



KANSAS CORPORATION COMMISSION 1060125  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

June 2009

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
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date      Date Reached TD      Completion Date or Recompletion Date

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

County: \_\_\_\_\_

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

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total 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**

- Letter of Confidentiality Received  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report 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 and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  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
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

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
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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> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Russell Oil, Inc.
Well Name	Anderson 1-31
Doc ID	1060125

All Electric Logs Run

SECTOR BOND
COMPUTER PROCESSED INTERPRETATION
DUAL INDUCTION
DUAL COMPENSATED POROSITY
MICRORESISTIVITY
BOREHOLE COMPENSATED SONIC

Form	ACO1 - Well Completion
Operator	Russell Oil, Inc.
Well Name	Anderson 1-31
Doc ID	1060125

Tops

Name	Top	Datum
ANHYDRITE TOP	2772	+524
ANHYDRITE BASE	2797	+497
TOPEKA	3926	-630
HEEBNER	4142	-846
TORONTO	4163	-867
LANSING	4184	-888
MUNCIE CREEK	4334	-1038
STARK	4413	-1117
BASE KC	4476	-1180
MARMATON	4520	-1224
PAWNEE	4600	-1304
MYRICK STATION	4643	-1347
FORT SCOTT	4661	-1365
CHEROKEE	4691	-1395
JOHNSON	4732	-1436
MORROW SHALE	4781	-1485
BASAL PENN SAND	4810	-1514
MISSISSIPPIAN	4826	-1530



# STEVEN P. MURPHY, P.G.

*Petroleum Geologist (KS #228)*

Cell 620.639.3030

Fax 785.387.2400

RR#1, Box 69

Otis, Kansas 67565

geomurphy@gbta.net

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

Well Name: Anderson #1-31

Location: Thomas County

License Number: API #15-193-20793-00-00

Spud Date: 5/1/11

Region: Kansas

Drilling Completed: 5/12/11

Surface Coordinates: 2290' FSL & 1810' FWL (Approx. C SE NW NE SW)

Section 31-Township 10 South-Range 34 West

Bottom Hole Coordinates: Vertical Well with minimal deviation, same as above

Ground Elevation (ft): 3286'

K.B. Elevation (ft): 3296'

Logged Interval (ft): 3700

To: TD

Total Depth (ft): RTD -4979' LTD- 4979

Formation: Topeka through Mississippian

Type of Drilling Fluid: Chemical - Mudco (Engineer - Reed Atkins)

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

## OPERATOR

Company: Russell Oil, Inc.

Address: P.O. Box 8050

Edmond, OK 73083

## GEOLOGIST

Name: Steven P. Murphy, PG (KS License #228)

Company: Consulting Petroleum Geologist

Address: 3365 County Rd 390

Otis, KS 67565

620-639-3030 (Cell)

## LOG TOPS (Datum)

The open-hole logging was performed by Log-Tech (Hays, KS shop). Logs included Compensated Neutron/Compensated Density, Dual Induction, Sonic & Microlog.

Formation tops and associated datums from these logs include the following:

Anhydrite Top - 2772 (+524)  
Anhydrite Base - 2797 (+497)  
Topeka - 3926 (-630)  
Heebner - 4142 (-846)  
Toronto - 4163 (-867)  
Lansing - 4184 (-888)  
Muncie Creek - 4334 (-1038)  
Stark - 4413 (-1117)  
Base KC -4476 (-1180)  
Marmaton - 4520 (-1224)  
Pawnee - 4600 (-1304)  
Myrick Station - 4643 (-1347)  
Fort Scott -4661 (-1365)  
Cherokee - 4691 (-1395)  
Johnson Zone - 4732 (-1436)  
Morrow Shale - 4781 (-1485)  
Basal Penn Sand - 4810 (-1514)  
Mississippian - 4826 (-1530)

The drill-stem testing of the well was performed by Chuck Smith & Kevin Mack with Trilobite Testing (Scott City shop).

**DST #1 (Toronto) 4140-4170**

**30:30:45:45**

**IF: 3" blow, no return**

**FF: 2" blow, no return**

**Recovery: 165' MW**

**(70% W, 30% M)**

**IHP: 2142 FHP: 2033**

**IFP: 18-47 ISIP: 1241**

**FFP: 52-95 FSIP: 1240**

**BHT: 121 F**

**Chlorides: 39,000 ppm**

**DST #2 (LKC "H") 4340-4360**

**15:15:15:15**

**IF: Surface blow died Immed  
no return**

**FF: No blow, no return**

**Recovery: 5' Oil spotted M**

**IHP: 2147 FHP: 2160**

**IFP: 16-17 ISIP: 97**

**FFP: 16-18 FSIP: 85**

**BHT: 118 F**

**DST #3 (LKC "K") 4410-4440**

**15:15:15:15**

**IF: Surface blow died Immed  
no return**

**FF: No blow, no return**

**Recovery: 10' Oil Sptd M**

**IHP: 2190 FHP: 2176**

**IFP: 15-17 ISIP: 845**

**FFP: 18-17 FSIP: 964**

**BHT: 119 F**

**DST #4 (Myrick Station & Ft. Scott) 4630-4680**

**30:30:30:30**

**IF: 1/4" blow died in 15",  
no return**

**FF: No blow, no return**

**Recovery: 10' M**

**IHP: 2311 FHP: 2261**

**IFP: 16-29 ISIP: 283**

**FFP: 18-20 FSIP: 150**

**BHT: 124 F**

**DST #5 (Johnson Zone) 4716-4770**

**30:45:30:60**

**IF: BOB in 6 min, 9" return**

**FF: BOB in 14 min, 9" return**

**Rec: 180' GIP, 540' GO (20% G,**

**80% O), 120' GMCO (10% G,**

**50% O, 40% M)**

**IHP: 2369 FHP: 2261**

**IFP: 48-143 ISIP: 1044**

**FFP: 166-211 FSIP: 1033**

**Oil Gravity: 22**

**BHT: 132 F**





**COMMENTS**

The Anderson #1-31 was drilled by H2 Drilling, Rig #2 (Toolpusher - Steve Craig). This wildcat was spudded on 5/1/11 and 8-5/8" surface casing was set @ 270' w/180 sacks of cement (3% calcium chloride, 2% gel), cement did circulate.

Rig total depth was 4979' and log total depth was also measured at 4979'.

Based on the results of DST #5, and log & sample analysis, it was recommended that production casing be set to produce the Johnson Zone. 5-1/2" 15.5# production casing was set @ 4973', with the DV tool @ 2800'. Well operations concluded on 5/12/11,

Recommended perforations in the Johnson Zone are:

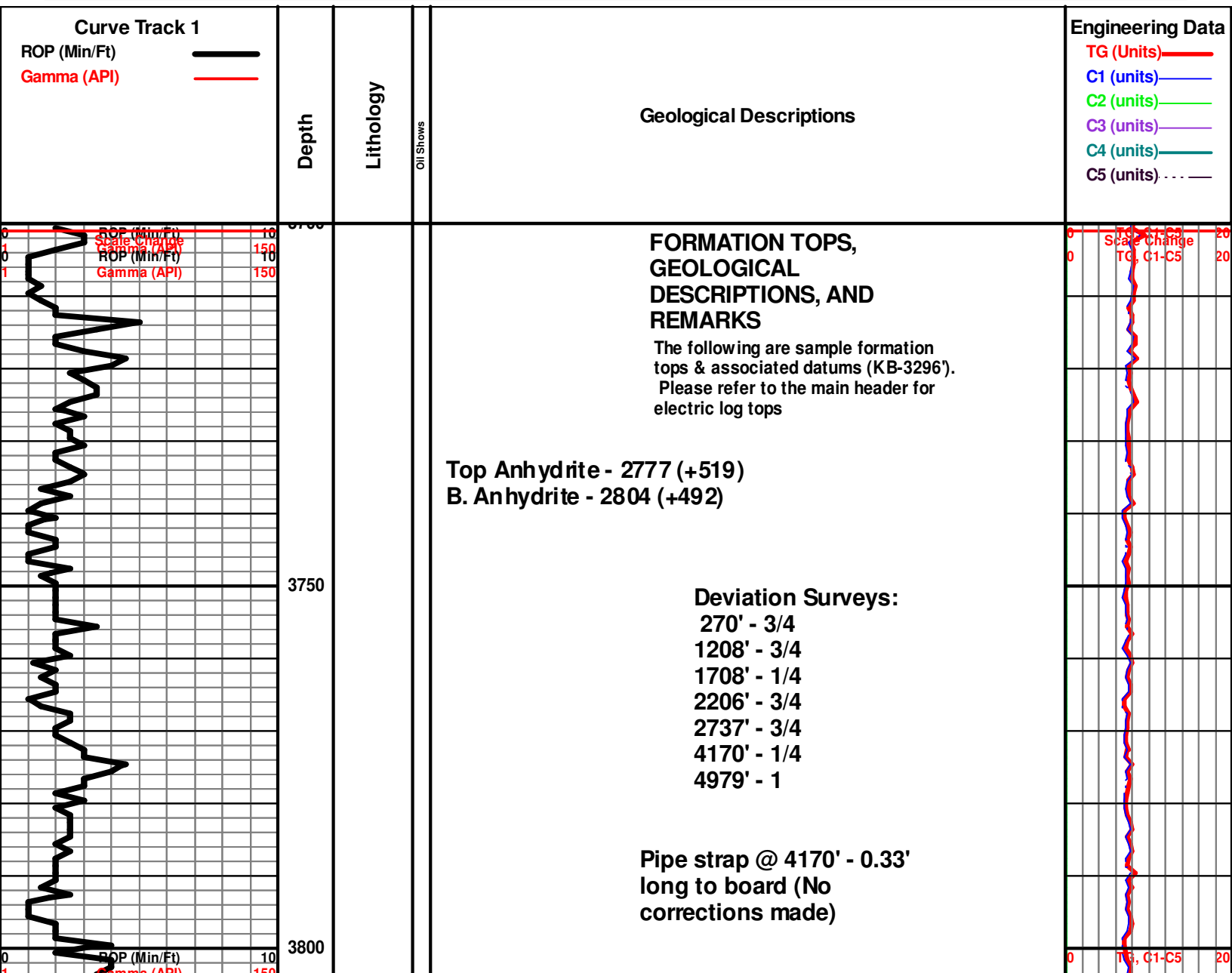
4735-4737', 4740'-4742', 4746-4748'

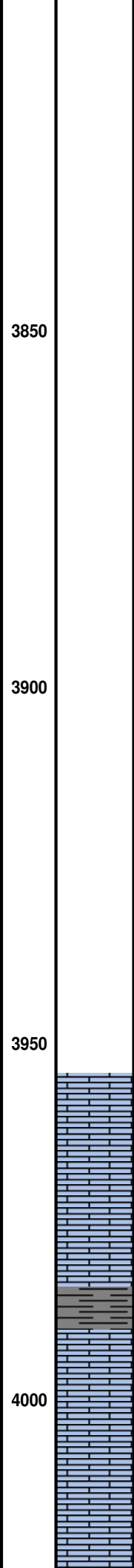
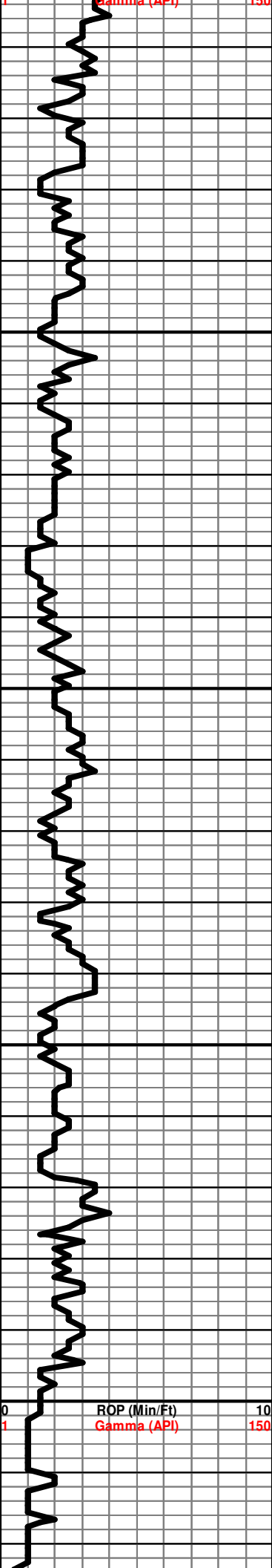
Prior to abandonment, the following zones should be perforated:

LKC "A" Zone: 4185-4189

Respectfully submitted,

Steven P. Murphy, PG





LS: crm, vfxln, sl chalky, sl foss,  
dense, NS

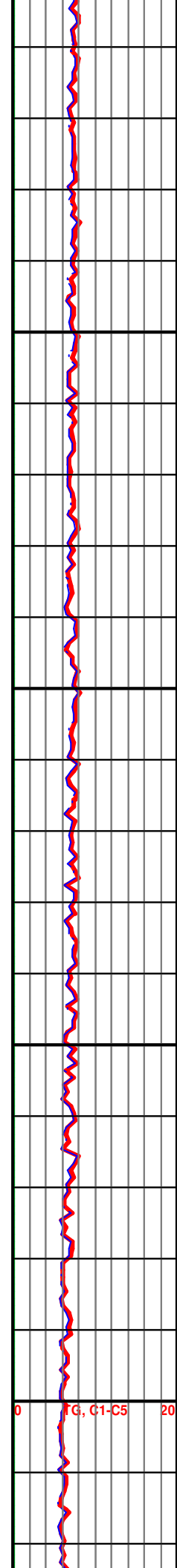
SH: gry

LS: wh-gry, fxlIn, ool in pt, foss, gd  
inxln & vug por, NS

LS: wh-gry, fxlIn, sl foss, v. chalky,  
dense, NS

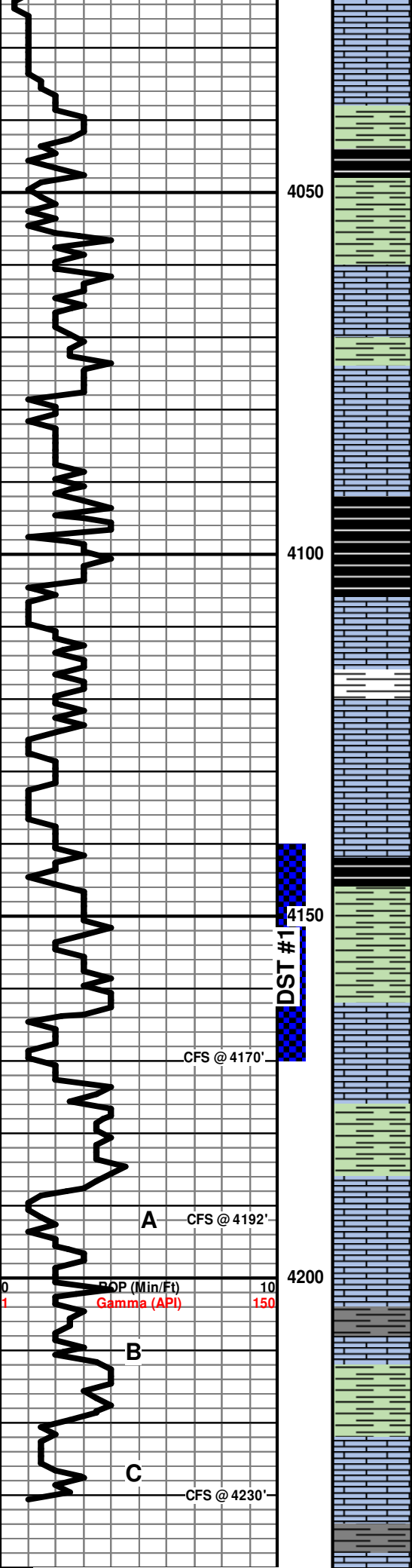
LS: wh-tan, fxlIn, ool in pt, gd inxln por,  
chalky, NS

Begin samples @ 3960'



ROP (Min/Ft) 10  
Gamma (API) 150

FG, C1-C5 20



LS: as above

SH: blk-gry

SH: gry-grn-brn

LS: crm-tan, vfxln, dense, NS

SH: gry-red-brn

LS: crm-gry, vfxln, dense, NS

SH: blk

LS: wh-gry, fxln, oolic in pt, gd vug por, NS

SH; gry-grn-red

LS: crm-tan, fxln, dense, chalky, NS

LS: crm-tan, fxln, dense, chalky, NS

SH: blk  
**HEEBNER 4143 (-847)**

SH: grn-gry-red-blk

**TORONTO 4164 (-868)**

LS: wh, fxln, ool in pt, gd inxln & ppt por, fsfo, spty stn, fr odor, sl chalky

LS: crm-gry, vfxln, dense, NS

SH: blk-gry-grn-brn

**LANSING 4187 (-891)**

LS: wh-tan, oolitic, pr intool por, v chalky, mostly dense, spty rare stn, nsfo, no odor

SH: gry-grn-brn

LS: wh-tan, vfxln, sl chalky, dense, NS

SH: grn-gry-red-brn

LS: Wh-tan-gry, vfxln, dense, v chalky, NS

SH; gry-grn-brn

LS: crm-gry, fxln, pr inxln por, dense,

DST #1 (Toronto) 4140-4170  
 30:30:45:45  
 IF: 3" blow, no return  
 FF: 2" blow, no return  
 Recovery: 165' MW  
 (70% W, 30% M)  
 IHP: 2142 FHP: 2033  
 IFP: 18-47 ISIP: 1241  
 FFP: 52-95 FSIP: 1240  
 BHT: 121 F  
 Chlorides: 39,000 ppm

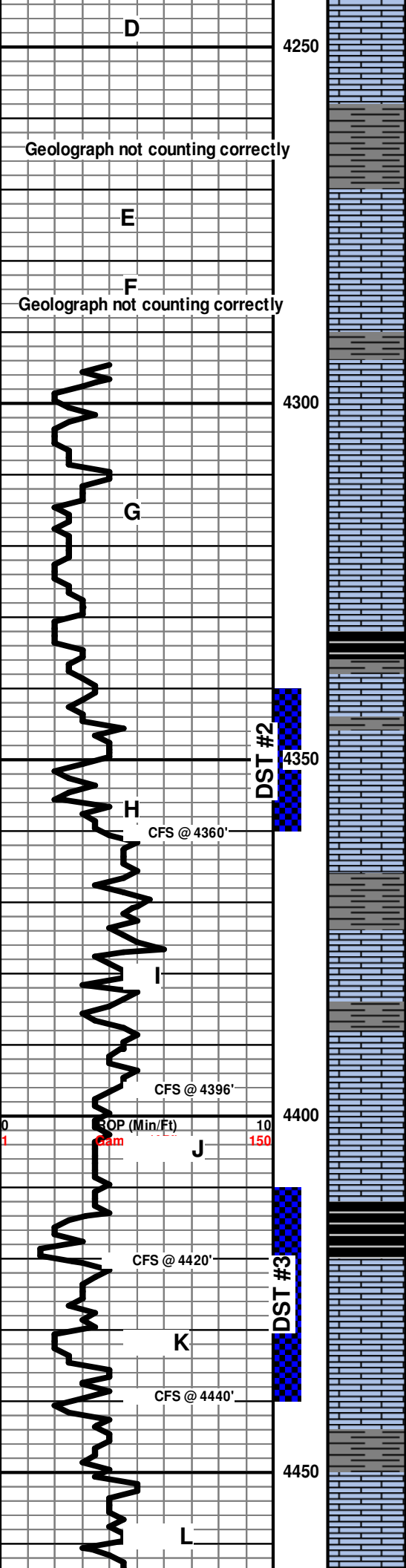
CFS @ 4170'

A CFS @ 4192'

4200

CFS @ 4230'

Geograph not counting correctly



sl chalky, NS  
 LS: crm-tan, vfxln, dense, chalky, minor chert, NS

SH: gry-grn-blk

NOTE: Geograph showing 4340' strapped pipe, actual depth 4293'

LS: wh-tan, fxlIn, dense, chalky, cherty, NS

SH: gry-grn-brn

LS: wh-tan, vfxln, dense, sl chalky, abund chert, NS

LS: wh-tan-gry, vfxln, dense, sl oolitic, sl chalky, NS

**MUNCIE CRK 4330 (-1034)**

SH: blk-gry  
 SH: gry-grn

DST #2 (LKC "H") 4340-4360  
 15:15:15:15  
 IF: Surface blow died Immed no return  
 FF: No blow, no return  
 Recovery: 5' Oil spotted M  
 IHP: 2147 FHP: 2160  
 IFP: 16-17 ISIP: 97  
 FFP: 16-18 FSIP: 85  
 BHT: 118 F

LS: wh-tan, vfxln, dense, NS

LS: wh-crm, fxlIn, oolic, fr-gd inxln por, ssfo, even lite stn, fr odor

SH: gry-grn-blk-brn

LS: wh-tan, fxlIn, mostly dense, rare fr vug por w/ssfo, spotty stn, sl odor

LS: wh-tan-gry, vfxln, dense, tr stn, nsfo, no odor

LS: wh-tan, vfxln, dense, v. chalky

LS: as above w/ gry chert

**STARK 4415 (-1119)**

SH: blk

DST #3 (LKC "K") 4410-4440  
 15:15:15:15  
 IF: Surface blow died Immed no return  
 FF: No blow, no return  
 Recovery: 10' Oil Sptd M  
 IHP: 2190 FHP: 2176  
 IFP: 15-17 ISIP: 845  
 FFP: 18-17 FSIP: 964  
 BHT: 119 F

LS: wh-gry, vfxln, dense, chalky, NS

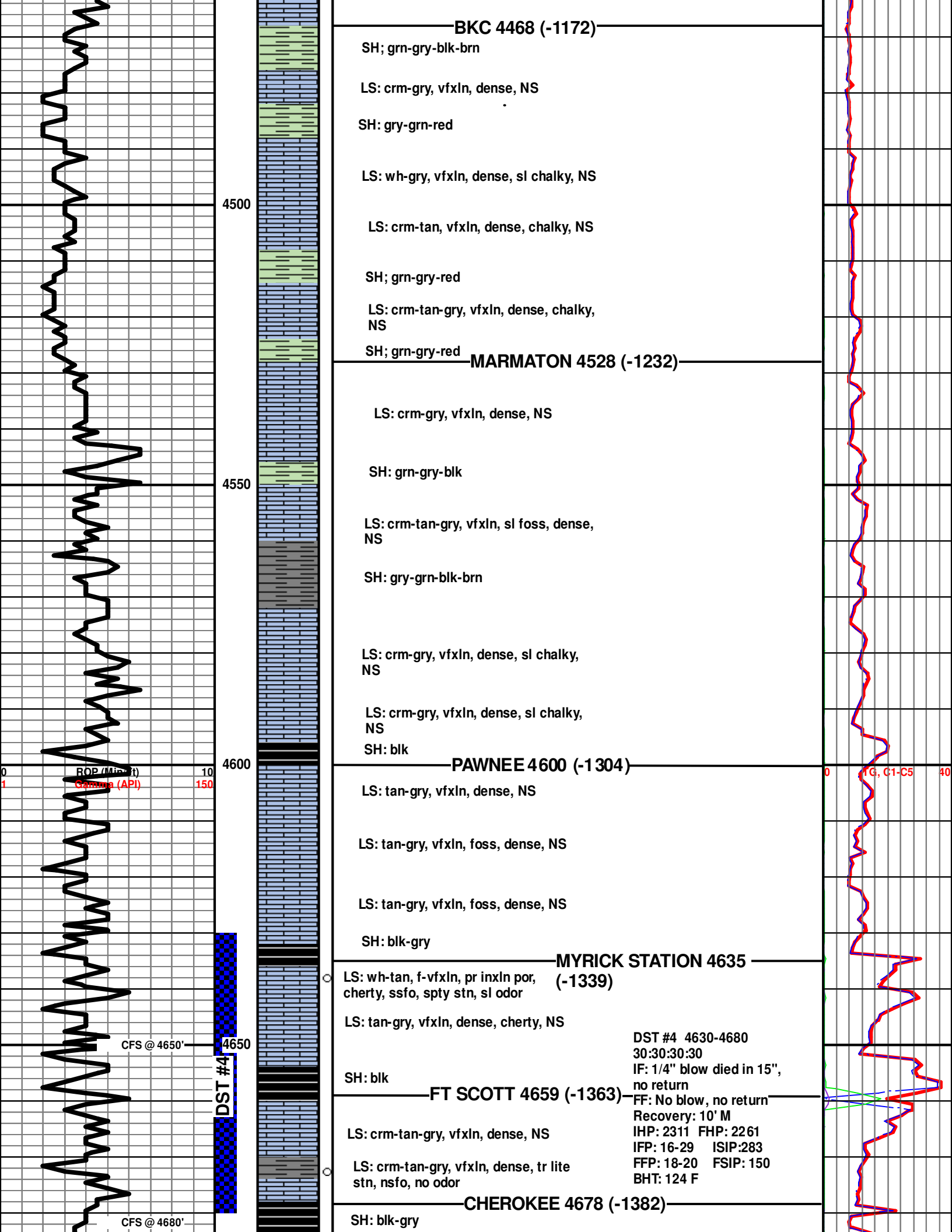
LS: crm-tan, fxlIn, foss, fr-gd ppt/Intfoss por, ssfo, even stn, str odor

LS: crm-tan, vfxln, dense, sl chalky, minor chert, NS

SH: grn-gry-blk-red-brn

LS: wh-tan-gry, vfxln, dense, sl chalky, NS (minor sh as above)

LS: as above w/minor chert, NS



**BKC 4468 (-1172)**

SH; grn-gry-blk-brn  
 LS: crm-gry, vfxln, dense, NS  
 SH: gry-grn-red  
 LS: wh-gry, vfxln, dense, sl chalky, NS  
 LS: crm-tan, vfxln, dense, chalky, NS  
 SH; grn-gry-red  
 LS: crm-tan-gry, vfxln, dense, chalky, NS  
 SH; grn-gry-red

**MARMATON 4528 (-1232)**

LS: crm-gry, vfxln, dense, NS  
 SH: grn-gry-blk  
 LS: crm-tan-gry, vfxln, sl foss, dense, NS  
 SH: gry-grn-blk-brn  
 LS: crm-gry, vfxln, dense, sl chalky, NS  
 LS: crm-gry, vfxln, dense, sl chalky, NS  
 SH: blk

**PAWNEE 4600 (-1304)**

LS: tan-gry, vfxln, dense, NS  
 LS: tan-gry, vfxln, foss, dense, NS  
 LS: tan-gry, vfxln, foss, dense, NS  
 SH: blk-gry

**MYRICK STATION 4635 (-1339)**

LS: wh-tan, f-vfxln, pr inxln por, cherty, ssfo, spty stn, sl odor  
 LS: tan-gry, vfxln, dense, cherty, NS  
 SH: blk

**FT SCOTT 4659 (-1363)**

LS: crm-tan-gry, vfxln, dense, NS  
 LS: crm-tan-gry, vfxln, dense, tr lite stn, nsfo, no odor

**CHEROKEE 4678 (-1382)**

SH: blk-gry

DST #4 4630-4680  
 30:30:30:30  
 IF: 1/4" blow died in 15", no return  
 FF: No blow, no return  
 Recovery: 10' M  
 IHP: 2311 FHP: 2261  
 IFP: 16-29 ISIP: 283  
 FFP: 18-20 FSIP: 150  
 BHT: 124 F

ROP (Min-ft)  
 Gamma (API)

CFS @ 4650'

CFS @ 4680'

DST #4

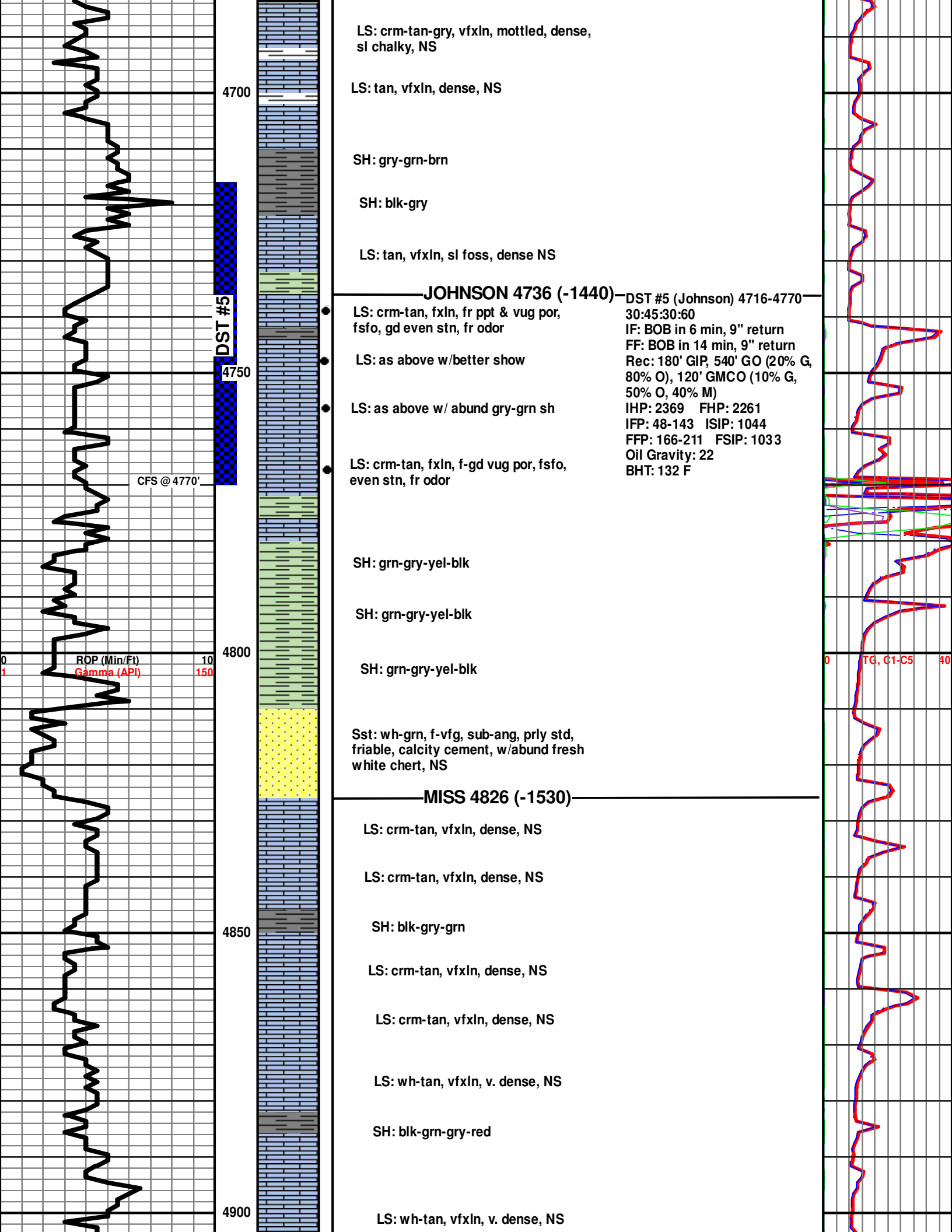
4500

4550

4600

4650

IG, C1-C5



LS: crm-tan-gry, vfxln, mottled, dense, sl chalky, NS

LS: tan, vfxln, dense, NS

SH: gry-grn-brn

SH: blk-gry

LS: tan, vfxln, sl foss, dense NS

**JOHNSON 4736 (-1440)**

LS: crm-tan, fxl, fr ppt & vug por, fsfo, gd even stn, fr odor

LS: as above w/better show

LS: as above w/ abund gry-grn sh

LS: crm-tan, fxl, f-gd vug por, fsfo, even stn, fr odor

DST #5 (Johnson) 4716-4770  
 30:45:30:60  
 IF: BOB in 6 min, 9" return  
 FF: BOB in 14 min, 9" return  
 Rec: 180' GIP, 540' GO (20% G, 80% O), 120' GMCO (10% G, 50% O, 40% M)  
 IHP: 2369 FHP: 2261  
 IFP: 48-143 ISIP: 1044  
 FFP: 166-211 FSIP: 1033  
 Oil Gravity: 22  
 BHT: 132 F

CFS @ 4770'

SH: grn-gry-yel-blk

SH: grn-gry-yel-blk

SH: grn-gry-yel-blk

Sst: wh-grn, f-vfg, sub-ang, prly std, friable, calcity cement, w/abund fresh white chert, NS

**MISS 4826 (-1530)**

LS: crm-tan, vfxln, dense, NS

LS: crm-tan, vfxln, dense, NS

SH: blk-gry-grn

LS: crm-tan, vfxln, dense, NS

LS: crm-tan, vfxln, dense, NS

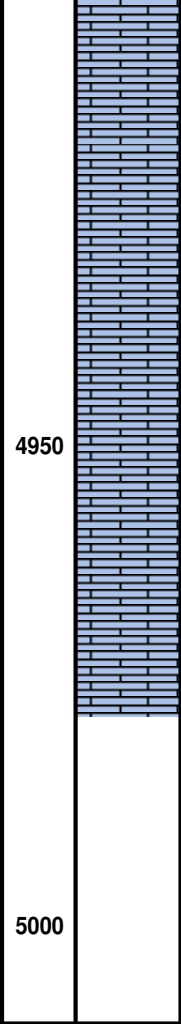
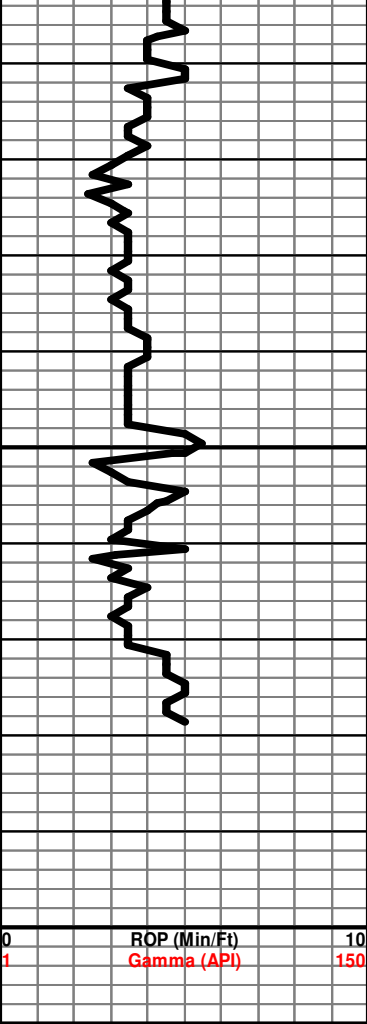
LS: wh-tan, vfxln, v. dense, NS

SH: blk-grn-gry-red

LS: wh-tan, vfxln, v. dense, NS

ROP (Min/Ft) 10  
 Gamma (API) 150

TG, C1-C5 40



LS: wh-tan, f-mxln, sl sandy inclus,  
dense, NS

LS: tan, fxlN, oolitic, no vis por (? frac  
por?), ssfo at edge, minor stn, no odor  
(60 min cir sample)

LS: crm-tan-gry, f-vfxln, dense, oolitic  
in pt, ssfo on edge, no vis por, rare  
edge stn, no odor

LS: crm-gry, vfxln, dense, NS

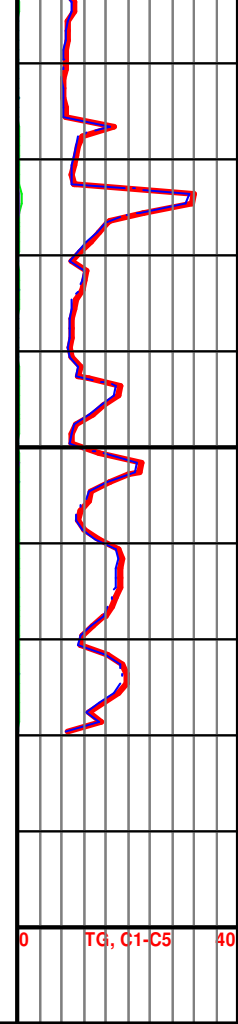
LS: crm-gry, vfxln, pr inxln por, nsfo,  
rare edge stn, no odor

LS: wh-tan, vfxln, v.dense, oolitic in  
pt, cherty, no vis por, NS

**RTD @ 4979'**

**LTD @ 4979'**

ROP (Min/Ft) 10  
Gamma (API) 150







**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Russell Oil Co.

**Anderson 1-31**

POB 3050  
Edmond, OK 73083

**S31-10s-34w Thomas, KS**

ATTN: Steve Murphy

Job Ticket: 43121

**DST#: 1**

Test Start: 2011.05.05 @ 23:06:00

## GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:03:30

Time Test Ended: 06:48:09

Test Type: Conventional Bottom Hole

Tester: Chuck Smith

Unit No: 37

**Interval: 4140.00 ft (KB) To 4170.00 ft (KB) (TVD)**

Reference Elevations: 3296.00 ft (KB)

Total Depth: 4170.00 ft (KB) (TVD)

3286.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8018**

**Inside**

Press @ Run Depth: 95.27 psig @ 4142.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.05.05

End Date:

2011.05.06

Last Calib.:

2011.05.06

Start Time: 23:06:05

End Time:

06:48:09

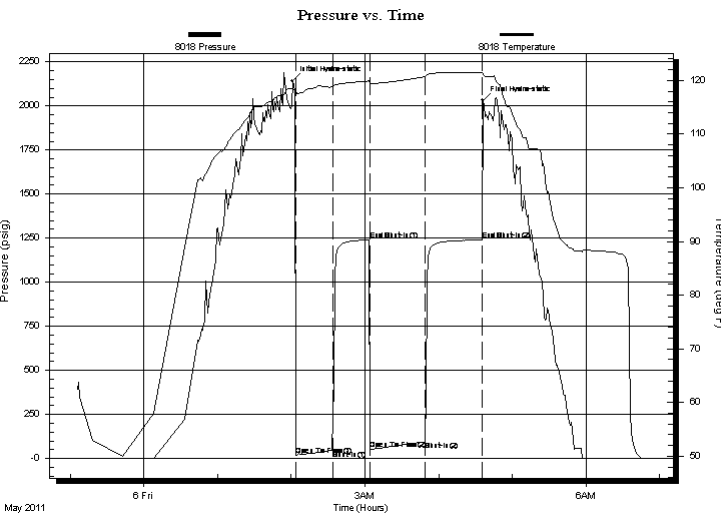
Time On Btm:

2011.05.06 @ 02:01:00

Time Off Btm:

2011.05.06 @ 04:35:50

**TEST COMMENT:** IF: 3" Blow.  
IS: No return.  
FF: 2" Blow.  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2142.45	118.34	Initial Hydro-static
3	18.24	117.26	Open To Flow (1)
33	46.89	118.76	Shut-In(1)
63	1240.52	119.89	End Shut-In(1)
63	51.96	119.38	Open To Flow (2)
108	95.27	120.67	Shut-In(2)
155	1240.03	121.49	End Shut-In(2)
155	2032.53	121.32	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	RW: @ Degrees F = PPM	0.00
165.00	MW 25m 75w	0.81

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil Co.

**Anderson 1-31**

POB 3050  
Edmond, OK 73083

**S31-10s-34w Thomas,KS**

Job Ticket: 43121      **DST#: 1**

ATTN: Steve Murphy

Test Start: 2011.05.05 @ 23:06:00

## 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:	ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.80 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5400.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

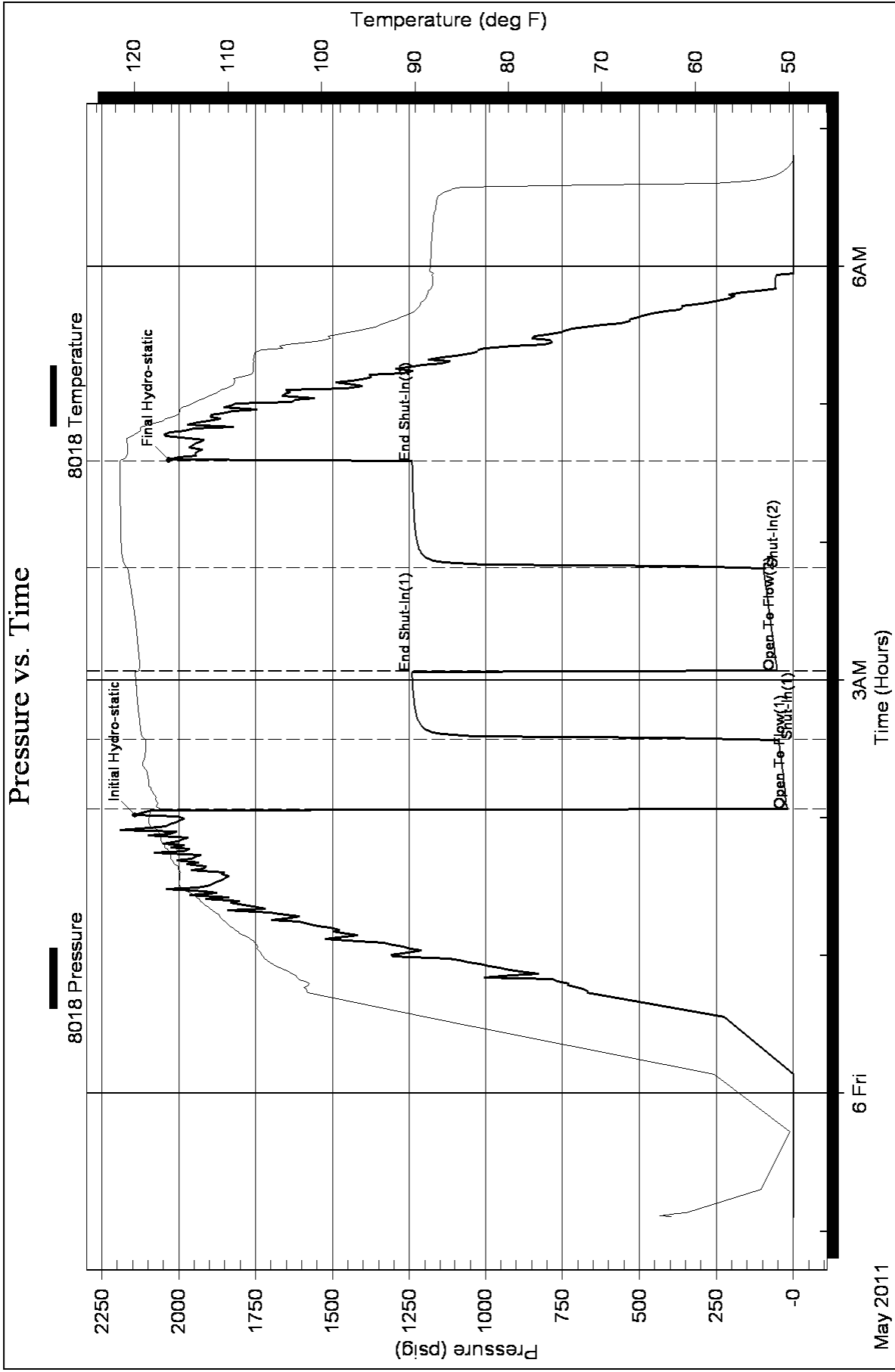
Length ft	Description	Volume bbl
0.00	RW: @ Degrees F = PPM	0.000
165.00	MW 25m 75w	0.811

Total Length: 165.00 ft      Total Volume: 0.811 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 Co.

**Anderson 1-31**

POB 3050  
Edmond, OK 73083

**S31-10s-34w Thomas, KS**

ATTN: Steve Murphy

Job Ticket: 43122

**DST#: 2**

Test Start: 2011.05.07 @ 14:15:00

## GENERAL INFORMATION:

Formation: **LKC "H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:59:10

Time Test Ended: 20:21:39

Test Type: Conventional Bottom Hole

Tester: Kevin Mack

Unit No: 37

**Interval: 4340.00 ft (KB) To 4360.00 ft (KB) (TVD)**

Reference Elevations: 3296.00 ft (KB)

Total Depth: 4360.00 ft (KB) (TVD)

3286.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 6751 Outside**

Press @ Run Depth: 18.07 psig @ 4342.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.05.07 End Date: 2011.05.07

Last Calib.: 2011.05.07

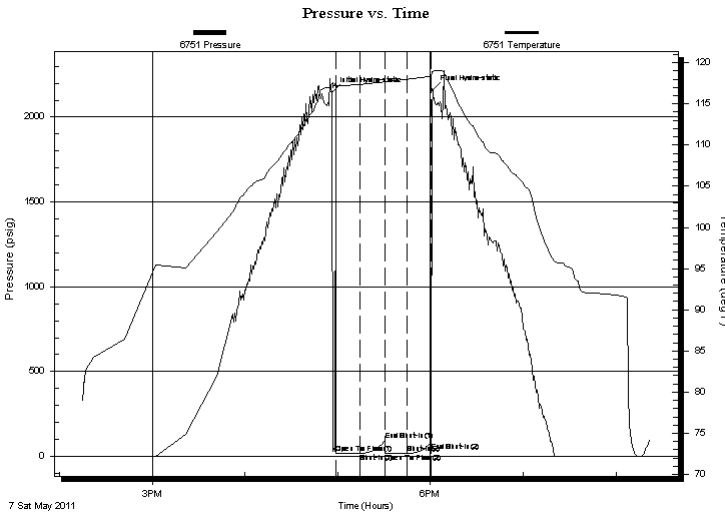
Start Time: 14:15:05 End Time: 20:21:39

Time On Btm: 2011.05.07 @ 16:56:40

Time Off Btm: 2011.05.07 @ 18:01:30

**TEST COMMENT:** IF: Weak surface blow at tool opening then died  
IS: No return  
FF: No blow  
FS: No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2147.84	117.56	Initial Hydro-static
3	16.25	116.57	Open To Flow (1)
18	17.92	117.38	Shut-In(1)
34	97.97	117.71	End Shut-In(1)
34	16.72	117.66	Open To Flow (2)
49	18.07	118.00	Shut-In(2)
64	85.00	118.37	End Shut-In(2)
65	2160.26	118.94	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM (oil spots) 100M	0.02

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil Co.

**Anderson 1-31**

POB 3050  
Edmond, OK 73083

**S31-10s-34w Thomas, KS**

Job Ticket: 43122      **DST#: 2**

ATTN: Steve Murphy

Test Start: 2011.05.07 @ 14:15:00

## 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: 73.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.39 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 8800.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

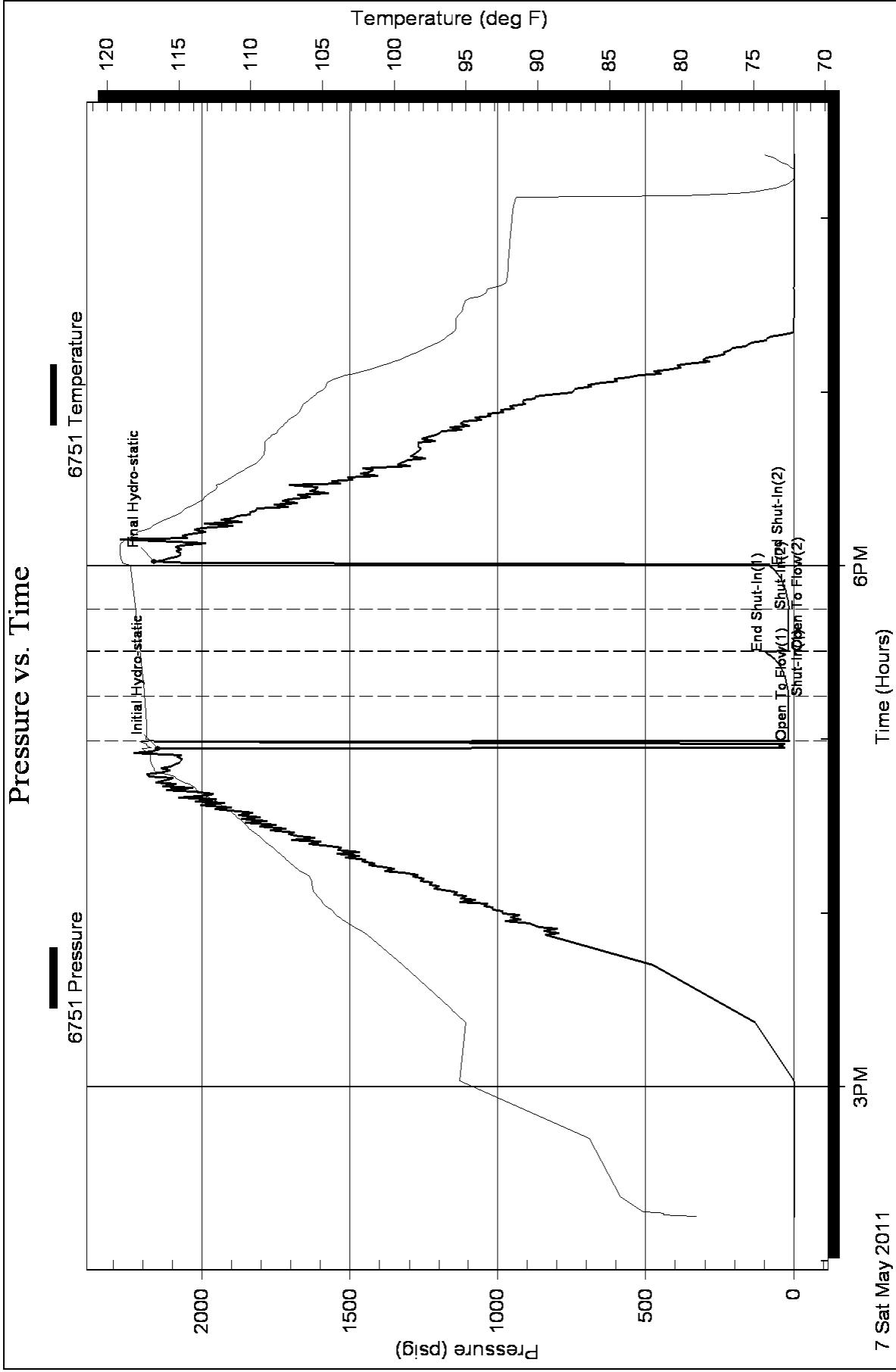
Length ft	Description	Volume bbl
5.00	OSM (oil spots) 100M	0.025

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:





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Russell Oil Co.

**Anderson 1-31**

POB 3050  
Edmond, OK 73083

**S31-10s-34w Thomas, KS**

ATTN: Steve Murphy

Job Ticket: 43123

**DST#: 3**

Test Start: 2011.05.08 @ 09:42:00

## GENERAL INFORMATION:

Formation: **LKC "K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:09:10

Time Test Ended: 15:17:39

Test Type: Conventional Bottom Hole

Tester: Kevin Mack

Unit No: 37

**Interval: 4410.00 ft (KB) To 4440.00 ft (KB) (TVD)**

Reference Elevations: 3296.00 ft (KB)

Total Depth: 4440.00 ft (KB) (TVD)

3286.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 6751**

**Outside**

Press @ RunDepth: 17.84 psig @ 4412.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.05.08

End Date: 2011.05.08

Last Calib.: 2011.05.08

Start Time: 09:42:05

End Time: 15:17:39

Time On Btm: 2011.05.08 @ 12:09:00

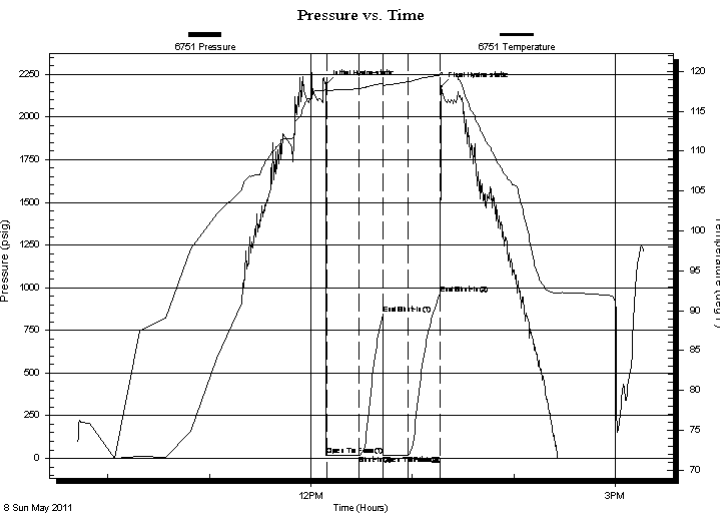
Time Off Btm: 2011.05.08 @ 13:17:10

**TEST COMMENT:** IF: Weak surface blow @ tool opening, Then blow died

IS: No return

FF: No blow

FS: No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2190.64	117.88	Initial Hydro-static
1	15.77	116.85	Open To Flow (1)
20	17.64	117.82	Shut-In(1)
34	845.30	118.49	End Shut-In(1)
34	18.54	118.01	Open To Flow (2)
49	17.84	118.67	Shut-In(2)
68	964.70	119.54	End Shut-In(2)
69	2176.90	119.85	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	OSM 100M (oil spots)	0.05

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Russell Oil Co.

**Anderson 1-31**

POB 3050  
Edmond, OK 73083

**S31-10s-34w Thomas,KS**

Job Ticket: 43123      **DST#: 3**

ATTN: Steve Murphy

Test Start: 2011.05.08 @ 09:42:00

**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: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.80 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 6800.00 ppm			
Filter Cake: 1.00 inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
10.00	OSM 100M (oil spots)	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl

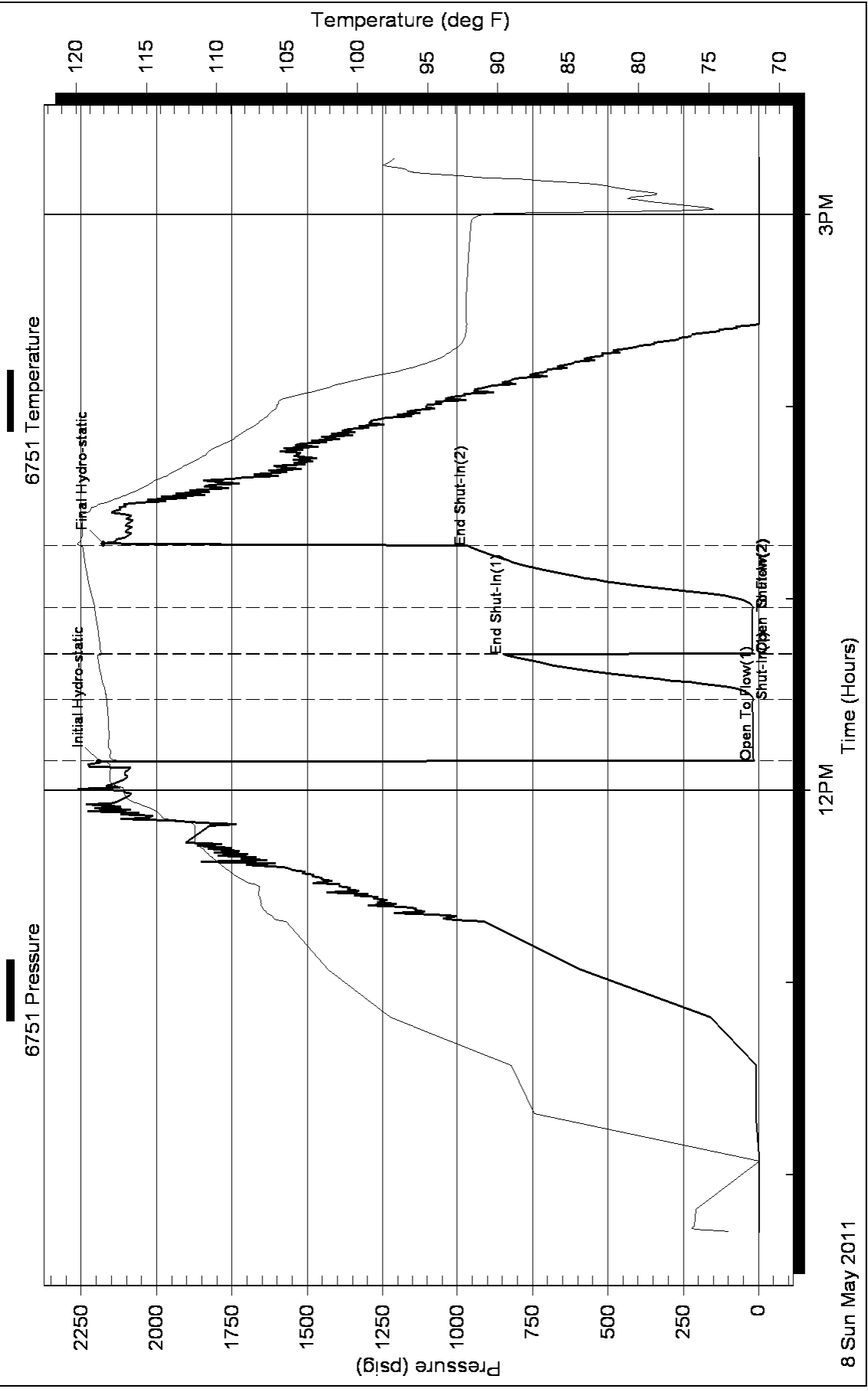
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:



### Pressure vs. Time



8 Sun May 2011

12PM Time (Hours)

3PM



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Russell Oil Co.

**Anderson 1-31**

POB 3050  
Edmond, OK 73083

**S31-10s-34w Thomas,KS**

ATTN: Steve Murphy

Job Ticket: 43124

**DST#: 4**

Test Start: 2011.05.09 @ 16:41:00

## GENERAL INFORMATION:

Formation: **Myric St.--Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:54:50

Time Test Ended: 23:07:09

Test Type: Conventional Bottom Hole

Tester: Chuck Smith

Unit No: 37

**Interval: 4630.00 ft (KB) To 4680.00 ft (KB) (TVD)**

Reference Elevations: 3296.00 ft (KB)

Total Depth: 4680.00 ft (KB) (TVD)

3286.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8018**

**Inside**

Press @ Run Depth: 19.91 psig @ 4631.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.05.09

End Date:

2011.05.09

Last Calib.:

2011.05.09

Start Time: 16:41:05

End Time:

23:07:09

Time On Btm:

2011.05.09 @ 18:52:40

Time Off Btm:

2011.05.09 @ 20:58:09

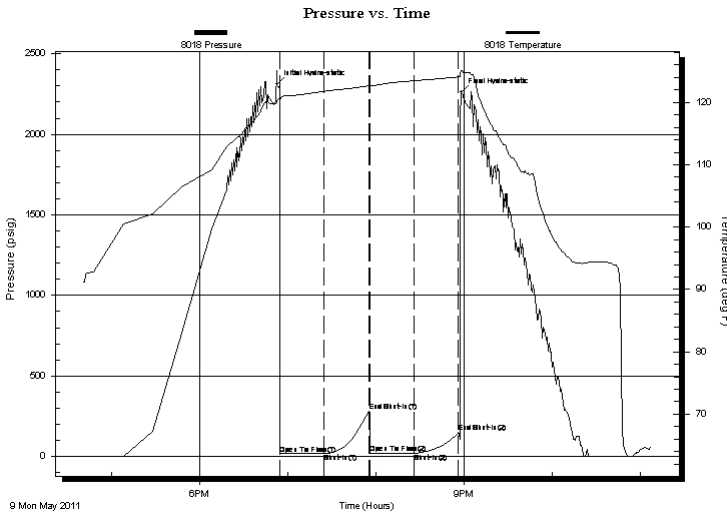
**TEST COMMENT:** IF: 1/4 inch blow, died at 15 minutes

IS: No return

FF: No blow

FS: No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2311.80	120.05	Initial Hydro-static
3	16.09	120.28	Open To Flow (1)
32	18.50	121.80	Shut-In(1)
63	283.48	122.67	End Shut-In(1)
64	18.34	122.51	Open To Flow (2)
93	19.91	123.48	Shut-In(2)
124	150.32	124.11	End Shut-In(2)
126	2261.44	125.14	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	M100m	0.05

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Russell Oil Co.

**Anderson 1-31**

POB 3050  
Edmond, OK 73083

**S31-10s-34w Thomas,KS**

Job Ticket: 43124

**DST#: 4**

ATTN: Steve Murphy

Test Start: 2011.05.09 @ 16:41:00

**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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6900.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
10.00	M 100m	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl

Num Fluid Samples: 0

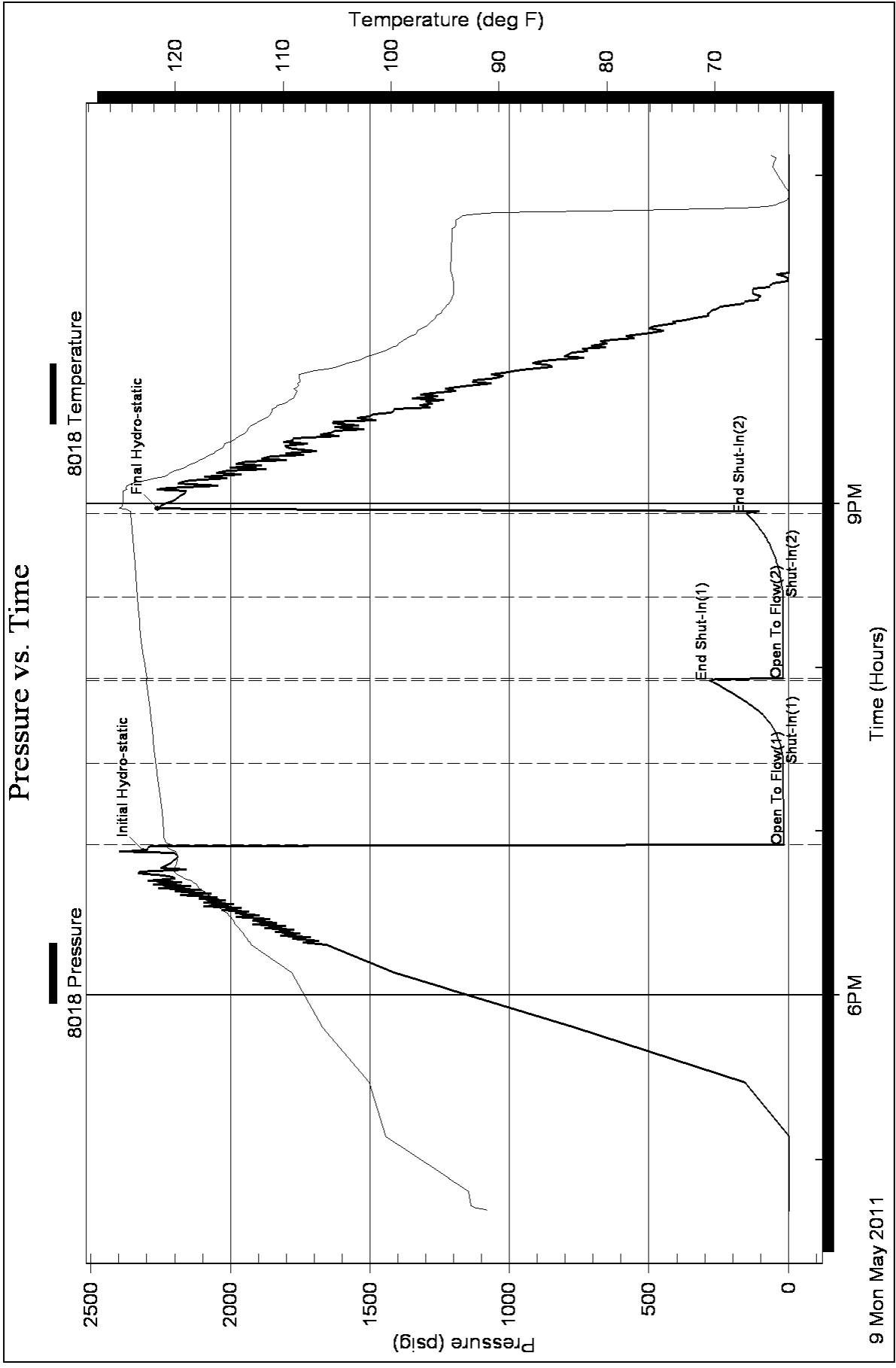
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Russell Oil Co.

**Anderson 1-31**

POB 3050  
Edmond, OK 73083

**S31-10s-34w Thomas, KS**

ATTN: Steve Murphy

Job Ticket: 43125

**DST#: 5**

Test Start: 2011.05.10 @ 12:39:00

## GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:48:00

Time Test Ended: 20:56:30

Test Type: Conventional Bottom Hole

Tester: Chuck Smith

Unit No: 37

**Interval: 4716.00 ft (KB) To 4770.00 ft (KB) (TVD)**

Reference Elevations: 3296.00 ft (KB)

Total Depth: 4770.00 ft (KB) (TVD)

3286.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 6751 Outside**

Press @ Run Depth: 211.11 psig @ 4718.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.05.10 End Date: 2011.05.10

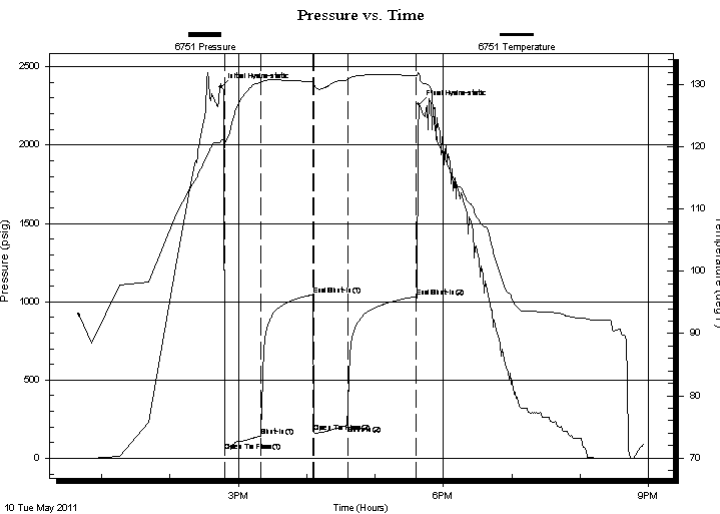
Last Calib.: 2011.05.10

Start Time: 12:39:05 End Time: 20:56:29

Time On Btm: 2011.05.10 @ 14:44:30

Time Off Btm: 2011.05.10 @ 17:38:09

**TEST COMMENT:** IF: bottom of bucket @ 6 min  
IS: 9 inch return  
FF: bottom of bucket @ 14 min  
FS: 9 inch return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2369.41	120.91	Initial Hydro-static
4	48.49	119.82	Open To Flow (1)
35	142.70	130.30	Shut-In(1)
81	1044.41	130.50	End Shut-In(1)
82	166.45	130.18	Open To Flow (2)
112	211.11	130.74	Shut-In(2)
172	1032.62	131.51	End Shut-In(2)
174	2261.09	131.81	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	GOCM 10g 40m 50o	0.59
540.00	GO 20g 80o	6.45
0.00	180 Feet weak GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil Co.

**Anderson 1-31**

POB 3050  
Edmond, OK 73083

**S31-10s-34w Thomas,KS**

Job Ticket: 43125      **DST#: 5**

ATTN: Steve Murphy

Test Start: 2011.05.10 @ 12:39:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 22 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 0 ppm
Viscosity: 61.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.20 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 5800.00 ppm		
Filter Cake: 1.00 inches		

## Recovery Information

Recovery Table

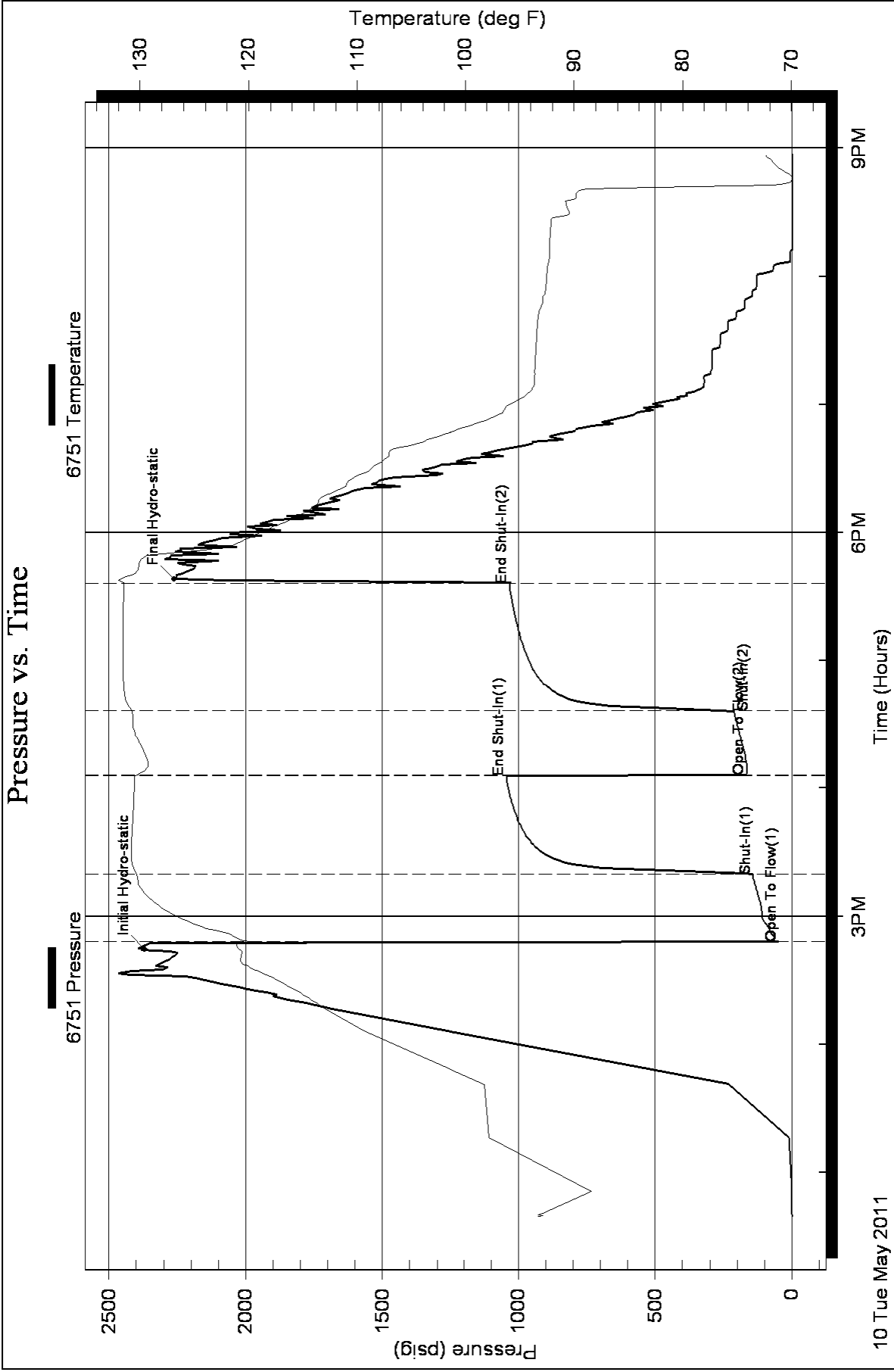
Length ft	Description	Volume bbl
120.00	GOCM 10g 40m 50o	0.590
540.00	GO 20g 80o	6.454
0.00	180 Feet weak GIP	0.000

Total Length: 660.00 ft      Total Volume: 7.044 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: API 24 @ 80 Degrees F= 22.



10 Tue May 2011

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



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

Mark Sievers, Chairman  
Ward Loyd, Commissioner  
Thomas E. Wright, Commissioner

Sam Brownback, Governor

July 25, 2011

Russell Oil, Inc.  
PO BOX 8050  
EDMOND, OK 73083

Re: ACO1  
API 15-193-20793-00-00  
Anderson 1-31  
SW/4 Sec.31-10S-34W  
Thomas County, Kansas

Dear Production Department:

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

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

Respectfully,





**CONSOLIDATED**  
Oil Well Services, LLC

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

TICKET NUMBER 30761  
LOCATION Oakley  
FOREMAN Kelly Gabel  
Fuzzy McCullick

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

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
5-1-11	7043	Anderson #31	31	10	34	Thomas	
CUSTOMER Russell Oil			MONUMENT Wash to Highway 25 N.W. corner to W N.W. to inter				
MAILING ADDRESS PO Box 8050			TRUCK #	DRIVER	TRUCK #	DRIVER	
CITY Edmond			463	Miles S			
STATE OK			558	Damon M			
ZIP CODE 73083							
JOB TYPE	SURFACE	HOLE SIZE	12 1/4"	HOLE DEPTH	270	CASING SIZE & WEIGHT	8 5/8 24#
CASING DEPTH	270'	DRILL PIPE		TUBING		OTHER	
SLURRY WEIGHT	15 <sup>2</sup>	SLURRY VOL		WATER gal/sk	524 6.5	CEMENT LEFT in CASING	15'
DISPLACEMENT	16.2	DISPLACEMENT PSI		MIX PSI		RATE	

REMARKS: safety meeting on H2 Drilling Rig #2, Mix 180 SKS  
com 39% Calcium 29% gel, displaced 16 1/4 bbl H2O, used 8 5/8 s wedge  
cement did circulate

Thanks  
Kelly & Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE	1250 <sup>00</sup>	1250 <sup>00</sup>
5406	15	MILEAGE	5 <sup>00</sup>	75 <sup>00</sup>
5407	8.46	ton mileage delivered (minimum)	410 <sup>00</sup>	410 <sup>00</sup>
11045	180	Class A cement	16 <sup>80</sup>	3024 <sup>00</sup>
1102	508	calcim chloride	.84	426 <sup>72</sup>
1118A	338	Bentonite	.24	81 <sup>12</sup>
24/1/63				
Subtotal				5266 <sup>84</sup>
Consumables sales tax			7.3 <sup>96</sup>	257 <sup>82</sup>
subtotal				5524 <sup>66</sup>
Less 15% discount				828 <sup>70</sup>
			SALES TAX	
			ESTIMATED TOTAL	4695 <sup>96</sup>

Ravin 3737

AUTHORIZATION Steven Craig TITLE Tool Pusher DATE 5-1-11

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.

#1

## TREATMENT REPORT

Bottom Stage

Customer Russell Oil Inc		Lease No.		Date	
Lease Anderson		Well # 1-31		5-12-11	
Field Order # #03903A	Station Pratt	Casing 5 1/2"	Depth 4973'	County Thomas	State KS
Type Job 5 1/2" 2-Stage Long String		Formation CNU	TD 4979' TD	Legal Description 31-10-34	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 5 1/2"	Tubing Size	Shots/Ft	24 BBLs	Acid Superflush	II	RATE	PRESS	ISIP
Depth 4973'	Depth	From	To 185	Pre Pad	Max			5 Min.
Volume 117	Volume	From	To	Pad	Min			10 Min.
Max Press 1500#	Max Press	From	To	Frac	Avg			15 Min.
Well Connection P.C.	Annulus Vol.	From	To		HHP Used			Annulus Pressure
Plug Depth 4920	Packer Depth	From	To	Flush Disp H2O mud.	Gas Volume			Total Load

Customer Representative Todd Brown	Station Manager Scotty	Treater Allen
---------------------------------------	---------------------------	------------------

Service Units	28443	27463	19960	19918	19831	21010				
Driver Names	Allen	Kevin	Dale	Phyc	Jared	Brungart				

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
1200 PM					H2 Drilling on loc. discuss safety, Setup Plan Job Rig having down Drill Pipe out of Hole Lay down Kelly + B.P. Rig up to Run 5 1/2" casing 15.5'
350					Start csg. Shoe Joint 47.22' w/ Float Shoe + C.D. Insert in collar Cent. #1-3-4-7-8-10-12-14-16-18-53 Basket Jt #51, DV Jt. #52 @ 2800'
700					Pipe @ 4973' Hooku + cir. + Rotate
800	300#		5	5	Pump 5 BBL N2O
			24	5	Pump 24 BBL mud Flush
			5	5	Pump 5 BBL N2O
			45	6	mix + pump 185-SK. AA2 @ 15.3 wash out Pump + Line - Drop Plug
825				7	start Disp.
	300#			6	caught Lift PSI w/ 80 BBLs on #
845	1500#		117	5	Plug down Release PSI @ #
	0#				Drop DV opening Part
855					open DV "Good cir"
910	1000#				Pump off Mud on TRK.

#2  
Top Stage

## TREATMENT REPORT

Customer Russell Oil Inc	Lease No.	Date 5-12-11
Lease ANDERSON	Well # 1-31	
Field Order # 03903 A	Station Pratt KS	Casing 5 1/2"
		Depth 2800'
Type Job 5 1/2" 2-stage long string cow	Formation	County THOMAS
		State KS
		Legal Description 21-10-24

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 5 1/2"	Tubing Size	Shots/Ft	445	Acid	5Ks A-con @ 12#	RATE	PRESS	ISIP
Depth 2800	Depth	From	To	Pre Pad		Max		5 Min.
Volume 66 1/2	Volume	From	To	Pad	50s Ks A-con Plug	Min		10 Min.
Max Press 1500#	Max Press	From	To	Frac		Avg		15 Min.
Well Connection PC	Annulus Vol.	From	To			HHP Used		Annulus Pressure
Plug Depth 2800	Packer Depth	From	To	Flush	Disp H2O	Gas Volume		Total Load

Customer Representative Todd Brown	Station Manager Scotty	Treater Allen
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Service Units	28443	27463	19960	19918	19831	21610				
Driver Names	Allen	Keaven	Dale	Phyc	Jared	Brungardt				

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
9:15	3.00#		196	6	st mix 445 sks A-con @ 12#
					Finish mix cmt
					wash out pump & line
					Drop closing plug for DD
				6	Start Disp
10:15	12.00#		66 1/2	5	Finish Disp Plug down
	0#				Release PSI 0#
					Plug Rat Hole w/30sks
					<del>60sks</del> A-con
					Plug Mouse Hole w/20sks
					A-con
					wash up Equip & Rack up
11:30					Job complete
					cmt CIR to Pit
					thanks
					Allen
					Keaven
					Dale
					Jarrocl.