

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1239671  
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: \_\_\_\_\_

1239671

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

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

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

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

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

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

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

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

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

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

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

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

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

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Bach, Jason dba Bach Oil Production
Well Name	Dorothy 1
Doc ID	1239671

Tops

Name	Top	Datum
Stone Corral	1843	+392
Base Stone Corral	1845	+390
Topeka	3187	-952
Heebner	3397	-1162
Toronto	3427	-1192
Lansing	3444	-1209
Muncie	3553	-1318
I Zone	3589	-1354
LTD	3620	-1385





PO Box 93999  
Southlake, TX 76092

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

# INVOICE

Invoice Number: 146083  
Invoice Date: Sep 29, 2014  
Page: 1

Federal Tax I.D.#: 20-8651475

<b>Bill To:</b>
Bach Oil Production 82 W. 500 Ln. Phillipsburg, KS 67661

Customer ID	Field Ticket #	Payment Terms	
Bach	55331	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-01	Russell	Sep 29, 2014	10/29/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Dorothy #1		
175.00	CEMENT MATERIALS	Class A Common	17.90	3,132.50
330.00	CEMENT MATERIALS	Gel	0.50	165.00
495.00	CEMENT MATERIALS	Chloride	1.10	544.50
175.00	CEMENT SERVICE	Cubic Feet Charge	2.48	434.00
412.50	CEMENT SERVICE	Ton Mileage Charge	2.75	1,134.38
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
50.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	220.00
50.00	CEMENT SERVICE	Heavy Vehicle Mileage	7.70	385.00
1.00	CEMENT SUPERVISOR	Robert Yakubovich		
1.00	EQUIPMENT OPERATOR	Nathan Donner		
1.00	OPERATOR ASSISTANT	Jonathan Price		

Subtotal	7,527.63
Sales Tax	255.49
Total Invoice Amount	7,783.12
Payment/Credit Applied	
<b>TOTAL</b>	<b>7,783.12</b>

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

\$ 1,806.63

ONLY IF PAID ON OR BEFORE  
Oct 29, 2014

# ALLIED OIL & GAS SERVICES, LLC 055331

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:  
Russell KS

DATE <u>9-29-14</u>	SEC <u>9</u>	TWP <u>2</u>	RANGE <u>19</u>	CALLED OUT	ON LOCATION	JOB START <u>8:30 AM</u>	JOB FINISH <u>7:00 PM</u>
LEASE <u>Dorothy</u>	WELL # <u>1</u>	LOCATION <u>Ph. H. parberg KS 8th 8 1/2 W</u>			COUNTY <u>Ph. Hays</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>NEW</u>				<u>Sinto</u>			

CONTRACTOR Martin 29  
 TYPE OF JOB Surface  
 HOLE SIZE 12 1/4 T.D. 220  
 CASING SIZE 8 5/8 2 3/4 DEPTH 220  
 TUBING SIZE DEPTH  
 DRILL PIPE DEPTH  
 FOOL DEPTH  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT 15  
 CEMENT LEFT IN CSG. 15  
 PERFS.  
 DISPLACEMENT 13

OWNER  
 CEMENT AMOUNT ORDERED 175 com 370cc 28gel  
 COMMON 175 @ 17.90 3132.50  
 POZMIX @  
 GEL 330 @ .50 165.00  
 CHLORIDE 475 @ 1.10 544.50  
 ASC @  
 @  
 @  
Materials @ 3842.00  
Disc @ 922.08  
 @  
 @  
 @  
 @  
 HANDLING 175 @ 2.48 434.00  
 MILEAGE 412.5 @ 2.75 1134.38  
 TOTAL 5410.88

EQUIPMENT  
 PUMP TRUCK CEMENTER Robert Y  
 # 409 HELPER Warhan D  
 BULK TRUCK  
 # 378 DRIVER Jon P  
 BULK TRUCK  
 # DRIVER

REMARKS:

See log  
Cement did circulate to pit  
25 sks  
Thank you!!!

CHARGE TO: Beach Oil Production  
 STREET  
 CITY STATE ZIP

SERVICE

DEPTH OF JOB 220  
 PUMP TRUCK CHARGE 1512.25  
 EXTRA FOOTAGE @  
 MILEAGE 50 H.V.M.I @ 4.40 220.00  
 MANIFOLD @  
50 H.V.M.I @ 7.70 385.00  
 @  
Disc 884.55 TOTAL 3685.63  
 TOTAL 5217.25

PLUG & FLOAT EQUIPMENT

N/A @  
 @  
 @  
 @  
 @

TOTAL

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

SALES TAX (If Any)  
 TOTAL CHARGES 7527.63  
 DISCOUNT 1806.63 (24%) IF PAID IN 30 DAYS  
 net \$ 5721.00

PRINTED NAME Anthony Martin  
 SIGNATURE Anthony Martin



# INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 146141

Invoice Date: Oct 4, 2014

Voice: (817) 546-7282

Page: 1

Fax: (817) 246-3361

Federal Tax I.D.#: 20-8651475

<b>Bill To:</b>
Bach Oil Production 82 W. 500 Ln. Phillipsburg, KS 67661

Customer ID	Field Ticket #	Payment Terms	
Bach	55335	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-03	Russell	Oct 4, 2014	11/3/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Dorothy #1		
255.00	CEMENT MATERIALS	60/40/4% Gel Blend	18.92	4,824.60
57.00	CEMENT MATERIALS	Flo Seal	2.97	169.29
255.00	CEMENT SERVICE	Cubic Feet Charge	2.48	632.40
569.92	CEMENT SERVICE	Ton Mileage Charge	2.75	1,567.28
1.00	CEMENT SERVICE	Plug to Abandon	1,525.75	1,525.75
50.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	220.00
100.00	CEMENT SERVICE	Heavy Vehicle Mileage	7.70	770.00
1.00	EQUIPMENT SALES	8-5/8 Wooden Plug	110.00	110.00
1.00	CEMENT SUPERVISOR	Robert Yakubovich		
1.00	EQUIPMENT OPERATOR	Nathan Donner		
1.00	OPERATOR ASSISTANT	Tyler Wellbrock		

Subtotal	9,819.32
Sales Tax	652.98
Total Invoice Amount	10,472.30
Payment/Credit Applied	
<b>TOTAL</b>	<b>10,472.30</b>

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

\$ 2,454.83

ONLY IF PAID ON OR BEFORE  
Nov 3, 2014

# ALLIED OIL & GAS SERVICES, LLC 055535

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:  
Russell KS  
1:00 PM 1:30 PM

DATE 10-4-14	SEC 9	TWP. 2	RANGE 19	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE Dorthy	WELL# 1	LOCATION Phillipsburg KS 8 N 9 1/2			COUNTY Phillips	STATE KS	
OLD OR NEW (Circle one)		Sinto					

CONTRACTOR <u>Martin 24</u>	OWNER
TYPE OF JOB <u>PTA</u>	
HOLE SIZE <u>7 7/8</u>	T.D. <u>3620</u>
CASING SIZE	DEPTH
TUBING SIZE	DEPTH
DRILL PIPE <u>4 1/2</u>	DEPTH <u>1845</u>
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG.	
PERFS	
DISPLACEMENT	
EQUIPMENT	
PUMP TRUCK CEMENTER <u>Robert Y</u>	
# <u>409</u> HELPER <u>Nathan D</u>	
BULK TRUCK	
# <u>481</u> DRIVER <u>Tyler W</u>	
BULK TRUCK	
#	DRIVER
REMARKS:	
<p>p1 50 sk @ 1845 p2 100 sk @ 1305 p3 50 sk @ 270 p1 10 sk @ 40 RH 30 sk MH 15 sk</p> <p>Thank you!!!</p>	
CEMENT AMOUNT ORDERED <u>255 60/40 490 gel 1 1/4 510</u>	
COMMON @	
POZMIX @	
GEL @	
CHLORIDE @	
ASC @	
<u>60/40 490 gel 2.55</u>	@ <u>18.92 4824.60</u>
<u>10-seal 57 21</u>	@ <u>2.97 169.29</u>
<u>Material</u>	@ <u>4993.89</u>
<u>Steel</u>	@ <u>1248.47</u>
HANDLING <u>255 sks</u>	@ <u>2.48 632.40</u>
MILEAGE <u>569.925 +/m</u>	@ <u>2.75 1567.29</u>
TOTAL <u>7493.58</u>	

SERVICE	
DEPTH OF JOB	<u>1845</u>
PUMP TRUCK CHARGE	<u>1525.75</u>
EXTRA FOOTAGE @	
MILEAGE <u>50 LVMI</u>	@ <u>4.40 220.00</u>
MANIFOLD @	
<u>100 HVMI</u>	@ <u>7.70 770.00</u>
<u>Steel 1178.86</u>	@ <u>4715.44</u>
TOTAL <u>1515.75</u>	
PLUG & FLOAT EQUIPMENT	
<u>8 7/8 Warden plug</u>	@ <u>110.00 110.00</u>
<u>Steel 22.50</u>	TOTAL <u>110.00</u>

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.

CHARGE TO: Bach Oil

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

TOTAL CHARGES 9819.33

DISCOUNT 2454.83 (25%) IF PAID IN 30 DAYS

PRINTED NAME Anthony Martin

SIGNATURE Anthony Martin

Net 7364.50





## DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

P.O. Box 723  
Alma, NE 68920

ATTN: Bob Peterson

### **Dorothy #1**

### **9-2s-19w Phillips,KS**

Start Date: 2014.10.02 @ 17:36:00

End Date: 2014.10.03 @ 04:12:00

Job Ticket #: 60705                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.10.07 @ 11:21:30



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Bach Oil Production

**9-2s-19w Phillips,KS**

P.O. Box 723  
Alma, NE 68920

**Dorothy #1**

Job Ticket: 60705

**DST#: 1**

ATTN: Bob Peterson

Test Start: 2014.10.02 @ 17:36:00

## GENERAL INFORMATION:

Formation: **Toronto - LKC B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:38:00

Time Test Ended: 04:12:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Phillip Gage

Unit No: 76

**Interval: 3394.00 ft (KB) To 3504.00 ft (KB) (TVD)**

Reference Elevations: 2235.00 ft (KB)

Total Depth: 3504.00 ft (KB) (TVD)

2230.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8789**

**Inside**

Press@RunDepth: 90.74 psig @ 3395.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.02

End Date:

2014.10.03

Last Calib.: 2014.10.03

Start Time: 17:36:02

End Time:

04:12:00

Time On Btm: 2014.10.02 @ 23:37:45

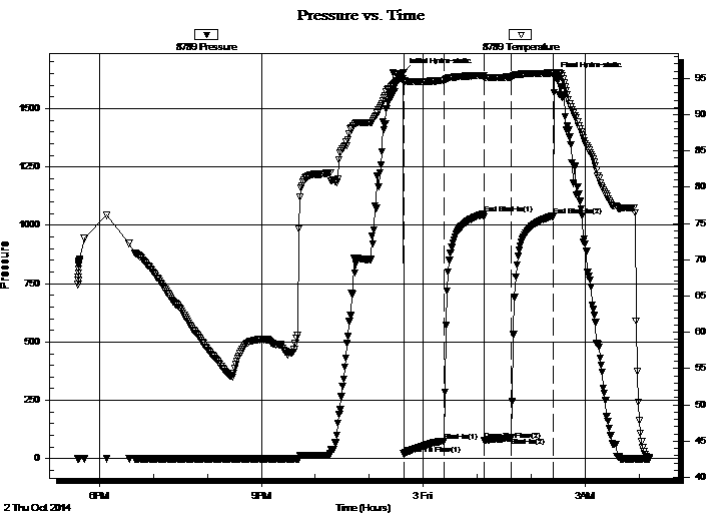
Time Off Btm: 2014.10.03 @ 02:25:45

TEST COMMENT: 45-IF-Built to 5 3/4"

45-ISI-No Return

30-FF-Built to 1"

45-FSI-No Return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1655.26	94.98	Initial Hydro-static
1	20.66	94.39	Open To Flow (1)
46	75.92	94.71	Shut-In(1)
90	1049.65	95.41	End Shut-In(1)
91	78.30	95.04	Open To Flow (2)
121	90.74	95.20	Shut-In(2)
167	1038.95	95.72	End Shut-In(2)
168	1638.17	95.79	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
166.00	M, w ith oil spots, 100% m	1.30

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Bach Oil Production

**9-2s-19w Phillips,KS**

P.O. Box 723  
Alma, NE 68920

**Dorothy #1**

ATTN: Bob Peterson

Job Ticket: 60705

**DST#: 1**

Test Start: 2014.10.02 @ 17:36:00

## GENERAL INFORMATION:

Formation: **Toronto - LKC B**

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Tester: Phillip Gage

Unit No: 76

**Interval: 3394.00 ft (KB) To 3504.00 ft (KB) (TVD)**

Total Depth: 3504.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2235.00 ft (KB)

2230.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8289 Outside**

Press@RunDepth: psig @ 3395.00 ft (KB)

Start Date: 2014.10.02

End Date: 2014.10.03

Start Time: 17:36:02

End Time: 04:12:15

Capacity: 8000.00 psig

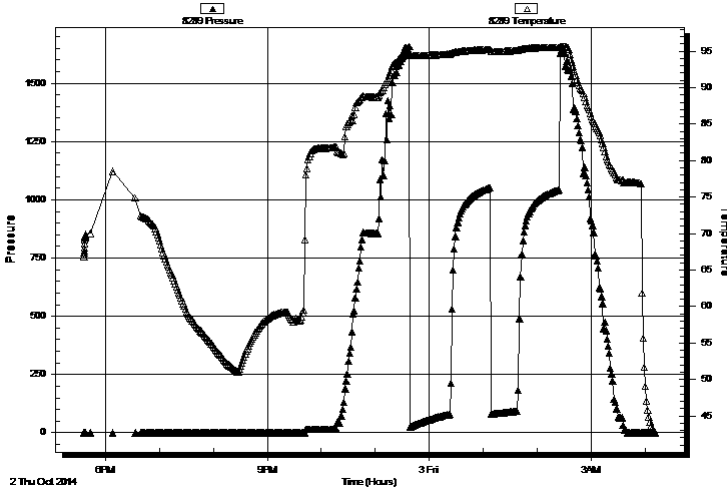
Last Calib.: 2014.10.03

Time On Btm:

Time Off Btm:

TEST COMMENT: 45-IF-Built to 5 3/4"  
45-ISI-No Return  
30-FF-Built to 1"  
45-FSI-No Return

Pressure vs. Time



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
166.00	M, w ith oil spots, 100% m	1.30

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bach Oil Production

**9-2s-19w Phillips,KS**

P.O. Box 723  
Alma, NE 68920

**Dorothy #1**

Job Ticket: 60705

**DST#: 1**

ATTN: Bob Peterson

Test Start: 2014.10.02 @ 17:36:00

## Tool Information

Drill Pipe:	Length: 3272.00 ft	Diameter: 3.80 inches	Volume: 45.90 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 113.00 ft	Diameter: 2.25 inches	Volume: 0.56 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 46.46 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3394.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	110.00 ft			
Tool Length:	138.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3367.00	
Shut In Tool	5.00			3372.00	
Hydraulic tool	5.00			3377.00	
Jars	5.00			3382.00	
Safety Joint	2.00			3384.00	
Packer	5.00			3389.00	28.00 Bottom Of Top Packer
Packer	5.00			3394.00	
Stubb	1.00			3395.00	
Recorder	0.00	8789	Inside	3395.00	
Recorder	0.00	8289	Outside	3395.00	
Perforations	5.00			3400.00	
Change Over Sub	1.00			3401.00	
Drill Pipe	94.00			3495.00	
Change Over Sub	1.00			3496.00	
Perforations	5.00			3501.00	
Bullnose	3.00			3504.00	110.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>138.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Bach Oil Production

**9-2s-19w Phillips,KS**

P.O. Box 723  
Alma, NE 68920

**Dorothy #1**

Job Ticket: 60705

**DST#: 1**

ATTN: Bob Peterson

Test Start: 2014.10.02 @ 17:36:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 40.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 0.50 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
166.00	M, w ith oil spots, 100%m	1.299

Total Length: 166.00 ft      Total Volume: 1.299 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

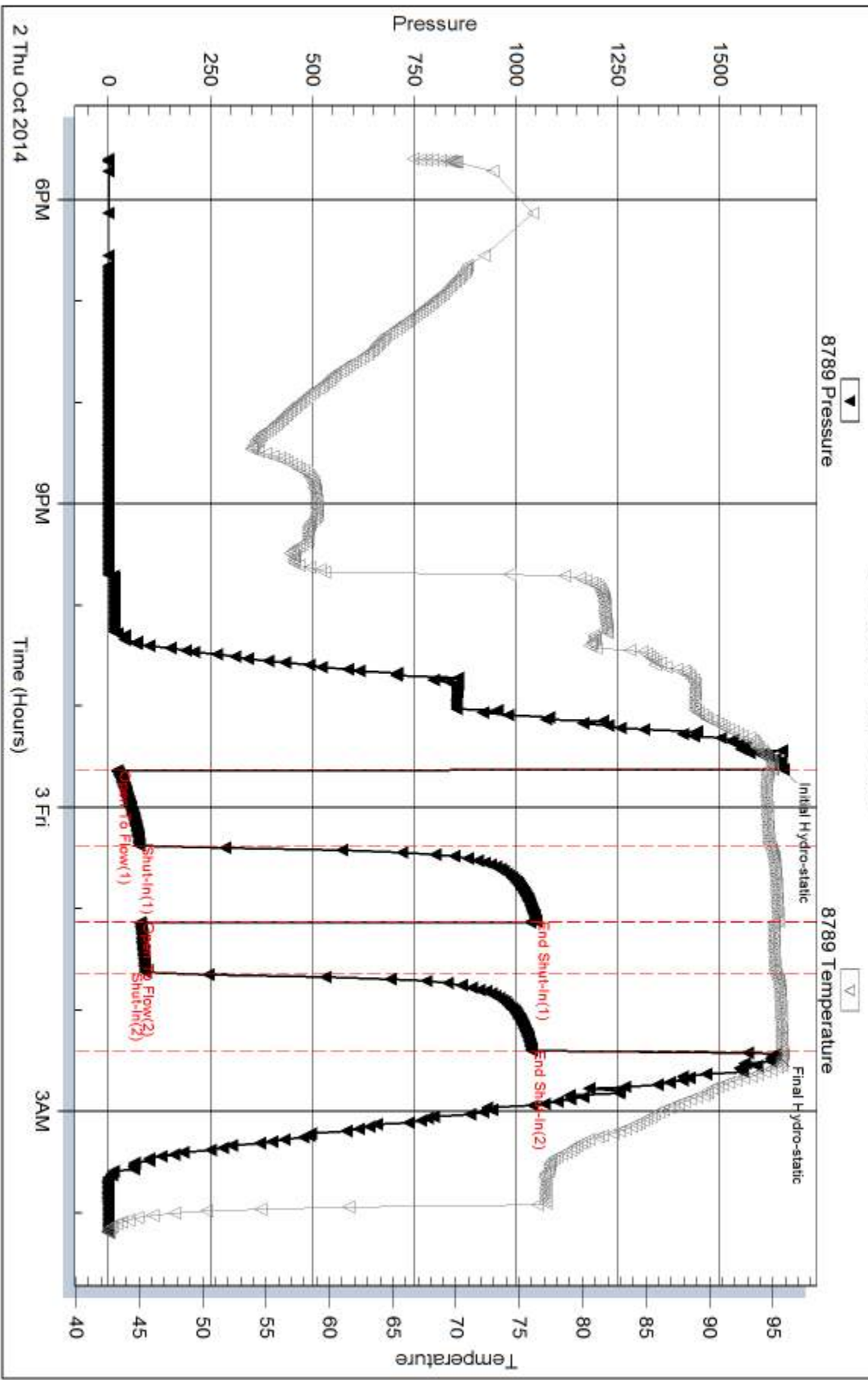
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

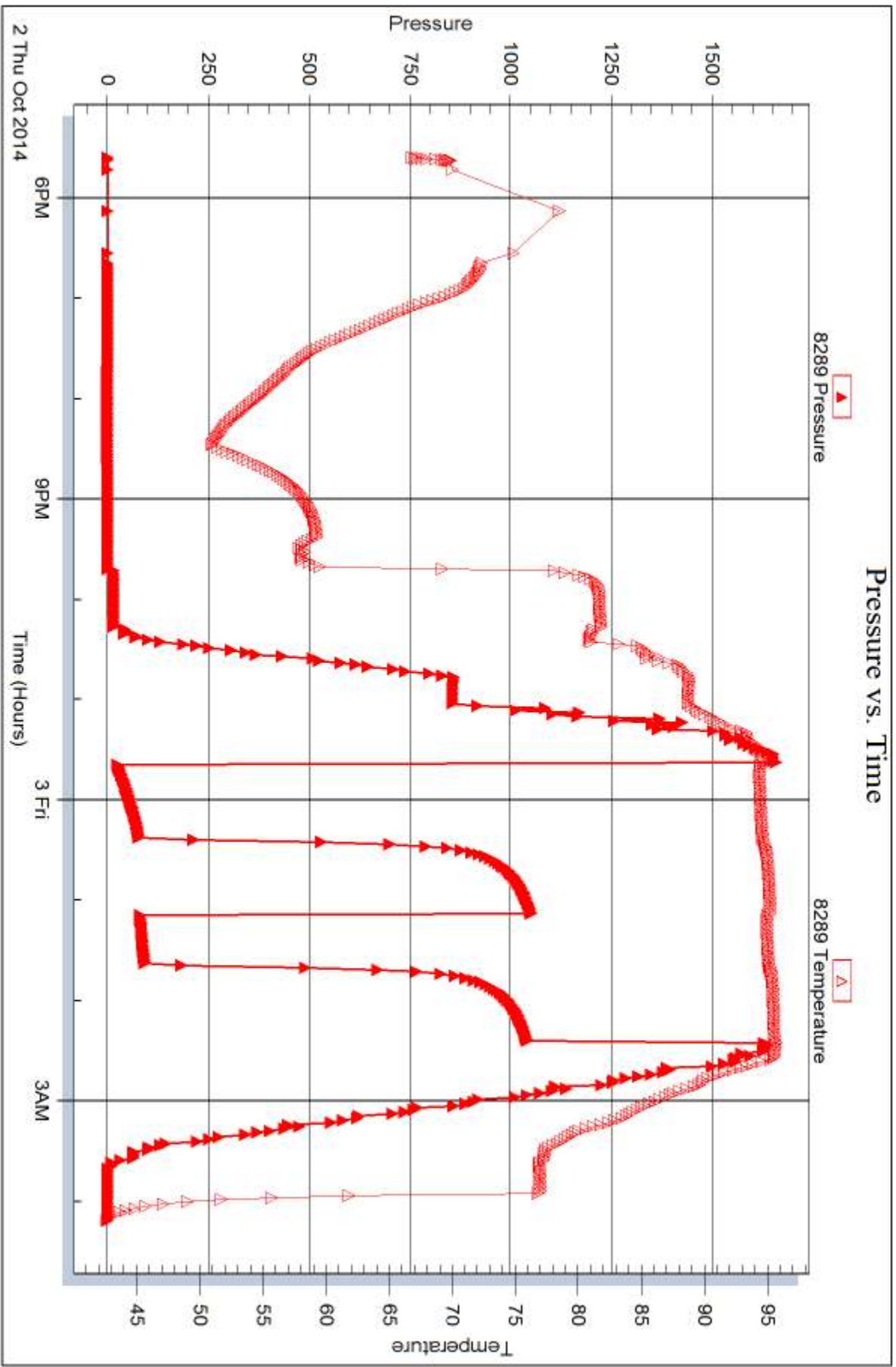


Serial #: 8289

Outside Bach Oil Production

Dorothy #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 60705

Printed: 2014, 10, 07 @ 11:21:31



## DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

P.O. Box 723  
Alma, NE 68920

ATTN: Bob Peterson

### **Dorothy #1**

### **9-2s-19w Phillips,KS**

Start Date: 2014.10.03 @ 19:15:00

End Date: 2014.10.04 @ 02:24:30

Job Ticket #: 60706                      DST #: 2

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.10.07 @ 11:20:57





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Bach Oil Production

**9-2s-19w Phillips,KS**

P.O. Box 723  
Alma, NE 68920

**Dorothy #1**

Job Ticket: 60706

**DST#: 2**

ATTN: Bob Peterson

Test Start: 2014.10.03 @ 19:15:00

## GENERAL INFORMATION:

Formation: **LKC "I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:52:30

Time Test Ended: 02:24:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 76

**Interval: 3578.00 ft (KB) To 3620.00 ft (KB) (TVD)**

Reference Elevations: 2235.00 ft (KB)

Total Depth: 3620.00 ft (KB) (TVD)

2230.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8789**

**Inside**

Press@RunDepth: 22.36 psig @ 3579.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.03

End Date:

2014.10.04

Last Calib.: 2014.10.04

Start Time: 19:15:02

End Time:

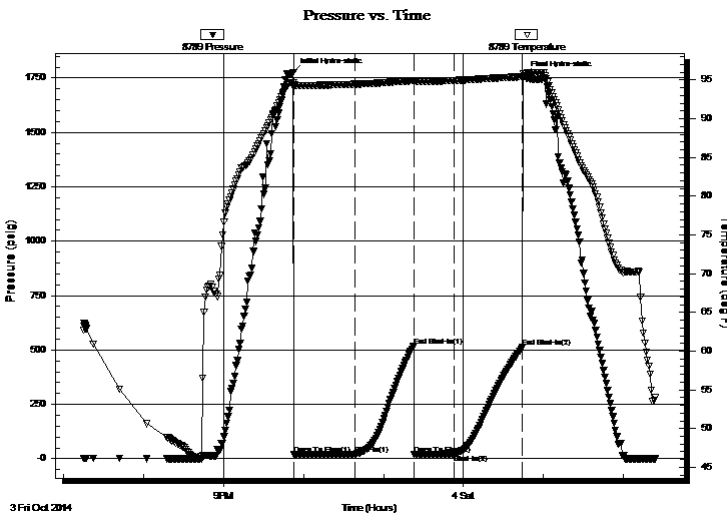
02:24:30

Time On Btm: 2014.10.03 @ 21:52:15

Time Off Btm: 2014.10.04 @ 00:45:30

TEST COMMENT: 45-IF-Built to 1/4"  
45-ISI-No Return  
30-FF-No Blow  
45-FSI-No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1776.05	94.71	Initial Hydro-static
1	18.71	94.11	Open To Flow (1)
47	20.10	94.46	Shut-In(1)
91	518.64	94.93	End Shut-In(1)
91	21.26	94.76	Open To Flow (2)
121	22.36	94.94	Shut-In(2)
172	511.38	95.44	End Shut-In(2)
174	1760.04	95.78	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	M, w ith oil spots, 100% m	0.02

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Bach Oil Production

P.O. Box 723  
Alma, NE 68920

ATTN: Bob Peterson

**9-2s-19w Phillips,KS**

**Dorothy #1**

Job Ticket: 60706

**DST#: 2**

Test Start: 2014.10.03 @ 19:15:00

## GENERAL INFORMATION:

Formation: **LKC "I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:52:30

Time Test Ended: 02:24:30

**Interval: 3578.00 ft (KB) To 3620.00 ft (KB) (TVD)**

Total Depth: 3620.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 76

Reference Elevations: 2235.00 ft (KB)

2230.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8289 Outside**

Press@RunDepth: psig @ 3579.00 ft (KB)

Start Date: 2014.10.03 End Date: 2014.10.04

Start Time: 19:15:02 End Time: 02:24:45

Capacity: 8000.00 psig

Last Calib.: 2014.10.04

Time On Btm:

Time Off Btm:

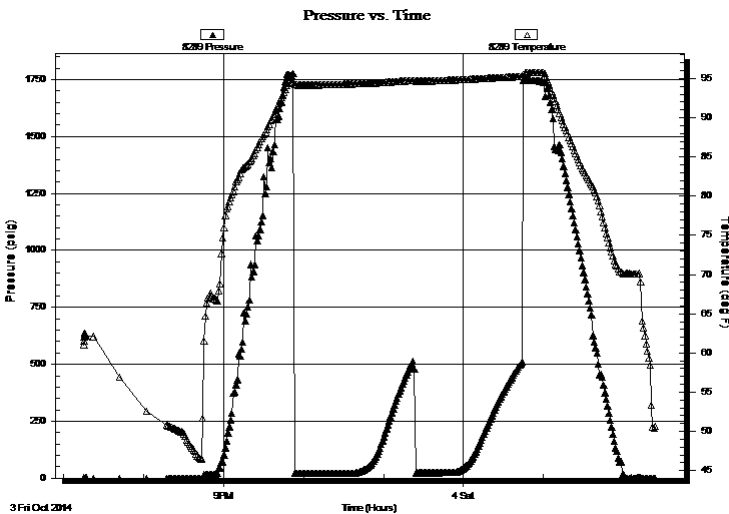
TEST COMMENT: 45-IF-Built to 1/4"

45-ISI-No Return

30-FF-No Blow

45-FSI-No Return

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	M, w ith oil spots, 100%m	0.02

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bach Oil Production

**9-2s-19w Phillips,KS**

P.O. Box 723  
Alma, NE 68920

**Dorothy #1**

Job Ticket: 60706

**DST#: 2**

ATTN: Bob Peterson

Test Start: 2014.10.03 @ 19:15:00

## Tool Information

Drill Pipe:	Length: 3459.00 ft	Diameter: 3.80 inches	Volume: 48.52 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 113.00 ft	Diameter: 2.25 inches	Volume: 0.56 bbl	Weight to Pull Loose:	48000.00 lb
			<u>Total Volume: 49.08 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	3578.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	42.00 ft				
Tool Length:	70.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3551.00	
Shut In Tool	5.00			3556.00	
Hydraulic tool	5.00			3561.00	
Jars	5.00			3566.00	
Safety Joint	2.00			3568.00	
Packer	5.00			3573.00	28.00 Bottom Of Top Packer
Packer	5.00			3578.00	
Stubb	1.00			3579.00	
Recorder	0.00	8789	Inside	3579.00	
Recorder	0.00	8289	Outside	3579.00	
Perforations	38.00			3617.00	
Bullnose	3.00			3620.00	42.00 Bottom Packers & Anchor

**Total Tool Length: 70.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Bach Oil Production

**9-2s-19w Phillips,KS**

P.O. Box 723  
Alma, NE 68920

**Dorothy #1**

Job Ticket: 60706

**DST#: 2**

ATTN: Bob Peterson

Test Start: 2014.10.03 @ 19:15:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 4.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 0.50 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	M, w ith oil spots, 100%m	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8789

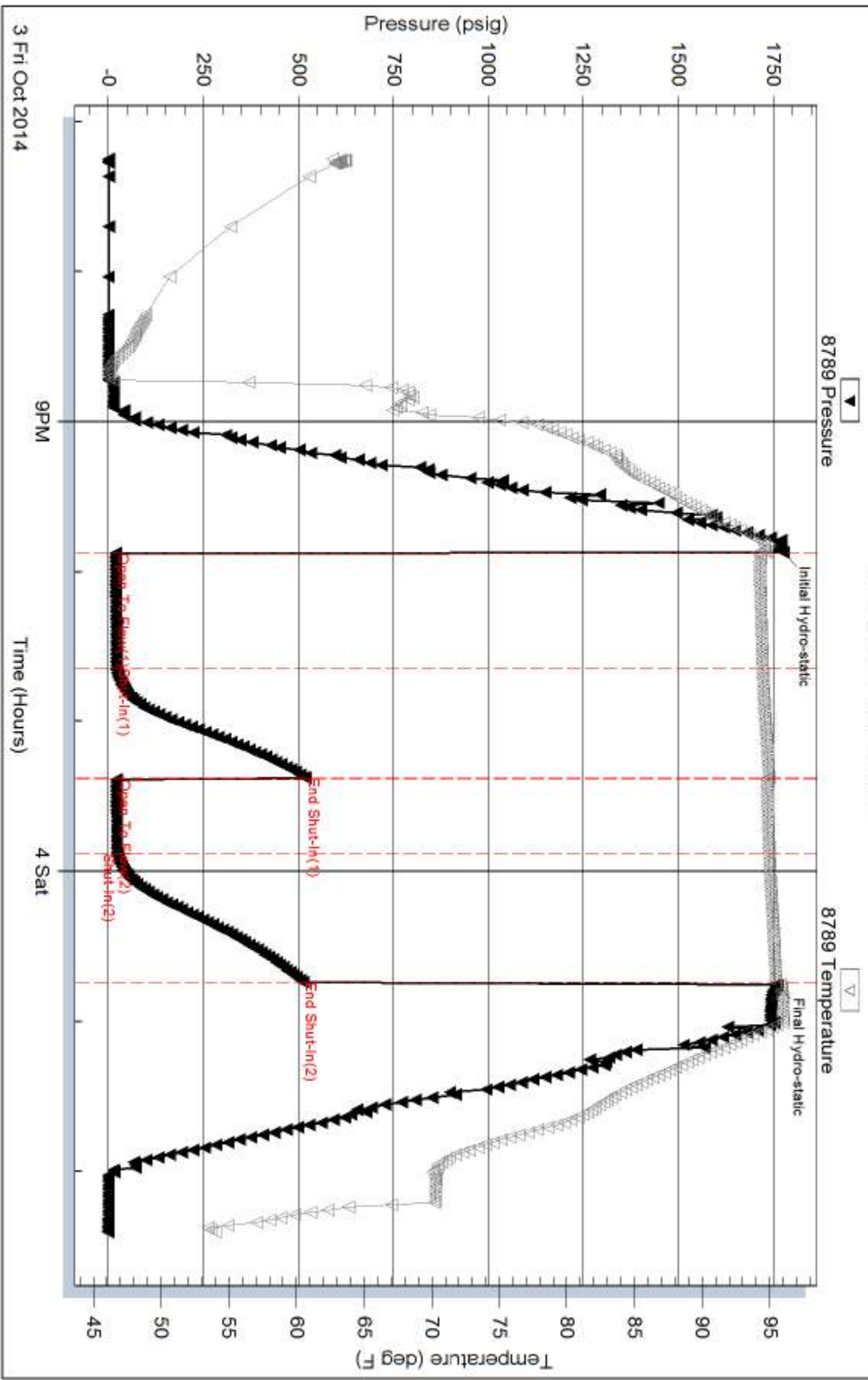
Inside

Bach Oil Production

Dorothy #1

DST Test Number: 2

### Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 60706

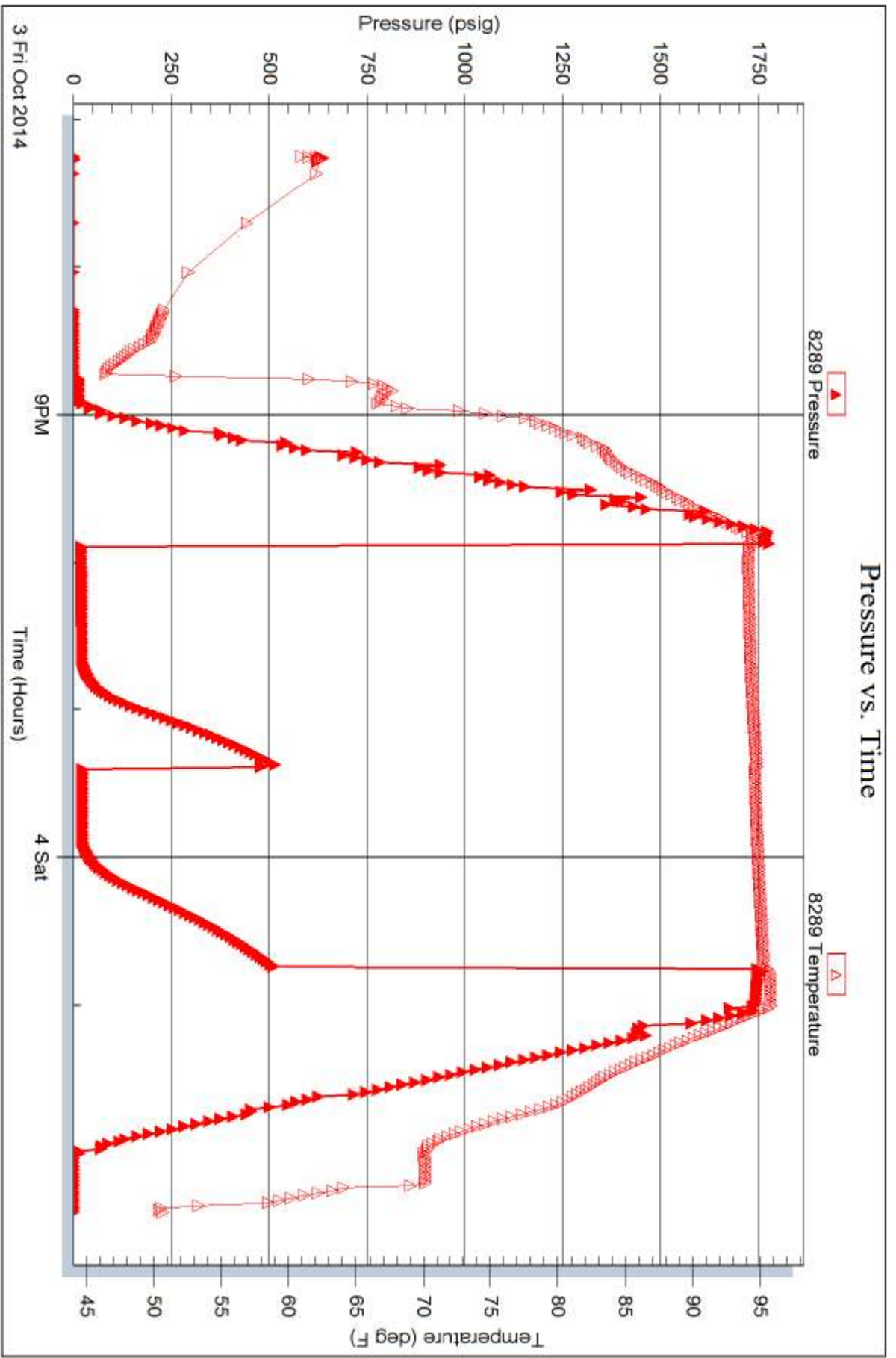
Printed: 2014, 10, 07 @ 11:20:59

Serial #: 8289

Outside Bach Oil Production

Dorothy #1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 60706

Printed: 2014, 10, 07 @ 11:20:59



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **60705** 21653

4/10

Well Name & No. Dorothy #1 Test No. 1 Date 10-2-14  
 Company Bach, Jason dba Bach Oil Production Elevation 2235 KB 2230 GL  
 Address P.O. Box 773 Alma, NE 68920  
 Co. Rep / Geo. Bob Peterson Rig Martin 24  
 Location: Sec. 09 Twp. 02S Rge. 19w Co. Phillips State KS

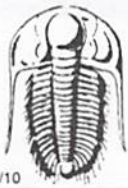
Interval Tested 3394-3504 Zone Tested Toronto - B  
 Anchor Length 110' Drill Pipe Run 3272 Mud Wt. 9.1  
 Top Packer Depth 3389 Drill Collars Run 113 Vis 40  
 Bottom Packer Depth 3394 Wt. Pipe Run 0 WL 6.4  
 Total Depth 3504 Chlorides 800 ppm System LCM 1/2#  
 Blow Description IF Buds to 5 3/4"  
ISI No Return  
FF Buds to 1"  
FSI No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>166'</u>	<u>M, with oil spots</u>				<u>100%</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 166' BHT 45 Gravity — API RW — ° F Chlorides — ppm  
 (A) Initial Hydrostatic 1,655  Test 1150 T-On Location 17:35  
 (B) First Initial Flow 20  Jars 250 T-Started 17:36  
 (C) First Final Flow 75  Safety Joint 75 T-Open 23:38  
 (D) Initial Shut-In 1,049  Circ Sub \_\_\_\_\_ T-Pulled 02:23  
 (E) Second Initial Flow 78  Hourly Standby 1.75h 175 T-Out 04:12  
 (F) Second Final Flow 90  Mileage 166 RT 125 rt 193.75  
 (G) Final Shut-In 1,038  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1,638  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1843.75  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1843.75  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Phil Long Thank You

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **60706**

4/10

Well Name & No. Dorothy #1 Test No. 2 Date 10-3-14  
 Company Bach, Jason aka Bach Oil Production Elevation 2235 KB 2230 GL  
 Address P.O. Box 723 Alma, NE 68920  
 Co. Rep / Geo. Bob Peterson Rig Murkin 24  
 Location: Sec. 09 Twp. 02s Rge. 19w Co. Phillips State KS

Interval Tested 3578-3620 Zone Tested LK 11"  
 Anchor Length 42' Drill Pipe Run 3459 Mud Wt. 9.2  
 Top Packer Depth 3573 Drill Collars Run 113 Vis 49  
 Bottom Packer Depth 3578 Wt. Pipe Run 0 WL 4.8  
 Total Depth 3620 Chlorides 800 ppm System LCM 1/2H

Blow Description IF Bunt to 1/4"  
ISE No Return  
FF No Blow  
BSI No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>5'</u>	<u>M<sub>1</sub> with oil spots</u>				<u>100</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5' BHT 95 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1,776  Test 1150 T-On Location 19:13  
 (B) First Initial Flow 18  Jars 250 T-Started 19:15  
 (C) First Final Flow 20  Safety Joint 75 T-Open 21:53  
 (D) Initial Shut-In 518  Circ Sub \_\_\_\_\_ T-Pulled 00:38  
 (E) Second Initial Flow 21  Hourly Standby \_\_\_\_\_ T-Out 02:25  
 (F) Second Final Flow 22  Mileage 166 RT 193.75 Comments \_\_\_\_\_  
 (G) Final Shut-In 511  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1,760  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_

Initial Open 45  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 45  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Shut-In 45  Day Standby \_\_\_\_\_ Total 1668.75  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1668.75

Approved By \_\_\_\_\_ Our Representative Phil Hoag Thank You

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.



# GEOLOGIST'S REPORT

## DRILLING TIME AND SAMPLE LOG

**BACH OIL PRODUCTION**

**WELL: DOROTHY #1**

**LOC.:990' FNL & 2310' FEL  
SEC. 9-2-19W  
PHILLIPS COUNTY, KANSAS  
API: 15-147-20748-00-00**

**DRILLING CONTR.: MURFIN RIG #24  
SPUD: 09-29-14 COMP: 10-03-14  
MUD UP: 2650' TYPE MUD: CHEM.  
DRILL TIME: 3050 to' RTD  
RTD: 3620' LTD:3620'  
SAMPLES SAVED: 3100'-RTD  
GEOLOGIST: ROBERT J. PETERSEN**

**ELEVATION**

KB: 2235  
GL: 2230  
LOG MEASURED  
FROM: KB

**SURFACE CASING**

20# 8 5/8 " Casing set @ 220' w/175 SX

**PRODUCTION CASING**

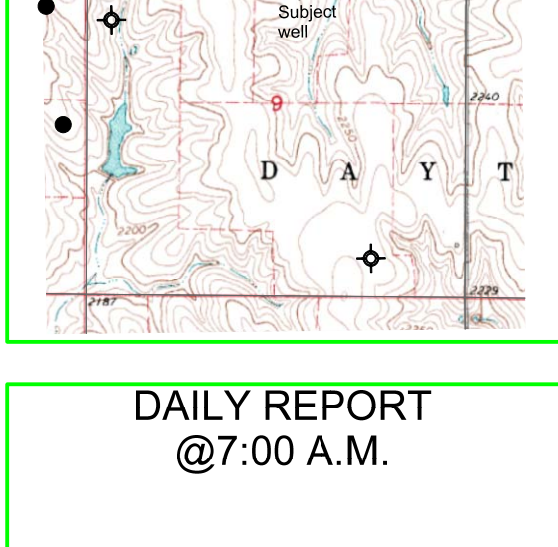
**D&A**

**WELL LOG SURVEYS**

**CDL/DIL**

**ELECTRIC LOG TOPS**

FORMATION	DEPTH	DATUM	POSITION
Stone Corral	1843	+392	-16
Base Stone Corral	1845	+390	-3
Topeka	3187	-952	-14
Heebner	3397	-1162	-15
Toronto	3427	-1192	-16
Lansing	3444	-1209	-15
Muncie	3553	-1318	-15
I Zone	3589	-1354	-16
LTD	3620	-1385	N/A



**REFERENCE WELL:**

Bach Brands #1  
160' FSL/830' FEL  
4-2-19W

**REMARKS AND RECOMMENDATIONS**

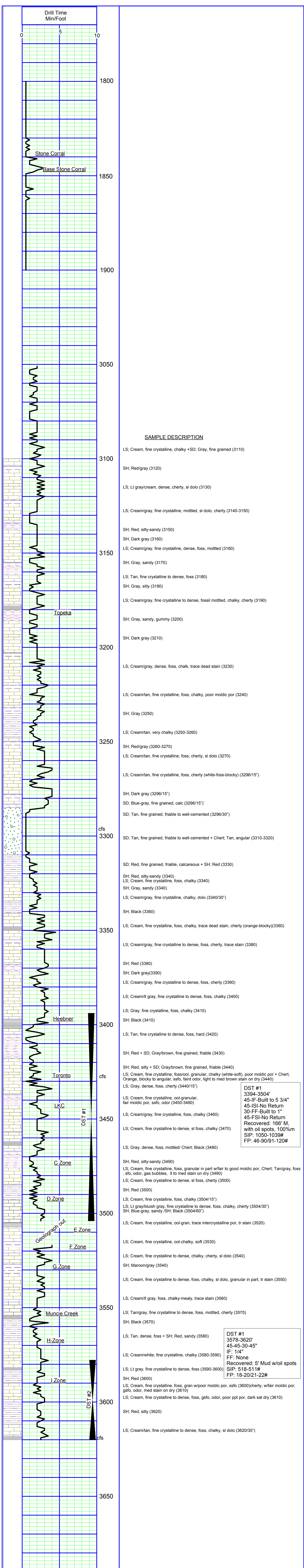
This well was plugged and abandoned by the operator.

Respectfully submitted,

*Robert J. Petersen*  
Robert J. Petersen

**DAILY REPORT @7:00 A.M.**

09-29-14 MIRU/SPUD  
09-30-14 391'  
10-1-14 2565'  
10-2-14 3345'  
10-3-14 3510'  
RTD @ 11:58 AM 3617'



**DST #1**  
3394-3504'  
45-IF-Built to 5 3/4"  
45-ISI-No Return  
30-FF-Built to 1"  
45-FSI-No Return  
Recovered: 166' M,  
with oil spots, 100% m  
SIP: 1050-1039#  
FP: 46-90/91-120#

**DST #1**  
3578-3620'  
45-45-30-45"  
IF: 1/4"  
FF: None  
Recovered: 5' Mud w/oil spots  
SIP: 518-511#  
FP: 18-20/21-22#