

Confidentiality Requested:

Yes  No

**KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

**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

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

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  Drill Stem Tests Received

Geologist Report / Mud Logs 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) (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	Russell Oil, Inc.
Well Name	PORTER B 21-1
Doc ID	1342693

All Electric Logs Run

MICRORESISTIVITY
DUAL INDUCTION
COMPENSATED DENSITY NEUTRON
SECTOR CEMENT BOND LOG

Form	ACO1 - Well Completion
Operator	Russell Oil, Inc.
Well Name	PORTER B 21-1
Doc ID	1342693

Tops

Name	Top	Datum
ANHYRDITE	2575	+485
BASE ANHYDRITE	2602	+459
HEEBNER	4030	-969
TORONTO	4059	-993
LANSING	4072	-1007
MUCNIE CREEK	4210	-1145
STARK SHALE	4292	-1227
HUSH SHALE	4324	-1261
BASE KC	4348	-1293
MARMATON	4392	-1321
PAWNEE	4494	-1419
FT SCOTT	4544	-1477
CHEROKEE SHALE	4572	-1506
JOHNSON	4614	-1547
MORROW	4635	-1571
MISSISSIPPI	4660	-1597
LTD	4727	-1653
RTD	4725	-1653

Form	ACO1 - Well Completion
Operator	Russell Oil, Inc.
Well Name	PORTER B 21-1
Doc ID	1342693

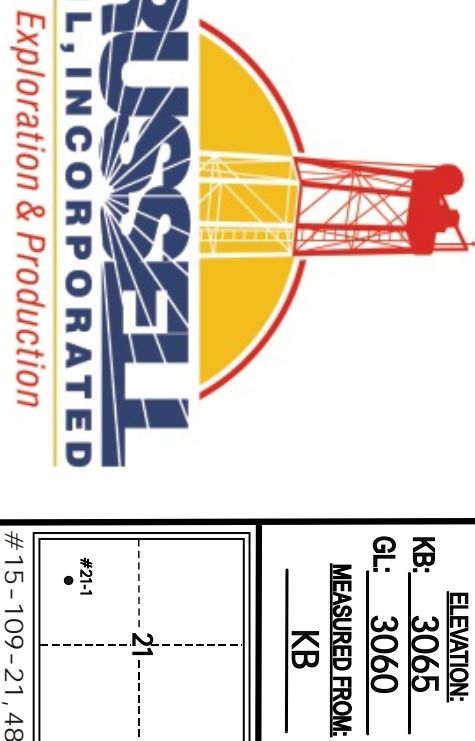
Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	JOHNSON (4626'-4630')	1500 GAL 20%NE/CS/DMO 3%MS	
4	JOHNSON (4616'4620')	1500 GAL 20%NE/CS/DMO 3%MS	



# KITT NOAH

PETROLEUM GEOLOGIST  
Kansas License #229



## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

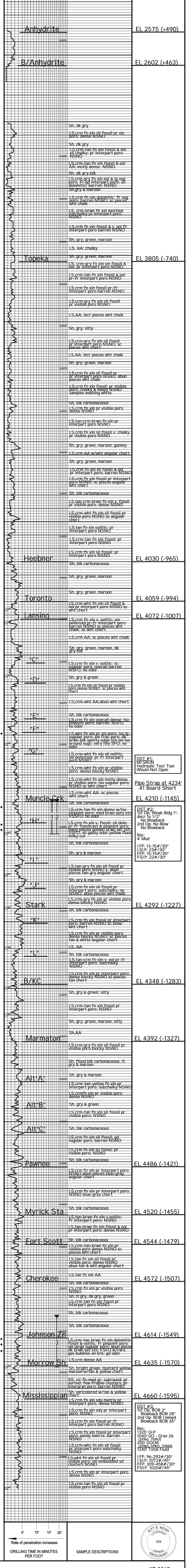
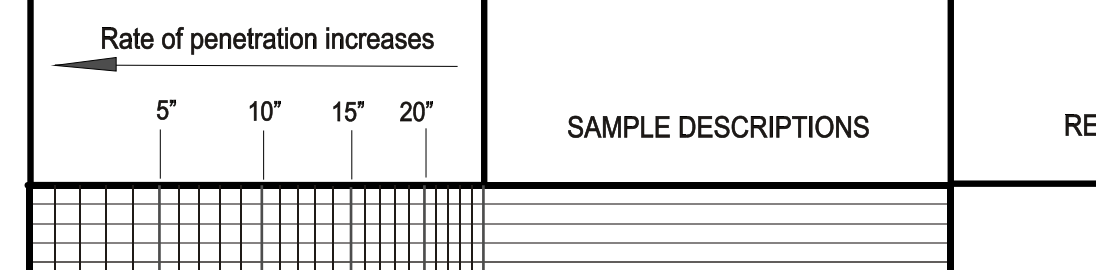
ELEVATION: **KB 3065**  
GL: 3060  
MEASURED FROM: **KB**

OPERATOR: **Russell Oil, Inc.**  
LEASE: **Porter "B"** WELL NO: **#21-1**  
LOCATION: **745'FS & 928'FW**  
SEC: **21** TWP: **11S** RNG: **32W**  
COUNTY: **Logan** STATE: **Kansas**

CONTRACTOR: **WV Drilling Rig #10**  
COMM: **1-6-2017** COMP: **1-15-2017**  
RTD: **4725** LTD: **4727**  
SAMPLER SAVED FROM: **3700 TO TD**  
DRILLING TIME SAVED FROM: **3700 TO TD**  
SAMPLER EXAMINED FROM: **3700 TO TD**  
GEOLOGICAL SUPERVISION FROM: **3820 TO TD**  
MUD UP: **3392** MUD TYPE: **Chemical**  
Muddo - Reid Alkalis  
DRILL STEEL TESTS TAKEN: **3**  
Pawnee  
Tribolite - Bradley Walters  
SURVEYS: **Gemini Wireline, LLC**  
Compensated Density Neutron  
Dual Induction  
Microlog

FORMATION	TOP	LOG	Datum
Anhydrite	2575 (-490)		
B/Anhydrite	2602 (-463)		
Heebner	4030 (-965)		
Toronto	4059 (-994)		
Lansing	4072 (-1007)		
Stark	4292 (-1227)		
B/KC	4348 (-1283)		
Marmaton	4392 (-1327)		
Pawnee	4486 (-1421)		
Cherokee	4572 (-1507)		
Mississippi	4660 (-1595)		
R/D	4725 (-1660)		
LTD	4727 (-1662)		

### LEGEND



DST #1:  
MISRUN  
Hydraulic Test Tool  
Would Not Open

Pipe Strap at 4234'  
.41 Board Short

EL 4210 (-1145)

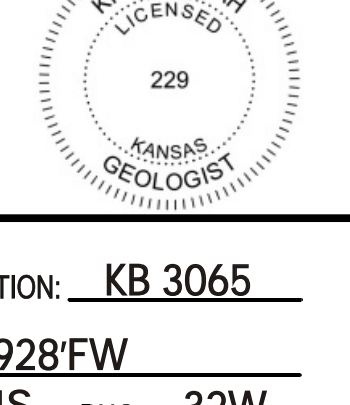
DST #2:  
1st Op: Weak Bldg 1';  
decr to 1/2"  
No Blowback  
2nd Op: No Blow  
No Blowback

Rec:  
4' Mud  
IFP: 13-15#/30"  
ISIP: 23#/30"  
FFP: 15-15#/30"  
FSIP: 22#/30"

EL 4292 (-1227)

DST #3:  
1st Op: BOB 2'  
Blowback BOB 28"  
2nd Op: BOB 1 mmed.  
Blowback BOB 35"

Rec:  
1325 GIP  
1040 GO - Grav 26  
(25%G, 75%O)  
200' GOCM  
(20%G, 10%O, 70%M)  
1240' Total Fluid  
IFP: 96-292#/30"  
ISIP: 1072#/45"  
FFP: 309-458#/30"  
FSIP: 1020#/45"



ELEVATION: **KB 3065**

OPERATOR: **Russell Oil, Inc.** LOCATION: **745'FS & 928'FW**  
LEASE: **Porter "B"** WELL NO: **#21-1** SEC: **21** TWP: **11S** RNG: **32W**  
API: **15-109-21,488** FIELD: **Rumback** COUNTY: **Logan** STATE: **Kansas**



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Russell oil, Inc  
 PO Box 8050  
 Edmond, Ok 73083  
 ATTN: Kit Noah

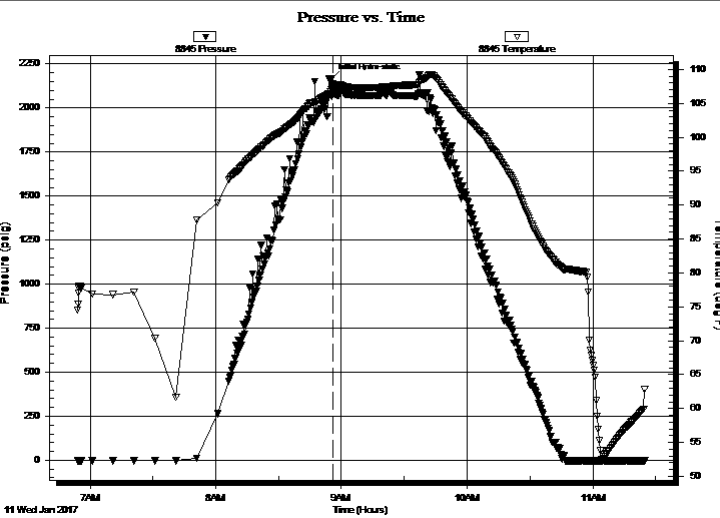
**21 11s 32w Logan Ks**  
**Porter B #21-1**  
 Job Ticket: 61302 **DST#: 1**  
 Test Start: 2017.01.11 @ 06:54:00

## GENERAL INFORMATION:

Formation: **LKC - H**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 08:56:00  
 Time Test Ended: 11:24:45  
**Interval: 4208.00 ft (KB) To 4234.00 ft (KB) (TVD)**  
 Total Depth: 4234.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Bradley Walter  
 Unit No: 78  
 Reference Elevations: 3065.00 ft (KB)  
 3060.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8845 Outside**  
 Press@RunDepth: psig @ 4209.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.01.11 End Date: 2017.01.11 Last Calib.: 2017.01.11  
 Start Time: 06:54:05 End Time: 11:24:44 Time On Btm: 2017.01.11 @ 08:55:30  
 Time Off Btm:

TEST COMMENT: Misrun - Hydraulic tool failed to open.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2166.66	107.13	Initial Hydro-static
1	2087.37	107.44	Open To Flow (1)

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	00	0.00

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell oil, Inc  
PO Box 8050  
Edmond, Ok 73083  
ATTN: Kit Noah

**21 11s 32w Logan Ks**  
**Porter B #21-1**  
Job Ticket: 61302      **DST#: 1**  
Test Start: 2017.01.11 @ 06:54:00

## Mud and Cushion Information

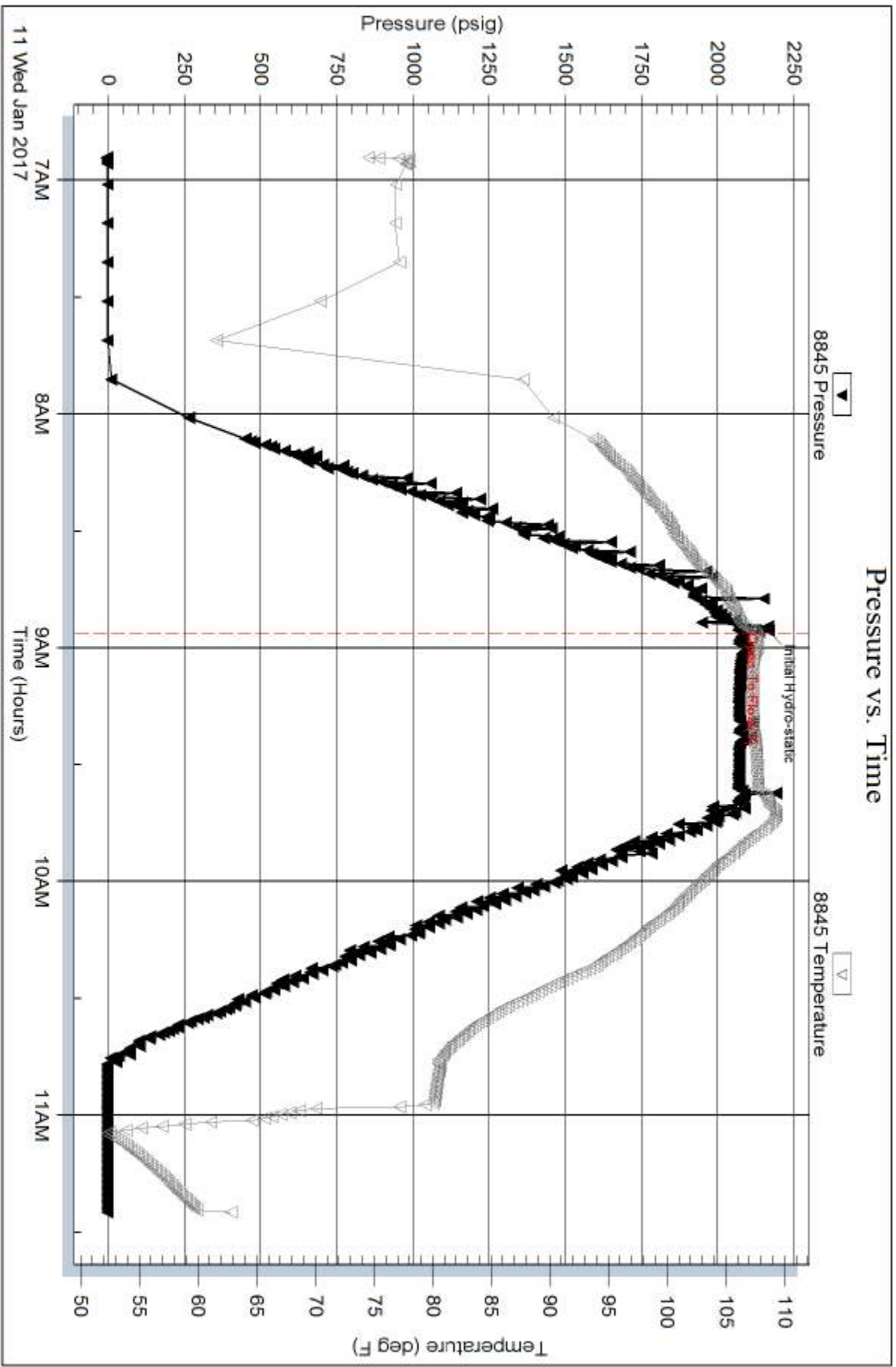
Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 0 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.20 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2800.00 ppm		
Filter Cake: 1.00 inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	00	0.000

Total Length:                      ft      Total Volume:                      bbl  
Num Fluid Samples: 0                      Num Gas Bombs: 0                      Serial #:  
Laboratory Name:                      Laboratory Location:  
Recovery Comments:





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Russell oil, Inc  
PO Box 8050  
Edmond, Ok 73083  
ATTN: Kit Noah

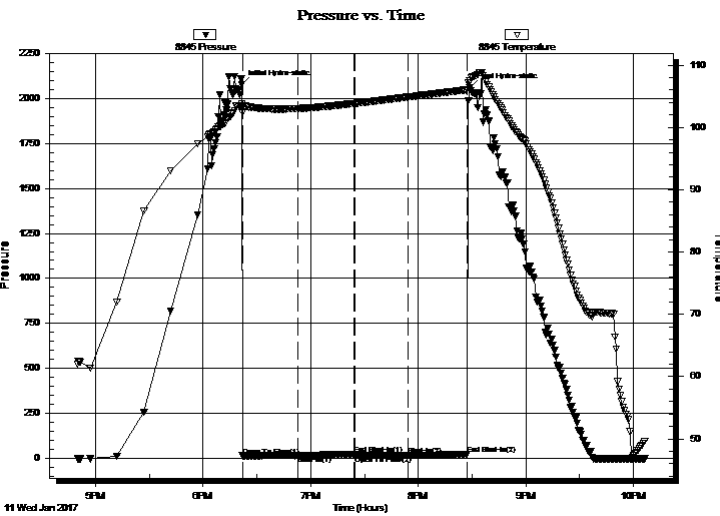
**21 11s 32w Logan Ks**  
**Porter B #21-1**  
Job Ticket: 61303      **DST#: 2**  
Test Start: 2017.01.11 @ 16:50:00

## GENERAL INFORMATION:

Formation: **LKC H**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 18:22:00  
Time Test Ended: 22:06:15  
Interval: **4208.00 ft (KB) To 4234.00 ft (KB) (TVD)**  
Total Depth: 4234.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 78  
Reference Elevations: 3065.00 ft (KB)  
3060.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8845      Outside**  
Press@RunDepth: 15.48 psig @ 4209.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2017.01.11      End Date: 2017.01.11      Last Calib.: 2017.01.11  
Start Time: 16:50:05      End Time: 22:06:14      Time On Btm: 2017.01.11 @ 18:21:45  
Time Off Btm: 2017.01.11 @ 20:28:45

**TEST COMMENT:** IF: 1" blow , receded to 1/2"  
IS: No return.  
FF: No blow .  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2078.17	103.74	Initial Hydro-static
1	13.07	102.43	Open To Flow (1)
32	15.03	103.03	Shut-In(1)
63	23.42	103.83	End Shut-In(1)
63	14.82	103.84	Open To Flow (2)
93	15.48	104.86	Shut-In(2)
126	22.39	106.03	End Shut-In(2)
127	2059.84	107.46	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
4.00	Mud 100m	0.02

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Russell oil, Inc  
 PO Box 8050  
 Edmond, Ok 73083  
 ATTN: Kit Noah

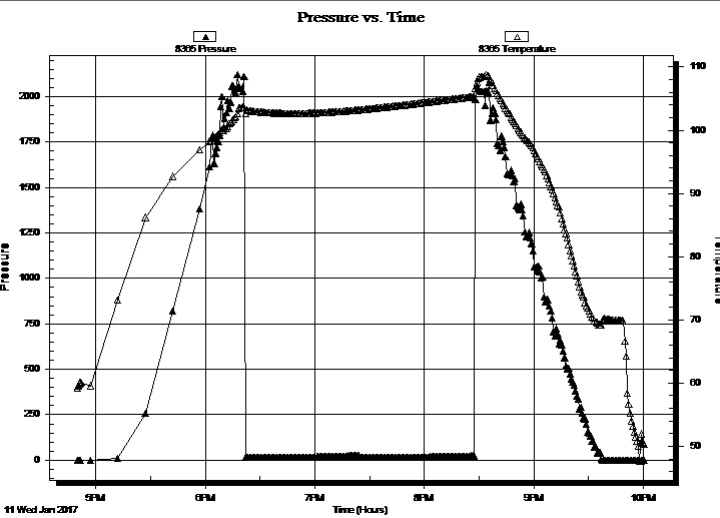
**21 11s 32w Logan Ks**  
**Porter B #21-1**  
 Job Ticket: 61303      **DST#: 2**  
 Test Start: 2017.01.11 @ 16:50:00

## GENERAL INFORMATION:

Formation: <b>LKC H</b>			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)	
Time Tool Opened: 18:22:00		Tester: Bradley Walter	
Time Test Ended: 22:06:15		Unit No: 78	
<b>Interval: 4208.00 ft (KB) To 4234.00 ft (KB) (TVD)</b>		Reference Elevations: 3065.00 ft (KB)	
Total Depth: 4234.00 ft (KB) (TVD)		3060.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Good	KB to GR/CF: 5.00 ft	

<b>Serial #: 8365</b>	<b>Inside</b>				
Press@RunDepth:                    psig @	4209.00 ft (KB)	Capacity:	8000.00 psig		
Start Date: 2017.01.11	End Date: 2017.01.11	Last Calib.:	2017.01.11		
Start Time: 16:50:05	End Time: 22:00:47	Time On Btm:			
		Time Off Btm:			

**TEST COMMENT:** IF: 1" blow , receded to 1/2"  
 IS: No return.  
 FF: No blow .  
 FS: No return.



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

Recovery		
Length (ft)	Description	Volume (bbl)
4.00	Mud 100m	0.02

\* Recovery from multiple tests

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell oil, Inc

**21 11s 32w Logan Ks**

PO Box 8050  
Edmond, Ok 73083

**Porter B #21-1**

Job Ticket: 61303

**DST#: 2**

ATTN: Kit Noah

Test Start: 2017.01.11 @ 16:50:00

## 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: 57.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
4.00	Mud 100m	0.020

Total Length: 4.00 ft      Total Volume: 0.020 bbf

Num Fluid Samples: 0

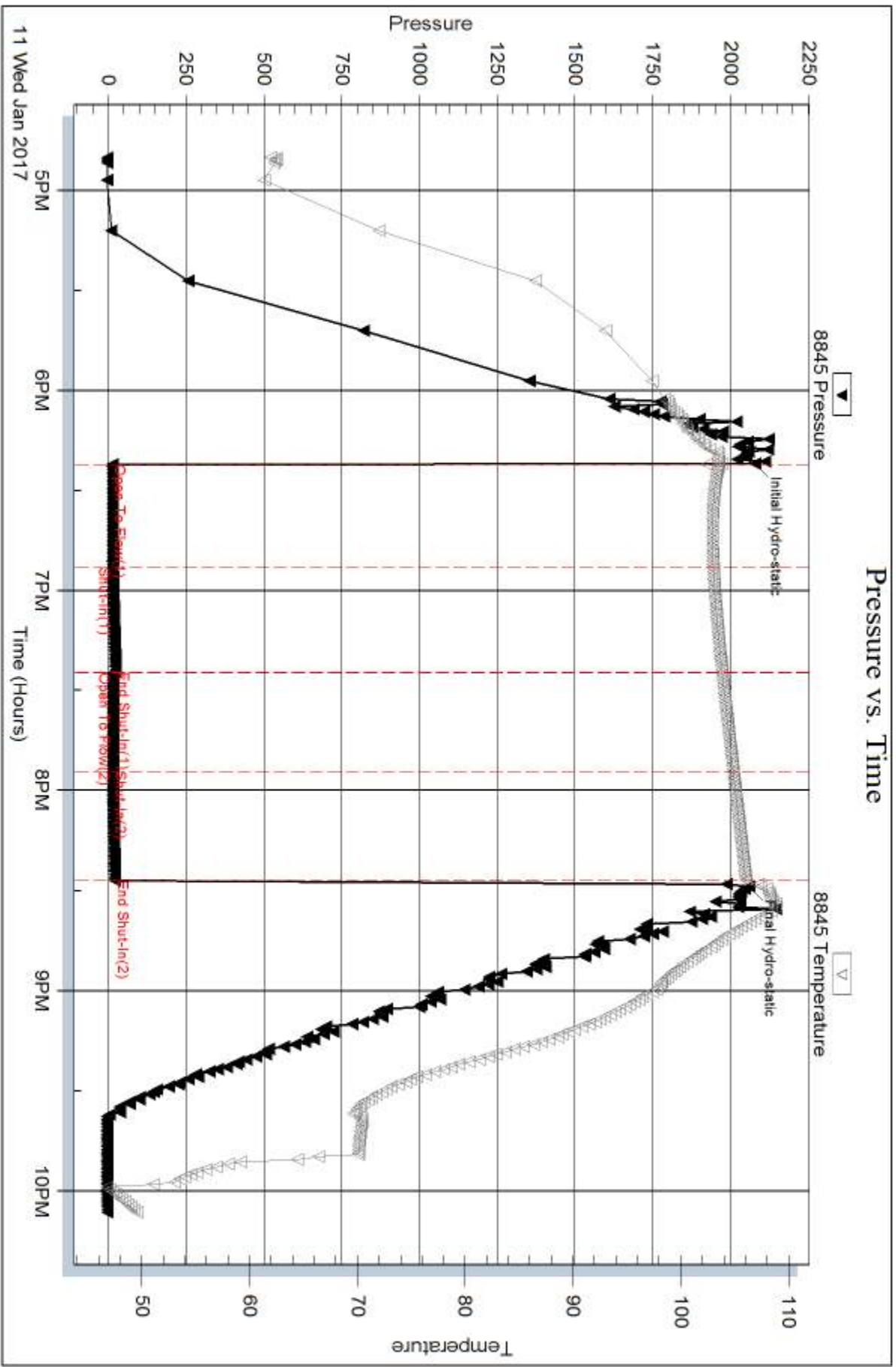
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



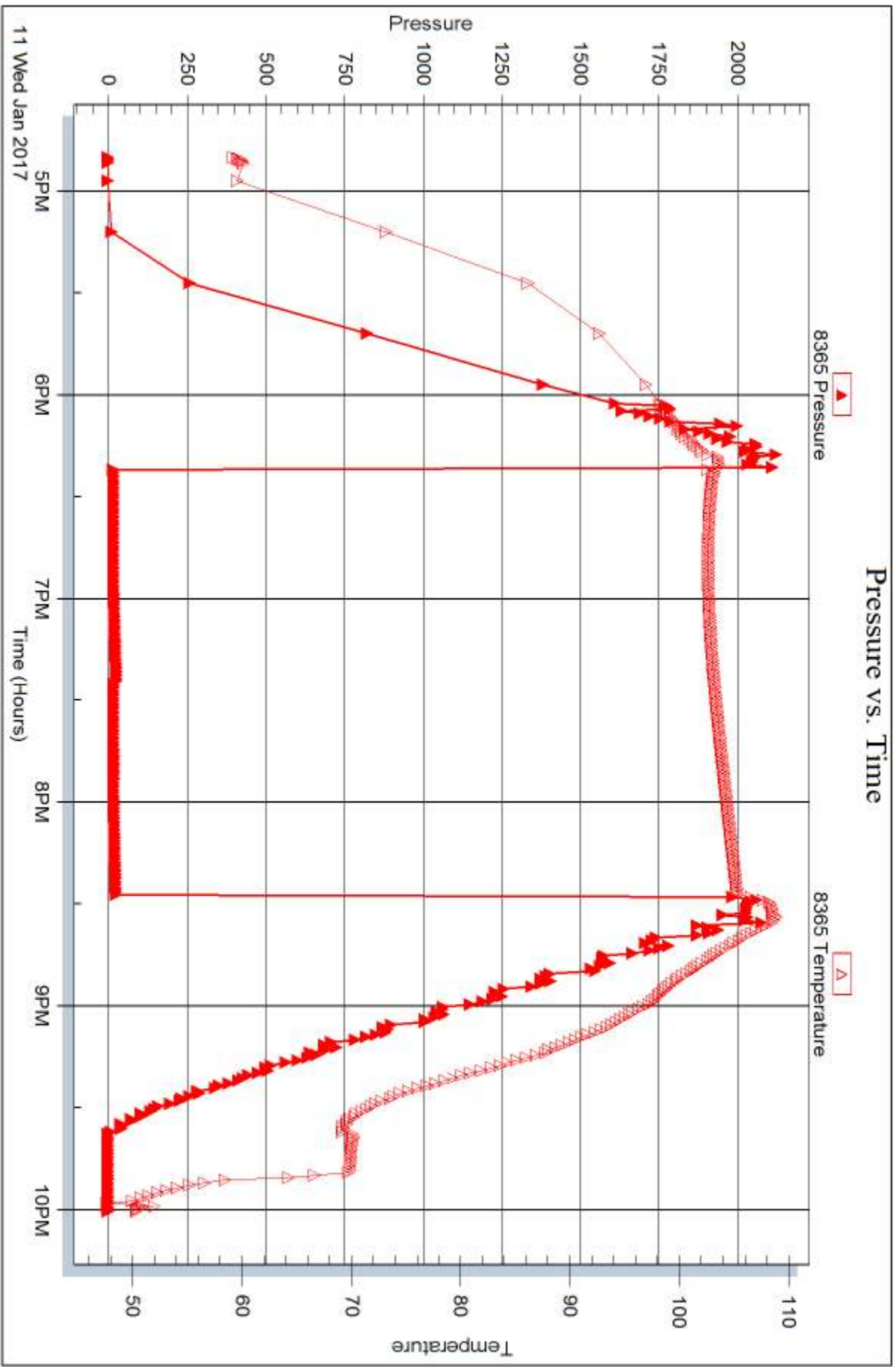
Serial #: 8365

Inside

Russell oil, Inc

Porter B#21-1

DST Test Number: 2



11 Wed Jan 2017



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Russell oil, Inc  
PO Box 8050  
Edmond, Ok 73083  
ATTN: Kit Noah

**21 11s 32w Logan Ks**  
**Porter B #21-1**  
Job Ticket: 61304 **DST#: 3**  
Test Start: 2017.01.13 @ 13:59:00

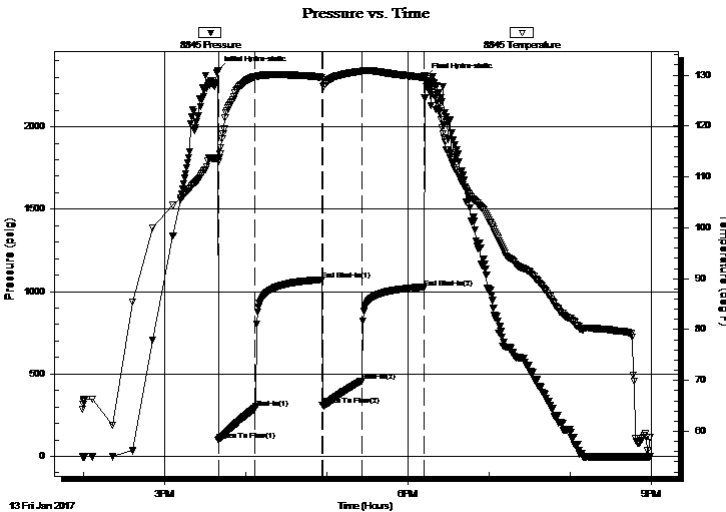
## GENERAL INFORMATION:

Formation: **Johnson**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 15:39:30  
Time Test Ended: 20:58:45  
Interval: **4596.00 ft (KB) To 4634.00 ft (KB) (TVD)**  
Total Depth: 4634.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 78  
Reference Elevations: 3065.00 ft (KB)  
3060.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8845 Outside**  
Press@RunDepth: 457.95 psig @ 4597.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2017.01.13 End Date: 2017.01.13 Last Calib.: 2017.01.13  
Start Time: 13:59:05 End Time: 20:58:44 Time On Btm: 2017.01.13 @ 15:39:15  
Time Off Btm: 2017.01.13 @ 18:12:30

TEST COMMENT: IF: BOB @ 2 min.  
IS: BOB @ 28 min.  
FF: BOB @ open.  
FS: BOB @ 35 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2341.65	113.76	Initial Hydro-static
1	95.76	112.97	Open To Flow (1)
28	291.91	129.76	Shut-In(1)
77	1072.23	129.56	End Shut-In(1)
78	308.54	129.18	Open To Flow (2)
107	457.95	130.76	Shut-In(2)
153	1019.98	129.55	End Shut-In(2)
154	2300.11	129.74	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
200.00	gocm 20g 10o 70m	1.68
1040.00	go 25g 75o	14.59
0.00	1325' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Russell oil, Inc  
PO Box 8050  
Edmond, Ok 73083  
ATTN: Kit Noah

**21 11s 32w Logan Ks**  
**Porter B #21-1**  
Job Ticket: 61304      **DST#: 3**  
Test Start: 2017.01.13 @ 13:59:00

### Mud and Cushion Information

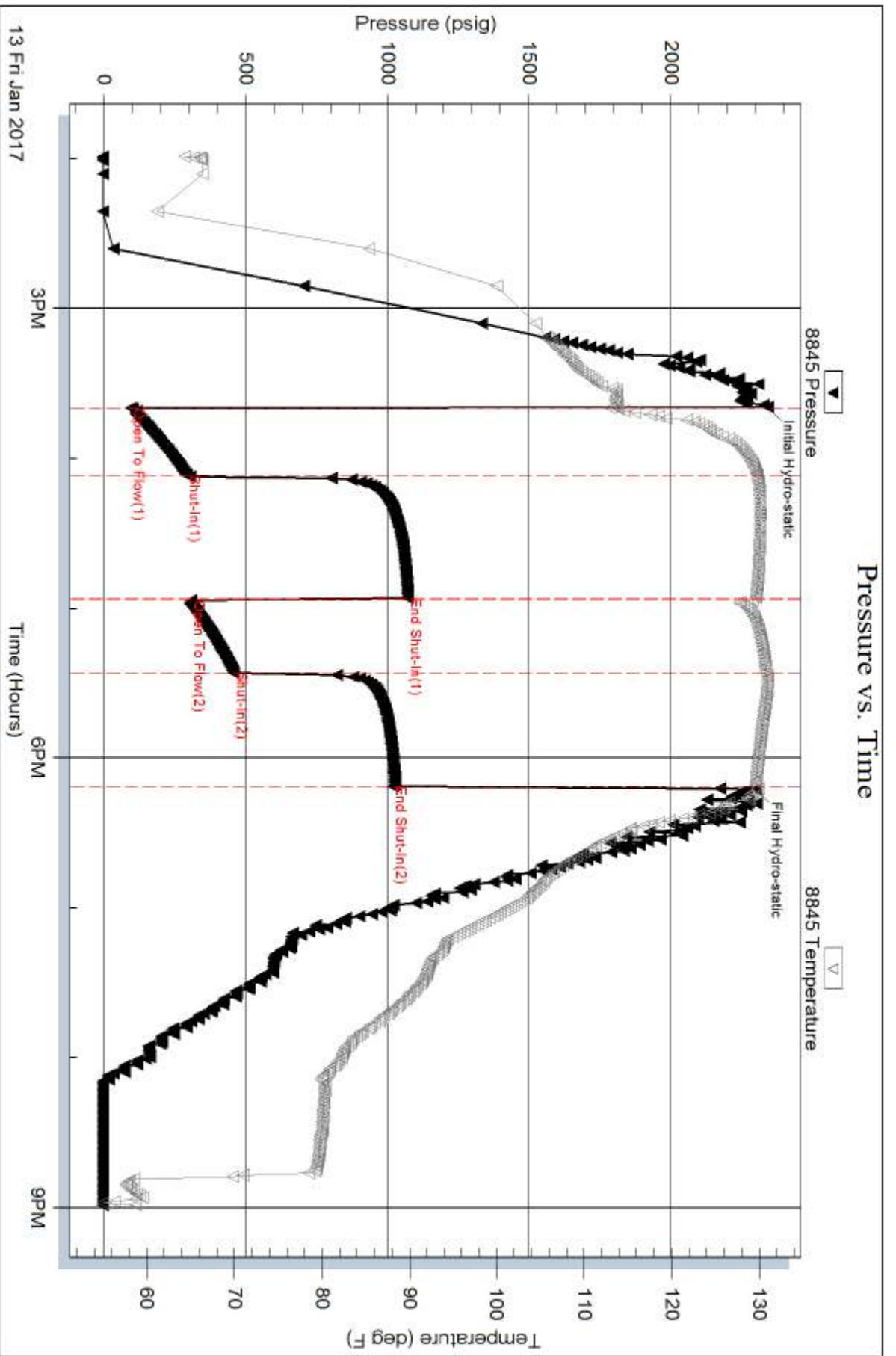
Mud Type: Gel Chem	Cushion Type:	Oil API: 26 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 0 ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.99 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 3400.00 ppm		
Filter Cake: 1.00 inches		

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
200.00	gocm 20g 10o 70m	1.676
1040.00	go 25g 75o	14.588
0.00	1325' GIP	0.000

Total Length: 1240.00 ft      Total Volume: 16.264 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:



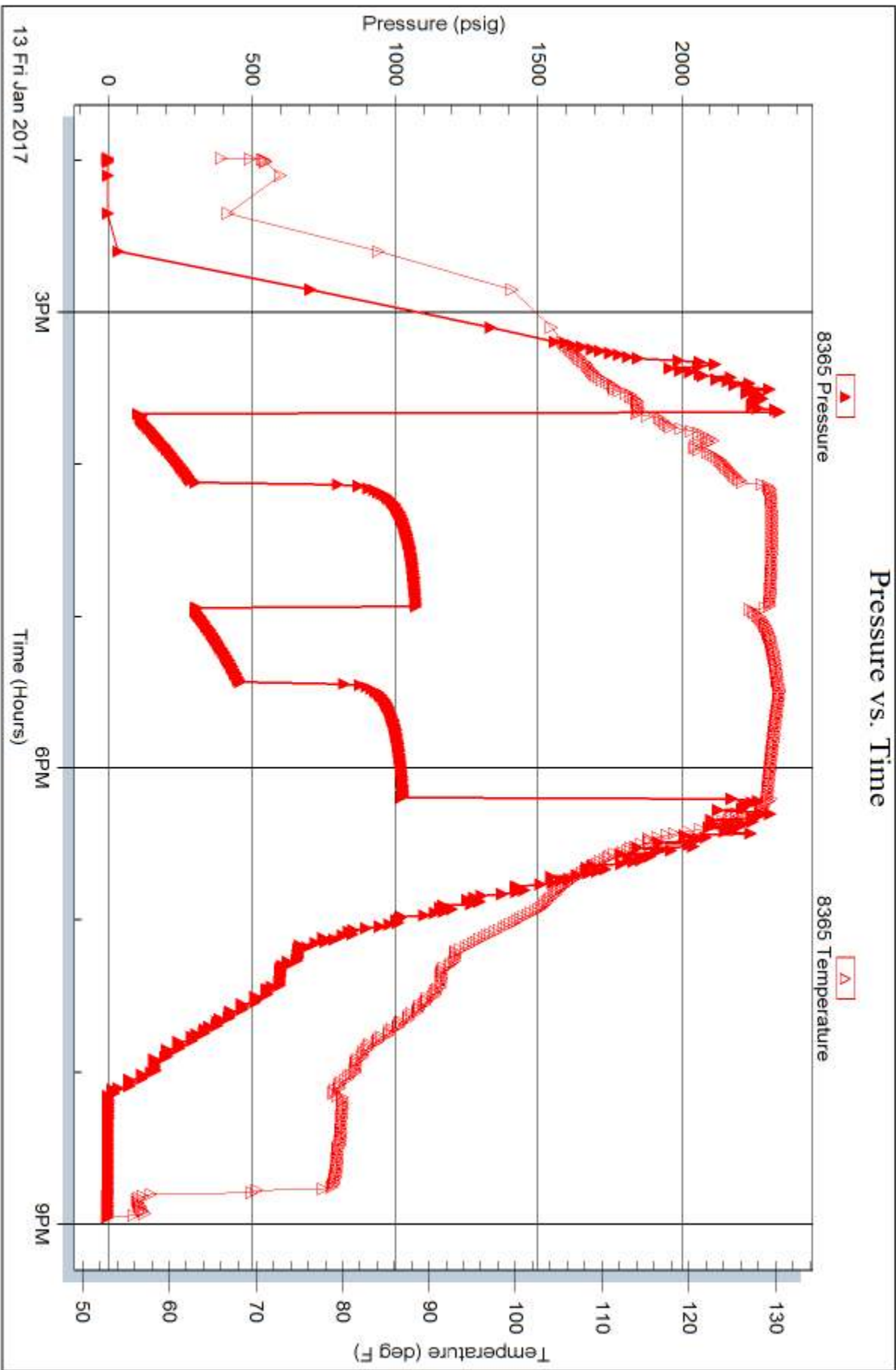
Serial #: 8365

Inside

Russell oil, Inc

Porter B#21-1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 61304

Printed: 2017.01.13 @ 22:43:17



**CONSOLIDATED**  
Oil Well Services, L.L.C.

PO Box 884, Chanute, KS 66720  
820-431-8210 or 800-487-8676

7351  
7250

Invoice #809364

TICKET NUMBER 51663  
LOCATION Oakley KS  
FOREMAN Jerry  
Mike S  
Walt D KS

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
1-14-17	7043	Porter B 21-	21	115	32W	Logan
CUSTOMER Russell Oil			Oakley gold course 3 South W into			
MAILING ADDRESS PO BOX 8050			TRUCK #	DRIVER	TRUCK #	DRIVER
CITY Edmond			731	Cory D		
STATE OK			479	Steve O		
ZIP CODE 73013			639			
			687705			

JOB TYPE	HOLE SIZE	HOLE DEPTH	CASING SIZE & WEIGHT
log string	7 7/8	4727	4 1/2 11.6 #
CASING DEPTH	DRILL PIPE	TUBING	OTHER
4712			P.C.C @ 2600'
SLURRY WEIGHT	SLURRY VOL	WATER gal/sk	CEMENT LEFT IN CASING
14.2	1.42		40'
DISPLACEMENT	DISPLACEMENT PSI	MIX PSI	RATE
74' / 466'			

REMARKS: Safety meeting & rig up on well 10 min float equip. factors on 2, 4, 7, 11, 15, 19, 53, baskets on 9, 91 PC. on 52 @ 2600' run casing to bottom pump ball thru & set. 1 hr. mix 500 gal mud flush with 5 bbl H<sub>2</sub>O space & mix. 200 SKs thru. All shut down clean pump & lines & release plug. displace with 30 bbl RCL H<sub>2</sub>O + 44 bbl fresh water final lift of 1000' plug loaded @ 1500' released back & float held

7 Jan 1999  
Jerry & crew

30 SKs Ret hole PCSN 140 8291

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0454	1	PUMP CHARGE	3900 <sup>00</sup>	3900 <sup>00</sup>
CE0002	5	MILEAGE	7 <sup>25</sup>	35 <sup>75</sup>
CE0711	10.81	ton mileage delivery	660 <sup>00</sup>	660 <sup>00</sup>
CC5862	230 SKs	Thrubled III	26 <sup>00</sup>	5980 <sup>00</sup>
CC6077	1150 #	Kalser	50	575 <sup>00</sup>
CC6125	500 gal	mud flush	65	325 <sup>00</sup>
CC5300	3 gal	RCL	39 <sup>00</sup>	117 <sup>00</sup>
CP8575	70	4 1/2 turbalizers	95 <sup>00</sup>	665 <sup>00</sup>
CP8628	2	4 1/2 baskets	350 <sup>00</sup>	700 <sup>00</sup>
CP8253	1	4 1/2 latch down assy	340 <sup>00</sup>	340 <sup>00</sup>
CP8775	1	4 1/2 float collar	2750 <sup>00</sup>	2750 <sup>00</sup>
CP8484	1	4 1/2 AFU float shoe	470 <sup>00</sup>	470 <sup>00</sup>
		Subtotal		16517 <sup>75</sup>
		-35% disc		5781 <sup>81</sup>
		Subtotal		10736 <sup>57</sup>
		SALES TAX		619.94
		ESTIMATED TOTAL		11356.48

Reven 3737

AUTHORIZATION Todd Brown TITLE \_\_\_\_\_ 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.

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 7314

Date	Sec.	Twp.	Range	County	State	On Location	Finish
1-6-17	21	11	32	Logan	KS		10.4 spms
Lease <u>Berta B</u>				Well No. <u>211</u>		Owner	
Contractor <u>LOW</u>				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Type Job <u>Surface</u>				Charge To <u>Russell Oil</u>			
Hole Size <u>12 1/4</u>		T.D. <u>319</u>		Street			
Csg. <u>8 5/8</u>		Depth <u>318</u>		City			
Tbg. Size		Depth		State			
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.			
Cement Left in Csg. <u>15'</u>		Shoe Joint		Cement Amount Ordered <u>200 09/20 3/11/11 2/16/11</u>			
Meas Line		Displace <u>19 1/2 BCL</u>		Common <u>160</u>			
EQUIPMENT				Poz. Mix <u>40</u>			
Pumptrk <u>20</u>	No. <u>203</u>	Cement Helper <u>Bert</u>		Gel. <u>4</u>			
Bulktrk	No.	Driver		Calcium <u>8</u>			
Bulktrk <u>9</u>	No.	Driver <u>HK</u>		JOB SERVICES & REMARKS			
Remarks:				Hulls			
Flat Hole				Salt			
Mouse Hole				Flowseal			
Centralizers				Kot-Saal			
Baskets				Mud CLR 48			
D/V or Port Collar				CFL-117 or CD110 CAF 38			
<u>8 5/8 on bottom Bar Casing</u>				Sand			
<u>Mix 200 09/20 3/11/11 2/16/11</u>				Handling <u>217</u>			
<u>Cement Credit</u>				Mileage			
				FLOAT EQUIPMENT			
				Guide Shoe			
				Centralizer			
				Baskets			
				AFU Inserts			
				Float Shoe			
				Latch Down			
				Pumptrk Charge <u>Surface</u>			
				Mileage <u>15/mi</u>			
Signature <u>[Signature]</u>				Tax			
				Discount			
				Total Charge			



**CONSOLIDATED**  
Oil Well Services, LLC

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

7398  
7296  
**Invoice # 809421**

TICKET NUMBER 51678  
LOCATION Oakley KS  
FOREMAN Walt Dunkel

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
1-25-17	7043	Porter B#21-1	21	115	32 W	Logan
CUSTOMER Russell Oil		Oakley				
MAILING ADDRESS PO Box 8050		1-W	TRUCK #	DRIVER	TRUCK #	DRIVER
CITY Edmond		3-S	753	Miles Shaw		
STATE OK		1/2 W	772-T-129	Miles Shaw		
ZIP CODE 73013						

JOB TYPE Port Collar HOLE SIZE 7 7/8 HOLE DEPTH \_\_\_\_\_ CASING SIZE & WEIGHT \_\_\_\_\_  
 CASING DEPTH \_\_\_\_\_ DRILL PIPE \_\_\_\_\_ TUBING 2 3/8-2500' OTHER Port Collar-2500'  
 SLURRY WEIGHT 12.5 SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING \_\_\_\_\_  
 DISPLACEMENT 10.0 DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety Meeting, rig up equipment, Test casing to 1200'  
Held open Tool establsd Circ, mixed 325 sks cement cure to surface  
Displace w/ 9 BBL H<sub>2</sub>O, close Tool, Test to 1200', Hold, run 5 joints  
Circ Clean

*Thank You  
Walt Dunkel*

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CC0451	1	PUMP CHARGE	1900.00	1900.00
CC0002	5	MILEAGE	7.15	35.75
CC0711	13.98	Tan Mileage Delivery	47.25	660.00
CC5831	325 SKs	Lite-Weight Blend VII	17.50	5,687.50
CC6025	81 #	Flu-Sec I	3.00	243.00
CC6080	300 #	Cotton Seed Hulls	1.50	150.00
CC5326	100 #	Salt	N/C	N/C
				8,676.25
		Loss 45%		-3,904.35
				4,771.90
			SALES TAX	267.54
			ESTIMATED TOTAL	5039.48

Form 3137

AUTHORIZATION [Signature] TITLE \_\_\_\_\_ 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.