

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
--	---

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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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. 1043

Date	10-25-18	Sec.	18	Twp.	9	Range	20	County	Rooks	State	KS	On Location		Finish	9:15 Am
Lease								Location		Palco Bell Park 2nd Unit					
Hendrich Unit								Well No.		1-18					
Contractor								Mortin #24							
Type Job								Production String							
Hole Size				7 7/8				T.D.				3880			
Csg.				5 1/2 17A				Depth				3874			
Tbg. Size								Depth				1778			
Tool				Part Cake				Cement Left in Csg.				20.11			
Shoe Joint				20.11				Cement Amount Ordered				175 10/ Salt 5/ Colseate			
Meas Line				Displace				89 1/2 BCL				50 gal mud clear 20 BCL KCL			
EQUIPMENT															
Pumptrk		5		No.		Cementer		Craig		Helper		Brett		Driver	
Bulktrk		9		No.		Driver		Tony		Driver		Tony		Driver	
JOB SERVICES & REMARKS															
Remarks:								50 gal mud clear 20 BCL KCL							
Rat Hole								30SK							
Mouse Hole								15SK							
Centralizers								7							
Baskets								1							
D/V or Port Collar								5 1/2 size 3874 - Part Cake @ 385389							
Best Circulation Pump								50 gal mud clear							
10B KCL Plug								Rathole more hole							
Cement								5 1/2 with 130SK clear lines							
Displace Plug								1 1/2 9BCL KCL							
Lith Pressure								800# Plug landed @ 1500'							
FLOAT EQUIPMENT															
Guide Shoe								Part Cake							
Centralizer								7							
Baskets								1							
AFU Inserts								Limit Clamp							
Float Shoe								1							
Latch Down								1							
Pumptrk Charge								prod string							
Mileage								43							
												Tax			
												Discount			
Signature												Aven Weavering		Total Charge	

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. 1038

Date	10-19-18	Sec.	18	Twp.	9	Range	20	County	Rock	State	KS	On Location		Finish	7.39
Location								Palco Ball Park 2w 4140							

Lease	Hendrich	Well No.	1-18	Owner	To Quality Oilwell Cementing, Inc.
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Contractor	Murfin #24	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	Charge To	American Oil
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Hole Size	12 1/4	T.D.	260
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Csg.	8 5/8	Depth	259
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Tbg. Size		Depth		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.	10'	Shoe Joint		Cement Amount Ordered	1100 8/20 3/11 2/11 482
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Meas Line		Displace	15 1/2 BCL
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EQUIPMENT			Common	8 5/8
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Pumptrk	5	No.	Cementer	Helper	5	Poz. Mix	32
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Bulktrk		No.	Driver	Driver		Gel.	3
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Bulktrk	3	No.	Driver	Driver	5	Calcium	6
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JOB SERVICES & REMARKS			Hulls	
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Remarks:		Salt	
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Rat Hole		Flowseal	
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Mouse Hole		Kol-Seal	
------------	--	----------	--

Centralizers		Mud CLR 48	
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Baskets		CFL-117 or CD110 CAF 38	
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D/V or Port Collar		Sand	
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8 5/8 on bottom Est. Circulation.		Handling	169
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Mix Hoses & Displace.		Mileage	
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Cement Circulation?		FLOAT EQUIPMENT 8 5/8 Swage	
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		Guide Shoe	
--	--	------------	--

		Centralizer	
--	--	-------------	--

		Baskets	
--	--	---------	--

		AFU Inserts	
--	--	-------------	--

		Float Shoe	
--	--	------------	--

		Latch Down	
--	--	------------	--

		Pumptrk Charge	Surface
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		Mileage	43
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		Tax	
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		Discount	
--	--	----------	--

		Total Charge	
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X Signature	Muschangas
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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. 970

Date	Sec.	Twp.	Range	County	State	On Location	Finish
11-16-18				Rooks	KS		

Location Palco Ball Park 2w Nints

Lease <u>Hendrich Unit</u>	Well No. # <u>1</u>	Owner
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Contractor <u>Western Well</u>	To Quality Oilwell Cementing, Inc.
Type Job <u>Part Collar</u>	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
		<u>American Oil</u>

Csg. <u>5'6"</u>	Depth	Street
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Tbg. Size <u>2 7/8</u>	Depth	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 <u>350 #20 QMDC 1/4 flo</u>
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Meas Line	Displace <u>9 bbl</u>	Used <u>200 sx</u>
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EQUIPMENT

Pumptrk <u>20</u>	No.	Cementer Helper <u>Brett</u>	Common <u>200 #20 QMDC</u>
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Bulktrk <u>21</u>	No.	Driver <u>David</u>	Poz. Mix
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Bulktrk	No.	Driver <u>Jack</u>	Gel. <u>8sx</u>
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JOB SERVICES & REMARKS

Remarks:	Hulls
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Rat Hole	Salt
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Mouse Hole	Flowseal <u>75 #</u>
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Centralizers	Kol-Seal
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Baskets	Mud CLR 48
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D/V or Port Collar @ <u>1778</u>	CFL-117 or CD110 CAF 38
----------------------------------	-------------------------

	Sand
--	------

	Handling <u>350</u>
--	---------------------

	Mileage
--	---------

FLOAT EQUIPMENT

	Guide Shoe
--	------------

	Centralizer
--	-------------

	Baskets
--	---------

	AFU Inserts
--	-------------

	Float Shoe
--	------------

	Latch Down
--	------------

Pumptrk Charge <u>part collar</u>

Mileage <u>43</u>

Tax

Discount

Total Charge

X Signature Brent Joffe

Thanks

Tested Part Collar to 1000 lbs
Opened Tool + Mix 8sx Gel
Mix 200 sx
Displaced 9 bbl
Closed Tool + Test to 1000 lbs
Ran 5 J+ + Washed Clean
Cement circulated!!!!

AUSTIN B. KLAUS

Cell 785.650.3629
Work 785.483.3145
Ext 225

PO BOX 352
Russell, KS 67665
austin.klaus@johnofarmer.com

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

Well Name: Hendrich Unit #1-18
Location: Rooks County
License Number: API #15
Spud Date: 10/19/2018
Surface Coordinates: Section 18, Township 9 South, Range 20 West
130' FSL & 2,310' FEL
Bottom Hole Coordinates: Vertical well w/ minimal deviation, same as above
Ground Elevation (ft): 2,258
Logged Interval (ft): 3,200 To: RTD
Formation: LKC-Arbuckle
Type of Drilling Fluid: Chemical (K.D.T)

Region: Kansas
Drilling Completed: 10/24/2018
K.B. Elevation (ft): 2,263
Total Depth (ft): 3,884

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: American Oil, LLC
Address: 1200 Main, Suite 410
Hays, KS 67601

GEOLOGIST

Name: Austin Klaus
Company: John O. Farmer, Inc.
Address: 370 W. Wichita Ave.
Russell, KS 67665

Cores

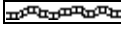
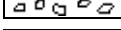
DSTs

Comments








































































The Hendrich Unit #1-18 well was drilled by Murfin Drilling Rig #24 (Tool Pusher: Jesus Vargas).

The Hendrich Unit #1-18 was discovered via 3D seismic survey. Rock samples were gathered and evaluated from 3,200' - 3,880'. Oil shows were encountered in the LKC C,D,F/G,I, and Arbuckle. Structurally, the Lansing top was picked 5' low to the comparison well, 330' to the north (John Towns #1 - 1951'). Structural thinning occurred in the lower LKC, which resulted in an Arbuckle picked 1' low to the comparison well. After evaluation of all oil shows, and electric logs, it was decided that 5 1/2" production casing be set to further evaluate the Hendrich Unit #1-18 on 10/25/2018.
























ROCK TYPES

 Anhy  Bent  Brec  Cht	 Clyst  Coal  Congl  Dol	 Gyp  Igne  Lmst  Meta	 Mrst  Salt  Shale  Shcol	 Shgy  Sltst  Ss  Till
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ACCESSORIES

MINERAL  Anhy  Arggrn  Arg  Bent  Bit  Brecfrag  Calc  Carb  Chtdk  Chtlt  Dol  Feldspar  Ferrpel  Ferr  Glau	 Gyp  Hvymin  Kaol  Marl  Minxl  Nodule  Phos  Pyr  Salt  Sandy  Silt  Sil  Sulphur  Tuff	FOSSIL  Algae  Amph  Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram  Fossil  Gastro  Oolite	 Ostra  Pelec  Pellet  Pisolite  Plant  Strom STRINGER  Anhy  Arg  Bent  Coal  Dol  Gyp  Ls  Mrst	 Sltstrg  Ssstrg TEXTURE  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackest
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OTHER SYMBOLS

POROSITY  Earthy  Fenest  Fracture  Inter  Moldic  Organic  Pinpoint	 Vuggy SORTING  Well  Moderate  Poor	ROUNDING  Rounded  Subrnd  Subang  Angular OIL SHOW  Even	 Spotted  Ques  Dead INTERVAL  Core  Dst	EVENT  Rft  Sidewall
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Curve Track 1

ROP (min/ft) ———
 Gas (units) - - - - -
 Gamma (API) ———

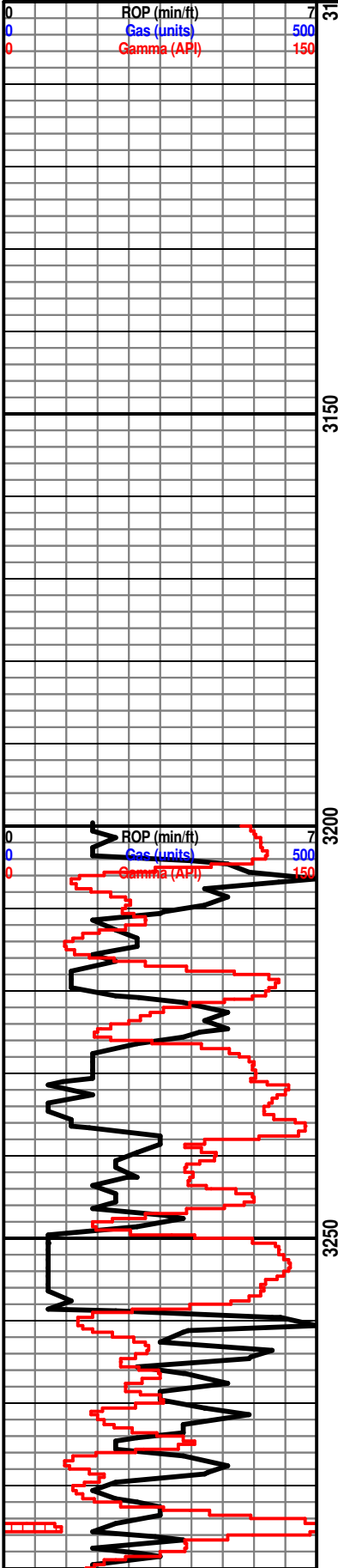
Depth

Lithology

Oil Shows

Geological Descriptions

DST/Mud/Survey



The open-hole logging was performed by Mr. Casey Patterson with Gemini Wireline, LLC (Hays, KS). Logs included: Compensated Density Neutron & Dual Induction. Formation tops and datums from the open-hole logs include the following:

Formation	E-Log	Datum
Anhydrite	1770	493
Topeka	3258	-995
Heebner	3465	-1202
Toronto	3488	-1225
Lansing	3504	-1241
B/KC	3724	-1461
Arbuckle	3784	-1521
LTD	3884	-1621

Mud Engineer:
Chris Keas

Ls: tan, sub xln, DNS

Sh: brn-grn

Ls: tan, fn xln, sl foss, DNS

Sh: gry-drk gry, sl slty

Sh: ala

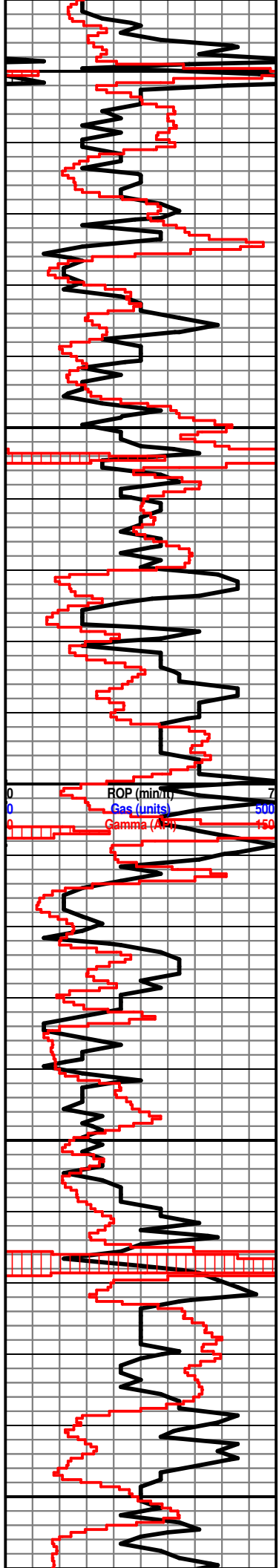
Topeka 3259' (-996)

Ls: lt gry, fn xln, sl mottled, scat sh: drk gry, mostly DNS

Ls: ala

Ls: tan-buff, fn xln, poor-fair int part porosity, vry

Wt: 8.5
Vis: 87



It dead oil stn, NSFO, no odor

Sh: gry-brn

Ls: tan-buff, fn xln, foss, poor-fair int foss porosity, mostly barren, hvv chalk

Ls: ala

Ls: ala, mostly DNS

Sh: blk, carb

Sh: brn-rd-gry

Ls: off wh-tan, fn xln, mostly DNS

Sh: gry-brn

Ls: off wh-tan, fn xln, sl foss, poor int xln porosity, barren

Sh: blk, carb

Ls: off wh-tan, fn xln, ool in part, scat fair vuggy, scat micro oom porosity, fair tarry oil stn, NSFO, scat chert-off wh

Ls: off wh-tan, fn-sub xln, DNS, sl chert-off wh, chalky

Ls: ala

Ls: off wh-tan, fn xln, ool in part, poor mic oom porosity, It tarry oil stn in porosity, NSFO

Heebner 3464' (-1201)

Sh: blk, carb

Sh: gry-brn-grn

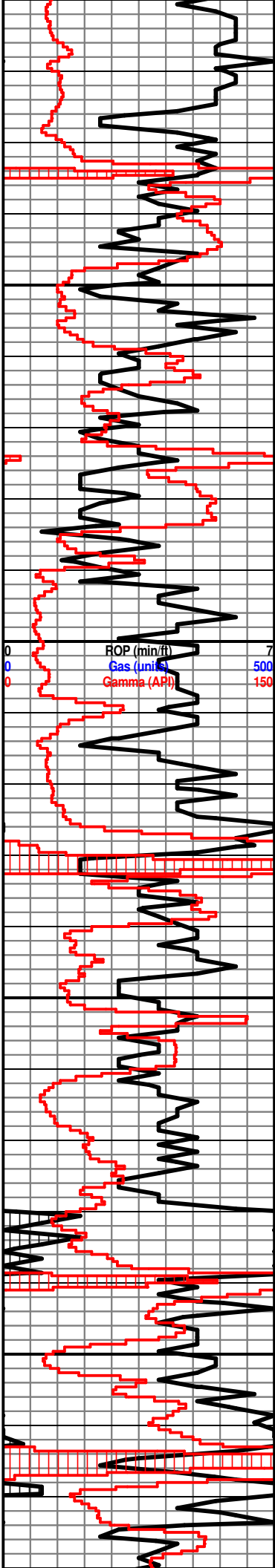
Toronto 3485' (-1222)

Ls: off wh-tan, fn xln, poor int xln porosit, mostly barren

Sh: drk gry-brn

Lansing 3503' (-1240)

Ls: off wh-tan, fn xln, poor int part porosity, barren, hvv chalk



Ls: ala

Ls: off wh-tan, fn xln, scat fair vuggy porosity, mostly barren, scat chert-off wh

Sh: drk gry-brn, soft

Ls: off wh-tan, fn-md xln, foss, fair int xln & fair-good int foss porosity, good oil stn in porosity, FSFO, good odor

Sh: lt gry

Ls: off wh-tan, fn-md xln, poor-fair int xln & scat int foss porosity, fair oil stn, SSFO, fair-good odor

Sh: lt-drk gry

Ls: off wh, fn-md xln, foss, fair-good int xln & scat int foss porosity, scat fair oil stn in porosity, FSFO in cup, good odor

Ls: off wh-tan, fn xln, ool, poor-fair oom porosity, mostly barren, NSFO

Ls: ala, hvy chert-off wh

Sh: drk gry-blk

Ls: off wh-tan, fn xln, foss, scat poor int xln & int foss porosity, scat dead oil stn, NSFO, sl odor

Sh: lt-drk gry

Ls: off wh-tan, fn xln, poor-fair int xln porosity, fair oil stn in porosity, fair-good odor, SSFO when broken

Sh: gry-brn

Ls: off wh-tan, fn-sub xln, mostly DNS, scat chert-off wh, scat chalk

Sh: lt-drk gry-blk

Ls: tan-lt gry, fn xln, poor int xln porosity, scat dead oil stn, NSFO, no odor, scat chalk

Sh: drk gry-blk

B/KC 3725' (-1460)

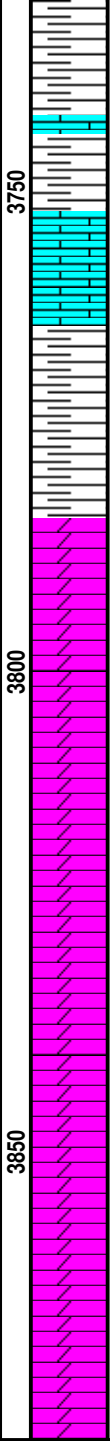
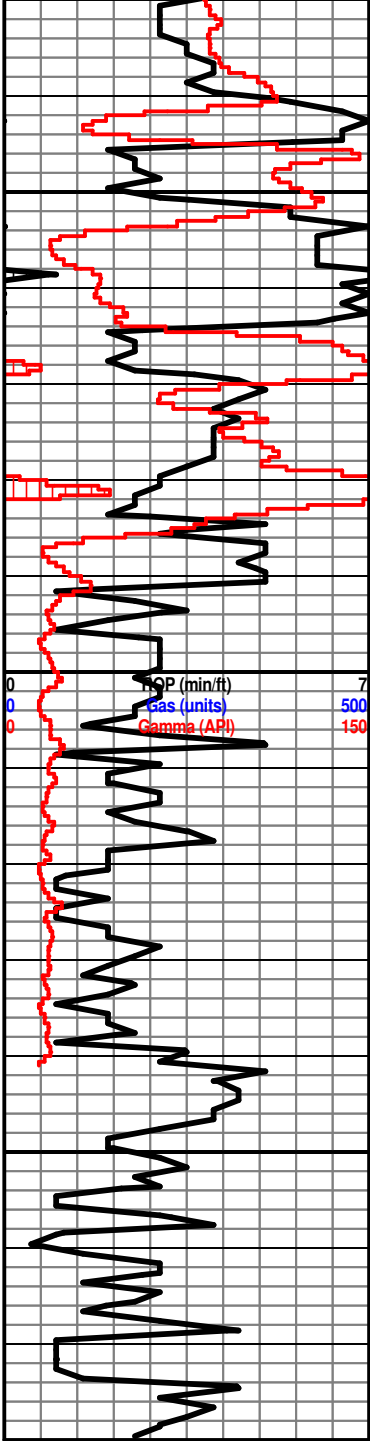
Wt: 8.6

Vis: 65

Lost All Fluid @ 3,674'; Stopped drilling for 4 hours

Wt: 8.5

Vis: 57



Sh: gry-brn-rd, soft

Ls: tan-gry, fn-sub xln, scat chert-off wh, barren

Ls: ala

Sh: lt gry-brn

Sh: lt-drk gry-grn, soft, scat cong: DNS

Arbuckle 3783' (-1520)
Dolo: off wh-tan, fn xln, sucrosic xln in part, poor int xln porosity, scat sh: drk gry-grn

Dolo: off wh-tan, fn xln, fair-good sucrosic xln porosity, fair-good oil sat, SSFO, good odor, fair yel fluor

Dolo: off wh-tan, fn-md xln, scat crs xln, fair-good sucrosic xln porosity, good oil sat, FSFO, SO in cup, fair-good odor, fair yel fluor

Dolo: off wh-tan, fn-md sucrosic xln, fair-good sucrosic xln porosity, good oil sat, FSFO, GSO in cup, good odor, fair yel fluor

Dolo: off wh-tan, md sucrosic xln, fair int xln porosity, fair oil sat, SSFO, fair-good odor, fair yel fluor

Dolo: off wh-tan, fn-md xln, poor-fair int xln porosity, mostly barren, hvy chert-off wh, scat sh: grn

Dolo: ala

Dolo: off wh-tan, fn-md xln, poor-fair int xln & scat vuggy porosity, mostly barren, scat sh: grn

Dolo: ala

Wt: 8.7
Vis: 73

Survey: 1 1/2 degrees