

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) (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:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	James P. Williams Enterprises, Inc.
Well Name	ROLL WILLIAMS 1
Doc ID	1515242

All Electric Logs Run

Dual Induction Log
Radiation Guard Log
Compensated Density Neutron Log
Micro Resistivity Log
Cement Bond Log

Form	ACO1 - Well Completion
Operator	James P. Williams Enterprises, Inc.
Well Name	ROLL WILLIAMS 1
Doc ID	1515242

Tops

Name	Top	Datum
Anhydrite	1568	+625
Base of Anhydrite	1606	+587
Topeka	3156	-963
Heebner	3371	-1178
Toronto	3389	-1196
Lansing	3413	-1220
Base Kansas City	3636	-1443
Simpson	3720	-1527
Arbuckle	3754	-1561
TD	3850	-1655

Form	ACO1 - Well Completion
Operator	James P. Williams Enterprises, Inc.
Well Name	ROLL WILLIAMS 1
Doc ID	1515242

Perforations

Shots Per Foot	Perforation Top	Perforation Bottom	BridgePlugType	BridgePlugSet At	Material Record
4	3388	3393			Simpson zone squeezed off twice, 200 sacks Common 2% CC 2% Sand, & 50 sacks Common 2% CC, 150 gals 10% MCA Acid (3731 - 3733)
4	3414	3418			Toronto to Kansas City K Zone communicated, acidized all at once with 2000 gals 20% MCA & 3500 gals of 20% NEFE (3388 - 3604)
4	3452	3456			Arbuckle acidized with 150 gals 15% MCA
4	3468	3473			
4	3498	3503			
4	3548	3552			
4	3566	3571			

Form	ACO1 - Well Completion
Operator	James P. Williams Enterprises, Inc.
Well Name	ROLL WILLIAMS 1
Doc ID	1515242

Perforations

Shots Per Foot	Perforation Top	Perforation Bottom	BridgePlugType	BridgePlugSet At	Material Record
4	3600	3604			
4	3755	3756			

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. 1965

Date	Sec.	Twp.	Range	County	State	On Location	Finish
3-16-20	9	10	18	Rooks	KS		10:00 PM
Lease				Location		Well No.	
Ray Williams				Plainville 2S AAR 3W 15R 3/4N		1	
Contractor				Owner			
D. Soren #4				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				Charge To			
Surface				James P. Williams			
Hole Size		T.D.		Street			
12 1/4		222					
Csg.		Depth		City			
8 5/8		221		State			
Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.			
				Cement Amount Ordered			
Tool		Depth		150 8/20 3 1/2 CC 2 1/2 HZ			
Cement Left in Csg.		Shoe Joint					
10							
Meas Line		Displace					
		13 BL					
EQUIPMENT				Common			
Pumptrk 16 No. Cementer				120			
Helper				Poz. Mix			
30							
Bulktrk No. Driver				Gel.			
3							
Bulktrk 15 No. Driver				Calcium			
6							
JOB SERVICES & REMARKS				Hulls			
Remarks:				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			
8 5/8 on bottom - Est. Circulation				Handling			
Mix 150 SK 9 Displace.				159			
Cement Circulation				Mileage			
				FLOAT EQUIPMENT			
				Guide Shoe			
				Centralizer			
				Baskets			
				AFU Inserts			
				Float Shoe			
				Latch Down			
				Pumptrk Charge			
				Surface			
				Mileage			
				26			
				Tax			
				Discount			
				Total Charge			
Signature							
Alan Ischler							

Thanks

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071

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

No. 1969

Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
3-21-20	9	10	18	ROOKS	KS		5:30pm
Lease				Location		Finish	
Ray Williams				Plainville 25 AAR 30 15R 3/4 N E into		5:30pm	
Contractor		Well No.		Owner			
Discover #4		1		To Quality Oilwell Cementing, Inc.			
Type Job		T.D.		You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
DU JOB		38.50		Charge To			
Hole Size		Depth		James P. Williams Enterprises			
7 7/8		3850		Street			
Csg. 5 1/2		Depth		City			
Tbg. Size		Depth		State			
DU Tool #44		2089 ^{2085 as per James}		The above was done to satisfaction and supervision of owner agent or contractor.			
Cement Left in Csg.		Shoe Joint		Cement Amount Ordered			
Meas Line		Displace		400 80/20 EMDC 1/4 # F10			
EQUIPMENT		48 1/2 B L		Common			
Pumptrk	No.	Cementer		Poz. Mix			
5		Helper	Tim	Gel.			
Bulktrk	No.	Driver		Calcium			
		Driver		Hulls			
Bulktrk	No.	Driver		Salt			
21		Driver		Flowseal			
JOB SERVICES & REMARKS				Kol-Seal			
Remarks:				Mud CLR 48			
Rat Hole				CFL-117 or CD110 CAF 38			
30SK				Sand			
Mouse Hole				Handling			
15SK				Mileage			
Centralizers				FLOAT EQUIPMENT			
Baskets				Guide Shoe			
D/V or Port Collar				Centralizer			
Plug Ratholer mousehole.				Baskets			
Cement 5 1/2 with 355SK.				AFU Inserts			
Clear lines Displace Plug.				Float Shoe			
Plug lander 10 #22*				Latch Down			
Cement Calculated				Pumptrk Charge			
				Mileage			
				Tax			
				Discount			
				Total Charge			
Signature							

[Handwritten Signature]

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

No. 1968

Date	Sec.	Twp.	Range	County	State	On Location	Finish
3-21-20	9	10	18	ROOKS	KS		4:00pm

Location: Planville 25 AAP 3W 15 R 3/4 W Einto

Lease	Well No.	Owner
<u>Ray Williams</u>	<u>1</u>	To Quality Oilwell Cementing, Inc.
Contractor	You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
<u>Discovery #4</u>		
Type Job	Charge To	
<u>DV 500</u>	<u>James P. Williams Enterprises</u>	
Hole Size	T.D.	Street
<u>2 7/8</u>	<u>3850</u>	
Csg.	Depth	City
<u>5 1/2 17#</u>	<u>3850</u>	State
Tbg. Size	Depth	City
		State

Feet	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
<u>DV Tool #44</u>	<u>2089</u> ^{bottom} <u>2085'</u>	
Cement Left in Csg.	Shoe Joint	Cement Amount Ordered
<u>19.78</u>	<u>19.78</u>	<u>200 com 10' Salt 5' Gilsomite</u>
Meas Line	Displace	
	<u>88 3/4 BL</u>	<u>500 gal mud clear</u>

EQUIPMENT

Pumptrk	No.	Cementer	Helper
<u>5</u>		<u>raig</u>	
Bulktrk	No.	Driver	Driver
<u>14</u>		Tom <u>Tim</u>	
Bulktrk	No.	Driver	Driver
<u>21</u>		<u>Tom</u>	<u>Doug</u>

Common	200
Poz. Mix	
Gel.	
Calcium	

JOB SERVICES & REMARKS

Remarks:
Rat Hole
Mouse Hole
Centralizers
Baskets
D/V or Port Collar
5 1/2 set @ 3850. Insert @ 3830
BSA Circulation Pump 500 gal mud clear
Cement 5 1/2 with 200SK. Clear
Line & Displace Plug-
Displace 45 BL water 36 BL mud 8 BL water
to land Plug.
Line pressure 750*
Plug landed @ 1500'
Drop down & open DV Tool.

Hulls	
Salt	<u>17</u>
Flowseal	
Kol-Seal	<u>1000 #</u>
Mud CLR 48	<u>500 gal</u>
CFL-117 or CD110 CAF 38	
Sand	
Handling	<u>227</u>
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	<u>12</u>
Baskets	<u>4</u>
AEU Inserts	<u>DV Tool</u>
Float Shoe	<u>1</u>
Latch Down	<u>1</u>

Circ. 30 min.

Pumptrk Charge	<u>prod string</u>	<u>Bottom Stage</u>
Mileage	<u>26</u>	

Signature		Tax	
<u>J.P. Williams</u>		Discount	
		Total Charge	

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. 1976
4.15pm

Date	Sec.	Twp.	Range	County	State	On Location	Finish
3-31-20				Roxs	KS		

Location *Plaquette 25 HWY 21/2W 1500 7400*

Lease	Well No.	Owner	
<i>Roll Williams</i>		To Quality Oilwell Cementing, Inc.	
Contractor		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		Charge To	
<i>50022</i>		<i>James P Williams</i>	
Hole Size	T.D.	Street	
<i>5 7/8</i>			
Csg.	Depth	City	
<i>5 1/2 12#</i>		State	
Tbg. Size	Depth	The above was done to satisfaction and supervision of owner agent or contractor.	
<i>2 7/8</i>			
Tool	Depth	Cement Amount Ordered	
<i>x-100 Norman</i>		<i>2000mi 2/1cc</i>	
Cement Left in Csg.	Shoe Joint		
		<i>2 # sand</i>	
Meas Line	Displace		

EQUIPMENT

Pumptrk	No.	Cementer	Common
<i>48</i>		<i>Jim</i>	
		Helper	Poz. Mix
Bulktrk	No.	Driver	Gel.
		Driver	
Bulktrk	No.	Driver	Calcium
<i>15</i>		<i>Doug</i>	

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
	Sand
	Handling
	Mileage

FLOAT EQUIPMENT

	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down

	Pumptrk Charge
	Mileage

	Tax
	Discount
	Total Charge

X Signature *J.P. Williams*

Plug 3748 Test to 1500'
500' sand 3726
PLUG 3731-33 - KANS
Packer to 50022 3613
Check to plug 1500'
Serial casing dry - 600' - sand OK
Plug
500K
(USE) 200' Sand
Rate 4BLO 1500' mix of 500K
Squeezed to 2000' fill 2 joints
Shut in @ 500#.

QUALITY OILWELL CEMENTING, INC.

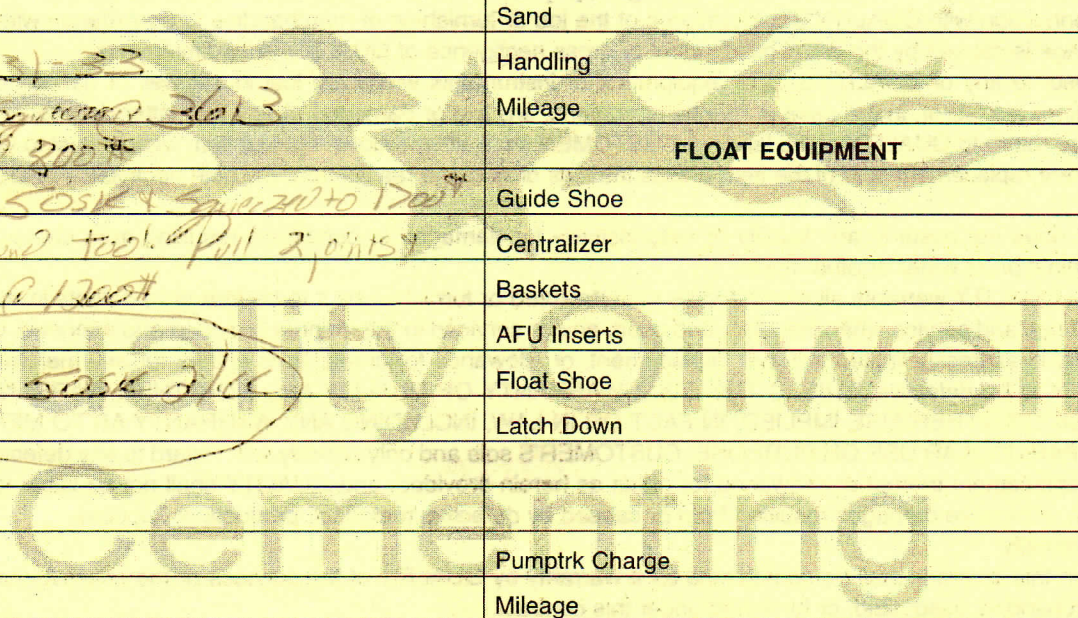
Federal Tax I.D.# 20-2886107

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

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

No. 1976

Date	4-1-20	Sec.	Twp.	Range	County	State	On Location	Finish
					Location	Rocks KS 7100		
Lease					Well No.	Owner		
Contractor					To Quality Oilwell Cementing, Inc.			
Type Job					You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Hole Size					T.D.	Charge To		
Csg.					Depth	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.					Shoe Joint	Cement Amount Ordered		
Meas Line					Displace			
EQUIPMENT					Common			
Pumptrk	No.	Cement	Helper		Poz. Mix			
Bulktrk	No.	Driver	Driver		Gel.			
Bulktrk	No.	Driver	Driver		Calcium			
JOB SERVICES & REMARKS					Hulls			
Remarks:					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					Mileage			
FLOAT EQUIPMENT								
Guide Shoe								
Centralizer								
Baskets								
AFU Inserts								
Float Shoe								
Latch Down								
Pumptrk Charge								
Mileage								
					Tax			
					Discount			
X Signature					Total Charge			



(Handwritten signature/initials)



Geologic Report

Drilling Time and Sample Log

Operator James P. Williams Enterprises, Inc.			Elevation KB 2193'	
Lease Roll Williams		No. 1	DF GL 2185'	
API # 15-163-24411-0000			Casing Record Surface 8 5/8" @ 221'	
Field Williams			Production 5 1/2" @ 3848' 200 sks Com., DV 2089' 355 sks QMDC 2085	
Location 986' FNL & 911' FWL			Electrical Surveys CNL/CDL, DIL, MEL	
Sec. 9	Twp. 10s	Rge. 18w		
County Rooks	State Kansas			
Formation	Sample tops	Log Tops	Datum	Struct Comp
Anhydrite	1566'	1568'	+625	+622 +3
Base	1611'	1606'	+587	
Topeka	3159'	3156'	-963	-961 -2
Heebner	3374'	3371'	-1178	-1176 -2
Toronto	3392'	3389'	-1196	-1194 -2
Lansing	3416'	3413'	-1220	-1218 -2
BKC	3639'	3636'	-1443	-1444 +1
Simpson	3726'	3720'	-1527	-1522 -5
Arbuckle	3759'	3754'	-1561	-1554 -7
Total Depth	3850'	3848'	-1655	
Reference Well For Structural Comparison Art Holiday Oil H. Williams #1 SW NW NW Sec. 9 T10s R18w Rooks County, Kansas				

Drilling Contractor	Discovery Drilling Co., Inc. Rig #4		
Commenced	3-16-2020	Completed	3-22-2020
Samples Saved From	3100'	To	RTD
Drilling Time Kept From	3100'	To	RTD
Samples Examined From	3100'	To	RTD
Geological Supervision From	3100'	To	RTD
Displacement	3000'		
Mud Type	Chemical		









Summary and Recommendations

The location for the Roll Williams #1 was found via subsurface study. The new well ran structurally slightly lower than expected via the survey. No Drill Stem Tests were conducted. After all gathered data had been examined the decision was made to run 5 1/2 inch production casing to further evaluate the Roll Williams #1 well.

Respectfully Submitted,

Jason T Alm
Hard Rock Consulting, Inc.

ROCK TYPES

 Cht vari	 Dolsec	 shale, grn	 Carbon Sh
 Dolprim	 Lmst fw7>	 shale, gry	 shale, red

ACCESSORIES

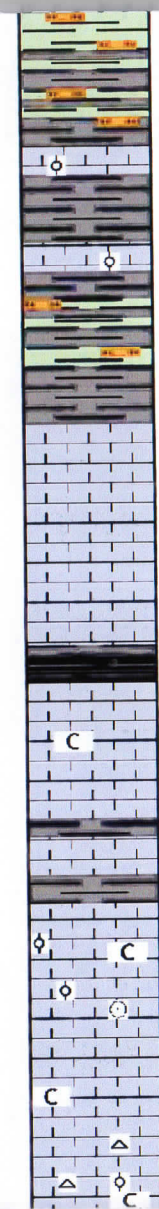
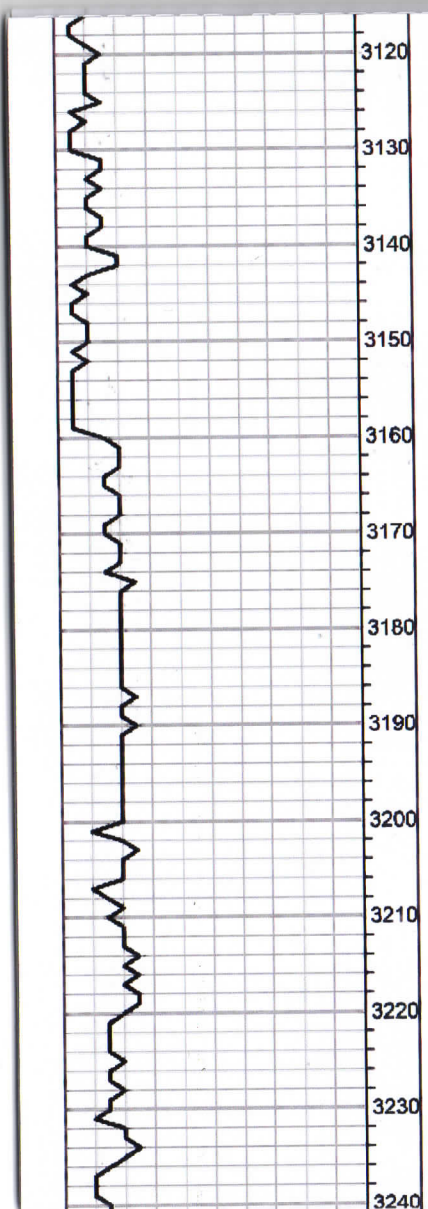
MINERAL	FOSSIL	STRINGER	TEXTURE
△ Chert White	○ Crinoids ◇ Oolite	■ Dolomite ■ Sandstone ■ Siltstone ■ green shale ■ red shale	C Chalky

OTHER SYMBOLS

OIL SHOWS	DST
● Even Stn ● Spotted Stn 50 - 75 % ● Spotted Stn 25 - 50 % ○ Spotted Stn 1 - 25 % ○ Questionable Stn D Dead Oil Stn ■ Fluorescence	■ DST Int ■ DST alt ■ Core tail pipe

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)

Curve Track #1 ROP (min/ft)		Depth Intervals	DST	Lithology	Oil Shows	Geological Descriptions	Comment
0	10	Cored Interval DST Interval					
1:240 Imperial ROP (min/ft)	3110						Geo on location 2:30 p.m. 3-19-2020 Mud Check @ 2998' Vis 50



Sh - Gry-grn, soft, waxy in part, much gry sltst

Ls - Tan-lt gry, subxln dns, sl ool in part

Ls - ala

Sh - Gry-grn, soft, gummy, sl gry sltst

Topeka 3159' -966

Ls - Tan-lt gry, fn xln, mostly dns, few rxns w/ poor scat vuggy por, barren

Ls - ala, fn-subxln, dns, sl mottled w/ lt gry sh

Sh - Drk gry-blk

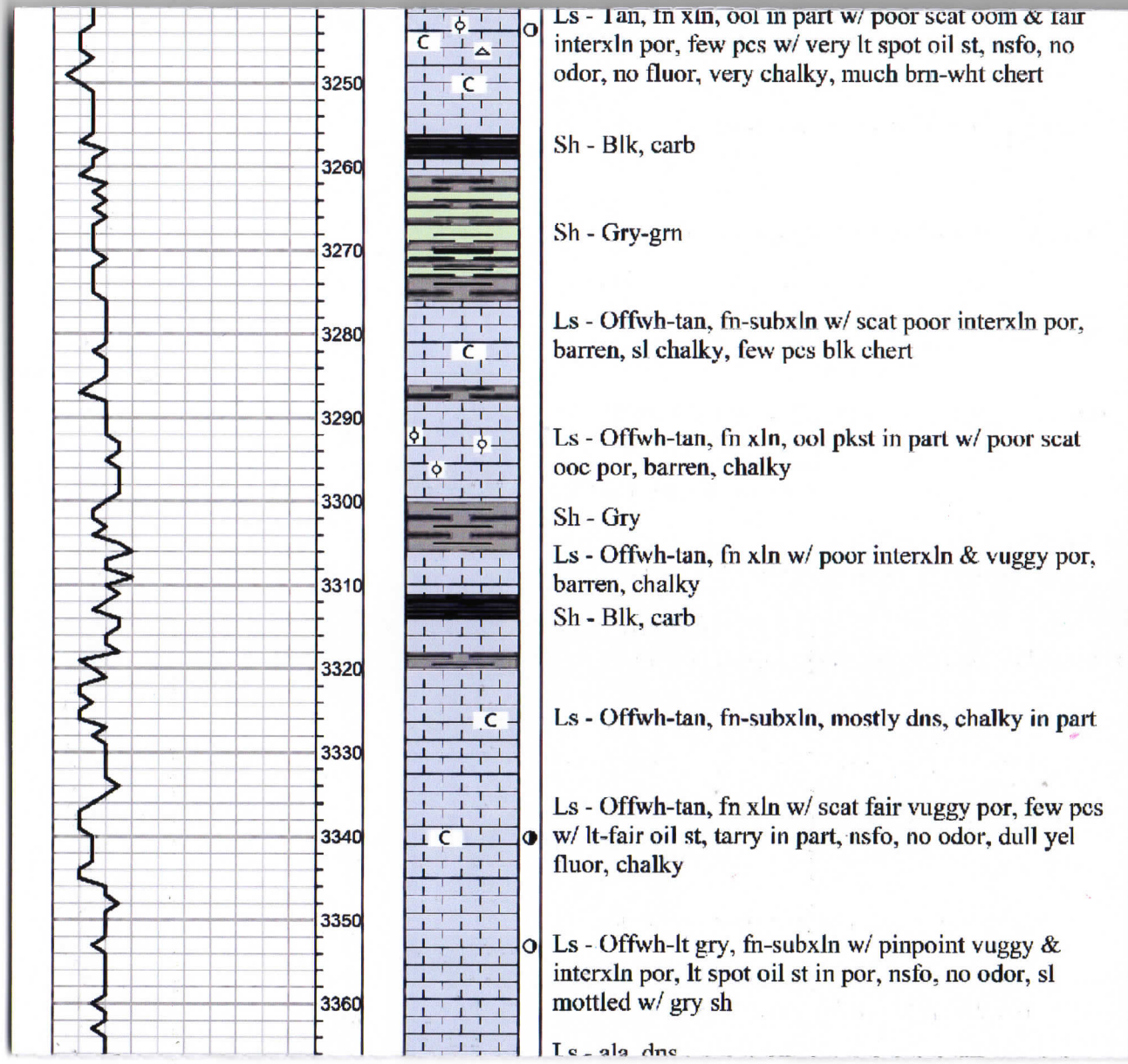
Ls - Tan-lt gry, fn-subxln, mostly dns, chalky in part

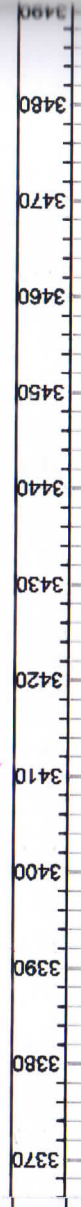
Sh - Gry

Ls - Offwh-tan, fn-subxln, sl ool in part, sl fossil, dns, chalky

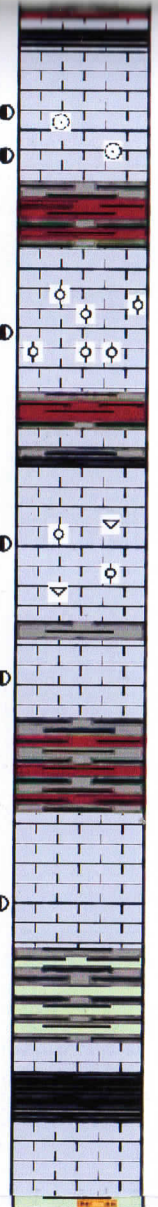
Ls - ala w/ poor scat oom & vuggy por, barren, very chalky

vis 59
Wt 8.6
Fil 7.2
PH 11.5
Chl lk





A
B
C
D



Hebner 3374'-1181

Sh - Blk, carb

Sh - Gry, gm

Toronto 3392'-1199

Ls - Tan, fn xln w/ poor-fair interxln & vuggy por, It-fair oil st w/ It spot sat, sl sfo when broken, It odor, It yel fluor

Sh - Gry-brn

Lansing 3416'-1223

Ls - Offwh-lan, fn xln ool in part w/ fair oom & interxln por, It-scat fair oil st, sl sfo when broken, v It odor, It yel fluor

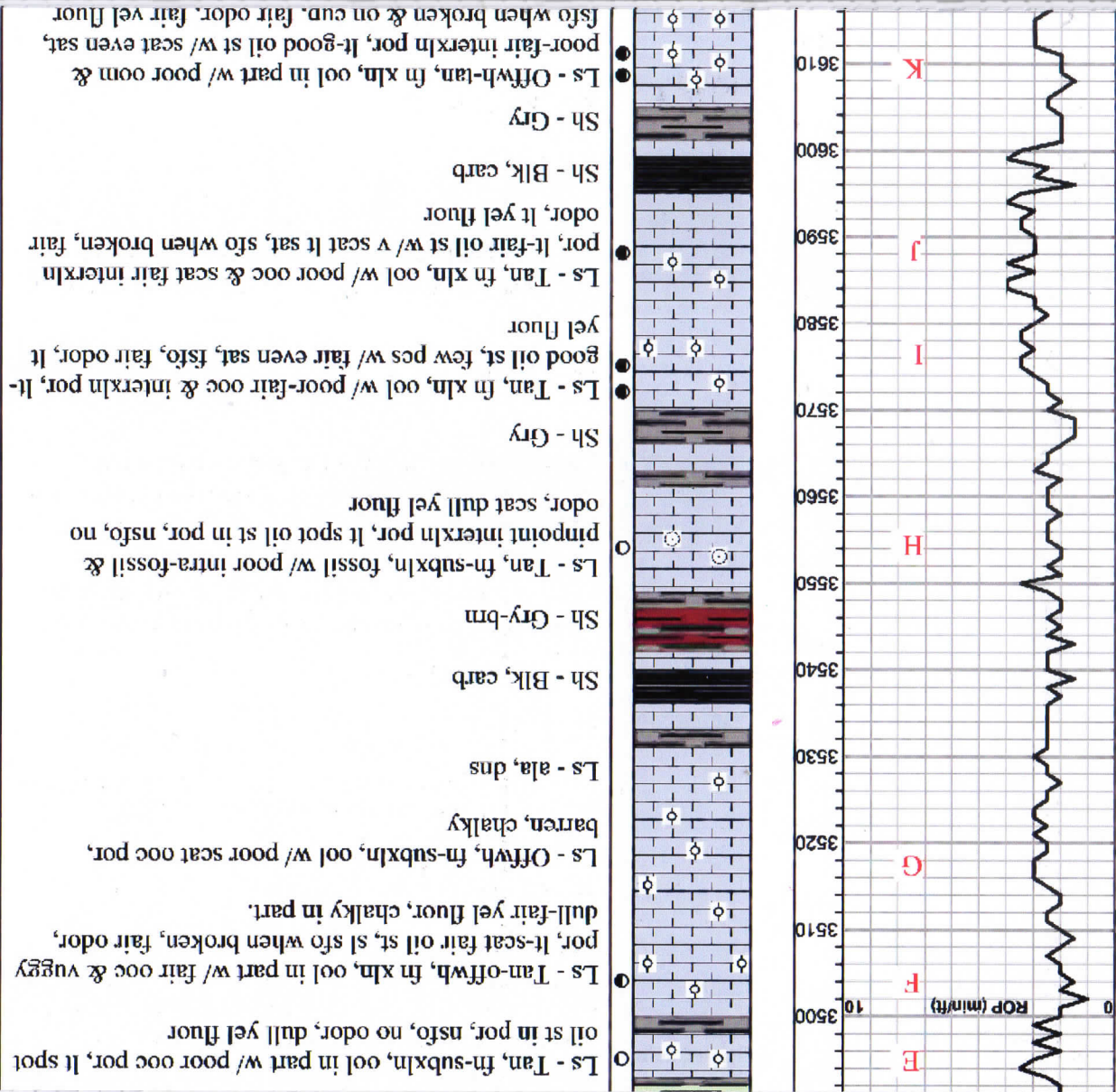
Sh - Dk gry-blk

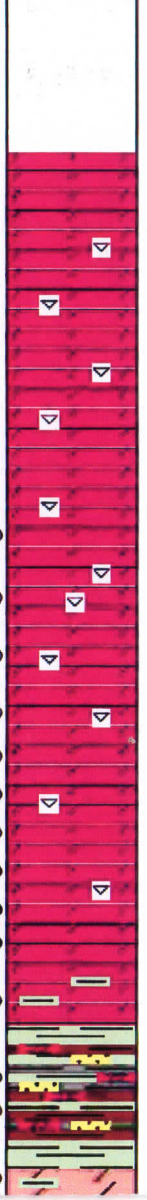
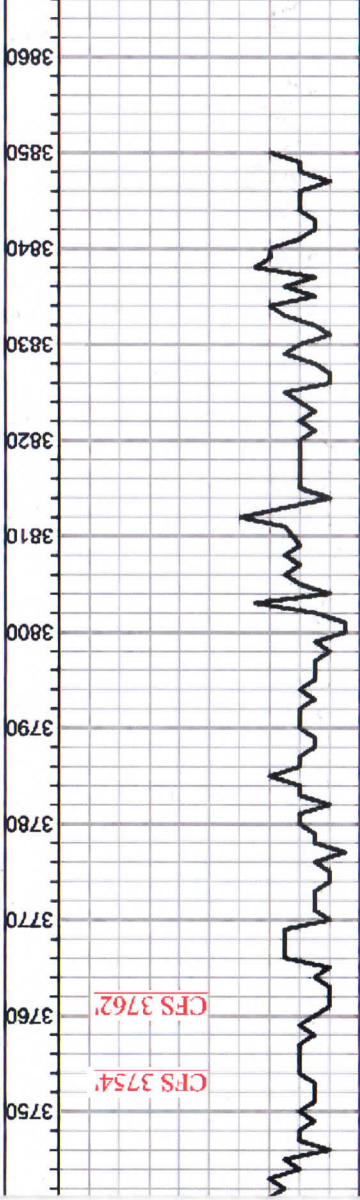
Ls - Tan, fn xln, ool w/ poor ooc & vuggy por, It-fair oil st in por, nsfo, no odor, v dull yel fluor, much tan

Sh - Gry-brn

Ls - Tan-It gry, fn-med xln, sl fossil w/ poor-fair interxln & vuggy por, few pcs w/ pinpoint intra-fossil por, It-scat fair oil st w/ It sat in med xtals, sl sfo free when broken & on cup, It odor, dull-fair yel fluor

Sh - Blk-gry-brn-gm





fair-heavy oil st & sat, gsto, lt odor, sl mottled w/ gm
 sh
 Sh - Turquoise-grn-brn, few Ss clusters w/ dead oil st,
 much dolo ala, mottled w/ gm sh
Arbuckle 3759'-1566
 Dolo - Tan, fn rhombic xln w/ poor-fair interxln & vuggy
 por, lt-fair oil st w/ scat poor-fair sat, fsfo in sample & cup,
 dull yel-grn fluor, many rxs mottled w/ gm sh, possibly
 reworked
 Dolo - ala, no shale, fair-good oil st w/ fair scat sat
 Dolo - Tan, fn rhombicxln w/ poor interxln & vuggy
 por, lt-scat fair oil st in por, few rxs w/ lt sat, sl-fsfo,
 fair odor, dull yel-grn fluor
 Dolo - Tan-offwh, fn-med rhombicxln w/ fair-good
 interxln & vuggy por, lt-scat fair oil st in por, v lt spot
 sat, sl sfo on cup, fair odor, dull scat yel-grm fluor
 Dolo - Tan, fn-med rhombicxln w/ poor-fair interxln &
 vuggy por, v lt spot oil st, mostly barren
 Dolo - ala, barren
 Dolo - ala
 Dolo - Tan-offwh, fn rhombicxln w/ fair interxln &
 vuggy por, barren, much ool chert
Total Depth 3850'-1657
 AAPG # 10134582

Respectfully
 Submitted,
 Jason T Alm
 3-23-2020
 AAPG # 10134582