



KANSAS CORPORATION COMMISSION 1122297  
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> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Darrah, John Jay, Jr.
Well Name	Rathbun 7
Doc ID	1122297

Tops

Name	Top	Datum
Severy Shale	2369	-624
Topeka	2407	-662
Oread	2590	-845
Heebner	2674	-929
Douglas	2703	-958
Douglas Sand	2713	-968
Brown Lime	2790	-1045
Lansing	2808	-1063
Lansing B	2835	-1090
Lansing G	2911	-1166
Base KC	3115	-1370
Simpson	3129	-1384
Arbuckle	3189	-1444
TD	3192	-1447

# DARRRAH OIL

## Geologic Report

For the

### #7 Rathbun

15-053-21282

840' FSL & 1840' FEL

Sec 16 T17S R8W

Ellisworth County KS

KB: 1745'

GL: 1740'

All measurements taken from KB.

\*Please note depth correction +5 feet to all sub-sea datums.

Contractor: Mallard JV

Spud date: January 23<sup>rd</sup>, 2013

Field: Geneseo-Edwards

Drilling Complete: January 29<sup>th</sup>, 2013

Geologist Seth Evenson on location 4:35 am January 27<sup>th</sup>, 2013 @ 2649' MD.

TD: 3197' (-1447)

1 foot drill time kept from 2300' to TD.

Samples examined from 2300' to TD.

E-logs ran:

None

## Sample Tops:

\*Note: All tops are in measured depth below rotary table. All sub-sea datums are corrected up five feet.

Severy	2369' (-619)	Lansing B zn	2835' (-1085)
Topeka	2407' (-657)	Base B zn	2847' (-1097)
Oread	2590' (-840)	Lansing G zn	2911' (-1161)
Heebner	2674' (-924)	Base G zn	2941' (-1191)
Douglas sh	2703' (-953)	BKC	3142' (-1392)
Douglas snd	2713' (-963)	Simpson	3156' (-1406)
Brown Lm	2790' (-1040)	Arbuckle	3189' (-1439)
Lansing	2808' (-1058)	RTD	3197' (-1447)

## Structural Comparison:

	<u>#7 Rathbun</u> SW/NE/SW/SE 16-17S-8W	<u>#3 Rathbun</u> N2/SE/SE 16-17S-8W	<u>#5 Rathbun</u> SE/NW/SE 16-17S-8W
Topeka	-657	-645 (-12)	NA
Oread	-840	-823 (-17)	NA
Heebner	-924	-903 (-21)	NA
Douglas	-953	-931 (-22)	NA
Brown Lm	-1040	-1025 (-15)	-1056 (+16)
Lansing	-1058	-1046 (-12)	-1076 (+18)
Lansing B	-1085	-1076 (-9)	-1103 (+18)
BKC	-1392	-1362 (-30)	-1387 (-5)
Simpson	-1406	-1375 (-31)	-1401 (-5)
Arbuckle	-1439	-1432 (-7)	-1436 (-3)

## Formation Tests:

### DST #1

Lansing B

2825'-2852'

15-30-30-60

IHP 1374#

IEP 18#-20#

### DST #2

Arbuckle

3088'-3197'

MIS-RUN

Packer failure

### DST #3

Arbuckle

3059'-3197'

15-30-45-60

IHP 1532#

IEP 33#-178#

IFP 18#-20#  
ISIP 722#  
FFP 21#-28#  
FSIP 851#  
FHP 1350#

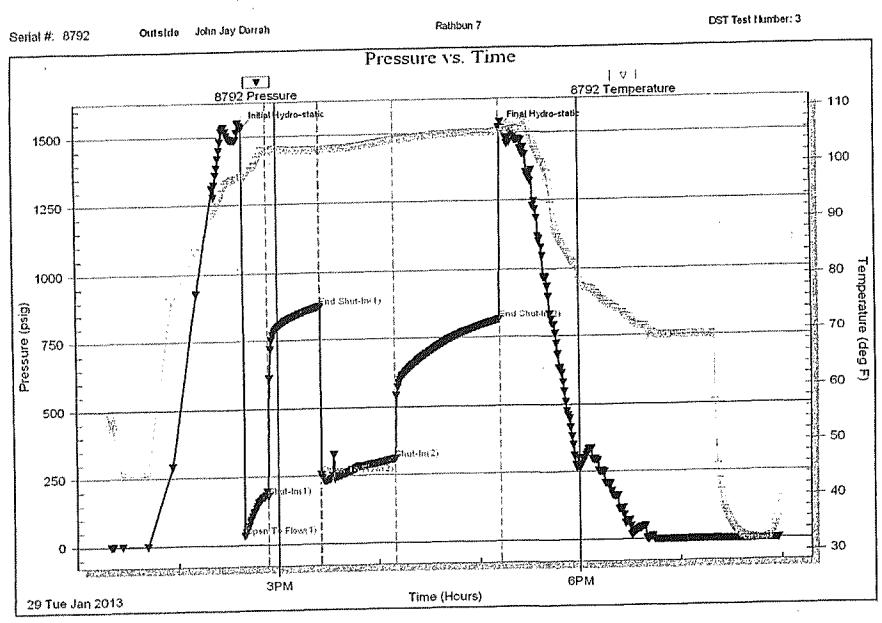
IFP 25#-27#  
ISIP 878#  
FFP 254#-309#  
FSIP 818#  
FHP 1518#

Rec:  
GTS @ final shut-in. Gas was highly flammable & burned with a bright orange flame.

Rec:  
2370' mud

Rec:  
483' HGCMO (40% oil)  
252' HGCOM (18% oil)  
64' HGC&SOCM (10% oil)  
126' SG&SOCM (13% oil)

12' mud



Tribore Testing, Inc    Ref. No: 49724    Printed: 2013.01.29 @ 20:23:07

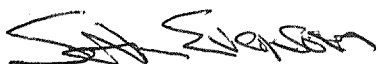
After being denied approval to drill the primary location for the #7 Rathbun within the draw; an alternate location was picked outside of the draw on the west end of the lease. While this location came in low compared to surrounding wells; sufficient enough quantities of gassy, oil cut mud were recovered by DST #3 to warrant casing the well for production. The

slightly lower datum of the #7 may not be of great concern as some formerly producing wells on adjacent leases to the east were producing from much lower datums. Furthermore evidence from sub-surface and seismic work may indicate that the #7 Rathbun was drilled into a structural nose of the Arbuckle, which hopefully will help funnel oil into the vicinity for years to come.

Once again, as in the #11 Kratzer, the B zone of the Lansing was drill stem tested due to the presence of gas & oil in samples. Again, no oil was recovered & gas recovery was very much less; with gas only reaching the surface just as the tool was being closed for the final shut-in period. With such a weak flow of gas, and at a much lower datum it is very doubtful that the B zone will ever produce commercial quantities of gas in the #7 Rathbun. That said, the test does help prove the extent and potential for the B zone to hold commercial gas reserves in the North Geneseo-Edwards field.

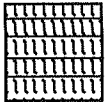
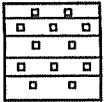
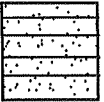

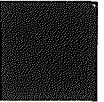
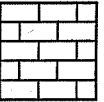
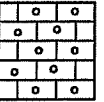
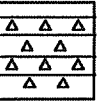
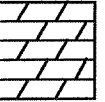
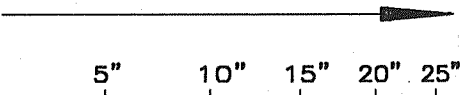
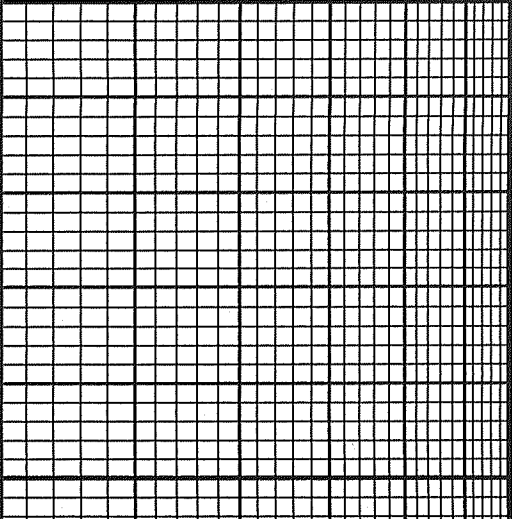
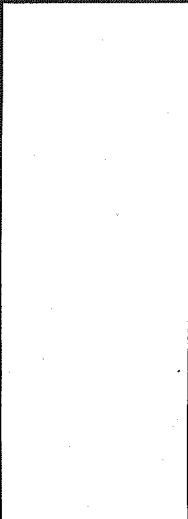

Pipe strap after final DST revealed the drill string to be five feet shorter than the geolograph reading. Bo Darrah stayed on location and made sure 5 1/2 production casing was ran & set at 3185', 7 feet off bottom (new TD 3192'); with the plug down and holding at 9:15 am on January 30<sup>th</sup>, 2013.

Respectfully submitted by,



Seth Evenson  
Geologist  
Darrah Oil Company  
June 19<sup>th</sup>, 2013

*Seth Evenson on Location 2649 @ 4:35 am  
Sunday January 27<sup>th</sup>, 2013*

LEGEND								
								
Anhydrite	Salt	Sandstone	Shale	Carb sh	Limestone	Ool. Lime	Chert	Dolomite
<p>DRILLING TIME IN MINUTES PER FOOT</p> <p>Rate of Penetration Decreases</p>  <p>5" 10" 15" 20" 25"</p>	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS			
								

LOG 7710

2300'

Shale gry, red brwn platy

Some H gry - off wht vry hrd  
res micro xth lms w gd yell  
mineral flwr, tr tite shaley ss.

20

Shale gry platy &

Start  
20' samples

Lms tan-gry micro xth  
med-hrd res tite, shrp edges  
no vis &

40

Shale gry & gry

tite hrd res lms  
no vis &

50'

60

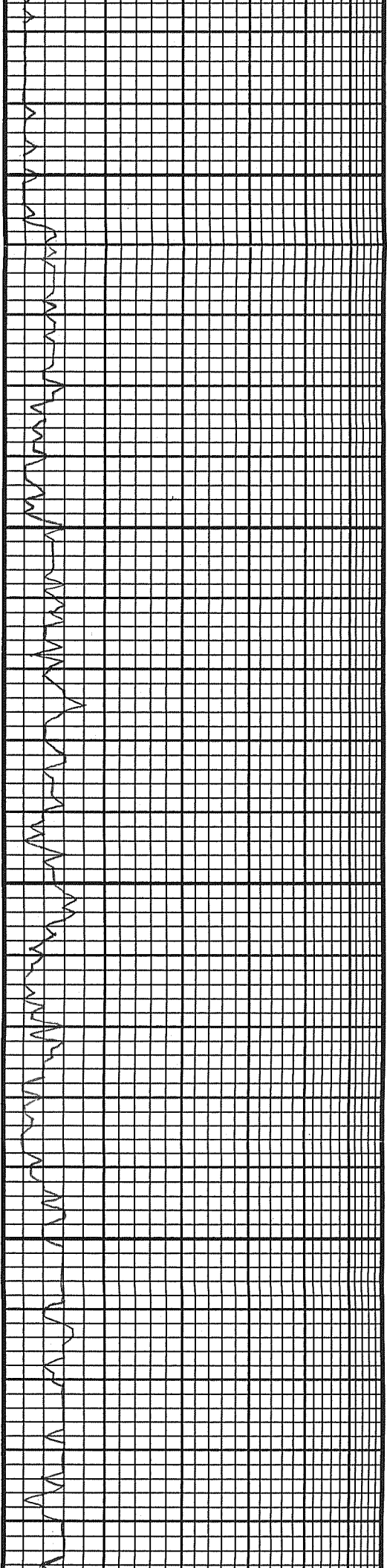
Lms tan-gry, vry fn

xth, hrd res tite, some

Severy Shale  
2369' (-624)

+5 (19)





2400'

50'

2500'

50'

80

20

40

60

80

20

40

60

80

Sli tuss, no vis ⌀

Lms gry hrd res vry fn xth  
no vis ⌀ & much gry platy

Sli shdy shale, w/some gry  
vry shaley SS. no shu.

Shale gry, grn sli  
silty, w/mica & trc  
pyrite grains no vis ⌀

Lms lt gry-gry  
fite no vis ⌀ sli  
fossiliferous hrd res  
fn - vry fn xth

Lms tan-gry, micro-

Vry fn xth, no vis ⌀  
much sli chky to shaley

Lms gry-tan vry fn xth

hrd res, no vis ⌀, sli  
foss. 1pc lt gry shp chrt

Lms, tan-lt gry, micro-  
vry fn xth, sli dicty  
(shaley/ratty) pr-no vis ⌀  
vry hrd res.

Lms crm-tan micro-vry  
fn xth, med-hrd res

sli foss, some sli chky  
no vis ⌀

Lms crm-tan ds dbv

trc of black carbonaceous  
shale

Lms crm-lt gry vry fn -  
micro xth, mstly hrd-

vry hrd res some sli foss  
no vis ⌀

Lms tan-brwn, micro-  
vry fn xth hrd-vry hrd

res, no vis ⌀ Some brwn-  
lt gry/offwit shp foss chrt.

Lms tan-lt gry, vry fn  
xth, med-hrd res, sli

chky, sli foss, pr-no vis ⌀

Topeka  
2407 (-662)  
+5 (-657)

Oread  
2590' (-845)  
+5 (-840)

2600

Lms gry, vry fn xth, sh  
shaley, ratty looking,

slt fcs, no gry cherty  
lms. all no vis of pyrite xls

20

Lms tan, micro-vry fn xth  
hrd res, pr-no vis of

fossiliferous

40

50'

Shale gry, purple,

red-brwn, drk gry  
Lms no vis of

60

Shale gry, grn,

red brwn & Lms gry,  
micro xth, hrd res like no vis of

80

Shale black carbonaceous  
& gry, also much Lms crm-

gry micro xth no vis of

2700'

Shale gry, red, blk. & Lms  
gry-tan micro xth no vis of

Start 10  
samples

Douglas Group

2703' (-958)  
+5 (-953)

Lms wht-off wht chky, micro  
xth, med res no vis of

Douglas Sand

2713' (-968)  
+5 (-963)

Lms crm, vry fn xth, med  
res, much less chky than abv  
no vis of

Sandy shale gry & lt gry  
shaley S.S. med-hrd res, semi-  
friable pr-no vis of

Shaley S.S. vry fn grained, sft-  
med res, slt micaceous, abndt shale/clay  
matrix pr-no vis of

50'

S.S. lt gry fn grained, hrd res, well  
cemented w/ silica cement, pr-no vis of,  
much lt gry slt silty shale

Lms gry fn xth med res  
slt fcs, no vis of

Shale gry platy some red &  
lms gry-tan vry fn xth hrd res  
no vis of

Shale drk gry blk, some  
red & Lms gry-brwn, vry fn  
xth hrd res no vis of

Shale drk grey blk &  
platy tight lms as abv

2800'

Lms drk grey, fn xth  
hrd res no vis of slt fcs

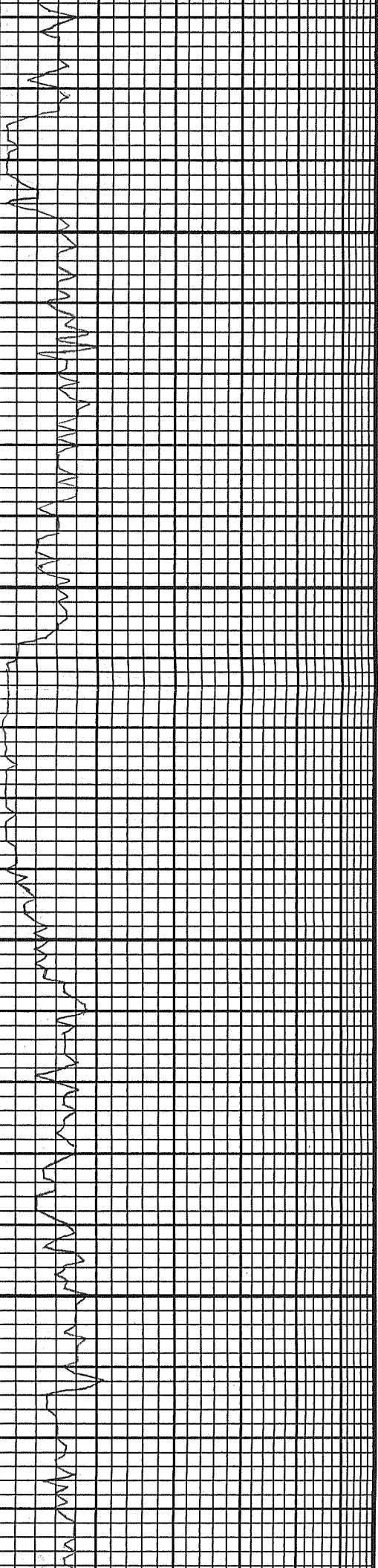
Lms drk gry as abv, some brwn  
vry fn-micro xth, much lt gry

Brown Lime

2790' (-1045)  
+5 (-1040)

Lansing

2808' (-1063)  
+5 (-1058)



		Lms crm - lt gry w/tinge grn, micro-very fn xthn, non foss, hrd res no vis ♂
		Lms off wht - crm vryfn-micro xthn, non allochemical, hrd res some sli chky pr-no vis ♂
		Lms, crm-off wht, micro-very fn xthn, sparse ltrc xthn & oolitic vngs, blk spx, str in vngs & fractures, vry st. cut, gd brk, oil flow, SSFO on brk, ss gas bbls, trc - gas staining cut, etc. - 9-28-00
CF52845'	50'	Shale gry, red, grn. Much gry lms tite, sli chky med-htd res vry fn xthn no vis ♂
CF52852'		Lms gry micro-very fn xthn, non-allochemical pr-no vis ♂ hrdres
		Lms gry ds abv
		Shale gry, grn, blk & Lms gry sli shaley catty looking no vis ♂
		Lms crm-tan sli chky, hrdres trc foss, no vis ♂, shale gry, red, grn.
	2900'	Lms lt gry - gry vryfn-fn xthn med-htd res sli foss no vis ♂ shale ds abv
CF52912	Lms G 2911 (-1166) +5(-1161)	Lms crm-tan, micro-very fn xthn med-htd res, abndt oolitic vngs, some w/abndt oolids. Poss sli trc gas bubbles upon brk pr-fr inter xthn ♂, blk dull flwr
		Lms ds abv, but some lt gry oolitic vngs w/ shallow sps vngs, micro xthn vry pr-inter vngular ♂, fr to blk oil str in vngs fr yell flwr, SSFO upon brk trc - staining cut.
CF52935'		Lms tan - lt brwn, vryfn-micro xthn med-htd res abndt oolitic shallow vngs fr - gas vngs ♂ pr inter xthn ♂ Dull yell mineral flwr, no cut no shv.
	50'	Lms tan - lt brwn, vryfn-micro xthn abndt oolitic, w/ frly abndt shallow oolitic vngs, mthy partially dissolved oolids, less well developed vngs than abv, pr inter xthn ♂
		Lms tan - lt gry micro-very fn xthn hrd res, frly abndt vry small oolids, occasional sps and vngs, no inter xthn ♂ vry pr vngular ♂
		Shale gry - vry drk gry shardy & fissile.
		Shale gry & narrow trc blk carb shale Lms tan - gry vry fn xthn hrd res sli oolitic no vis ♂
		Shale gry & red brwn, some blk carb to blk coal.
		Lms crm-tan micro-very fn xthn med-htd res non allochemical no vis ♂, much gry & grn shale
	3000'	Shale gry, blk, red, yell grn/gry also lms tan-gry no vis ♂
		Shale ds abv. Lms crm-tan vry fn xthn sli chky no vis ♂
		Shale gry, red, grn, purple, & hrd res shaley lms red gry to brwn. fn xthn no vis ♂
		Lms gry - yellow shaley, mthy fn xthn hrd res sli oolitic no vis ♂ some blk yell shaley

Lansing B zone  
2835' (-1090) +5 (-1085)

CF5@2845' 15min:  
mthy lms crm-gry, vryfn xthn hrd res no vis ♂, a few sct & pec, sli vngs, sli blk lms, 2 pc w/lt blk oil str in vngs & sh gas bubbles on brk. fr brk yell flwr trc fr hazy drying cut, mst calc. tics pec no shv.

30min: Lms, vryfn xthn tan oolitic vngular, w/ mthy undissolved to partial dissolved oolids. med-htd res, frly abndt surface & internal oolitic vngs fr inter xthn ♂, fr - vngular ♂, SSFO's bubbles upon brk, trc seam (dribble oil upon brk, some vngs, vry dull blk yell-grn flwr, trc - fr staining & drying cut w/ - fr bloom. poss sli odr.

45min: Lms crm-tan, vryfn xthn oolitic & frly oolitic vngular fr inter xthn ♂ pr-fr vngular ♂ SS gas bubbles upon brk mst pec, lt brwn to str mst pec in vngs sli trc (dribble seam upon brk only trc brwn FO upon brk in a couple hely sat & str drk brwn xthn pec, fr odr in cap. vry ul. some flwr, trc - fr staining cut no bloom abndt of pec hely stud pec have gd staining cut & bloom.

60min: Lms ds abv, seems to be becoming less vngs/were odr trc many pec sli blk xthn blk build out of sizeable internal vngs upon brk, blk yell flwr in drk pec, fr - gd staining cut, fr - gd bloom only vry sli odr, some pec in drk cut upon brk, vry lt mstr, fr - gd sat?

CF5@2852' 15min: Lms gry, micro-very fn xthn abndt oolitic vngular & oolitic, med res, trc - fr sh drk brwn FO upon brk, spx blk str & sct sli - fr odr, fr yell flwr fr staining cut in best sat pec.

30min: Lms gry, micro xthn sli shaley abndt oolitic vngular, pr inter xthn ♂ fr - gd vngular ♂, fr sporadic str in vngs, fr odr, fr - gd show bleeding gassy FO in many pec upon brk - blk scty oil. mst pec sly yell flwr, trc - fr drying cut, fr - fr staining vry gd cut upon brk. blk scty oil does not flow. SSFO.

45min: A few pecs gry-crm oolitic vngs lms w/ SSFO upon brk, mthy lost ♂. Sample 96% Lms crm-gry vry fn xthn hrd res, non vngs, non oolitic. no vis ♂

CF5@2912' 15min: Lms crm-gry fn xthn hrd res, some sli chky non allochemical, no vis ♂.

30min: Lms, crm, vry fn xthn med res abndt oolitic vngs, gd vngular ♂ pr-fr inter xthn ♂ some w/ undissolved & partially dissolved oolids. fr brk yell mineral flwr, trc gas upon brk, no oil dr

45min: Lms abndt oolitic ds abv, sli, trc gas bubbles upon brk, med-htd res, pr



30min: Same

CFS 3190 15 min: Shale gry, in brown red, some mottled tan & s. sh. trc. qn. A few pct w/ xthn off wht - gry, trc sli. sil. calc. stn no v. is s.

30min: Dolomite, lt gry to gry brwn, fin xthn med - hrd res, pr-no inter xthn, non wavy, no shw, much var. colored sh. as obs. otherwise sh. w/ shw. s. v. s. of Dill to gd brt yell flwr in a few pct, trc. fr. cut upon brk. sli. odr.

45min: Dolo, tan - off wht / lt gry, fin xthn med res, fr inter xthn, brt yell to wht flwr present in pinpoint surface vngs of some pct, vry lt to no noticeable str, fr - gd staining cut upon brk only, pass vry fast odr.

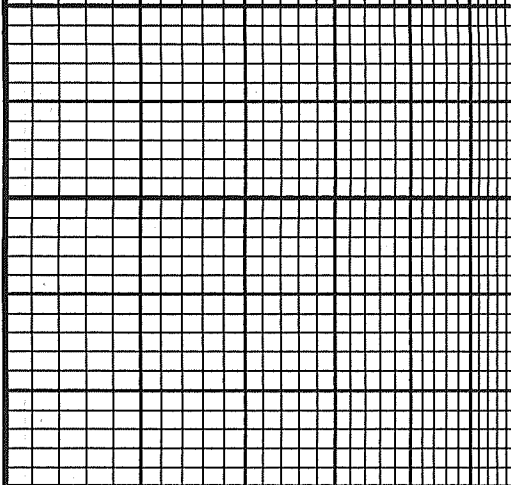
60min Dolo lt brwn - tan fr. translucent xthn, fr inter xthn, med - hrd res, spty gd brt yell w/ flwr in pinpoint inter xthn, trc cut, vry gd slw staining cut upon brk.

CFS@3197 15min: Dolo brwn, vry fin xthn, some sandstone fr - gd inter xthn, SSFO upon brk. Fr - gd even str & sat, sli - gd brt even flwr, trc cut, fr shw cut upon brk in pct w/ sli vng in inter xthn surface.

30min: Dolo, cm - brwn, fin xthn, sli - gd str & sat, fr odr, sli - SSFO upon brk also fr shw gas bubbles upon brk, fr - gd brt yell flwr, fr - vry gd staining cut upon brk, hrd res, some dark, dull, tan m. w/ shw

45min: Dolo, off wht, tan, lt brwn, fr odr, med - hrd res, about 1/2 appear off wht - lt gry tize & unsat. most pct brt wht to yell shw nearly all pct, trc. do. cut upon brk most pct. Sp. s. pct w/ gd decp sat vngs (not m. w/ shw) appears to be titer & less sat than obs. Still vry much droplets brwn FO, floating in titer. Several pct still w/ SSFO.

60min: Dolo off wht, lt gry to tan, vry fin xthn, hrd - vry hrd res, pr inter xthn & much less sat than obs. many pct, hard to brk, tiny fnt droplets FO upon brk, still sli shw gas bubbles, less oil equivalent inter xthn & upon brk than in 30 or even 45 min sample fr odr. most pct only fnt trc cut upon brk, a few pct w/ lt str gd staining cut w/o brk, brt yell to wht flwr most pct, definitely titer & w/ less FO shw than in 30 & 45 min samples.



5" 10" 15" 20" 25"  
 DRILLING TIME Minutes/Foot

Rate of Penetration Decreases 

DEPTH

LITHOLOGY

SAMPLE DESCRIPTIONS

OIL SHOWS

REMARKS

CONTRACTOR Mallard JV

LEASE Rathbun #7 IP 95 BOPD

ELEVATION KB: 1745 GL: 1740 RTD 3197 = 3192 corrected

LOCATION 840' FSL & 1840' FEL<sup>SW/NE/SW/SE</sup>

SEC 16 TWP 17S RNG 8W

COUNTY Ellsworth STATE Kansas



# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 6066

Date	1-23-13	Sec.	16	Twp.	17	Range	8	County	Ellsworth	State	Ks	On Location		Finish	10:00PM
Lease	Rathbun			Well No.	7		Owner	M Hinto							
Contractor	Mallard			To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.											
Type Job	Surface			Location 4+14 Jct, 3rd to V Rd, 1/2 W											
Hole Size	12 1/4"		T.D.	260'		Charge To	Darrah oil								
Csg.	8 5/8"		Depth	260'		Street									
Tbg. Size			Depth			City	State								
Tool			Depth			The above was done to satisfaction and supervision of owner agent or contractor.									
Cement Left in Csg.	15'		Shoe Joint	15'		Cement Amount Ordered	170 sx Common 3% CC								
Meas Line			Displace	15 1/2 BLS		2% Gel									
<b>EQUIPMENT</b>						Common	170								
Pumptrk	16	No.	Cementor	T Travis		Helper	Poz. Mix								
Bulktrk	4	No.	Driver	Lonnice M.		Driver	Gel. 3								
Bulktrk	piu	No.	Driver	Rick		Driver	Calcium 6								
<b>JOB SERVICES &amp; REMARKS</b>						Hulls									
Remarks:	Cement did Circulate.					Salt									
Rat Hole						Flowseal									
Mouse Hole						Kol-Seal									
Centralizers						Mud CLR 48									
Baskets						CFL-117 or CD110 CAF 38									
D/V or Port Collar						Sand									
						Handling	179								
						Mileage									
<b>FLOAT EQUIPMENT</b>						Guide Shoe									
						Centralizer									
						Baskets									
						AFU Inserts									
						Float Shoe									
						Latch Down									
						Pumptrk Charge	Surface <del>170</del> 179								
						Mileage	54								
<b>Signature</b>						Tax									
<b>Discount</b>															
<b>Total Charge</b>															