KOLAR Document ID: 1470935

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 # 33936
Name: Griffin, Charles N.
Address 1: PO BOX 347
Address 2:
City: PRATT State: KS Zip: 67124 + 0347
Contact Person: Charles N. Griffin
Phone: (620) 672-9700
CONTRACTOR: License # 5142
Name: Sterling Drilling Company
Wellsite Geologist: Bruce A. Reed
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 #:

08/27/2019 Spud Date or Recompletion Date
09/01/2019 Date Reached TD
09/26/2019 Completion Date or Recompletion Date

API No.: 15-151-22498-00-00
Spot Description:
__ - NW - SW - NW Sec. 28 Twp. 29 S. R. 15 ☐ East ☑ West
1650 Feet from ☑ North / ☐ South Line of Section
330 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☑ NW ☐ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Pratt
Lease Name: CAMBRIE Well #: 2
Field Name:
Producing Formation: Mississippi
Elevation: Ground: 2000 Kelly Bushing: 2011
Total Vertical Depth: 4880 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 267 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: 0 ppm Fluid volume: 0 bbls
Dewatering method used: Evaporated
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: 10/29/2019
☐ **Confidential Release Date:** 10/28/2021
☑ **Wireline Log Received** ☐ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** Karen Ritter **Date:** 10/29/2019

Operator Name: Griffin, Charles N. Lease Name: CAMBRIE Well #: 2

Sec. 28 Twp. 29 S. R. 15 ☐ East ☑ West County: Pratt

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 *(Attach Additional Sheets)*	☐ Yes	☑ No
Samples Sent to Geological Survey	☑ Yes	☐ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☑ Yes	☐ No
Geologist Report / Mud Logs	☑ Yes	☐ No

List All E. Logs Run:
Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	Attached

CASING RECORD ☑ New ☐ 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
Surface	12.25	8.625	23	267	Common	225	2% Gel, 3% CC, 1/2# Pheno-seal
Production	7.875	5.5	15.5	4878	Pro C	200	2% Gel, 10% Salt & Koseal

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	-			
	-			

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:					
10/14/2019	☐ Flowing	☑ Pumping	☐ Gas Lift	☐ Other *(Explain)*		
Estimated Production Per 24 Hours	**Oil** Bbls.	**Gas** Mcf	**Water** Bbls.	**Gas-Oil Ratio**	**Gravity**	

DISPOSITION OF GAS:	METHOD OF COMPLETION:				PRODUCTION INTERVAL:	
					Top	Bottom
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole	☑ Perf.	☐ Dually Comp. *(Submit ACO-5)*	☐ Commingled *(Submit ACO-4)*	4614	4621

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
3	4614	4621			

TUBING RECORD:	Size:	Set At:	Packer At:
	2.875	4575	4560

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Griffin, Charles N.
Well Name	CAMBRIE 2
Doc ID	1470935

All Electric Logs Run

CNL/CDL w/ PE
Dual Inductin
Micro
Sonic

Form	ACO1 - Well Completion
Operator	Griffin, Charles N.
Well Name	CAMBRIE 2
Doc ID	1470935

Tops

Name	Top	Datum
Heebner	3932	-1921
Brown Lime	4095	-2084
Lansing	4105	-2094
Stark	4367	-2356
B/KC	4497	-2486
Pawnee	4562	-2551
Cherokee	4600	-2589
VIola	4664	-2653
Simpson	4799	-2788
Simpson Sand	4828	2817

Form	ACO1 - Well Completion
Operator	Griffin, Charles N.
Well Name	CAMBRIE 2
Doc ID	1470935

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	267	Common	225	2% Gel, 3% CC, 1/2# Pheno-seal
Production	7.875	5.5	15.5	4878	Pro C	200	2% Gel, 10% Salt & Koseal

OPERATOR

Company:	Charles N. Griffin		
Address:	PO BOX 347 Pratt, KS 67124		
Contact Geologist:			
Contact Phone Nbr:			
Well Name:	#2 Cambrie		
Location:	Section 28-29S-15W		
API:	15-151-22498		
Pool:		Field:	Croft Ext.
State:	Kansas	Country:	USA

Scale 1:240 Imperial

Well Name:	#2 Cambrie		
Surface Location:	Section 28-29S-15W		
Bottom Location:			
API:	15-151-22498		
License Number:			
Spud Date:	8/27/2019	Time:	5:15 PM
Region:	Pratt County		
Drilling Completed:	8/31/2019	Time:	3:15 AM
Surface Coordinates:	1650' FNL & 330' FWL		
Bottom Hole Coordinates:			
Ground Elevation:	2000.00ft		
K.B. Elevation:	2011.00ft		
Logged Interval:	3800.00ft	To:	4880.00ft
Total Depth:	4880.00ft		
Formation:			
Drilling Fluid Type:	Chemical (MudCo)		

SURFACE CO-ORDINATES

Well Type:	Vertical
Longitude:	
Latitude:	
N/S Co-ord:	1650' FNL
E/W Co-ord:	330' FWL

LOGGED BY

TERRATECH
ENERGY SERVICE, LLC

Company:	TerraTech Energy Service LLC.		
Address:	1632 S. West St. Suite 12 Wichita, KS 67208		
Phone Nbr:	316-617-3959		
Logged By:	Geologist	Name:	Bruce Reed

CONTRACTOR

Contractor:	Sterling Drilling		
Rig #:	4		
Rig Type:	mud rotary		
Spud Date:	8/27/2019	Time:	5:15 PM
TD Date:	8/31/2019	Time:	3:15 AM
Rig Release:	9/1/2019	Time:	9:45 PM

ELEVATIONS

K.B. Elevation:	2011.00ft	Ground Elevation:	2000.00ft
K.B. to Ground:	11.00ft		

NOTES

Surface Casing: 8-5/8" at 267'
Production Casing: 5-1/2" at 4877.5'

Daily Penetration:

08/27/19	Spud @ 5:15 PM	
08/28/19	271'	
08/29/19	1840'	
08/30/19	3580'	
08/31/19	4620'	RTD @ 3:15 PM
09/01/19	4880'	Rig released @ 9:45 PM

FORMATION TOPS

Formation	Sample Top	Datum	Log Top	Datum	Comparison*
Heebner	3929'	-1918	3932'	-1921	-17
Brown Lime	4094'	-2083	4095'	-2084	-15
Lansing	4105'	-2094	4105'	-2094	-9
Stark	4365'	-2354	4367'	-2356	-13
Base KC	4495'	-2484	4497'	-2486	-11
Pawnee	4561'	-2550	4562'	-2551	-12
Cherokee	4598'	-2587	4600'	-2589	-13
Viola	4666'	-2655	4664'	-2653	-32
Simpson	4797'	-2786	4799'	-2788	-11
Simpson Sand	4827'	-2816	4828'	-2817	-10

*Charles N. Griffin, #1 Cambrie, 2310' FNL/990' FWL, Section 28-29S-15W
Pratt County, Kansas

ROCK TYPES

Cht, Dolprim, Lmst fw7>, shale, gry, Carbon Sh, Ss

OTHER SYMBOLS

INTERVALS
Core

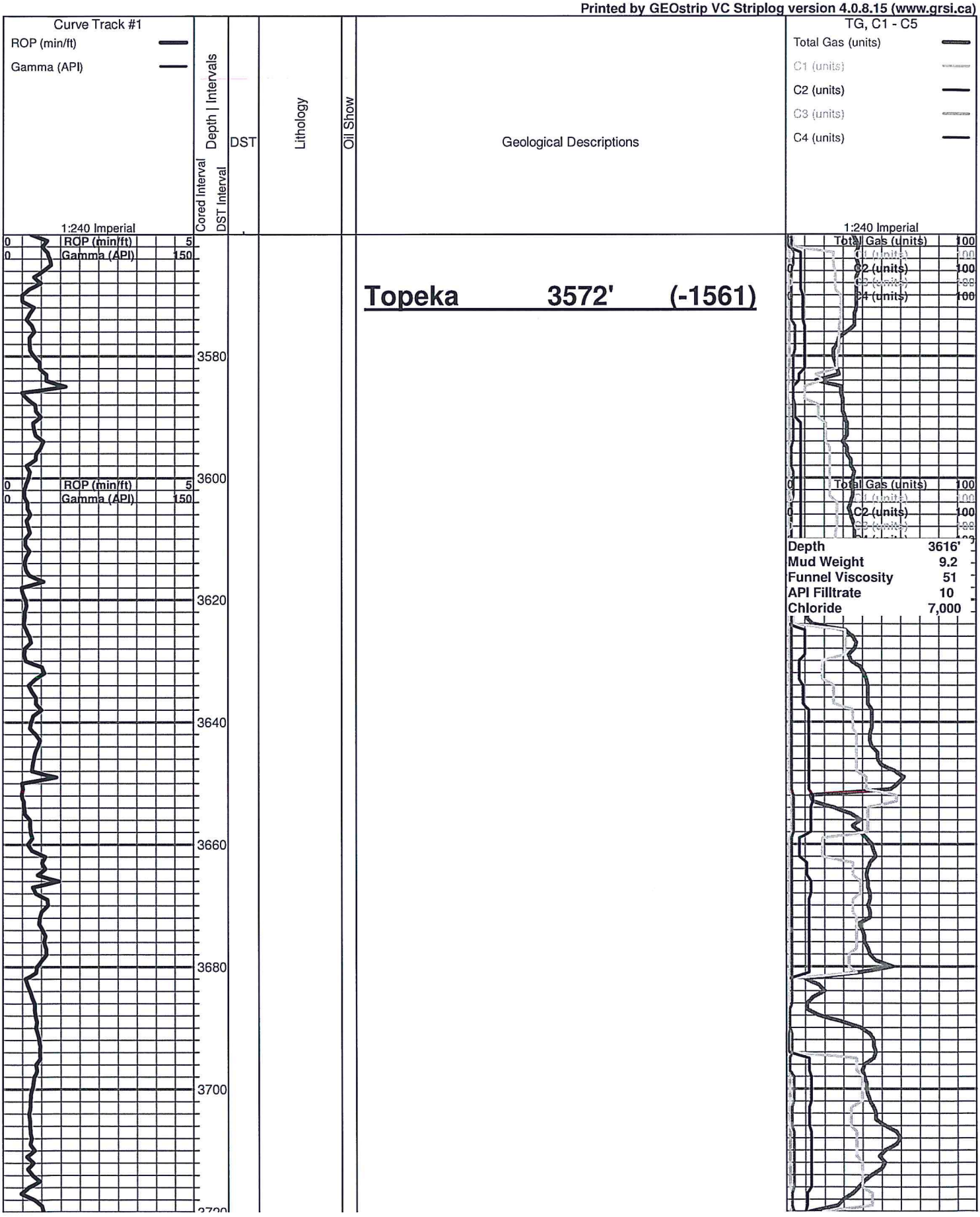
Oil Show
Good Show

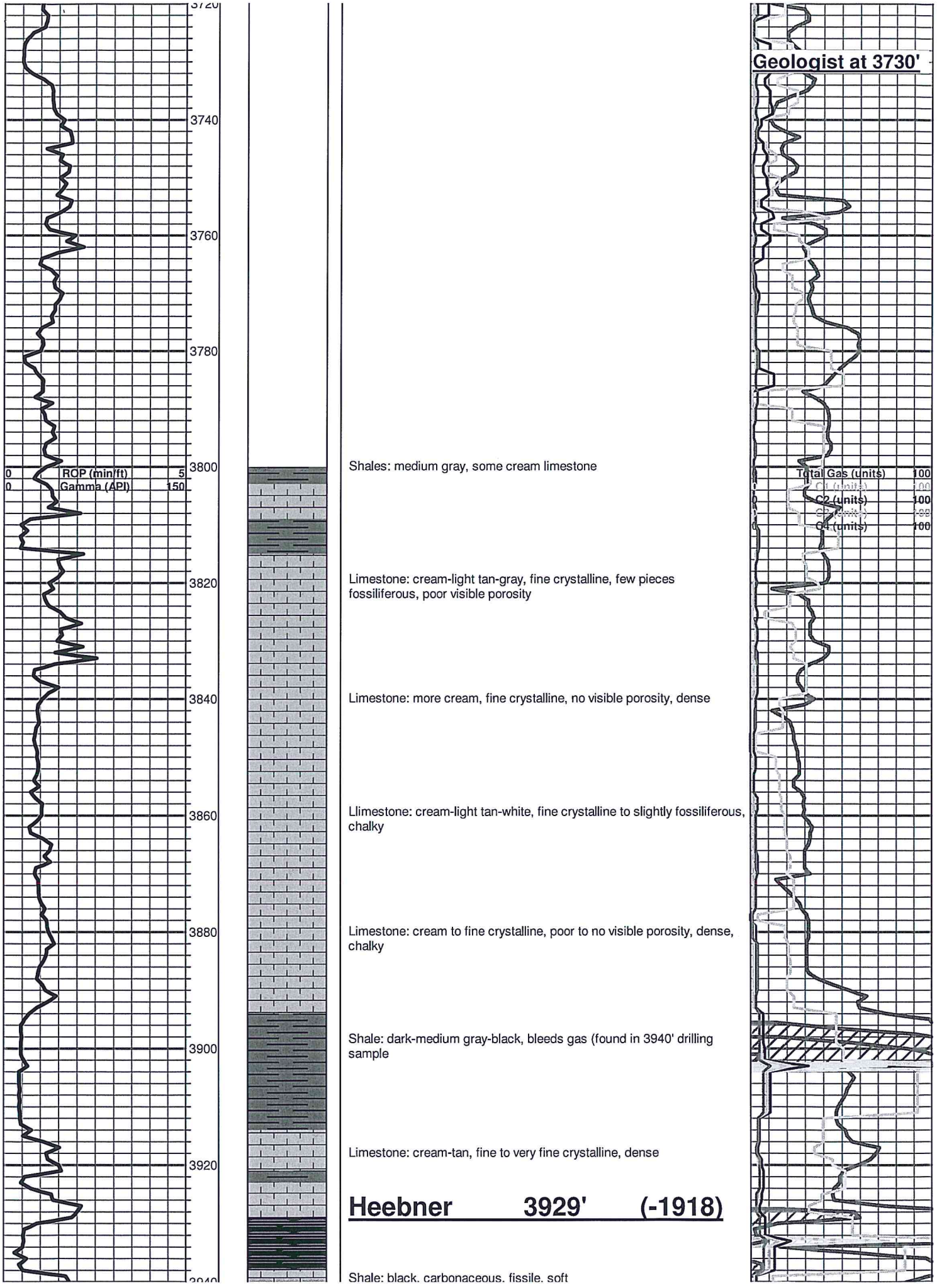
DST
DST Int

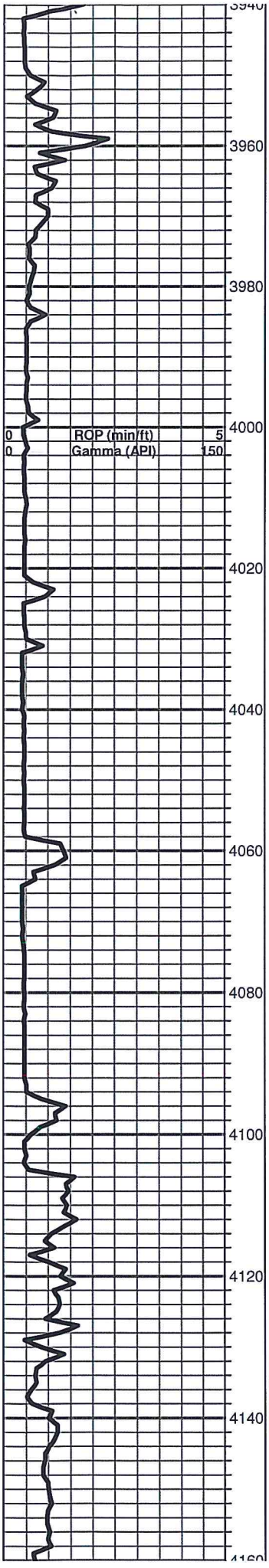
DST

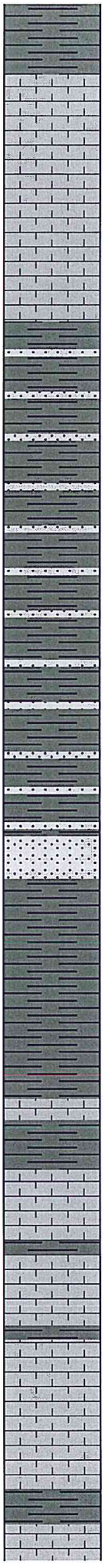
Fair Show
Poor Show
Spotted or Trace
Questionable Stn
Dead Oil Stn
Fluorescence
Gas

DST alt
Core
tail pipe




3720
3740
3760
3780
3800
3820
3840
3860
3880
3900
3920
0
ROP (min/ft)
5
0
Gamma (API)
150
Shales: medium gray, some cream limestone
Limestone: cream-light tan-gray, fine crystalline, few pieces fossiliferous, poor visible porosity
Limestone: more cream, fine crystalline, no visible porosity, dense
Llimestone: cream-light tan-white, fine crystalline to slightly fossiliferous, chalky
Limestone: cream to fine crystalline, poor to no visible porosity, dense, chalky
Shale: dark-medium gray-black, bleeds gas (found in 3940' drilling sample
Limestone: cream-tan, fine to very fine crystalline, dense
Heebner 3929' (-1918)
Shale: black, carbonaceous, fissile, soft
Geologist at 3730'
Total Gas (units)
100
C2 (units)
100
C4 (units)
100





Limestone: cream-white, fine crystalline, poor visible porosity, chalky

Limestone: as above, increase in chalky material, no shows

Shale: light to medium gray, slightly sandy

Shale: gray with cream-light gray, very fine grained sandstone

Shale and sandstone: as above

Sandstone: gray, fine grained, micaeceous

Shale: light-medium gray, slightly sandy

Brown Lime 4094' (-2083)

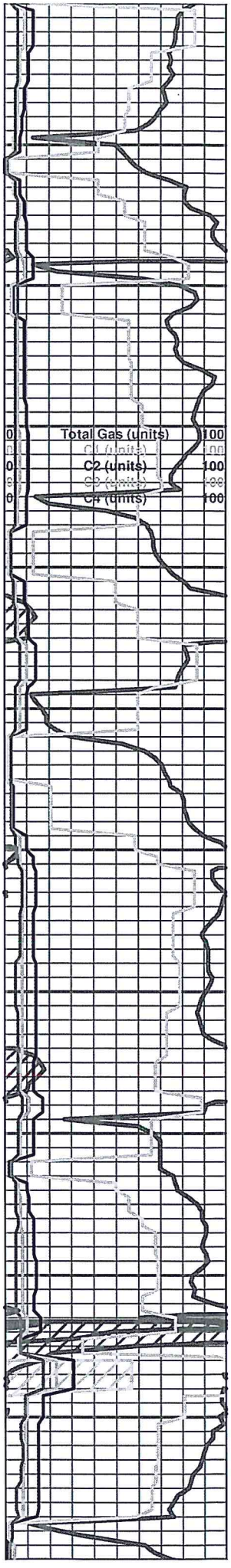
Limestone: cream-tan-brown, fine crystalline, dense

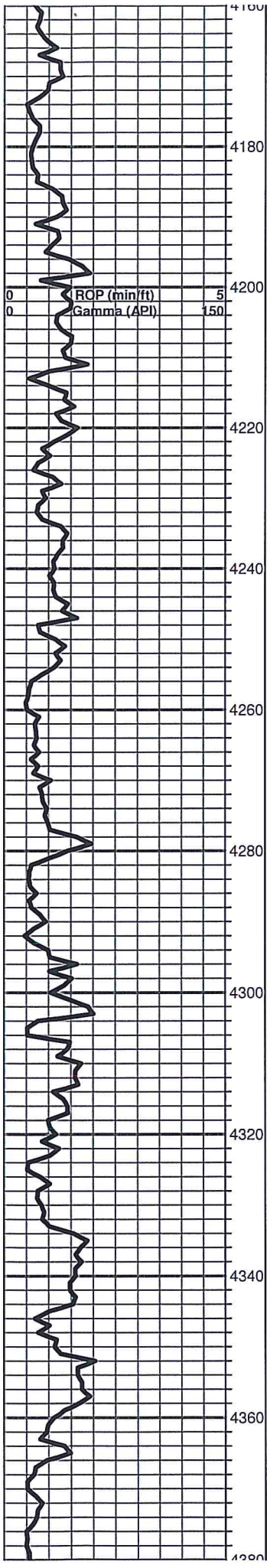
Lansing 4105' (-2094)

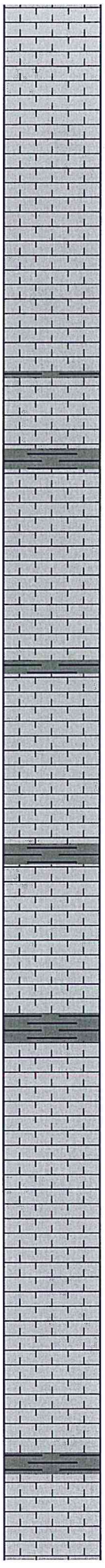
Limestone: cream, fine crystalline to slightly fossiliferous, poor visible porosity, trace chalky, sub shaley

Limestone: cream-white-brown, mostly fine crytstalline, trace fossiliferous, some visible porosity, trace gas bubble, no odor

Limestone: cream-white-light tan, fine crystalline to fossiliferous, chalky







Limestone: cream-light tan, fine crystalline, scattered oolitic pieces, no shows

Limestone: cream-white, fine crystalline, dense

Limestone: cream-brown, fine crystalline, poor to no visible porosity, dense

Limestone: cream-red-brown, few pieces appear granular, mostly tite, no shows

Limestone: cream-light tan, fine crystalline to fossiliferous, some visible porosity, trace chalky

Limestone: as above, some soft chalky material

Limestone: light tan-cream-white, fine to slight medium crystalline, chalky

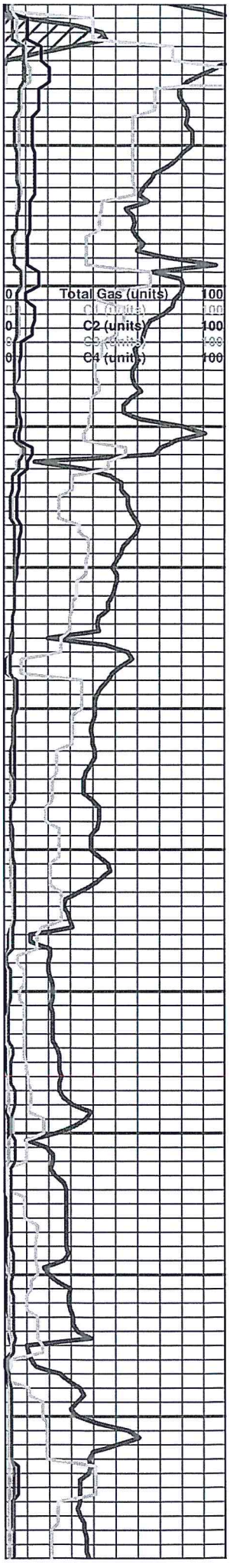
Limestone: cream-white, chalky

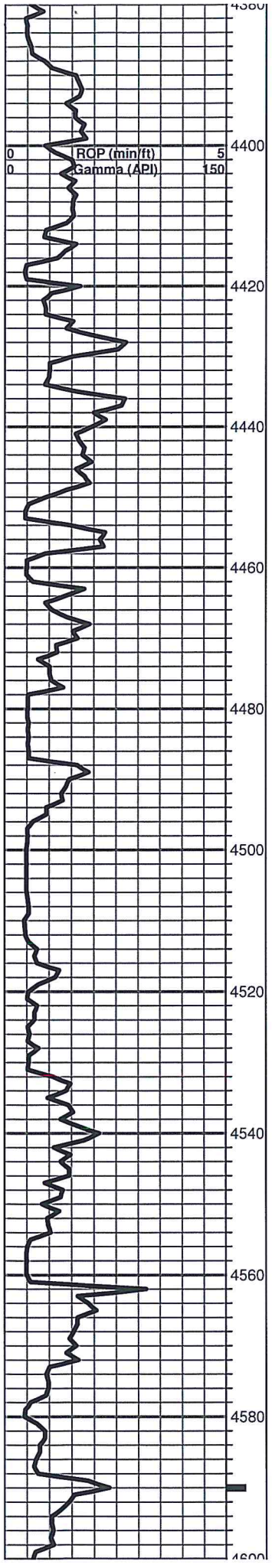
Limestone: cream-light tan, fine to very fine crystalline, dense

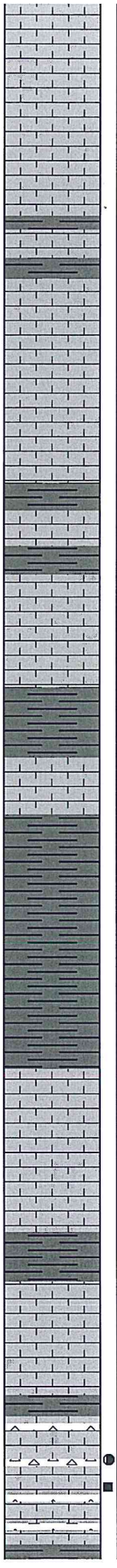
Limestone: as above, dense

Stark 4365' (-2354)

Limestone: cream-white-light tan, fine crystalline to slightly fossiliferous,







trace dark gray-black shale, no shows

Limestone: cream-white-light tan, fine crystalline, poor visible porosity

Shales: dark-medium gray

Limestone: light tan, very fine crystalline, no visible porosity, dense

Shales: gray with cream-light tan limestone, dense

Shale: dark-medium gray, soft

B/KC 4495' (-2484)

Shale: flood dark-medium gray-green

Shales: as above with trace tan, dense limestone

Limestone: light tan-cream-gray, fine crystalline, very slightly fossiliferous, no visible porosity, samples carry lots gray-brown, silty shale

Shale: dark-medium gray, soft

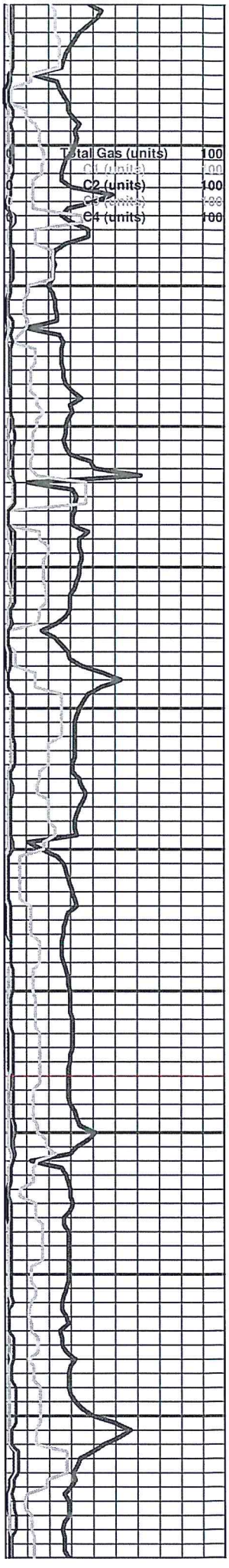
Pawnee 4561' (-2550)

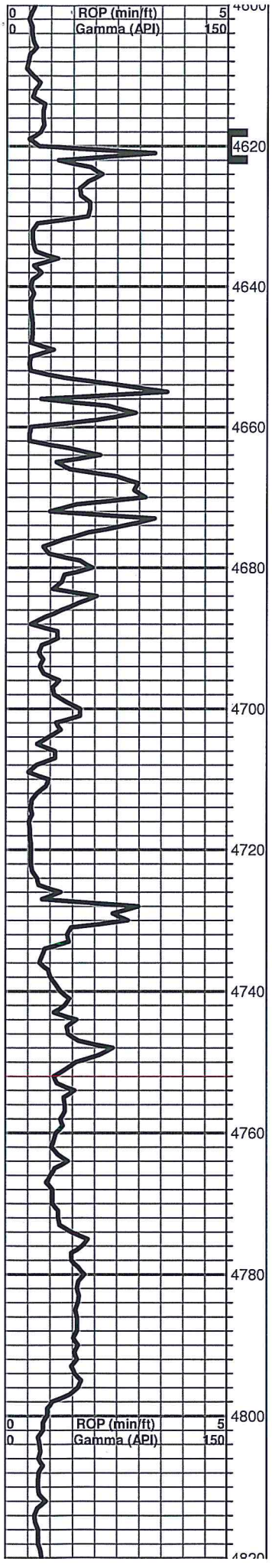
Limestone: cream-white-light tan, fine to very fine crystalline, dense, some dark gray-black shale

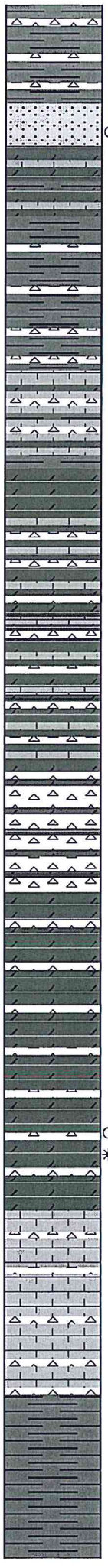
Circulated at 4590' Limestone: cream-light tan, fine to slightly medium crystalline, 3 pieces limestone with show free oil when broken, no odor, dull fluorescence

Cherokee 4598' (-2587)

Shale: gray-green-black, some cream-light tan dolomitic limestone, fine







Shale: gray-green-black, some cream-light tan dolomitic limestone, fine crystalline, poor to fair visible porosity, some cream-white vitreous chert, semi-transluscent, few weathered pieces, black stain

Circulated at 4620' Sandstone: white, fine grained, sub rounded, moderatley friable, no odor in fresh, questionable light scum (film) when broken

Circulated at 4640' Flood gray-green-rust red shale, few pieces white, vitreous chert, few weathered pieces, black shale, some cream-light tan dolomitic limestone, appears granular, no shows

Shaley, cherty, dolomitic limestone: cream-tan, poor to no visible porosity, looks tite, some cream vitreous chert, samples washed red, no odor or shows

Viola 4666' (-2655)

Dolomitic limestone: cream-light tan, fine crystalline, sub sucrosic, poor visible porosity, trace white, vitreous chert, some chalky white material, no shows

Dolomite: cream-white-pale green, fine crystalline, finely sucrosic, scattered white chalky material, some cream-white, vitreous chert, questionable odor, light film, no fluorescence

Dolomite: cream-white, trace pale green limestone, chalky material, lots of white chert, no shows

Cherty dolomite: cream-light tan, sucrosic, fair visible porosity, abundant cream-white chert, few pieces fossiliferous, black stain, very faint odor, no shows

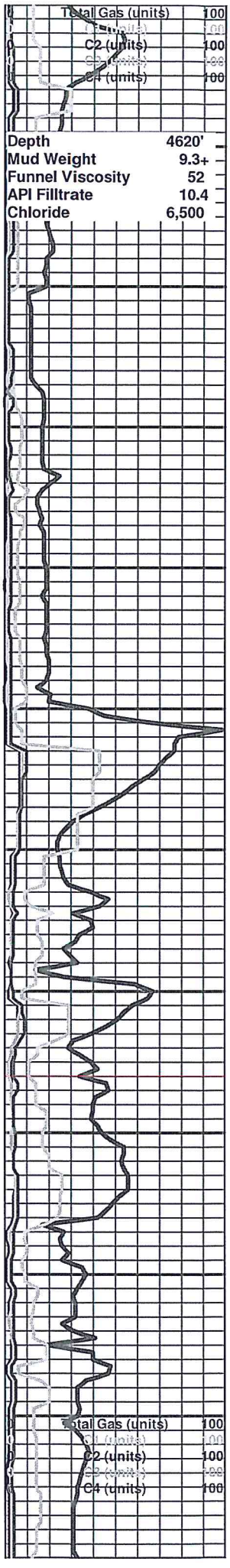
Cherty dolomite: as above, chalky material, light film, trace gas bubble, no odor

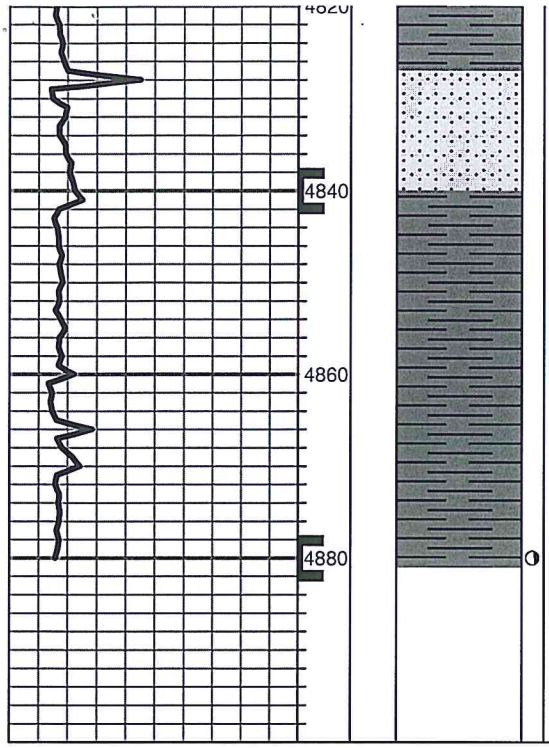
Chert: white-off white, sharp and blocky, few pieces finely sandy dolomite, no odor, no shows, trace cream-tan, fine crystalline limestone, dense

Simpson 4797' (-2786)

Shale: pale green, turquoise blue, minor amount sandstone, fine grained, poorly friable, trace black tarry oil, no odor

Shales: as above





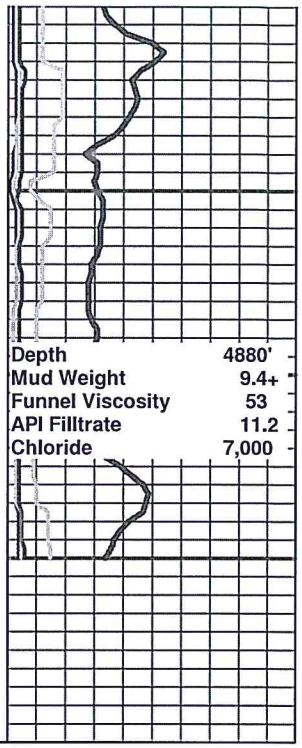
Shales: as above

Simpson Sand 4827' (-2816)

Circulated at 4840' Sandstone: brown-white, fine grained, sub rounded, poorly friable, tite, no odor or show free oil

Shales: Simpson type

Circulated at 4880' Shale: Simpson type, note: samples carry lots of sandstone, brown, fine grained and friable, odor when broken, small pinhead droplets of free oil



Depth	4880'
Mud Weight	9.4+
Funnel Viscosity	53
API Filltrate	11.2
Chloride	7,000

QUALITY WELL SERVICE, INC.

7214

Federal Tax I.D. # 481187368
Home Office 30060 N. Hwy 281, Pratt, KS 67124
Mailing Address P.O. Box 468

Office 620-727-3410 **Rich's Cell 620-727-3409**
Fax 620-672-3663 **Brady's Cell 620-727-6964**

Date	Sec.	Twp.	Range	County	State	On Location	Finish
9-1-19	28	29S	15W	PRATT	KS		

Lease Cambell Well No. #2 Location Kraft, KS S to 100th Rd 1 E to 130th Rd

Contractor Sterling Drlg Rig #4 Owner 1/4 S E, N into

Type Job 5½ LS

To Quality Well Service, Inc.
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 7⅞	T.D. 4880
Csg. 5½ 15.5#	Depth 4887
Tbg. Size	Depth
Tool	Depth
Cement Left in Csg.	Shoe Joint 21.19
Meas Line	Displace

Charge To Griffin

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 200sx Pro C 2% Gel 10% SALT 5#/sx Kolseal .6% C-16A ¼# FS .25% C-41P

EQUIPMENT

Pumptrk 8	No.		
Bulktrk 10	No.		
Bulktrk	No.		
Pickup	No.		

JOB SERVICES & REMARKS

Rat Hole 30 sx

Mouse Hole 20 sx

Centralizers 1-3-5-7-9-11

Baskets

D/V or Port Collar

Ran 122 jts 5½ 15.5# CSG SET @ 4877

START CSG CSG on Bottom & TAG Hook up to CSG BREAK Circ W/RIG DROP BALL = Circ W/RIG

START Pumping 6 BBLS H2O 12 BBLS MF 6 BBLS H2O

START MIX & Pump 50sx Plug 2-M Hoke

START MIX & Pump 150 sx @ CSG @ 14.8#/gal

SHUT DOWN WASH UP TRK & RELEASE 5½ LD PLUG

START DISP W/ 2% KCL

Lift PSI 98.7 out 700#

PLUG DOWN 115.5 out 1100#

PSI UP on CSG 1600#

RELEASE & HELD ½ BBL BACK

Good Circ thru JOB

Thank You

PLEASE CALL AGAIN TOM TJ JAKE

Common	200 sx
Poz. Mix	
Gel.	376#
Calcium	
Hulls	
Salt	1101#
Flowseal	50#
Kol-Seal	1000#
Mud CLR 48	500 gal
CFL-117 or CD110 CAF 38	C-16A 112.8#
Sand	CC-1 1 Gal C41P 47#
Handling	246
Mileage	25/6150

5½ **FLOAT EQUIPMENT**

Guide Shoe	HEAD & MAN. fold 1 EA
Centralizer	6 EA
Baskets	
AFU Inserts	
Float Shoe	1 EA
Latch Down	1 EA
SERVICE SUP.	1 EA
LMV	25
Pumptrk Charge	LS
Mileage	50
Tax	
Discount	
Total Charge	

X Signature

Taylor Printing, Inc.

QUALITY WELL SERVICE, INC.

7210

Federal Tax I.D. # 481187368
Home Office 30060 N. Hwy 281, Pratt, KS 67124
Mailing Address P.O. Box 468
Office 620-727-3410 **Rich's Cell 620-727-3409**
Fax 620-672-3663 **Brady's Cell 620-727-6964**

	Sec.	Twp.	Range	County	State	On Location	Finish
Date 8-27-19	28	29S	15W	PRATT	KS		

Lease Combrie Well No. #2 Location KROFT KS S to 103rd Rd 1 E to 130th Rd

Contractor Sterling Drlg Rig #4 Owner 1/4 S E 1 N into

Type Job Surface

To Quality Well Service, Inc.
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	12 1/4	T.D.	271'
Csg.	8 5/8 23#	Depth	267'
Tbg. Size		Depth	
Tool		Depth	
Cement Left in Csg.	20	Shoe Joint	20
Meas Line		Displace	15.8

Charge To Griffin

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 225 sx Common 2% Gel 3% CC 1/2# PS

EQUIPMENT

Pumptrk 8	No.	
Bulktrk 11	No.	
Bulktrk	No.	
Pickup	No.	

JOB SERVICES & REMARKS

Run 6 Jts 8 5/8 23# CSG SET @
START CSG CSG ON Bottom Hook up to
CSG Break Circ W/ Rig
START Pumping 5 Bbls H2O
START Mix & Pump 225 sx Common
2% Gel 3% CC 1/2# PS @ 14.8#/Gal
SHUT DOWN RELEASE 8 5/8 Wooden Plug
START DISP
PLUG DOWN 15.8 Bbls
Close Valve on CSG 150#
Good Circ Thru Job
CIRC CMT TO Pit

Thank You
Please Call Again
Todd To Jaye

X Signature

Common	225 sx
Poz. Mix	
Gel.	423#
Calcium	635#
Hulls	
Salt	
Flowseal	112.5#
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	242
Mileage	25 / 6050

FLOAT EQUIPMENT

8 5/8	
~~Guide Shoe~~	HEAD & MANIFOLD
~~Centralizer~~	Wooden Plug 8 5/8
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Service Sup	1 EA
LMV	25
Pumptrk Charge	Surface
Mileage	50
Tax	
Discount	
Total Charge	