



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1097730  
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: \_\_\_\_\_



1097730

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR. _____	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Farmer, John O., Inc.
Well Name	Waugh B 2
Doc ID	1097730

All Electric Logs Run

Compensated Density Neutron Log
Micro Resistivity Log
Dual Induction Log
Cement Bond Log

Form	ACO1 - Well Completion
Operator	Farmer, John O., Inc.
Well Name	Waugh B 2
Doc ID	1097730

Tops

Name	Top	Datum
Mississippi	2294'	(-981)
Kinderhook	2633'	(-1320)
Hunton	2774'	(-1461)
Maquoketa	2860'	(-1547)
Viola	2894'	(-1581)
Simpson Dolomite	2992'	(-1679)
Simpson Sand	3008'	(-1695)
Arbuckle	3058'	(-1745)
L.T.D.	3121'	(-1808)



## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell, KS 67665

ATTN: Austin Klaus

### **Waugh B #2**

#### **18-15s-12w Wabaunsee,KS**

Start Date: 2012.06.27 @ 07:46:09

End Date: 2012.06.27 @ 14:59:09

Job Ticket #: 47408                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.05 @ 11:14:59

John O Farmer Inc

18-15s-12w Wabaunsee,KS

Waugh B #2

DST # 1

Simpson Sand

2012.06.27



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc

**18-15s-12w Wabaunsee,KS**

PO Box 352  
Russell, KS 67665

**Waugh B #2**

Job Ticket: 47408

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2012.06.27 @ 07:46:09

## GENERAL INFORMATION:

Formation: **Simpson Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:41:09

Time Test Ended: 14:59:09

Test Type: Conventional Bottom Hole (Initial)

Tester: Brian Fairbank

Unit No: 41

**Interval: 2990.00 ft (KB) To 3015.00 ft (KB) (TVD)**

Reference Elevations: 1313.00 ft (KB)

Total Depth: 3015.00 ft (KB) (TVD)

1305.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 6752 Inside**

Press @ Run Depth: 500.59 psig @ 2997.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.06.27

End Date: 2012.06.27

Last Calib.: 2012.06.27

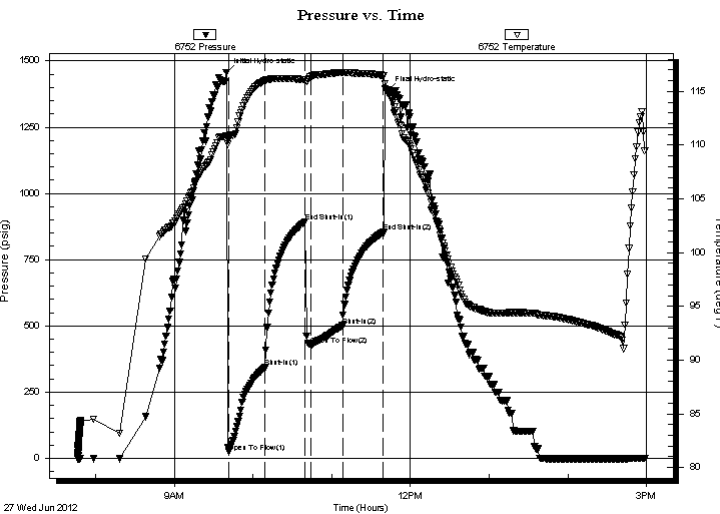
Start Time: 07:46:10

End Time: 14:59:09

Time On Btm: 2012.06.27 @ 09:39:39

Time Off Btm: 2012.06.27 @ 11:43:09

**TEST COMMENT:** IFP - BOB 7 min  
ISI - no blow back  
FFP - BOB 2 min  
FSI - no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1456.99	110.90	Initial Hydro-static
2	24.60	110.64	Open To Flow (1)
30	342.75	116.01	Shut-In(1)
60	891.75	116.07	End Shut-In(1)
64	428.83	116.33	Open To Flow (2)
89	500.59	116.76	Shut-In(2)
120	853.84	116.50	End Shut-In(2)
124	1388.90	114.79	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
820.00	Sand CO 75%O, 15%S	8.05
105.00	OCM 15%O, 85%M	1.47
0.00	60' GIP	0.00

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc

**18-15s-12w Wabaunsee, KS**

PO Box 352  
Russell, KS 67665

**Waugh B #2**

Job Ticket: 47408 **DST#: 1**

ATTN: Austin Klaus

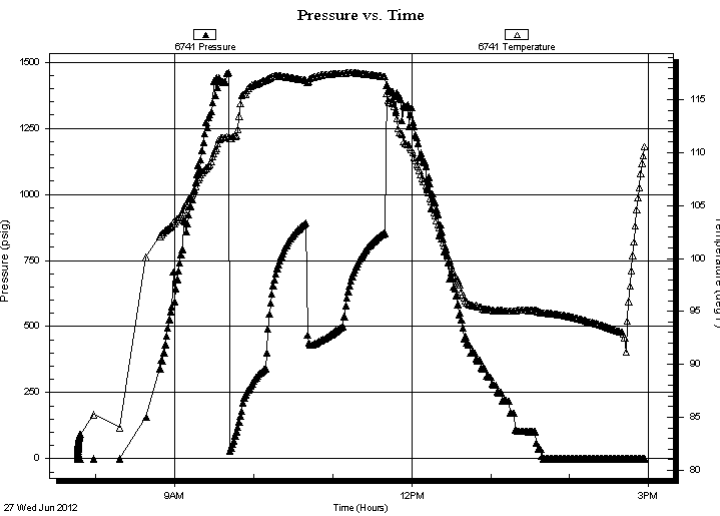
Test Start: 2012.06.27 @ 07:46:09

## GENERAL INFORMATION:

Formation: **Simpson Sand**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:41:09  
 Time Test Ended: 14:59:09  
 Interval: **2990.00 ft (KB) To 3015.00 ft (KB) (TVD)**  
 Total Depth: 3015.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Brian Fairbank  
 Unit No: 41  
 Reference Elevations: 1313.00 ft (KB)  
 1305.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 6741** **Outside**  
 Press @ Run Depth: psig @ 2997.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.06.27 End Date: 2012.06.27 Last Calib.: 2012.06.27  
 Start Time: 07:46:22 End Time: 14:56:51 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IFP - BOB 7 min  
 ISI - no blow back  
 FFP - BOB 2 min  
 FSI - no blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
820.00	Sand CO 75%O, 15%S	8.05
105.00	OCM 15%O, 85%M	1.47
0.00	60' GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc

**18-15s-12w Wabaunsee,KS**

PO Box 352  
Russell, KS 67665

**Waugh B #2**

Job Ticket: 47408

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2012.06.27 @ 07:46:09

## Tool Information

Drill Pipe:	Length: 2613.00 ft	Diameter: 3.80 inches	Volume: 36.65 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 379.00 ft	Diameter: 2.25 inches	Volume: 1.86 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 38.51 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 57000.00 lb
Depth to Top Packer:	2990.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	50.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			2975.00	
Hydraulic tool	5.00			2980.00	
Packer	5.00			2985.00	20.00 Bottom Of Top Packer
Packer	5.00			2990.00	
Stubb	1.00			2991.00	
Perforations	6.00			2997.00	
Recorder	0.00	6752	Inside	2997.00	
Recorder	0.00	6741	Outside	2997.00	
Perforations	20.00			3017.00	
Bullnose	3.00			3020.00	30.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>50.00</b>				





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer Inc

**18-15s-12w Wabaunsee,KS**

PO Box 352  
Russell, KS 67665

**Waugh B #2**

Job Ticket: 47408

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2012.06.27 @ 07:46:09

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

21 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
820.00	Sand CO 75%O, 15%S	8.050
105.00	OCM 15%O, 85%M	1.473
0.00	60' GIP	0.000

Total Length: 925.00 ft      Total Volume: 9.523 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

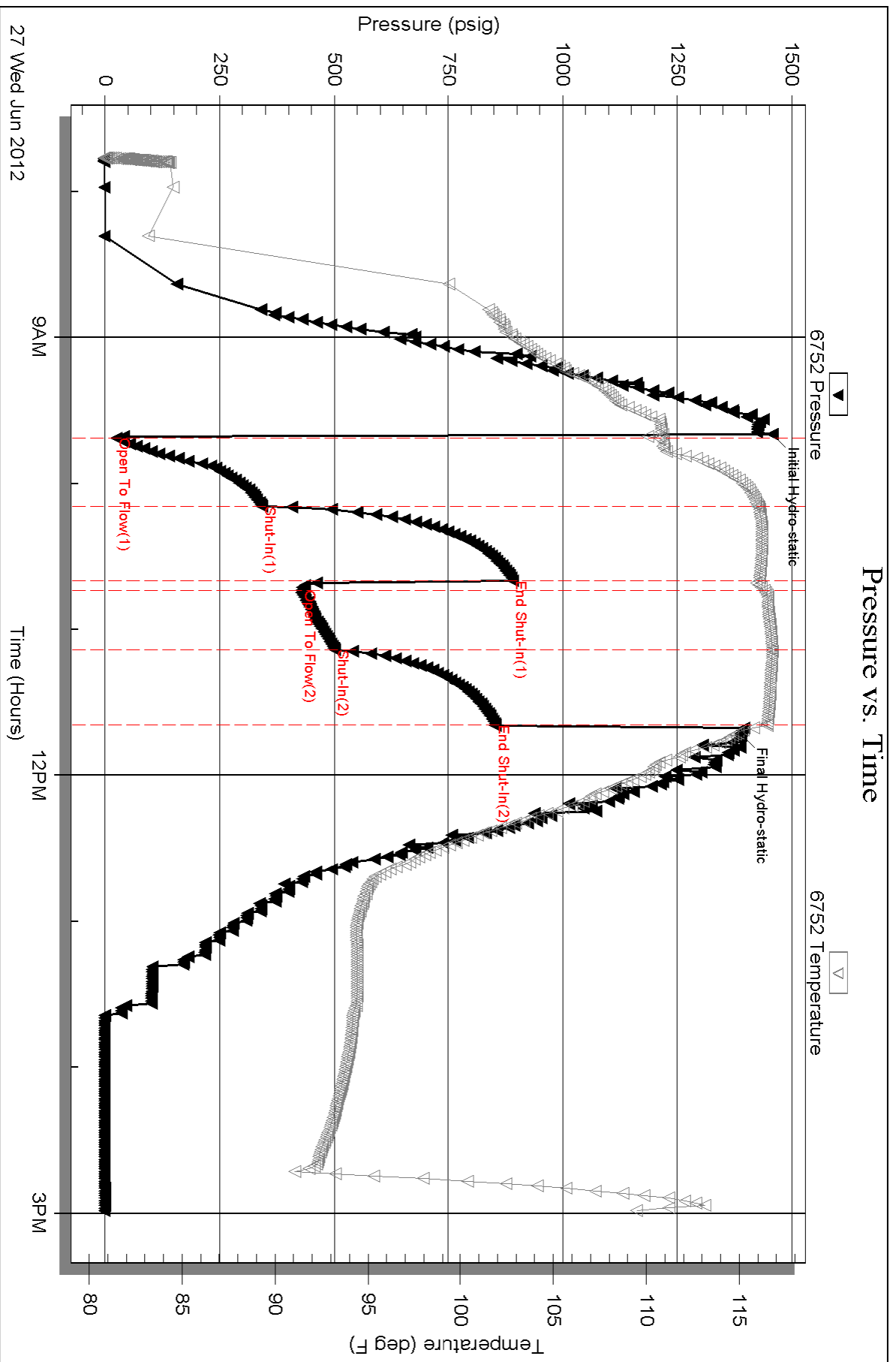
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

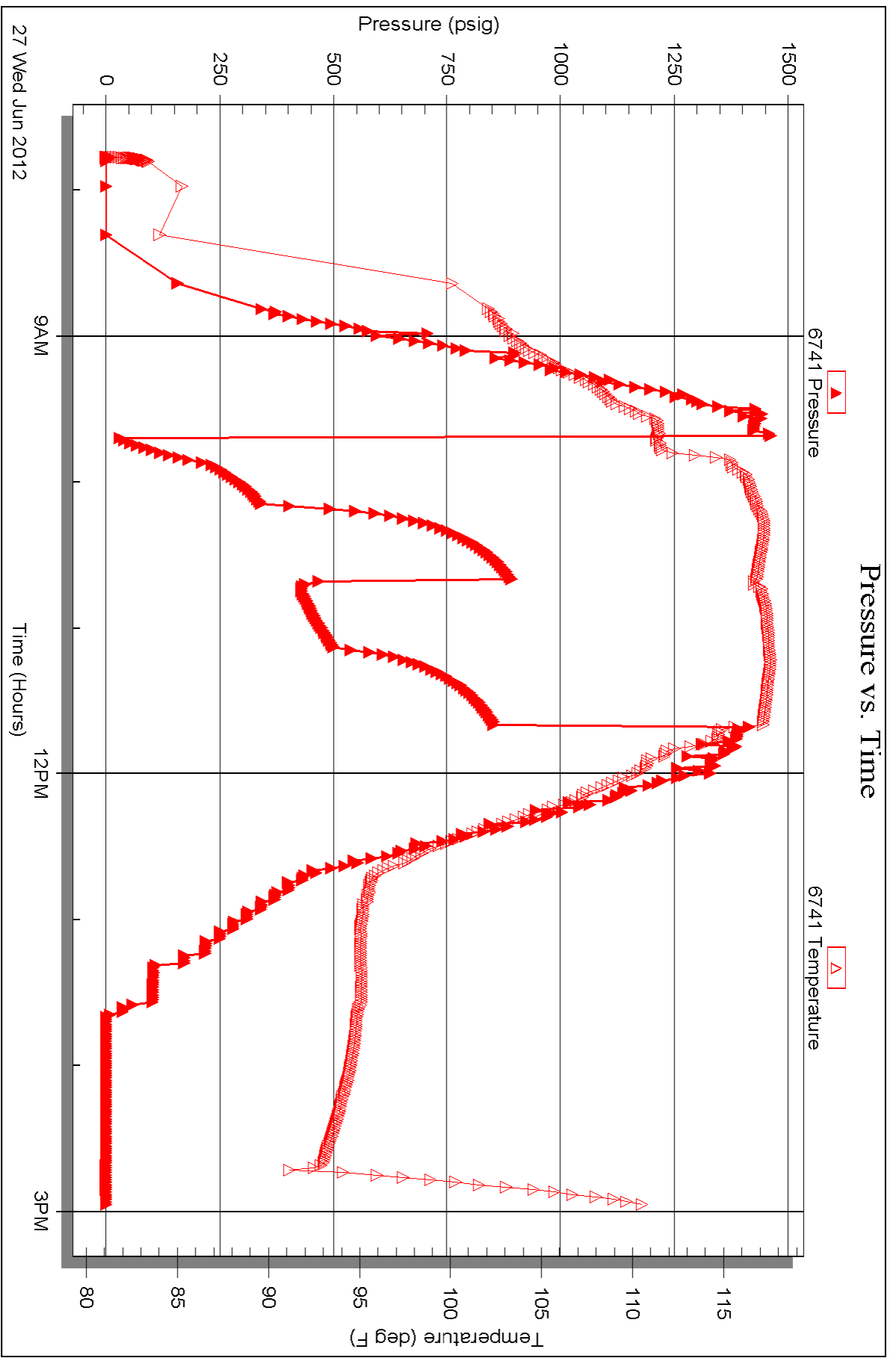


Serial #: 6741

Outside John O Farmer Inc

Maugh B #2

DST Test Number: 1





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47408

4/10

Well Name & No. Waugh B #2 Test No. 1 Date 6-27-12  
 Company JOF Elevation 1313 KB 1305 GL  
 Address 370 W Wichita Ave PO Box 352 Russell, K1 67665  
 Co. Rep / Geo. Austin Klaus Rig Gulick 1  
 Location: Sec. 18 Twp. 15 Rge. 12 Co. Wabunsee State K

Interval Tested 2990 - 3015 Zone Tested Simpson Sand  
 Anchor Length 25 Drill Pipe Run 2613 Mud Wt. 9.1  
 Top Packer Depth 2985 Drill Collars Run 379 Vis 46  
 Bottom Packer Depth 2990 Wt. Pipe Run — WL 8.6  
 Total Depth 3015 Chlorides 600 ppm System LCM

Blow Description IFP- BOB 7 min  
ISI- no blow back  
FFP- BOB 2 min  
FSI- no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>GIP</u>				
<u>105</u>	<u>OCM</u>		<u>15</u>		<u>85</u>
<u>820</u>	<u><del>OCM</del> sand CO</u>		<u>75</u>		<u>25</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

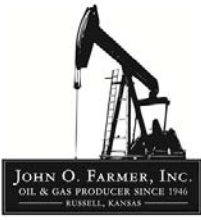
Rec Total 925 BHT 117 Gravity 21 API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic 1457  Test 1150 T-On Location 0723  
 (B) First Initial Flow 25  Jars T-Started 0746  
 (C) First Final Flow 343  Safety Joint T-Open 0940  
 (D) Initial Shut-In 892  Circ Sub T-Pulled 1140  
 (E) Second Initial Flow 429  Hourly Standby T-Out 1500  
 (F) Second Final Flow 501  Mileage 402 RT 623.10 Comments  
 (G) Final Shut-In 854  Sampler  
 (H) Final Hydrostatic 1389  Straddle  Ruined Shale Packer  
 Shale Packer  Ruined Packer  
 Extra Packer  Extra Copies

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30  
 Sub Total 1773.10  
 Total 1773.10  
 MP/DST Disc't

Approved By \_\_\_\_\_ Our Representative Brian Farbank

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.



# AUSTIN B. KLAUS



**Cell 785.650.3629**  
**Work 785.483.3145**  
**Ext 225**

**PO BOX 352**  
**Russell, KS 67665**  
**austin.klaus@johnofarmer.com**

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

**Well Name:** Waugh B #2  
**Location:** Wabaunsee County  
**License Number:** API #15-197-20296-00-00  
**Spud Date:** 6/22/2012  
**Surface Coordinates:** 1,210' FSL & 640' FWL  
**Bottom Hole Coordinates:** Section 18 - Township 15 South - Range 12 East  
**Vertical well with minimal deviation, same as above**  
**Ground Elevation (ft):** 1,305' **K.B. Elevation (ft):** 1,313'  
**Logged Interval (ft):** 2,250' **To:** RTD **Total Depth (ft):** RTD:3,119' LTD: 3,121'  
**Formation:** Mississippian-Arbuckle  
**Type of Drilling Fluid:** Chemical (Fud-Mud Co.)

**Region:** Kansas

**Drilling Completed:** 6/28/2012

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

## OPERATOR

**Company:** John O. Farmer, Inc.  
**Address:** P.O. Box 352  
Russell, KS 67665-0352

## GEOLOGIST

**Name:**  
**Company:**  
**Address:**

## Cores





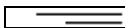
## DSTs

### Comments








































































The Waugh B #2 well was drilled by Gullick Drilling (Tool Pusher: Mike Stafford).

The location for the Waugh B #2 well was found via 3-D seismic survey. Based on the results of the drill stem test that was conducted, and the samples and wireline logs that were evaluated, the decision was made to run 5 1/2" production casing on 6/28/12 to further evaluate the Waugh B #2 well.
























### ROCK TYPES

 Anhy  Bent  Brec  Cht	 Clyst  Coal  Congl  Dol	 Gyp  Igne  Lmst  Meta	 Mrst  Salt  Shale  Shcol	 Shgy  Sltst  Ss  Till
---	---	---	--	---

### ACCESSORIES

<b>MINERAL</b>  Anhy  Arggrn  Arg  Bent  Bit  Brecfrag  Calc  Carb  Chtdk  Chtlt  Dol  Feldspar  Ferrpel  Ferr  Glau	 Gyp  Hvymin  Kaol  Marl  Minxl  Nodule  Phos  Pyr  Salt  Sandy  Silt  Sil  Sulphur  Tuff	<b>FOSSIL</b>  Algae  Amph  Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram  Fossil  Gastro  Oolite	 Ostra  Pelec  Pellet  Pisolite  Plant  Strom  <b>STRINGER</b>  Anhy  Arg  Bent  Coal  Dol  Gyp  Ls  Mrst	 Sltstrg  Ssstrg  <b>TEXTURE</b>  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackest
--	--	--	--	---

### OTHER SYMBOLS

<b>POROSITY</b>  Earthy  Fenest  Fracture  Inter  Moldic  Organic  Pinpoint	 Vuggy  <b>SORTING</b>  Well  Moderate  Poor	<b>ROUNDING</b>  Rounded  Subrnd  Subang  Angular  <b>OIL SHOW</b>  Even	 Spotted  Ques  Dead  <b>INTERVAL</b>  Core  Dst	<b>EVENT</b>  Rft  Sidewall
---	---	--	---	---

**Curve Track 1**

ROP (min/ft) ———  
 Gas (units) - - - - -  
 Gamma (API) ———

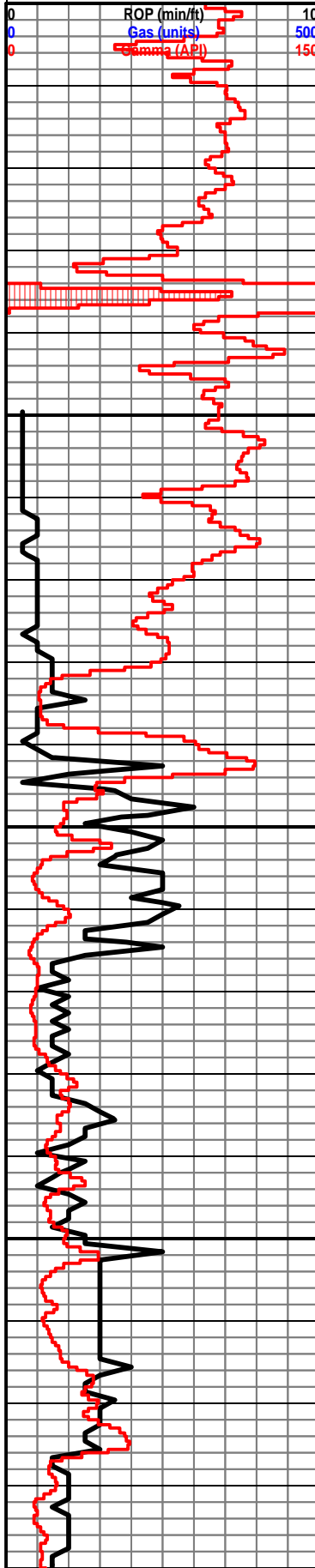
Depth

litholog

Oil Shows

Geological Descriptions

Drill Stem Tests



2200  
2250  
2300  
2350

The open-hole logging was performed by Mr. Larry Smith with the Perforators, LLC (Hays, KS). Logs included: Compensated Neutron/Compensated Density, Dual Induction, and Microlog.

Formation tops and datums from the open-hole logs include the following:

**E-Log Tops**

- Mississippian: 2294' (-981)**
- Kinderhook: 2633' (-1320)**
- Hunton: 2774' (-1461)**
- Maquoketa: 2860' (-1547)**
- Viola: 2894' (-1581)**
- Simpson Dolo: 2992' (-1679)**
- Simpson Sand: 3008' (-1695)**
- Arbuckle: 3058' (-1745)**

Sh: blk, carb

Sh: blk, carb

**Mississippian 2295' (-982)**

Dolo: Off Wh-Lt Gry, Fn-Sub xln, Mostly DNS

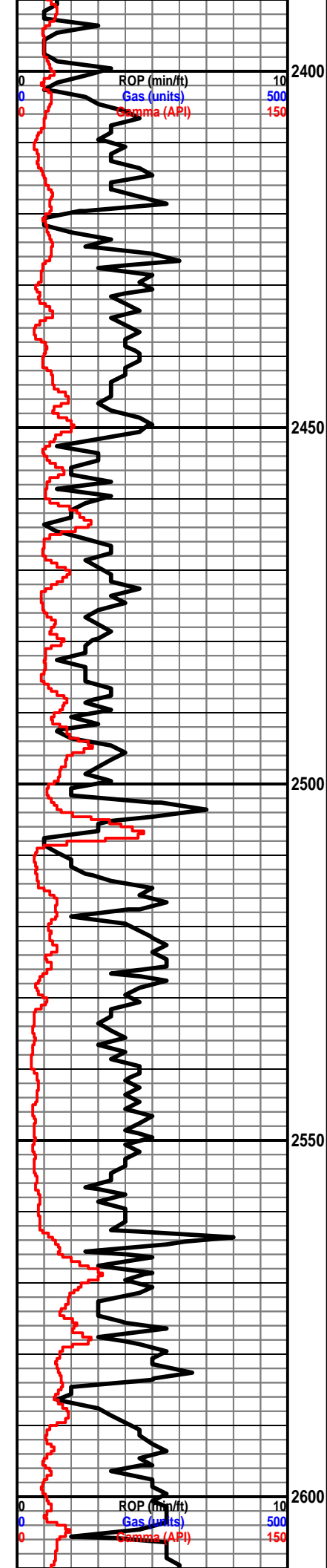
Dolo: Tan-Lt Gry, Fn xln, DNS

Dolo: Tan-Lt Gry, Fn xln, Poor vuggy porosity, Barren

Dolo: ala

Dolo: Tan-Lt Gry, Fn xln, Mostly DNS, SI Chalky

Dolo: Off Wh-Tan, Vry Fn-Fn xln, Mostly DNS, SI chalky



Dolo: ala, chert-off wh

Sh: Drk Gry-Blk, Fissile

Dolo: Off Wh-Tan, Vry Fn xln, Poor scat Int xln porosity, chert-off wh

Dolo: ala

Dolo: Tan-Brn, Fn xln, Mostly DNS, Barren, Chert-off wh

Chert: Off Wh-Lt Gry

Chert: ala

Dolo: Off Wh-Lt Gry, Vry Fn-Fn xln, Mostly DNS, Barren, Chert-off wh

Dolo/Chert: ala

Dolo: Off Wh-Tan, Vry Fn-Fn xln, Mostly DNS, Barren

Dolo: ala

Dolo: Tan-Off Wh, Fn xln, Poor vuggy porosity, sl chalky, Barren

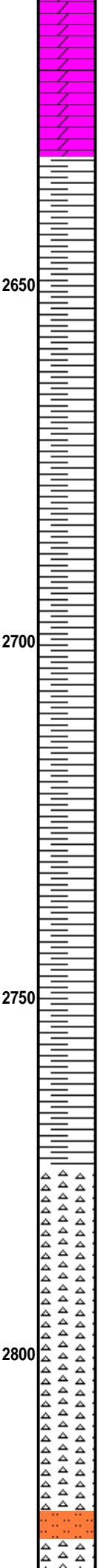
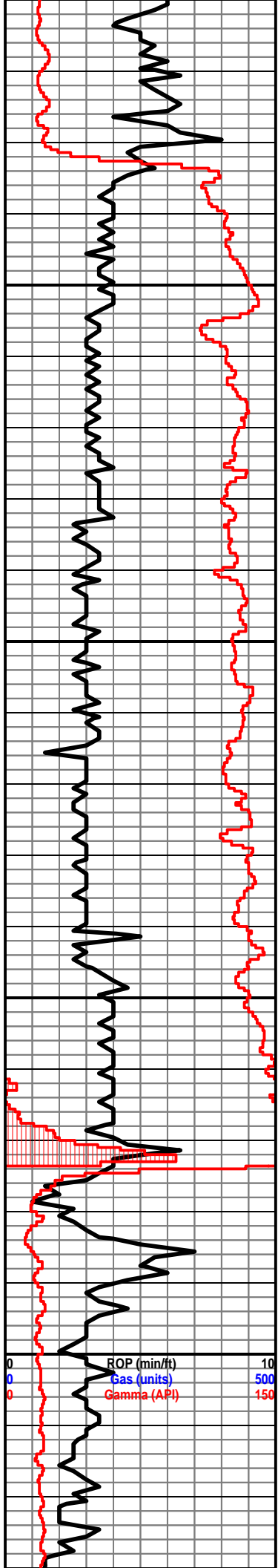
Dolo: Off Wh-Tan, Vry Fn-Fn xln, DNS, Barren

Ls: Drk Gry, Fn xln, Mostly DNS, Sl chalky

Ls: ala

Dolo: Tan-Brn, Fn xln, Mostly DNS, sl chert-off wh





Dolo: ala

**Kinderhook 2630' (-1317)**

Sh: Drk Gry, soft

Sh: Drk Gry, vry soft

2650

Sh: Drk Gry, soft

Sh: Drk Gry-Blk, Fissile

Sh: Drk Gry, soft

2700

Sh: Drk Gry, soft

Sh: Gry-Drk Gry, soft

Sh: ala, Blk Fissile

2750

Sh: Drk Gyr-Brn, Blocky

Sh: ala

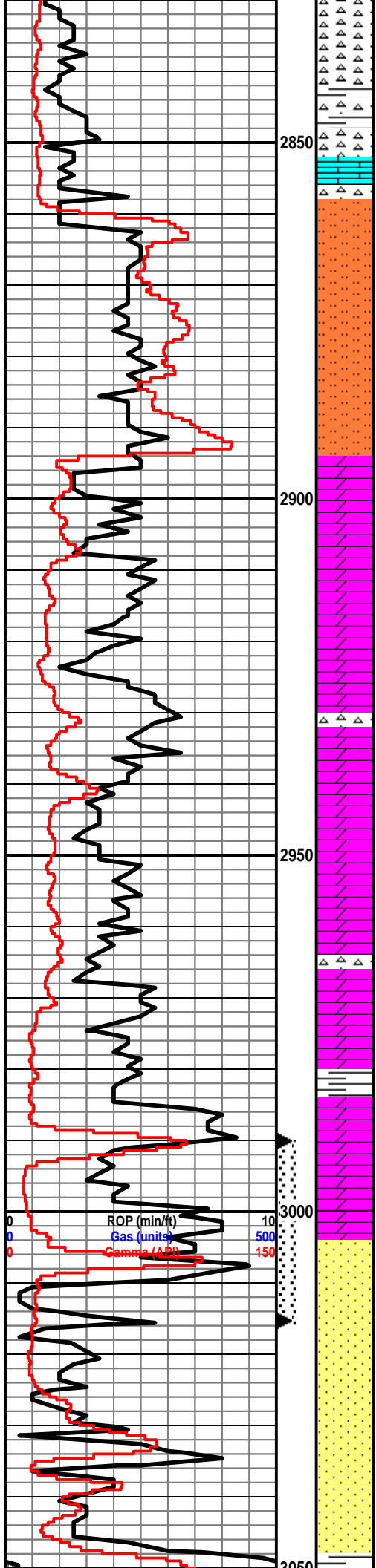
**Hunton 2774' (-1461)**

Chert: Lt Gry-Opaque, poor frac porosity, Dead oil st, Fair-Good odor, no yel fluor

2800

Chert: Off Wh-Lt Gry, Barren

Siltst: Lt Gry, Vry Fn Grn, Mostly DNS, Barren



Slstst: ala

Sh: Drk Gry-Brn

2850

Ls: Tan-Brn, Fn-Vry Fn xln, Mostly DNS

**Maquoketa 2860' (-1547)**

Slstst: Drk Gry, Fn Grn, DNS, Barren

Slstst: ala

Slstst: Drk Gry-Brn, Fn-Vry Fn Grn, DNS, Barren

**Viola 2891' (-1578)**

Dolo: Off Wh-Lt Gry, Fn-Md sucrosic xln, Fair-Good int xln porosity, GSFO-Heavy, Good Odor, Dull Yel Fluor

2900

Dolo: ala

Dolo: Off Wh-Lt Gry, Fn-Md xln, Poor-Fair int xln porosity, SSFO, Fair Odor, Dull Yel Fluor

Dolo: Gry-Brn, Fn xln, Mostly DNS, Chert-off wh, Barren

Dolo: ala

2950

Dolo: Lt Gry-Brn, Fn xln, Mostly DNS, Barren

Dolo: ala

Dolo: Tan-Brn, Fn-Vry Fn xln, Mostly DNS, Barren

**Simpson Dolomite 2986' (-1673)**

Dolo: Lt Gry-Brn, Fn xln, Poor-Fair int xln porosity, FSFO, Fair-Good Odor, SI Dull Yel Fluor

3000

**Simpson Sand 3004' (-1691)**

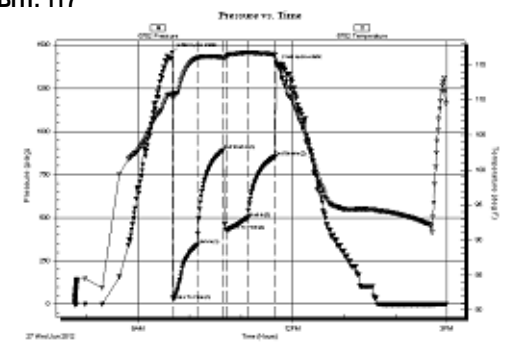
Ss: Qtz, Vry Fn-Md Grn, Rnd-Sub Rnd, Fair Sorting, Fair-Good intergranular porosity, Fairly well cemented, Good oil saturation, GSFO, Strong Odor, Dull Yel Fluor

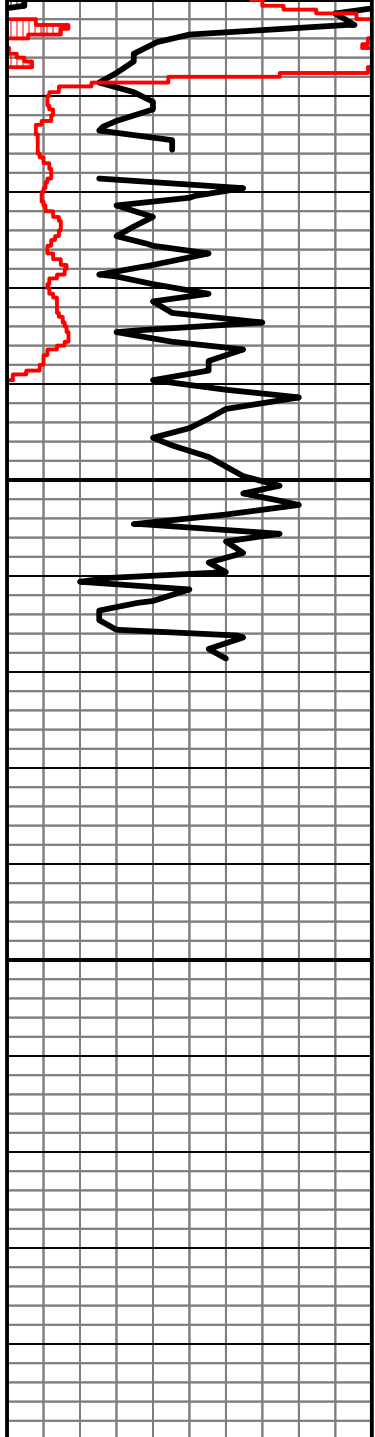
Ss: Qtz, Fn-Md Grn, Rnd-Sub Rnd, Fair-Good Sorting, Fair intergranular porosity, poorly cemented - friable, SSFO

Ss: Qtz, white, Fn-Md Grn, Rnd, Fair-Good sorting, Poor intergranular porosity, well cemented, NSFO

DST #1 2,990'-3,014' (Top 10' of Simpson Sand)  
30"-30"-30"-30"

IF: BOB in 7 minutes, no blow back on shut in  
FF: BOB in 2 minutes, no blow back on shut in  
Rec: 60' Gas in Pipe  
105' Oil Cut Mud (15% O, 85% M)  
820' Sand Cut Oil (25% S, 75% O) (21 API)  
FP: 25-343, 429-501#  
SIP: 892-854#  
HP: 1,457-1,389#  
BHT: 117





3000  
3100  
3150  
3200

Sh: Drk Gry-Brn-Grn, soft

**Arbuckle 3058' (-1745)**

Dolo: Lt Gry-Tan, Fn xln, Mostly DNS, Barren

Dolo: Lt Gry-Tan, Fn-Md xln, Poor int xln porosity, NSFO

Dolo: ala

Dolo: Tan-Gry, Fn xln, Mostly DNS, Barren, sl chert-off wh

**RTD 3119 (-1806)**



**CONSOLIDATED**  
Oil Well Services, LLC

**ENTERED**

TICKET NUMBER 34839  
LOCATION Eureka  
FOREMAN Steve Mead

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**

**CEMENT** APR 15-197-20296

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
6-23-12	4027	Wauagh B #2	18	155	12E	Wabounsee
CUSTOMER			TRUCK #	DRIVER	TRUCK #	DRIVER
John O. Farmer			485	Alan M		
MAILING ADDRESS			611	Joey		
P. O. Box 352						
CITY	STATE	ZIP CODE				
Russell	KS	67665				

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 332' CASING SIZE & WEIGHT 8 5/8 23 #  
 CASING DEPTH 332' DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 14.5 # SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 25'  
 DISPLACEMENT 19.5 bbls DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: SAFETY MEETING: Rig up to 8 5/8 casing. Break circulation w/ fresh water. Pump 10 bbls ahead. Mix 170 SKS Class A cement w/ 3% CaCl2, 2% Gel & 1/4" Flo-Cele per/sk. AT 14.5#. Displace with 19 1/2 bbls fresh water. Shut well in. Good cement returns to surface 15 bbl top of subcomplete Rig-down

*Thank you*

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54015	1	PUMP CHARGE	825.00	825.00
5406	70	MILEAGE	4.00	280.00
11045	170 sks	Class A Cement	14.95	2541.50
1102	500 #	CaCl2 3%	.74	370.00
1118B	300 #	Gel 2%	.21	63.00
1107	50 #	Flo-Cele 1/4" Per/sk	2.35	117.50
5407A	7.99	Ten mileage Bulk Truck	1.34	749.46
			SubTotal	4946.46
			SALES TAX	241.18
			ESTIMATED TOTAL	5187.64

Ravin 3737

AUTHORIZATION [Signature] TITLE Tool Pusher DATE 6-22-12

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form



**CONSOLIDATED**  
Oil Well Services, LLC

**ENTERED**

TICKET NUMBER 34856

LOCATION Eureka

FOREMAN Rick Leaford

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**

**CEMENT**

API # 15-197-20296

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
6-28-12	4027	Waugh B. # 2	18	153	12E	Waub.
CUSTOMER						
John O Farmer						
MAILING ADDRESS						
P.O. Box 352						
CITY		STATE	ZIP CODE			
Russell		KS	67145			

JOB TYPE	HOLE SIZE	HOLE DEPTH	CASING SIZE & WEIGHT
L/S 0	7 7/8"	3119'	5 1/2" 14# NEW
CASING DEPTH	DRILL PIPE	TUBING	OTHER
3119'			FBTD 3092'
SLURRY WEIGHT	SLURRY VOL	WATER gal/sk	CEMENT LEFT in CASING
13.6#	40 Bbl	9.0	21.85 SJ
DISPLACEMENT	DISPLACEMENT PSI	PSI	RATE
75 1/2 BW	700	1100 Pump plus	

REMARKS: Safety meeting - Rig up to 5 1/2" casing w/ rotating head. Break circulation w/ 5 BW fresh water. Pump 12 Bbl (500 gals) silt suspender pre-flush, 10 Bbl KCL 2% water spacer. Mixed 120 SKS thickset cement w/ 5# Kat-seal/sk @ 13.6#/gal yield 1.85. Washout pump + lines, release latch down plug. Displace w/ 75 1/2 Bbl fresh water. First 10 Bbl was 2% KCL water. Final pump pressure 700 PSI. Pump plus to 1100 PSI. wait 2 minutes, release pressure, float + plug held. Good circulation @ all times while cementing + displacement of plug. Job complete. Rig down.

Centralizers on Joints 1, 3, 5, 7, 9, 11  
Baskets on Joints 2, 12

"Thank You"

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE	1030.00	1030.00
5406	70	MILEAGE	4.00	280.00
1126A	120 SKS	thickset cement	19.20	2304.00
1100A	750#	5# Kat-seal/sk	.46	345.00
1126A	30 SKS	thickset cement (plugged Rathole)	19.20	576.00
5407A	8.25	tan mileage bulk trk	1.34	773.85
1143	2 gals	silt suspender pre-flush	40.40	80.80
1142	2 gals	KCL for water spacer + displacement water	33.50	67.00
4104	2	5 1/2" cement baskets	229.00	458.00
4130	6	5 1/2" x 7 7/8" centralizers	48.00	288.00
4203	1	5 1/2" Guide Shoe	160.00	160.00
4228G	1	5 1/2" AFV insert	172.00	172.00
4454	1	5 1/2" latch down plug	254.00	254.00
5611	1	Rental on 5 1/2" rotating head	100.00	100.00
			Subtotal	6888.65
			SALES TAX	366.97
			ESTIMATED TOTAL	7255.62

Ravin 3737

AUTHORIZATION [Signature] TITLE 250917 DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

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



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

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

Sam Brownback, Governor

October 16, 2012

Marge Schulte  
Farmer, John O., Inc.  
370 W WICHITA AVE  
PO BOX 352  
RUSSELL, KS 67665-2635

Re: ACO1  
API 15-197-20296-00-00  
Waugh B 2  
SW/4 Sec.18-15S-12E  
Wabaunsee County, Kansas

Dear Production Department:

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

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

Respectfully,  
Marge Schulte