



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1107007  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- 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 ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

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
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1107007

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  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				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Rama Operating Co., Inc.
Well Name	Andrews 8-24
Doc ID	1107007

Tops


Name	Top	Datum
Herrington	2155	-155
Howard	3227	-1260
Tokepa	3344	-1377
Heebner	3705	-1738
Brown Lime	3873	-1906
Lansing	3891	-1924
Simpson Shale	4323	-2356
Arbuckle	4355	-2388
RTD	4650	-2683

**OPERATOR**

Company: RAMA Operating Co., Inc.  
 Address: 101 S. Main St.  
 Stafford, Kansas 67578

Contact Geologist:  
 Contact Phone Nbr: 620-234-5191  
 Well Name: Andrews 8-24  
 Location: 8 5/8" @ 310'  
 Pool:  
 State: Kansas, Pratt County

API: 15-151-22405-00-00  
 Field: Coats  
 Country: USA




# Joshua R. Austin

## Petroleum Geologist

report for

# RAMA Operating CO., Inc



Scale 1:240 Imperial

Well Name:	Andrews 8-24	
Surface Location:	8 5/8" @ 310'	
Bottom Location:		
API:	15-151-22405-00-00	
License Number:		
Spud Date:	12/27/2012	Time: 6:30 PM
Region:	E2-Se-Nw-Se 24-29s-14w	
Drilling Completed:	1/5/2013	Time: 3:50 AM
Surface Coordinates:	1650' From South Line & 1485' From East Line	
Bottom Hole Coordinates:		
Ground Elevation:	1958.00ft	
K.B. Elevation:	1967.00ft	
Logged Interval:	1900.00ft	To: 4600.00ft
Total Depth:	4650.00ft	
Formation:	Simpson	
Drilling Fluid Type:	Chemical mud was displaced at 2800'	

**SURFACE CO-ORDINATES**

Well Type:	Vertical	
Longitude:		Latitude:
N/S Co-ord:	1650' From South Line	
E/W Co-ord:	1485' From East Line	

**LOGGED BY**

Company:	Joshua R. Austin, Petroleum Geologist	
Address:	732 NE 110th Ave Stafford, KS 67578	
Phone Nbr:	620-546-3960	
Logged By:	Geologist	Name: Josh Austin

**CONTRACTOR**

Contractor:	Sterling Drilling Company	
Rig #:	4	
Rig Type:	mud rotary	
Spud Date:	12/27/2012	Time: 6:30 PM
TD Date:	1/5/2013	Time: 3:50 AM
Rig Release:		Time:

### ELEVATIONS

K.B. Elevation: 1967.00ft  
K.B. to Ground: 9.00ft

Ground Elevation: 1958.00ft

### NOTES

On the basis of the structural position and after reviewing the electric logs, it was recommended by all parties involved in the Andrews 8-24 to run 5 1/2" producing casing for a disposal well. Before plugging, the following zones should be tested; Arbuckle, Simpson Sand, Lansing, Toronto, Topeka.

## RAMA Operating Co., Inc. well comparison sheet

DRILLING WELL					COMPARISON WELL				COMPARISON WELL			
Andrews 8-24					Andrews Unit 2 SW-NE-SE 24-29-14				Andrews 6-24 E2-SE 24-29-14			
1967 KB					1961 KB		Structural Relationship		1961 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Herington	2122	-155			2105	-144	-11		2112	-151	-4	
Winfield	2182	-215			2163	-202	-13		2172	-211	-4	
Towanda	2244	-277			2225	-264	-13		2237	-276	-1	
Ft. Riley	2294	-327			2272	-311	-16		2292	-331	4	
Cottonwood	2619	-652			2595	-634	-18		2605	-644	-8	
Red Eagle	2751	-784			2726	-765	-19		2739	-778	-6	
Stotler	3052	-1085	3052	-1085	3031	-1070	-15	-15	3040	-1079	-6	-6
Howard	3227	-1260	3228	-1261	3209	-1248	-12	-13	3215	-1254	-6	-7
Topeka	3344	-1377	3345	-1378	3321	-1360	-17	-18	3335	-1374	-3	-4
Heebner	3705	-1738	3704	-1737	3686	-1725	-13	-12	3691	-1730	-8	-7
Toronto	3721	-1754	3722	-1755	3703	-1742	-12	-13	3707	-1746	-8	-9
Douglas	3746	-1779	3744	-1777	3726	-1765	-14	-12	3731	-1770	-9	-7
Brown Lime	3873	-1906	3872	-1905	3845	-1884	-22	-21	3853	-1892	-14	-13
Lansing	3891	-1924	3891	-1924	3860	-1899	-25	-25	3870	-1909	-15	-15
Simpson Shale	4323	-2356	4322	-2355	4298	-2337	-19	-18				
Arbuckle	4355	-2388	4355	-2388	4344	-2383	-5	-5				
Rotary Depth	4650	-2683			4551	-2590			3957	-1996		
Loggers Depth	4650	-2683			4550	-2589			3956	-1995		

### DRILL STEM TEST REPORT

RAMA Oper. Co. Inc.

24-29s.-14w. Pratt Co. KS

101 S. Main St.  
Stafford, KS 67578-1429

Andrews 8-24

Job Ticket: 49712

DST#: 1

ATTN: Josh Austin

Test Start: 2012.12.31 @ 19:41:14

#### GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 22:35:44

Time Test Ended: 05:39:14

Interval: 3334.00 ft (KB) To 3370.00 ft (KB) (TVD)

Total Depth: 3370.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Reynolds

Unit No: 63

Reference Elevations: 1967.00 ft (KB)

1958.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 8792

Press@RunDepth: 1220.07 psig @ ft (KB)

Capacity: 8000.00 psig

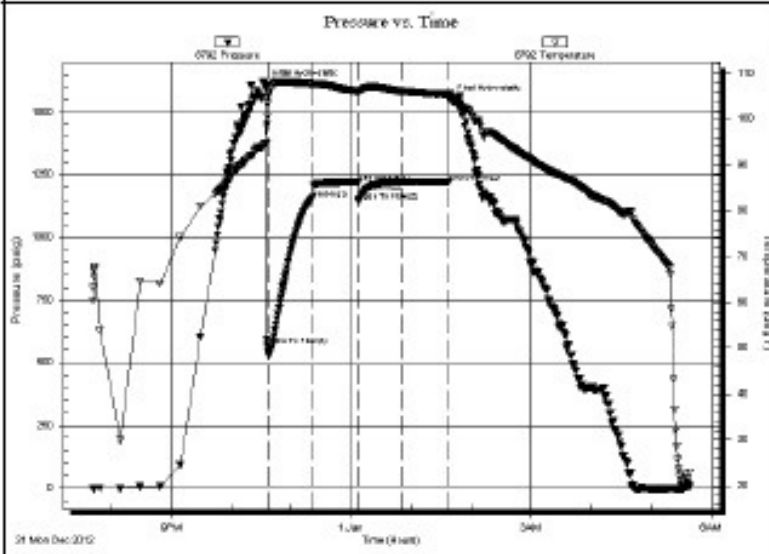


**TRIOBITE  
TESTING, INC.**



Start Date: 2012.12.31 End Date: 2013.01.01 Last Calib.: 2013.01.01  
 Start Time: 19:41:19 End Time: 05:39:14 Time On Btmr: 2012.12.31 @ 22:33:44  
 Time Off Btmr: 2013.01.01 @ 01:38:14

TEST COMMENT: IF: Strong blow . BOB immed. GTS @ 9min. Guaged gas throughout  
 IS: Strong blow . BOB throughout  
 FF: Strong blow . BOB immed. Guaged gas throughout  
 FSt: Strong blow . BOB throughout



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1608.23	94.63	Initial Hydro-static
2	568.61	100.76	Open To Flow (1)
47	1153.91	107.74	Shut-In(1)
93	1220.05	106.16	End Shut-In(1)
94	1144.04	106.11	Open To Flow (2)
137	1220.07	106.12	Shut-In(2)
184	1220.72	105.41	End Shut-In(2)
185	1550.19	105.48	Final Hydro-static

Length (ft)	Description	Volume (bbl)
1690.00	MGCW 5% mud, 5% gas, 90% wtr	21.79
450.00	MGCW 5% mud, 15% gas, 80% wtr	6.31
195.00	GMCW 27% gas, 35% mud, 40% wtr	2.74
130.00	GCM 15% gas, 85% mud	1.82

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	21.00	56.16
Last Gas Rate	0.13	17.00	11.75
Max. Gas Rate	0.25	21.00	56.16


	Anhy vert		Gyp		shale, gry		Ss
	Chrt vari		Lmst fw7>		Carbon Sh		Slst
	Dolsec		shale, grn		shale, red		

<b>MINERAL</b>
△ Chert White

<b>INTERVALS</b>	<b>DST</b>
■ Core	■ DST Int
· DST	■ DST alt
	■ Core
	■ tail pipe

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)

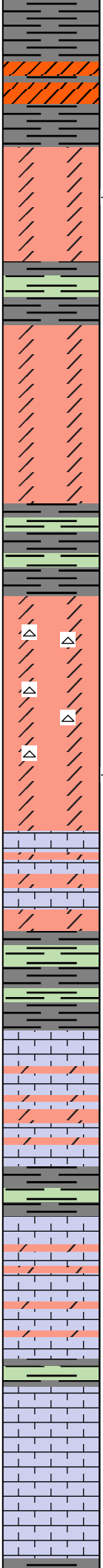
Curve Track #1					TG, C1 - C5	
ROP (min/ft)	—	Intervals	ogy	LOW	Total Gas (units)	—
Gamma (API)	—				C1 (units)	—
Cal (in)	---				C2 (units)	—
					C3 (units)	—



Ammonite, white lt. grey plus grey, soft shale,

2100  
2120  
2140  
2160  
2180  
2200  
2220  
2240  
2260  
2280  
2300  
2320

ROP (min/ft) 5  
Gamma (API) 150  
Cal (in) 16



**HERINGTON 2122 (-155)**

Dolomite; buff-grey, micro-fine xln, slightly sucrosic, shaley in part, questionable trace gas bubbles

grey-green-maroon shale

**KRIDER 2146 (-179)**

Dolomite; grey-lt. grey, fine xln, dense, poor visible porosity, no shows

Dolomite; as above plus grey-green shale

**WINFIELD 2182 (-215)**

Dolomite; grey, fine xln, slightly sucrosic, poor porosity, no shows plus grey Chert, boney in part

Dolomite and Chert as above, trace Limestone; grey-tan, fine xln, dolomitic in part, slightly fossiliferous, few gas bubbles

as above plus, grey-green-maroon soft, Shale

**TOWANDA 2244 (-277)**

Limestone; grey-cream, fine xln, chalky, mottled in part, poor porosity, no shows

grey-green shale

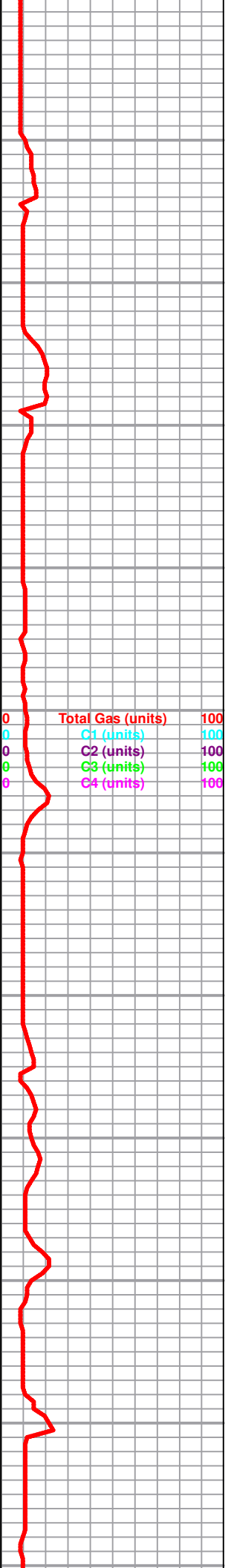
Limestone; tan-buff-grey, fine-medium xln, few fossiliferous pieces, dolomitic in part, no shows, shaley in part

**FT. RILEY 2294 (-327)**

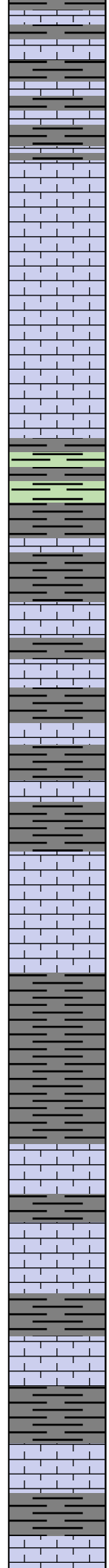
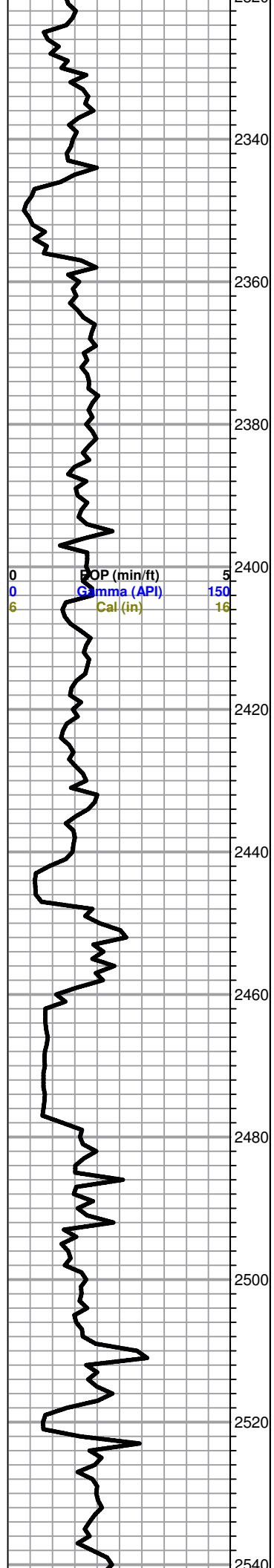
Limestone; cream, highly oolitic, fair oolitic type porosity, no shows, granular in part

Limestone; as above plus grey-maroon-green shale

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







Limestone; cream-tan, fossiliferous, chalky, dense, plus grey shale

2340

Limestone; white-cream, fine-medium xln, fossiliferous, chalky, dense, poorly developed porosity, no shows

2360

Limestone; cream, white, chalky, dense, few cherty pieces, no shows

2380

**BASE FLORENCE 2389 (-422)**

grey-green-maroon, shale

2400

Limestone; lt. grey-white-cream, fine xln, chalky, dense, no shows

0 POP (min/ft) 5  
0 Gamma (API) 150  
6 Cal (in) 16

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

2420

Shale and Limestone as above

grey-dark grey shale

2440

**WREFORD 2441 (-474)**

Limestone; cream-white, fine xln (Poor Sample)

2460

Shale; grey-maroon-green-brick red

Shale; as above, variety of colors

2480

Limestone; cream-white-lt. grey, fine xln, chalky, dense

as above

2500

**CROUSE**

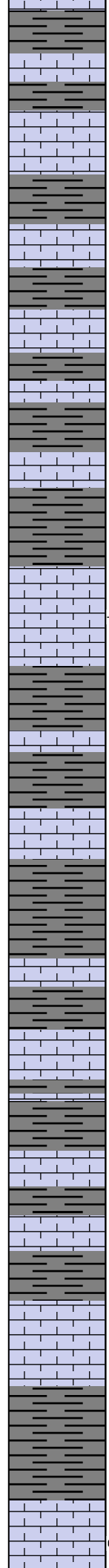
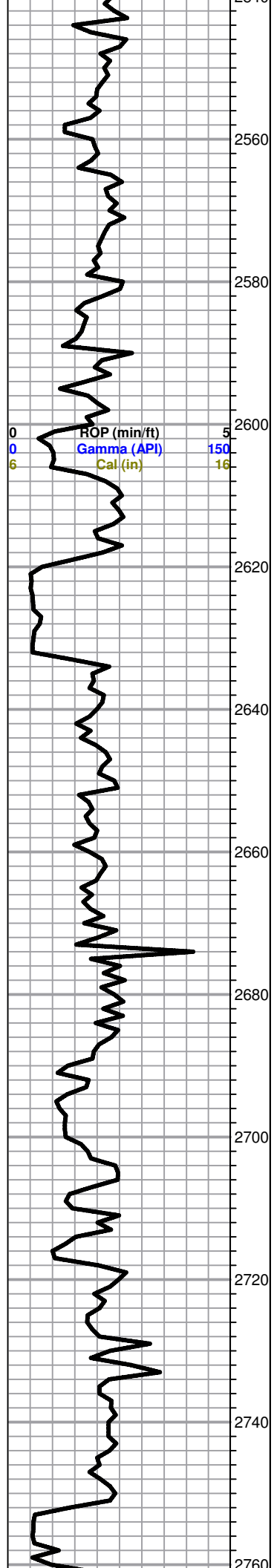
Limestone; grey, slightly fossiliferous, chalky in part, dense

2520

**BADER 2523 (-556)**

Limestone; grey-buff, fine xln, chalky in part, dense, no shows

2540



Limestone; as above shaley in part, plus grey-green-maroon Shale

as above

Limestone; cream-lt. grey, fine xln, fossiliferous, chalky no shows

Shale; grey-green, soft

**COTTONWOOD 2619 (-652)**

\* Limestone; cream-white, fine xln, chalky, oolitic/fossiliferous, poorly developed porosity, few loose gas bubbles

Shale; variety of colors

plus Limestone; white, fine xln, chalky

dark grey Shale

**NEVA 2675 (-708)**

Limestone; grey-cream, fine-medium xln, chalky, granular in part, no shows

Limestone as above plus grey-maroon-green, shale

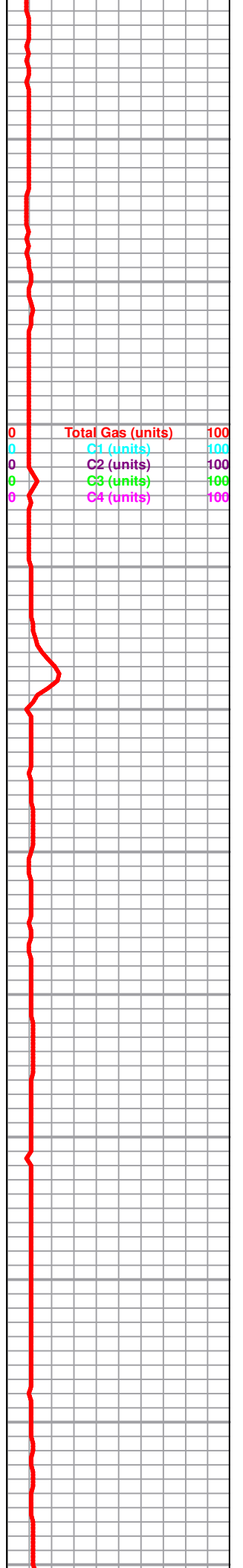
Limestone; chalky, fine xln, dense, plus shale as above

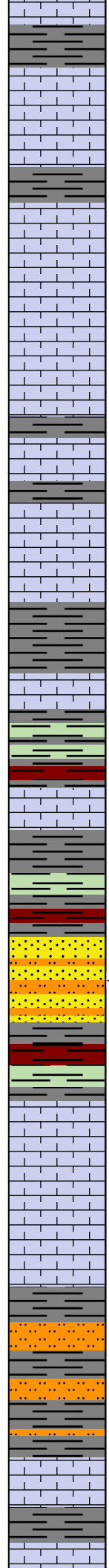
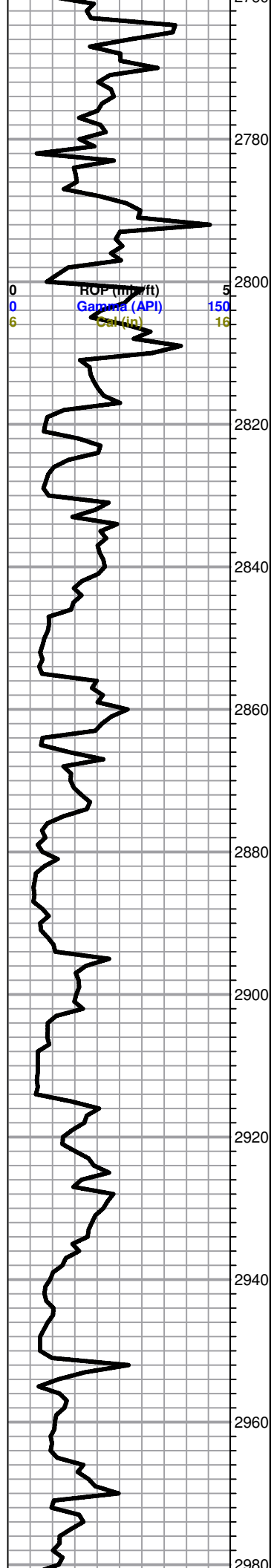
Limestone; tan-buff-lt. grey, fine xln, chalky, fossiliferous, dense, poor porosity, no shows

grey shale

**RED EAGLE 2751 (-784)**

○ Limestone; tan-cream, fine xln, chalky, slightly fossiliferous-oolitic in part poorly





light grey micaceous conch in part, poorly developed porosity, trace light brown stain, NSFO, no gas bubbles

Limestone; grey-cream, fine-medium xln, oolitic, chalky in part, few scattered porosity, no shows

**FORAKER 2787 (-820)**

Limestone; grey-buff, fine-medium xln, granular, slightly cherty in part, no shows, poor porosity

Limestone; as above

plus soft grey, gummy, Shale

Limestone; cream-tan-grey, medium xln, dense, few granular pieces, no shows

Shale; dark grey-soft shale

**FALL CITY**

Shale; grey-green-maroon

Limestone; cream-white, chalky, dense

Shale; grey-greyish green, micaceous in part, silty

Sand; grey-greyish green, micaceous, "dirty", fine-medium grained, poor intergranular porosity, questionable gas bubbles, no staining, NSFO \*

grey-greyish green shale, micaceous in part

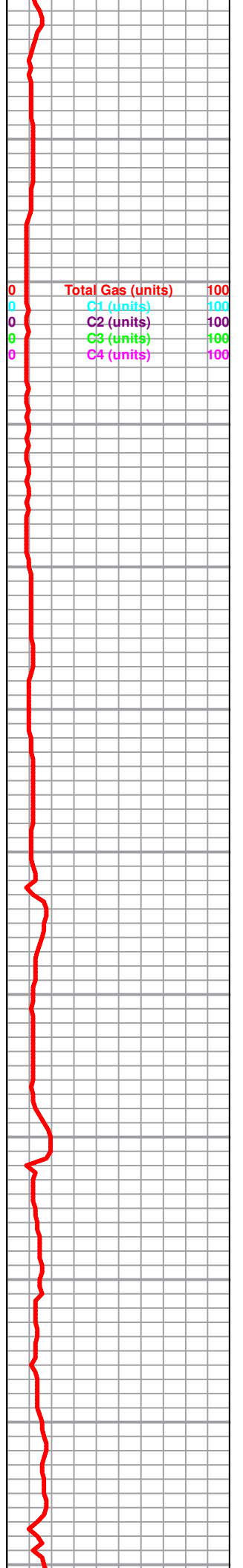
Limestone; cream-lt. grey, fine xln, chalky, dense, mottled in part

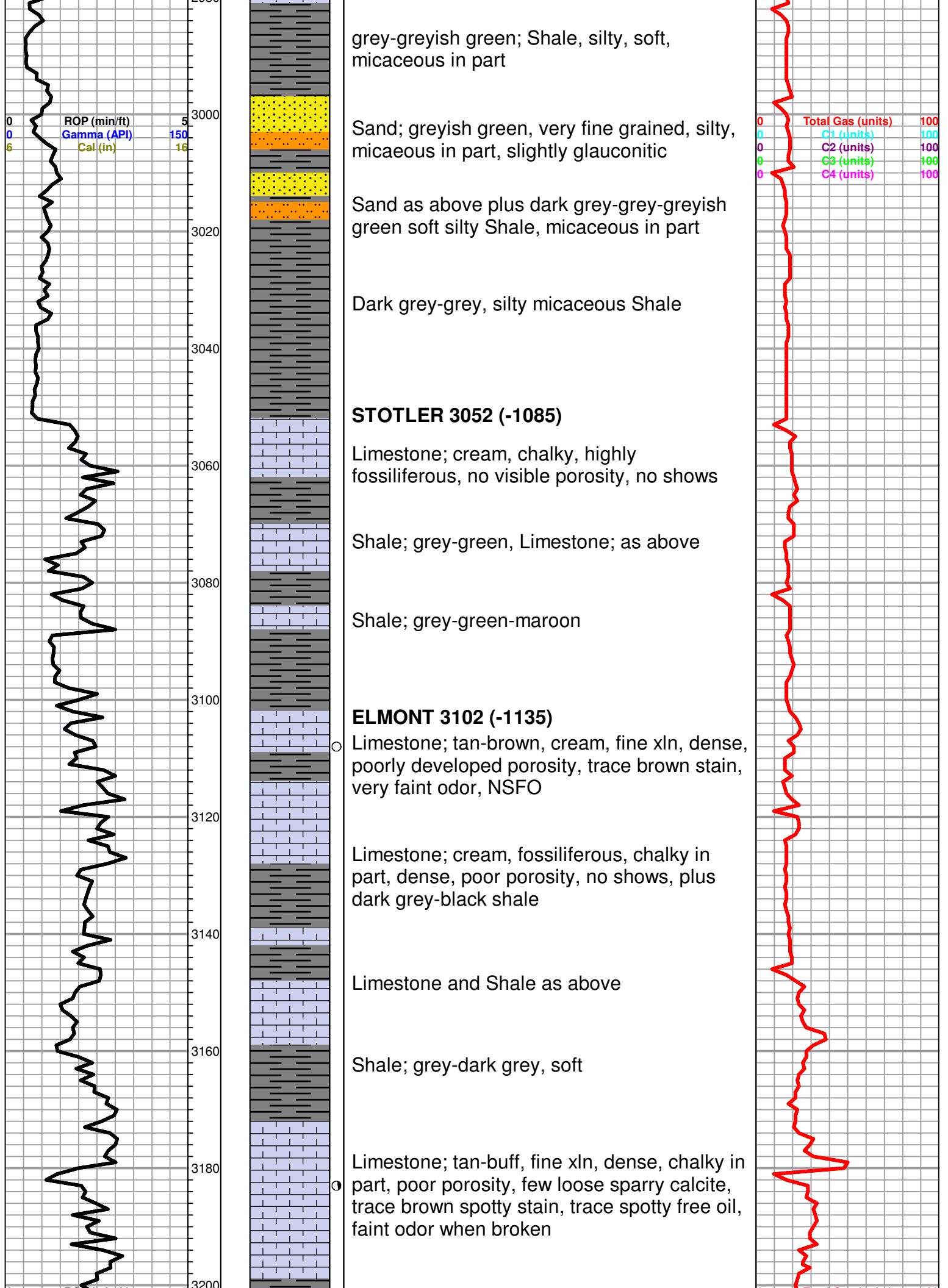
Sand; grey, micaceous, shaley in part

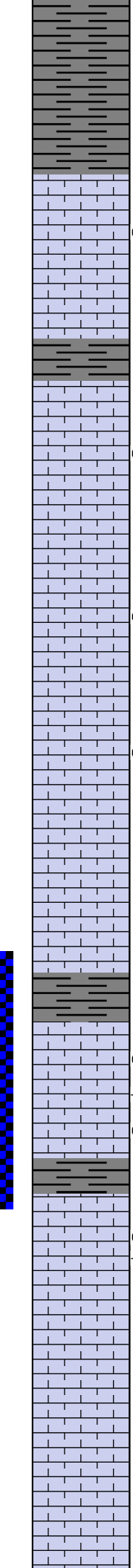
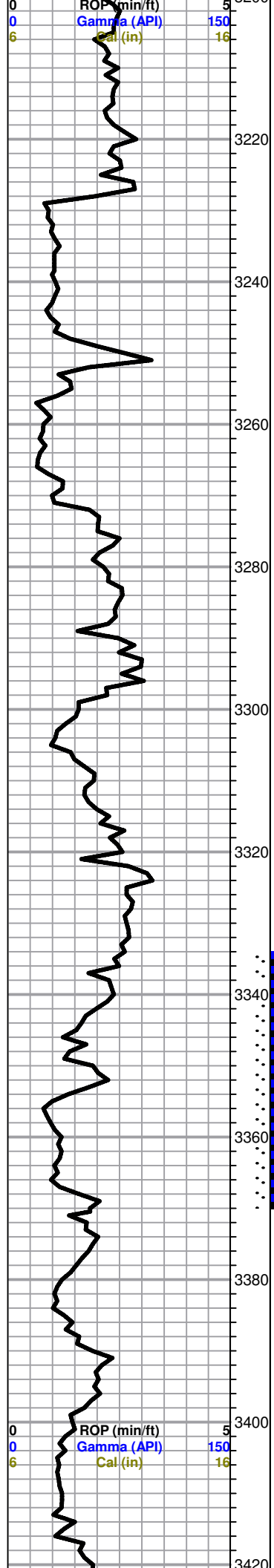
Shale; grey-dark grey, soft, silty

**TARKIO LIME**

Limestone; cream, fine-medium xln, chalky in part, dense, fossiliferous, poor porosity







Shale; grey-dark grey-green, soft

**HOWARD 3227 (-1260)**

Limestone; cream-white, fine xln, chalky, slightly fossiliferous, few inter xln-vuggy type porosity, trace spotty golden brown stain, trace spotty free oil, few gas bubbles

grey shale

Limestone; cream, fossiliferous, chalky, vuggy porosity, brown-golden brown stain, slight SFO, faint-fair odor

Limestone; cream-tan, fossiliferous, dense, slightly cherty, poor porosity, brown stain

Limestone; cream-lt.grey, highly fossiliferous, fair-good fossil cast porosity, golden brown-grey stain, SFO/SAT, fair odor

Limestone; cream, fine-medium xln, fossiliferous, poor porosity, plus grey boney fossiliferous shale

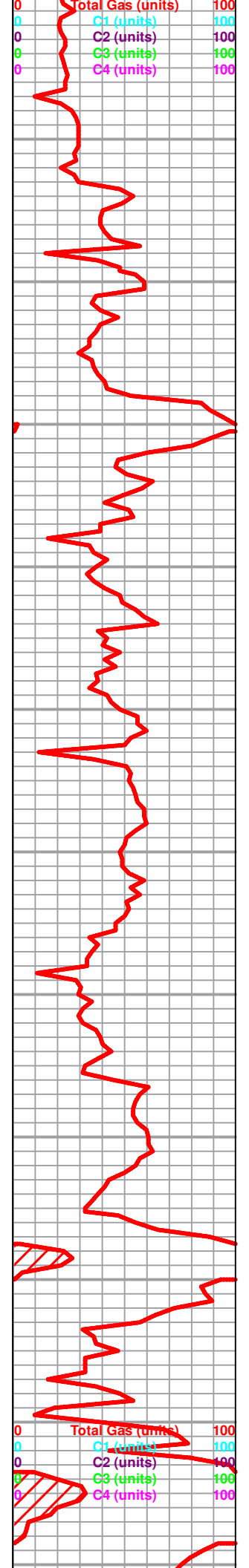
dark grey Shale

**TOPEKA 3344 (-1377)**

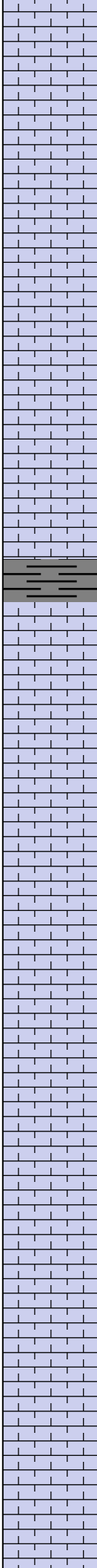
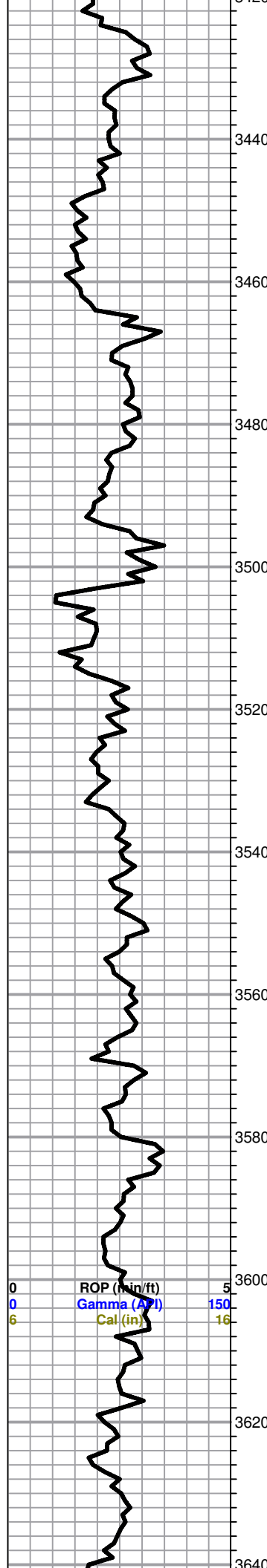
Limestone; cream-white, fossiliferous-oolitic, chalky, fair fossilcast-vuggy type porosity, golden brown stain, lt. spotty SFO, faint-fair odor, trace gas bubbles

Limestone; cream-lt. grey, slightly fossiliferous, chalky in part, dense, few scattered vuggy porosity, trace golden brown stain, fair gassy odor

Limestone; as above dense, slightly cherty, trace Limestone; cream-buff, granular, highly fossiliferous, brown stain, trace free oil, faint odor, plus grey, boney Chert







Limestone; cream-tan, fine-medium xln, fossiliferous, granular in part, scattered porosity, no shows, trace grey boney Chert

Limestone; white-cream, micro-fine xln, chalky, poor visible porosity, no shows, plus white chalk

as above

Limestone; cream-white, fine xln, chalky, dense, slightly fossiliferous, poor porosity, no shows plus white chalk

grey-black shale

Limestone; cream, fine xln, fossiliferous, scattered porosity, no shows, plus Chert, grey, opaque, boney

Limestone; lt. grey-white-cream, fine xln, chalky, dense, poor visible porosity, no shows

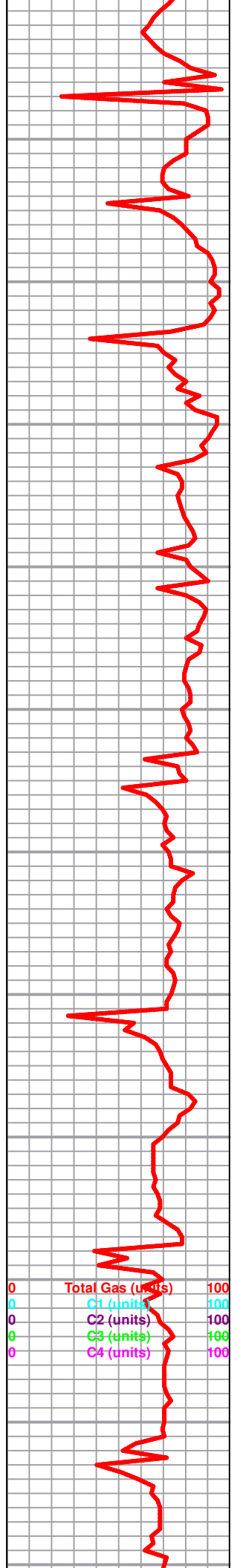
Limestone; as above, plus grey Chert

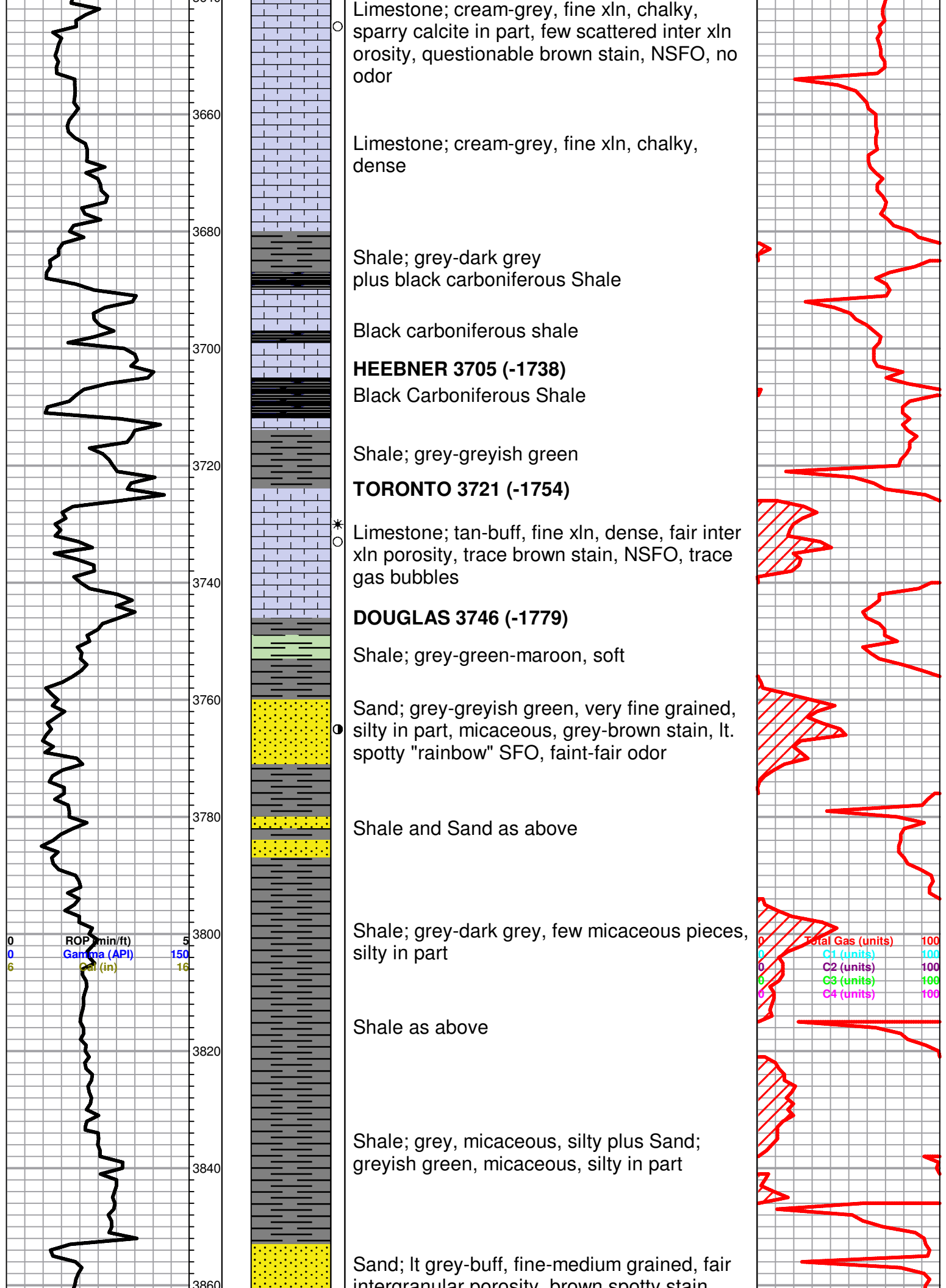
Limestone; white-cream, fine xln, chalky, no shows, plus white chalk

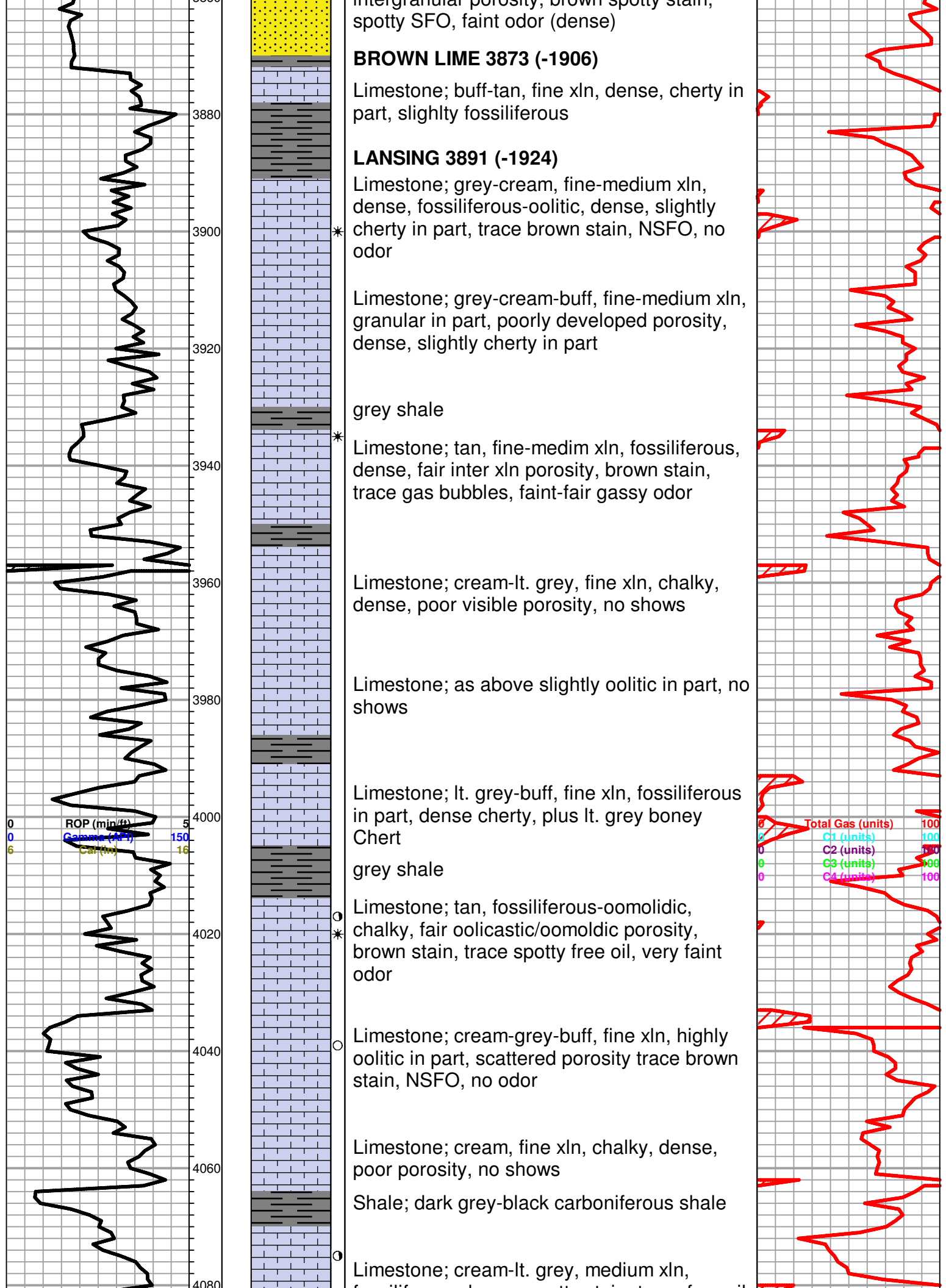
Limestone as above

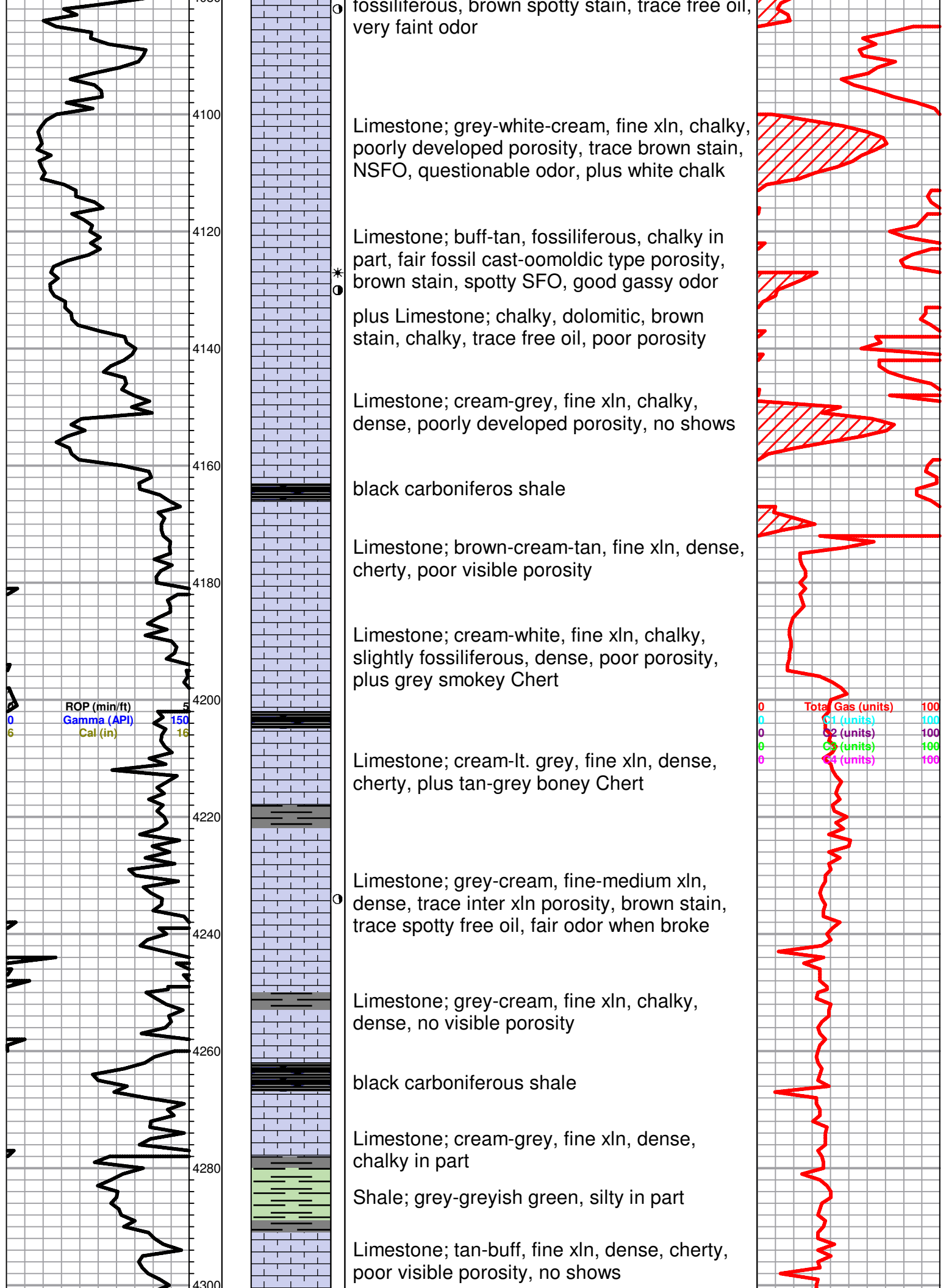
Limestone; cream-lt. grey, fine-micro xln, chalky, dense, no shows

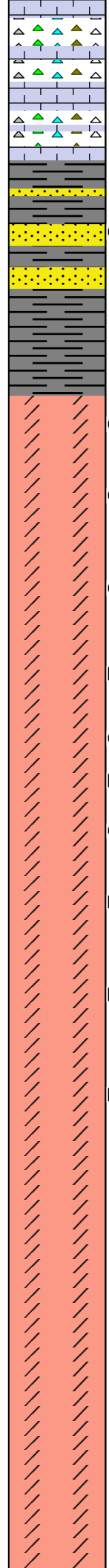
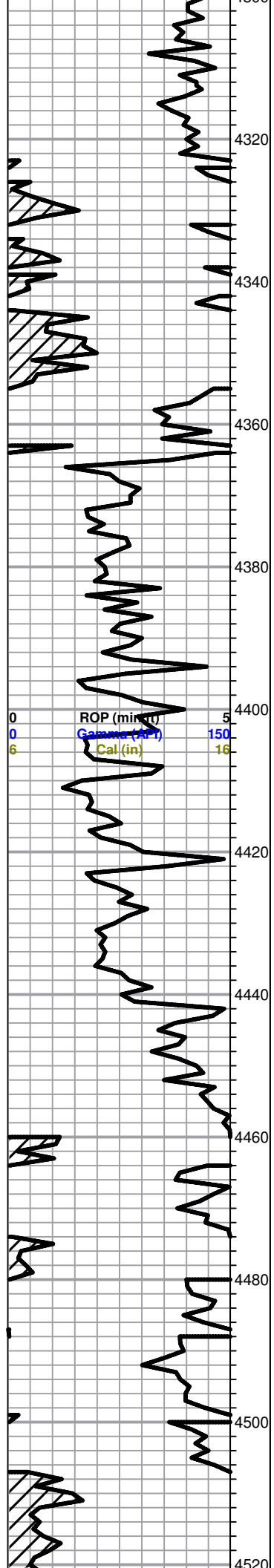
as above











Chert; yellow-cream, boney

Chert; variety of colors, plus Cherty Limestone

**SIMPSON 4323 (-2356)**

grey-greish green silty, waxey Shale

Trace Sand; buff, medium grained, dense, friable in part, sub angular, sub rounded, brown stain, spotty SFO, fair-good odor

grey-green shale

**ARBUCKLE 4355 (-2388)**

Dolomite; cream-buff-grey, fine-medium xln, sucrosic in part, trace inter xln porosity, brown stain, spotty SFO, questionable saturation, faint-fair odor

Dolomite; tan-grey, medium xln, fair inter xln porosity, brown-black stain, trace free oil, faint-fair odor

Dolomite; as above, dense, few cherty pieces

Dolomite; grey-white, medium xln, black stain, questionable trace FO, fair-good odor, plus grey boney Chert

Dolomite and Chert; as above

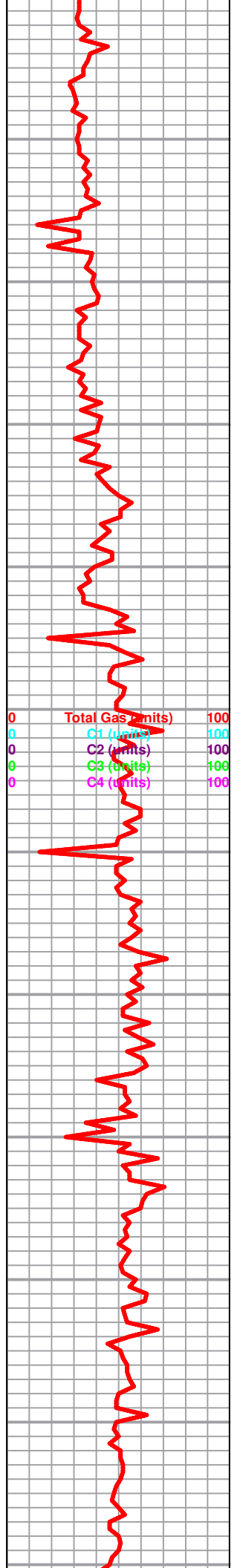
Dolomite; grey, fine-medium xln, dense, cherty, black stain, trace free oil, faint odor

Dolomite; tan-grey, fine xln, dense, poor visible porosity, black stain, NSFO, very faint odor, plus grey-translucent Chert

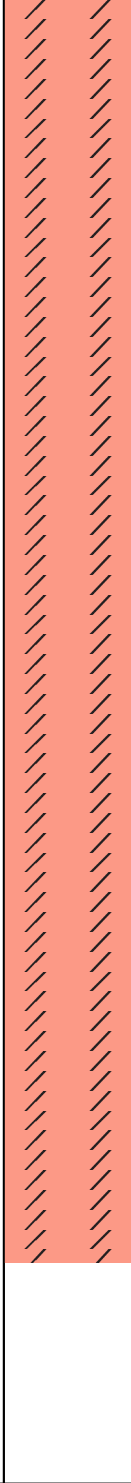
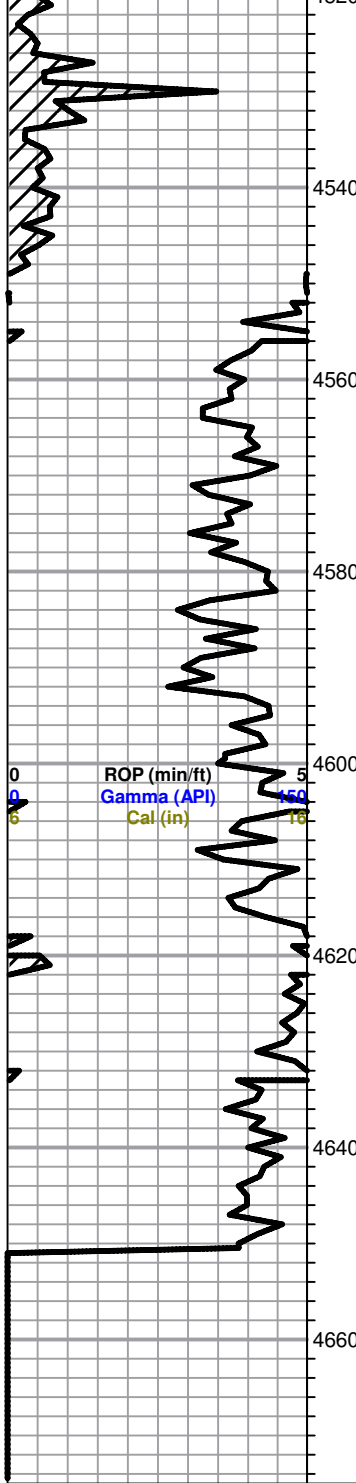
Dolomite; tan, fine xln, dense cherty, no shows

Dolomite; cream-buff-grey, fine xln, slightly sucrosic, dense, poorly developed porosity, no shows, plus FeS<sub>2</sub>

Dolomite; as above







Dolomite; cream-tan-lt. grey, fine xln, dense, poor porosity, plus grey-translucent boney Chert

Dolomite; as above, sucrosic in part, trace inter xln porosity, plus FeS2

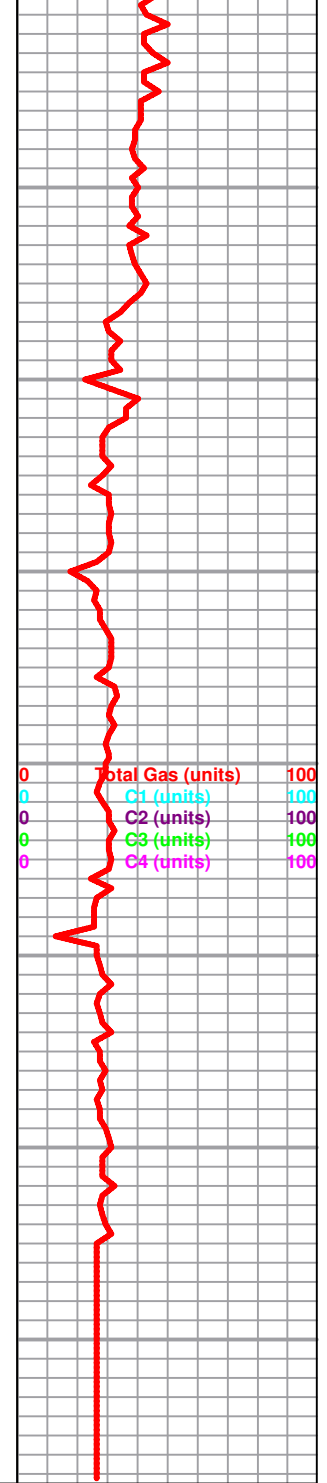
Dolomite cream-grey, fine xln, dense, sucrosic, few scatterd inter xln porosity, no shows, plus grey boney Chert

Dolomite as above  
Plus grey, opaque, boney Chert

Dolomite; tan-grey, sucrosic in part, dense, poorly developed porosity, plus boney fossiliferous/oolitic Chert

as above

**ROTARY TOTAL DEPTH 4650 (-2683)**



Customer Hama Oper. Co. LLC	Lease No.	Date 1-5-13
Lease ANDREWS	Well # 8-24	
Field Order # 07097	Station Pratt	County Pratt
Type Job 5 1/2" I.S. w/ PKR shoe	Formation 4050' TD	Legal Description 34-29-14

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size' 5 1/2"	Tubing Size	Shots/Ft	200	Acid	30 SKS AA2 @ 15	RATE	PRESS	ISIP
Depth 4427	Depth	From	To	Pre Pad		Max		5 Min.
Volume 108 BBL	Volume	From	To R.H.	Pad	30 SKS	Min		10 Min.
Max Press 1500 #	Max Press	From	To M.H.	Frac	20 SKS	Avg		15 Min.
Well Connection PC	Annulus Vol.	From	To			HHP Used		Annulus Pressure
Plug Depth 4416	Packer Depth	From	To	Flush	H <sub>2</sub> O	Gas Volume		Total Load

Customer Representative Randy	Station Manager scotty	Treater Allen
----------------------------------	---------------------------	------------------

Service Units	Driver Names	Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
28443	Allen	1:40 pm					on Loc. Discuss Safety, Setup, Plan Job
19903	Mike	3:00					Rig up To Run 5 1/2" csg 14'
19905	Matt						Start 5 1/2" casing shoe joint 11'
19831	Jessie						w/ PKR shoe, + Latch down BAFFLE
19862	Pierce						in collar cent. 4-8-12-18-22
		3:00					PKR shoe @ 4427' CIR w/ Rig
		5:18	1400 <sup>#</sup>				set PKR shoe - good CIR
			200 <sup>#</sup>		5	5	Pump 5 BBLs H <sub>2</sub> O spacer
					12	5	Pump 12 BBLs mud flush
					5	5	Pump 5 BBLs H <sub>2</sub> O spacer
					5	5	Mix + Pump 200-SKS AA2 @ 15 <sup>#</sup>
					51		Finish mix, wash out Pump + Line
		6:23	700 <sup>#</sup>			6 1/2	Drop L.D. Plug. Start Disp.
		6:40	1500 <sup>#</sup>		108	4	Caught L.D. PSJ w/ 77 BBL out
					7		Plug down - Release OK
					5		Plug R.H. w/ 30SKS AA2
							plug M.H. w/ 20SKS AA2
							washup equip.
		8:00					Job complete
							+ hawks
							Allen, M. Ke
							Jessie

Customer <i>LAMA - OPERATING</i>	Lease No.	Date <i>12-28-12</i>
Lease <i>ANDREWS</i>	Well # <i>824</i>	
Field Order # <i>1414</i>	Station <i>PRATT K</i>	Casing <i>8 5/8</i>
Type Job <i>CNW 8 5/8</i>	Formation	Depth <i>308'</i>
		County <i>PRATT</i>
		State <i>KS</i>
		Legal Description <i>24-27-14</i>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
<i>8 5/8</i>								
Depth <i>308</i>	Depth	From	To	Pre Pad	Max			5 Min.
Volume <i>18.5</i>	Volume	From	To	Pad	Min			10 Min.
Max Press <i>300</i>	Max Press	From	To	Frac	Avg			15 Min.
Well Connection <i>P.C</i>	Annulus Vol.	From	To		HHP Used			Annulus Pressure
Plug Depth <i>292</i>	Packer Depth	From	To	Flush	Gas Volume			Total Load

Customer Representative	Station Manager <i>DAVE SCOTT</i>	Treater <i>Robert Sullivan</i>
Service Units <i>37900 33708 20990 19831 19862</i>		
Driver Names <i>Sullivan Wright Calloway</i>		

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>10:15</i>					<i>on loc softy messy</i>
					<i>Run 7 sts 8 5/8 csg.</i>
<i>2:40</i>					<i>CASING ON BOTTOM</i>
<i>2:50</i>					<i>Hook Dip cnc</i>
<i>3:00</i>	<i>250</i>		<i>64</i>	<i>4.5</i>	<i>mix cmt 300 &amp; Goffe pot cut 3% @ 1/4 CF</i>
					<i>cmt mixed shut down</i>
					<i>Release Plug</i>
				<i>4</i>	<i>St Disp</i>
<i>3:30</i>			<i>18</i>		<i>Plug down</i>
					<i>cmt collar full.</i>
					<i>JOB complete</i>
					<i>Thank you</i>

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

April 01, 2013

Robin L. Austin  
Rama Operating Co., Inc.  
101 S MAIN ST  
STAFFORD, KS 67578-1429

Re: ACO1  
API 15-151-22405-00-00  
Andrews 8-24  
SE/4 Sec.24-29S-14W  
Pratt County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Robin L. Austin