



# Joshua R. Austin

## Petroleum Geologist

report for



### Lebsack Oil Production, Inc.

COMPANY: Lebsack Oil Production, Inc.

LEASE: Garden City # 7-12

FIELD: Tanker

LOCATION: 2200' FNL & 2200' FEL (NE-SW-SW-NE)

SEC: 12 TWSP: 22s RGE: 34w

COUNTY: Finney STATE: Kansas

KB: 2918' GL: 2907'

API # 15-055-22354-00-00

CONTRACTOR: H2 Drilling LLC (rig #1)

Spud: 11/11/2014 Comp: 11/19/2014

RTD: 4850' LTD: 4852'

Mud Up: 3400' Type Mud: Chemical was displaced

Samples Saved From: 3600' to RTD.

Drilling Time Kept From: 3600' to RTD.

Samples Examined From: 3600' to RTD.

Geological Supervision From: 3950' to RTD.

Geologist on Well: Josh Austin

Surface Casing: 8 5/8" @431'

Production Casing: 5 1/2" @ 4847'

Electronic Surveys: By Pioneer Energy Services

#### NOTES

On the basis of the positive drill stem test and after reviewing the electric logs it was recommended by all parties involved in the Garden City 7-12 to set 5 1/2" production casing to further test the Mississippi and Pawnee.

## Lebsack Oil Production, Inc. well comparison sheet

DRILLING WELL

COMPARISON WELL

COMPARISON WELL

Formation	2918 KB				2917 KB				Structural Relationship		2920 KB		Structural Relationship	
	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log		
Heebner	3794	-876	3789	-871	3794	-876	0	5	3796	-878	2	7		
Toronto	3809	-891	3806	-888	3810	-892	1	4	3812	-894	3	6		
Lansing	3885	-967	3882	-964	3888	-970	3	6	3892	-974	7	10		
Base KC	4298	-1380	4304	-1386	4308	-1390	10	4	4315	-1397	17	11		
Marmaton	4324	-1406	4330	-1412	4335	-1417	11	5	4348	-1430	24	18		
Pawnee	4404	-1486	4404	-1486	4416	-1498	12	12	4426	-1508	22	22		
Ft. Scott	4430	-1512	4439	-1521	4441	-1523	11	2	4456	-1538	26	17		
Cherokee Sh.	4440	-1522	4448	-1530	4453	-1535	13	5	4466	-1548	26	18		
Morrow Shale	4618	-1700	4622	-1704	4634	-1716	16	12	4646	-1728	28	24		
Mississippi	4672	-1754	4672	-1754	4694	-1776	22	22	4717	-1799	45	45		
St. louis C	4780	-1862	4778	-1860	4786	-1868	6	8	4775	-1857	-5	-3		
RTD	4850	-1932				2917			4860	-1942				
LTD	4852	-1934				2917			4860	-1942				



**TRIOBITE**  
TESTING, INC.

## DRILL STEM TEST REPORT

Lebsack Oil Production

12-22s-34w Finney Ks

P.O. Box 354  
Chase, Ks 67524

Garden City 7-12

ATTN: Josh Austin

Job Ticket: 59663

DST#: 1

Test Start: 2014.11.16 @ 13:07:02

### GENERAL INFORMATION:

Formation: Pawnee

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:33:32

Time Test Ended: 19:44:32

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 60

Interval: 4390.00 ft (KB) To 4420.00 ft (KB) (TVD)

Total Depth: 4420.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2918.00 ft (KB)

2907.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8373

Inside

Press@RunDepth: 174.82 psig @ 4391.00 ft (KB)

Start Date: 2014.11.16

End Date:

2014.11.16

Capacity: 8000.00 psig

Last Calib.:

2014.11.16

Start Time: 13:07:07

End Time:

19:44:31

Time On Btm:

2014.11.16 @ 15:28:32

Time Off Btm:

2014.11.16 @ 17:31:02

### TEST COMMENT:

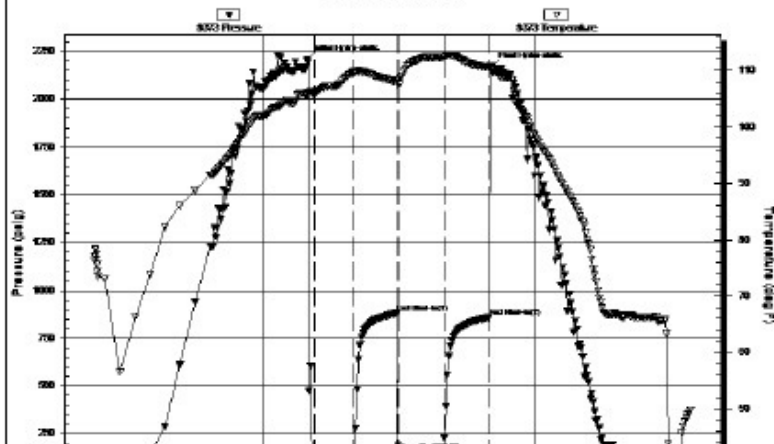
IF: BOB in 4 min.

IS: Surface blow built to 9.

FF: BOB in 7 min.

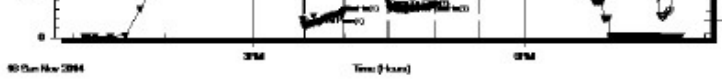
FS: BOB in 15 min.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2205.44	105.77	Initial Hydro-static
5	58.41	106.10	Open To Flow (1)
31	128.88	109.63	Shut-In(1)
60	880.06	108.14	End Shut-In(1)
62	152.36	107.59	Open To Flow (2)
91	174.82	112.42	Shut-In(2)
122	858.03	110.50	End Shut-In(2)
123	2165.81	110.78	Final Hydro-static



**Recovery**

Length (ft)	Description	Volume (bbl)
186.00	nw cgo 40%g 35%o 5%w 20%m	0.91
186.00	nw cgo 15%g 70%o 5%w 10%m	0.98
93.00	go 10%g 90%o	1.30
0.00	1752 GIP	0.00

**Gas Rates**

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE TESTING, INC**

**DRILL STEM TEST REPORT**

Lebsack Oil Production

12-22s-34w Finney Ks

P.O. Box 354  
Chase, Ks 67524

Garden City 7-12

ATTN: Josh Austin

Job Ticket: 59664

DST#: 2

Test Start: 2014.11.18 @ 11:52:10

**GENERAL INFORMATION:**

Formation: Miss  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 14:09:10  
Time Test Ended: 18:30:10

Test Type: Conventional Bottom Hole (Reset)  
Tester: Brandon Turley  
Unit No: 60

Interval: 4750.00 ft (KB) To 4800.00 ft (KB) (TVD)  
Total Depth: 4800.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2918.00 ft (KB)  
2907.00 ft (CF)  
KB to GR/CF: 11.00 ft

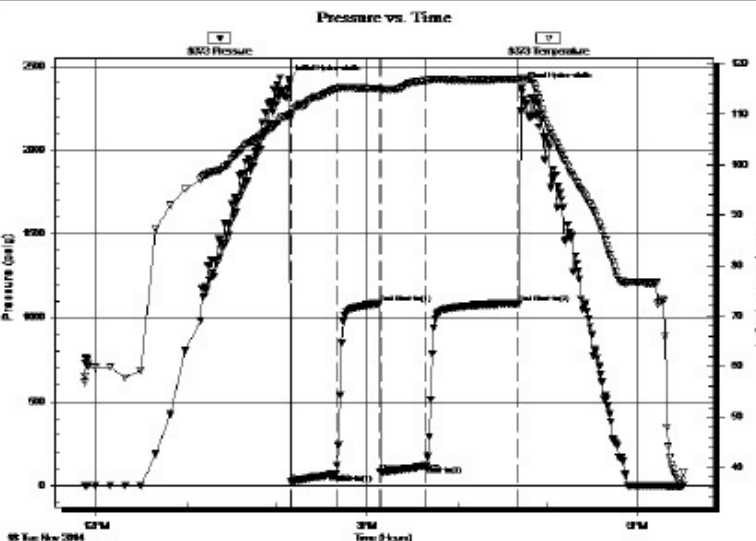
**Serial #: 8373**

Inside

Press@RunDepth: 117.56 psig @ 4751.00 ft (KB)  
Start Date: 2014.11.18 End Date: 2014.11.18  
Start Time: 11:52:15 End Time: 18:30:09

Capacity: 8000.00 psig  
Last Calib.: 2014.11.18  
Time On Btm: 2014.11.18 @ 14:07:40  
Time Off Btm: 2014.11.18 @ 16:42:40

TEST COMMENT: IF: 1/4 blow built to 3.  
IS: No return.  
FF: Surface blow built to 2.  
FS: No return.



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2418.17	109.73	Initial Hydro-static
2	22.22	109.39	Open To Flow (1)
32	71.20	114.90	Shut-In(1)
61	1085.70	115.06	End Shut-In(1)
61	82.93	114.54	Open To Flow (2)
92	117.56	116.59	Shut-In(2)
153	1086.70	116.86	End Shut-In(2)
155	2368.05	117.12	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
90.00	ocw m 5%o 25%w 70%m	0.44
90.00	ocw m 10%o 10%w 80%m	0.44
30.00	ocm 5%o 95%m	0.15

\* Recovery from multiple tests

### Gas Rates





Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

### ROCK TYPES

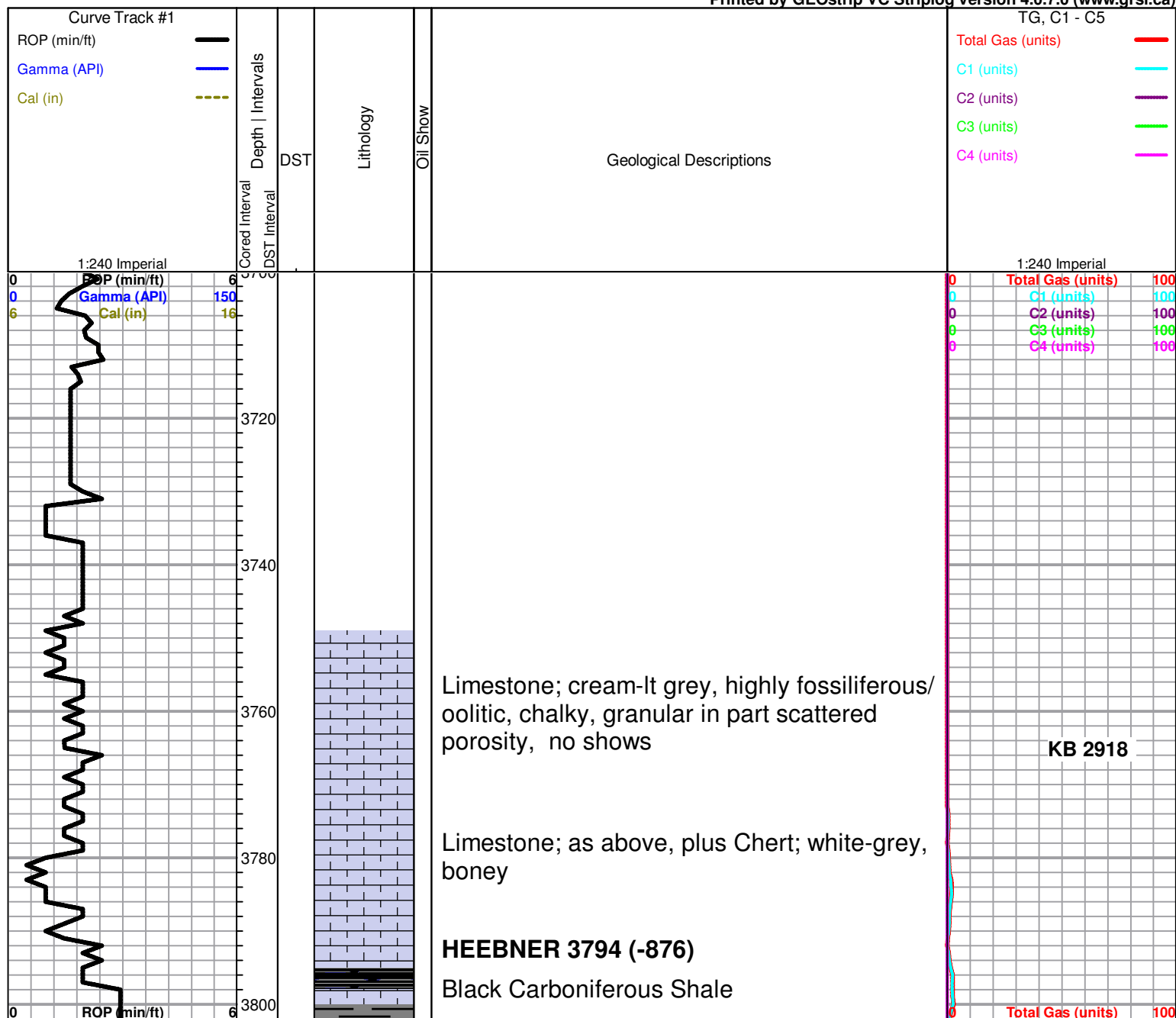
 Lmst fw7>	 shale, gry	 shale, red
 shale, grn	 Carbon Sh	 Ss

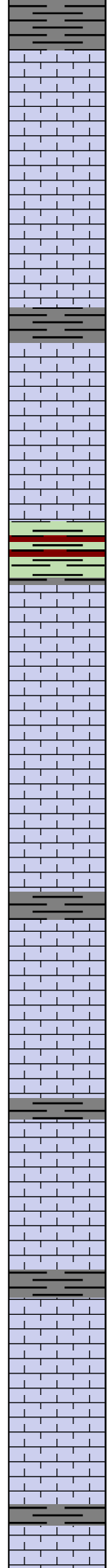
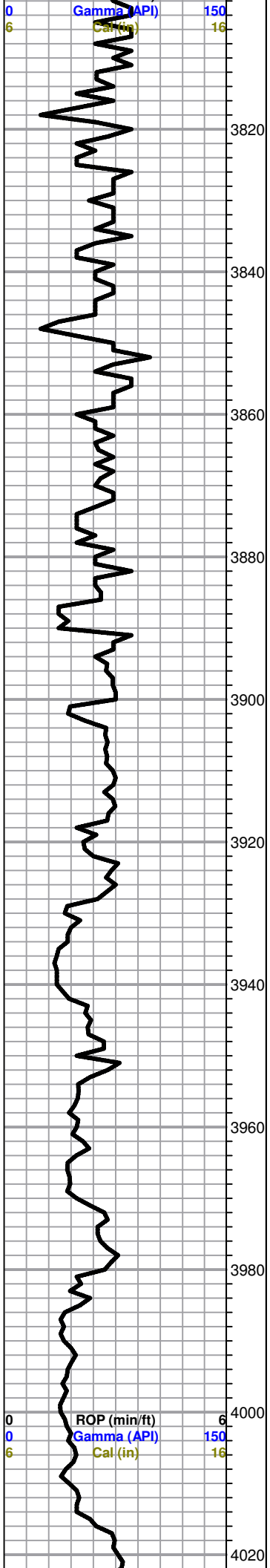
### OTHER SYMBOLS

#### DST

-  DST Int
-  DST alt
-  Core
-  tail pipe

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





Shale; grey-dark grey

**TORONTO 3809 (-891)**

Limestone; grey-cream, fine xln, fossiliferous, dense, chalky in part, few inter xln type porosity, plus white chalk

Limestone; as above no shows

Shale; grey-dark grey

Limestone; cream, fine xln, chalky, dense, fossiliferous-oolitic, poor porosity, no shows

Shale; variety colors

**LANSING 3885 (-967)**

Limestone; cream-buff, fine-medium xln, fossiliferous-oolitic in part, dense, poor visible porosity, slightly chert, no shows

Limestone; as above, cream, fine xln, chalky, fossiliferous, cherty in part

grey shale

Limestone; buff-cream, fine-medium xln, fossiliferous/oolitic, few scattered porosity, sparry calcite crystals, no shows

grey-green shale

Limestone; cream-lt. grey, fine xln, chalky, slightly fossiliferous, dense, cherty, plus, variety color chert

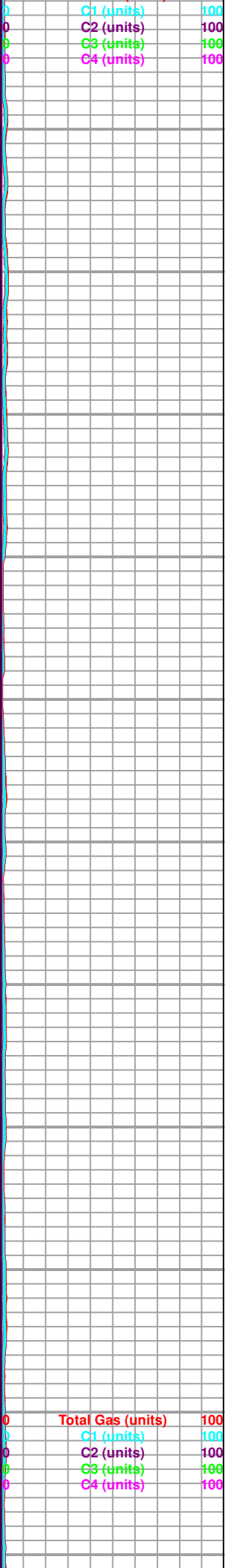
grey-dark grey shale

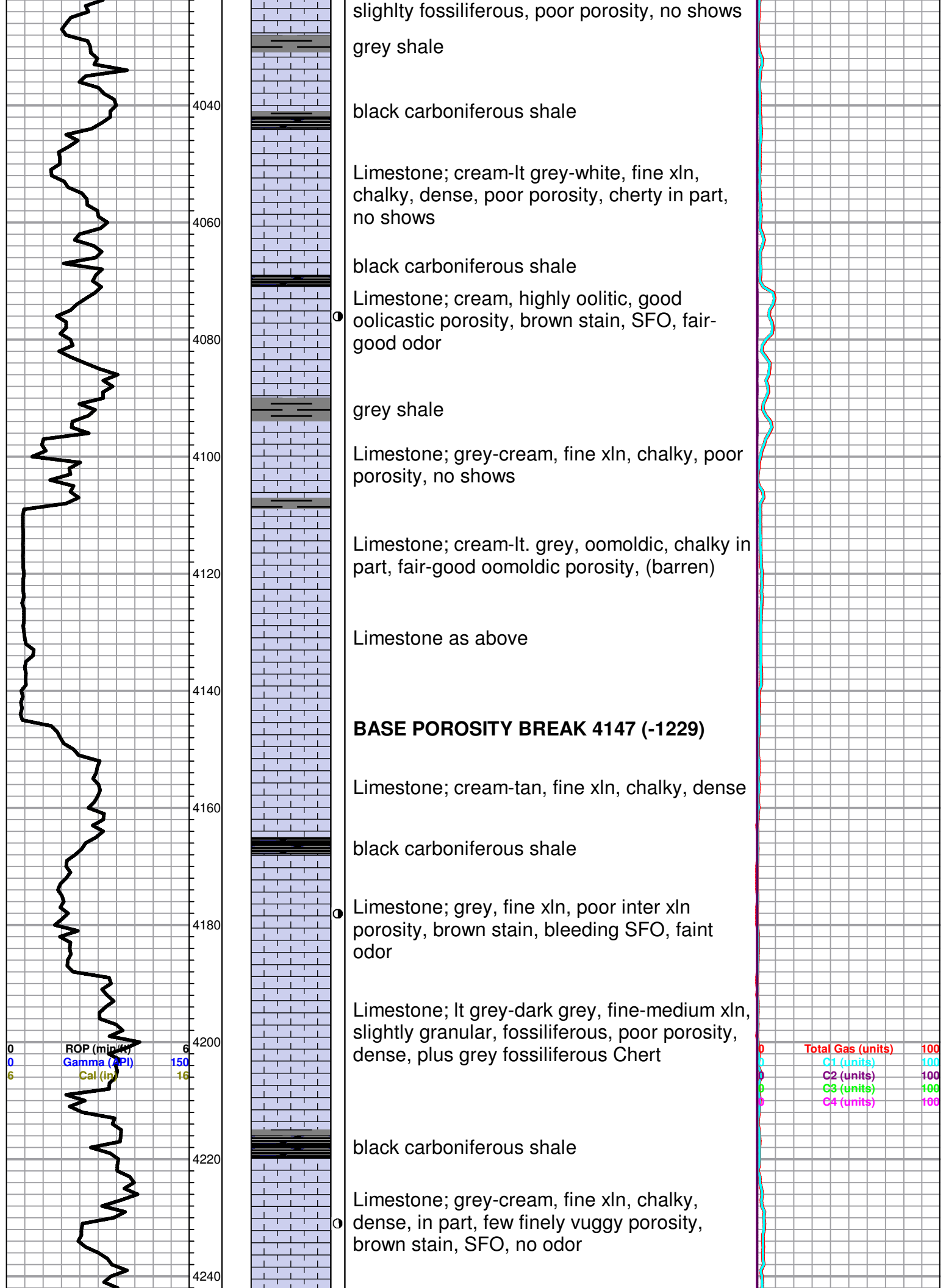
Limestone; cream, highly oolitic/fossiliferous, fair-good fossil cast-oolitic porosity, no shows

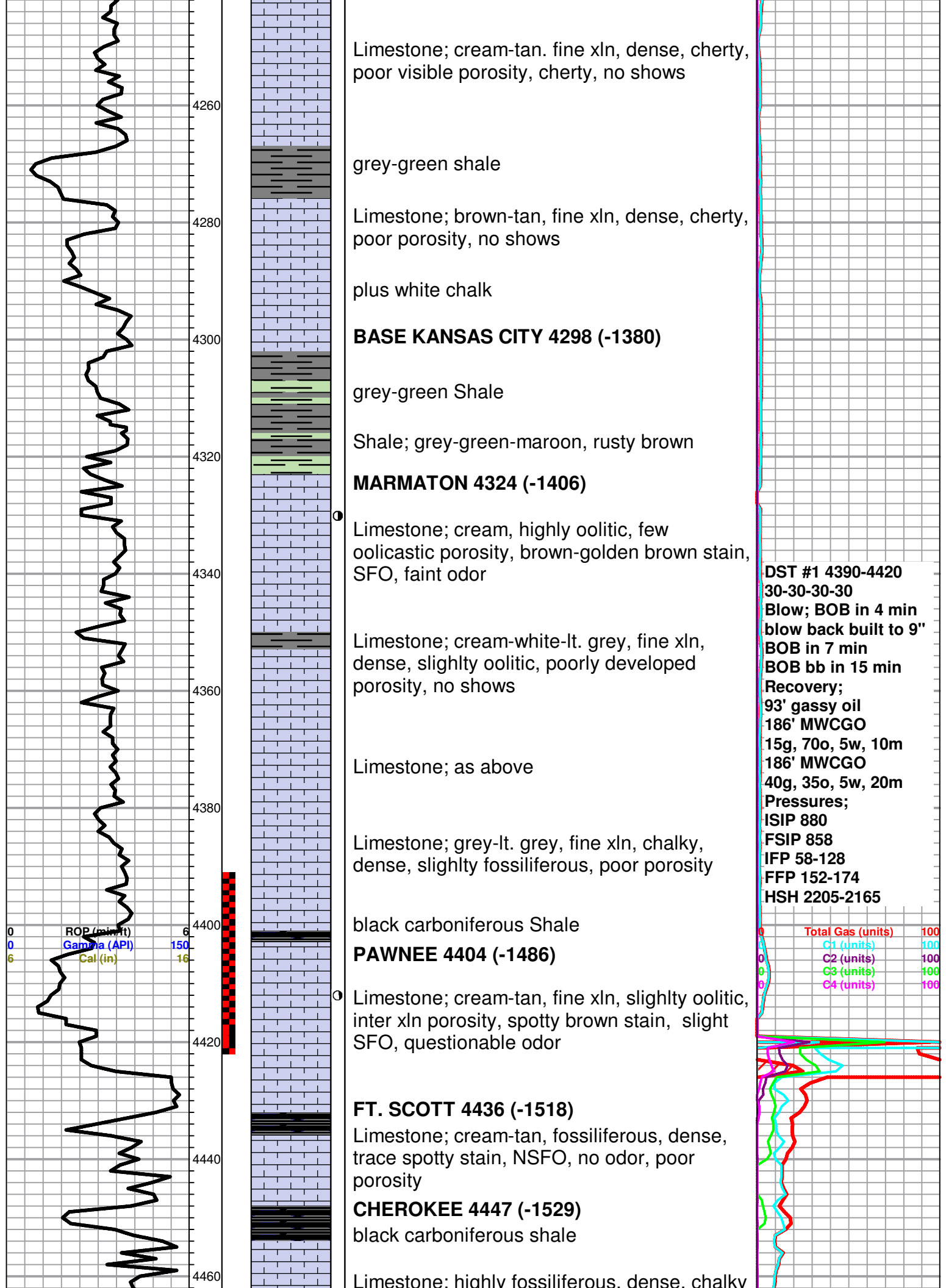
Limestone; as above plus grey-cream, chalky, dense

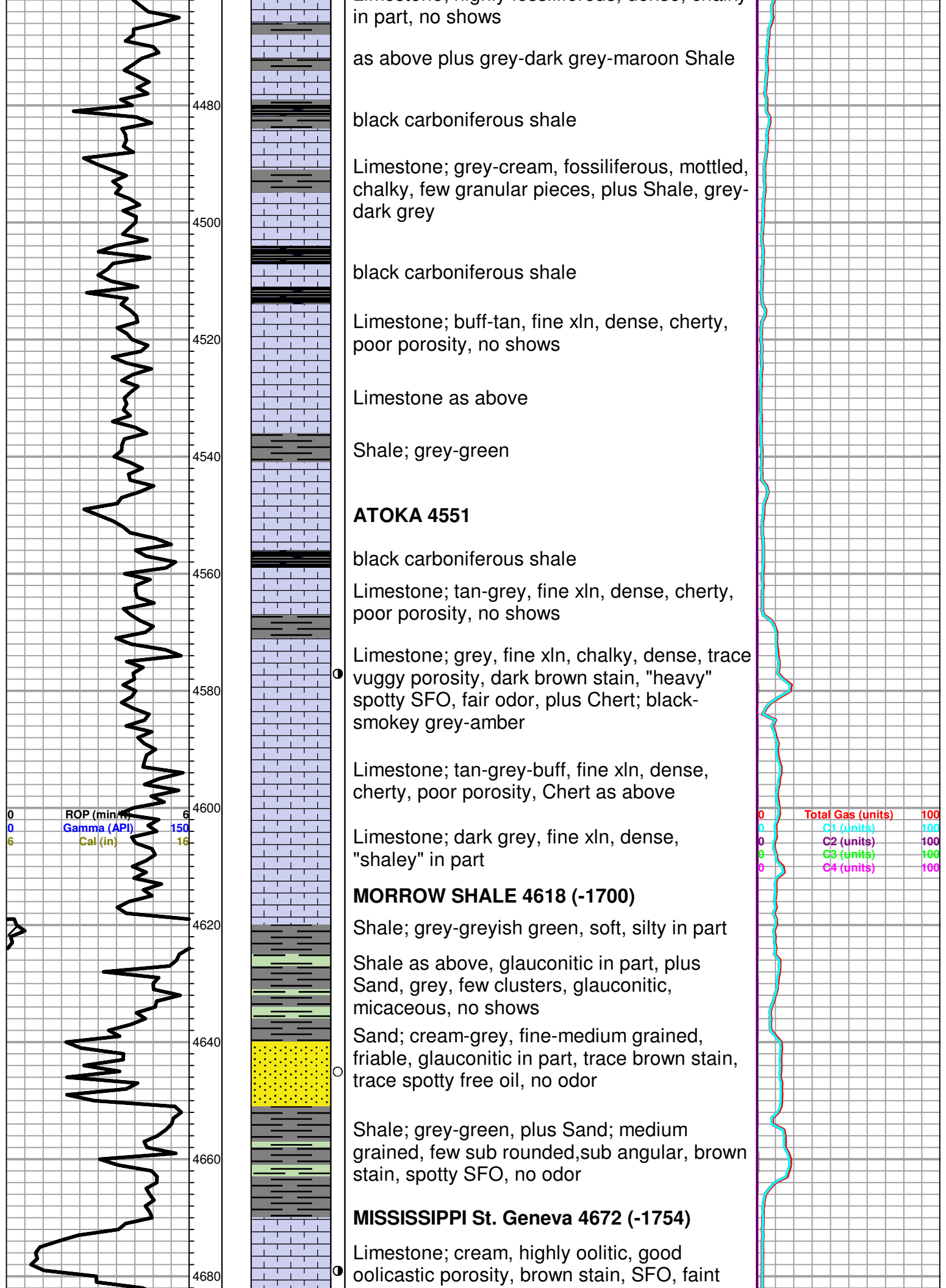
grey shale

Limestone; grey, fine xln, chalky, dense,

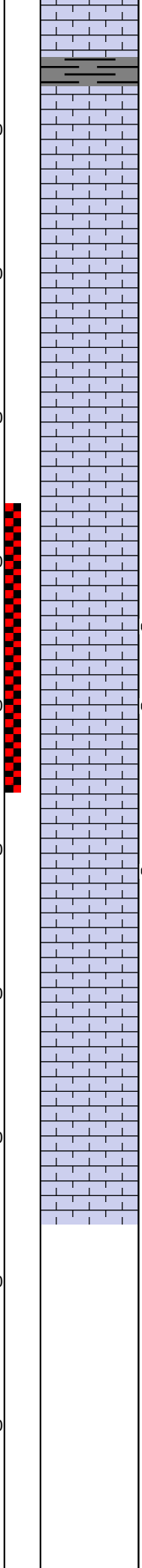
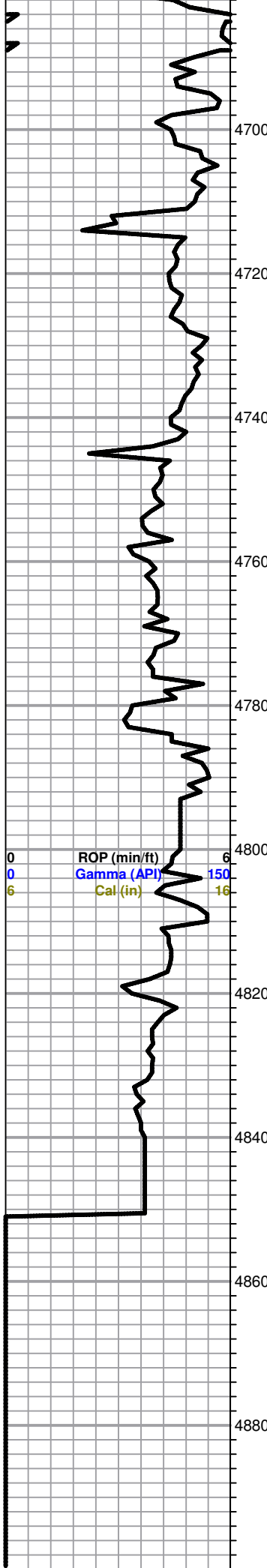












odor  
 Limestone; white-lt. grey, highly oolitic, chalky, trace spotty brown stain, NSFO, no odor  
 Limestone; cream-buff, highly oolitic, fair porosity, brown stain, SFO, no odor (abundant uphole cuttings)  
 Limestone; cream-white, chalky, granular/sandy, oolitic, no shows  
 Limestone; as above plus white chalk  
 Limestone; white-cream, granular/sandy, oolitic in part, white chalk, no shows  
 Limestone; cream-lt. grey-white, chalky, granular/sandy, oolitic, trace spotty brown stain, lt. SFO, no odor  
**St. Louis 'C'**  
 Limestone; cream, oolitic, few scattered oolitic porosity, trace brown stain, SFO, odor when broke  
 Limestone; cream, oolitic, scattered oolitic porosity, questionable trace free oil, no odor  
 Limestone; cream-white, oolitic, granular, poorly developed porosity, n/s  
 Limestone; cream, oolitic in part, granular, plus lt grey-smokey grey chert

**ROTARY TOTAL DEPTH 4850 (-1932)**

**DST #1 4750-4800**  
**30-30-30-60**  
**Blow; Built to 3"**  
**Final;**  
**Built to 2"**  
**Recovery;**  
**30' OCM**  
**5%oil 95% mud**  
**90' GCWM**  
**10%oil 10%w 80%m**  
**90' OCWM**  
**5%o 25%w 70%m**  
**Pressures;**  
**ISIP 1085**  
**FSIP 1086**  
**IFP 22-71**  
**FFP 82-117**  
**HSH 2418-2368**

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