

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:	
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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. 2847

Date	6-20-22	Sec.	25	Twp.	17	Range	11	County	Barton	State	Ks	On Location		Finish	8:45 pm	
Lease	Moran		Well No.	1		Location	Clafin 1E to 140 Ave, 1N to 20 Rd, 1 1/2 E, N into									
Contractor	Discovery #2						Owner 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						Charge To Patterson Energy									
Hole Size	12 1/4"		T.D.	353'				Street								
Csg.	8 5/8"		Depth	352'				City State								
Tbg. Size			Depth					The above was done to satisfaction and supervision of owner agent or contractor.								
Tool			Depth					Cement Left in Csg. 15' Shoe Joint 15' Cement Amount Ordered 180 80/20 30% cc 2% gel								
Meas Line			Displace	21 1/2 BLS				Common 145								
EQUIPMENT																
Pumptrk	16	No.	Cementer	David				Poz. Mix 35								
Bulktrk	9	No.	Driver	Jordan				Gel. 3								
Bulktrk	p.u.	No.	Driver	Rick				Calcium 7								
JOB SERVICES & REMARKS																
Remarks:	Cement did Circulate											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 190				
												Mileage				
FLOAT EQUIPMENT																
												Guide Shoe				
												Centralizer				
												Baskets				
												AFU Inserts				
												Float Shoe				
												Latch Down				
												Pumptrk Charge Surface				
												Mileage 31				
												Thanks				
												Tax				
												Discount				
												Total Charge				

X Signature

Tax
Discount
Total Charge

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. 2903

Date	6-25-22	Sec.	25	Twp.	17	Range	11	County	Barton	State	Ks	On Location		Finish	2:00 AM
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Lease **Moran** Location **Clafien - 1E to 140 Ave, 1N to**

Well No. **#1** Owner **120 Rd, 1 1/2 E, N into**

Contractor **Discoveries #2** To Quality Oilwell Cementing, Inc.

Type Job **Logging** You are hereby requested to rent cementing equipment and furnish

Hole Size **7 7/8"** T.D. **3355'** Charge To **Patterson Energy**

Csg. **5 1/2" 15,50#** Depth **3351'** Street

Tbg. Size **new** Depth

Tool Depth

Cement Left in Csg. Shoe Joint **35.62** Cement Amount Ordered **175 Com 10% Salt**

Meas Line Displace **79 BLS** **5% Gilsonite - 500 gal mud Clear 48**

EQUIPMENT

Pumptrk 16 No.	Cementer David	Common
Bulktrk 14 No.	Helper Robert Clayton	Poz. Mix
Bulktrk P.U. No.	Driver RICK	Gel.
	Driver	Calcium

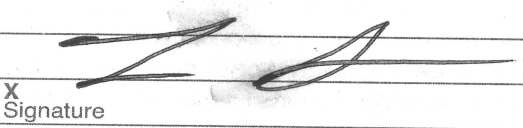
JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole 30 SX	Salt 14
Mouse Hole 15 SX	Flowseal
Centralizers 1, 4, 7, 10, 13	Kol-Seal 750 #
Baskets 1	Mud CLR 48 500 gal
D/V or Port Collar pipe on bottom break	CFL-117 or CD110 CAF 38
Circulation pump 500 gal mud	Sand
Clear. plug Rat + Mouseholes	Handling 196
Hook to 5 1/2" casing + mix 130 SX	Mileage

FLOAT EQUIPMENT

Cement & Shut down wash	Guide Shoe
pump & lines Displaced plug w/	Centralizer 5
79 BLS. Released	Baskets 1
Lift pressure 600 #	AFU Inserts
Land plug to 1300 #	Float Shoe 1
	Latch Down 1

Pumptrk Charge **prod string**
Mileage **31**



Thanks

Tax
Discount
Total Charge

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: Moran #1
API: 15-009-26347-0000
Location: Barton County
License Number: Region: Kansas
Spud Date: 06/20/2022 Drilling Completed: 06/24/2022
Surface Coordinates: Section 25, Township 17 South, Range 11 West
1,370' FSL & 2,310' FWL
Bottom Hole Vertical well w/ minimal deviation, same as above
Coordinates:
Ground Elevation (ft): 1,823 K.B. Elevation (ft): 1,831
Logged Interval (ft): 2,800 To: 3,354 Total Depth (ft): 3,355
Formation: Heebner - Arbuckle
Type of Drilling Fluid: Chemical (Andy's Mud)

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

OPERATOR

Company: Patterson Energy, LLC
Address: PO Box 400
Hays, KS 67601

GEOLOGIST



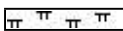
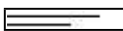



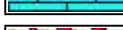
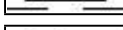
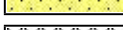
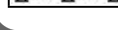


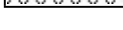
Name: Austin Klaus
Company: John O. Farmer, Inc.
Address: 370 W. Wichita Ave.
Russell, KS 67665

Comments

The Moran #1 well was drilled by Discovery Drilling Rig #2 (Tool Pusher: Travis Schmidt).

Drill time was recorded, and rock samples were collected and evaluated from 2,800'-3,355'. There were several zones in the Lansing-Kansas City that exhibited good porosity development with oil stain/show (see below). Significant porosity development and good oil shows were encountered in the Arbuckle. Structurally, the Arbuckle top was picked flat to the comparison well, located 280' north, A.T. Moran #3 (7/1936, The Texas Co.). After comprehensive evaluation of all oil shows, electric logs, and structural position, it was decided that 5-1/2" production casing be set to further evaluate the Moran #1 on June 25, 2022.

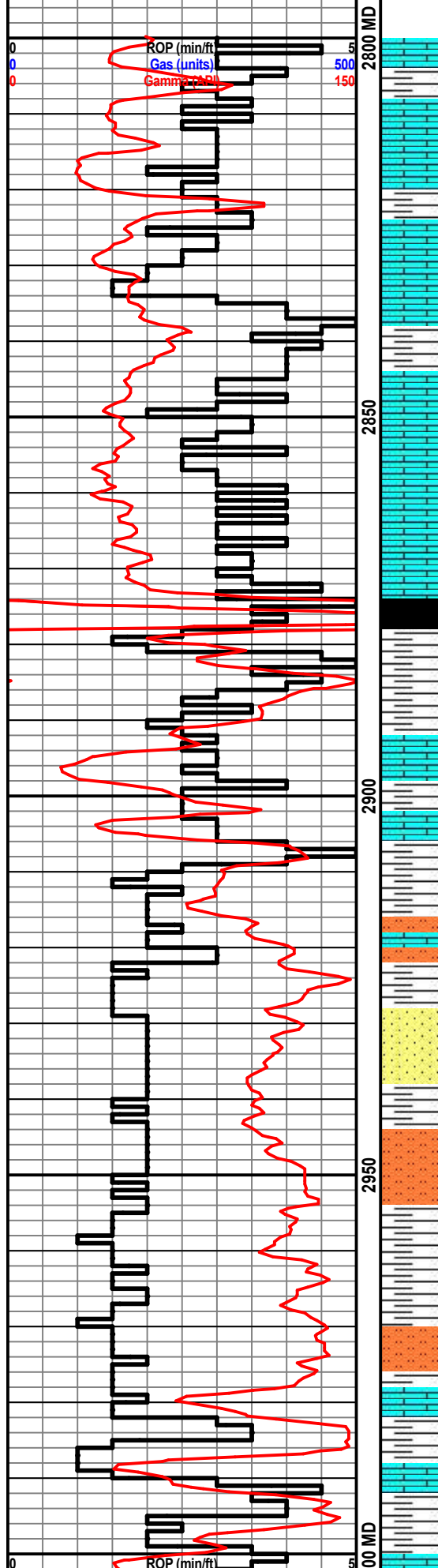
ROCK TYPES

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

OTHER SYMBOLS

POROSITY	<input checked="" type="checkbox"/> Vuggy	ROUNDING	<input type="checkbox"/> Spotted
<input type="checkbox"/> Earthy	SORTING	<input type="checkbox"/> Rounded	<input type="checkbox"/> Ques
<input type="checkbox"/> Fenest		<input type="checkbox"/> Subrnd	<input type="checkbox"/> Dead
<input type="checkbox"/> Fracture		<input type="checkbox"/> Subang	INTERVAL
<input type="checkbox"/> Inter		<input type="checkbox"/> Angular	
<input type="checkbox"/> Moldic	<input type="checkbox"/> Well	<input type="checkbox"/> Even	<input type="checkbox"/> Dst
<input type="checkbox"/> Organic	<input type="checkbox"/> Moderate		
<input type="checkbox"/> Pinpoint	<input type="checkbox"/> Poor		

Curve Track 1	MD	Lithology	Geological Descriptions	DST/Mud/Survey																											
ROP (min/ft) —— Gas (units) - - - - Gamma (API) ——																															
0 ROP (min/ft) 5 0 Gas (units) 500 0 Gamma (API) 150	27		The open-hole logging was performed by Mr. Casey Patterson with Gemini Wireline, LLC (Hays, KS). Logs included: Compensated Density Neutron, Dual Induction, and Microresistivity. Formation tops and datums from the open-hole logs include the following:	Mud Engineer: Brandon Mendez																											
06/20/2022 MIRT, Spud @ 430PM																															
06/21/2022 610', drilling																															
06/22/2022 2,375', drilling																															
06/23/2022 2,930', drilling																															
06/24/2022 3,330', drilling																															
06/25/2022 3,355', complete																															
	2750		<table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>Formation</th> <th>E-Log</th> <th>Datum</th> </tr> </thead> <tbody> <tr><td>Anhydrite</td><td>615</td><td>1216</td></tr> <tr><td>Heebner</td><td>2874</td><td>-1043</td></tr> <tr><td>Toronto</td><td>2894</td><td>-1063</td></tr> <tr><td>Brown Lime</td><td>2988</td><td>-1157</td></tr> <tr><td>Lansing</td><td>3001</td><td>-1170</td></tr> <tr><td>B/KC</td><td>3266</td><td>-1435</td></tr> <tr><td>Arbuckle</td><td>3284</td><td>-1453</td></tr> <tr><td>LTD</td><td>3355</td><td>-1524</td></tr> </tbody> </table>		Formation	E-Log	Datum	Anhydrite	615	1216	Heebner	2874	-1043	Toronto	2894	-1063	Brown Lime	2988	-1157	Lansing	3001	-1170	B/KC	3266	-1435	Arbuckle	3284	-1453	LTD	3355	-1524
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Sh: lt-drk gry

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

Ls: ala

Ls: off wh-tan, fn xln, poor-fair vuggy & int xln porosity, NSFO

Ls: tan-gry, fn-sub xln, DNS, scat chert-off wh, scat sh: drk gry

Heebner 2878' (-1047)

Sh: blk, carb, fissile

Toronto 2898' (-1067)

Ls: tan-lt gry, fn xln, scat foss, poor int xln porosity, NSFO

Sh: lt gry

Ls: tan-gry, fn xln, mostly DNS, NSFO

Ss: lt gry, fn gm, slit, md, friable, scat sh: lt gry

Sh: lt gry, scat slst: gry-gm and Ss: ala

Sh: ala

Sltst: lt gry, vry fn gm

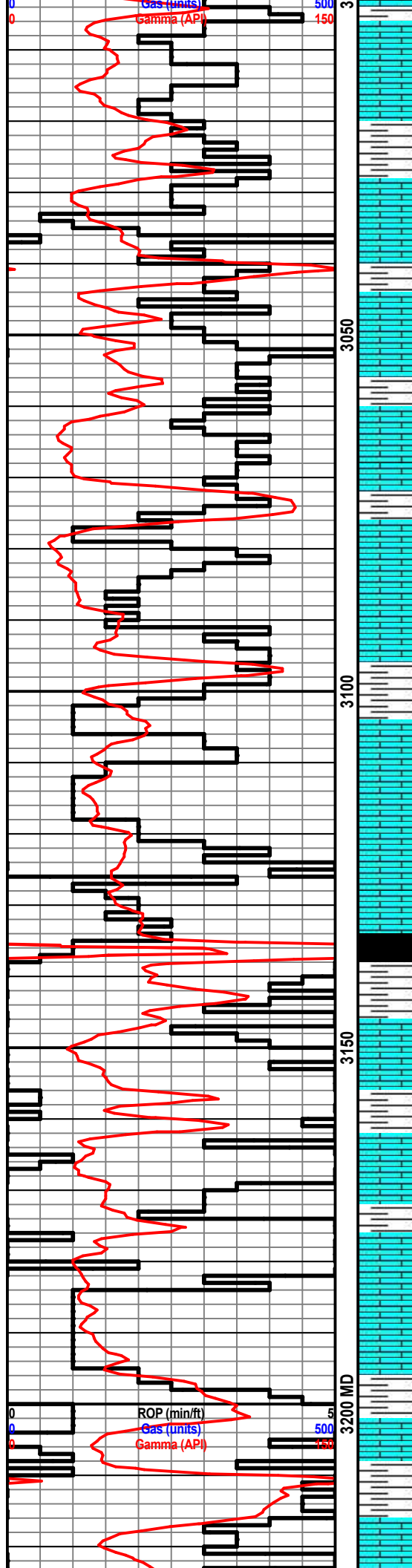
Brown Lime 2990' (-1159)

Ls: tan-gry, fn xln, poor int xln porosity, NSFO

Sh: lt gry-bm

Lansing 3005' (-1174)

Wt: 8.7
Vis: 56



Ls: off wh-tan, fn xln, poor int xln porosity, few pcs w/ fair pp vuggy porosity, fair oil sat, S-FSFO, sl odor

Ls: off wh-tan, fn xln, poor int xln porosity, NSFO, scat chalk

Sh: lt-drk gry

Ls: off wh-tan, fn xln, ool, fair-good oom porosity, sl-fair oil stn in porosity, SSFO, fair odor, scat fossil

Sh: lt-drk gry

Ls: tan-lt gry, fn-sub xln, mostly DNS, NSFO

Sh: lt-drk gry

Ls: off wh-lt gry, fn xln, poor int xln porosity, NSFO, chalky

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

Sh: drk gry

Ls: off wh-tan, fn xln, foss, ool, fair int foss & scat fair ool porosity, sl-fair oil stn in porosity, VSSFO, weak odor

Sh: lt gry

Ls: off wh-tan, fn xln, foss, fair int foss porosity, NSFO

Ls: off wh-tan, fn xln, ool, scat foss, fair-good oom porosity, sl oil stn in porosity, VSSFO, weak odor

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

Sh: drk gry-blk

Ls: tan-lt gry, fn xln, scat foss, poor int xln & int foss porosity, NSFO

Sh: lt gry

Ls: off wh-tan, fn xln, foss, scat fair int foss porosity, dead oil stn, NSFO, scat chalk

Sh: lt gry

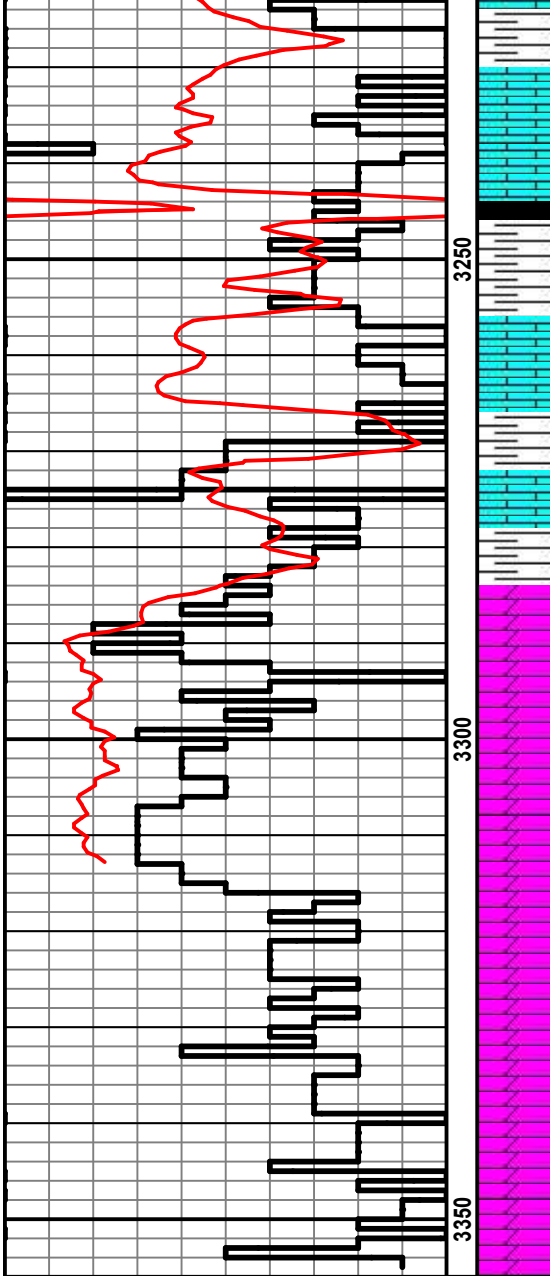
Ls: off wh-tan, fn xln, ool, good oom porosity, scat oil stn-sl sat, SSFO, weak odor, scat chalk

Sh: lt-drk gry

Ls: off wh-tan, fn xln, poor int xln porosity, NSFO, scat chert

Sh: lt gry

Ls: tan-lt gry, fn-sub xln, mostly DNS, NSFO



Sh: lt-drk gry

Ls: tan-gry, fn-sub xln, DNS, NSFO, scat chert

Ls: tan-gry, fn xln, poor int xln porosity, NSFO, scat chert

Sh: blk, carb

Ls: tan-gry, fn xln, DNS, NSFO

B/KC 3262' (-1431)

Sh: drk gry-bm

Arbuckle 3280' (-1449)

Dolo: off wh-tan, fn-md suc xln, good suc xln porosity, lt-fair bm oil stn, S-FSFO, fair odor

Dolo: off wh-tan, md suc xln, good suc xln porosity, vry lt bm oil stn, VSSFO, sl odor, scat chert

Dolo: off wh, md-crs xln, good int xln porosity, scat lt bm oil stn, VSSFO, scat chert

Dolo: off wh, md-crs xln, fair-good int xln porosity, barren, scat chert-off wh

Dolo: ala

Dolo: off wh-lt gry, md-crs xln, fair int xln porosity, barren, scat chert-off wh

Dolo: off wh-lt gry, md-crs xln, poor int xln porosity, barren, chert