



**Joshua R. Austin**  
**Petroleum Geologist**  
report for  
**Smith Oil Operations**



**COMPANY:** Smith Oil Operations

**LEASE:** Fair Sleeper Trust #4

**FIELD:** Snider South

**LOCATION:** Sw-Sw-Ne-Nw (1175' FNL & 1560' FWL)

**SEC:** 15    **TWSP:** 21s    **RGE:** 11w

**COUNTY:** Stafford    **STATE:** Kansas

**KB:** 1753    **GL:** 1745

**API #** 15-185-23913-00-00

**CONTRACTOR:** Fossil Drilling, Inc (rig #2)

**Spud:** 10/28/2014    **Comp:** 11/02/2014

**RTD:** 3455'    **LTD:** 3452'

**Mud Up:** 2600'    **Type Mud:** Chemical was displaced

**Samples Saved From:** 2500' to RTD

**Drilling Time Kept From:** 2500' to RTD

**Samples Examined From:** 2500' to RTD

**Geological Supervision From:** 2800' to RTD

**Geologist on Well:** Josh Austin

**Surface Casing:** 8 5/8" @ 246'

**Production Casing:** 5 1/2" @ 3452'

**Electronic Surveys:** Gemini Wireline CDL/CNL, DIL

**NOTES**

On the basis of the positive structural position, drill stem test and after reviewing the electric logs it was recommended by all parties involved in the Fair Sleeper Trust #4 to run 5 1/2" production casing to further test the Arbuckle and Simpson. The Lansing J, I, H, should be tested before plugging this well.

**Smith Oil Operations**  
**well comparison sheet**

DRILLING WELL

Fair-Sleeper Trust NW #4

1753 KB

Formation	Sample	Sub-Sea	Log	Sub-Sea
Anhydrite	472	1281	474	1279
Topeka	2655	-902	2649	-896
Heebner	2939	-1186	2936	-1183
Toronto	2958	-1205	2952	-1199
Douglas	2970	-1217	2964	-1211
Brown Lime	3068	-1315	3063	-1310
Lansing	3086	-1333	3081	-1328
Base KC	3320	-1567	3317	-1564
Simpson Sand	3353	-1600	3347	-1594
Arbuckle	3380	-1627	3375	-1622
Total Depth	3455	-1702	3452	-1699

COMPARISON WELL

Fair-Sleeper Trust NW #1

1763 KB

Structural Relationship		Log	Sub-Sea
Sample	Log	492	1271
Log	Sub-Sea	2669	-906
Sample	Log	2952	-1189
Log	Sub-Sea	2971	-1208
Sample	Log	2982	-1219
Log	Sub-Sea	3082	-1319
Sample	Log	3100	-1337
Log	Sub-Sea	3332	-1569
Sample	Log	3360	-1597
Log	Sub-Sea	3390	-1627
Sample	Log	3475	-1712

COMPARISON WELL

Sleeper #1-15

1755 KB

Structural Relationship		Log	Sub-Sea
Sample	Log	469	1286
Log	Sub-Sea	2644	-889
Sample	Log	2928	-1173
Log	Sub-Sea	2958	-1203
Sample	Log	3057	-1302
Log	Sub-Sea	3074	-1319
Sample	Log	3308	-1553
Log	Sub-Sea	3356	-1601
Sample	Log	3520	-1765



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Smith Oil Operations

15-21s-11w Stfford Ks

410 N. Adsms, P.O. Box 550  
Hutchinson Ks. 67506

Fair Sleeper Trust#4

ATTN: Josh Austin

Job Ticket: 57870 DST#: 1

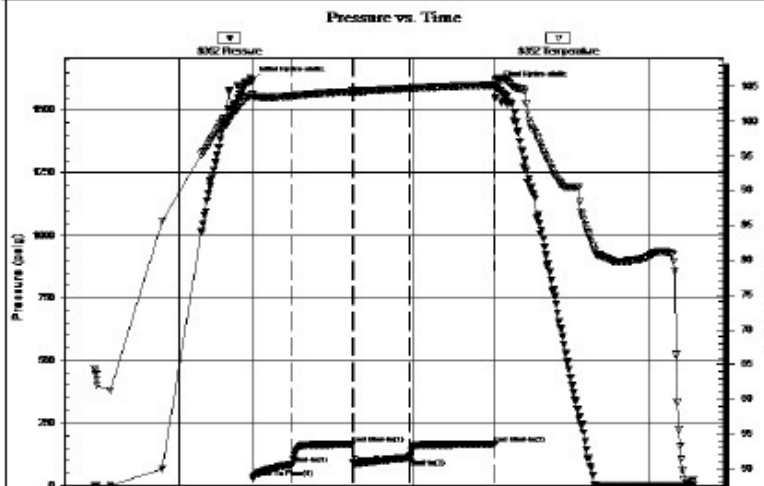
Test Start: 2014.11.01 @ 22:54:53

**GENERAL INFORMATION:**

Formation: Simpson Sd.  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:56:23  
 Time Test Ended: 06:34:53  
 Interval: 3331.00 ft (KB) To 3372.00 ft (KB) (TVD)  
 Total Depth: 3372.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gary Pevoteaux  
 Unit No: 56  
 Reference Elevations: 1753.00 ft (KB)  
 1745.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8352** Outside  
 Press@RunDepth: 111.68 psig @ 3332.00 ft (KB)  
 Start Date: 2014.11.01 End Date: 2014.11.02  
 Start Time: 22:54:58 End Time: 06:34:52  
 Capacity: 8000.00 psig  
 Last Calib.: 2014.11.02  
 Time On Btm: 2014.11.02 @ 00:55:23  
 Time Off Btm: 2014.11.02 @ 04:02:53

**TEST COMMENT:** IF: Strong blow . B.O.B. in 95 secs.  
 IS: Weak blow . (surface)  
 FF: Strong blow . B.O.B. in 1 min.  
 FST: Weak blow . 1 - 3 1/2".



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1617.39	103.80	Initial Hydro-static
1	28.93	103.41	Open To Flow (1)
31	83.77	103.59	Shut-In(1)
78	164.30	104.29	End Shut-In(1)
78	90.57	104.26	Open To Flow (2)
122	111.68	104.70	Shut-In(2)
187	164.70	105.25	End Shut-In(2)
188	1592.65	105.99	Final Hydro-static





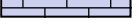


### Recovery

Length (ft)	Description	Volume (bbl)
290.00	GMCO 11%g 34%m 55%o	2.66
0.00	2240 ft.of GIP	0.00

### Gas Rates

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

### ROCK TYPES

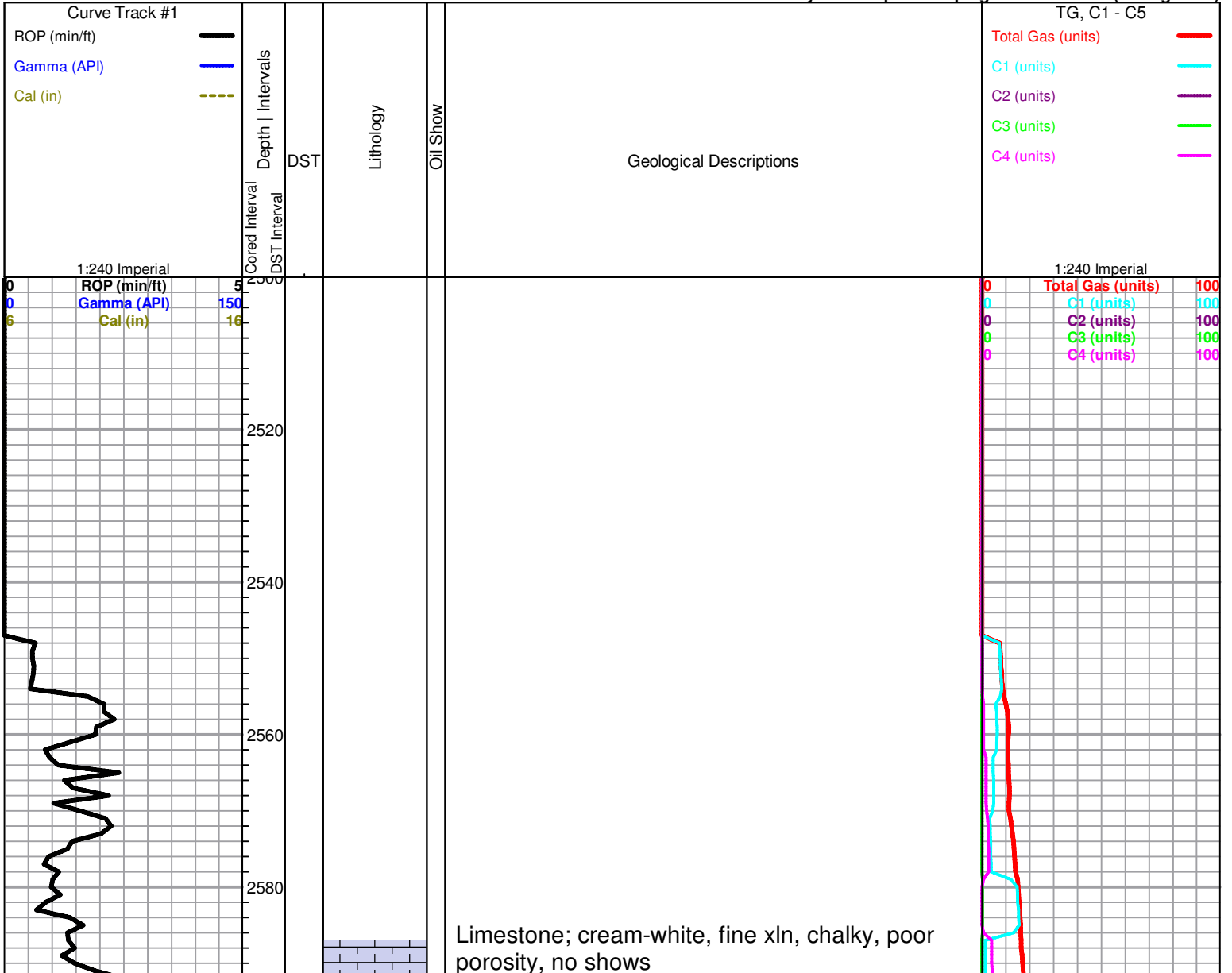
 Dolsec	 shale, grn	 Carbon Sh	 Slst
 Lmst fw7>	 shale, gry	 Ss	

### OTHER SYMBOLS

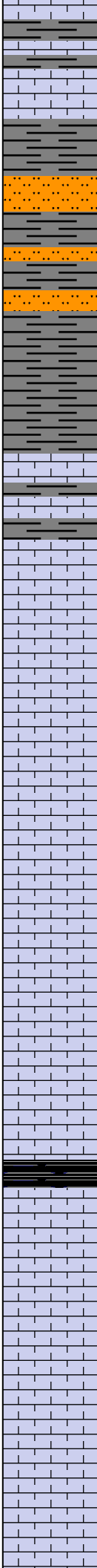
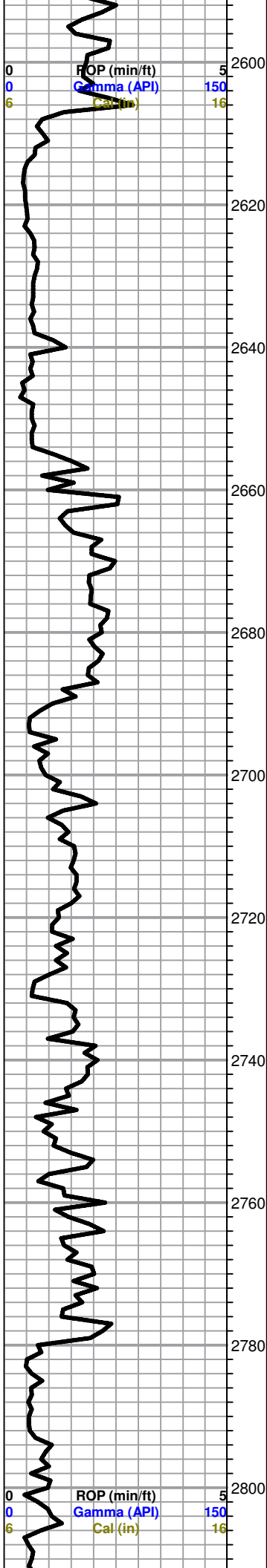
#### DST

-  DST Int
-  DST alt
-  Core
-  tail pipe

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







**SEVERY SAND 2606 (-853)**

Sand; greyish green, silty, micaceous in part, no shows

as above plus grey-greyish green, silty shale

few greyish green siltstone, no shows, plus grey-green shale, soft, silty

**TOPEKA 2655 (-902)**

Limestone; cream, fossiliferous, chalky in part, dense, poorly developed porosity, no shows  
grey shale

Limestone; cream-buff-white, fine xln, fossiliferous in part, no shows

Limestone; cream-buff, fossiliferous, granular, cherty in part, no shows, trace white Chert

Limestone; as above

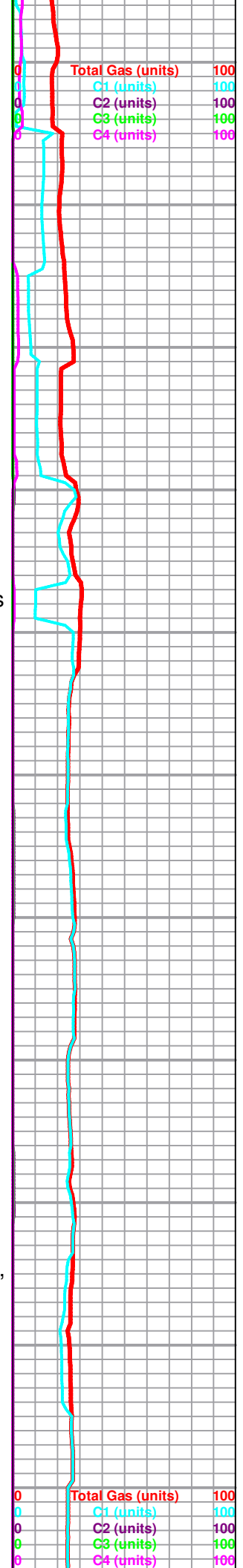
Limestone; cream-grey, fine-medium xln, fossiliferous, granular, no shows, fair inter xln porosity, no shows

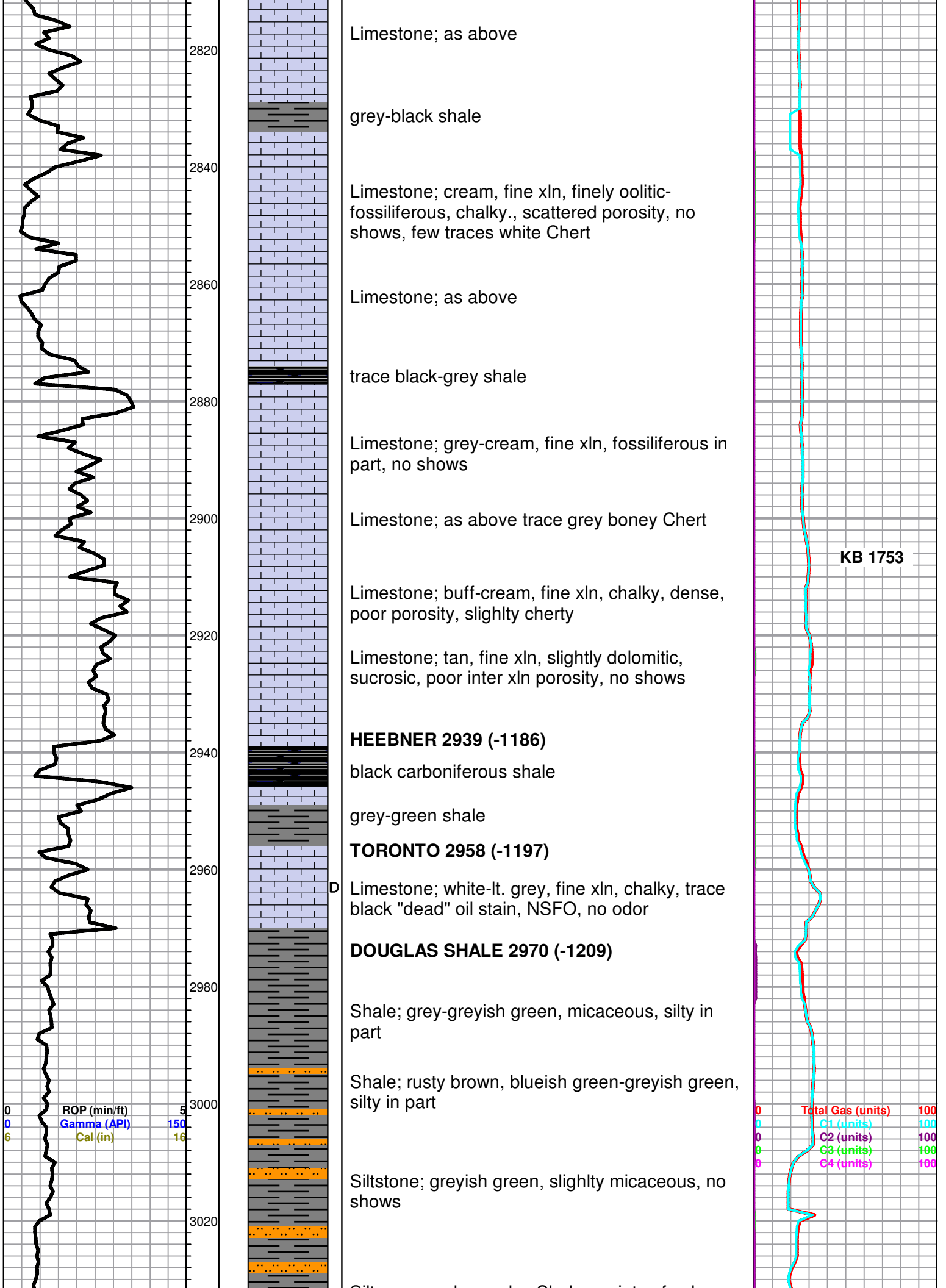
Limestone; tan-cream, granular, few fossils-fine oolites, chalky in part, no shows

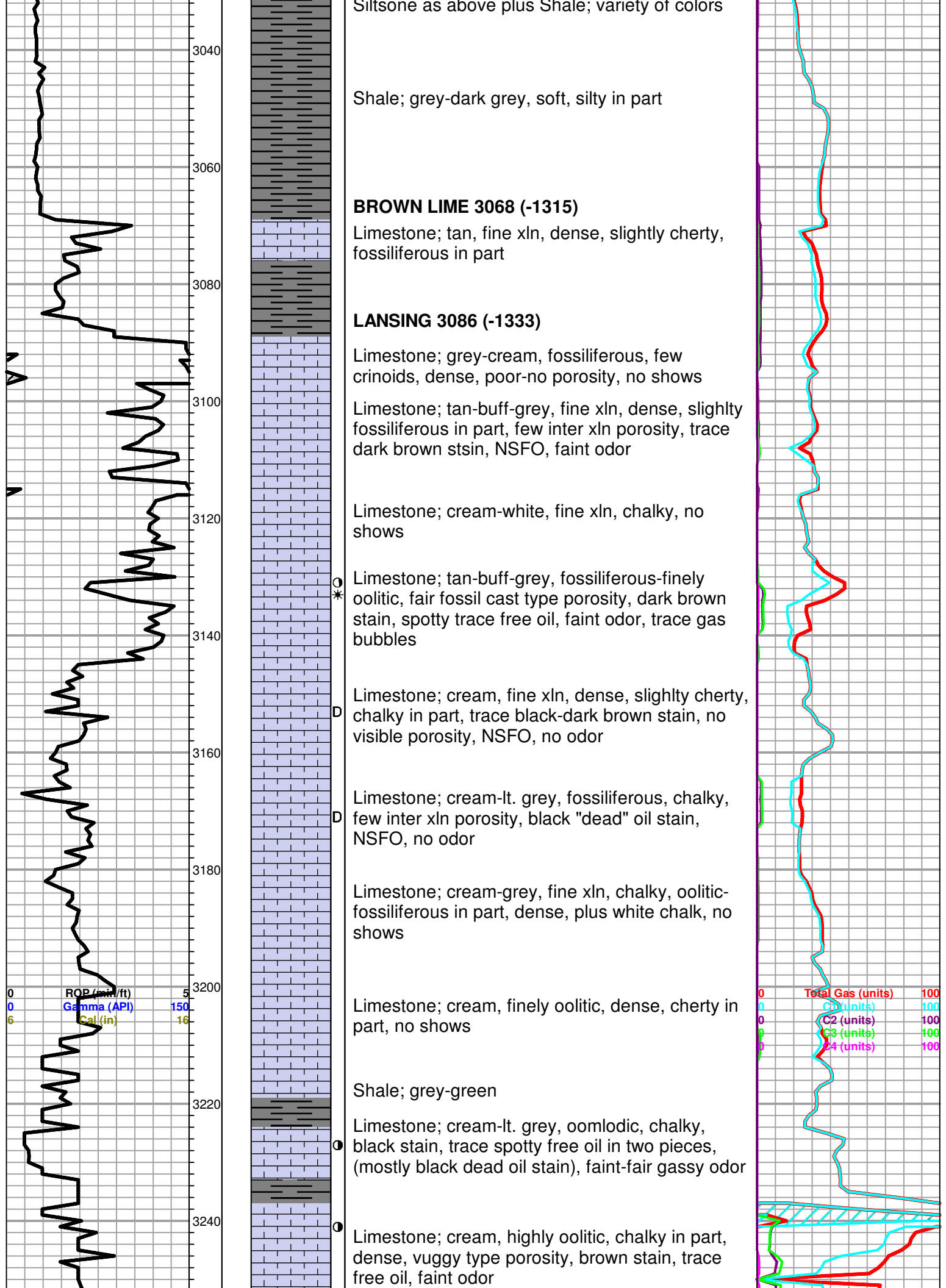
black carboniferous shale, plus dark grey shale

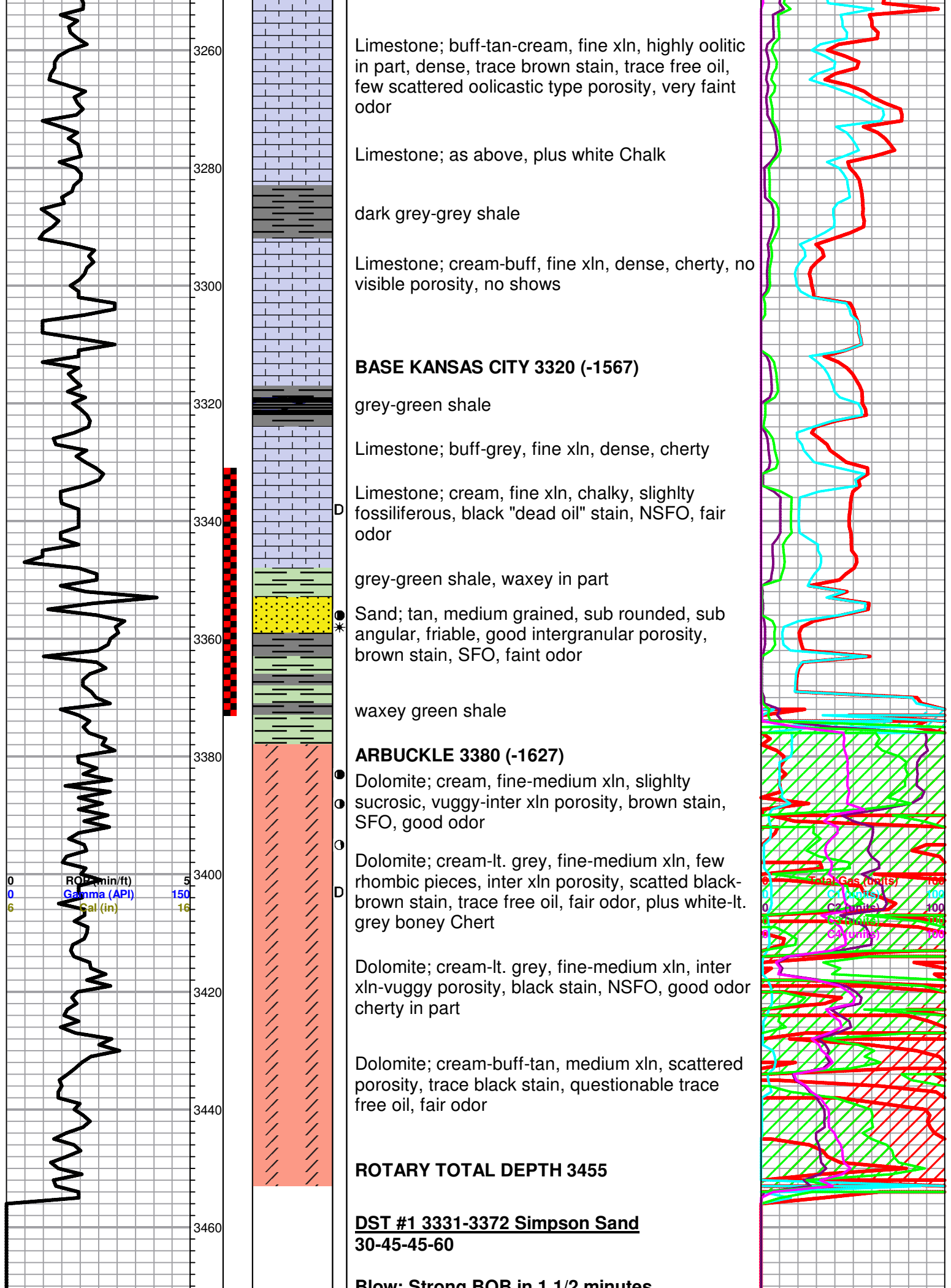
Limestone; lt. grey-cream, fine xln, chalky, dense, no shows, trace FeS<sub>2</sub>

Limestone; white-cream, fine xln, granular, slightly fossiliferous, scattered fine xln-finely oomoldic porosity, no shows









3480

3500

3520

**Weak surface blow back  
Final blow BOB in 1 minute  
Weak blow back**

**Recovery;  
2240' Gas in pipe  
290' GMCO (11%gas, 55%oil, 34%mud)**

**Pressure;  
ISIP 164  
FSIP 165  
IFP 29-84  
FFP 91-112  
HSH 1617-1593**