

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. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Russell Oil, Inc.
Well Name	NEWMAN #32-1
Doc ID	1497330

All Electric Logs Run

ANNULAR HOLE VOLUME
MICROLOG
SPECTRAL DENISTY DUAL SPACED NEUTRON LOG
TRUE RESISITIVITY LOG
DETAIL SECTION LOG

Form	ACO1 - Well Completion
Operator	Russell Oil, Inc.
Well Name	NEWMAN #32-1
Doc ID	1497330

Tops

Name	Top	Datum
ANHYDRITE	2272	+398
BASE ANHYDRITE	2306	+364
TOPEKA	3614	-944
HEEBNER	3825	-1155
TORONTO	3848	-1178
LANSING	3864	-1194
MUNCIE CR	3980	-1310
STARK SHALE	4047	-1377
BASE KC	4088	-1418
MARMATON	4119	-1449
PAWNEE	4233	-1563
FT SCOTT	4306	-1636
CHEROKEE SH	4329	-1659
MISSISSIPPI	NDE	NDE
LTD	4400	-1730
RTD	4400	-1730ND



# QUALITY OILWELL CEMENTING, INC.

Federal # 20-2886107

Phone 785-483-1071  
Cell 785-324-1041

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

No. 1610

Date	Sec.	Twp.	Range	County	State	On Location	Finish
11-1-19	32	9	26	SHERIDAN	KANSAS		11:30 PM
Location				QUINTRA 10 N 1 W 1/2 N			

Lease	Well No.	Owner
Newman	32-1	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.
Contractor	Rig #	
W-W DALG	10	
Type Job		
Cement Surface		

Hole Size	T.D.	Charge To
12 1/4	286'	RUSSELL OIL INC.
Csg.	Depth	Street
8 5/8 New 23#	286'	
Tbg. Size	Depth	City
		State

Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg.	Shoe Joint	Cement Amount Ordered
15-20'		170SX 8/20 3+2
Meas Line	Displace	
	17 1/4 BBL	

EQUIPMENT			Common
Pumptrk	No.	Cementer Helper	135
20		Glenn	
Bulktrk	No.	Driver	Poz. Mix
9		Tony	75
		Doug	Gel.
			3
Bulktrk	No.	Driver	Calcium
			7

JOB SERVICES & REMARKS		Hulls
Remarks:		Salt
Rat Hole		Flowseal
Mouse Hole		Kol-Seal
Centralizers		Mud CLR 48
Baskets		CFL-117 or CD110 CAF 38
DV or Port Collar		Sand
Ran 7 new joints of 8 5/8 23# csg		Handling
Set @ 286'		180
Received Circ.		Mileage

FLOAT EQUIPMENT	
Cement w/ 170SX 8/20 2+3	Guide Shoe
Displaced a total of 17 1/4 BBL H <sub>2</sub> O	Centralizer
HAD 350 # lift #	Baskets
SHUT IN @ 300 #.	AFU Inserts
	Float Shoe
	Latch Down

Cement Did Circulate to Surface	Pumptrk Charge	Tax
	Surface	Discount
	Mileage 76	Total Charge
X Signature		
Rich [Signature]		

THANKS

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071  
Cell 785-324-1041

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

No. 1739

Date <b>11-9-19</b>	Sec. <b>32</b>	Twp. <b>9</b>	Range <b>26</b>	County <b>Sheridan</b>	State <b>Ks</b>	On Location	Finish <b>5:45 PM</b>
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Location **Quinter - 10 N, 1W, 1/2N, E Hinto**

Lease <b>Newman</b>	Well No. <b>32-1</b>	Owner -
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Contractor <b>WW #110</b>	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.
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Type Job <b>Plug</b>	Hole Size <b>7 7/8"</b>	T.D. <b>4400'</b>	Charge To <b>Russell oil</b>
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Csg.	Depth	Street
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Tbg. Size <b>4 1/2" D.P.</b>	Depth <b>2285'</b>	City _____ State _____
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Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
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Cement Left in Csg.	Shoe Joint	Cement Amount Ordered <b>240 60/40 40/60 1/4 H Flow seal</b>
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Meas Line	Displace <b>H2O/mud</b>	
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**EQUIPMENT**

Pumptrk <b>17</b>	No.	Cementer <b>Tim</b>	Helper	Common <b>144</b>
Bulktrk <b>15</b>	No.	Driver <b>Doug</b>	Driver	Poz. Mix <b>96</b>
Bulktrk <b>P.4.</b>	No.	Driver <b>Rick</b>	Driver	Gel. <b>9</b>
				Calcium

**JOB SERVICES & REMARKS**

Remarks: <b>2285' - 505X</b>	Hulls
Rat Hole <b>1400' - 100 5X</b>	Salt
Mouse Hole <b>340' - 50 5X</b>	Flowseal <b>60/40</b>
Centralizers <b>40' - 10 5X w/ plug</b>	Kol-Seal
Baskets <b>Rathole w/ 30 5X</b>	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
<b>Cement did Circulate</b>	Sand
	Handling <b>249</b>
	Mileage

**FLOAT EQUIPMENT**

Guide Shoe <b>Dry hole plug</b>	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	

Pumptrk Charge <b>plug</b>	
Mileage <b>46</b>	

X Signature <b>Rick [Signature]</b>	Tax	
	Discount	
	Total Charge	



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil Inc.  
P.O. Box 8050  
Edmond OK 73083  
ATTN: Kitt Noah

**32-9s-26w Sheridan KS**  
**Newman #32-1**  
Job Ticket: 65625      **DST#: 1**  
Test Start: 2019.11.05 @ 16:50:00

## GENERAL INFORMATION:

Formation: **LKC " C - D "**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:56:50  
 Time Test Ended: 23:10:00  
 Interval: **3880.00 ft (KB) To 3926.00 ft (KB) (TVD)**  
 Total Depth: 3926.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ryan Nichols  
 Unit No: 71  
 Reference Elevations: 2670.00 ft (KB)  
 2665.00 ft (CF)  
 KB to GR/CF: 5.00 ft

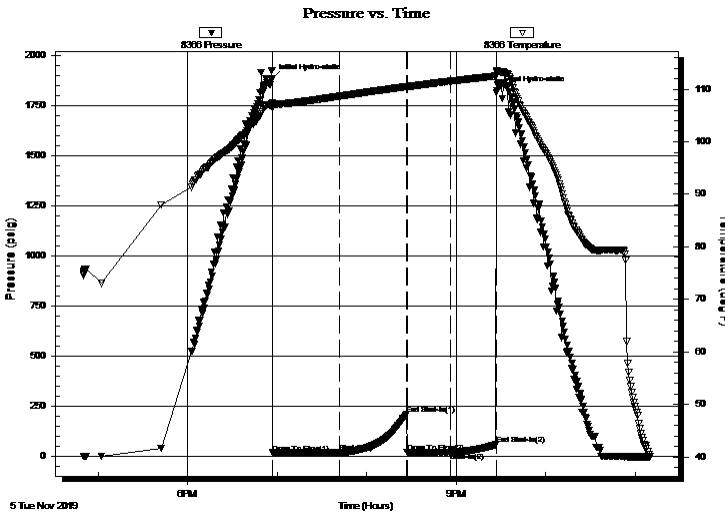
## Serial #: 8366

Outside

Press@RunDepth: 18.55 psig @ 3881.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2019.11.05      End Date: 2019.11.05      Last Calib.: 2019.11.05  
 Start Time: 16:50:01      End Time: 23:10:00      Time On Btm: 2019.11.05 @ 18:56:40  
 Time Off Btm: 2019.11.05 @ 21:27:09

TEST COMMENT: 45 IF - Blow built to 1/2" died back to surface  
 45 ISI - No return  
 30 FF - No blow  
 30 FSI - No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1885.10	107.44	Initial Hydro-static
1	16.00	106.40	Open To Flow (1)
45	17.41	108.66	Shut-In(1)
90	210.58	110.49	End Shut-In(1)
91	18.08	110.39	Open To Flow (2)
120	18.55	111.52	Shut-In(2)
150	57.49	112.50	End Shut-In(2)
151	1823.73	113.05	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100%M	0.02

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil Inc.

**32-9s-26w Sheridan KS**

P.O. Box 8050  
Edmond OK 73083

**Newman #32-1**

Job Ticket: 65625

**DST#: 1**

ATTN: Kitt Noah

Test Start: 2019.11.05 @ 16:50:00

## 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: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100%M	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

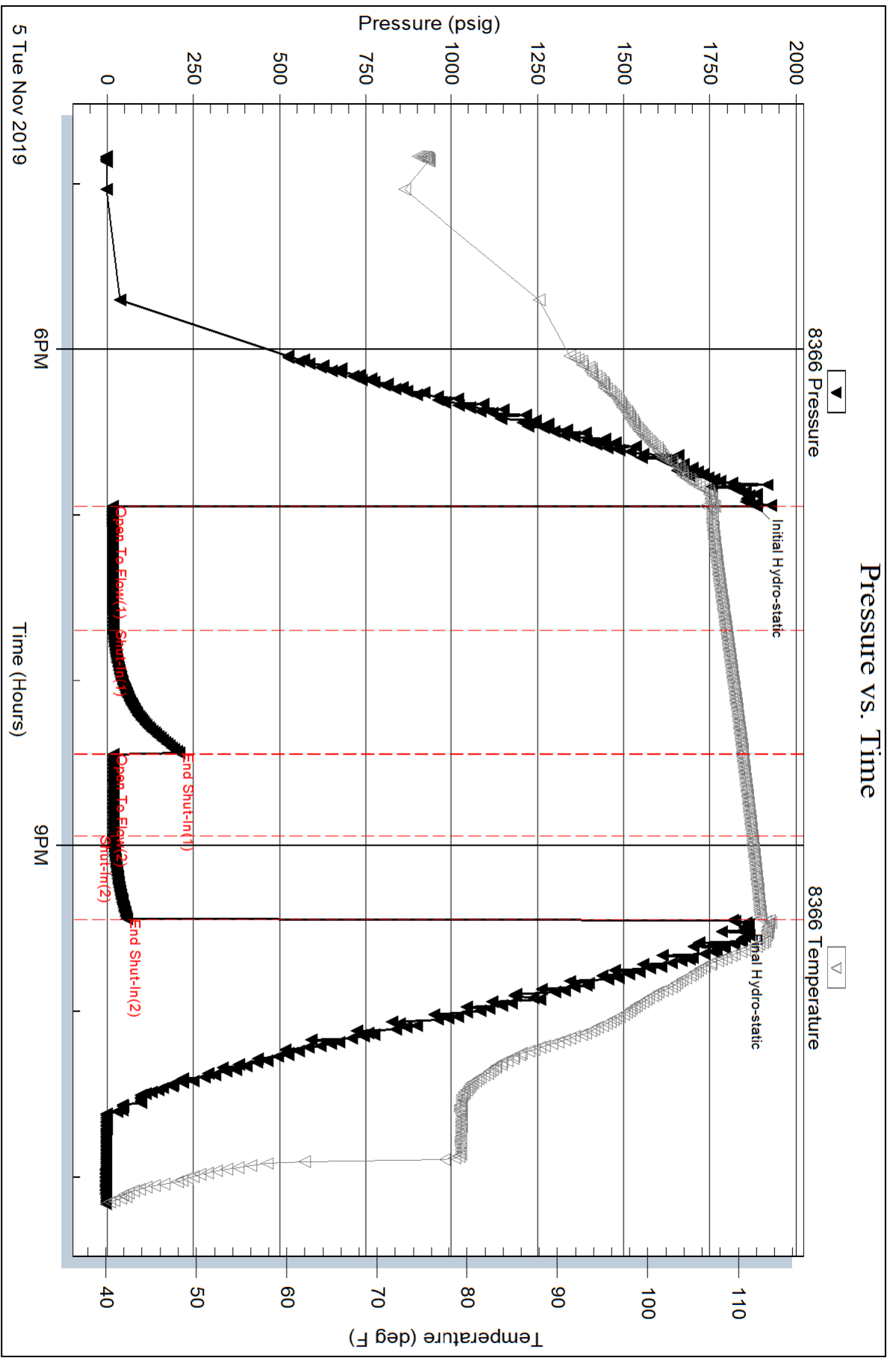
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



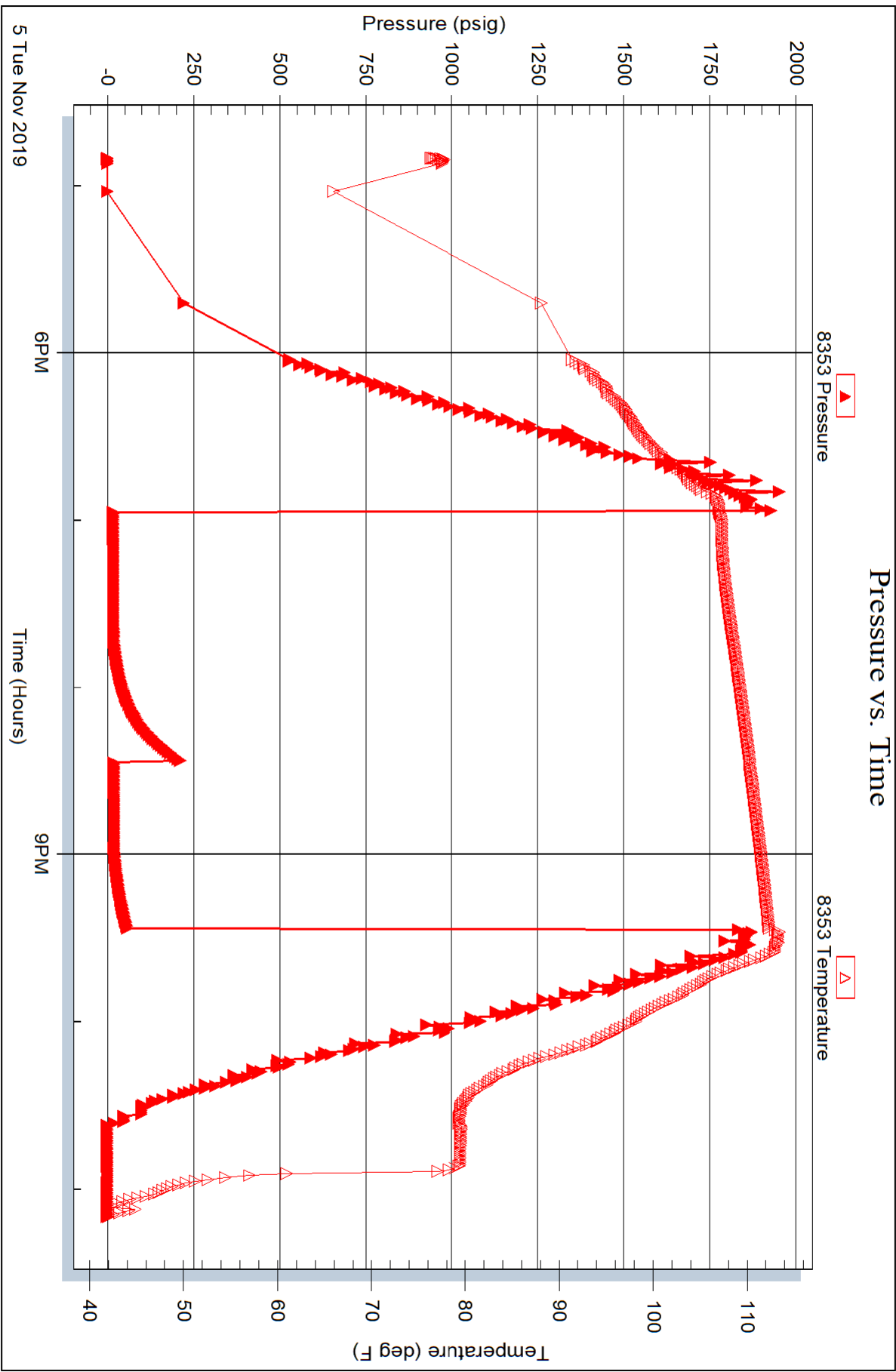
Serial #: 8353

Inside

Russell Oil Inc.

New man #32-1

DST Test Number: 1





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil Inc.  
P.O. Box 8050  
Edmond OK 73083  
ATTN: Kitt Noah

**32-9s-26w Sheridan KS**  
**Newman #32-1**  
Job Ticket: 66451      **DST#: 2**  
Test Start: 2019.11.06 @ 07:08:00

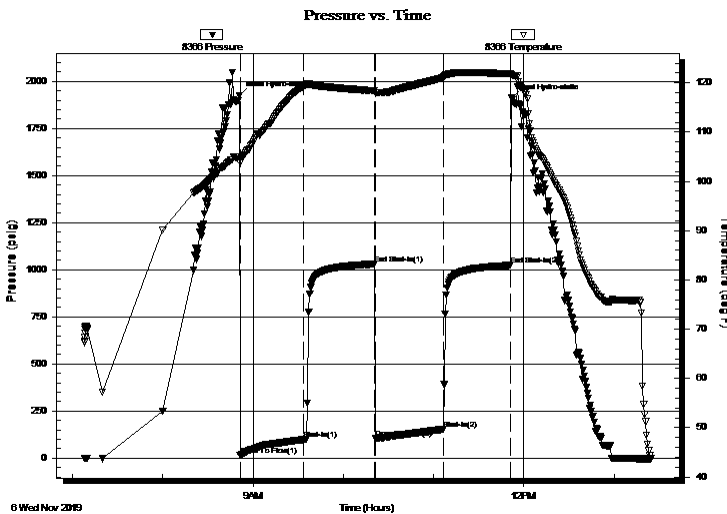
## GENERAL INFORMATION:

Formation: **LKC " E - F "**  
Deviated: No Whipstock: ft (KB)      Test Type: Conventional Bottom Hole (Reset)  
Time Tool Opened: 08:51:20      Tester: Ryan Nichols  
Time Test Ended: 13:24:39      Unit No: 71  
**Interval: 3926.00 ft (KB) To 3951.00 ft (KB) (TVD)**      Reference Elevations: 2670.00 ft (KB)  
Total Depth: 3951.00 ft (KB) (TVD)      2665.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Good      KB to GR/CF: 5.00 ft

**Serial #: 8366      Outside**  
Press@RunDepth: 153.37 psig @ 3927.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2019.11.06      End Date: 2019.11.06      Last Calib.: 2019.11.06  
Start Time: 07:08:01      End Time: 13:24:40      Time On Btm: 2019.11.06 @ 08:51:00  
Time Off Btm: 2019.11.06 @ 11:51:40

**TEST COMMENT:** 45 IF - Blow built to 11"  
45 ISI - Surface return started @ 15 mins  
45 FF - Blow built to 9"  
45 FSI - No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1923.47	105.00	Initial Hydro-static
1	16.68	103.85	Open To Flow (1)
43	99.32	119.25	Shut-In(1)
90	1030.57	118.37	End Shut-In(1)
91	104.64	117.93	Open To Flow (2)
136	153.37	121.04	Shut-In(2)
180	1023.95	121.81	End Shut-In(2)
181	1910.17	121.68	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
250.00	MCW - 10%M - 90%W	2.39
45.00	MCW - 20%M - 80%W	0.63

## 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.

**32-9s-26w Sheridan KS**

P.O. Box 8050  
Edmond OK 73083

**Newman #32-1**

Job Ticket: 66451

**DST#: 2**

ATTN: Kitt Noah

Test Start: 2019.11.06 @ 07:08:00

## 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:

41000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
250.00	MCW - 10%M - 90%W	2.386
45.00	MCW - 20%M - 80%W	0.631

Total Length: 295.00 ft      Total Volume: 3.017 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

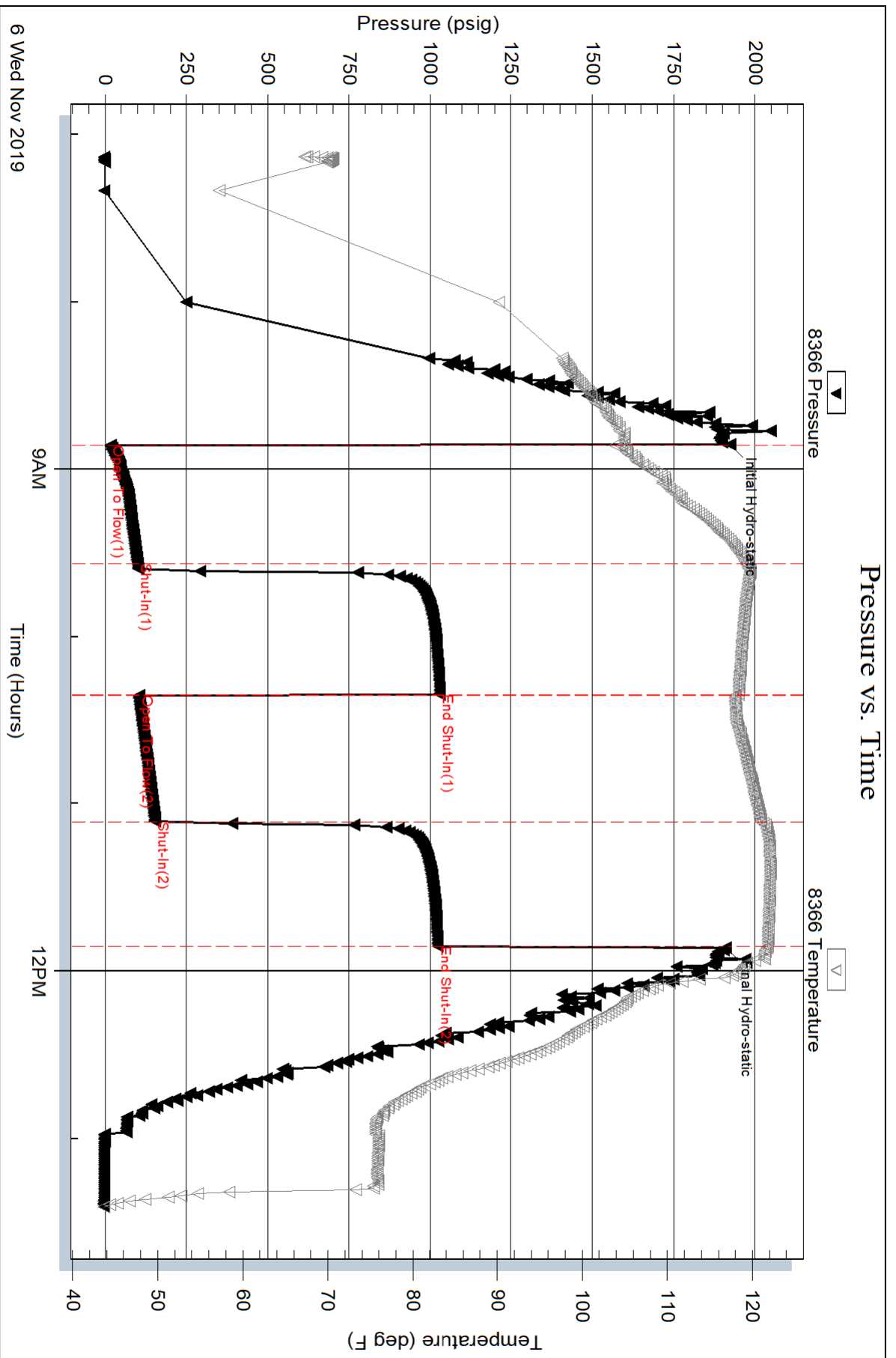
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .206 @ 46 DEG F

CHLORIDES = 41,000 ppm





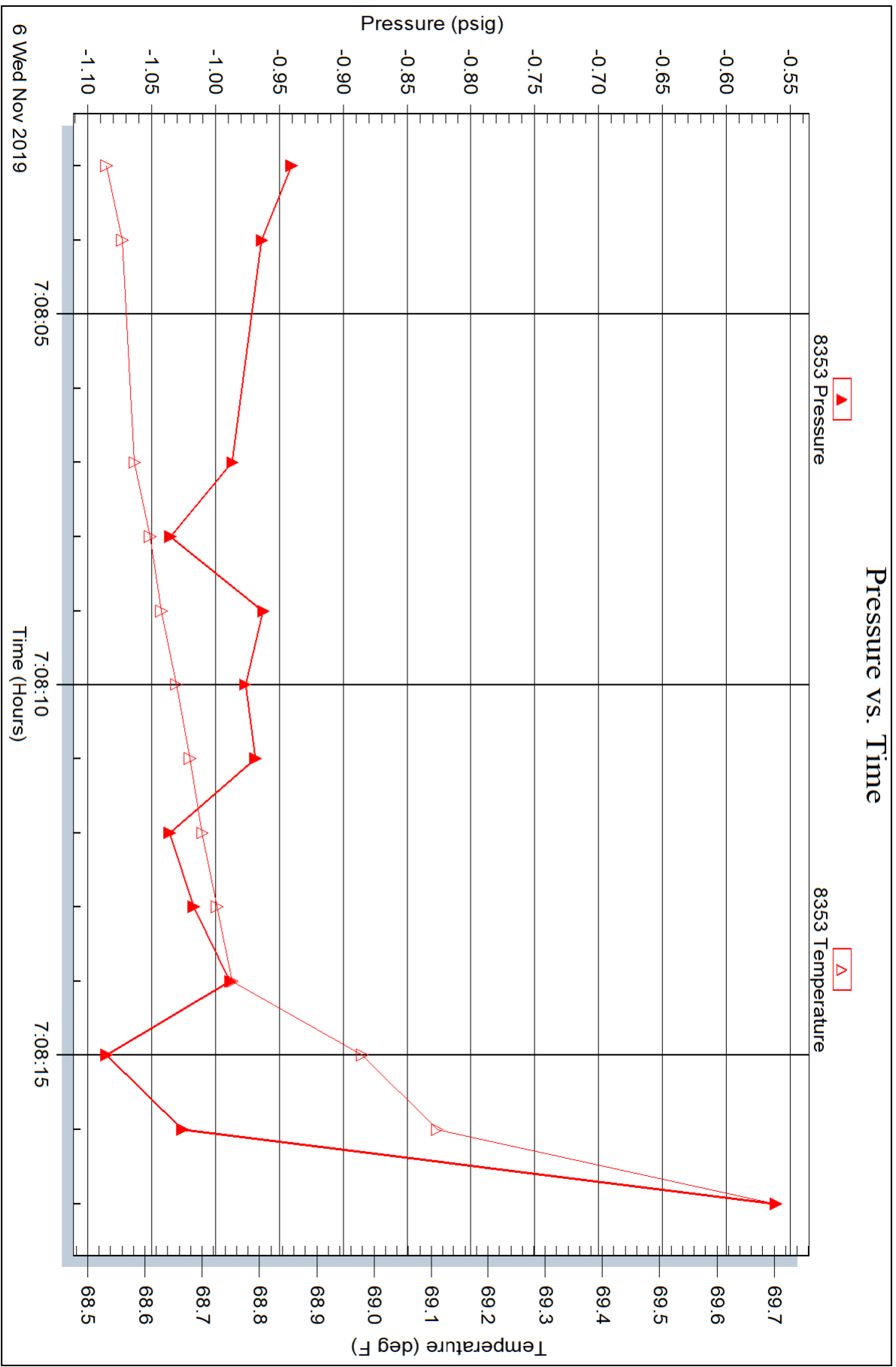
Serial #: 8353

Inside

Russell Oil Inc.

New man #32-1

DST Test Number: 2





# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Russell Oil Inc.  
 P.O. Box 8050  
 Edmond OK 73083  
 ATTN: Kitt Noah

**32-9s-26w Sheridan KS**

**Newman #32-1**

Job Ticket: 66452

**DST#: 3**

Test Start: 2019.11.07 @ 00:58:00

### GENERAL INFORMATION:

Formation: **LKC "H - I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:36:40

Time Test Ended: 07:10:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 71

**Interval: 3981.00 ft (KB) To 4034.00 ft (KB) (TVD)**

Reference Elevations: 2670.00 ft (KB)

Total Depth: 4034.00 ft (KB) (TVD)

2665.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8366 Outside**

Press@RunDepth: 24.76 psig @ 3982.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.11.07

End Date:

2019.11.07

Last Calib.:

2019.11.07

Start Time: 00:58:01

End Time:

07:10:20

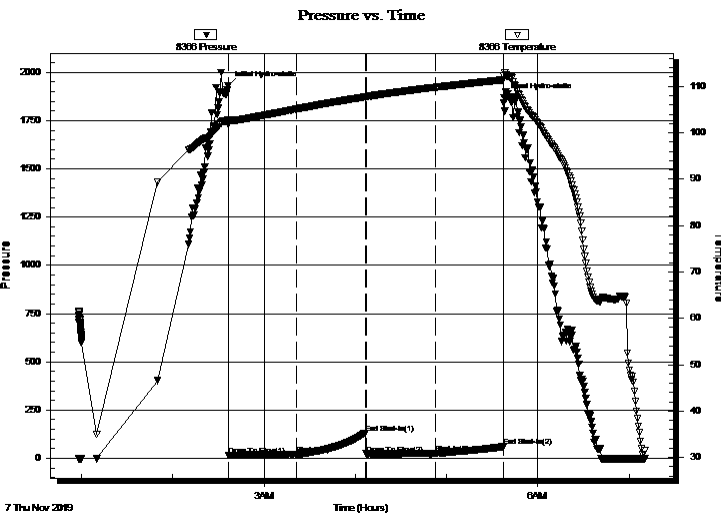
Time On Btm:

2019.11.07 @ 02:36:30

Time Off Btm:

2019.11.07 @ 05:37:50

**TEST COMMENT:** 45 IF - Blow built to 1 1/4"  
 45 ISI - No return  
 45 FF - Blow built to 1/4" died back to surface  
 45 FSI - No return



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1928.90	102.76	Initial Hydro-static
1	15.86	101.80	Open To Flow (1)
45	20.99	105.07	Shut-In(1)
90	130.00	107.68	End Shut-In(1)
91	21.25	107.77	Open To Flow (2)
137	24.76	109.79	Shut-In(2)
181	59.33	111.40	End Shut-In(2)
182	1868.10	112.31	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM - 30%o - 70%M	0.05
10.00	Oil 100%o	0.05

### Gas Rates

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

\* Recovery from multiple tests



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Russell Oil Inc.

P.O. Box 8050  
Edmond OK 73083

ATTN: Kitt Noah

**32-9s-26w Sheridan KS**

**Newman #32-1**

Job Ticket: 66452

**DST#: 3**

Test Start: 2019.11.07 @ 00:58:00

### GENERAL INFORMATION:

Formation: **LKC "H-1"**

Deviated: No Whipstock:                         ft (KB)

Time Tool Opened: 02:36:40

Time Test Ended: 07:10:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 71

**Interval: 3981.00 ft (KB) To 4034.00 ft (KB) (TVD)**

Total Depth: 4034.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2670.00 ft (KB)

2665.00 ft (CF)

KB to GR/CF: 5.00 ft

### Serial #: 8353

Inside

Press@RunDepth:                         psig @ 3982.00 ft (KB)

Start Date: 2019.11.07

End Date: 2019.11.07

Start Time: 00:58:01

End Time: 07:10:10

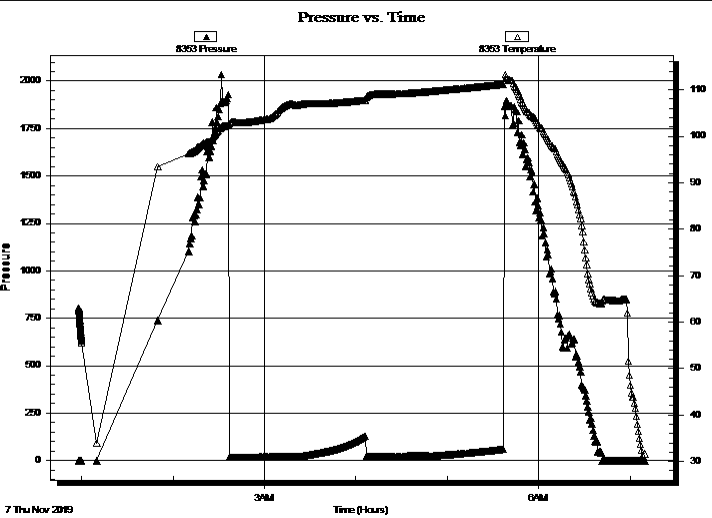
Capacity: 8000.00 psig

Last Calib.: 2019.11.07

Time On Btm:

Time Off Btm:

TEST COMMENT: 45 IF - Blow built to 1 1/4"  
45 ISI - No return  
45 FF - Blow built to 1/4" died back to surface  
45 FSI - No return



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM - 30%o - 70%M	0.05
10.00	Oil 100%o	0.05

### 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.

**32-9s-26w Sheridan KS**

P.O. Box 8050  
Edmond OK 73083

**Newman #32-1**

Job Ticket: 66452

**DST#: 3**

ATTN: Kitt Noah

Test Start: 2019.11.07 @ 00:58:00

**Mud and Cushion Information**

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
10.00	OCM - 30%o - 70%M	0.049
10.00	Oil 100%o	0.049

Total Length: 20.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

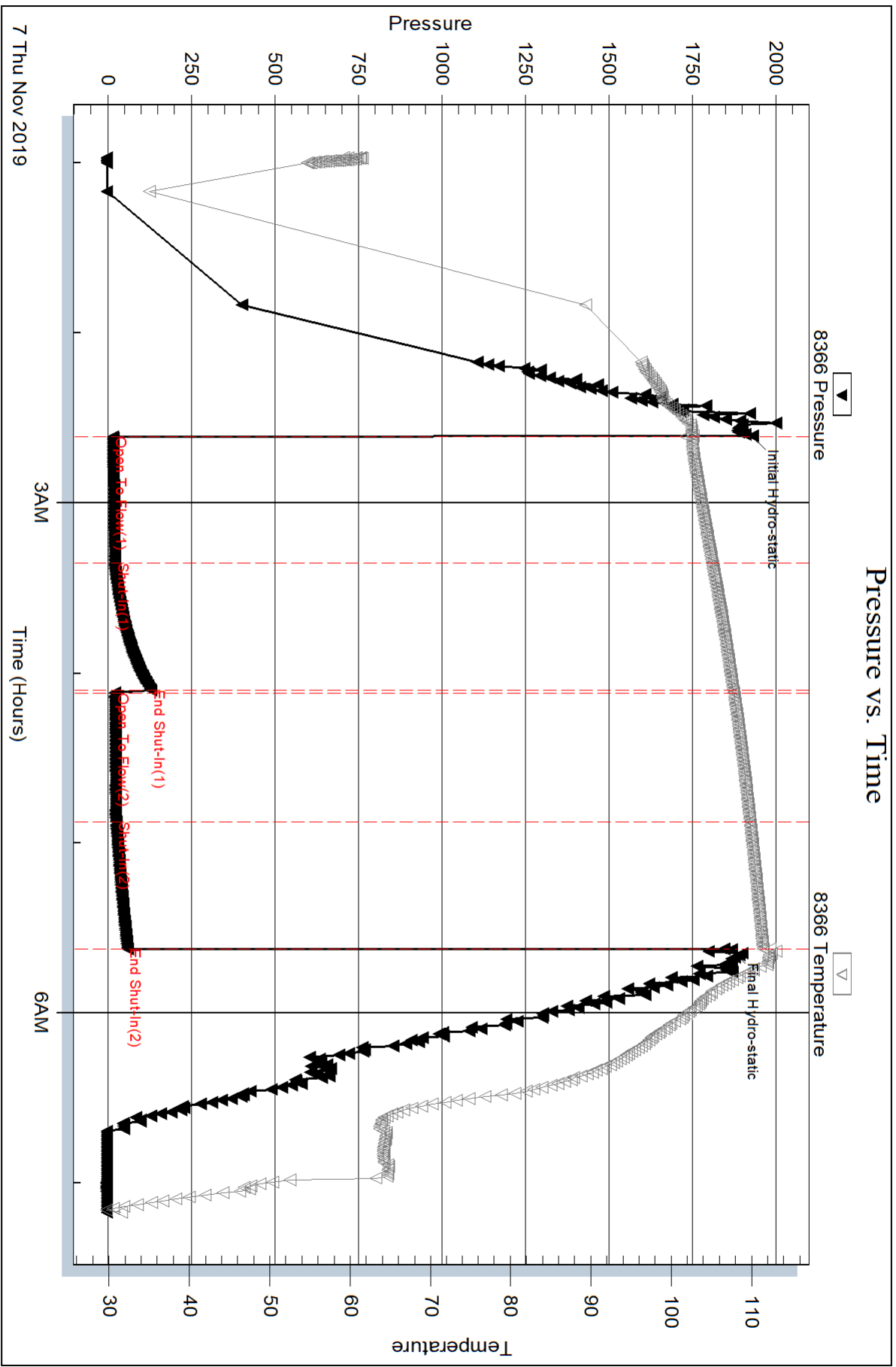
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: gravity = 35 @ 30 DEG F = 38 COR 60 DEG F



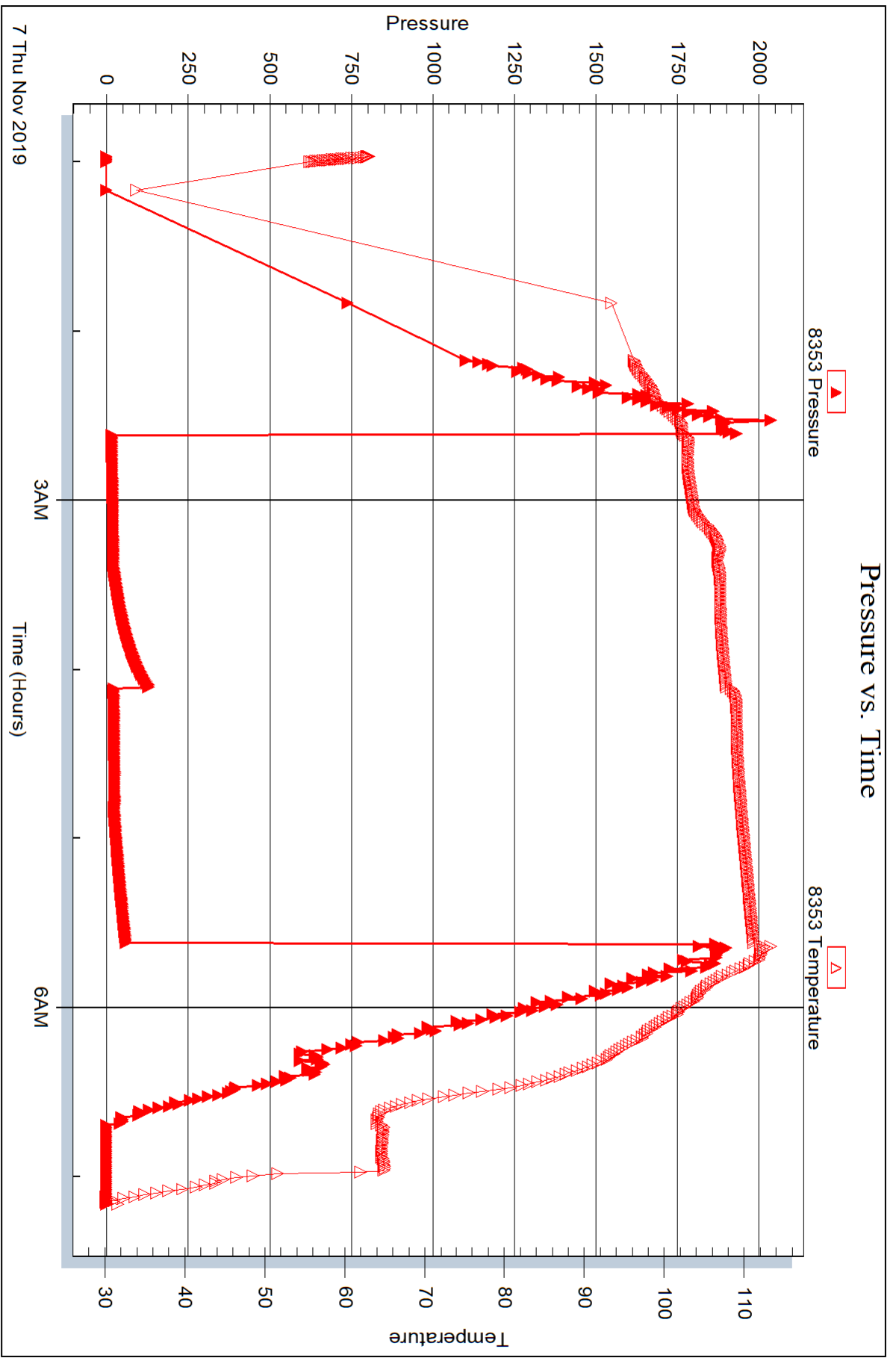
Serial #: 8353

Inside

Russell Oil Inc.

New man #32-1

DST Test Number: 3





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil Inc.  
 P.O. Box 8050  
 Edmond OK 73083  
 ATTN: Kitt Noah

**32-9s-26w Sheridan KS**  
**Newman #32-1**  
 Job Ticket: 66454 **DST#: 5**  
 Test Start: 2019.11.07 @ 20:44:00

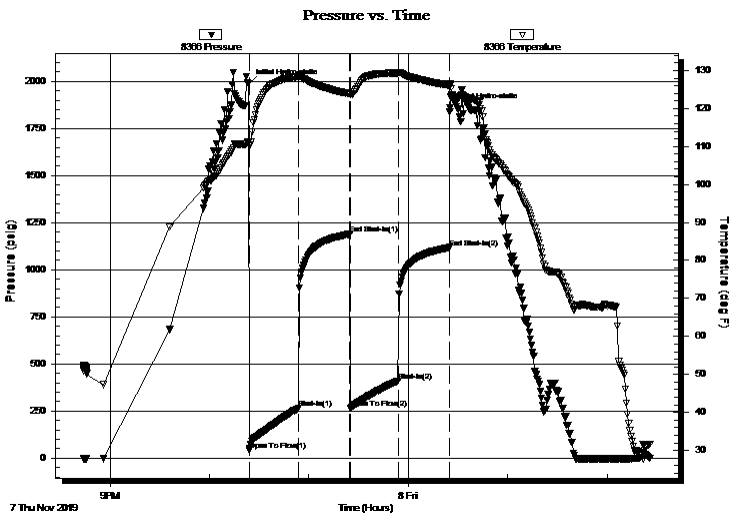
## GENERAL INFORMATION:

Formation: **LKC "I - K"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 22:24:00  
 Time Test Ended: 02:25:39  
 Interval: **4012.00 ft (KB) To 4077.00 ft (KB) (TVD)**  
 Total Depth: 4077.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Ryan Nichols  
 Unit No: 71  
 Reference Elevations: 2670.00 ft (KB)  
 2665.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8366 Outside**  
 Press@RunDepth: 411.18 psig @ 4013.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2019.11.07 End Date: 2019.11.08 Last Calib.: 2019.11.08  
 Start Time: 20:44:01 End Time: 02:25:40 Time On Btm: 2019.11.07 @ 22:23:50  
 Time Off Btm: 2019.11.08 @ 00:25:10

**TEST COMMENT:** 30 IF - BoB @ 5 mins  
 30 ISI - Surface return built to 1/2"  
 30 FF - BoB @ 9 mins  
 30 FSI - No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1986.29	111.11	Initial Hydro-static
1	42.84	110.04	Open To Flow (1)
30	264.09	128.39	Shut-In(1)
61	1189.33	123.85	End Shut-In(1)
62	266.56	123.63	Open To Flow (2)
90	411.18	129.34	Shut-In(2)
121	1118.15	126.09	End Shut-In(2)
122	1860.06	125.95	Final Hydro-static

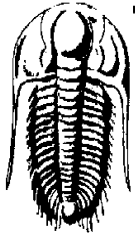
## Recovery

Length (ft)	Description	Volume (bbl)
504.00	MCW w/ trace oil - 10%M - 90%W	5.95
63.00	OMCW - 5%o - 30%M - 65%W	0.88
123.00	OMCW - 10%o - 40%M - 50%W	1.73
155.00	OWCM - 20%o - 30%W - 50%M	2.17

\* Recovery from multiple tests

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Russell Oil Inc.

32-9s-26w Sheridan KS

P.O. Box 8050  
Edmond OK 73083

Newman #32-1

Job Ticket: 66454

DST#: 5

ATTN: Kitt Noah

Test Start: 2019.11.07 @ 20:44:00

### GENERAL INFORMATION:

Formation: **LKC "I - K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:24:00

Time Test Ended: 02:25:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 71

Interval: **4012.00 ft (KB) To 4077.00 ft (KB) (TVD)**

Total Depth: 4077.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2670.00 ft (KB)

2665.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **8353**

Inside

Press@RunDepth: psig @ 4013.00 ft (KB)

Start Date: 2019.11.07

End Date:

2019.11.08

Start Time: 20:44:01

End Time:

02:25:40

Capacity: 8000.00 psig

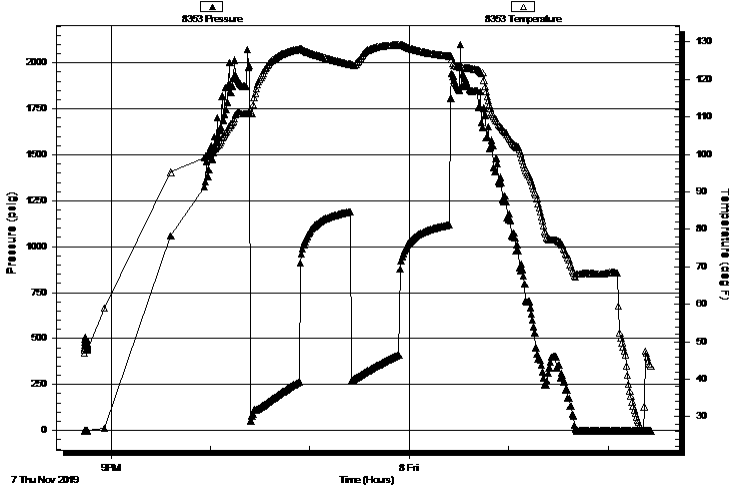
Last Calib.: 2019.11.08

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 IF - BoB @ 5 mins  
30 ISI - Surface return built to 1/2"  
30 FF - BoB @ 9 mins  
30 FSI - No return

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
504.00	MCW w/ trace oil - 10%M - 90%W	5.95
63.00	OMCW - 5%o - 30%M - 65%W	0.88
123.00	OMCW - 10%o - 40%M - 50%W	1.73
155.00	OWCM - 20%o - 30%W - 50%M	2.17

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.

**32-9s-26w Sheridan KS**

P.O. Box 8050  
Edmond OK 73083

**Newman #32-1**

Job Ticket: 66454

**DST#: 5**

ATTN: Kitt Noah

Test Start: 2019.11.07 @ 20:44:00

## 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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
504.00	MCW w/ trace oil - 10%M - 90%W	5.949
63.00	OMCW - 5%o - 30%M - 65%W	0.884
123.00	OMCW - 10%o - 40%M - 50%W	1.725
155.00	OWCM - 20%o - 30%W - 50%M	2.174

Total Length: 845.00 ft      Total Volume: 10.732 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

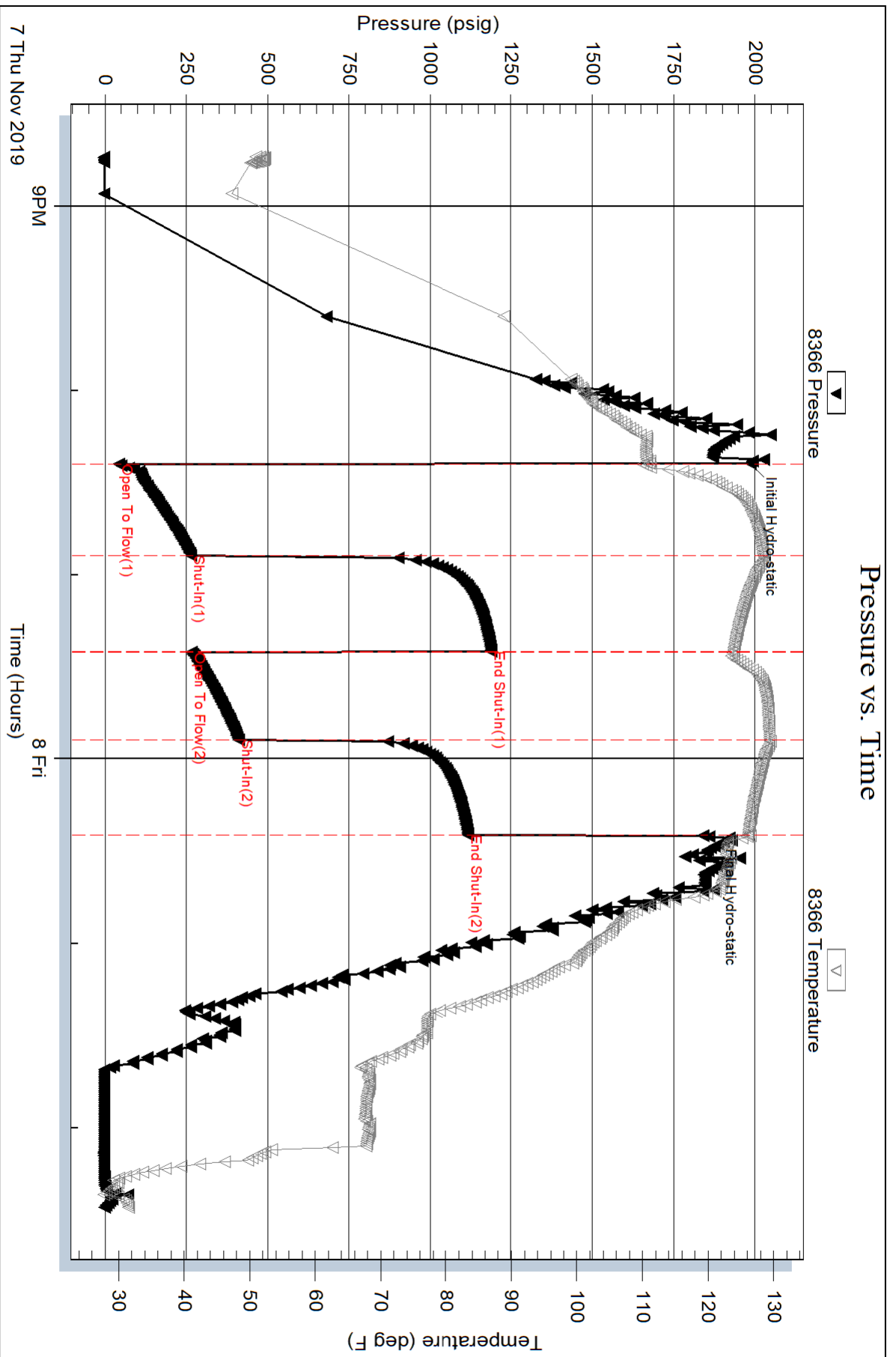
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .622 @ 19 DEG F

CHLORIDES = 29,000 ppm



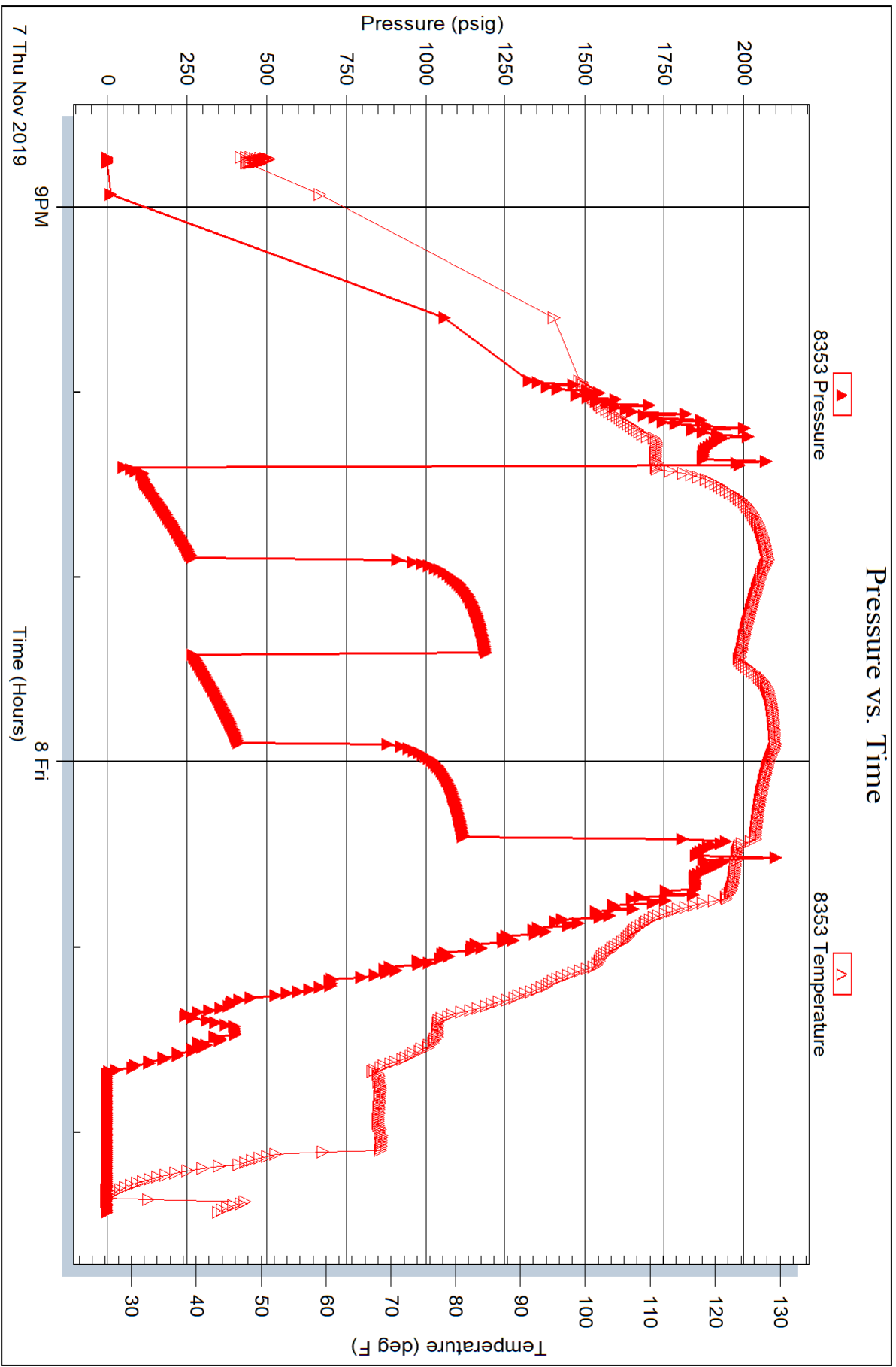
Serial #: 8353

Inside

Russell Oil Inc.

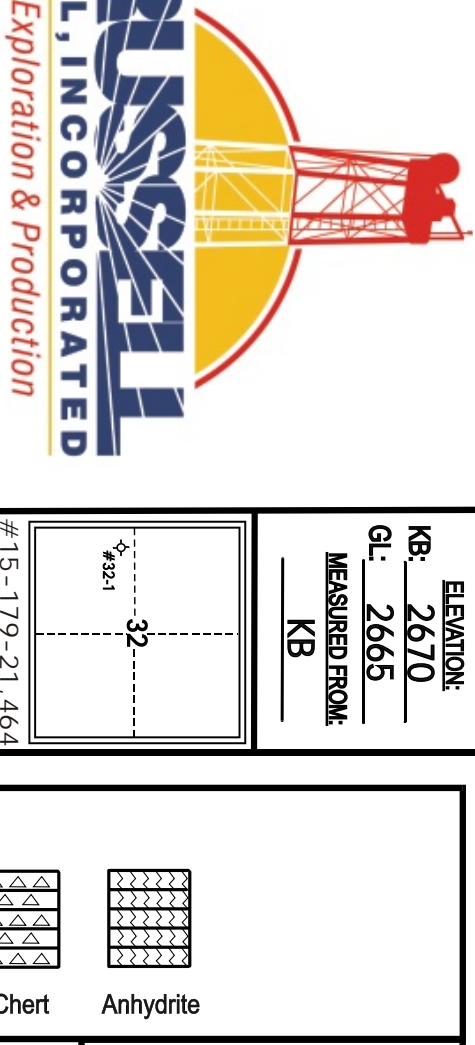
New man #32-1

DST Test Number: 5



# KITT NOAH

PETROLEUM GEOLOGIST  
Kansas License #229



## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR: Russell Oil, Inc.  
LEASE: Newman  
LOCATION: 2310FS & 380'FW  
SEC: 32 TWP: 9S RNG: 26W  
COUNTY: Sheridan STATE: Kansas

WELL NO.: #32-1  
SURFACE: 8 5/8" set at 286' w/170' SK.  
PRODUCTION: None  
Casing Record:  
DV TOOL: \_\_\_\_\_

CONTRACTOR: VMW Drilling Rig #10  
COM: 11-2019 COM2: 11-9-2019  
RTD: 4400 LTD: 4400  
SAMPLING SAVED FROM: 3550 TO TD  
DRILLING TIME SAVED FROM: 3550 TO TD  
SAMPLING EXAMINED FROM: 3550 TO TD  
GEOLOGICAL SUPERVISION FROM: 3550 TO TD  
MUD UP: 3449 MUD TYPE: chemical  
B/K/C: 4088 (-1418)  
Marmaton 4119 (-1449)  
Pawnee 4233 (-1563)  
Fort Scott 4306 (-1636)  
Cherokee 4329 (-1659)  
RTD 4400 (-1730)  
LTD 4400 (-1730)

FORMATION TOP LOG  
Anhydrite 2272 (+398)  
B/Anhydrite 2306 (+364)  
Header 3825 (-1155)  
Oil 3848 (-1178)  
Lansing 3864 (-1194)  
Stark 4047 (-1377)  
B/K/C 4088 (-1418)  
Marmaton 4119 (-1449)  
Pawnee 4233 (-1563)  
Fort Scott 4306 (-1636)  
Cherokee 4329 (-1659)  
RTD 4400 (-1730)  
LTD 4400 (-1730)

MEASURED ROCK  
ELEVATION: KB 2670  
GEL: 2665  
MEASURED ROCK: KB

APL: 15-179-21,464 FIELD: Wildcat

SURVERS: Halliburton  
Spectral Density Dual Neutron Array Compensated Resistivity Microlog

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

DEPTH  
LITHOLOGY

LEGEND  
Limestone Ool Lime Dolomite Sandstone Shale Carb Shale Chert Anhydrite

SAMPLE DESCRIPTIONS

REMARKS

EL 2272 (+398)  
Anhydrite

EL 2306 (+364)  
B/Anhydrite

EL 3614 (-944)  
Topeka

EL 3825 (-1155)  
Heebner

EL 3848 (-1178)  
Toronto

EL 3864 (-1194)  
Lansing

EL 3980 (-1310)  
Muncie Crk

EL 4047 (-1377)  
Stark 5

EL 4088 (-1418)  
B/K/C

EL 4119 (-1449)  
Marmaton

EL 4233 (-1563)  
Pawnee

EL 4306 (-1636)  
Fort Scott

EL 4329 (-1659)  
Cherokee

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

DEPTH  
LITHOLOGY

SAMPLE DESCRIPTIONS

REMARKS

ELEVATION: KB 2670

OPERATOR: Russell Oil, Inc. LOCATION: 2310FS & 380'FW

LEASE: Newman WELL NO.: #32-1 SEC: 32 TWP: 9S RNG: 26W

APL: 15-179-21,464 FIELD: Wildcat COUNTY: Sheridan STATE: Kansas

DST #1: (3880-3926)  
1st Op: Weak Bldg 1/2"  
No Blowback  
2nd Op: No Blow  
No Blowback  
Rec: 5' Mud w/oil spots  
IFP: 16-17#/45"  
ISIP: 18-19#/30"  
FSIP: 57#/30"

Pipe Strap at 3926'  
0.00 EVEN

DST #2: (4246-4275)  
1st Op: Blow Bldg 11"  
Sfc Blowback 15 min  
2nd Op: Blow Bldg 9"  
No Blowback  
Rec: 45' MCW (80%W, 20%M)  
250' MCW (90%W, 10%M)  
295' Total Fluid  
IFP: 17-99#/45"  
ISIP: 1031#/45"  
FFP: 105-153#/45"  
FSIP: 1024#/45"  
Chlor: 41,000 ppm

DST #3: (3981-4034)  
1st Op: Weak Bldg 1 1/4"  
No Blowback  
2nd Op: Weak Bldg 1/4"  
No Blowback  
Rec: 10' Oil - Grav 38  
10' OCM (30%W, 70%M)  
20' Total Fluid  
IFP: 16-21#/45"  
ISIP: 130#/45"  
FFP: 21-25#/45"  
FSIP: 59#/45"

DST #4:  
MISRUN  
Shale Packer Would  
Not Hold

DST #5: (4012-4077)  
1st Op: BOB 5"  
Sfc Blowback 1/2"  
2nd Op: BOB 9"  
No Blowback  
Rec: 155' OCMW (20%O, 30%W)  
123' OMCW (10%O, 50%W)  
63' OMCW (5%O, 69%W)  
504' MCW w/tr oil (90%W)  
845' Total Fluid  
IFP: 43-264#/30"  
ISIP: 1189#/30"  
FFP: 267-411#/30"  
FSIP: 1118#/30"  
Chlor: 29,000 ppm