

**OPERATOR**

Company:  
Address:

Charles N. Griffin  
PO Box 347  
Pratt, KS 67124

Contact Geologist:  
Contact Phone Nbr:  
Well Name:  
Location:  
Pool:  
State:

#4 Addie  
Section 28-29S-15W  
Kansas

API: 15-151-22489  
Field: Croft  
Country: USA

Scale 1:240 Imperial

Well Name:  
Surface Location:  
Bottom Location:  
API:  
License Number:  
Spud Date:  
Region:  
Drilling Completed:  
Surface Coordinates:  
Bottom Hole Coordinates:  
Ground Elevation:  
K.B. Elevation:  
Logged Interval:  
Total Depth:  
Formation:  
Drilling Fluid Type:

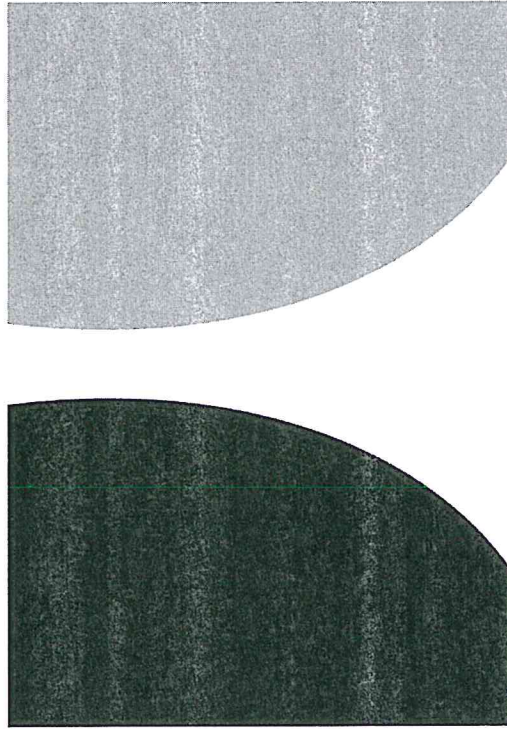
#4 Addie  
Section 28-29S-15W  
15-151-22489  
4/26/2019  
Pratt County  
5/2/2019  
530' FSL & 330' FWL  
2003.00ft  
2014.00ft  
3800.00ft  
5100.00ft  
Chemical (MurdCo)

Time: 7:15 PM  
Time: 7:30 PM  
To: 5100.00ft

**SURFACE CO-ORDINATES**

Well Type: Vertical  
Longitude: 530' FSL  
N/S Co-ord: 330' FWL  
E/W Co-ord: Latitude:

**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: WW Drilling  
Rig #: 14  
Rig Type: mud rotary  
Spud Date: 4/26/2019  
TD Date: 5/2/2019  
Rig Release: 5/3/2019  
Time: 7:15 PM  
Time: 7:30 PM  
Time: 4:15 PM

**ELEVATIONS**

K.B. Elevation: 2014.00ft  
K.B. to Ground: 11.00ft  
Ground Elevation: 2003.00ft

**NOTES**

Surface Casing: 8-5/8" at 267'  
Production Casing: 5-1/2" at 4966'

Daily Penetration:  
04/26/19 Spud @ 7:15 PM  
04/27/19 267'  
04/28/19 2645'

04/29/19	4026'
04/30/19	4471'
05/01/19	4825'
05/02/19	4825' RTD @ 7:30 PM
05/03/19	5100' Rig released @ 4:15 PM

DRILL STEM TEST

DST #1 4674'-4716'. Viola Straddle. Weak blow that built throughout the first flow period. Weak blow throughout second flow period. Recovered: 60' mud  
 IFP/30" 25-43 psi, ISIP/45" 419 psi, FFP/45" 44-53 psi. FSIP/60" 253 psi

FORMATION TOPS

Formation	Sample Top	Datum	Log Top	Datum	Comparison*
Heebner	3924'	-1910	3930'	-1916	-1911
Brown Lime	4089'	-2075	4092'	-2078	-2073
Lansing	4106'	-2092	4110'	-2096	-2087
Stark	4370'	-2356	4372'	-2358	-2351
Base KC	4497'	-2483	4496'	-2482	-2475
Pawnee	4554'	-2540	4560'	-2545	-2537



**INTERVALS**

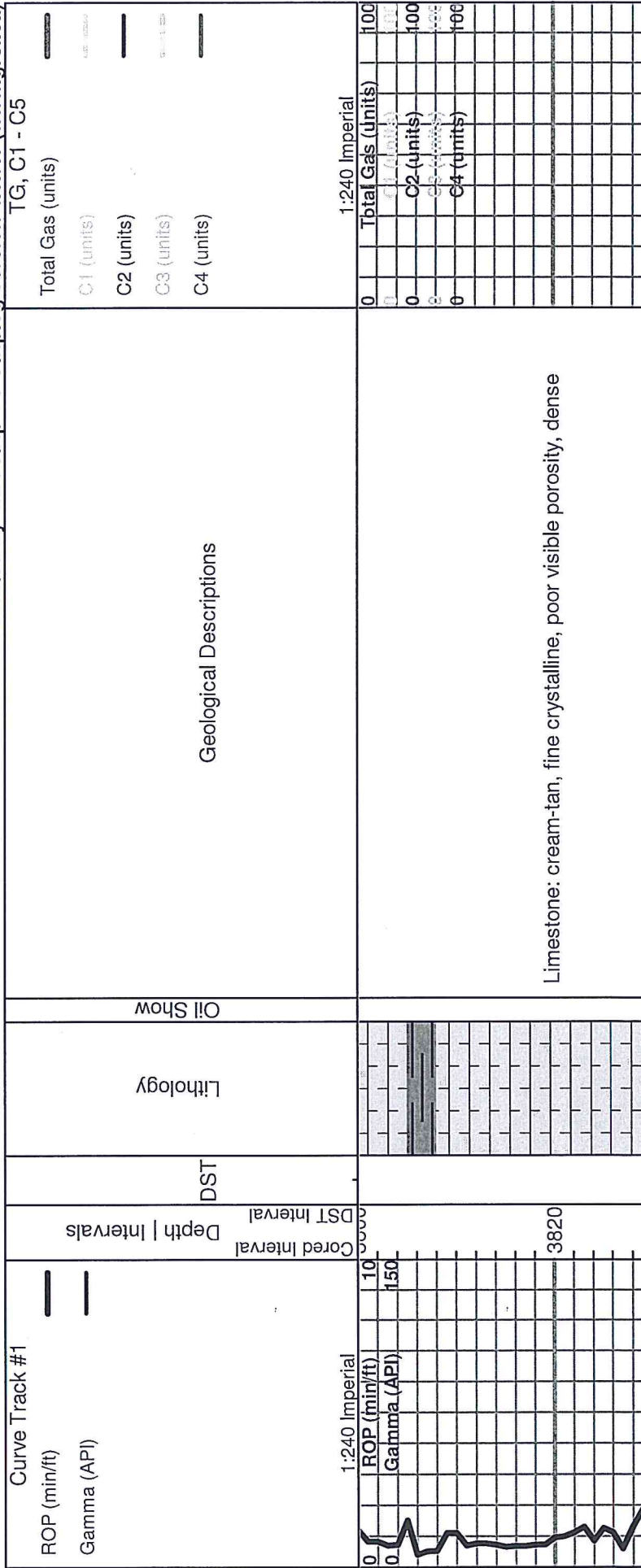
- Core
- DST

**Oil Show**

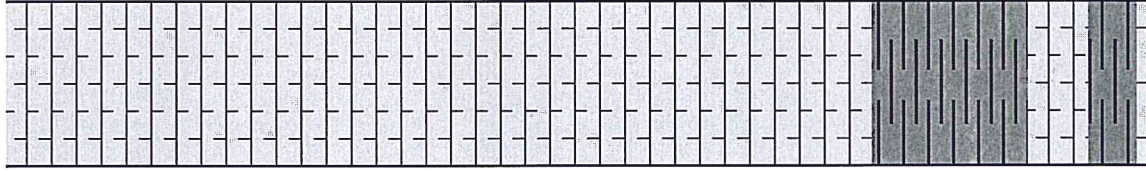
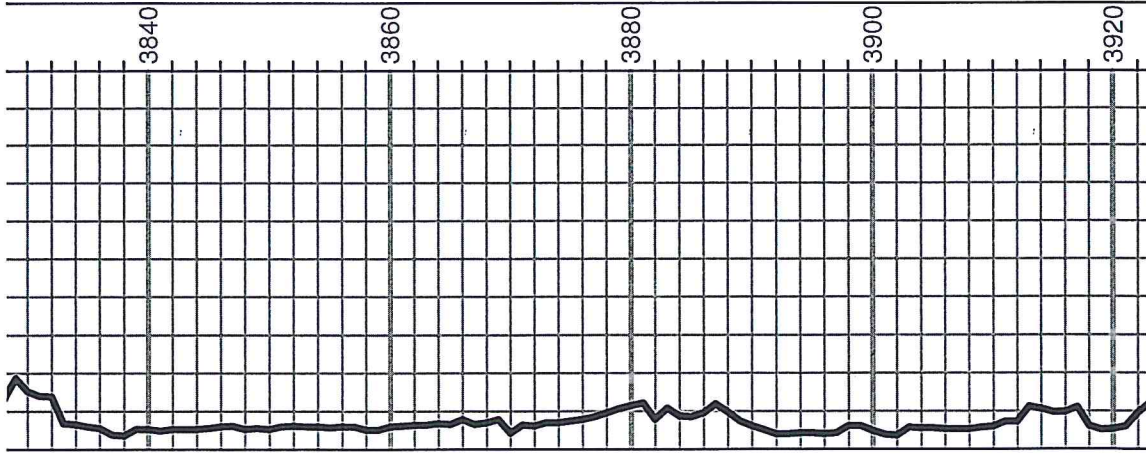
- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Stn
- D Dead Oil Stn
- Fluorescence
- \* Gas

**DST**

- DST Int
- DST alt
- Core
- || tail pipe



Limestone: cream-tan, fine crystalline, poor visible porosity, dense



Limestone: cream-light tan-gray, fine crystalline, very slightly fossiliferous, poor to fair visible porosity, no shows

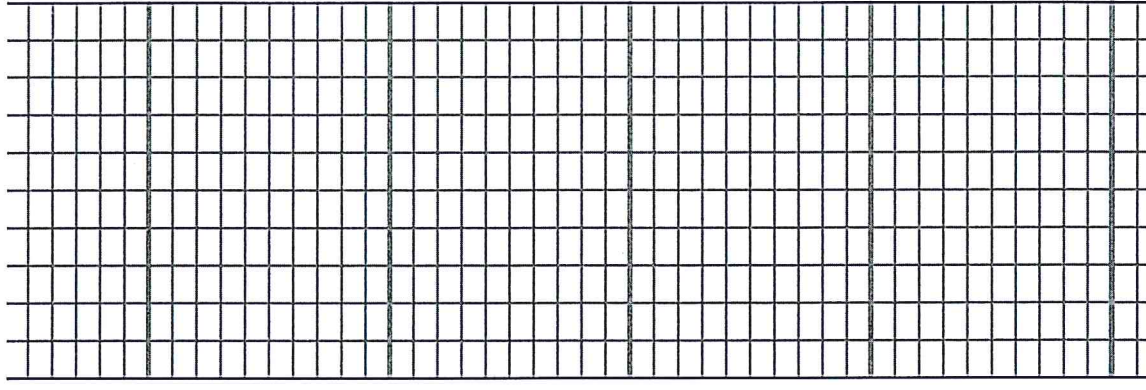
Limestone: as above

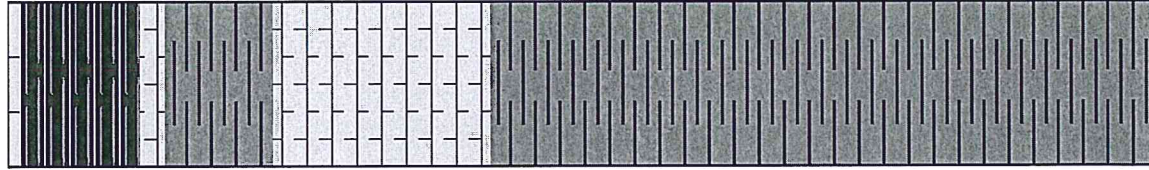
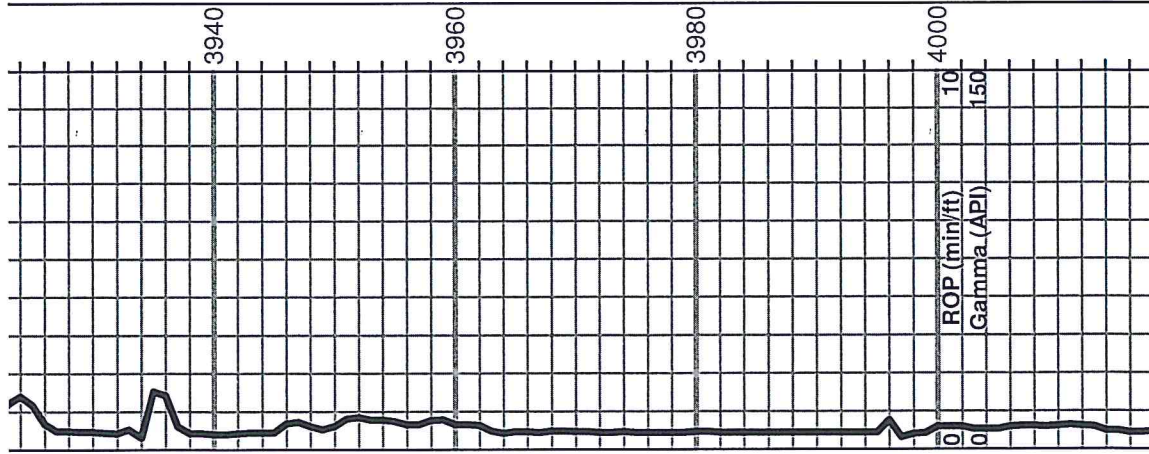
Limestone: cream-light tan, fine crystalline, dense

Limestone: as above

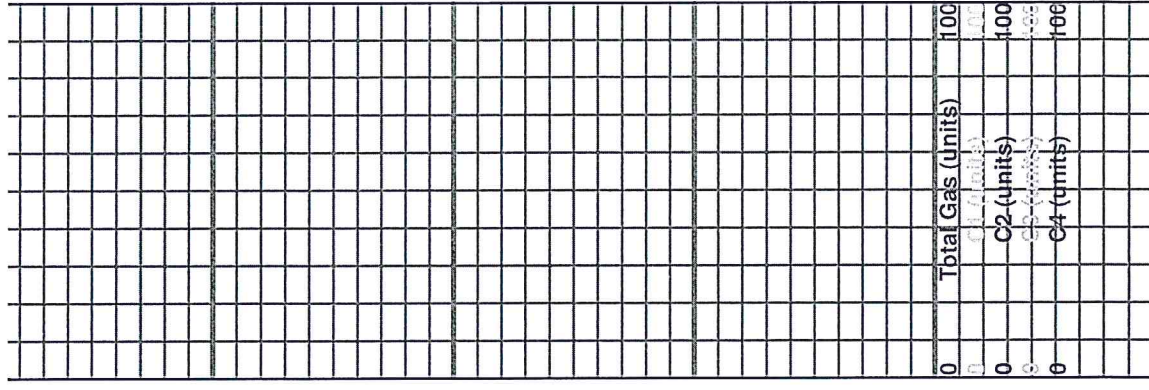
Shale: gray-green-brown with light tan, dense limestone

**Heehner 3924' (-1910)**

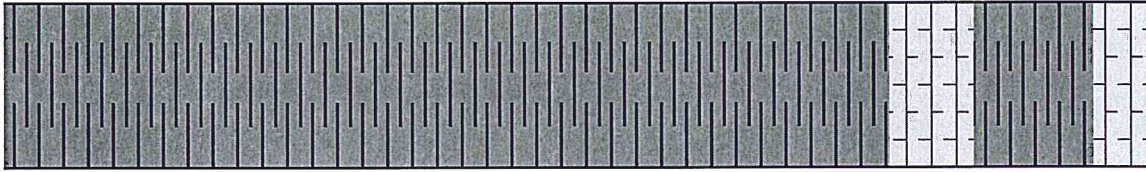
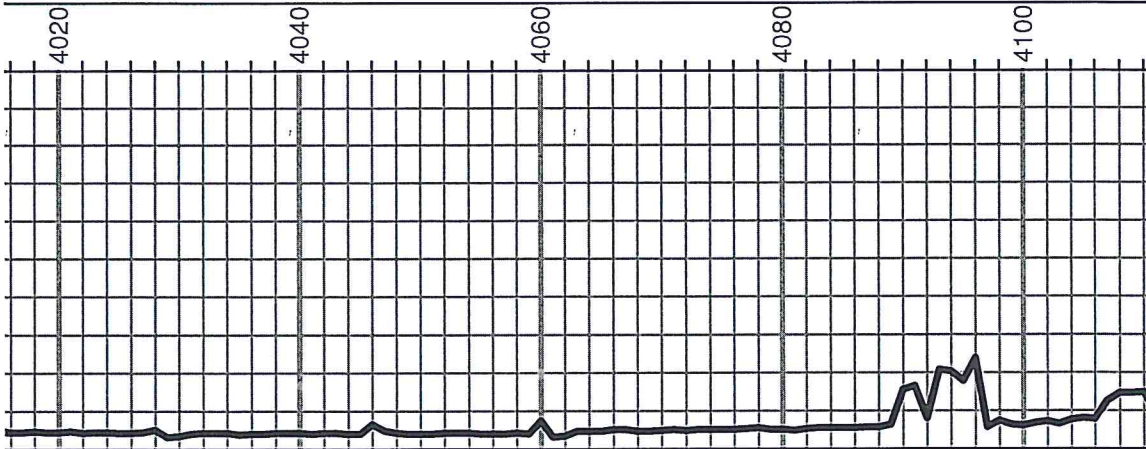




Shale: black, carbonaceous, fissile  
 Shale: gray-green  
 Limestone: cream-white, fine crystalline, poor visible porosity, chalky  
 Shale: gray-brown, silty  
 Shale: dark gray-gray, silty







Shale: as above

Shale: dark-medium gray, silty to sandy

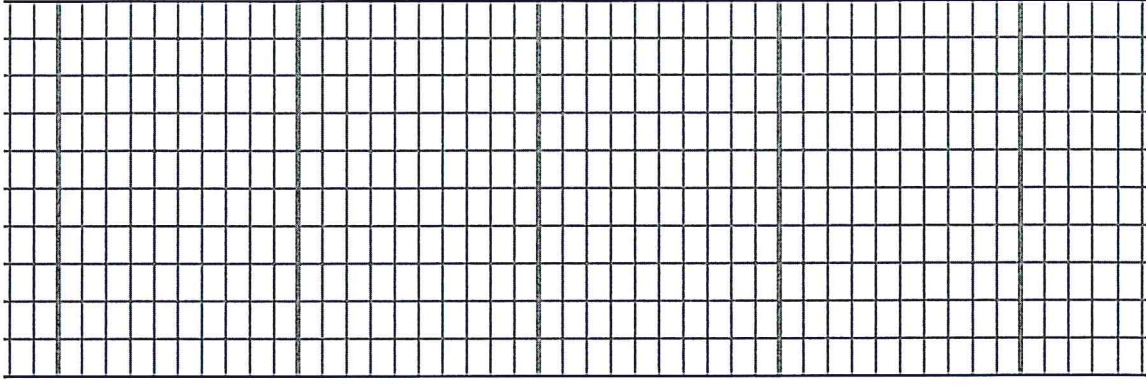
Shale: gray-medium gray, silty to sandy

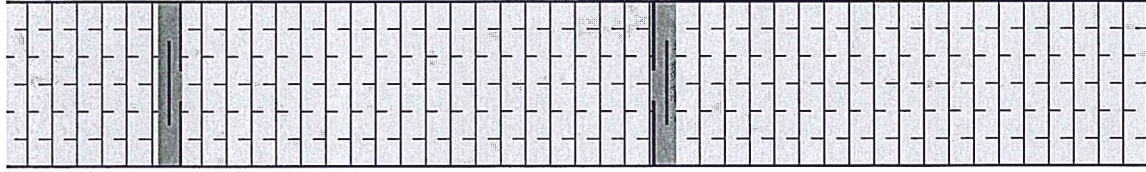
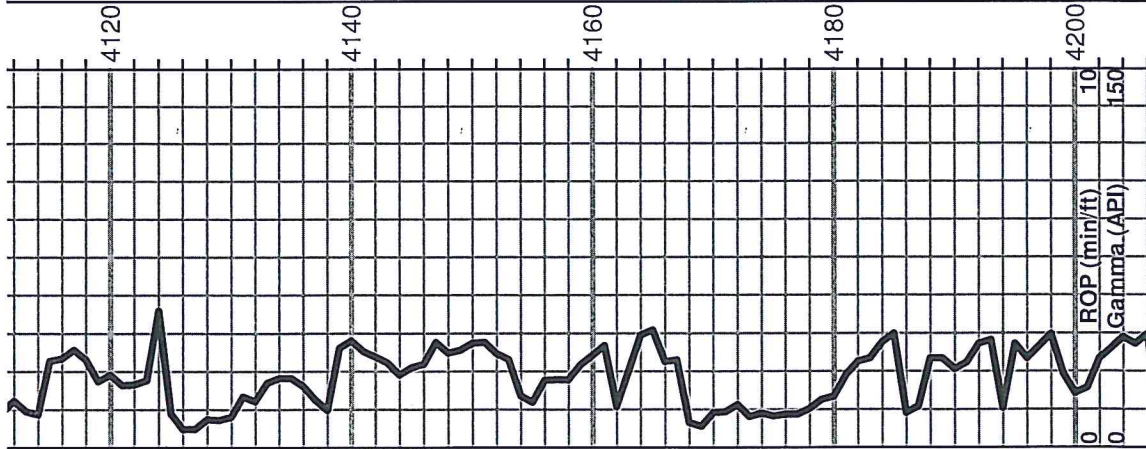
Shale: gray, silty to sandy

**Brown Lime 4089' (-2075)**

Limestone: tan-brown, fine crystalline, very dense shales, dark-medium gray

**Lansing 4106' (-2092)**





Limestone: tan-cream-white, fine crystalline, scattered visible porosity

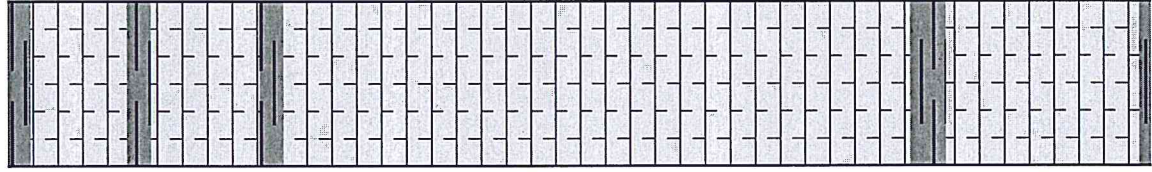
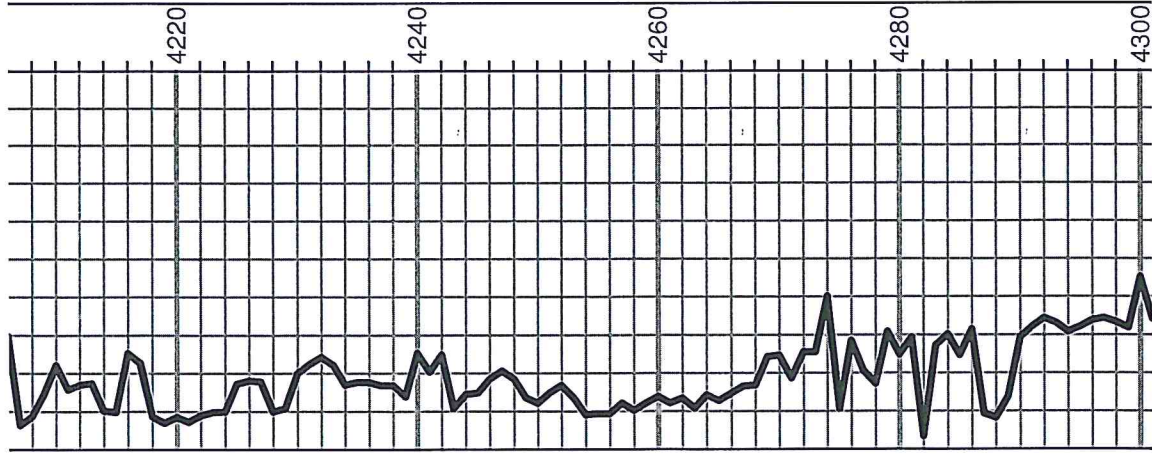
Limestone: cream-tan-light tan, fine crystalline to slightly fossiliferous, rare visible porosity, sub chalky, odor

Limestone: cream-light tan, fine crystalline, poor visible porosity, sub chalky, slight odor

Limestone: cream-white-tan, fine crystalline, poor to no visible porosity, sub chalky

Limestone: gray-tan-cream, fine crystalline to slightly fossiliferous

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100



Limestone: light brown-cream, fine crystalline, sub shaley

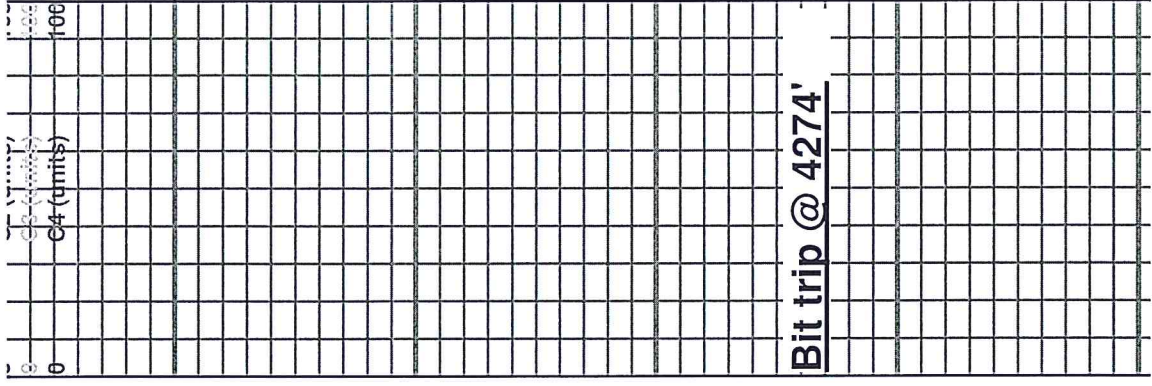
Limestone: light tan-cream-white, fine crystalline to slightly fossiliferous, poor visible porosity, sub chalky

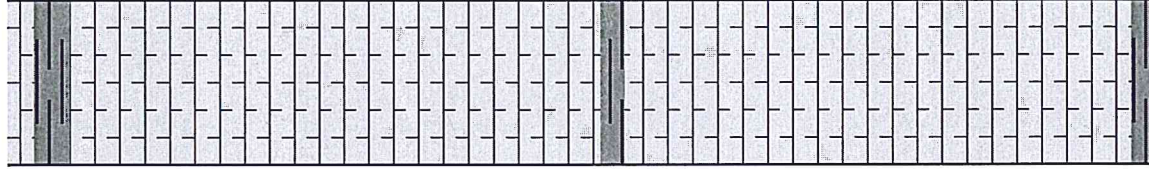
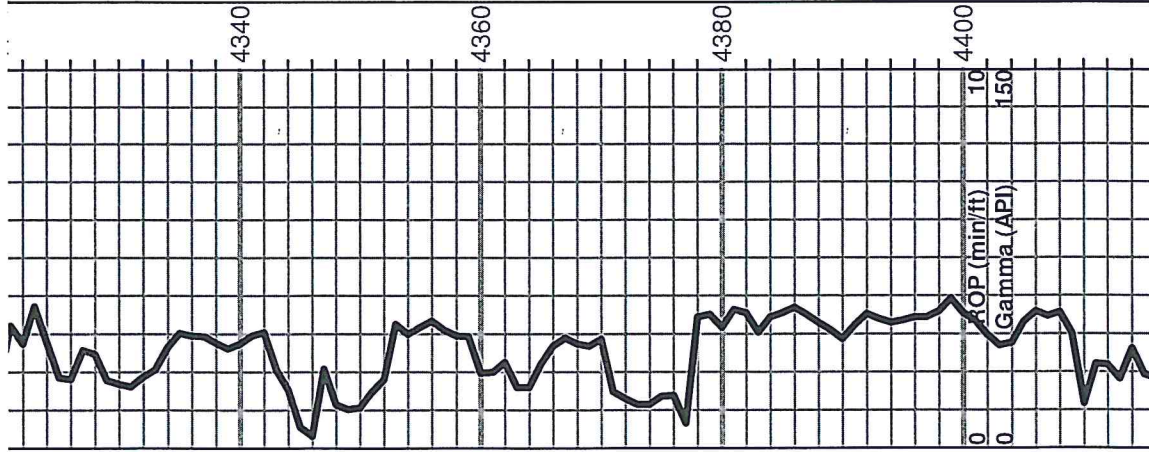
Limestone: as above

Trip cavings

Sample carries lots of shales

Limestone: light tan-cream-gray, fine crystalline, slightly fossiliferous





Limestone: cream-tan-white, dense

Limestone: cream-tan-gray, fine crystalline, slightly fossiliferous, dense

Limestone: cream-gray, dense

Limestone: as above

## **Stark 4370' (-2356)**

Shale: dark-gray

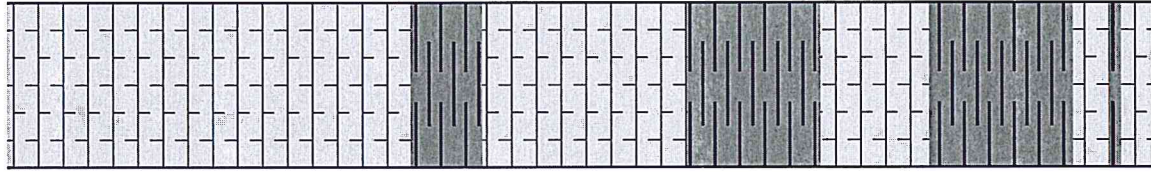
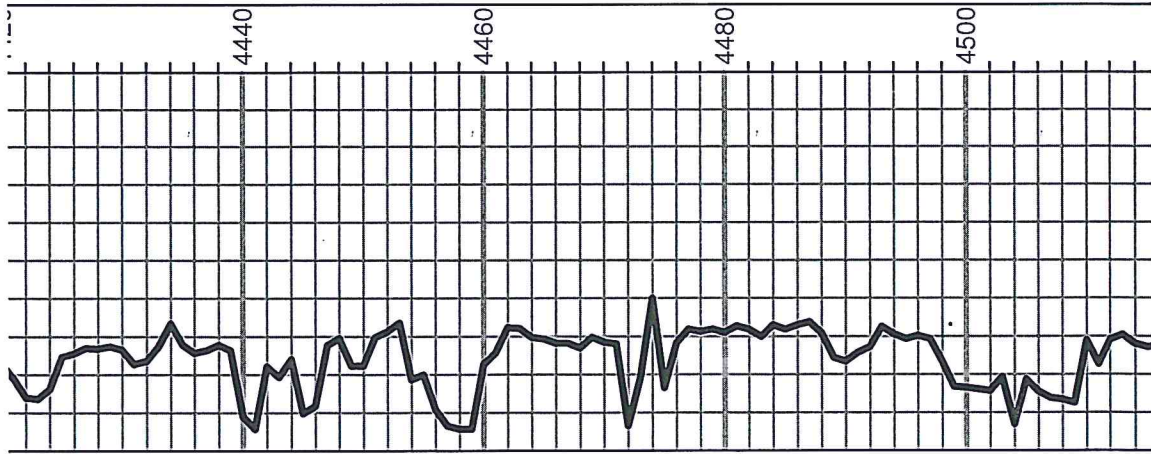
Limestone: cream-tan, fine crystalline, rare visible porosity, chalky, no shows

Limestone: tan, fine crystalline, dense, poor to no visible porosity

Limestone: cream, fine crystalline, sub chalky, dense

Limestone: as above

0	Total Gas (Units)	100
0	C1 (Units)	100
0	C2 (Units)	100
0	C3 (Units)	100
0	C4 (Units)	100



no visible porosity, dense

Limestone: cream-gray, dense

Limestone: cream-white, fine crystalline, sub chalky

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

Shale: gray-red

Limestone: cream-gray, fine crystalline

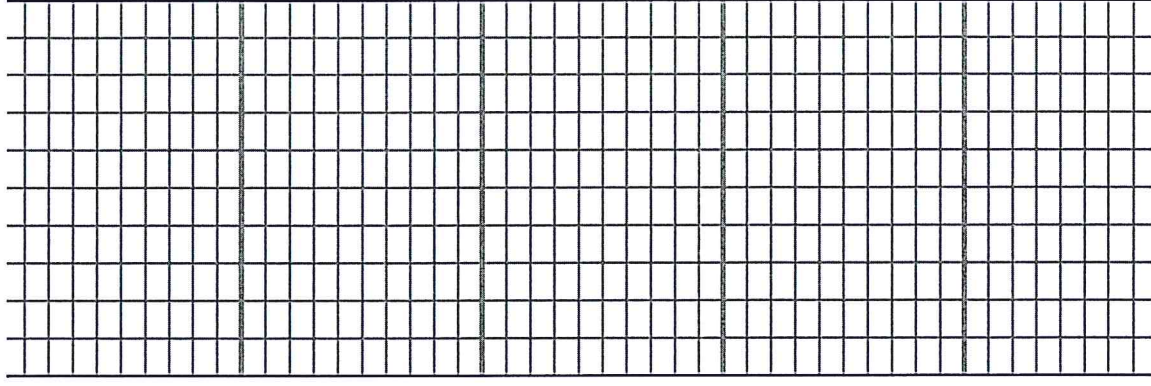
Flood shale: gray-green-red

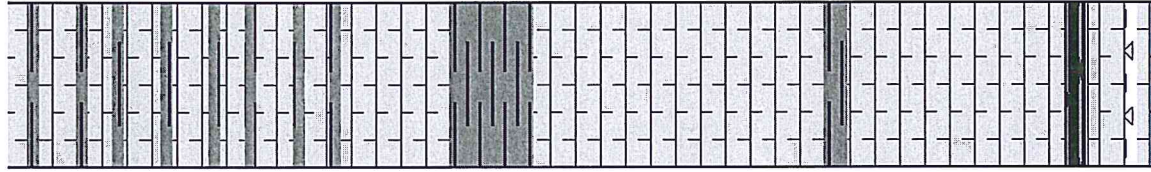
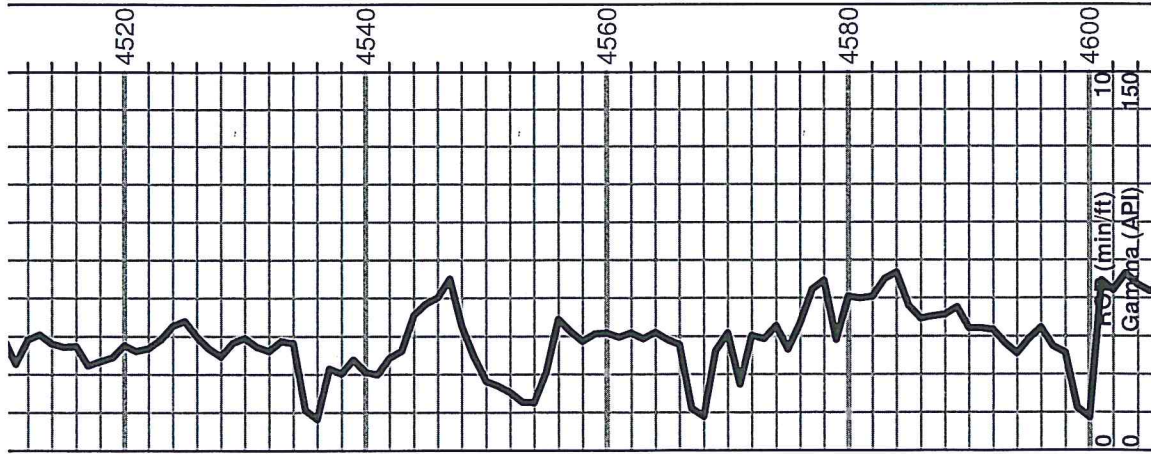
Limestone: cream-white, fine crystalline, chalky

**B/KC 4497' (-2483)**

Shale: vari-colored

Shale: as above





Limestone: cream-light tan, fine crystalline, soft, chalky, shales, gray-green-rust red

Shaley limestone: as above

Limestone: cream-gray, fine to almost micro-crystalline, dense

Shale: gray-green-soft

**Pawnee 4554' (-2540)**

Limestone: gray, fine crystalline, very dense

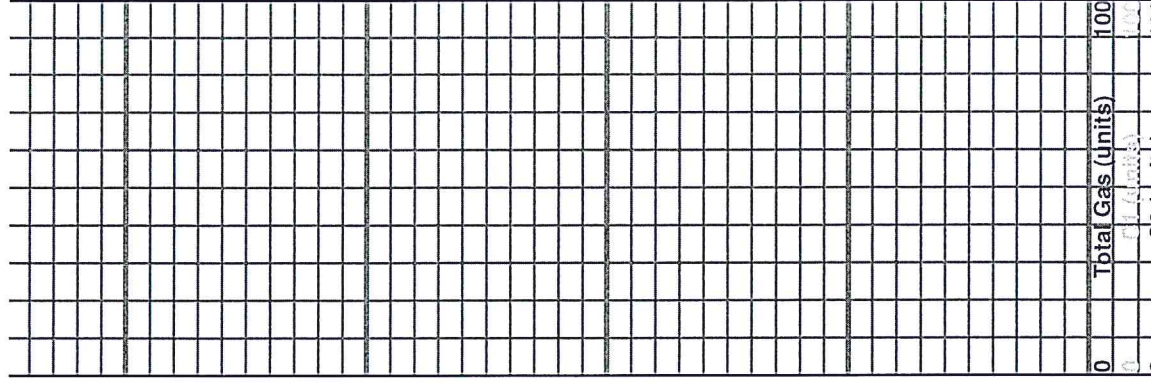
Limestone: cream-light tan, fine crystalline, poor to no visible porosity, sub chalky

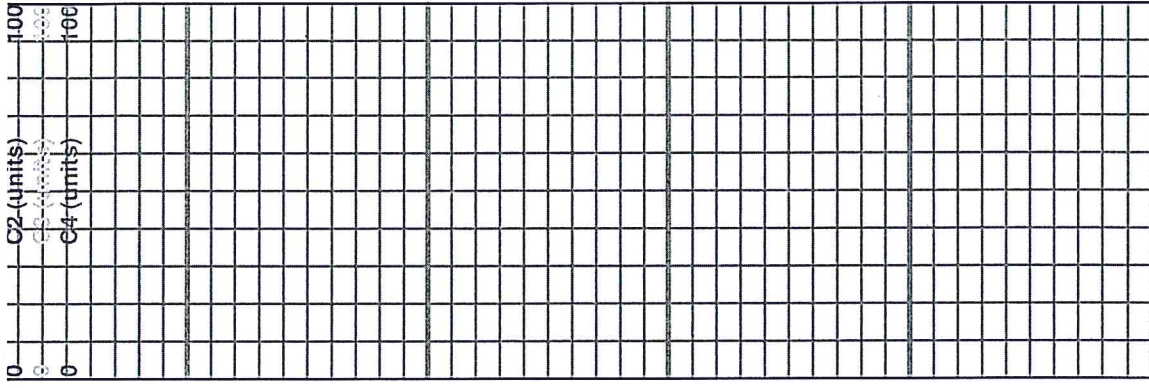
Shale: dark-medium gray

Limestone: light gray-light tan, fine to slightly medium crsytalline, sub chalky

**Cherokee 4598' (-2584)**

Black shale





Limestone: cream-tan, fine crystalline, dense, few pieces vari-colored chert

Shales: gray-green

Shale: gray-green, brown

Limestone: cream-green, fine crystalline, abundant chert

Abundant vari-colored shales

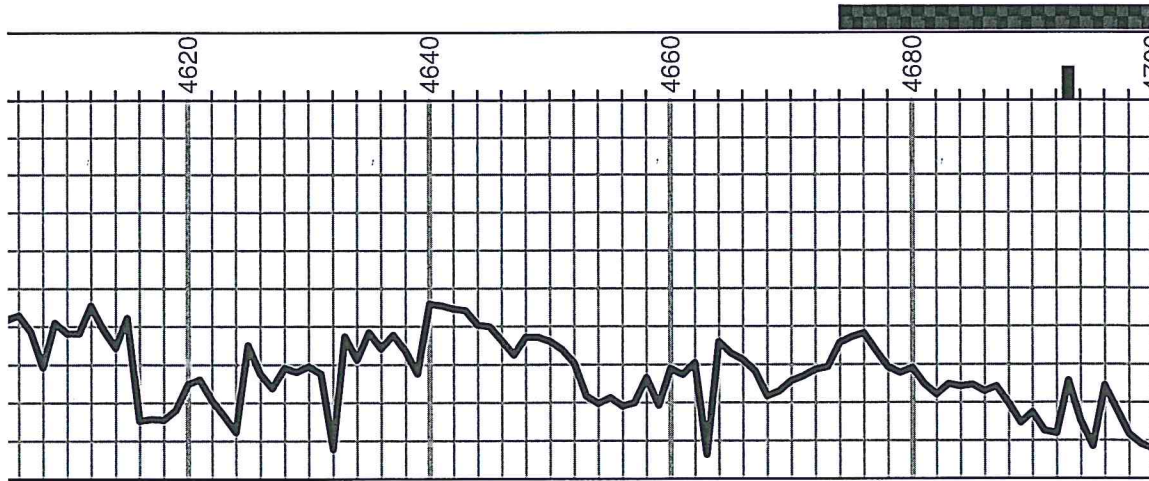
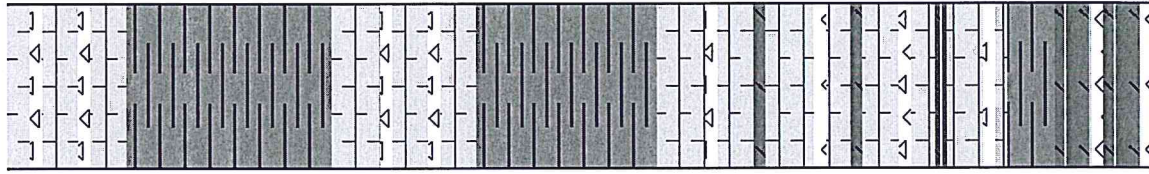
**Mississippi 4659' (-2645)**

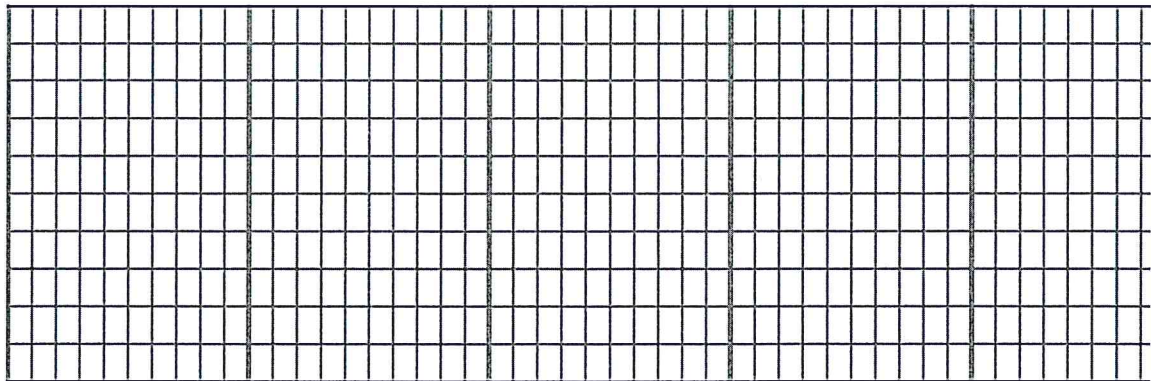
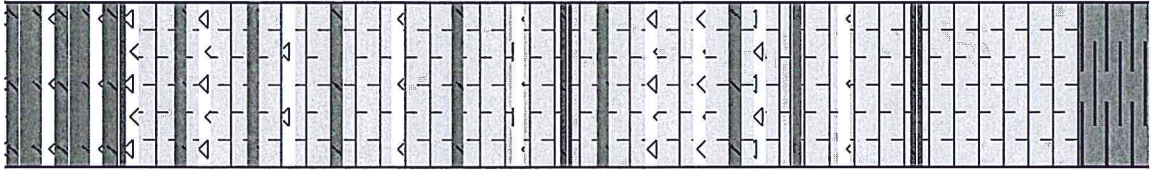
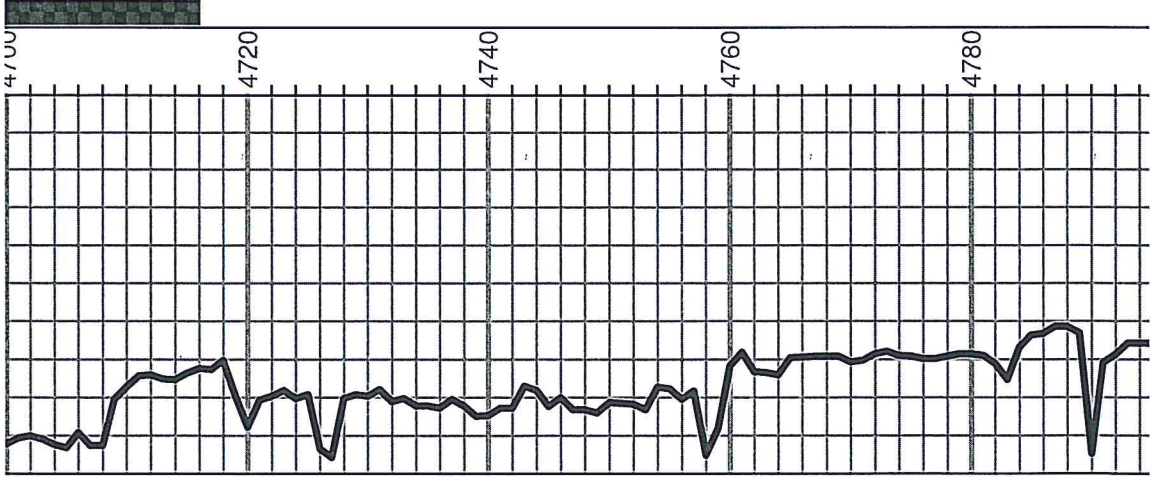
Limestone: cream-light tan, fine crystalline, dense, few pieces weathered chert, sandy in part

Dolomitic: pale green, fine crystalline, sub sucrosic, sandy in part, some chert

**Viola 4692' (-2678)**

Circulated at 4693' Dolomitic limestone: cream-light green, finely sucrosic, cherts weathered that bleed gas, no quality shows





Dolomite: cream-tan, fine crystalline, lots of white, vitreous chert, some pieces with fair sponge texture, fair odor, scum in cup, 15%-20% bright yellow fluorescence

Cherts/dolomitic limestone: very sharp and blocky, barren

Cherty dolomite as above

Cherty dolomite as above, barren

Cherty dolomitic limestone: as above

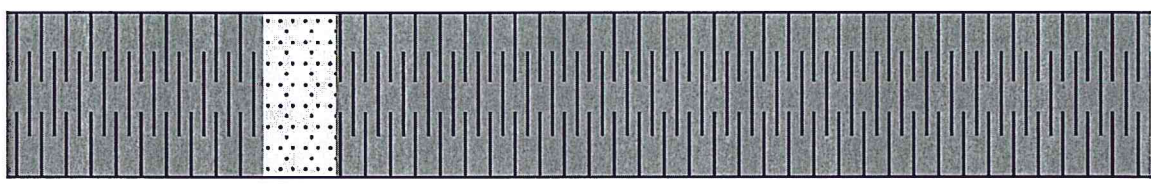
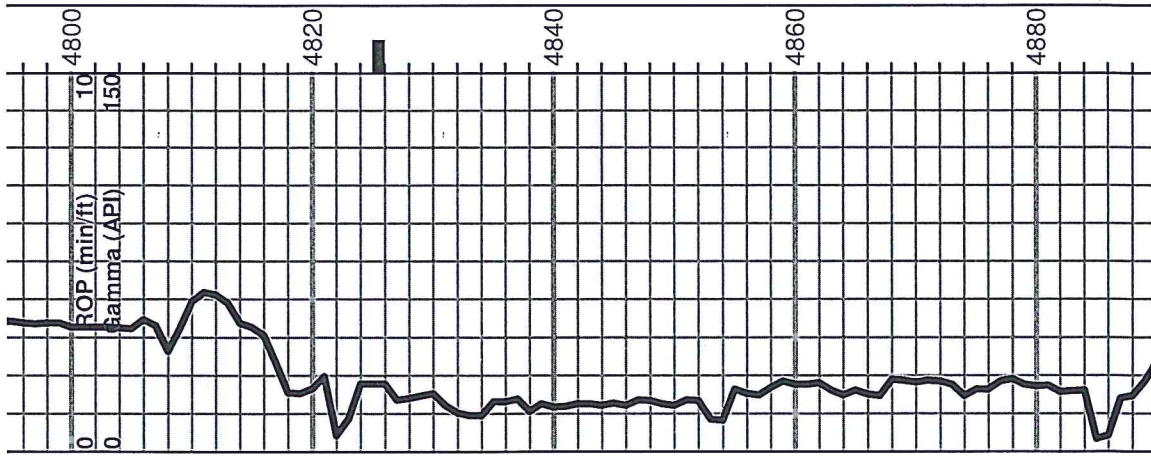
Limestone: light tan, fine to very fine crystalline, rare piece dolomite, chert, pure white

Flood cherts

Flood cherts with minor amount limestone: very slightly dolomitic

**Simpson Shale 4789' (-2775)**





Few pieces Simpson type shale

Increase in shale

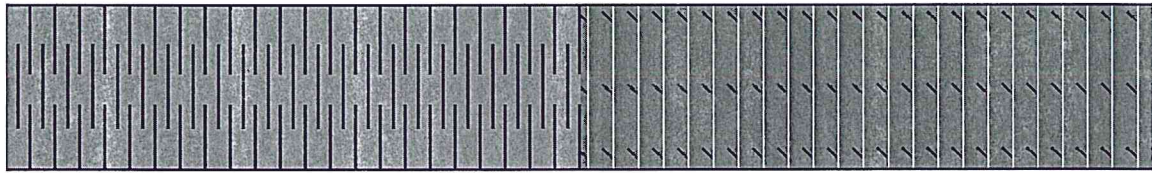
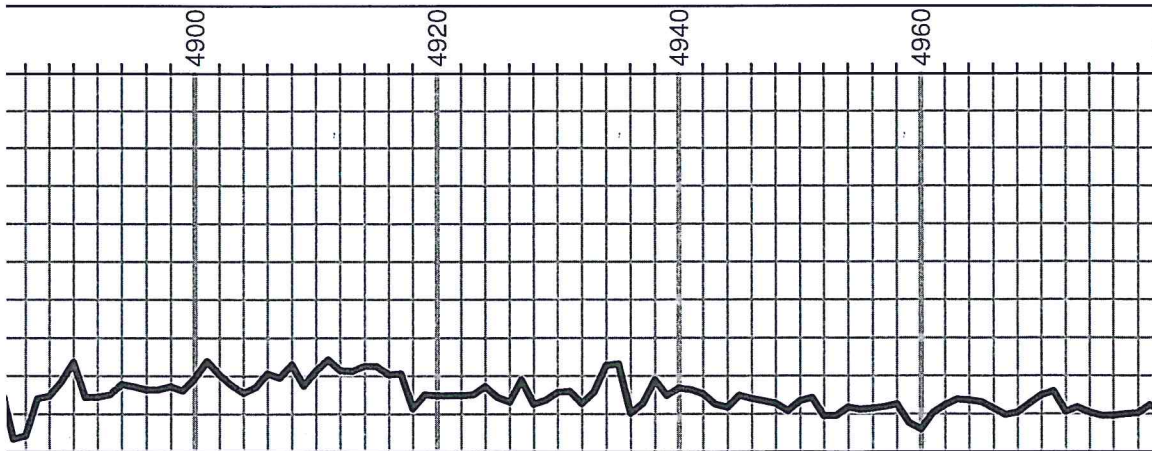
Circulated at 4825' mostly Simpson type shale, with scattered gray-cream, fine grained sandstone, no shows

Shale: dark gray, turquoise

Shale: dark gray, turquoise

Shale: dark gray-green-red-blue

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100



Shale: gray-medium gray

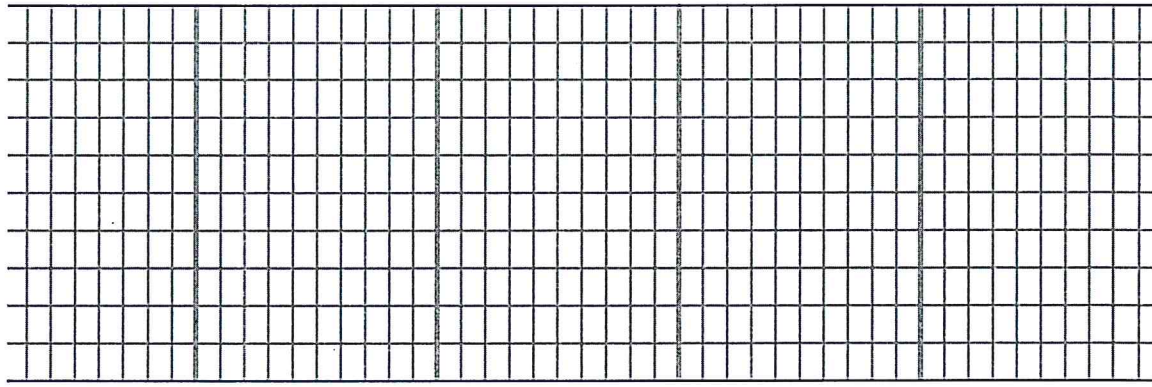
Shale: Simpson type, pyrite, few pieces white, fine grained sandstone

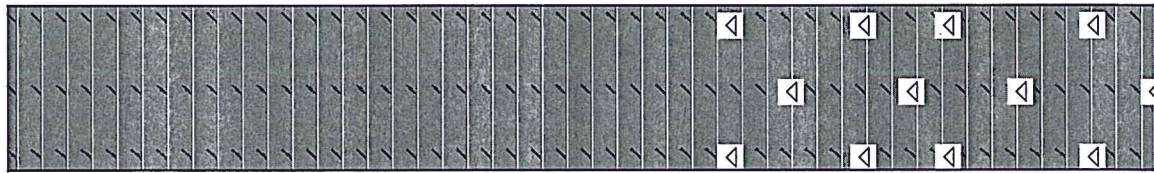
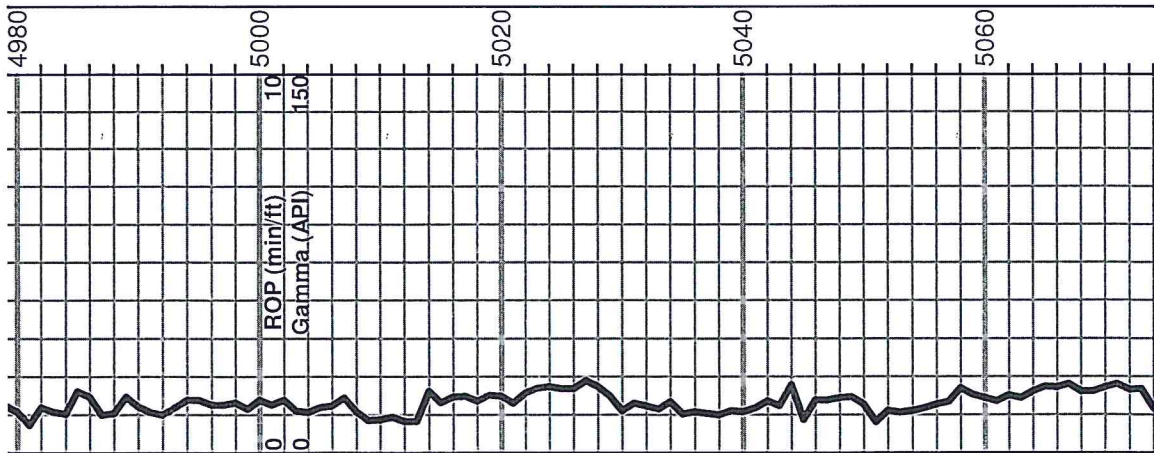
**Arbuckle 4932' (-2918)**

Dolomite: cream-light tan, fine crystalline, sucrosic, poor to no visible porosity

Dolomite: light tan-cream, fine to slightly medium crystalline, bright mineral fluorescence, no show free oil

Dolomite: light tan-cream, fine to more medium crystalline, fair visible





porosity, bright mineral fluorescence, no show free oil

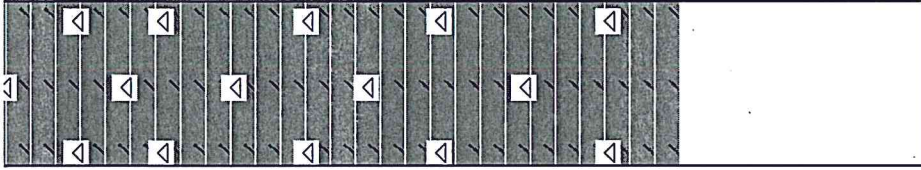
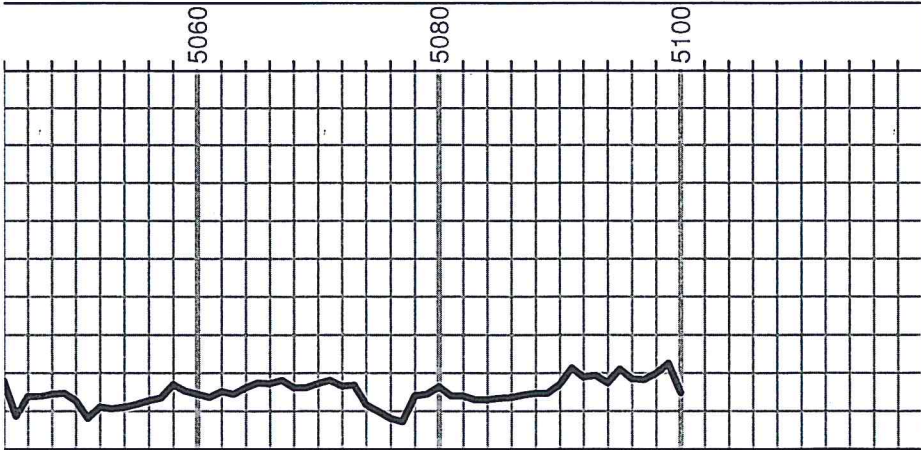
Dolomite: mostly medium crystalline, no shows

Dolomite: as above

Dolomite: cream-light tan, medium to coarse crystalline, fair visible porosity, trace white oolitic chert

Dolomite and chert: as above

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100



Dolomite and chert: as above

Dolomite and more cream, coarse to medium crystalline, fair visible porosity, some chert

Dolomite: as above

