



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1178897  
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: \_\_\_\_\_

1178897

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	Russell Oil, Inc.
Well Name	Steinle 3-32
Doc ID	1178897

All Electric Logs Run

COMPUTER PROCESSED INTERPRETATION
DUAL INDUCTION
DUAL COMPENSATED
MICRORESISTIVITY

Form	ACO1 - Well Completion
Operator	Russell Oil, Inc.
Well Name	Steinle 3-32
Doc ID	1178897

Tops

Name	Top	Datum
ANHYDRITE	926	+1001
BASE ANHYDRITE	960	+967
TOPEKA	2849	-922
HEEBNER	3079	-1152
TORONTO	3098	-1171
LANSING	3141	-1215
MUNCIE CREEK	3278	-1351
BASE KC	3372	-1445
ARBUCKLE	3382	-1455





# ALLIED OIL & GAS SERVICES, LLC 0548

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:  
Russell KS

DATE <u>10-23-13</u>	SEC <u>32</u>	TWP. <u>15</u>	RANGE <u>14</u>	CALLED OUT	ON LOCATION	JOB START <u>7:30 AM</u>	JOB FINISH <u>8:00 AM</u>
LEASE <u>Steale</u>	WELL # <u>3-32</u>	LOCATION <u>Russell KS 125 3WS into</u>			COUNTY <u>Russell</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)							

CONTRACTOR <u>Southwind #70</u>	OWNER
TYPE OF JOB <u>PTA</u>	CEMENT
HOLE SIZE <u>7 7/8</u>	AMOUNT ORDERED <u>190 60/40 4% gel 1/4" #70</u>
CASING SIZE	
TUBING SIZE	
DRILL PIPE <u>4 1/2 16.6</u>	
TOOL	
PRES. MAX	
MEAS. LINE	
CEMENT LEFT IN CSG.	
PERFS.	
DISPLACEMENT	

EQUIPMENT

PUMP TRUCK # <u>417</u>	CEMENTER <u>Robert Y</u>
BULK TRUCK # <u>410</u>	HELPER <u>Woody O</u>
BULK TRUCK #	DRIVER <u>Jac G</u>
BULK TRUCK #	DRIVER

REMARKS:

p1 50sk @ 3362  
p2 40sk @ 975  
p3 60sk @ 400  
p4 10sk @ 40  
30sk in Ret hole

Thank you!

CHARGE TO: Russell Oil

STREET \_\_\_\_\_

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

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

PRINTED NAME San 894193

SIGNATURE San Name

COMMON	<u>114</u>	@	<u>17.90</u>	<u>2040.60</u>
POZMIX	<u>76</u>	@	<u>9.35</u>	<u>710.60</u>
GEL	<u>6.54</u>	@	<u>23.40</u>	<u>153.04</u>
CHLORIDE		@		
ASC		@		
<u>5/16 seal 50" #</u>		@	<u>2.97</u>	<u>148.50</u>
		@		
		@		
		@		
		@		
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>204.23</u>	@	<u>2.48</u>	<u>506.50</u>
MILEAGE	<u>110,786</u>	@	<u>2.60</u>	<u>288.04</u>
				TOTAL <u>3847.28</u>

SERVICE

DEPTH OF JOB	<u>3362</u>		
PUMP TRUCK CHARGE	<u>2600.47</u>		
EXTRA FOOTAGE		@	
MILEAGE	<u>13 H/M/I</u>	@	<u>7.70 100.10</u>
MANIFOLD		@	
<u>13 L/M/I</u>		@	<u>4.40 57.20</u>
		@	
TOTAL <u>2757.77</u>			

PLUG & FLOAT EQUIPMENT

<u>8 3/8 Wooden plug</u>	@	<u>64.80</u>	<u>64.80</u>
	@		
	@		
	@		
TOTAL <u>64.80</u>			

SALES TAX (if Any) \_\_\_\_\_

TOTAL CHARGES 6669.85

DISCOUNT 1321.01 IF PAID IN 30 DAYS

net \$ 5348.84





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil Inc

**32-15s-14w Russell**

P O Box 8050  
Edmond Ok 73083

**Steinle #3-32**

Job Ticket: 54354

**DST#: 1**

ATTN: Leroy Holt II. / Kit

Test Start: 2013.10.19 @ 02:56:04

## GENERAL INFORMATION:

Formation: **LKC A-C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:11:14

Time Test Ended: 09:33:58

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 70

**Interval: 3146.00 ft (KB) To 3196.00 ft (KB) (TVD)**

Reference Elevations: 1927.00 ft (KB)

Total Depth: 3196.00 ft (KB) (TVD)

1915.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 8369**

**Inside**

Press @ Run Depth: 46.81 psig @ 3161.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.19

End Date:

2013.10.19

Last Calib.:

2013.10.19

Start Time: 02:56:04

End Time:

09:33:58

Time On Btm:

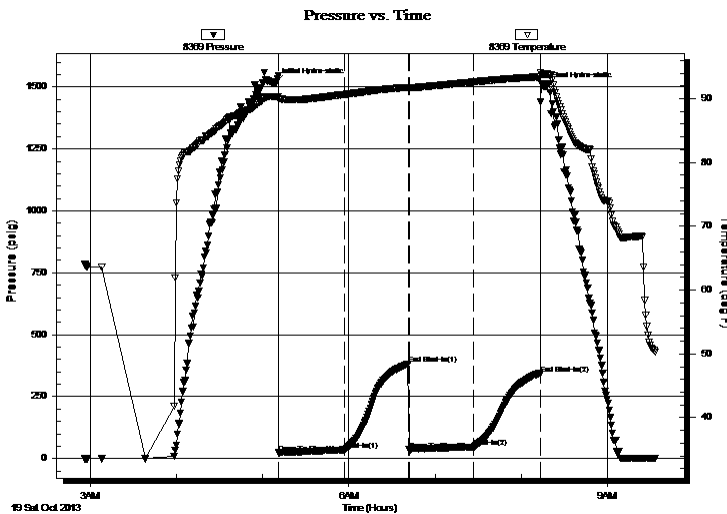
2013.10.19 @ 05:08:44

Time Off Btm:

2013.10.19 @ 08:15:43

**TEST COMMENT:** 45-IFP-w k to a fr bl 1/4"to 4"bl  
45-ISIP-no bl  
45-FFP-w k to a fr bl 1"to 4"bl  
45-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1517.93	90.31	Initial Hydro-static
3	23.12	89.94	Open To Flow (1)
48	35.49	90.65	Shut-In(1)
93	382.60	91.79	End Shut-In(1)
93	35.79	91.70	Open To Flow (2)
138	46.81	92.61	Shut-In(2)
185	341.89	93.43	End Shut-In(2)
187	1503.18	93.82	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
180.00	GIP	2.52
60.00	O&GCM 15%G8%O77%M	0.84

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil Inc

**32-15s-14w Russell**

P O Box 8050  
Edmond Ok 73083

**Steinle #3-32**

Job Ticket: 54354

**DST#: 1**

ATTN: Leroy Holt II. / Kit

Test Start: 2013.10.19 @ 02:56:04

## 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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.80 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	GIP	2.525
60.00	O&GCM 15%G8%O77%M	0.842

Total Length: 240.00 ft      Total Volume: 3.367 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

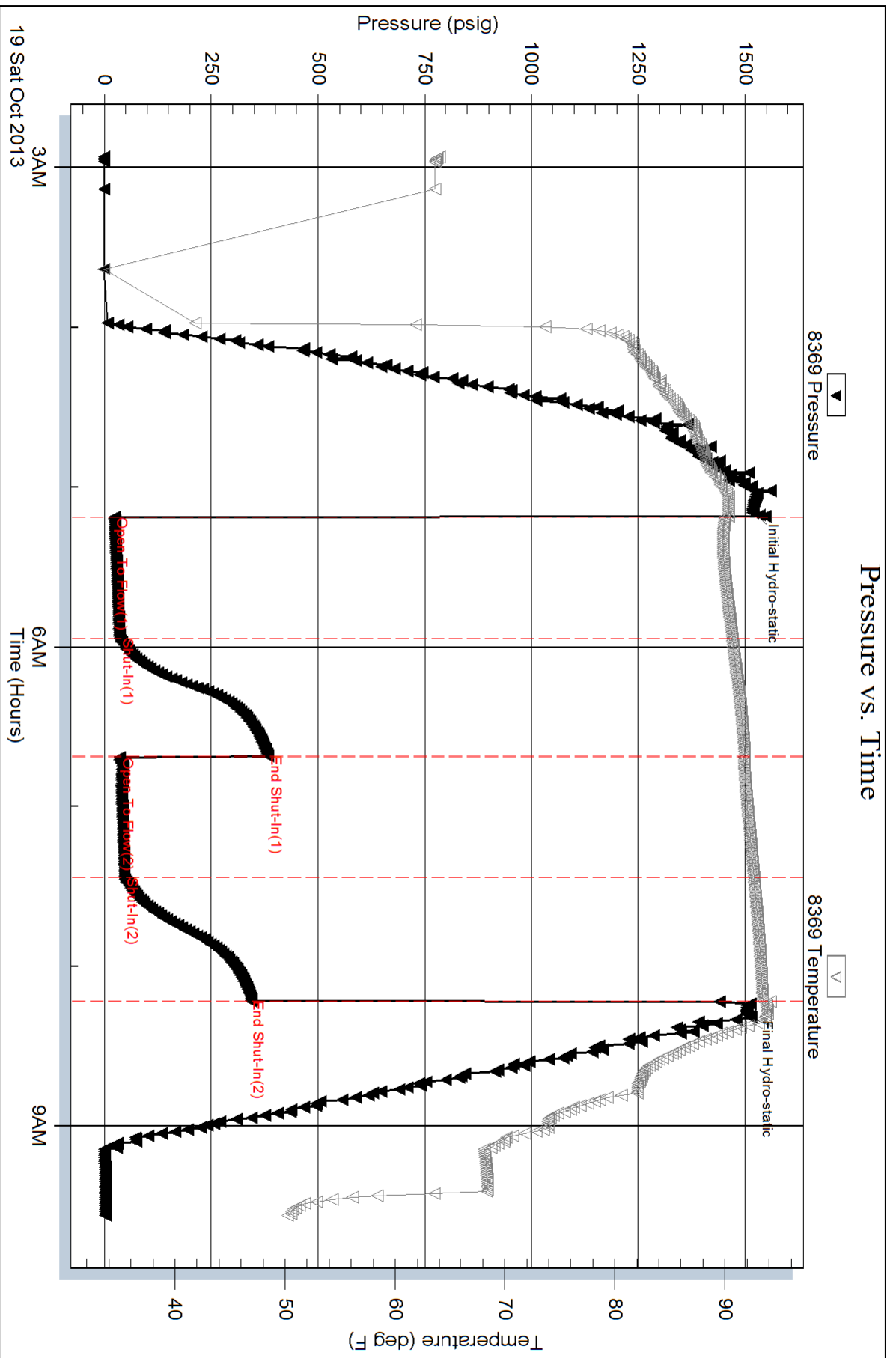
Serial #: 8369

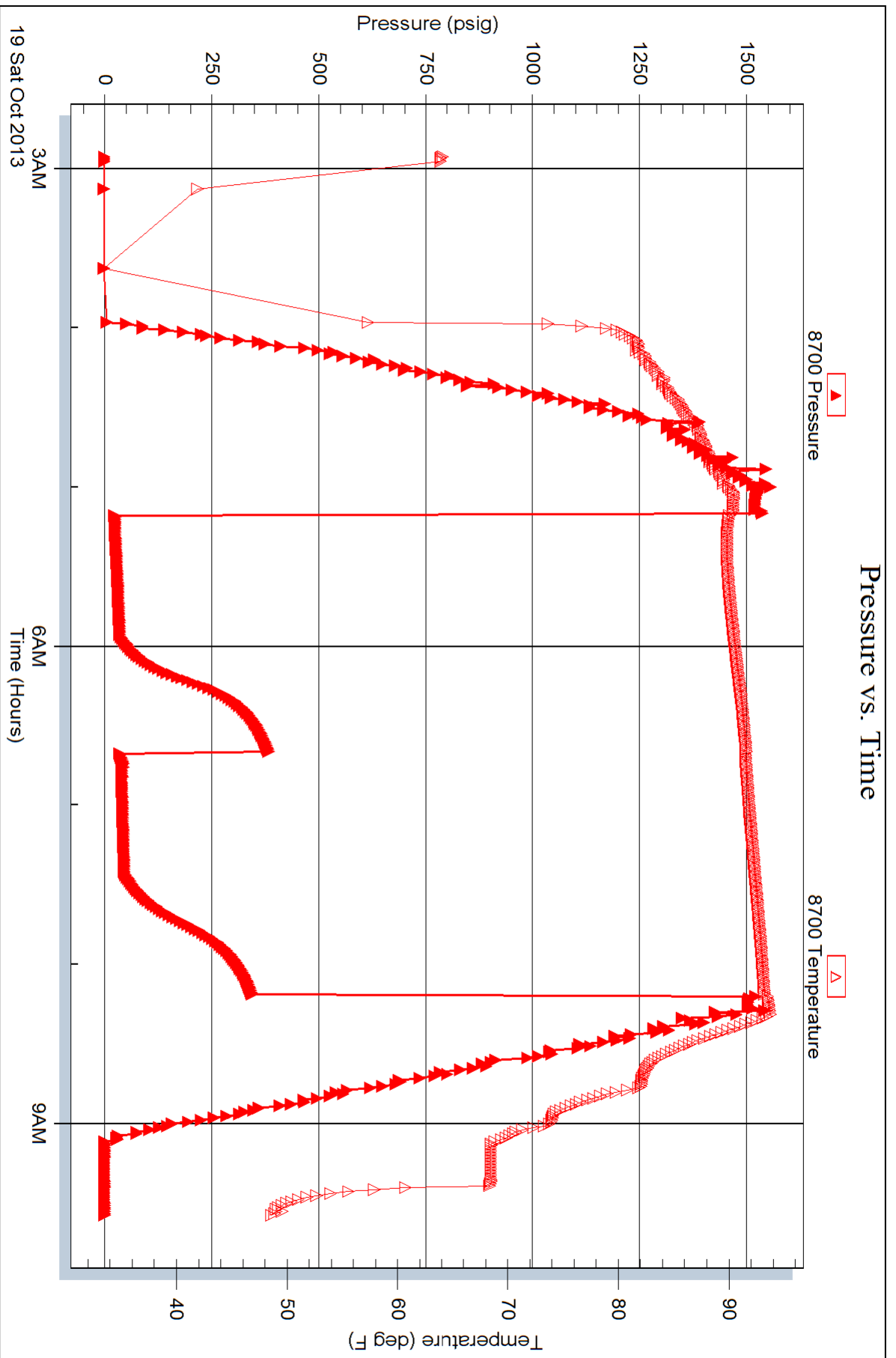
Inside

Russell Oil Inc

Steinle #3-32

DST Test Number: 1









**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil Inc

**32-15s-14w Russell**

P O Box 8050  
Edmond Ok 73083

**Steinle #3-32**

Job Ticket: 54355

**DST#: 2**

ATTN: Leroy Holt II. / Kit

Test Start: 2013.10.20 @ 00:50:13

## GENERAL INFORMATION:

Formation: **LKC H-I**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:44:23

Time Test Ended: 06:22:52

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3277.00 ft (KB) To 3316.00 ft (KB) (TVD)**

Reference Elevations: 1927.00 ft (KB)

Total Depth: 3316.00 ft (KB) (TVD)

1915.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 8369 Inside**

Press @ Run Depth: 39.34 psig @ 3285.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.20 End Date: 2013.10.20

Last Calib.: 2013.10.20

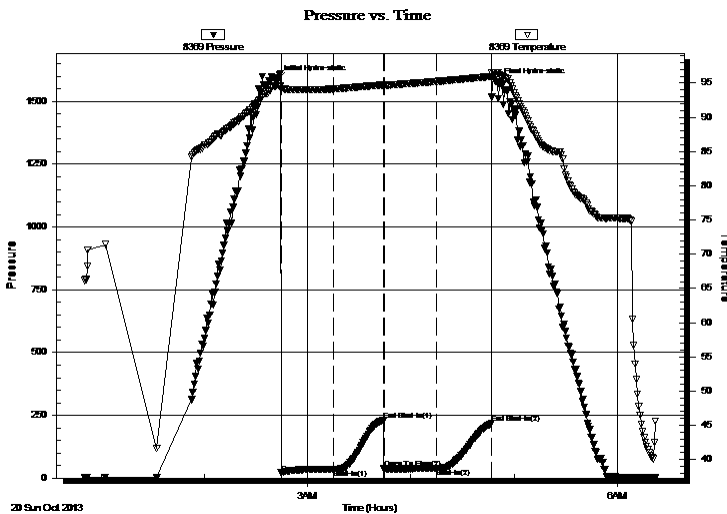
Start Time: 00:50:13 End Time: 06:22:52

Time On Btm: 2013.10.20 @ 02:42:08

Time Off Btm: 2013.10.20 @ 04:50:08

**TEST COMMENT:** 30-IFP-surface bl thru-out  
30-ISIP-no bl  
30-FFP-no bl  
30-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1587.89	94.56	Initial Hydro-static
3	20.37	94.08	Open To Flow (1)
33	35.71	94.13	Shut-In(1)
62	228.84	94.70	End Shut-In(1)
63	37.95	94.66	Open To Flow (2)
93	39.34	95.22	Shut-In(2)
125	217.48	95.94	End Shut-In(2)
128	1574.00	96.54	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
35.00	SOCM 1%O99%M	0.49

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil Inc

**32-15s-14w Russell**

P O Box 8050  
Edmond Ok 73083

**Steinle #3-32**

Job Ticket: 54355

**DST#: 2**

ATTN: Leroy Holt II. / Kit

Test Start: 2013.10.20 @ 00:50:13

## 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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	SOCM 1%O99%M	0.491

Total Length: 35.00 ft      Total Volume: 0.491 bbl

Num Fluid Samples: 0

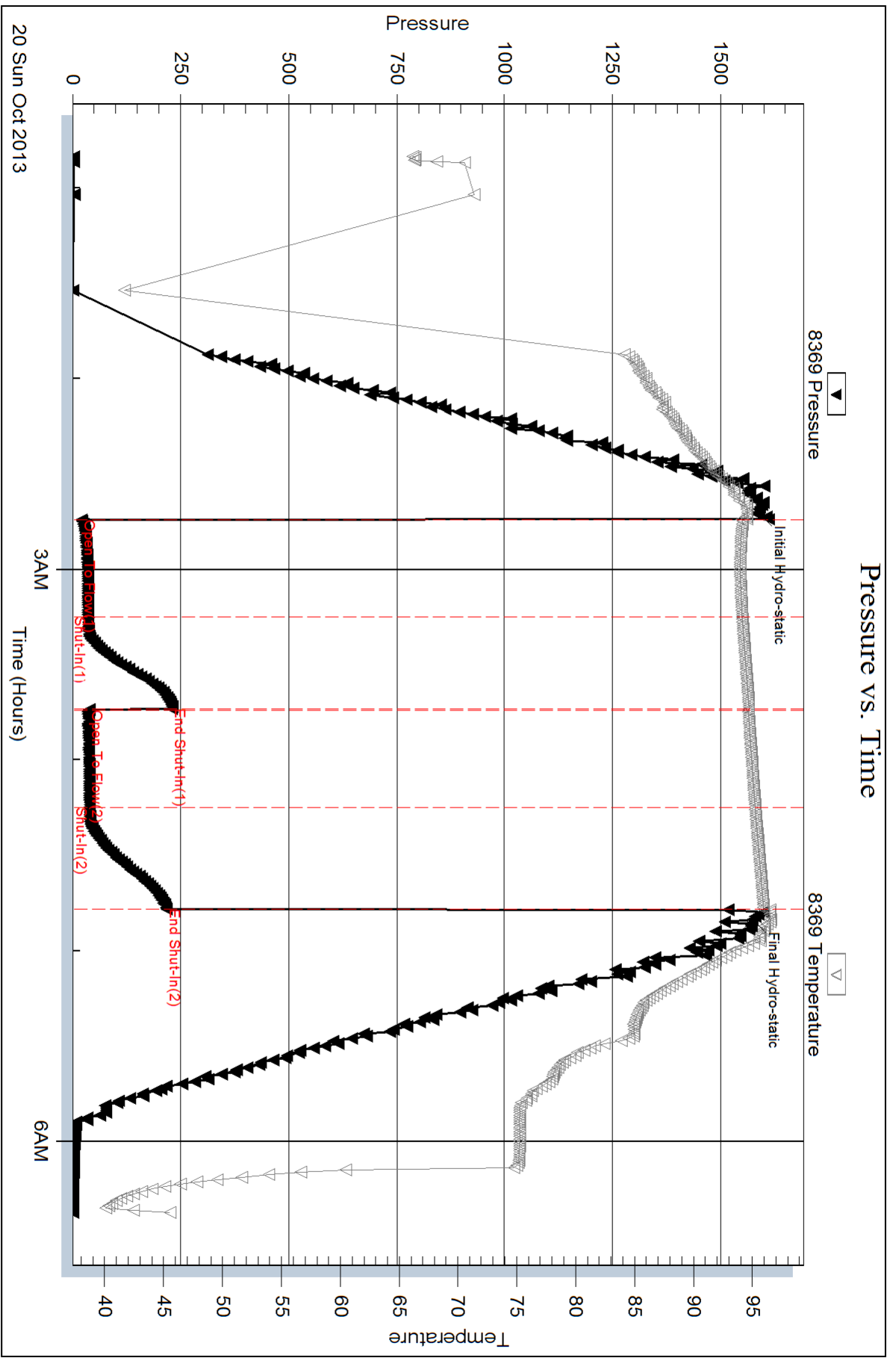
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil Inc

**32-15s-14w Russell**

P O Box 8050  
Edmond Ok 73083

**Steinle #3-32**

Job Ticket: 54356

**DST#: 3**

ATTN: Leroy Holt II. / Kit

Test Start: 2013.10.20 @ 15:25:35

## GENERAL INFORMATION:

Formation: **LKC J-K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:05:05

Time Test Ended: 20:59:50

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3313.00 ft (KB) To 3366.00 ft (KB) (TVD)**

Reference Elevations: 1927.00 ft (KB)

Total Depth: 3366.00 ft (KB) (TVD)

1915.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 8369 Inside**

Press @ Run Depth: 30.99 psig @ 3328.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.20 End Date: 2013.10.20

Last Calib.: 2013.10.20

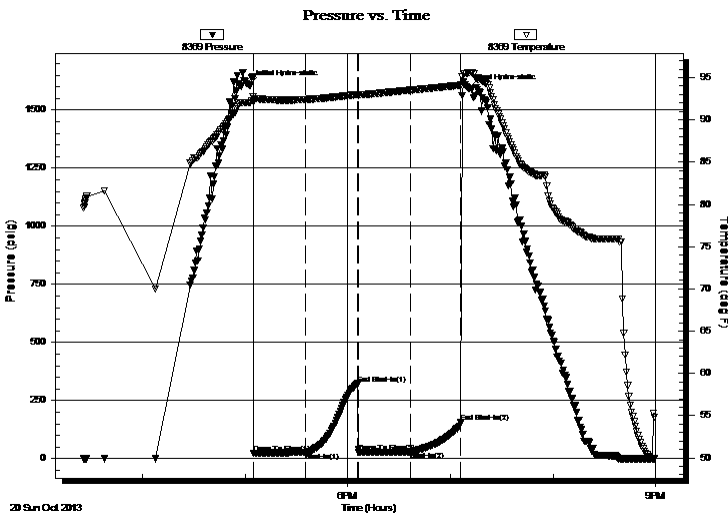
Start Time: 15:25:40 End Time: 20:59:49

Time On Btm: 2013.10.20 @ 17:02:20

Time Off Btm: 2013.10.20 @ 19:10:35

**TEST COMMENT:** 30-IFP-surface bl, died in 12 min  
30-ISIP-no bl  
30-FFP-no bl  
30-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1607.47	92.04	Initial Hydro-static
3	22.55	92.15	Open To Flow (1)
33	27.37	92.41	Shut-In(1)
64	322.55	92.99	End Shut-In(1)
64	28.98	92.94	Open To Flow (2)
95	30.99	93.51	Shut-In(2)
124	157.58	94.10	End Shut-In(2)
129	1591.52	95.56	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud	0.21

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil Inc

**32-15s-14w Russell**

P O Box 8050  
Edmond Ok 73083

**Steinle #3-32**

Job Ticket: 54356

**DST#: 3**

ATTN: Leroy Holt II. / Kit

Test Start: 2013.10.20 @ 15:25:35

## 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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2600.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Mud	0.210

Total Length: 15.00 ft      Total Volume: 0.210 bbl

Num Fluid Samples: 0

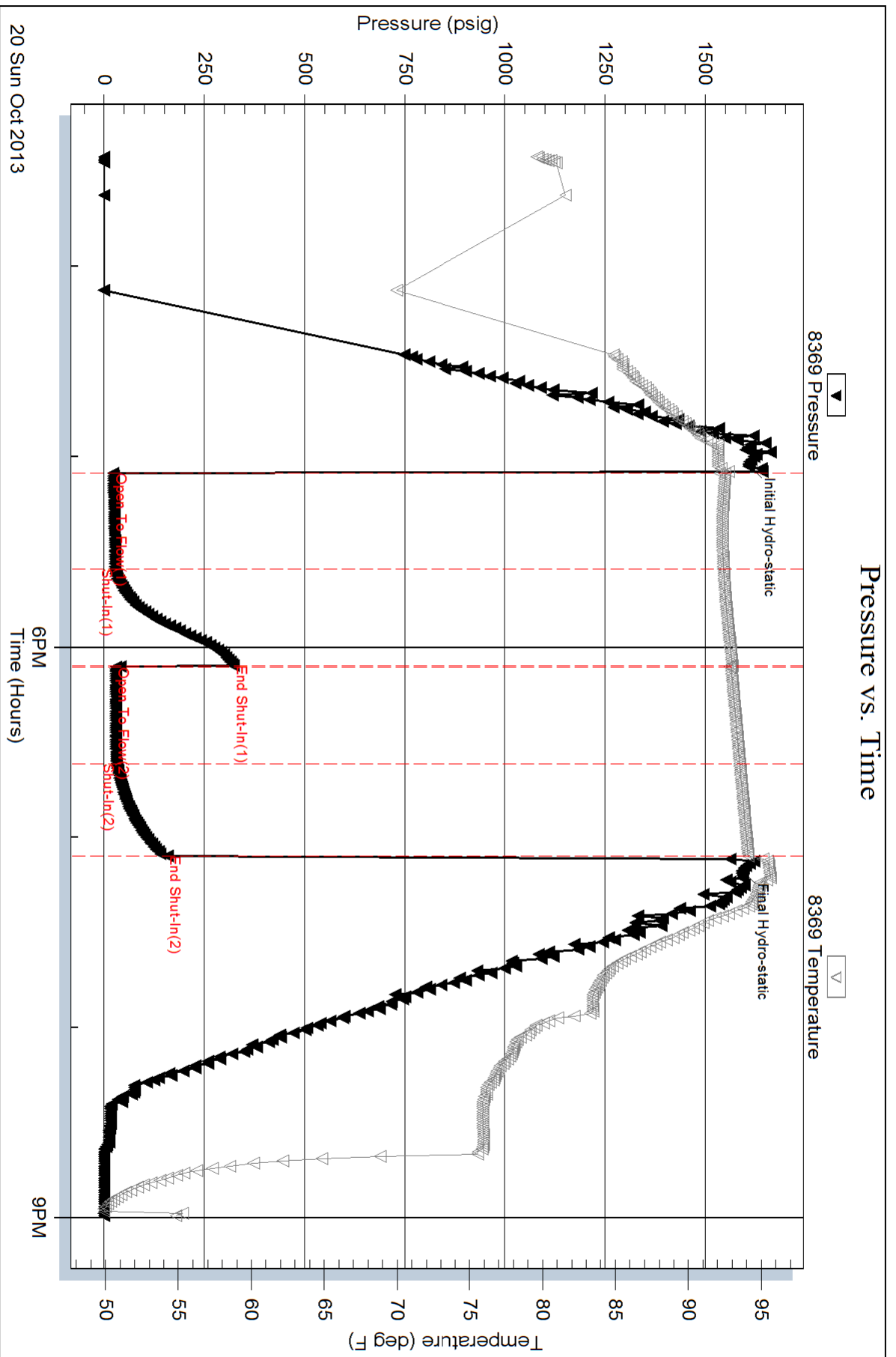
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil Inc

**32-15s-14w Russell**

P O Box 8050  
Edmond Ok 73083

**Steinle #3-32**

Job Ticket: 54357

**DST#: 4**

ATTN: Leroy Holt II. / Kit

Test Start: 2013.10.21 @ 05:10:34

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:46:44

Time Test Ended: 10:04:28

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3364.00 ft (KB) To 3390.00 ft (KB) (TVD)**

Reference Elevations: 1927.00 ft (KB)

Total Depth: 3390.00 ft (KB) (TVD)

1915.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 8369 Inside**

Press @ Run Depth: 21.02 psig @ 3367.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.21

End Date:

2013.10.21

Last Calib.: 2013.10.21

Start Time: 05:10:34

End Time:

10:04:28

Time On Btm: 2013.10.21 @ 06:44:44

Time Off Btm: 2013.10.21 @ 08:48:29

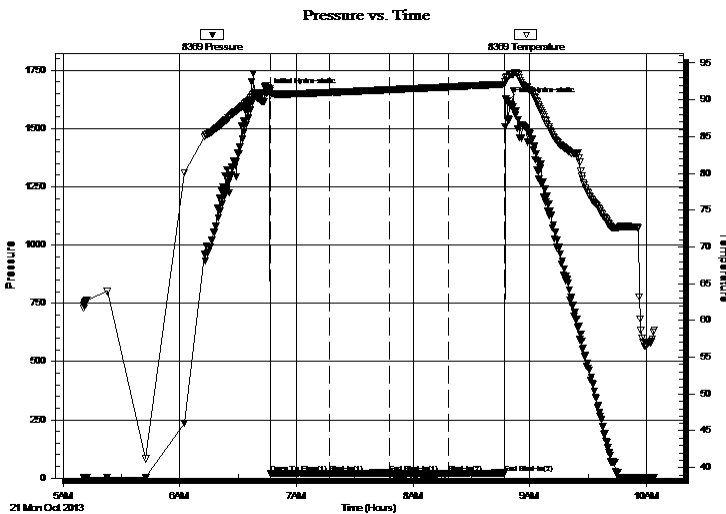
TEST COMMENT: 30-IFP-surface bl, died in 16min

30-ISIP-no bl

30-FFP-no bl

30-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1652.64	91.04	Initial Hydro-static
2	20.85	90.64	Open To Flow (1)
32	21.29	91.01	Shut-In(1)
63	22.46	91.38	End Shut-In(1)
64	20.98	91.38	Open To Flow (2)
94	21.02	91.76	Shut-In(2)
122	22.12	92.12	End Shut-In(2)
124	1616.00	93.09	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.07

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil Inc

**32-15s-14w Russell**

P O Box 8050  
Edmond Ok 73083

**Steinle #3-32**

Job Ticket: 54357

**DST#: 4**

ATTN: Leroy Holt II. / Kit

Test Start: 2013.10.21 @ 05:10:34

## 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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2600.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

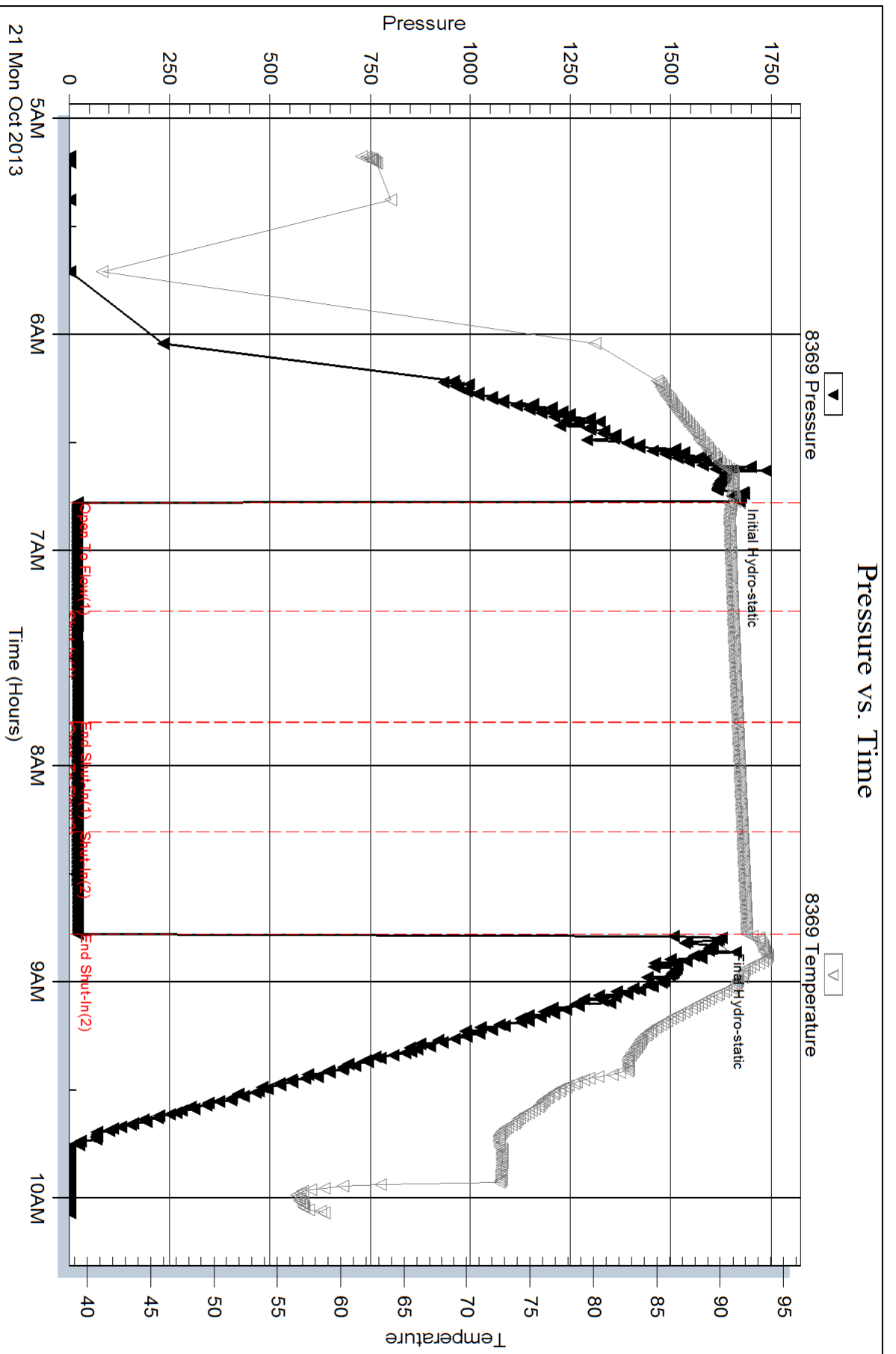
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil Inc

**32-15s-14w Russell**

P O Box 8050  
Edmond Ok 73083

**Steinle #3-32**

Job Ticket: 54358

**DST#: 5**

ATTN: Leroy Holt II. / Kit

Test Start: 2013.10.21 @ 16:30:06

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:45:01

Time Test Ended: 22:17:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3364.00 ft (KB) To 3398.00 ft (KB) (TVD)**

Reference Elevations: 1927.00 ft (KB)

Total Depth: 3398.00 ft (KB) (TVD)

1915.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 8369 Inside**

Press @ Run Depth: 19.58 psig @ 3370.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.21 End Date: 2013.10.21

Last Calib.: 2013.10.21

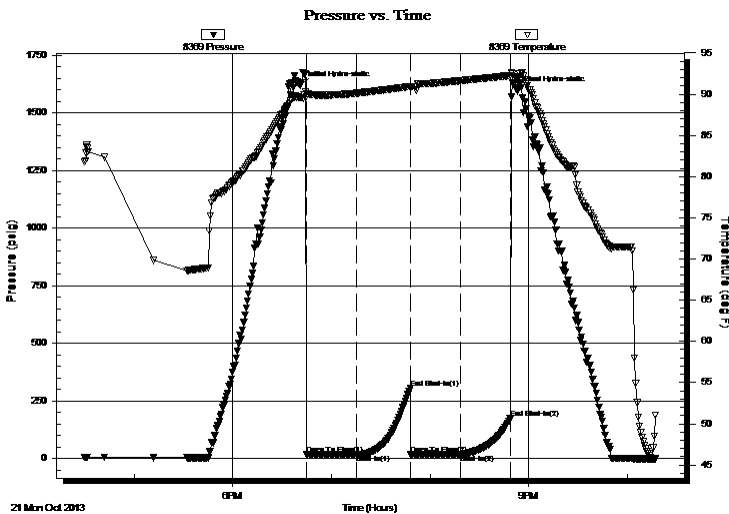
Start Time: 16:30:06 End Time: 22:17:15

Time On Btm: 2013.10.21 @ 18:41:31

Time Off Btm: 2013.10.21 @ 20:53:00

**TEST COMMENT:** 30-IFP-surface bl, died in 14min  
30-ISIP-no bl  
30-FFP-no bl, flushed tool, got surge then no bl  
30-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1616.74	89.57	Initial Hydro-static
4	18.57	89.73	Open To Flow (1)
34	19.76	90.11	Shut-In(1)
67	305.93	90.95	End Shut-In(1)
67	19.17	90.81	Open To Flow (2)
98	19.58	91.64	Shut-In(2)
128	176.25	92.27	End Shut-In(2)
132	1595.87	91.88	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	SOCM 2%O98%M	0.14
	w/show of CO on top of tool	

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil Inc

**32-15s-14w Russell**

P O Box 8050  
Edmond Ok 73083

**Steinle #3-32**

Job Ticket: 54358

**DST#: 5**

ATTN: Leroy Holt II. / Kit

Test Start: 2013.10.21 @ 16:30:06

## 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: 57.00 sec/qt

Cushion Volume:

bbf

Water Loss: 5.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2600.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
10.00	SOCM 2% O 98% M	0.140
	w/show of CO on top of tool	

Total Length: 10.00 ft      Total Volume: 0.140 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

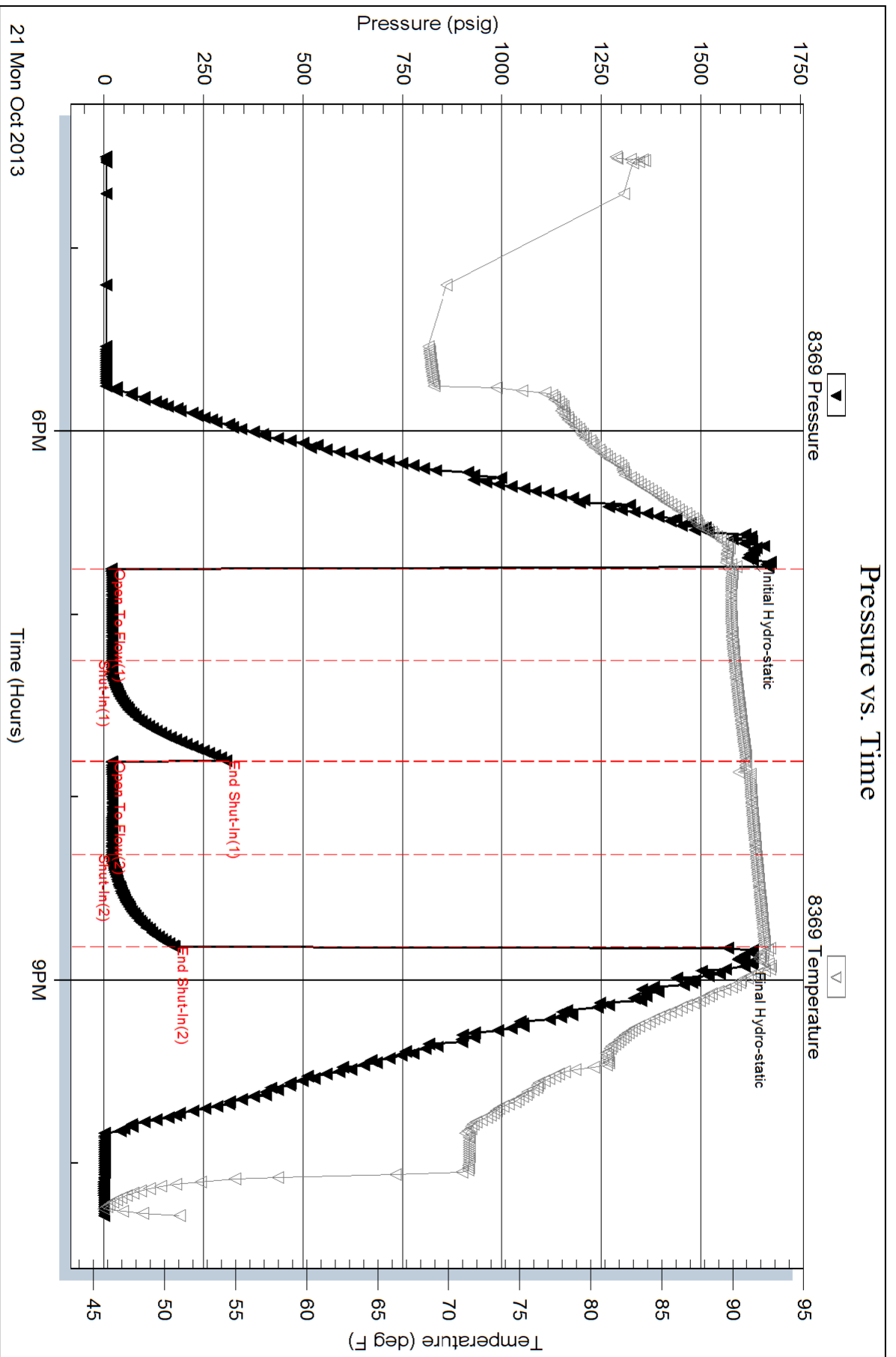
Serial #: 8369

Inside

Russell Oil Inc

Steinle #3-32

DST Test Number: 5





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil Inc

**32-15s-14w Russell**

P O Box 8050  
Edmond Ok 73083

**Steinle #3-32**

Job Ticket: 54359

**DST#: 6**

ATTN: Leroy Holt II. / Kit

Test Start: 2013.10.22 @ 07:05:29

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:41:09

Time Test Ended: 13:30:53

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3408.00 ft (KB) To 3418.00 ft (KB) (TVD)**

Reference Elevations: 1927.00 ft (KB)

Total Depth: 3418.00 ft (KB) (TVD)

1915.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 8369 Inside**

Press @ Run Depth: 81.30 psig @ 3410.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.22 End Date: 2013.10.22

Last Calib.: 2013.10.22

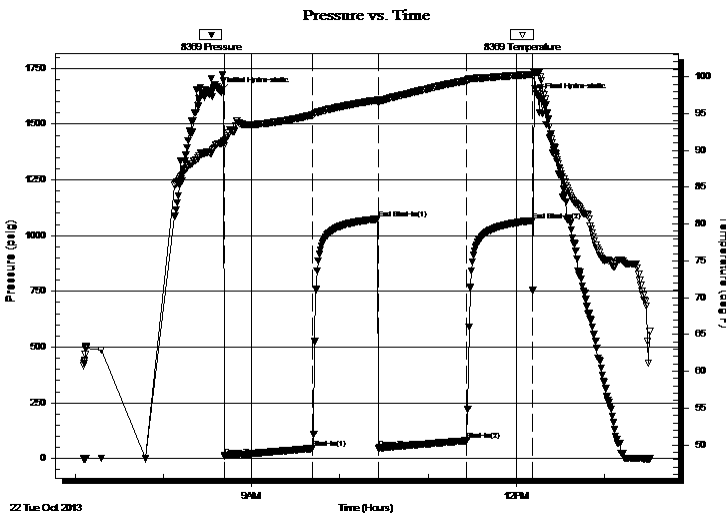
Start Time: 07:05:29 End Time: 13:30:53

Time On Btm: 2013.10.22 @ 08:38:39

Time Off Btm: 2013.10.22 @ 12:15:23

**TEST COMMENT:** 60-IFP-w k bl thru-out 1/4" to 1 1/4" bl  
45-ISIP-no bl  
60-FFP-w k bl thru-out 1/4" to 1/2" bl  
45-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1645.02	90.93	Initial Hydro-static
3	11.81	90.65	Open To Flow (1)
63	45.75	94.81	Shut-In(1)
108	1074.65	96.83	End Shut-In(1)
108	47.99	96.47	Open To Flow (2)
168	81.30	99.48	Shut-In(2)
213	1067.48	100.29	End Shut-In(2)
217	1620.28	100.56	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	MW 15%M85%W w /show of oil	0.28
120.00	Water	1.68

\* 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

**32-15s-14w Russell**

P O Box 8050  
Edmond Ok 73083

**Steinle #3-32**

Job Ticket: 54359

**DST#: 6**

ATTN: Leroy Holt II. / Kit

Test Start: 2013.10.22 @ 07:05:29

## 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:

23000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	MW 15%M85%W w/show of oil	0.281
120.00	Water	1.683

Total Length: 140.00 ft

Total Volume: 1.964 bbl

Num Fluid Samples: 0

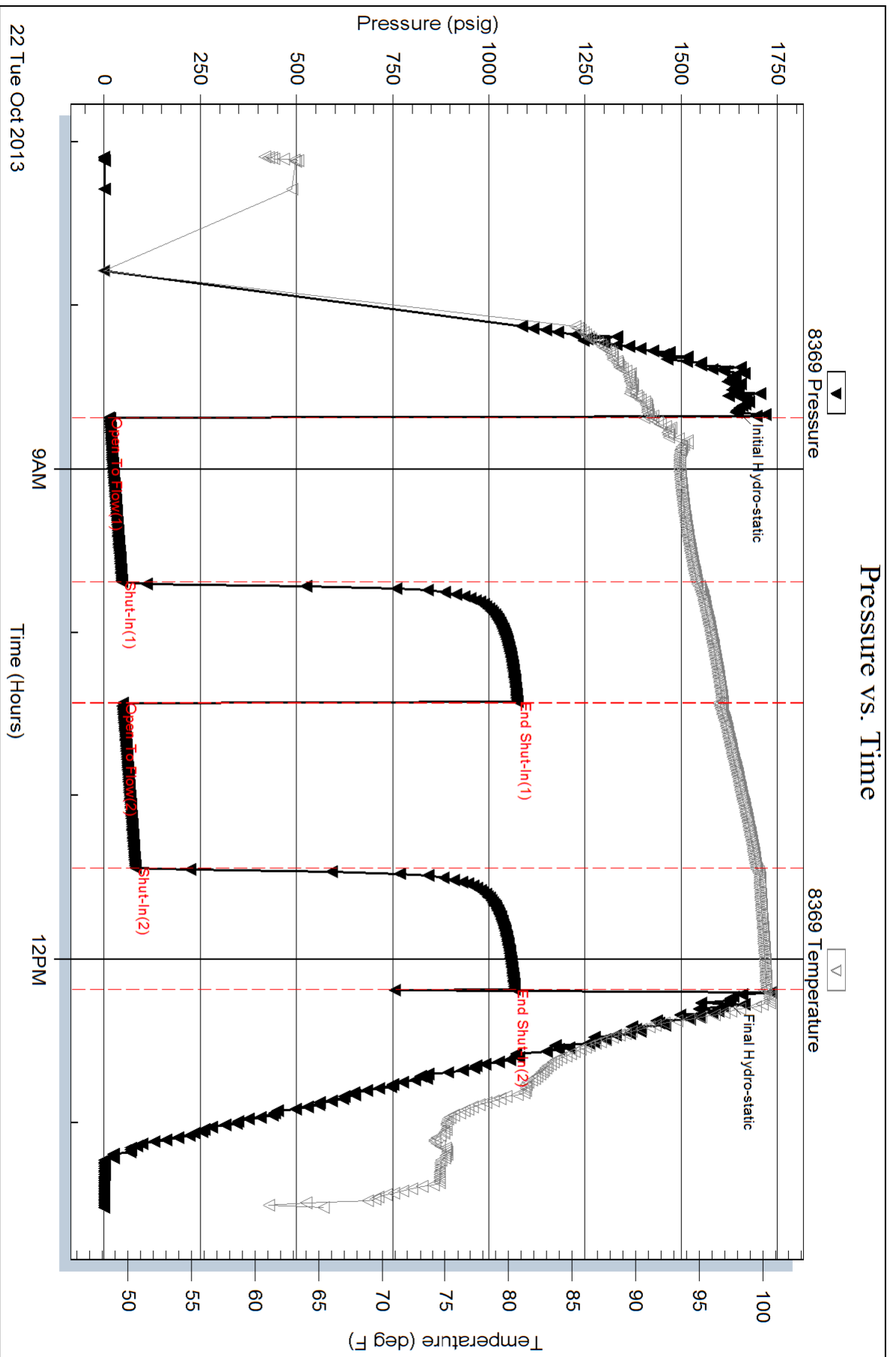
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .29@70F





# KITT NOAH

PETROLEUM GEOLOGIST  
Kansas License #229



## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

ELEVATION: **KB 1927**  
GL: **1915**  
MEASURED FROM: **KB**

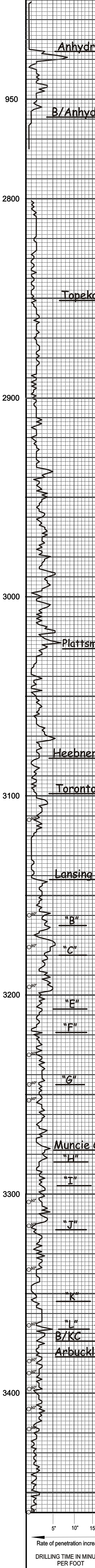
#15-167-23,905

OPERATOR: **Russell Oil Co., Inc.**  
LEASE: **Steinle** WELL NO.: **#3-32**  
LOCATION: **330'FN & 1160'FE**  
SEC: **32** TWP: **15S** RNG: **14W**  
COUNTY: **Russell** STATE: **Kansas**

CASING RECORD:  
SURFACE: **8 5/8" set at 930 W/320 SX.**  
PRODUCTION: **DGA**  
DV TOOL: \_\_\_\_\_

FORMATION	TOP	LOG	DATE
Anhydrite	924 (+1003)		
B/Anhydrite	960 (+967)		
Topeka	2849 (-922)		
Heebner	3079 (-1152)		
Toronto	3098 (-1171)		
Lansing	3142 (-1215)		
B/KC	3372 (-1445)		
Arbuckle	3382 (-1455)		
RTD	3460 (-1533)		
LTD	3460 (-1533)		

CONTRACTOR: **Southwind Rig #70**  
COMM: **10-14-2013** COMPL: **10-23-2013**  
RTD: **3460** LTD: **3460**  
SAMPLES SAVED FROM: **2800 to TD**  
DRILLING TIME SAVED FROM: **2800 to TD**  
SAMPLES EXAMINED FROM: **2800 to TD**  
GEOLOGICAL SUPERVISION FROM: **2860 to TD**  
MUD UP: **2700** MUD TYPE: **chemical**  
Mudco - **Geary Schindlerberger**  
DRILL STEM TESTS TAKEN: **6**  
Trilobite - **Ray Schwager**  
SURVEYS: **Pioneer Energy Services**  
**Dual Compenated Porosity**  
**Dual Induction**  
**Microlog**



**LEGEND**

Limestone Ool Lime Dolomite Sandstone Shale Carb Shale Chert Anhydrite

**DEPTH** (ft): 0, 950, 2800, 2900, 3000, 3100, 3200, 3300, 3400

**DRILLING TIME IN MINUTES PER FOOT**  
Rate of penetration increases  
5" 10" 15" 20"

**SAMPLE DESCRIPTIONS**

**REMARKS**

**EL 924 (+1003)**  
**EL 960 (+967)**  
**EL 2849 (-922)**  
**EL 3079 (-1152)**  
**EL 3098 (-1171)**  
**EL 3142 (-1215)**  
**EL 3278 (-1351)**  
**EL 3372 (-1445)**  
**EL 3382 (-1455)**

**Bit Trip at 3017'**  
**Pipe Strap at 3017'**  
**3.55 Board Short**

**DST #1:**  
1st Op: Weak Bldg 4"  
No Blowback  
2nd Op: Weak Bldg 4"  
No Blowback  
Rec: 180' GIP  
60' O&GCM (15%G,8%O,77%M)  
IFP: 23-35#/45"  
ISIP: 382#/45"  
FFP: 35-46#/45"  
FSIP: 341#/45"

**DST #2:**  
1st Op: Surface Blow Throughout  
No Blowback  
2nd Op: Dead Blow  
No Blowback  
Rec: 35' SOCM (1%O,99%M)  
IFP: 20-35#/30"  
ISIP: 228#/30"  
FFP: 37-39#/30"  
FSIP: 217#/30"

**DST #3:**  
1st Op: Weak; Died 12"  
No Blowback  
2nd Op: Dead; Flush Tool; No Help  
No Blowback  
Rec: 15' Mud  
IFP: 22-27#/30"  
ISIP: 228#/30"  
FFP: 20-21#/30"  
FSIP: 22#/30"

**DST #4:**  
1st Op: Weak; Died 16"  
No Blowback  
2nd Op: Dead; Flush Tool; No Help  
No Blowback  
Rec: 5' Mud  
IFP: 20-21#/30"  
ISIP: 228#/30"  
FFP: 20-21#/30"  
FSIP: 22#/30"

**DST #5:**  
1st Op: Weak Died 14"  
No Blowback  
2nd Op: Dead; Flush Tool; No Help  
No Blowback  
Rec: 10' SOCM (2%O,98%M) clean oil on top of tool  
IFP: 18-19#/30"  
ISIP: 305#/30"  
FFP: 19-19#/30"  
FSIP: 176#/30"

**DST #6:**  
1st Op: Weak Bldg 1 1/2"  
No Blowback  
2nd Op: Weak Bldg 1 1/2"  
No Blowback  
Rec: 20' MW w/show of oil (85%W,15%M)  
120' Water  
140' Total Fluid  
IFP: 11-45#/60"  
ISIP: 1074#/45"  
FFP: 47-81#/60"  
FSIP: 1067#/45"  
Chlor: 23,000 ppm

**REMARKS**

**EL 924 (+1003)**

**EL 960 (+967)**

**EL 2849 (-922)**

**EL 3079 (-1152)**

**EL 3098 (-1171)**

**EL 3142 (-1215)**

**EL 3278 (-1351)**

**EL 3372 (-1445)**

**EL 3382 (-1455)**

**DRILLING TIME IN MINUTES PER FOOT**  
Rate of penetration increases  
5" 10" 15" 20"

**SAMPLE DESCRIPTIONS**

ELEVATION: **KB 1927**

OPERATOR: **Russell Oil, Inc.** LOCATION: **330'FN & 1160'FE**  
LEASE: **Steinle** WELL NO.: **#3-32** SEC: **32** TWP: **15S** RNG: **14W**  
API: **15-167-23,905** FIELD: **Nuss** COUNTY: **Russell** STATE: **Kansas**

