SERVICE	Cubic Feet Charge	2.48	256.43
216.00	CEMENT SERVICE	Ton Mileage Charge	2.60	561.60
1.00	CEMENT SERVICE	1" Cement to Surface		
1.00	CEMENT SUPERVISOR	Alan Ryan		
1.00	EQUIPMENT OPERATOR	Kevin Ryan		
1.00	OPERATOR ASSISTANT	Brandon Wilkinson		



10502-5

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

\$ 716.00

ONLY IF PAID ON OR BEFORE  
Aug 12, 2014

Subtotal	2,864.03
Sales Tax	166.75
Total Invoice Amount	3,030.78
Payment/Credit Applied	
<b>TOTAL</b>	<b>3,030.78</b>

# ALLIED OIL & GAS SERVICES, LLC 063327

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:  
Dakota, KY

DATE <u>5/30/14</u>	SEC. <u>25</u>	TWP. <u>16</u>	RANGE <u>34</u>	CALLED OUT	ON LOCATION	JOB START <u>5:00A</u>	JOB FINISH <u>5:30A</u>
LEASE <u>Carson</u>	WELL# <u>325</u>		LOCATION <u>Pence Eto Church 25 Eto</u>		COUNTY <u>6107</u>	STATE <u>KY</u>	
OLD OR NEW (Circle one)							

CONTRACTOR Southwind 70

TYPE OF JOB 1" Cement to Surface

HOLE SIZE 17 1/4 T.D. 265'

CASING SIZE P518 DEPTH 265'

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG.

PERFS.

DISPLACEMENT

OWNER Sam

CEMENT AMOUNT ORDERED 100SK 390CC

**EQUIPMENT**

PUMP TRUCK CEMENTER Alan Ryan

# 483-281 HELPER Kevin Ryan

BULK TRUCK

# 323 DRIVER Jason T (TWS)

BULK TRUCK

# 891 DRIVER Brandon Williams

COMMON	<u>100</u>	@ <u>17.80</u>	<u>1790.00</u>
POZMIX		@	
GEL		@	
CHLORIDE	<u>4#</u>	@ <u>64.00</u>	<u>256.00</u>
ASC		@	
	<u>McVened Test</u>	@ <u>20.00</u>	<u>200.00</u>
	<u>211.50/25%</u>	@	
		@	
		@	
		@	
HANDLING	<u>1084 CF</u>	@ <u>2.48</u>	<u>266.83</u>
MILEAGE	<u>40 miles</u>	@ <u>1.40</u>	<u>56.00</u>
TOTAL			

REMARKS:  
On 60' 1" pipe, circulate cement to surface.

Alan Ryan  
Kevin Ryan  
Brandon Williams

CHARGE TO: Shakespeare

STREET \_\_\_\_\_

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

**SERVICE**

DEPTH OF JOB \_\_\_\_\_

PUMP TRUCK CHARGE \_\_\_\_\_

EXTRA FOOTAGE @ \_\_\_\_\_

MILEAGE @ \_\_\_\_\_

MANIFOLD @ \_\_\_\_\_

@ \_\_\_\_\_

(201.50/25%)

TOTAL 272.03

To: Allied Oil & Gas Services, LLC.  
You are hereby requested to rent cementing equipment and furnish cement 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.

**PLUG & FLOAT EQUIPMENT**

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

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

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

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

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

TOTAL \_\_\_\_\_

PRINTED NAME Sam

SIGNATURE \_\_\_\_\_

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

TOTAL CHARGES 2,761.03

DISCOUNT 710.00 (25%) IF PAID IN 30 DAYS

2,051.03 Net

## Summary of Changes

Lease Name and Number: Carson 3-25

API/Permit #: 15-171-21064-00-00

Doc ID: 1217627

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Additional Type And Percent Additive		4% CaCl2
Approved Date	07/17/2014	08/07/2014
CementingDepth2_PDF	-	265-0
CementingDepthBase2		0
CementingDepthTop2		265
Number Of Sacks Used for Cementing / Squeezing- Line 2		100
Save Link	../../../../kcc/detail/operatorEditDetail.cfm?docID=1214562	../../../../kcc/detail/operatorEditDetail.cfm?docID=1217627
Type Of Cement Used for Cementing / Squeezing - Line 2		Class A



## Summary of Attachments

Lease Name and Number: Carson 3-25

API: 15-171-21064-00-00

Doc ID: 1217627

Correction Number: 1

Attachment Name

Cement ticket



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1214562  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed

Form must be Signed

All blanks must be Filled

# CONFIDENTIAL 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: \_\_\_\_\_

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](mailto: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 Geologist Report / Mud Logs <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
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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				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	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> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	Carson 3-25
Doc ID	1214562

All Electric Logs Run

Array Induction
Photo Density
Comp Neutron
Microlog
Sonic

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	Carson 3-25
Doc ID	1214562

Tops

Name	Top	Datum
Base Anhydrite	2454	+660
Heebner	3984	-870
Lansing	4025	-911
Muncie Creek	4210	-1096
Stark Shale	4308	-1194
Hushpuckney	4354	-1240
Pawnee	4530	-1416
L. Cherokee Shale	4611	-1497
Johnson	4656	-1542
Mississippian	4778	-1664

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	Carson 3-25
Doc ID	1214562

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	Marmaton "C"	500 gal 15% RWR	4514-18
4	Marmaton "A"	500 gal 15% RWR, 1500 gal 15% RWR	4452-59, 4436-41





# INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 143512

Invoice Date: May 29, 2014

Voice: (817) 546-7282

Page: 1

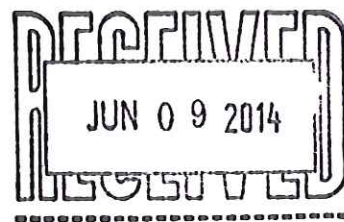
Fax: (817) 246-3361

<b>Bill To:</b>
Shakespeare Oil Co., Inc. 202 West Main St. Salem, IL 62881

Customer ID	Field Ticket #	Payment Terms	
Shak	63326	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	May 29, 2014	6/28/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	<u>Carson #3-25</u>		
180.00	CEMENT MATERIALS	Class A Common	17.90	3,222.00
3.00	CEMENT MATERIALS	Gel	23.40	70.20
6.00	CEMENT MATERIALS	Chloride	64.00	384.00
194.64	CEMENT SERVICE	Cubic Feet Charge	2.48	482.71
399.78	CEMENT SERVICE	Ton Mileage Charge	2.60	1,039.43
1.00	CEMENT SERVICE	Surface ✓	1,512.25	1,512.25
45.00	CEMENT SERVICE	Pump Truck Mileage	7.70	346.50
1.00	CEMENT SERVICE	Manifold Rental	275.00	275.00
45.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	198.00
1.00	CEMENT SUPERVISOR	Alan Ryan		
1.00	EQUIPMENT OPERATOR	Kevin Ryan		

INT



10502-BS  
KW

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

\$ 1,882.52

ONLY IF PAID ON OR BEFORE  
Jun 28, 2014

Subtotal	7,530.09
Sales Tax	299.61
Total Invoice Amount	7,829.70
Payment/Credit Applied	
<b>TOTAL</b>	<b>7,829.70</b>

DW



# ALLIED OIL & GAS SERVICES, LLC

16920  
063326  
528-9  
310

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:

*Dakley*

DATE <i>5/29/14</i>	SEC. <i>25</i>	TWP. <i>16</i>	RANGE <i>34</i>	CALLED OUT	ON LOCATION	JOB START <i>2:00 PM</i>	JOB FINISH <i>2:30 PM</i>
LEASE <i>Carson</i>	WELL # <i>3-25</i>	LOCATION <i>Ponce F. To Church 5 miles</i>			COUNTY <i>Scott</i>	STATE <i>KY</i>	
OLD OR NEW (Circle one) <i>NEW</i>			<i>WPTO</i>				

CONTRACTOR *Southwind 20*

TYPE OF JOB *Surface*

HOLE SIZE *10 1/4* T.D. *265'*

CASING SIZE *8 1/2* DEPTH *265'*

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. *15'*

PERFS.

DISPLACEMENT *15.93*

OWNER *Same*

CEMENT AMOUNT ORDERED *180 cu - 370cc*

*270 gal*

EQUIPMENT

PUMP TRUCK CEMENTER *Alan Ryan*

# *423-281* HELPER *Kevin Ryan*

BULK TRUCK

# *323* DRIVER *Travis (TWS)*

BULK TRUCK

# DRIVER

COMMON	<i>180</i>	@ <i>1.22</i>	<i>222.00</i>
POZMIX		@	
GEL	<i>3</i>	@ <i>23.40</i>	<i>70.20</i>
CHLORIDE	<i>6</i>	@ <i>64.00</i>	<i>384.00</i>
ASC		@	
Material Total			<i>360.00</i>
<i>(919.05 / 0.56)</i>			
HANDLING <i>194.64</i>			@ <i>2.48</i> <i>487.21</i>
MILEAGE <i>200</i>			@ <i>8.88</i> <i>1776.00</i>
TOTAL			<i>1099.21</i>

REMARKS:

*Dakley, Circulate, mix cement, Displace cement*

*Shut in*

*Cement did NOT Circulate*

*Thank You*

*Alan Ryan, Travis*

SERVICE

DEPTH OF JOB		
PUMP TRUCK CHARGE		<i>1570.00</i>
EXTRA FOOTAGE	@	
MILEAGE <i>45</i>	@ <i>7.20</i>	<i>324.00</i>
MANIFOLD	@	<i>225.00</i>
<i>4.5</i>	@ <i>41.40</i>	<i>188.30</i>
<i>(963.47 / 0.53)</i>		
TOTAL <i>3,853.00</i>		

CHARGE TO: *Shakespeare*

STREET

CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	
<i>(0.20)</i>		
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 *Alan Ryan*

SIGNATURE

SALES TAX (If Any)

TOTAL CHARGES *4,035.00*

DISCOUNT *1,882.50 (20%)* IF PAID IN 30 DAYS

*5,641.50 Net*



PO Box 93999  
Southlake, TX 76092

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

# INVOICE

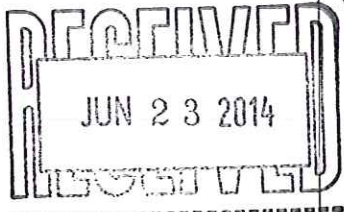
Invoice Number: 143790  
Invoice Date: Jun 9, 2014  
Page: 1

<b>Bill To:</b>
Shakespeare Oil Co., Inc. 202 West Main St. Salem, IL 62881

Customer ID	Field Ticket #	Payment Terms	
Shak	64009	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-02	Oakley	Jun 9, 2014	7/9/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	<u>Carson #3-25</u>		
310.00	CEMENT MATERIALS	Gel	1.05	325.50
165.00	CEMENT MATERIALS	ASC	23.50	3,877.50
858.00	CEMENT MATERIALS	Salt	0.68	583.44
825.00	CEMENT MATERIALS	Gilsonite	0.98	808.50
116.00	CEMENT MATERIALS	CD-31	7.73	896.68
25.00	CEMENT MATERIALS	PDGF	3.50	87.50
12.00	CEMENT MATERIALS	Super Flush	41.09	493.08
214.91	CEMENT SERVICE	Cubic Feet Charge	2.48	532.98
370.00	CEMENT SERVICE	Ton Mileage Charge	2.75	1,017.50
1.00	CEMENT SERVICE	Long String ✓	2,765.75	2,765.75
45.00	CEMENT SERVICE	Pump Truck Mileage	7.70	346.50
1.00	CEMENT SERVICE	Manifold Head Rotater Rental	475.00	475.00
45.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	198.00
1.00	EQUIPMENT OPERATOR	Paul Beaver		
1.00	EQUIPMENT OPERATOR	Tyler Flipse		

INT



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

\$ 3,101.98

ONLY IF PAID ON OR BEFORE Jul 9, 2014

Subtotal	12,407.93
Sales Tax	576.38
Total Invoice Amount	12,984.31
Payment/Credit Applied	
<b>TOTAL</b>	<b>12,984.31</b>

DW  
10502-5  
KW

# ALLIED OIL & GAS SERVICES, LLC 064009

Federal Tax I.D. # 20-8651475

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

SERVICE POINT: Oakley KS

DATE <u>6-9-14</u>	SEC <u>25</u>	TWP <u>16</u>	RANGE <u>34</u>	CALLED OUT	ON LOCATION <u>10:00 a.m.</u>	JOB START <u>1:00 p.m.</u>	JOB FINISH <u>2:00 p.m.</u>
LEASE <u>Carson</u>	WELL# <u>3-25</u>	LOCATION <u>Pence Eagle Rd 2.5</u>	COUNTY <u>Scott</u>	STATE <u>KS</u>			
OLD OR <u>(NEW)</u> (Circle one)		<u>E. into</u>					

CONTRACTOR Southwind 70  
 TYPE OF JOB Production (long string)  
 HOLE SIZE 7 7/8 T.D. 4870'  
 CASING SIZE 5 1/2 DEPTH 4864'  
 TUBING SIZE DEPTH  
 DRILL PIPE DEPTH  
 TOOL Port collar DEPTH 2403'  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT 42.13'  
 CEMENT LEFT IN CSG. 42.13'  
 PERFS.  
 DISPLACEMENT 114.76 bbl water  
 EQUIPMENT

OWNER Same  
 CEMENT  
 AMOUNT ORDERED 116.5 sks ASC 10% salt, 5 # gilsonite, 2% gel, 25 # CD-31, 15 # defoam, 5 # odgel, super flush  
 COMMON @  
 POZMIX @  
 GEL 310 # @ 1.05 325.50  
 CHLORIDE @  
 ASC 116.5 sks @ 23.50 3877.50  
 Salt 858 # @ .68 583.44  
 gilsonite 825 # @ .98 807.50  
 CD-31 116 # @ 7.73 896.68  
 PDGE 25 # @ 35.6 87.50  
 WEF-II 12 bbl @ 41.09 493.08  
Material total @ (4.262.01) 7062.20  
 HANDLING 214.91 ft<sup>3</sup> @ 2.48 532.98  
 MILEAGE 9.25 for 40 mi @ 2.75 1017.50  
 TOTAL

PUMP TRUCK CEMENTER Paul Beaver  
 # 120 HELPER Tyler Flipse  
 BULK TRUCK  
 # 1000 DRIVER Ramero (TWS)  
 BULK TRUCK  
 # DRIVER

**REMARKS:**

Break circ, drop ball, pumped ball through @ circ, run 12 bbl super flush, mix 70 sks in R.H, mix 135 sks ASC down casing, wash up pump + lines to pit, release plug displace w/ water, plug did land @ 1200' lift pressure 700 #, float did hold

Thank You!  
Towl + Tyler

CHARGE TO: Shakespeare  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**SERVICE**

DEPTH OF JOB 4864'  
 PUMP TRUCK CHARGE 2765.75  
 EXTRA FOOTAGE @  
 MILEAGE MLHV 45 @ 7.70 308.00  
 MANIFOLD Head/total @ 4.75 475.00  
 MLV 45 @ 4.40 198.00  
 TOTAL (1,327.30/25%) 5097.23

**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 \_\_\_\_\_  
 SIGNATURE Paul Beaver

SALES TAX (If Any) \_\_\_\_\_  
 TOTAL CHARGES 12,369.93  
 DISCOUNT 3092.30 (25%) IF PAID IN 30 DAYS  
9,277.07 Net



PO Box 93999  
Southlake, TX 76092

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

# INVOICE

Invoice Number: 144090

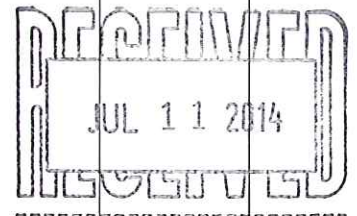
Invoice Date: Jun 24, 2014

Page: 1

<b>Bill To:</b>
Shakespeare Oil Co., Inc. 202 West Main St. Salem, IL 62881

Customer ID	Field Ticket #	Payment Terms	
Shak	64035	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-04	Oakley	Jun 24, 2014	7/24/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	<u>Carson #3-25</u>		
350.00	CEMENT MATERIALS	Light Weight Type 1	19.88	6,958.00
88.00	CEMENT MATERIALS	Flo Seal	2.97	261.36
300.00	CEMENT MATERIALS	Cottonseed Hulls	0.99	297.00
585.67	CEMENT SERVICE	Cubic Feet Charge	2.48	1,452.46
1,081.34	CEMENT SERVICE	Ton Mileage Charge	2.75	2,973.69
1.00	CEMENT SERVICE	Port Collar ✓	2,483.59	2,483.59
45.00	CEMENT SERVICE	Pump Truck Mileage	7.70	346.50
1.00	CEMENT SERVICE	Manifold Head Rental	275.00	275.00
45.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	198.00
1.00	CEMENT SUPERVISOR	LaRene Wentz		
1.00	EQUIPMENT OPERATOR	Wayne McGhghy		



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

\$ 3,811.40 ✓

ONLY IF PAID ON OR BEFORE

Jul 24, 2014

Subtotal	15,245.60
Sales Tax	612.58
Total Invoice Amount	15,858.18
Payment/Credit Applied	
<b>TOTAL</b>	<b>15,858.18</b>

DW

10502-5  
Kw

# ALLIED OIL & GAS SERVICES, LLC 064035

Federal Tax I.D. # 20-8651475

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

SERVICE POINT  
Dakota, KS

DATE <u>6-24-14</u>	SEC. <u>25</u>	TWP. <u>16</u>	RANGE <u>34</u>	CALLED OUT	ON LOCATION <u>11:00 am</u>	JOB START <u>12:00 pm</u>	JOB FINISH <u>7:00 pm</u>
LEASE <u>Carron</u>	WELL # <u>3-25</u>	LOCATION <u>Pence 22, 1425,</u>	COUNTY <u>Scott</u>	STATE <u>KS</u>			
OLD OR NEW (Circle one) <u>NEW</u>				<u>Emite</u>			

CONTRACTOR <u>Wild West</u>	OWNER <u>Same.</u>
TYPE OF JOB <u>Port Collar</u>	
HOLE SIZE _____ T.D. _____	CEMENT _____
CASING SIZE <u>3 1/2</u> DEPTH _____	AMOUNT ORDERED <u>500 # 65/35 8' 2" gel</u>
TUBING SIZE <u>2 7/8</u> DEPTH <u>2403'</u>	<u>1/2" # 4 flo-seal</u>
DRILL PIPE _____ DEPTH _____	<u>1000 # cotton seed hulls</u>
TOOL <u>Port Collar</u> DEPTH <u>2403'</u>	
PRES. MAX _____ MINIMUM _____	COMMON _____ @ _____
MEAS. LINE _____ SHOE JOINT _____	POZMIX _____ @ _____
CEMENT LEFT IN CSG. _____	GEL _____ @ _____
PERFS. _____	CHLORIDE _____ @ _____
DISPLACEMENT <u>12.5 bbl</u>	ASC _____ @ _____
EQUIPMENT _____	<u>ALW type I 3505 @ 19.88 6958.00</u>
PUMP TRUCK CEMENTER <u>Lakone E. White</u>	<u>Plas col 88 @ 2.77 241.36</u>
# <u>422</u> HELPER <u>Wayne Mc Ghighy</u>	<u>Cotton seed hulls 200 @ .99 198.00</u>
BULK TRUCK # <u>818/287</u> DRIVER <u>Erinna Turner (TW)</u>	<u>Material total @ 2516.36</u>
BULK TRUCK # _____ DRIVER _____	<u>HANDLING 583.67 @ 2.48 1427.46</u>
	<u>MILEAGE 2403 pm x 95 x 2.75 6107.21</u>
	<u>(1877.09 / 25%) TOTAL _____</u>

REMARKS:  
Test port collar 1200 # open port collar  
mix 3505 fl cement w/ fls.  
Displace with water. Close port  
collar & test 1200#. Repair in 4.5 hrs  
Reverse clean cement did circulate

Thank you.

SERVICE	
DEPTH OF JOB <u>2403'</u>	
PUMP TRUCK CHARGE _____	<u>2483.39</u>
EXTRA FOOTAGE _____ @ _____	
MILEAGE <u>MFW 45</u> @ <u>7.70</u>	<u>346.50</u>
MANIFOLD <u>Head</u> @ _____	<u>275.00</u>
<u>MFW 45</u> @ <u>4.40</u>	<u>198.00</u>
	<u>(1,232.89 / 25%) TOTAL 7,187.26</u>

CHARGE TO: Shakespeare 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 \_\_\_\_\_

SIGNATURE [Signature]

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

TOTAL CHARGES 11,437.61

DISCOUNT 3,011.40 (25%) IF PAID IN 30 DAYS

11,437.61 / 100



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Shakespeare Oil Company, Inc.

**25-16s-34w Scott Co, KS**

202 W Main ST  
Salem IL, 62881-1519

**Carson #3-25**

Job Ticket: 57015

**DST#: 1**

ATTN: Wes Hanson

Test Start: 2014.06.05 @ 13:30:00

## GENERAL INFORMATION:

Formation: **Marmaton "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:18:15

Time Test Ended: 21:54:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Jace McKinney

Unit No: 75

**Interval: 4420.00 ft (KB) To 4470.00 ft (KB) (TVD)**

Reference Elevations: 3114.00 ft (KB)

Total Depth: 4470.00 ft (KB) (TVD)

3104.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

**Serial #: 8675 Inside**

Press @ Run Depth: 63.69 psig @ 4430.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.05

End Date: 2014.06.05

Last Calib.: 2014.06.05

Start Time: 13:30:15

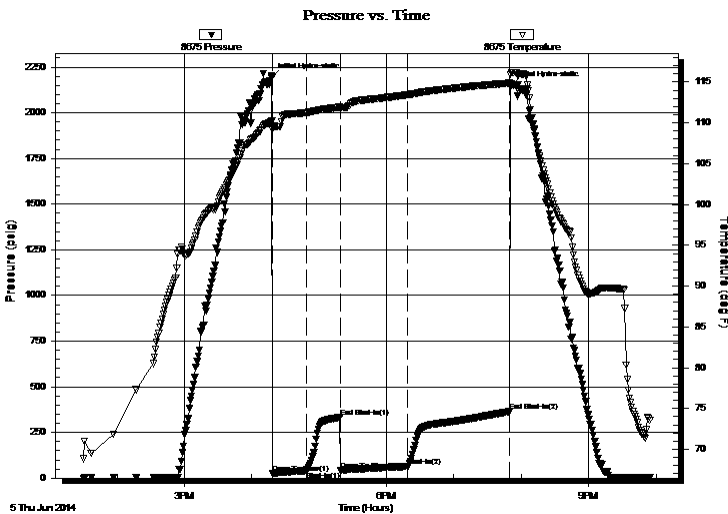
End Time: 21:54:15

Time On Btm: 2014.06.05 @ 16:17:45

Time Off Btm: 2014.06.05 @ 19:51:00

**TEST COMMENT:** Built to 7" blow  
Bled off for 5 min. No return blow  
B.O.B. in 37 min.  
Bled off for 5 min. Built to 1/2" return, died in 75 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2192.88	110.22	Initial Hydro-static
1	24.49	109.16	Open To Flow (1)
31	39.51	111.25	Shut-In(1)
61	334.52	111.94	End Shut-In(1)
62	42.32	111.82	Open To Flow (2)
121	63.69	113.43	Shut-In(2)
212	364.56	114.87	End Shut-In(2)
214	2150.41	116.14	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	388 Feet Weak Gas In Pipe	0.00
55.00	mco 30%M 70%O	0.77
63.00	gcom 10%G 30%O 60%M	0.88

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Company, Inc.

**25-16s-34w Scott Co, KS**

202 W Main ST  
Salem IL, 62881-1519

**Carson #3-25**

Job Ticket: 57015

**DST#: 1**

ATTN: Wes Hanson

Test Start: 2014.06.05 @ 13:30:00

## 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:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
0.00	388 Feet Weak Gas In Pipe	0.000
55.00	mco 30%M 70%O	0.772
63.00	gcom 10%G 30%O 60%M	0.884

Total Length: 118.00 ft      Total Volume: 1.656 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API 27 @ 70 F = 26

Serial #: 8675

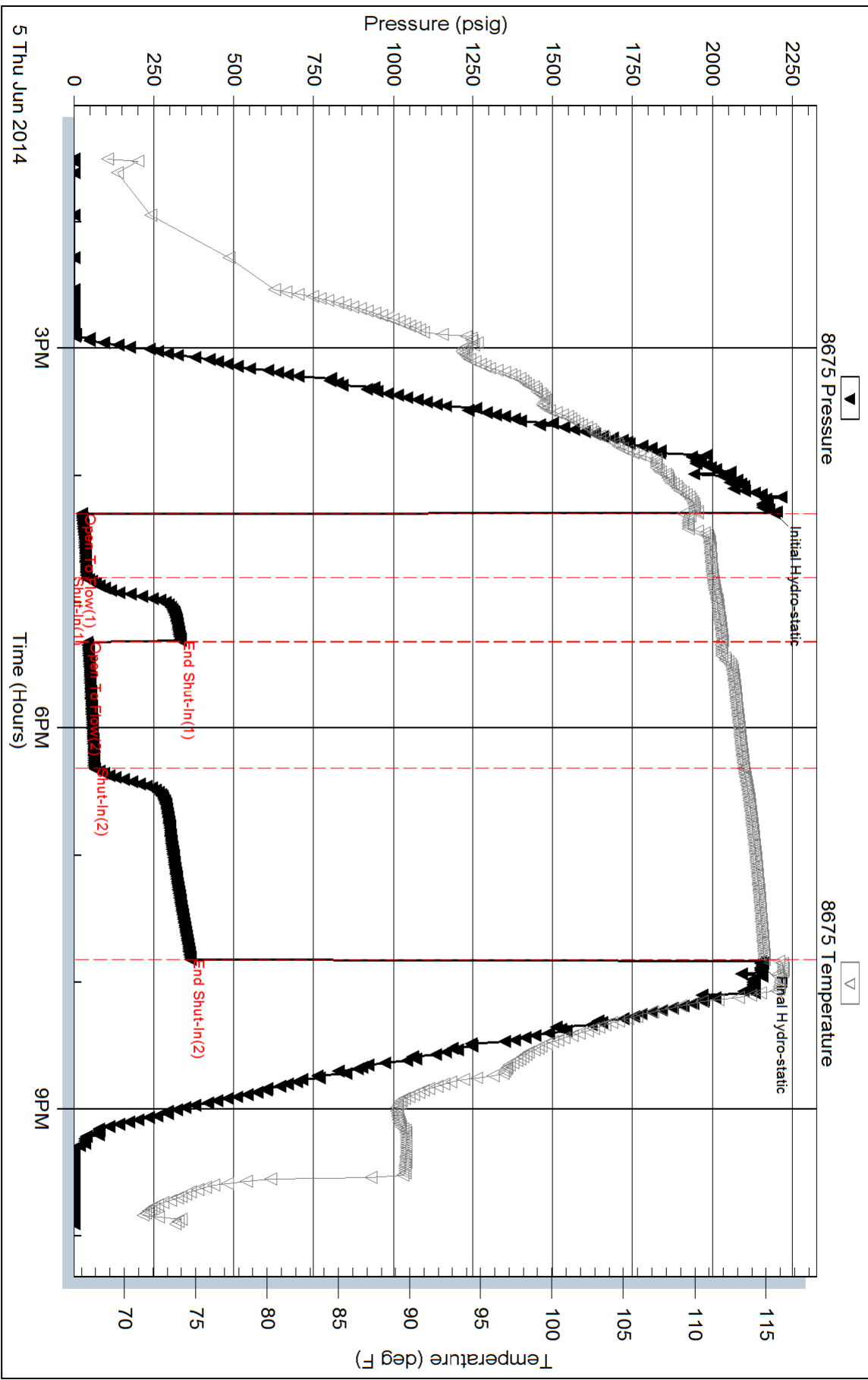
Inside

Shakespeare Oil Company, Inc.

Carson #3-25

DST Test Number: 1

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 57015

Printed: 2014.06.05 @ 22:58:47





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Shakespeare Oil Company, Inc.

**25-16s-34w Scott Co, KS**

202 W Main ST  
Salem IL, 62881-1519

**Carson #3-25**

Job Ticket: 57016

**DST#: 2**

ATTN: Wes Hanson

Test Start: 2014.06.06 @ 17:10:00

## GENERAL INFORMATION:

Formation: **Myrick Station/Fort**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 19:18:45

Time Test Ended: 23:09:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Justin Harris

Unit No: 75

**Interval: 4552.00 ft (KB) To 4610.00 ft (KB) (TVD)**

Reference Elevations: 3114.00 ft (KB)

Total Depth: 4610.00 ft (KB) (TVD)

3104.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

**Serial #: 8675**

**Inside**

Press @ Run Depth: 26.80 psig @ 4574.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.06

End Date:

2014.06.06

Last Calib.:

2014.06.06

Start Time: 17:10:15

End Time:

23:09:00

Time On Btm:

2014.06.06 @ 19:18:30

Time Off Btm:

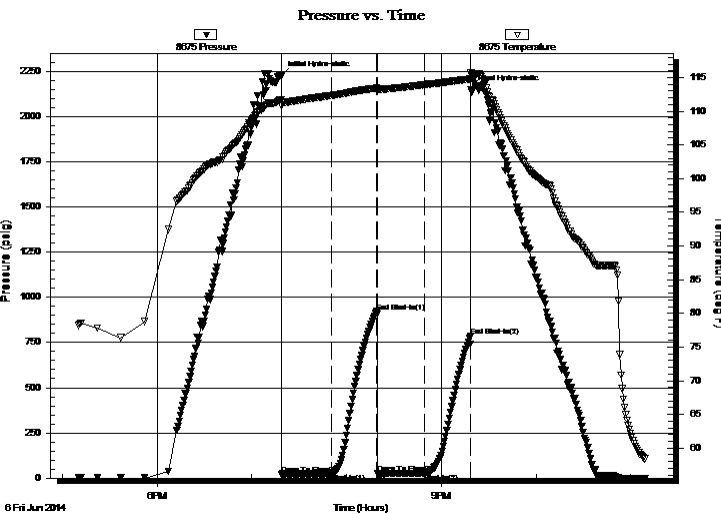
2014.06.06 @ 21:18:45

TEST COMMENT: 30: Weak surface blow died in 5 mins.

30: No Return.

30: No Blow .

30: No Return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2223.16	111.69	Initial Hydro-static
1	21.01	110.73	Open To Flow (1)
32	24.87	112.32	Shut-In(1)
61	921.46	113.41	End Shut-In(1)
61	24.10	112.98	Open To Flow (2)
91	26.80	113.93	Shut-In(2)
120	782.51	114.77	End Shut-In(2)
121	2145.65	115.76	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.07

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Company, Inc.

**25-16s-34w Scott Co, KS**

202 W Main ST  
Salem IL, 62881-1519

**Carson #3-25**

Job Ticket: 57016

**DST#: 2**

ATTN: Wes Hanson

Test Start: 2014.06.06 @ 17:10:00

## 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: 44.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 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 100%m	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

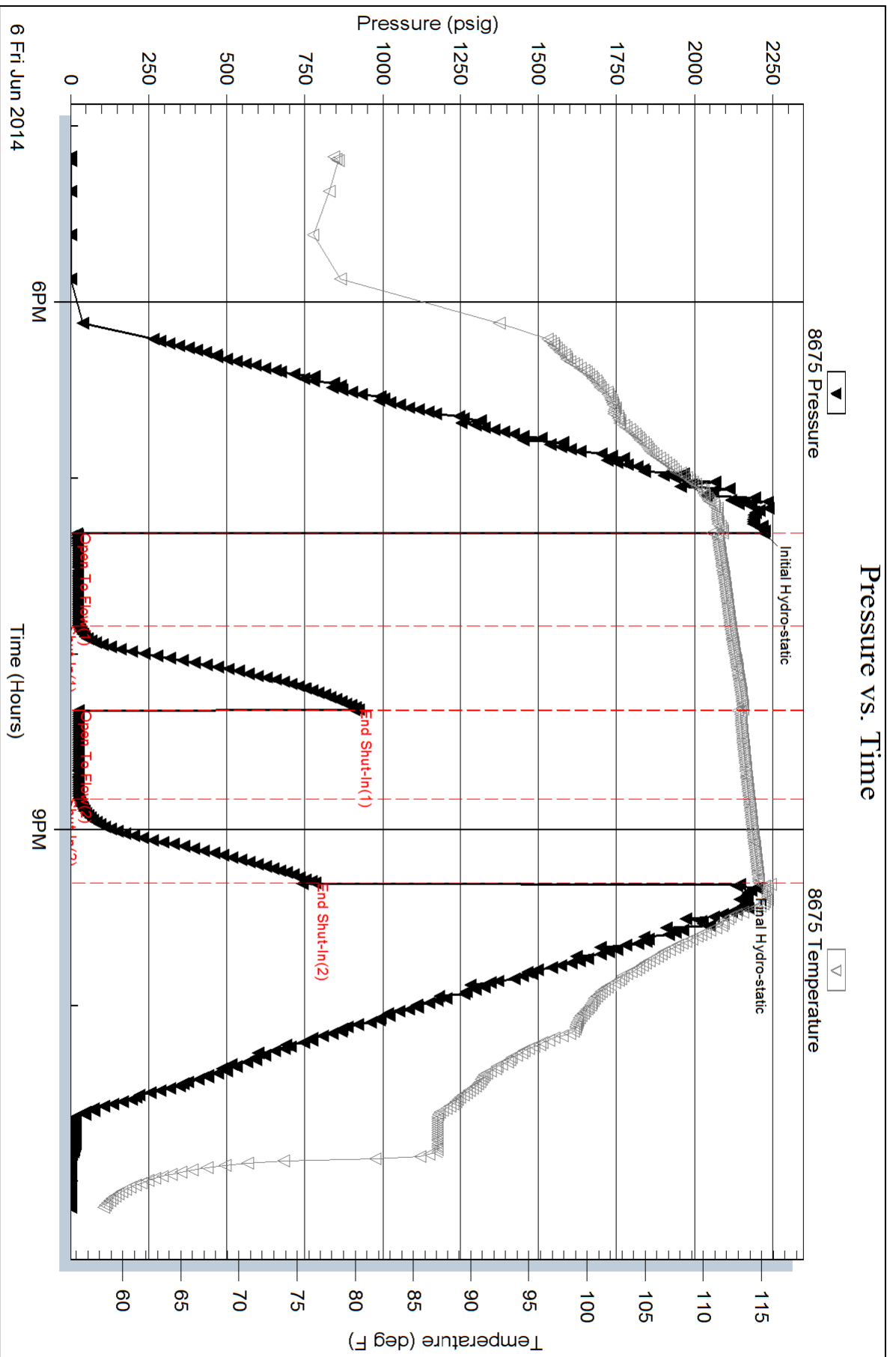
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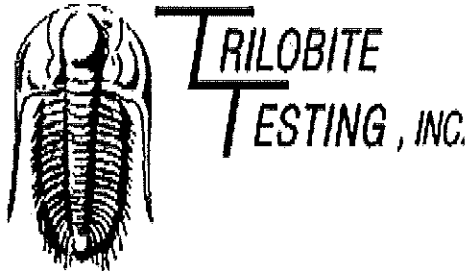
Inside

Shakespeare Oil Company, Inc.

Carson #3-25

DST Test Number: 2





## DRILL STEM TEST REPORT

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

202 W Main St  
Salem IL 62881-1519

ATTN: Wes Hanson

**Carson #3-25**

**25-16s-34w Scott,KS**

Start Date: 2014.06.07 @ 14:05:00

End Date: 2014.06.07 @ 20:24:15

Job Ticket #: 57017                      DST #: 3

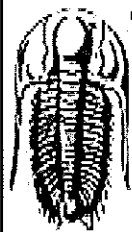
Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.06.10 @ 08:41:07

Shakespeare Oil Company, Inc. 25-16s-34w Scott,KS Carson #3-25 DST # 3 Johnson 2014.06.07



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Shakespeare Oil Company, Inc.

25-16s-34w Scott, KS

202 W Main St  
Salem IL 62881-1519

Carson #3-25

Job Ticket: 57017

DST#: 3

ATTN: Wes Hanson

Test Start: 2014.06.07 @ 14:05:00

### GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:31:15

Time Test Ended: 20:24:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4640.00 ft (KB) To 4720.00 ft (KB) (TVD)

Total Depth: 4720.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 3114.00 ft (KB)

3104.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8650

Outside

Press@RunDepth: 38.93 psig @ 4654.00 ft (KB)

Start Date: 2014.06.07

End Date:

2014.06.07

Capacity: 8000.00 psig

Last Calib.: 2014.06.07

Start Time: 14:05:15

End Time:

20:24:15

Time On Btm: 2014.06.07 @ 16:31:00

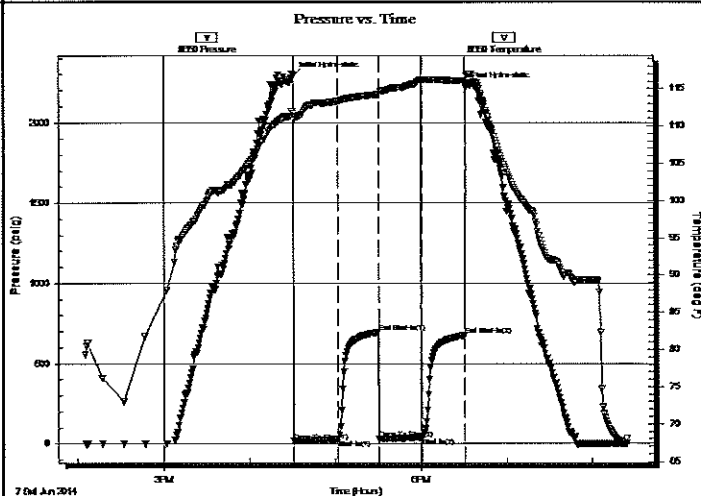
Time Off Btm: 2014.06.07 @ 18:31:15

TEST COMMENT: 30: Weak surface blow to 1".

30: No Return.

30: No Blow.

30: No Return.



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2292.47	111.65	Initial Hydro-static
1	17.11	110.82	Open To Flow (1)
31	28.32	113.32	Shut-In(1)
60	694.85	114.21	End Shut-In(1)
60	29.49	114.16	Open To Flow (2)
90	38.93	116.19	Shut-In(2)
120	675.16	116.08	End Shut-In(2)
121	2221.27	116.72	Final Hydro-static

### Recovery

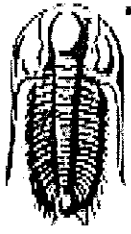
Length (ft)	Description	Volume (bbl)
50.00	mud 100% m	0.70

\* Recovery from multiple tests

### Gas Rates

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





**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Shakespeare Oil Company, Inc.

25-16s-34w Scott, KS

202 W Main St  
Salem IL 62881-1519

Carson #3-25

Job Ticket: 57017

DST#: 3

ATTN: Wes Hanson

Test Start: 2014.06.07 @ 14:05:00

### Tool Information

Drill Pipe:	Length: 4632.50 ft	Diameter: 3.80 inches	Volume: 64.98 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 64.98 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4640.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.00 ft			
Tool Length:	107.50 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			4613.50	
Shut In Tool	5.00			4618.50	
Hydraulic tool	5.00			4623.50	
Jars	5.00			4628.50	
Safety Joint	2.50			4631.00	
Packer	5.00			4636.00	27.50 Bottom Of Top Packer
Packer	4.00			4640.00	
Stubb	1.00			4641.00	
Perforations	12.00			4653.00	
Change Over Sub	1.00			4654.00	
Recorder	0.00	8675	Inside	4654.00	
Recorder	0.00	8650	Outside	4654.00	
Drill Pipe	62.00			4716.00	
Change Over Sub	1.00			4717.00	
Bullnose	3.00			4720.00	80.00 Bottom Packers & Anchor

**Total Tool Length: 107.50**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Company, Inc.

**25-16s-34w Scott,KS**

202 W Main St  
Salem IL 62881-1519

**Carson #3-25**

Job Ticket: 57017

DST#: 3

ATTN: Wes Hanson

Test Start: 2014.06.07 @ 14:05:00

### 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: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.59 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6500.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	mud 100%m	0.701

Total Length: 50.00 ft      Total Volume: 0.701 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:



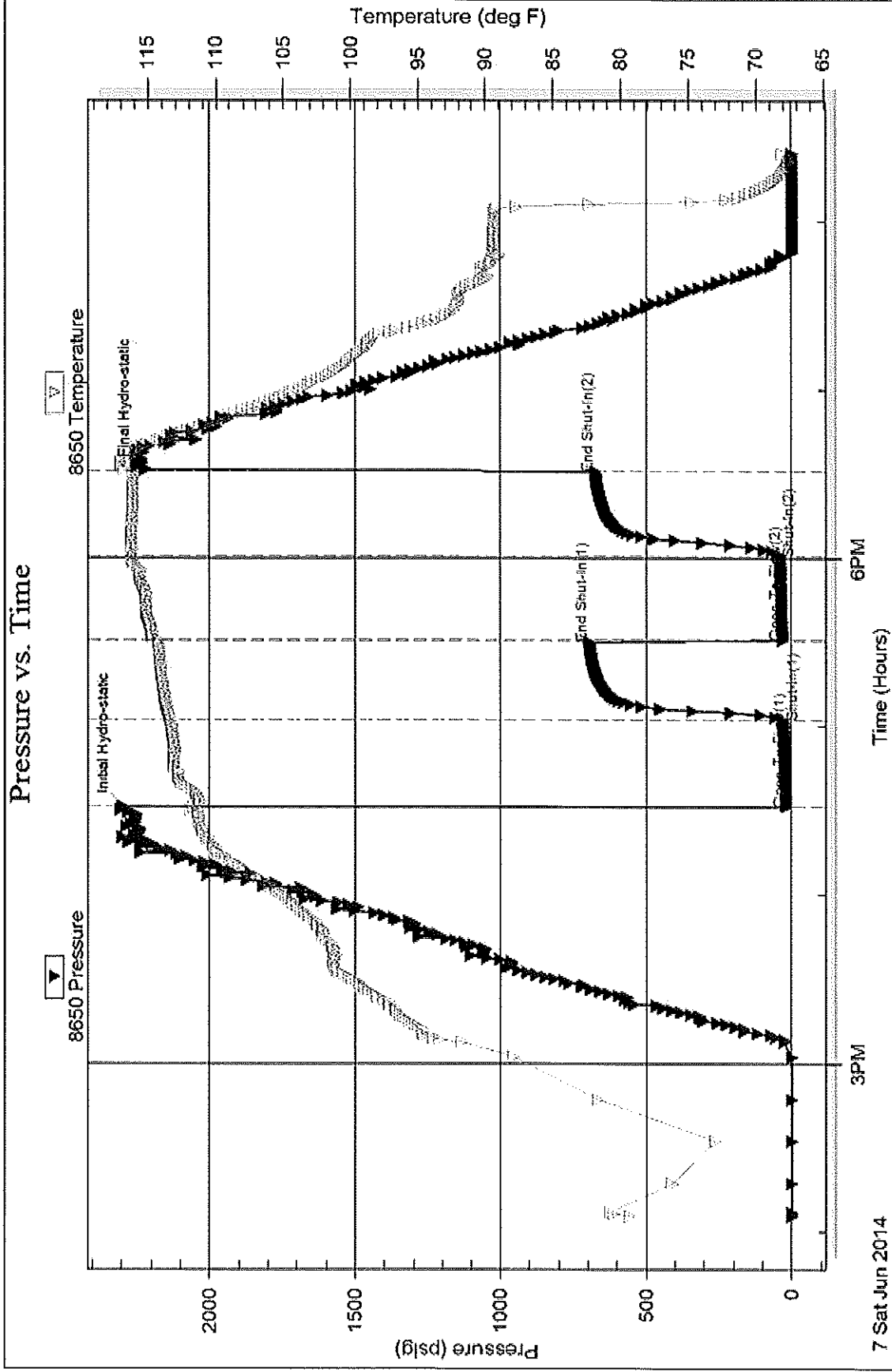
Serial #: 8650

Outside Shakespeare Oil Company, Inc.

Carson #3-25

CST Test Number: 3

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 57017

Printed: 2014.06.10 @ 08:41:06

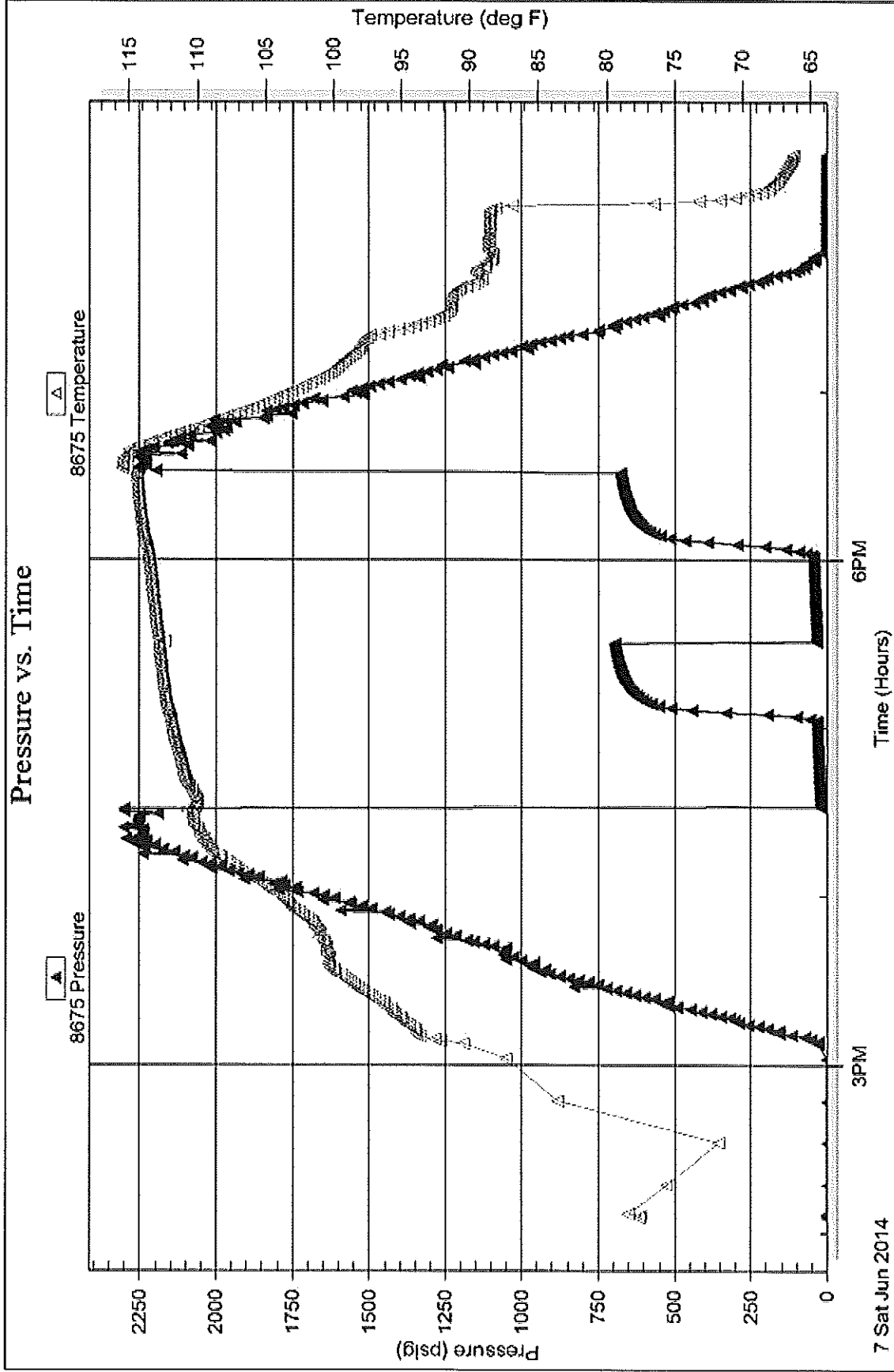
Serial #: 8675

Inside

Shakespeare Oil Company, Inc.

Carson #3-25

CST Test Number: 3

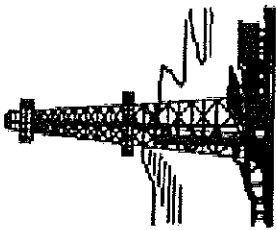


7 Sat Jun 2014

Tribbitt Testing, Inc

Ref. No: 57017

Printed: 2014.06.10 @ 08:41:08



**WESLEY D. HANSEN Consulting Petroleum Geologist**

212 N. Market, Suite 257, Wichita, KS 67202  
Office: 316-267-7313 Cellular ; 316-772-6188

**KGS**  
**AAPG**  
Kansas License #418

## LITHOLOGY STRIP LOG

### WellSight Systems

Scale 1:240 (5"=100') Imperial  
Measured Depth Log

Well Name: Shakespeare Oil Company, Inc. #3-25 Carson  
Location: 1000' FSL, 1600' FWL SW/4, Sec. 25-16S-34W  
License Number: API #15-171-21064  
Spud Date: 5-29-2014  
Surface Coordinates: 1000' FSL, 1600' FWL SW/4, Sec. 25-16S-34W

Region: Scott County, KS  
Drilling Completed: 6-8-2014

Bottom Hole Coordinates: Vertical hole

Ground Elevation (ft): 3102'      K.B. Elevation (ft): 3114'  
Logged Interval (ft): 3800'      To: RTD      Total Depth (ft): 4870'  
Formation: Mississippian at RTD  
Type of Drilling Fluid: Chemical - Displaced at 3504' -3536'

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

### OPERATOR

Company: Shakespeare Oil Company, Inc.  
Address: 202 West Main Street  
Salem, IL 62881

**GEOLOGIST**

Name: Wesley D. Hansen  
Company: Wesley D. Hansen - Consulting Petroleum Geologist  
Address: 212 N. Market, Suite 257  
Wichita, KS 67202  
Office: 316-263-7313 Cellular: 316-772-6188

**COMMENTS**

Contractor: Southwind Drilling Rig #70  
Pusher: Sam Staggs  
Surface Casing: 8 5/8" set at 266' w/180 sx  
Production Casing: 5 1/2" set at 4865' w/135 sx  
Mud by: MudCo - Reid Atkins and Terry Ison were the engineers.  
DST's by: Trilobite - Jace McKinney and Justin Harris were the testers.  
Logs by: Weatherford - MAI/MFE, MPD/MDN, MML, Sonic  
Deviation Surveys: 3/4 deg. @ 266'; 1 1/2 deg. @ 4470'; 2 deg. @ 4870'

**BIT RECORD**

Bit #	Size	MFG	Type	Depth Out	Footage Cut	Hours on bit
1	12 1/4"	Reed	rerun	266'	266'	2 1/2
2	7 7/8"	Reed	S52	4870'	4604'	129 3/4

**FORMATION TOPS AND STRUCTURAL COMPARISON**

FORMATION	SAMPLE TOPS Depth Datum 3114' KB	LOG TOPS Depth Datum 3114' KB	COMPARISON WELL SOCO Carson #2-25 3112' KB 1230' FSL, 435' FWL of 25-16-34W	
B/Anhydrite Heebner	2455' 3984'	+659 -870	2446' 3970'	+666 -858

B/Anhydrite	2455'	+659	2454'	+664	2446'	+666
Heebner	3984'	-870	3984'	-870	3970'	-858
Toronto	4000'	-886	4002'	-888	3986'	-874
Lansing	4027'	-913	4025'	-911	4008'	-896
Muncie Creek Shale	4211'	-1097	4210'	-1096	4194'	-1082
Stark Shale	4307'	-1193	4308'	-1194	4292'	-1180
Hushpuckney Shale	4353'	-1239	4354'	-1240	4338'	-1226
BKC	4390'	-1276	4394'	-1280	4376'	-1264
Marmaton	4450'	-1336	4448'	-1334	4430'	-1318
Pawnee	4532'	-1418	4530'	-1416	4512'	-1400
Myrick Station	4570'	-1456	4566'	-1452	4546'	-1434
Fort Scott	4584'	-1470	4584'	-1470	4565'	-1453
Lower Cherokee Sh.	4614'	-1500	4612'	-1498	4591'	-1479
Johnson Zone	4661'	-1547	4656'	-1542	4638'	-1526
Morrow Shale	4740'	-1626	4732'	-1618	4711'	-1599
Mississippian	4781'	-1667	4779'	-1665	4772'	-1660
RTD	4870'	-1756	4869'	-1755		
LTD						

## DRILL STEM TESTS

DST No. 1 Marmaton  
Interval: 4420'-4450'  
Times: 30-30-60-90

Recovery: 388' weak GIP; 55' MCO (30m, 70o);

63' G&OCM (10g, 30o, 60m)

FP: 24-40/42-64 SIP: 335-365

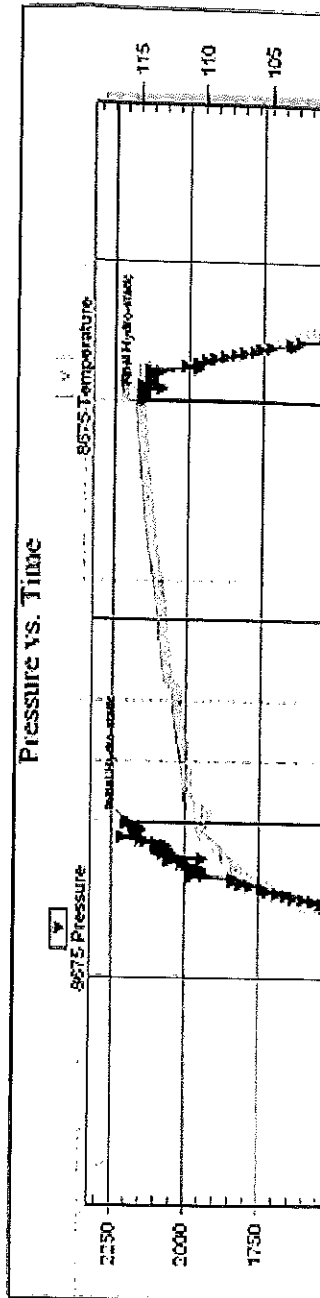
HP: 2193-2150 BHT: 115 deg. F

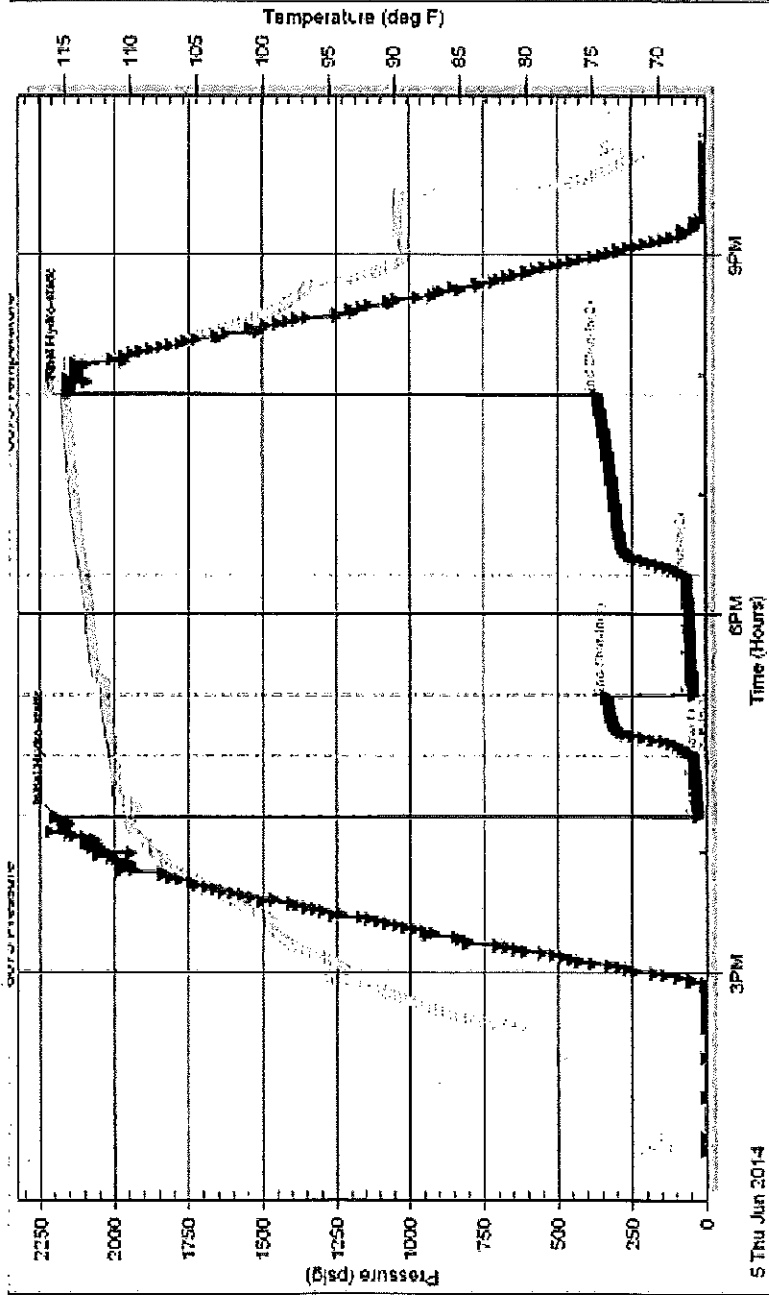
IFP: weak blow built to 7 inches  
ISIP: no return blow  
FFP: weak blow built to B.O.B. in 37 minutes  
FSIP: weak return blow built to 1/2 inch, died in 75 minutes

Serial #: 8675 Inside Shalespear Oil Company, Inc.

Carson 40-25

DST Test Number: 1





Printed: 2014.06.05 @ 21:03:14

Ref. No: 57015

Tribble Testing, Inc

## DRILL STEM TESTS

DST No. 2 Myrick Station/Fort Scott  
 Interval: 4552'-4610'  
 Times: 30-30-30-30  
 Recovery: 5' mud  
 FP: 21-25/24-27 SIP: 921-782  
 HP: 2223-2146 BHT: 115 deg. F

IFP: weak surface blow, died in 5 minutes  
 ISIP: no return blow  
 FFP: no blow  
 FSIP: no return blow

DST Test Number: 2

Corson #0-25

Shakespeare Oil Company, Inc.

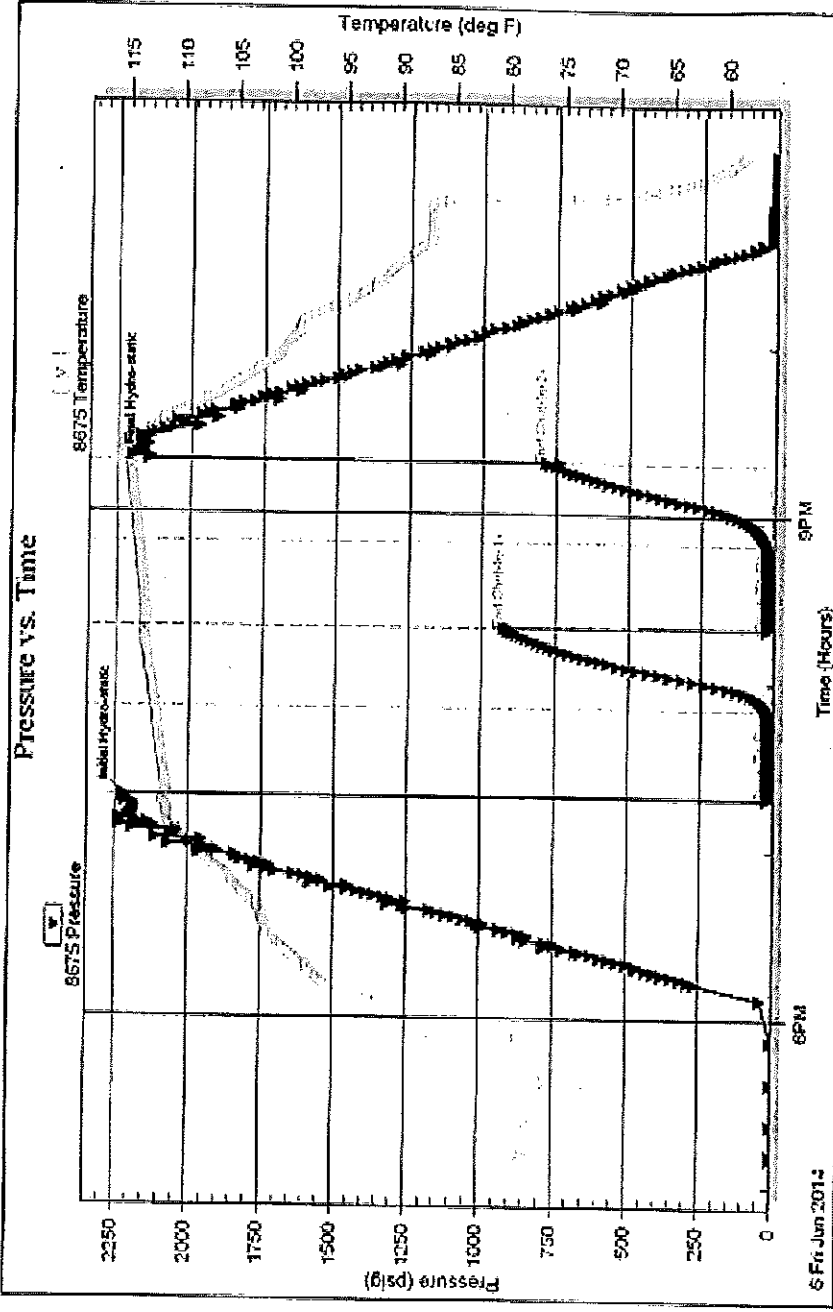
Inside

Serial #: 8675

Pressure vs. Time

HP: 2223-2146 BHT: 115 deg. F

Serial #: 8675    Inside    Shattuck Oil Company, Inc.    Carson # 25    DST Test Number: 2



Therco Testing, Inc.

Ref. No: 57016

Printed: 2014.06.06 @ 22:17:09

## DRILL STEM TESTS

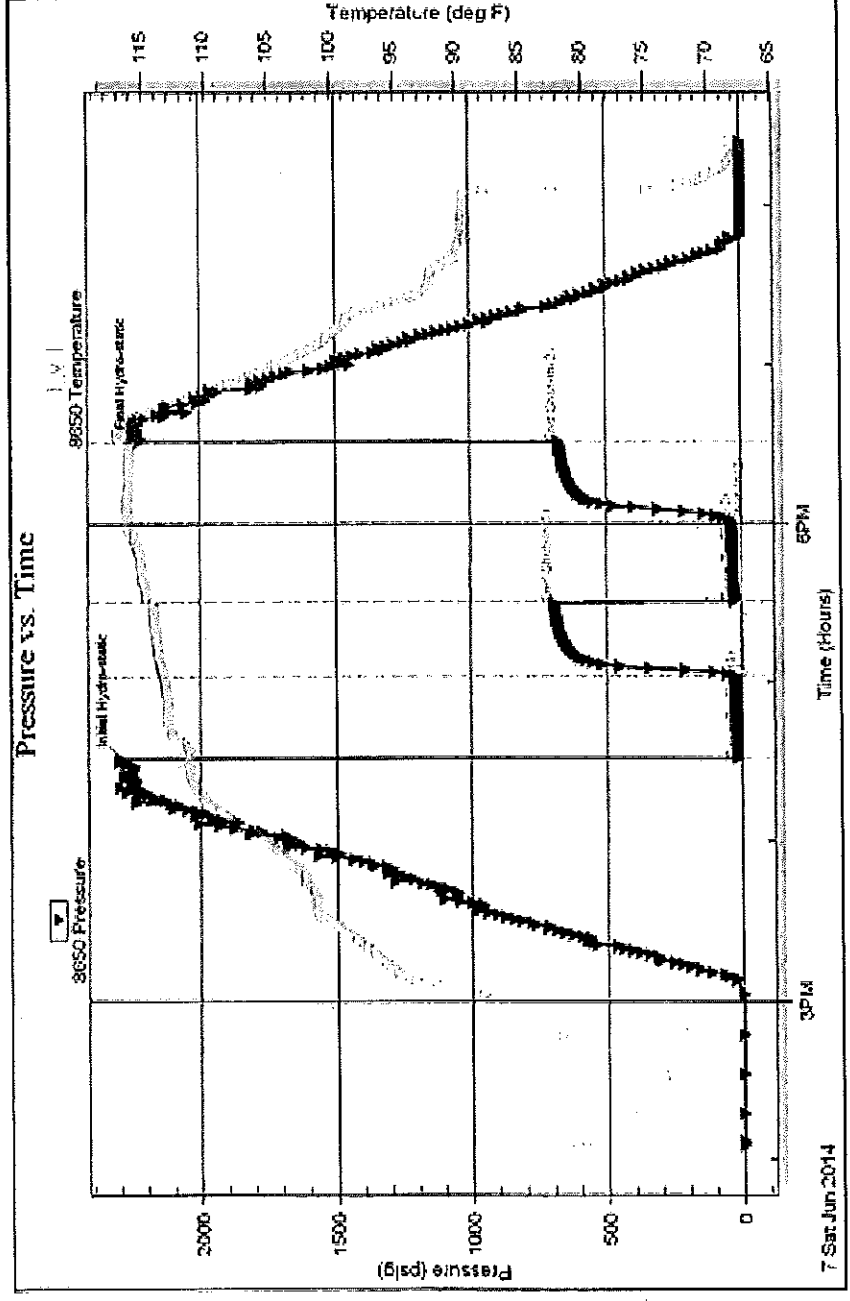
DST No. 3 Johnson Zone  
Interval: 4640'-4720'  
Times: 30-30-30-30  
Recovery: 50' mud, no shows  
FP: 17-28/29-39 SIP: 695-675  
HP: 2292-2221 BHT: 116 deg. F

IFP: weak surface blow built to 1 inch  
ISIP: no return blow  
FFP: no blow  
FSIP: no return blow

Times: 30-30-30-30  
 Recovery: 50' mud, no shows  
 FP: 17-28/29-39 SIP: 695-675  
 HP: 2292-2221 BHT: 116 deg. F

FFP: no blow  
 FSIP: no return blow

Serial #: 8650    Outside    Shakespear Oil Company, Inc.    Carson 40-25    DST Test Number: 3



Printed: 2014.06.07 @ 15:37:16

Ref. No: 57017

Tribble Testing, Inc

ROCK TYPES

- |  |       |  |             |  |                |
|--|-------|--|-------------|--|----------------|
|  | Anhy  |  | Salt        |  | Shlysts        |
|  | Cht   |  | green shale |  | Slysh          |
|  | Coal  |  | Shale       |  | Sdy dolo       |
|  | Congl |  | Shcol       |  | Shy dolo       |
|  | Dol   |  | Sltst       |  | Shaly ls       |
|  |       |  | Dol         |  | light dolomite |
|  |       |  | Dtd         |  |                |
|  |       |  | Gry sh      |  |                |
|  |       |  | Sandy/lms   |  |                |
|  |       |  | redshale    |  |                |
|  |       |  | Shale       |  |                |



**FOSSIL**

Cht  
 Coal  
 Congl  
 Dol  
 Gyp  
 Lmst

**green shale**

Shale  
 Shcol  
 Sltst  
 Ss  
 Carb sh

**STRINGER**

Sltsh  
 Sdy dolo  
 Shy dolo  
 Shaly ls  
 light dolomite

**ACCESSORIES**

Glau  
 Gyp  
 Hvymin  
 Kaol  
 Marl  
 Minxl  
 Nodule  
 Phos  
 Pyr  
 Salt  
 Sandy  
 Silt  
 Sil  
 Sulphur  
 Tuff  
 Chlorite  
 Dol  
 Sand  
 Sity

**MINERAL**

Anhy  
 Arggrn  
 Arg  
 Bent  
 Bit  
 Breclrag  
 Calc  
 Carb  
 Chtdk  
 Chlft  
 Dol  
 Feldspar  
 Ferrpel  
 Ferr

**Plant**

Strom  
 Fuss  
 Oomold

**FOSSIL**

Algae  
 Amph  
 Belm  
 Bioclist  
 Brach  
 Bryozoa  
 Cephal  
 Coral  
 Crin  
 Echin  
 Fish  
 Foram  
 Fossil  
 Gastro  
 Oolite  
 Ostra  
 Pelec  
 Pellet  
 Pisolite

**STRINGER**

Anhy  
 Arg  
 Bent  
 Coal  
 Dol  
 Gyp  
 Ls  
 Mrst  
 Sltstrg  
 Ssstrg  
 Carbsh  
 Clystrn  
 Dol  
 Grysh  
 Gryslt  
 Lms  
 Sandy lms  
 Sh  
 Sltstrn

**OTHER SYMBOLS**

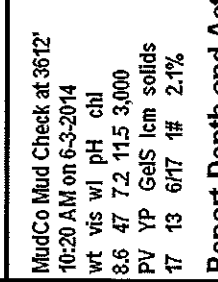
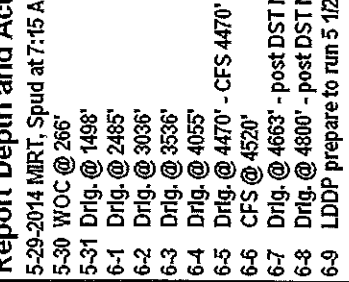

**INTERVALS**  
 Core  
 Dst  
 Dst

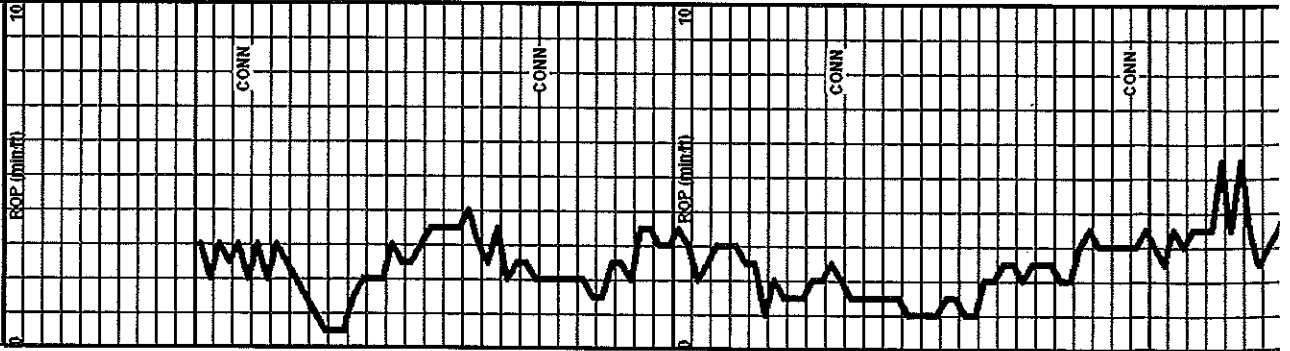
**EVENTS**  
 Rft  
 Dst top/base

**OIL SHOWS**  
 Even  
 Spotted  
 Quest.

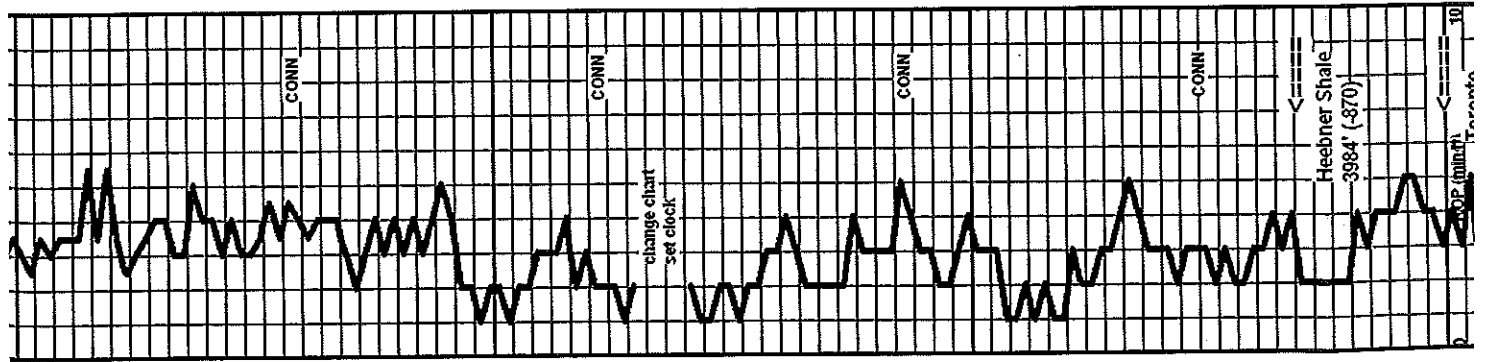
Trace  
 Dead  
 Gas show

Curve Track 1 ROP (min/ft)	Depth	Lithology	Geological Descriptions	Remarks
-------------------------------	-------	-----------	-------------------------	---------

Depth	Lithology	Geological Descriptions	Remarks
3750		<p>10' spl - Ls: offwhite, tan, lt brn mic-fxln, some pp por.; some offwhite subchally and lt to med brn v/cryoxlin, dense, NVP, N.S.; Silt: med to dark gray, some black</p> <p>20' spl - Ls: influx lt gray, lt brn fn granular, poor-NVP, N.S.; Some shales A.A</p> <p>30' spl - Ls: lt gray, tan, lt brn fn granular, some pp por.; scant, offwhite subchally to chalky; other lt brn, lt gray mic-vfxln dense</p> <p>40' spl - Ls: predom. lt to med brn fn granular, poor-NVP; other tan, offwhite mic-vfxln dense; Silt: some dark gray to black</p> <p>50' spl - Ls: flood tan, offwhite mic-vfxln dense, subchally IP; common white chalky; tan, lt brn fn granular with some inter-particle por., N.S.</p> <p>60' spl - Ls: tan, lt brn, lt gray vfxln, poor-NVP, N.S.; common white chalky</p> <p>70' spl - Ls: influx of mottled lt brn fn granular, foss. IP, poor-NVP, N.S.</p>	<p>MudCo Mud Check at 3612' 10:20 AM on 6-3-2014 wt vis w/ pH chl 8.6 47 7.2 11.5 3,000 PV YP Gels lcm solids 17 13 6/17 1# 2.1%</p> <p><b>Report Depth and Activity</b> 5-29-2014 MRT, Spud at 7:15 AM 5-30 WOC @ 266' 5-31 Drig. @ 1498' 6-1 Drig. @ 2485' 6-2 Drig. @ 3036' 6-3 Drig. @ 3536' 6-4 Drig. @ 4055' 6-5 Drig. @ 4470' - CFS 4470' DST No. 1 6-6 CFS @ 4520' 6-7 Drig. @ 4663' - post DST No. 2 6-8 Drig. @ 4800' - post DST No. 3 6-9 LDDP prepare to run 5 1/2" casing</p> <p>Start 10' samples at 3800'</p>
3800			
3850			



68005 10



Common white chalky

70' spl - Ls: influx sl mottled lt brn fn granular, foss. IP, poor-NVP, N.S.

80' spl - Sh: sl influx black carbon.; Ls: AA with lt gray, tan vrxn dense

90' spl - Ls: predom. tan, lt brn mxn with poor-NVP; scatt. lt gray, med brn cryptoxin and tan, lt gray mic-vrxn dense

3900' spl - Ls: AA with influx lt to med gray and brn v/cryptoxin, NVP; Sh: fair influx med to dark gray, some black

40' spl - Ls: influx tan, offwhite fn granular with micxin matrix, foss IP; common offwhite, tan mic-vrxn dense; lesser gray and brn cryptoxin

20' spl - Ls: mxk tan, lt brn granular, foss. with some inter-particle por.; offwhite, tan mic-vrxn dense; iner. gray and brn cryptoxin to granular, NVP

30' spl - Ls: mxk foss and granular AA; Sh: some lt to med gray

40' spl - Ls: mxk AA with influx white chalky; influx Dolo: tan, lt gray mxn with interx and some vug. por., N.S.

50' spl - Dolo: AA, more dense IP; Ls: tan, lt gray mic-vrxn dense

60' spl - Ls: tan, lt brn predom. vrxn dense; fair influx Chert: offwhite, lt gray ovg; scatt. dolomite AA

70' spl - Ls: sl influx tan, lt brn mic-vrxn with some inter-particle and small vug. por., N.S.

80' spl - Ls: flood tan, lt brn fn granular, foss IP with inter-particle and some vug. por.; other mic-vrxn dense, and offwhite, tan micxin subchally to chally

90' spl - Ls: various tan, lt brn micxin to fn granular, foss IP AA; sl influx mottled lt brngray sl granular with micxin matrix, N.S.

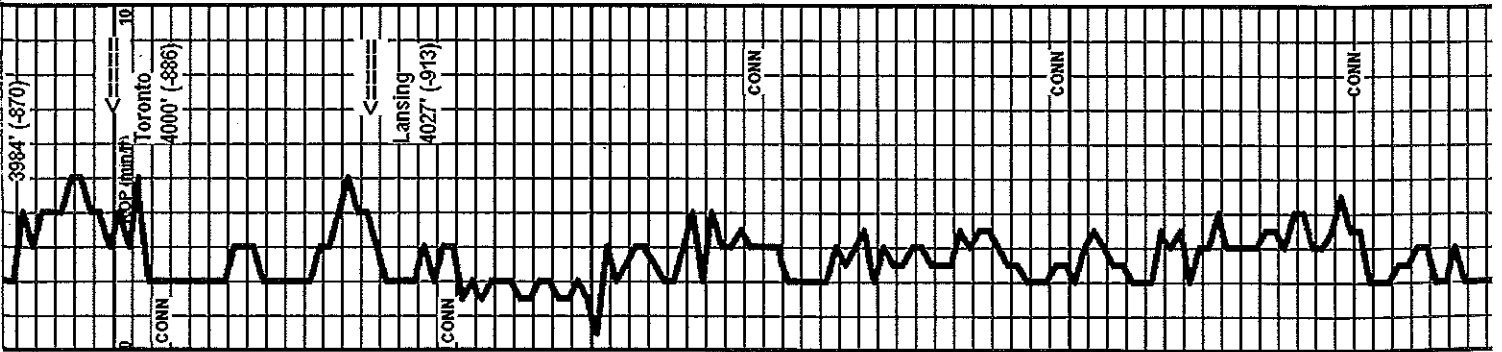
4000' spl - Ls: predom. various tan, lt gray, lt brn mic-vrxn dense; 3-4 chips lt brn vrxn to fn xln with patchy brn stain, no odor, info; Sh: influx black carbon.

10' spl - Ls: med brn, gray v/cryptoxin; Sh: med to dark gray, black, occ red-brn

20' spl - flood Ls: tan, lt brn mic-vrxn dense, subchally to sl granular, oen. poor visible por., N.S.; rare patchy stain AA

Heebner Shale 3984' (-870)

Toronto 4000' (-886)



4000

4050

4100

**Toronto 4000' (-886)**

**Lansing 4027' (-913)**

7:00 AM at 4055' on 6-4-2014

- 10' spl - Ls: med brn, gray v/cryptoxin; Slt: med to dark gray, black, occ red-brn
- 20' spl - flood Ls: tan, lt brn mic-vrxin dense, subchalky to sl granular, gen. poor visible por., N.S.; rare patchy stain AA (sibought?); Chert: sl influx offwhite opq
- 30' spl - Ls: various tan, lt brn, offwhite mic-vrxin dense; some lt brn cryptoxin; sl cherry AA
- 40' spl - Ls: very predom. tan, lt brn mic-vrxin dense; influx Chert: offwhite, tan opq, sl foss IP; Slt: med to dark gray, gray-green
- 50' spl - Ls: tan, lt brn mic-vrxin dense; some v/cryptoxin; common offwhite, tan mic-vrxin dense, subchalky to chalky; scatt. offwhite, tan opq chert, N.S.
- 60' spl - Ls: mix tan, offwhite mic-vrxin dense AA; lt gray vrxin dense; scatt. tan vrxin foss with intra-particle por., N.S.; rare calcite xtal clusters with spotty stain, info, no odor
- 70' spl - Ls: flood tan, lt brn granular with inter-particle and small vug. por.; some finely oolitic with poor to fair inter-oolitic por., N.S.; some lt brn cryptoxin
- 80' spl - Slt: influx med to dark gray, green-gray; Ls: scatt. chips tan granular to oolitic with poor inter-particle por. with very spotty pp dark stain, sl sfo on break, gen. listless, no odor; med brn cryptoxin; Dolc: trace tan vrxin
- 90' spl - Dolc: fair influx tan, lt gray vrxin with poor-NVP, N.S.; Ls: mix AA, scatt. shows AA
- 4100' spl - Dolc: common AA with some small vug. and interxtn por., N.S.; Ls: various tan, offwhite dense; scatt. tan granular/oolitic with shows AA (sibought?)
- 10' spl - Ls: tan, lt brn gen. dense, some sl granular, poor-NVP; spils shaly (losing viscosity?); scatt. dolomite AA
- 20' spl - Ls: various dense AA with persistent dolomite; spils remain shaly AA
- 30' spl - Ls: influx lt gray, lt brn cryptoxin, sl granular IP, NVP, N.S.; rare chips granular Ls and frxn dolomite with patchy stain, no odor, info
- 40' spl - spils shaly AA, more dark red-brn; Ls: lt gray, tan cryptoxin and sl granular AA; lesser offwhite, tan mic-vrxin dense
- 50' spl - shaly AA with Ls: tan, offwhite vrxin and dolomite AA
- 60' spl - Ls: mix tan, lt brn predom. vrxin dense; other lt brn granular, poor-NVP and offwhite, tan mic-vrxin dense;

MudCo Mud Check at 4139'

11:20 AM on 6-4-2014

wt vis wl pH chl  
9.2 47 8.0 11.0 4.000

MudCo Mud Check at 4139'  
 11:20 AM on 6-4-2014  
 WT Vis w/ pH chl  
 9.2 47 8.0 11.0 4.000  
 PV YP Gels lcm solids  
 17 14 9/23 1# 5.8%

Jet #1 pit

Muncie Creek 4211' (-1097)

- 50' spl - shaly AA with Ls; tan, offwhite vfxn and dolomite AA
- 60' spl - Ls: mix tan, it brn predom. vfxn dense; other it brn granular, poor-NVP and offwhite, tan mic-vfxn dense; persistent shales AA
- 70' spl - Ls: influx sl mottled it brn granular with micxdn matrix; tan vfxn-cryptoxin and tan, offwhite mic-vfxn dense; sl influx offwhite opq chert; spls less shaly
- 80' spl - Ls: mix offwhite, tan, it gray mic-vfxn dense; lesser sl mottled it brn granular, sl cherty AA
- 90' spl - Ls: various tan, it brn mic-vfxn, some fn granular, poor-NVP; sl cherty AA; scatt. med to dark gray and red-brn shale
- 4200' spl - Ls: tan mic-vfxn dense; tan, it gray cryptoxin; some tan mic-vfxn with pp por., N.S.; scatt. chert AA; minor it gray shale
- 10' spl - Ls: flood it gray, tan cryptoxin and tan mic-vfxn dense, subchally IP; scatt. offwhite opq chert
- 20' spl - Ls: sl cherty mix AA
- 30' spl - Ls: med gray, med brn cryptoxin; Str: good influx black carbon.
- 40' spl - Ls: it to med brn sl granular to cryptoxin; tan vfxn dense; Str: dark gray to black
- 50' spl - Ls: mix it gray, tan, it to med brn cryptoxin and tan vfxn dense; scatt. offwhite, it gray chert
- 60' spl - Ls: mix AA; mottled it brn gray granular with poor-NVP; incr. offwhite, it gray chert
- 70' spl - Ls: various cryptoxin and mottled AA; scatt. tan and gray with scatt. vug. por., N.S.; offwhite tan mic-vfxn dense, subchally to occ chally; Str: some dark gray to black
- 80' spl - Ls: various gray, tan, brn cryptoxin to sl mottled granular, poor-NVP, N.S.; scatt. tan; it brn granular with pp dark brn stain, faint odor, dead listless oil
- 90' spl - Ls: mix tan, it brn, it gray mic-vfxn dense and mottled it brn, it gray granular, poor-NVP, N.S.; scatt. spotty shows AA with vsi odor; Str: med to dark gray, black
- 4300' spl - Ls: various it gray, tan, it brn vfxn-cryptoxin, NVP and tan, offwhite mic-vfxn dense; sl influx it gray foss; oolitic with spar matrix; Str: minor gray-green
- 10' spl - Ls: influx tan, it gray oolitic with med to av.

4150

4200

4250

CONN

CONN

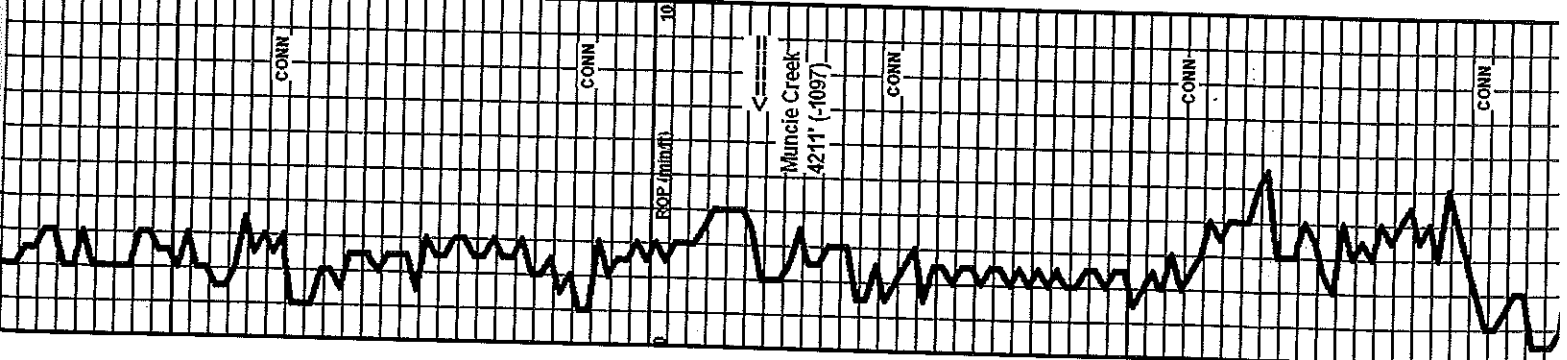
CONN

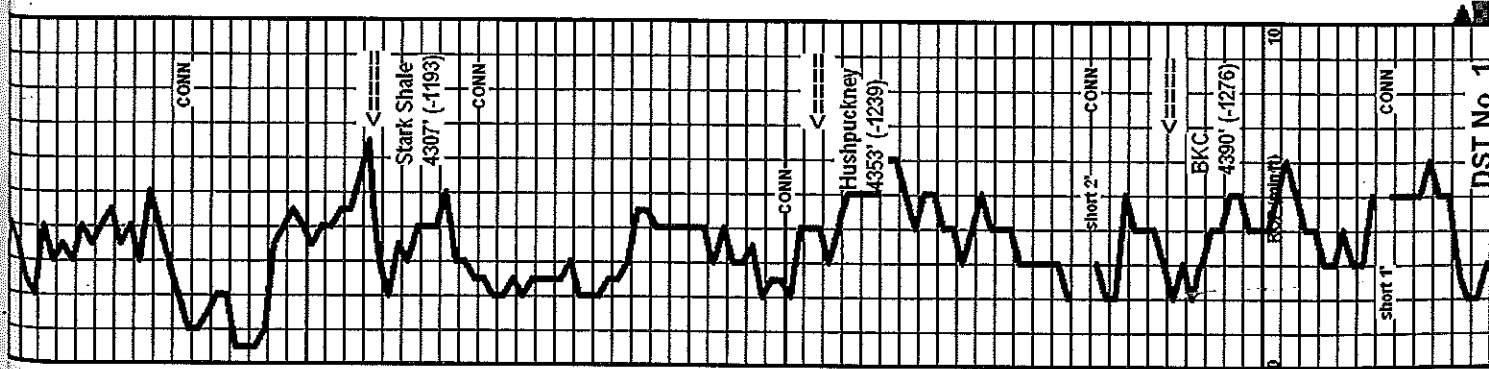
CONN

CONN

Muncie Creek  
 4211' (-1097)

ROF (in feet)





4300

4350

4400

**Stark Shale 4307' (-1193)**

**Hushpuckney 4353' (-1239)**

**BKC 4390' (-1276)**

90' spl - Ls: mix tan, it brn, it gray mic-vfxin dense and mottled it brn, it gray granular, poor-NVP, N.S., scatt. spotty shows AA with vs1 odor; Sit: med to dark gray, black

4300' spl - Ls: various it gray, tan, it brn vf-cryptoxin, NVP and tan, offwhite mic-vfxin dense; sl influx it gray fossiliferous with spar matrix; Sit: minor gray-green

10' spl - Ls: influx tan, it gray oolitic with good to exc. oomoldic por., N.S.; tan, it brn cryptoxin and it gray, offwhite mic-vfxin dense, N.S.

20' spl - Ls: mix AA, more vf-cryptoxin; sl influx sl mottled it brn, it gray granular and white chalky

30' spl - Sit: influx black carbon; Ls: it to med gray, it to med brn cryptoxin; trace mottled gray/brn foss; with edge stain

40' spl - Ls: various brn, it gray cryptoxin to granular, poor-NVP; lesser offwhite, tan mic-vfxin dense, subchalky to chalky; some tan, it brn oolitic with poor to fair oomoldic por., N.S.

50' spl - Ls: mix it brn, it gray cryptoxin; common offwhite, tan mic-vfxin dense, subchalky to chalky; some tan, it gray granular with inter-particle por., N.S.

60' spl - Ls: flood tan, it brn, it gray vf-cryptoxin, NVP, scatt. inter-particle por. AA

70' spl - Sit: sl influx black carbon; Ls: mix AA with sl influx med brn, med gray cryptoxin, trace patery stain; other sl mottled it brn, it gray foss with poor-NVP, N.S.

80' spl - Ls: mix of sl mottled it to med brn granular, poor-NVP and tan vf-cryptoxin, NVP; scatt. offwhite in granular with inter-particle and vug. por., N.S. Chert; scatt. offwhite opq

90' spl - Ls: various tan, it gray sl mottled granular, NVP; tan, offwhite, it gray mic-vfxin dense, subchalky to occ chalky

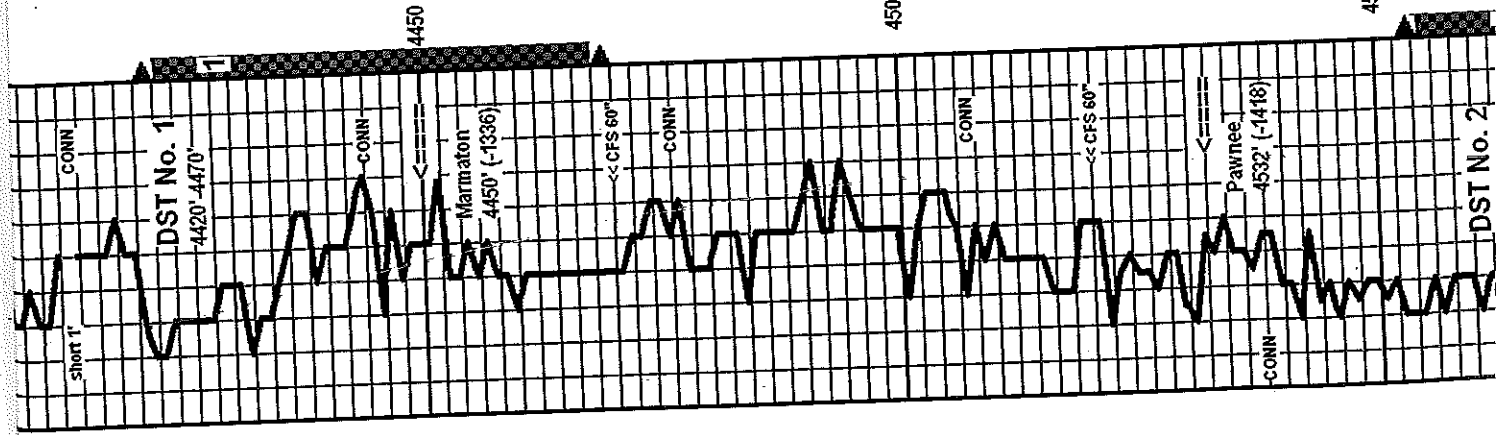
4400' spl - Ls: subchalky to chalky AA; some mottled gray/brn granular and med gray cryptoxin, NVP; Chert; offwhite, it gray opq

10' spl - Sit: vs1 influx black carbon; Ls: tan, it to med brn vf-cryptoxin; mottled it brn and gray granular, NVP, N.S.; scatt. gray chert

20' spl - Ls: various it to med brn, tan, gray vf-cryptoxin, some mottled granular, poor-NVP, N.S.; sl cherty AA

30' spl - Ls: various cryptoxin and granular AA

40' spl - common dense, light Ls's AA.; Sit: it to med gray with it gray shaly siltst



30° spl - Ls: various cryptoxin and granular AA

40° spl - common dense, tight Ls's A.A.; Sit: it to med gray with it gray shaly silst

50° spl - Sit: it to med gray, some very soft with shaly silst AA; Ls: common various dense AA; 2-3 chips brn vt-cryptoxin with patchy stain

60° spl - Ls: abund. mix tan, brn granular/foss with poor-NVP; it to med brn, gray cryptoxin and tan, offwhite mic-vrxin dense; Sit: soft it gray, med to dark gray, some shaly silst

70° spl - Sit: abund. med to dark gray, red-brn; Ls: various brn, gray cryptoxin, occ with patchy dark stain; sil influx tan, it brn in granular, sil foss and oolitic with inter-particle por., vs it odor to no odor, pp brn stain, sfo, sat stain in dry spls; CFS 4470 30°/60° spls - Ls: predom. various cryptoxin with N.S.; scatt. chips with shows AA; Sit: common med to dark gray, some red-brn

80° spl - trashy; Sit: very predom. it to med gray, gray-green, scatt. various cryptoxin Ls's

90° spl - Sit: very abund. med gray, some green-gray, occ pyritic; minor Ls: med brn cryptoxin

4500° spl - still very shaly AA; influx Ls: mix it to med brn cryptoxin and tan, brn granular to oolitic with spar matrix, poor-NVP, N.S.

10° spl - Sit: med to dark gray, decr. %; Ls: it brn, some gray smooth cryptoxin and offwhite, tan mic-vrxin dense

20° spl - Ls: various it to med brn, gray cryptoxin and offwhite, tan dense AA; Sit: med to dark gray, gray-green

CFS 4520° 30° spl - Ls: various cryptoxin and dense AA; some it brn granular with micvxn matrix, N.S.; Sit: AA: 60° spl - >>>

30° spl - no change; 40° spl - Sit: influx dark gray to black carbon; Ls: influx med to dark brn, dark gray cryptoxin; sil influx it brn granular to oolitic with micvxn matrix.

50° spl - very shaly with flood black carbon, viscosity decreased and water loss increased; Ls: various cryptoxin, granular and dense AA

60° spl - very shaly with abund. med to dark gray, black, lesser dark red-brn; Ls: various brn, gray cryptoxin and offwhite, it gray mic-vrxin dense, N.S.

70° spl - still very shaly and poor with shale mix AA; Ls: incr. tan, it gray vt-cryptoxin, NVP with offwhite, it gray dense

80° spl - Sit: very common med to dark gray, black carbon; Ls: mix tan, it brn vt-cryptoxin and offwhite mic-vrxin dense, sil influx it gray, it brn opq chert

DST No. 1 Marmaton  
Interval: 4420'-4450'  
Times: 30-30-60-90  
ISP: no return blow  
FPF: weak blow built to B.O.B. in 37 minutes  
FSP: weak return blow built to 12 inch, died in 75 minutes  
Recovery: 388' weak CIP: 55' MCO (30m, 700); 63'  
G3OCM (10g, 30g, 60m)  
EP: 24-40-42-64 SIP: 335-365  
HP: 2183-2150 BHT: 115 deg. F

**Marmaton 4450' (-1336)**

Pipe strap at 4470' was 2.12' short to the board

7:00 AM at 4470' on 6-5-2014  
MudCo Mud Check at 4470'  
7:00 AM on 6-5-2014  
wt vis wl pH chl  
9.3 50 8.8 11.0 4.000  
PV YP Gels lcm solids  
18 16 9/30 1# 6.5%

CFS 4570° 60° spl - Ls: predom. it gray, tan, some it brn cryptoxin; lesser offwhite, it gray mic-vrxin dense; Sit: predom. it to med gray; occ mortified gray/offwhite opq chert

7:00 AM at 4520' on 6-6-2014

**Pawnee 4532' (-1418)**

MudCo Mud Check at 4538'  
8:15 AM on 6-6-2014  
wt vis wl pH chl  
9.2 44 10.0 11.0 6.000  
PV YP Gels lcm solids  
15 12 12/38 0# 6.0%

ran premix

wt vis wl pH cti  
 9.2 44 10.0 11.0 6,000  
 PV YP Gels lcm solids  
 15 12 12/38 0# 6.0%

ran premix

**Myrick Station 4570' (-1456)**  
 CFS 4570' 60" spl - Ls: cherry mix AA; influx offwhite, it gray vfxin dense, NVP, N.S.; Sit: common dark gray, black AA

**Fort Scott 4584' (-1470)**  
 Good samples to RTD  
 DST No. 2 Myrick Station Fort Scott  
 Interval: 4552-4610  
 Times: 30-30-30-30  
 IFF: weak surface blow, died in 5 minutes  
 ISIF: no return blow  
 FFF: no blow  
 FSP: no return blow  
 Recovery: 5' mud  
 FP: 21-25/24-27 SIP: 921-782  
 HP: 2223-2146 BHT: 115 deg. F

**Cherokee Sh. 4614' (-1500)**

**Johnson Zone 4661' (-1547)**  
 7:00 AM at 4663' on 6-7-2014  
 DST No. 3 Johnson Zone  
 Interval: 4640'-4720'  
 Times: 30-30-30-30  
 IFF: weak surface blow built to 1 inch  
 ISIF: no return blow  
 FFF: no blow  
 FSP: no return blow  
 Recovery: 50' mud, no shows  
 FP: 17-28/25-39 SIP: 695-675  
 HP: 2292-2221 BHT: 116 deg. F

offwhite, & gray mic-vfxin dense, N.S.

70' spl - still very shaly and poor with shale mix AA; Ls: incr. tan, it gray vfxin, NVP with offwhite, it gray dense

80' spl - Sit: very common med to dark gray, black carbon; Ls: max tan, it brn vfxin and offwhite mic-vfxin dense; sl influx it gray, it brn opq chert

CFS 4570' 30" spl - Sit: flood black carbon; Ls: influx dark gray, dark brn cryptoxin; lesser med brn, gray granular to oolitic, NVP, N.S.; one chip tan vfxin with brn patchy stain and stained microfractures, trc slow bleeding gas, no, no odor; some dark brn opq chert; 60" spl >>>

90' spl - Ls: offwhite, it gray dense; lesser mottled it brn, gray granular, poor-NVP, N.S.; scatt. mottled gray/offwhite it brn chert.

4600' spl - Sit: flood black carbon; Ls: strong influx med brn oolitic with spar matrix; some gray, it brn granular/oolitic with micxin matrix, one chip with patchy stain, poor-NVP

10' spl - Ls: various oolitic AA, N.S.; influx: mottled gray/brn/offwhite oolitic chert

CFS 4610' 30" spl - Ls: influx it gray, tan, offwhite vfxin, NVP; gray, med to dark brn cryptoxin; 60" spl - Ls: predom. it to med gray, it to med brn cryptoxin, N.S.

20' spl - trashy, no new rocks; 30' spl - Sit: black carbon, dark gray; Ls: it to med gray, it brn vfxin cryptoxin

40' spl - Ls: predom. offwhite, it gray mic-vfxin dense, subchally IP; Sit: flood black carbon, dark gray

50' spl - Ls: it gray, it to med brn cryptoxin; offwhite, it gray mic-vfxin dense, subchally IP; streaks Sit: dark gray to black carbon.

60' spl - Ls: various cryptoxin and dense with shales AA

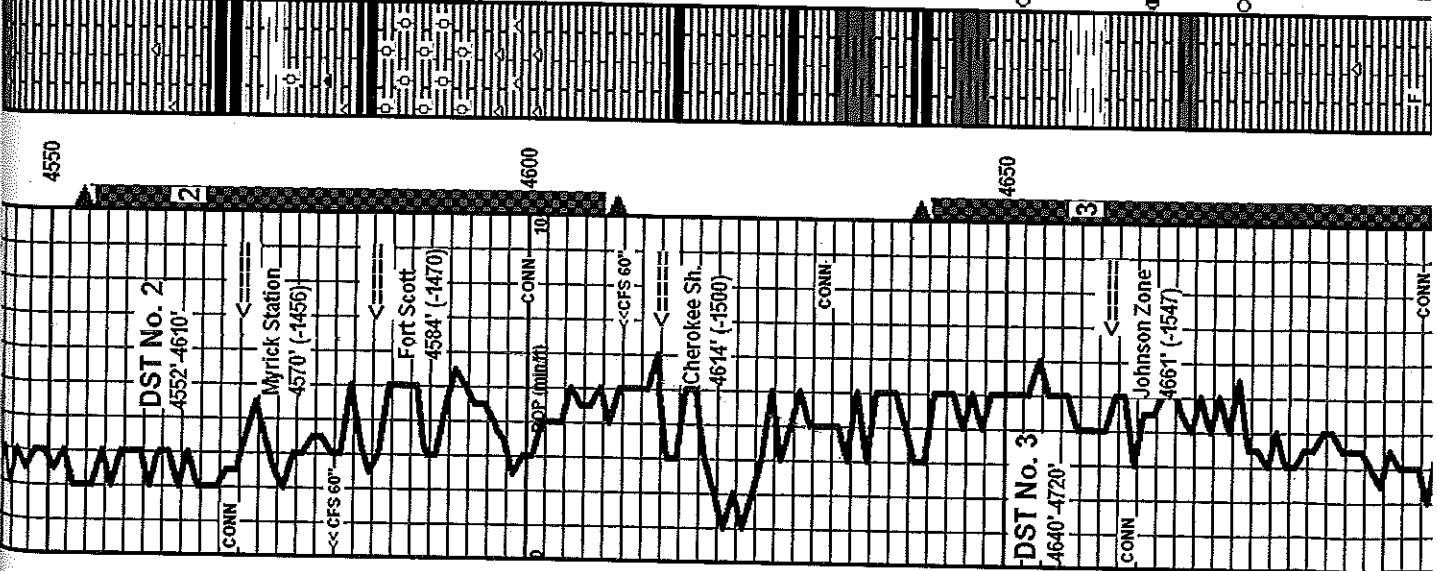
70' spl - Ls: predom. various gray cryptoxin, some silty; one chip med brn with pp brn stain, info; one chip it gray vfxin cryptoxin with spotty brn stain, info

80' spl - Ls: various brn, gray cryptoxin to ooc granular, NVP, N.S.; 3-4 chips med brn granular with vug, por. fair odor, patchy to scatt. stain, sfo, sg

90' spl - Ls: various cryptoxin and granular AA; more it gray, offwhite vfxin dense, one chip with patchy stain

4700' spl - Ls: more it to med brn with various gray predom. cryptoxin, NVP, N.S.; scatt. brn chert

10' spl - Ls: Various brn, gray predom. cryptoxin, NVP, N.S.



4550  
 4600  
 4650

DST No. 2  
 4552-4610'

Myrick Station  
 4570' (-1456)

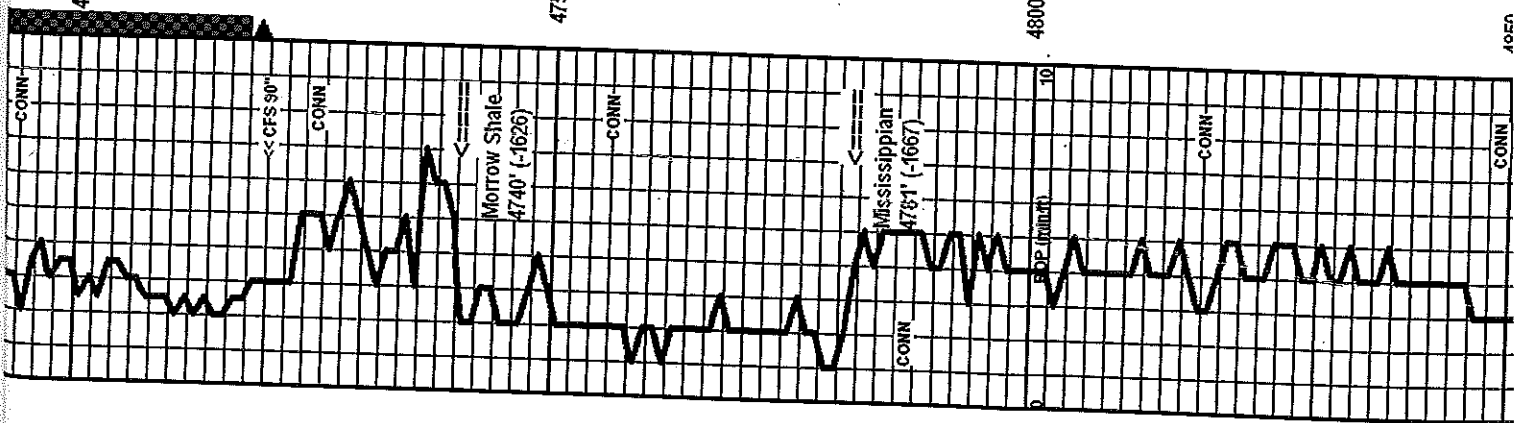
Fort Scott  
 4584' (-1470)

Cherokee Sh.  
 4614' (-1500)

Johnson Zone  
 4661' (-1547)

DST No. 3  
 4640'-4720'





10' spl - Ls: various brn, gray predom. cryptoxin, NVP, N.S. occ 10SS, lesser offwhite, lt gray mic-vrxin dense

20' spl - Ls: various cryptoxin to sl granular AA, N.S.; very scatt lt brn, gray with edge stain, trace tan vrxin with sfc; trace med brn granular with vug, por., fair to good odor, sfo, sg.

CFS 4720' 30' spl - Ls: various gray, brn cryptoxin, incr. offwhite, lt gray mic-vrxin dense; 1-2 chips granular with vug, por. and shows AA, fair odor; scatt. modified oolitic chert and trace black chert; 60°/90° spls >>>

30' 30' spls - Ls: mottled offwhite to tan gray granular NVP; med brn, med gray cryptoxin; silt. incr. %; lt to med gray, gray-green, lt green; occ pyrite

50' spl - flood Ls: med brn, med gray cryptoxin, sl granular IP; influx offwhite, lt gray mic-vrxin dense; Sst: scatt. lt gray vfg with shale partings; trace dark green fg glauc.; occ offwhite calcar. sst, N.S.

60' spl - still predom. various dense Ls's AA; Silt: dark gray with occ. dark green fg Sst: 70° spl - incr. Silt: dark gray and black

80' spl - flood Silt: med to dark gray, black, some pyritic; scatt. free pyrite

90' spl - Silt: dark gray to black, rarely pyritic; trace coal

4800' spl - Sst: lt gray vfg friable, N.S.; Ls: good influx offwhite, tan predom. in granular with micrxn to spar matrix, sl sandy IP; trace orange chert, N.S.

10' spl - Ls: tan, lt brn granular, some cryptoxin; other offwhite in granular with micrxn matrix; some offwhite subchalky, N.S.

20' spl - Ls: mix AA with more lt brn, tan, lt gray cryptoxin and offwhite micrxn, subchalky to chalky, N.S.

30' spl - Ls: lt brn, lt gray granular, some cryptoxin; offwhite subchalky

40' spl - Ls: more med brn, gray granular, NVP

50' spl - Ls: predom. med brn, gray cryptoxin to sl granular, NVP

60' spl - Ls: mix lt to med brn, lt gray, tan cryptoxin; other offwhite in granular with micrxn matrix, N.S.

CFS 4720' 60' spl - Ls: mix AA; one chip tan vrxin with very spotty brn residual stain and listless oil; 90° spl - Ls: AA; influx lt gray, tan vt-cryptoxin; more offwhite, lt gray mic-vrxin dense; scatt. brn opq chert

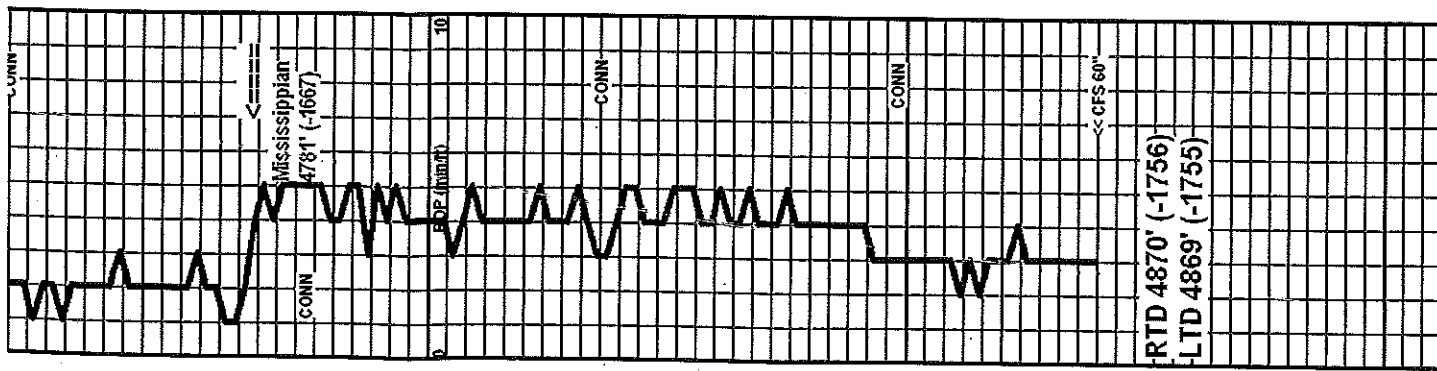
MudCo Mud Check at 4720'  
 1:45 PM on 6-7-2014  
 wt vis wl pH chl  
 9.3 50 9.6 10.5 6,500  
 PV YP Gels lcm solids  
 18 22 16/50 1# 6.7%

**Morrow Shale 4740' (-1626)**

**Mississippian 4781' (-1667)**

7:00 AM at 4800' on 6-8-2014

MudCo Mud Check at 4805'  
 7:45 AM on 6-8-2014  
 wt vis wl pH chl  
 9.3 50 9.6 10.5 6,200  
 PV YP Gels lcm solids  
 18 20 18/48 1# 6.8%



scatt. free pyrite

90' spl - Sh: dark gray to black, rarely pyritic; trace coal

4800' spl - Sst: lt gray vfg friable, N.S.; Ls: good influx offwhite, tan predom. in granular with micxin to spar matrix; sl sandy IP; trace orange chert, N.S.

10' spl - Ls: tan, lt brn granular, some cryptoxin; other offwhite in granular with micxin matrix; some offwhite subchally, N.S.

20' spl - Ls: mix AA with more lt brn, tan, lt gray cryptoxin and offwhite micxin, subchally to chally, N.S.

30' spl - Ls: lt brn, lt gray granular, some cryptoxin; offwhite subchally

40' spl - Ls: more med brn, gray granular, NVP

50' spl - Ls: predom. med brn, gray cryptoxin to sl granular, NVP

60' spl - Ls: mix to med brn, lt gray, tan cryptoxin, other offwhite in granular with micxin matrix, N.S.

70' spl - Ls: mix AA with good influx tan, lt brn in granular with micxin to subchally matrix, N.S.

CFS 4870' spits - Ls: mix granular and cryptoxin AA

After review of DST's, samples and E-Logs, the decision was made to run 5 1/2" casing for production testing.

Respectfully submitted,

Wesley D. Hansen  
Petroleum Geologist  
Kansas License No. 418

**Mississippian 4781' (-1667)**

7:00 AM at 4800' on 6-8-2014

MudCo Mud Check at 4805'  
7:45 AM on 6-8-2014  
wt vis wl pH chl  
9.3 50 9.6 10.5 6,200  
PV YP Ge/S lcm solids  
18 20 18/48 1# 6.8%

RTD reached at noon on 6-8-2014  
CFS/CTCH 90" - drop survey - TOFL  
Loggers on bottom at 5:30 PM