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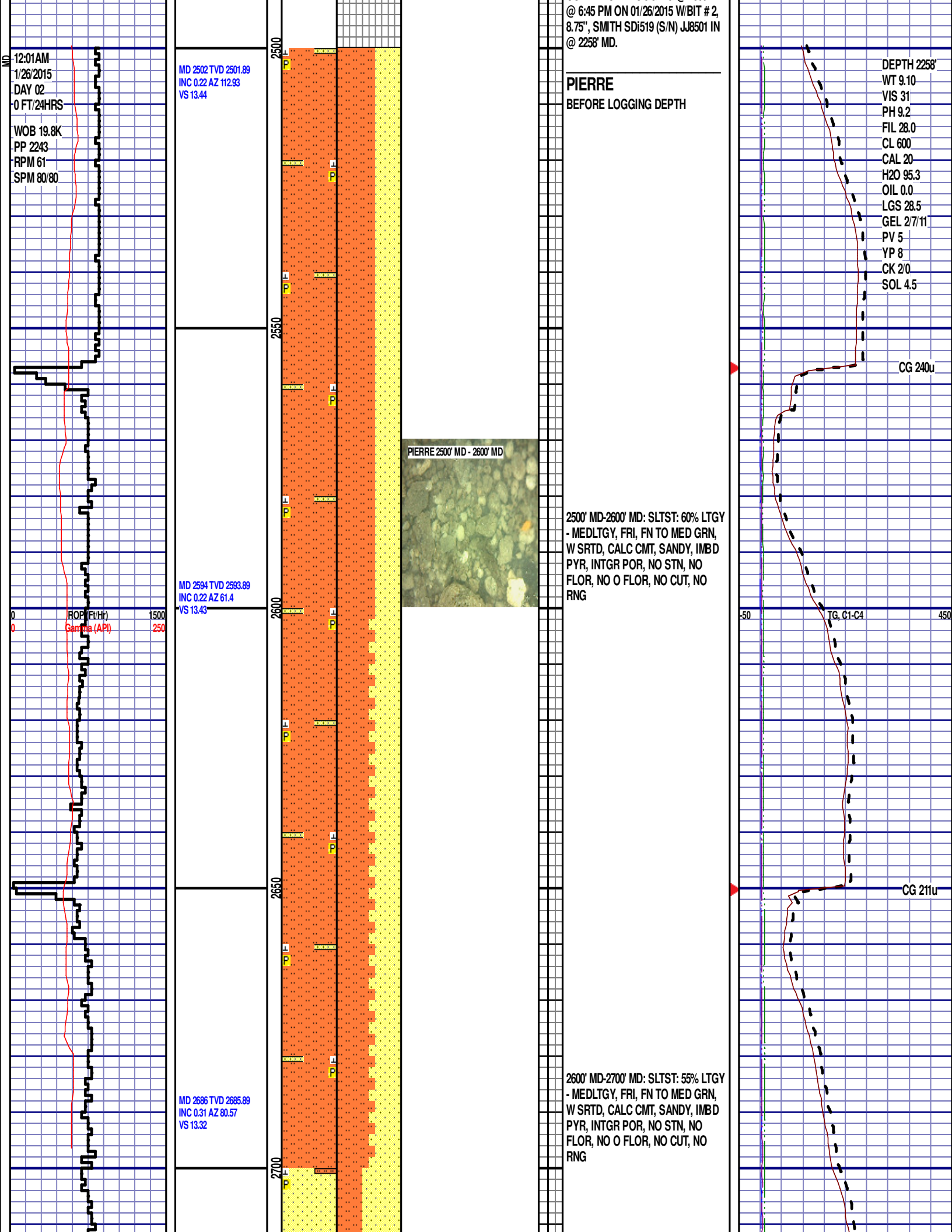
WWW.HZMUD.COM/25

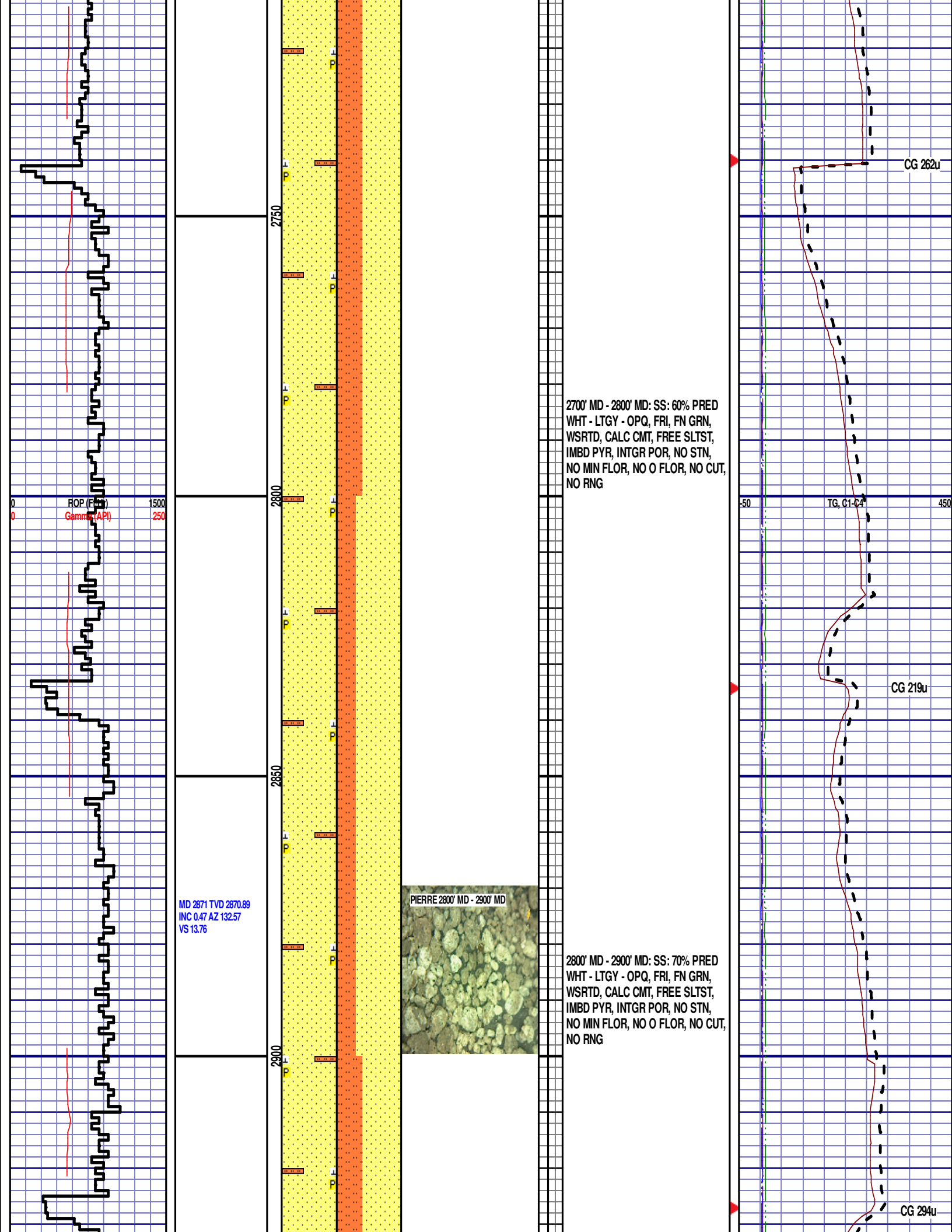
Customer Information	Well Information
<p>Operator: Noble Energy Inc. 1625 Broadway Suite 2200 Denver, Colorado 80202</p> <p>Geologist: Teresa Malesardi Noble Energy Inc.</p>	<p>Well Name: Crow Creek AA01-743</p> <p>Location: 1-T6N-R63W 290' FNL, 2238' FEL</p> <p>County: Weld State: Colorado</p>
Mud Logging Details	
<p>Logger: Scott Haney & Mark Dennis</p> <p>Log Interval: 2500' MD to 6850' MD</p> <p>Start Date: January 25, 2015</p> <p>Release Date: January 30, 2015</p>	<p>Drilling Rig: H&P 343</p> <p>Total Depth: 11906' MD</p> <p>TD Date: January 30, 2015</p> <p>Formation: Niobrara C Chalk</p> <p>KB Elevation: 4857'</p> <p>GR Elevation: 4833'</p> <p>API Number: 05-123-40161-0000</p>

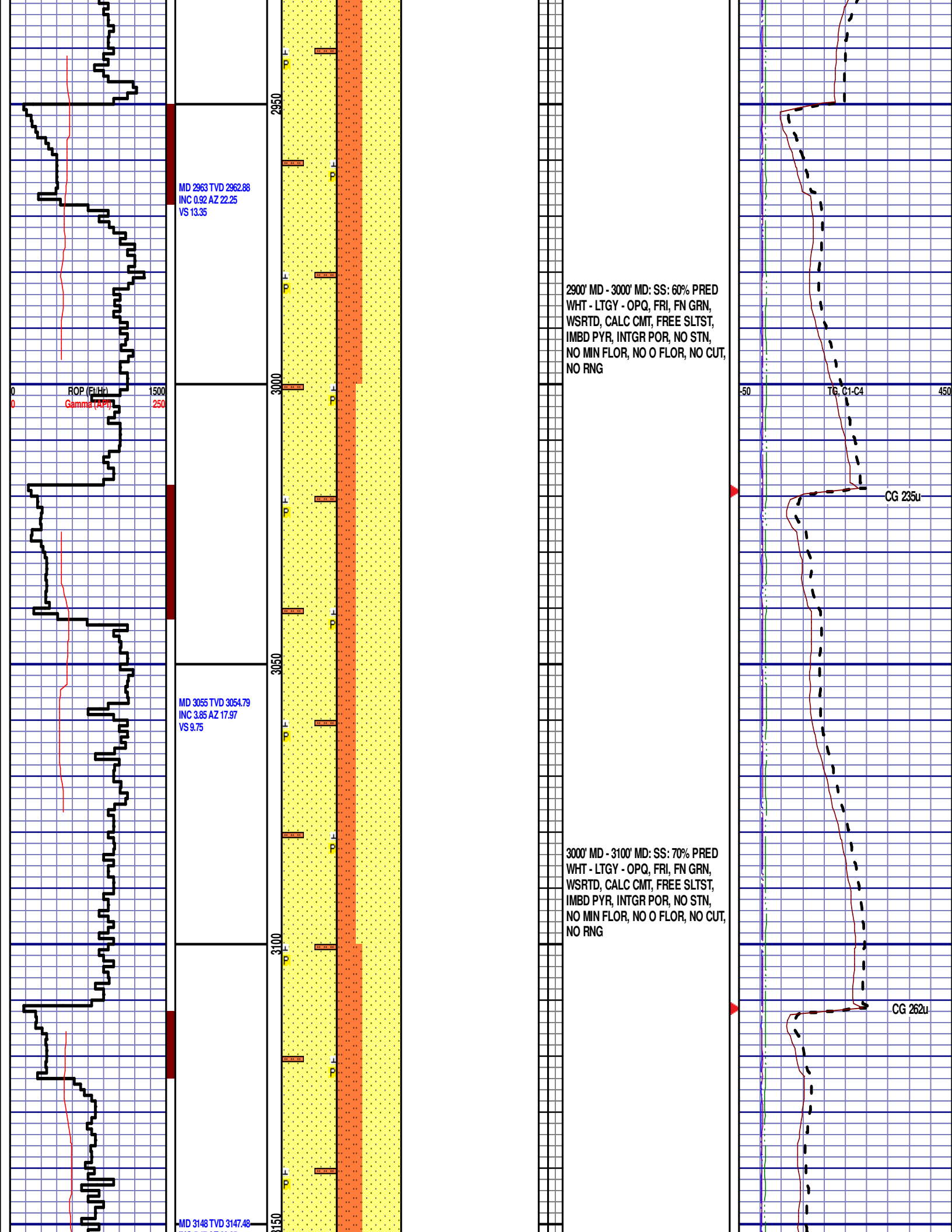
ROCK TYPES

	shale		Congl		Salt		gw		hvycrbsh
	Anhy		Dol		Shale		lmywash		nosmpl
	Bent		Gyp		Shcol		ogw		Lsdetrst
	Brec		Igne		Shgy		olmywash		sltst
	Cht		Lmst		Sltst		oshly gw		sdy sh
	Clyst		Meta		Ss		shly gw		
	Coal		Mrlist		Till		sdygw		

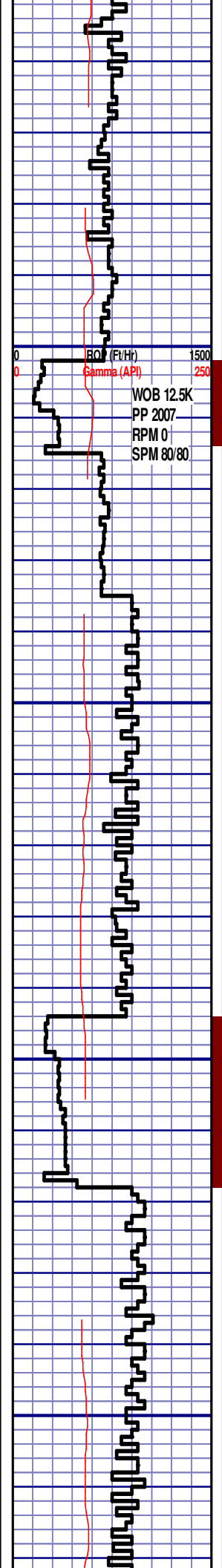
ROP (Ft/Hr) Gamma (API)	Drill Depth v. Time	Survey Data	Depth	Lithology	Lithology Percentages	Sample Photographs	Geological Description	TG (1-8) C1 (units) C2 (units) C3 (units) C4 (units)	Total Gas, C1-C4
0 1500	0 250		24				NOBLE ENERGY INC. CROW CREEK AA01-743 1-T6N-R63W 290' FNL, 2238' FEL WELD CO., CO	50 450	TG, C1-C4
							H&P 343 LOGGERS: SCOTT HANEY MARK DENNIS CALLED OUT BY COMPANY MAN @ 12:00 PM ON 01/25/2015 COMMENCED LOGGING @ 2500' MD		







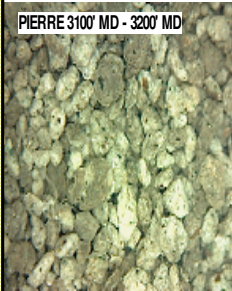
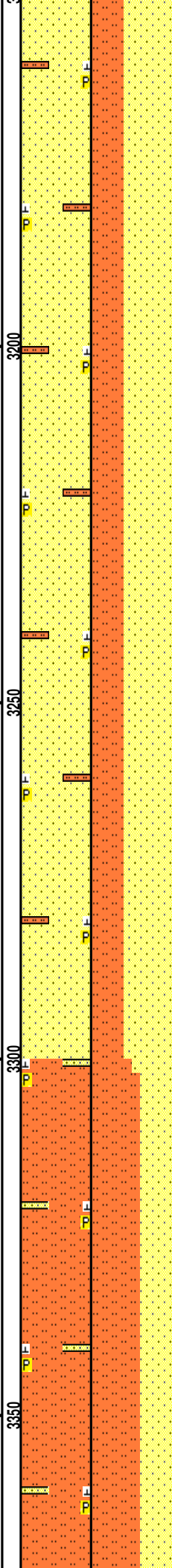
INC 5.47 AZ 22.85
VS 2.75



WOB 12.5K
PP 2007
RPM 0
SPM 80/80

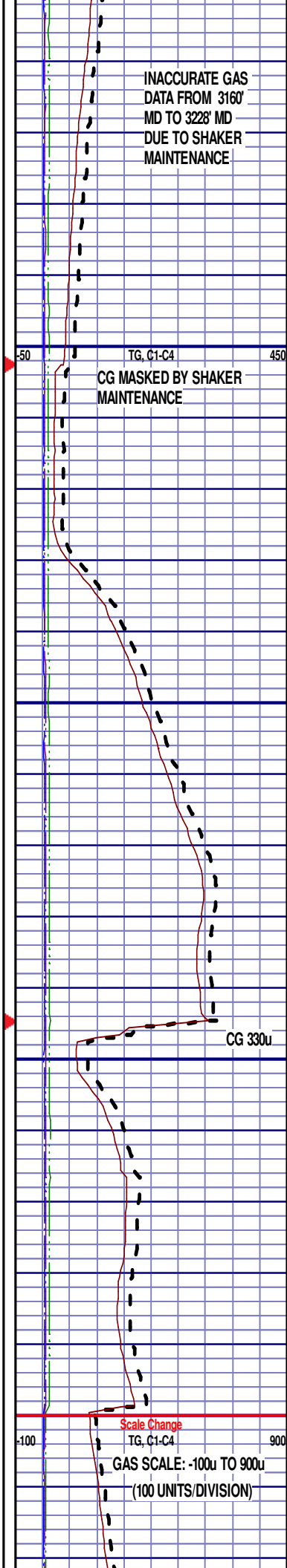
MD 3240 TVD 3238.96
INC 6.75 AZ 22.6
VS -6.21

MD 3331 TVD 3329.15
INC 8.55 AZ 23.98
VS -17.23



3100' MD - 3200' MD: SS: 60% PRED
WHT - LTGY - OPQ, FRI, FN GRN,
WSRTD, CALC CMT, FREE SLTST,
IMBD PYR, INTGR POR, NO STN,
NO MIN FLOR, NO O FLOR, NO CUT,
NO RNG

3200' MD - 3300' MD: SS: 60% PRED
WHT - LTGY - OPQ, FRI, FN GRN,
WSRTD, CALC CMT, FREE SLTST,
IMBD PYR, INTGR POR, NO STN,
NO MIN FLOR, NO O FLOR, NO CUT,
NO RNG



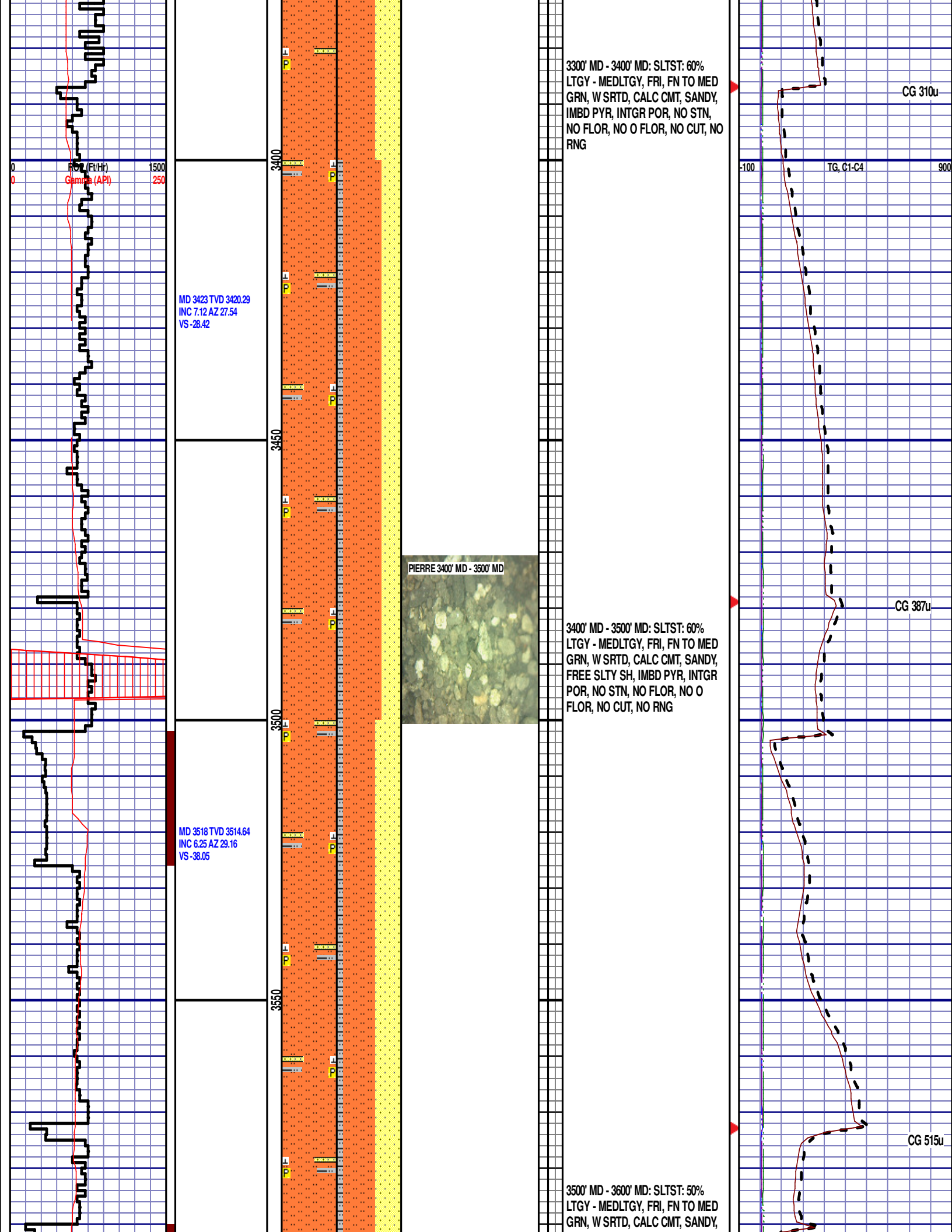
INACCURATE GAS
DATA FROM 3160'
MD TO 3228' MD
DUE TO SHAKER
MAINTENANCE

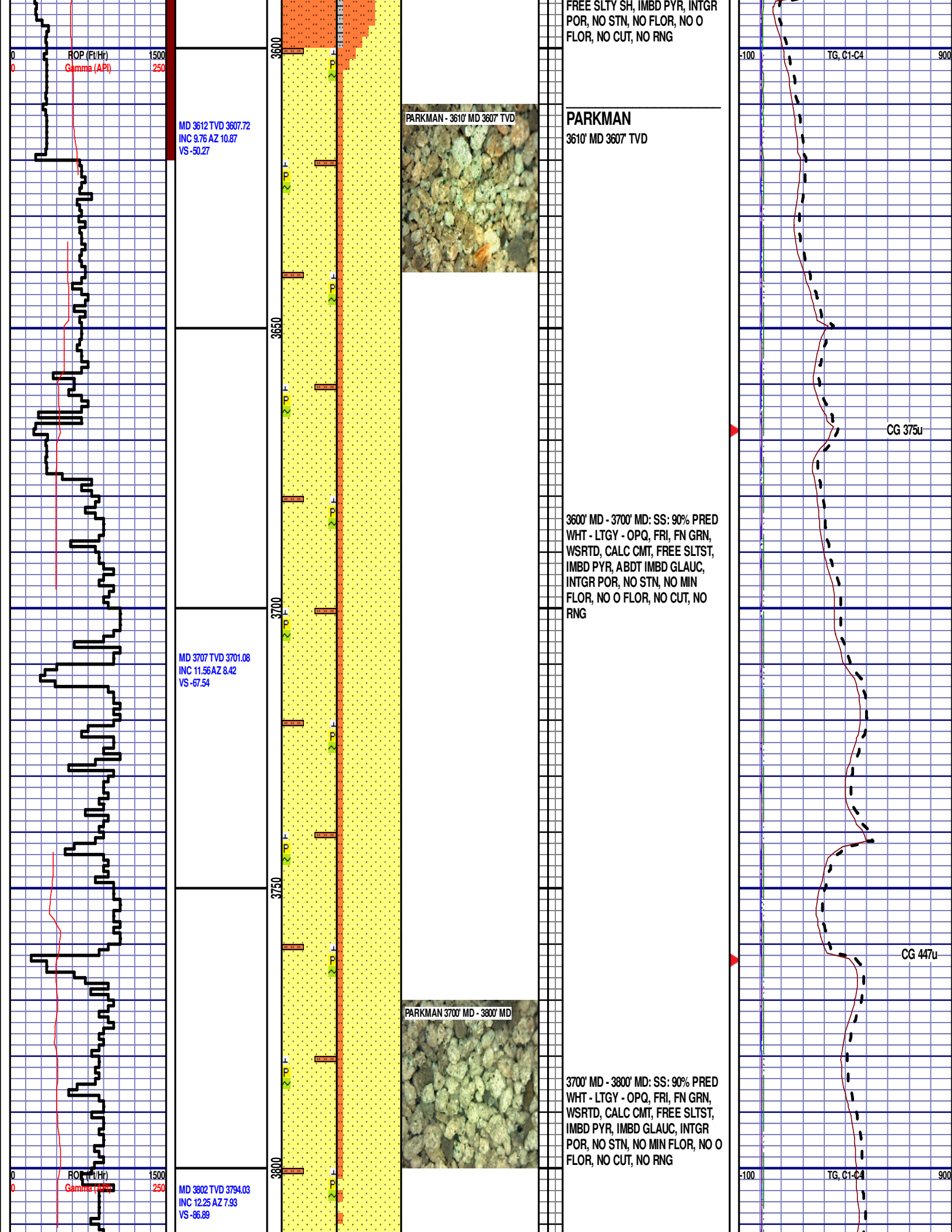
CG MASKED BY SHAKER
MAINTENANCE

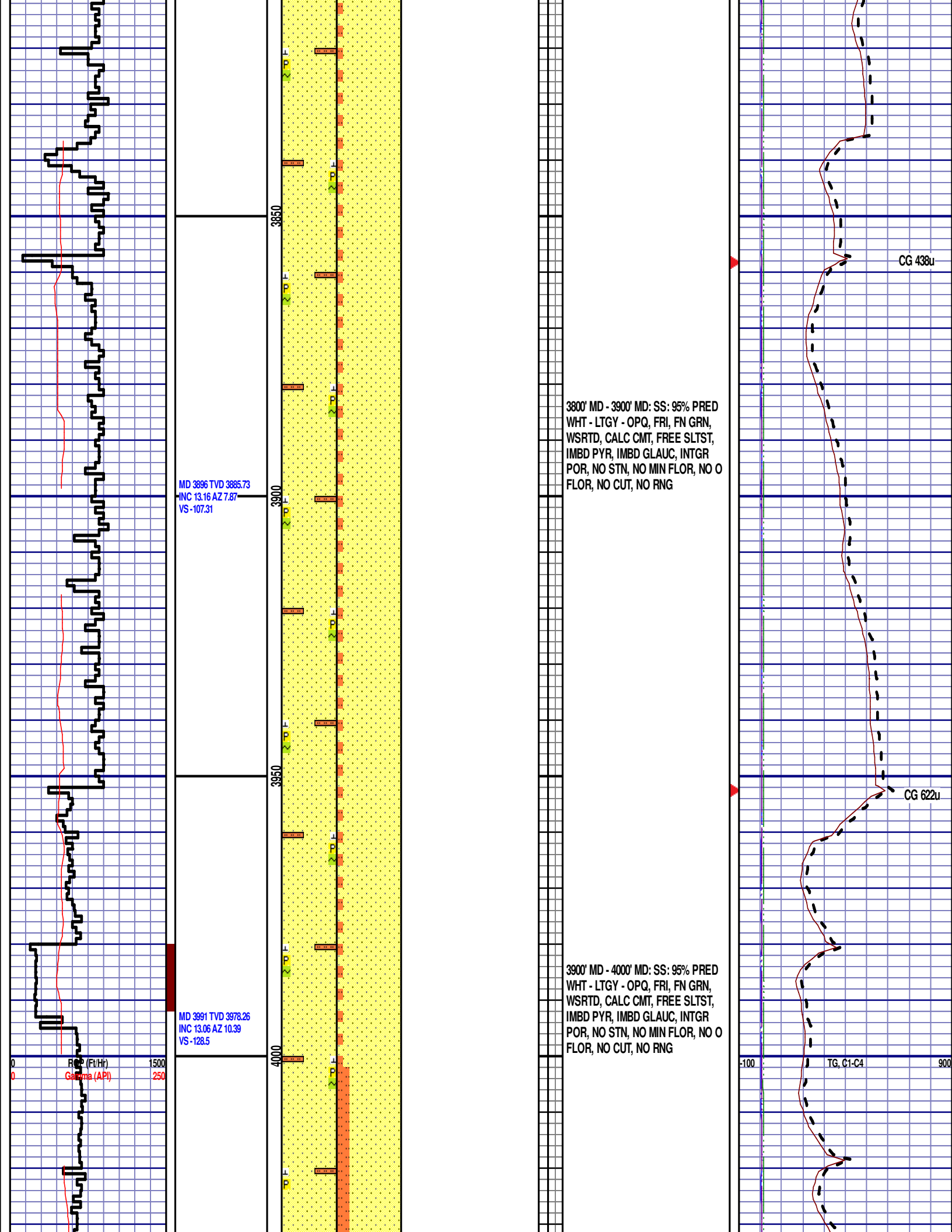
CG 330u

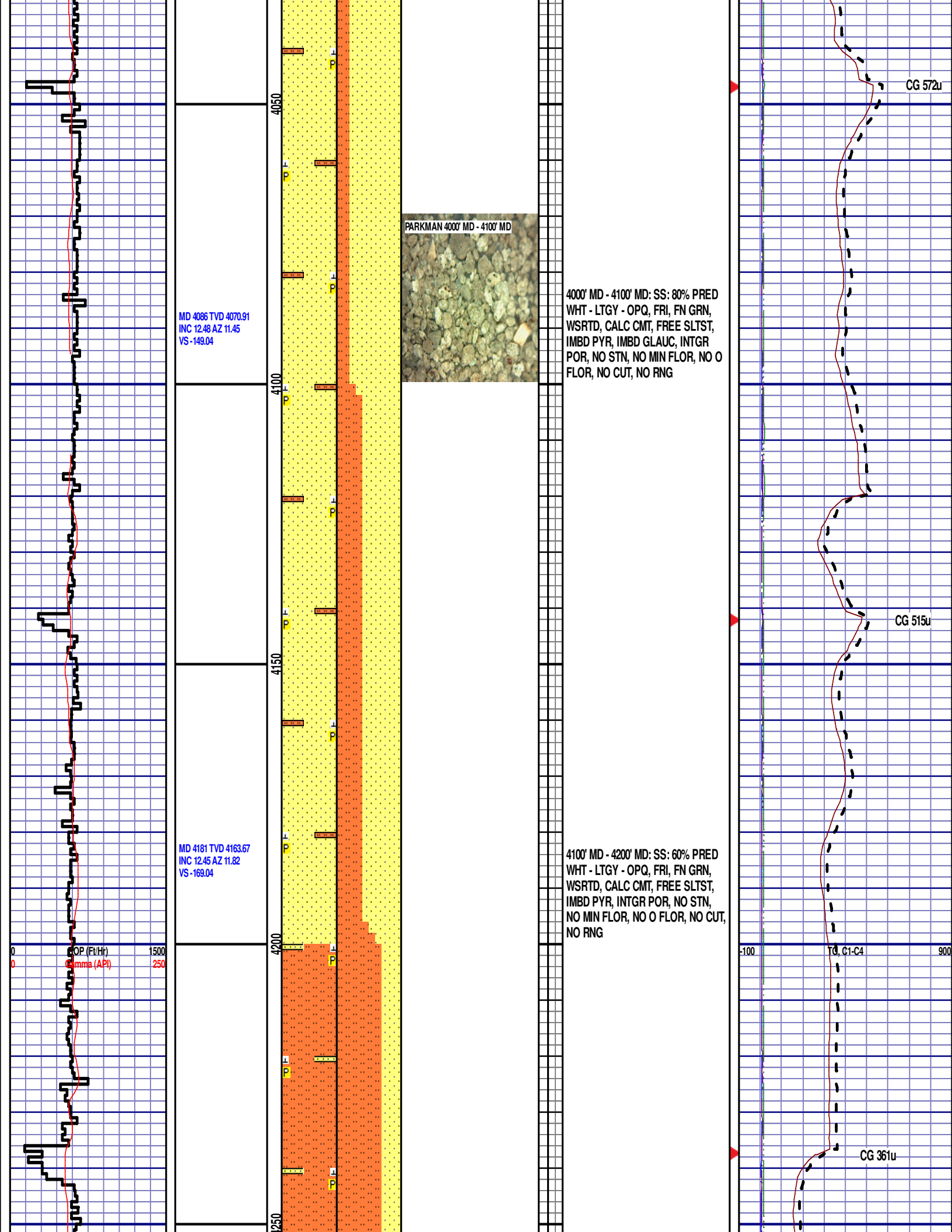
Scale Change
TG, C1-C4

GAS SCALE: -100u TO 900u
(100 UNITS/DIVISION)









MD 4276 TVD 4256.86
INC 9.89 AZ 10.95
VS -187

12:01AM
1/27/2015
DAY 03
1816 FT/24HRS

WOB 31.5K
PP 2810
RPM 60
SPM 74/75

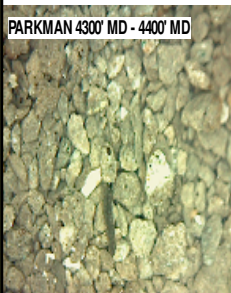
MD 4370 TVD 4349.68
INC 8.26 AZ 11.77
VS -201.48

ROP (Ft/Hr) 1500
Gamma (API) 250

MD 4465 TVD 4443.76
INC 7.71 AZ 10.15
VS -214.38

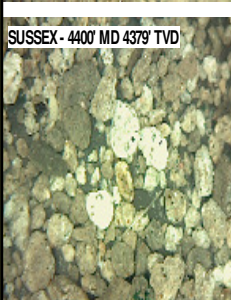
4200' MD - 4300' MD: SLTST: 70%
LTGY - MEDLTGY, FRI, FN GRN, W
SRTD, CALC CMT, SANDY, IMBD
PYR, INTGR POR, NO STN, NO MIN
FLOR, NO O FLOR, NO CUT, NO
RNG

PARKMAN 4300' MD - 4400' MD



4300' MD - 4400' MD: SLTST: 80%
LTGY - MEDLTGY, FRI, FN GRN, W
SRTD, CALC CMT, SANDY, IMBD
PYR, INTGR POR, NO STN, NO MIN
FLOR, NO O FLOR, NO CUT, NO
RNG

SUSSEX - 4400' MD 4379' TVD

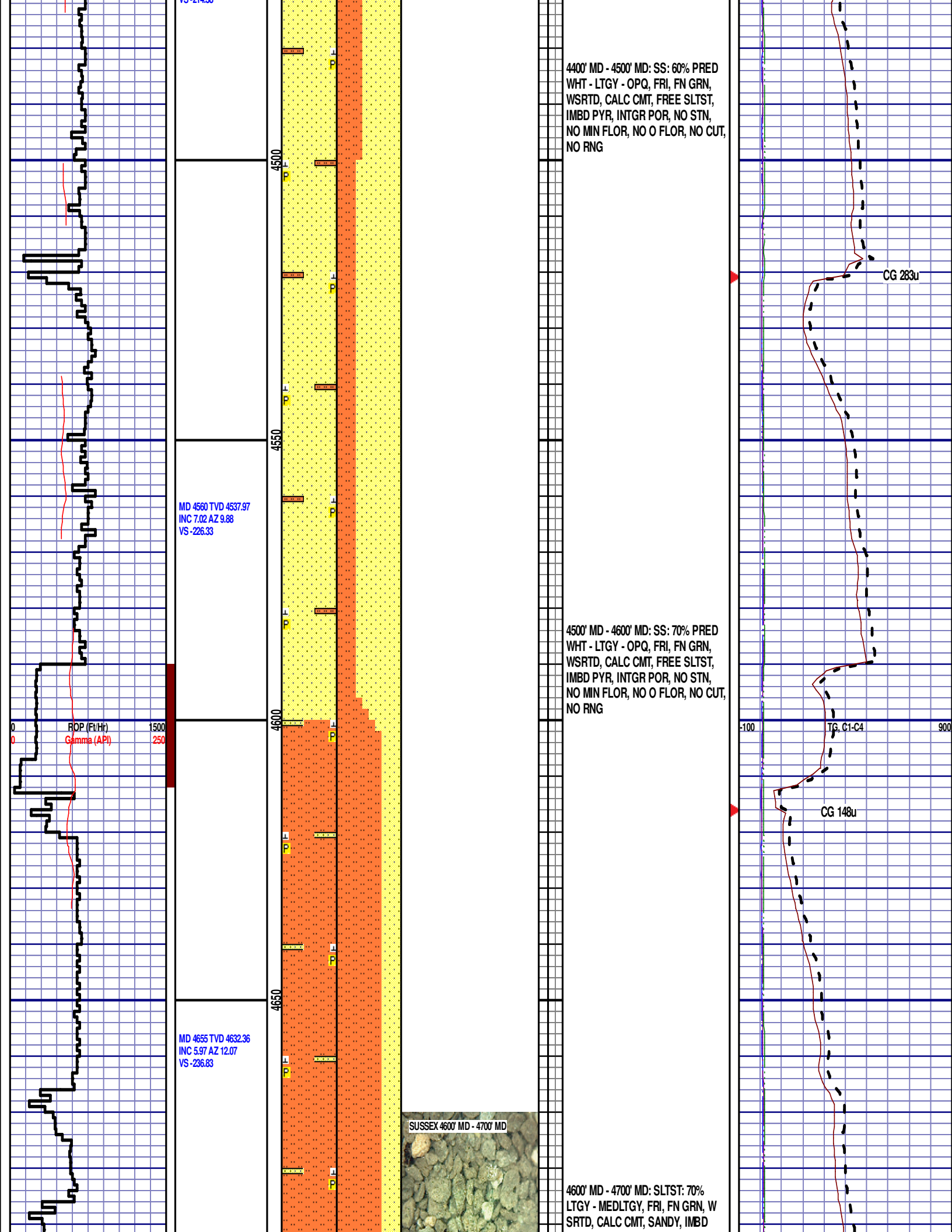


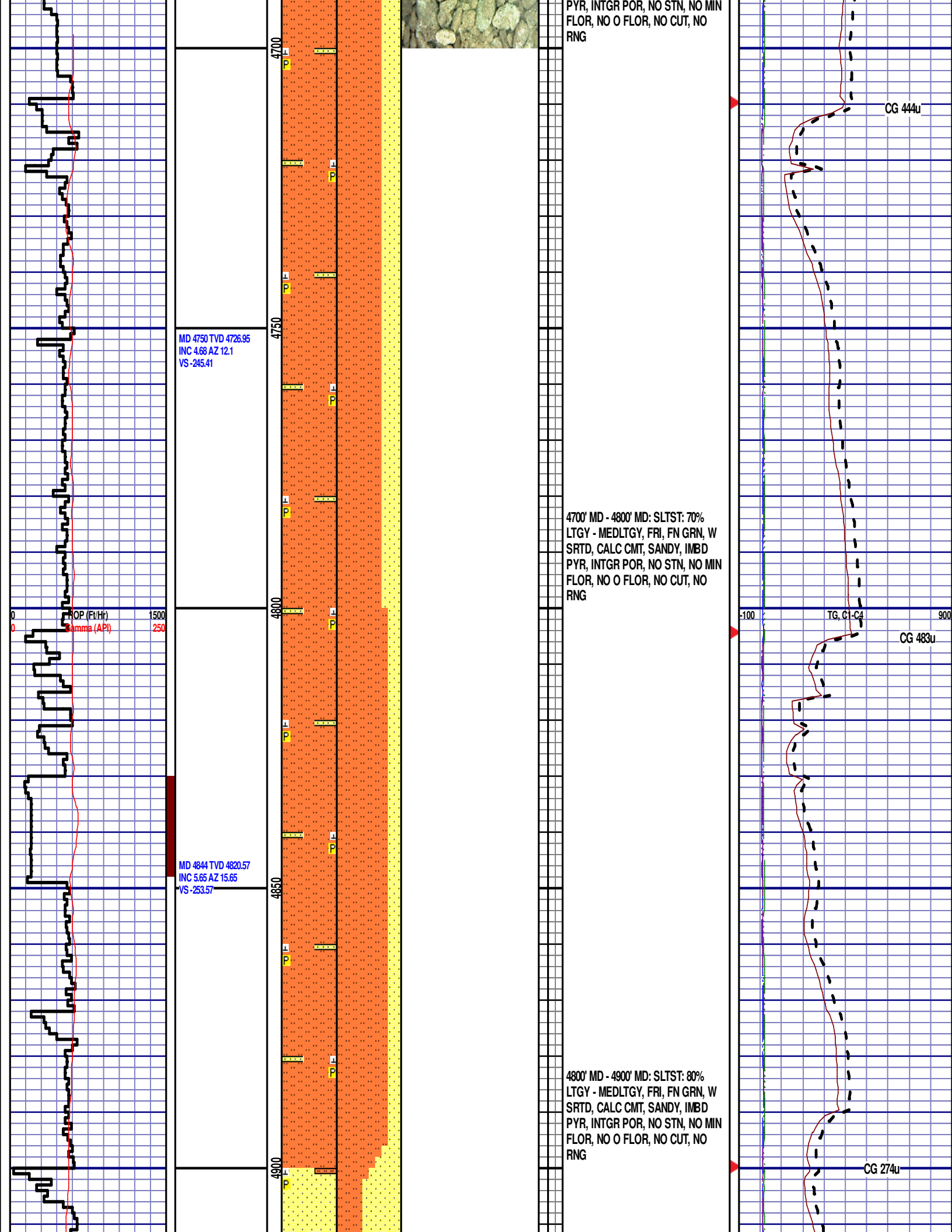
SUSSEX
4400' MD 4379' TVD

CG 301u

TG, C1-C4

CG 387u





MD 4939 TVD 4915.09
INC 5.85 AZ 14.37
VS-262.72

4950

5000

5050

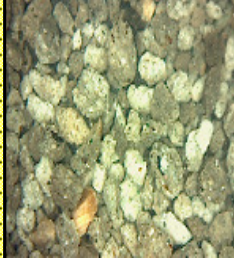
5100

MD 5034 TVD 5009.61
INC 5.66 AZ 13.65
VS-271.91

MD 5129 TVD 5104.22

4900' MD - 5000' MD: SS: 60% PRED
WHT - LTGY - OPQ, FRI, FN GRN,
WSRTD, CALC CMT, FREE SLTST,
IMBD PYR, INTGR POR, NO STN,
NO MIN FLOR, NO O FLOR, NO CUT,
NO RNG

SHANNON - 4990' MD 4965' TVD



SHANNON
4990' MD 4965' TVD

5000' MD - 5100' MD: SLTST: 60%
LTGY - MEDLTGY, FRI, FN TO MED
GRN, W SRTD, CALC CMT, IMBD
PYR, SANDY, INTGR POR, NO STN,
NO FLOR, NO O FLOR, SLOW LZY
CUT, DIM YLW RNG

DEPTH 4939'
WT 9.05
VIS 29
PH 9.7
FIL 14.4
CL 800
CAL 40
H2O 95.3
OIL 0.0
LGS 32.2
GEL 1/2/2
PV 3
YP 3
CK 2/0
SOL 4.5

CG 461u

VG, C1-C4

CG 613u

INC 4.68 AZ 11.65
VS -280.22

ROP (Ft/Hr) 1500
Gamma (API) 250

MD 5223 TVD 5197.96
INC 3.8 AZ 9.14
VS -287.03

MD 5318 TVD 5292.8
INC 2.98 AZ 8.11
VS -292.56

5150

5200

5250

5300

5350

SHANNON 5200' MD - 5300' MD



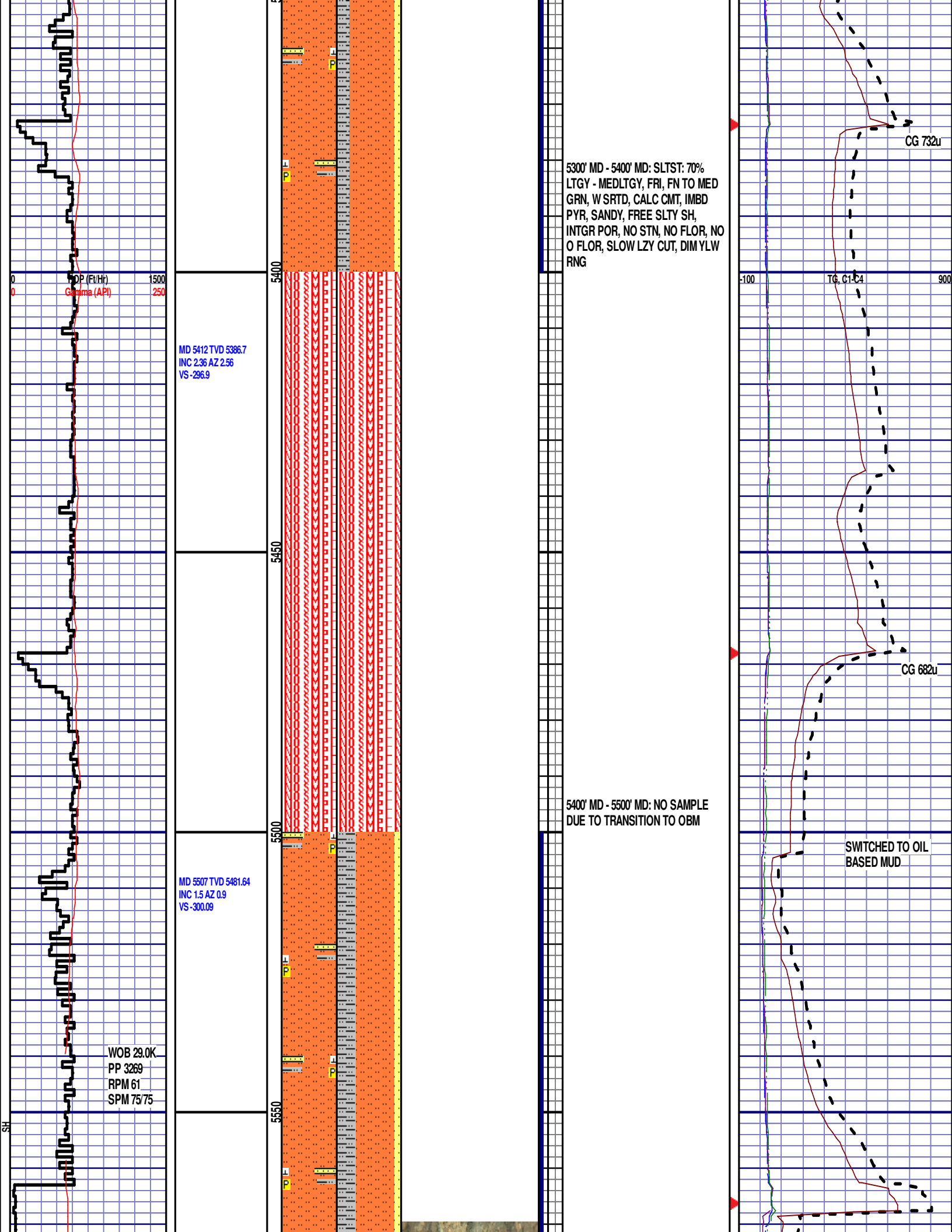
5100' MD - 5200' MD: SLTST: 60%
LTGY - MEDLTGY, FRI, FN TO MED
GRN, W SRTD, CALC CMT, IMBD
PYR, SANDY, FREE SLTY SH,
INTGR POR, NO STN, NO FLOR, NO
O FLOR, SLOW LZ Y CUT, DIM YLW
RNG

5200' MD - 5300' MD: SLTST: 60%
LTGY - MEDLTGY, FRI, FN TO MED
GRN, W SRTD, CALC CMT, IMBD
PYR, SANDY, FREE SLTY SH,
INTGR POR, NO STN, NO FLOR, NO
O FLOR, SLOW LZ Y CUT, DIM YLW
RNG

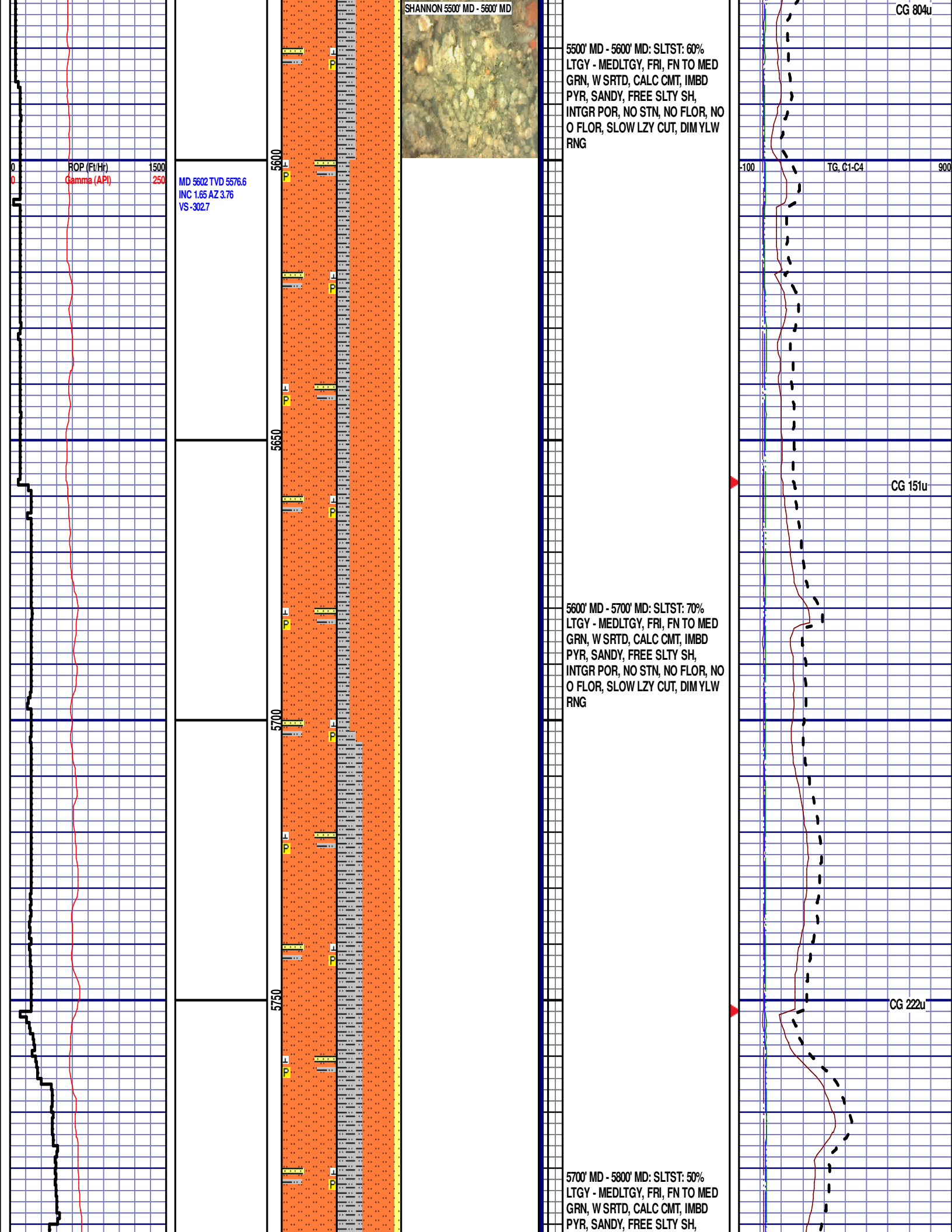
CG 575u

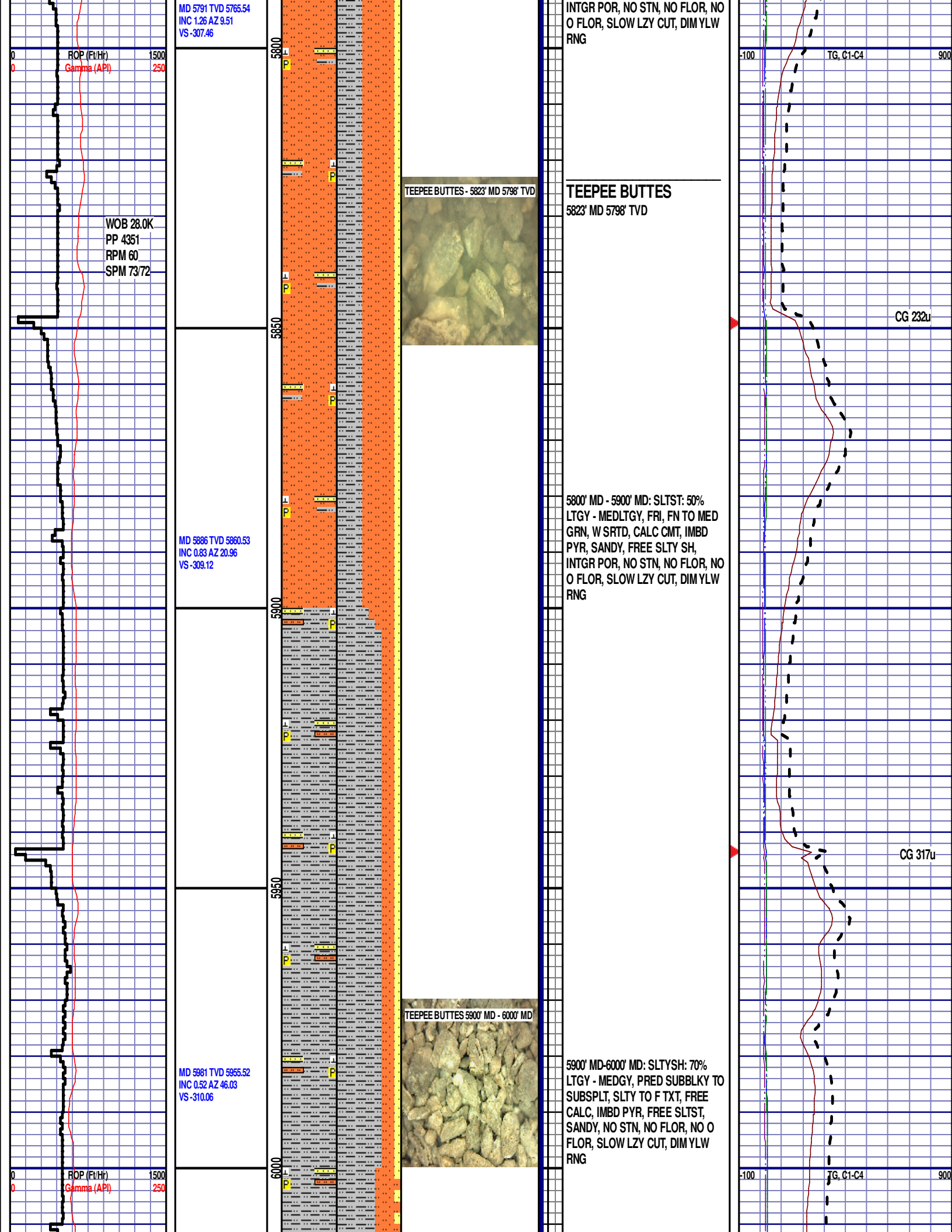
TG, C1-C4

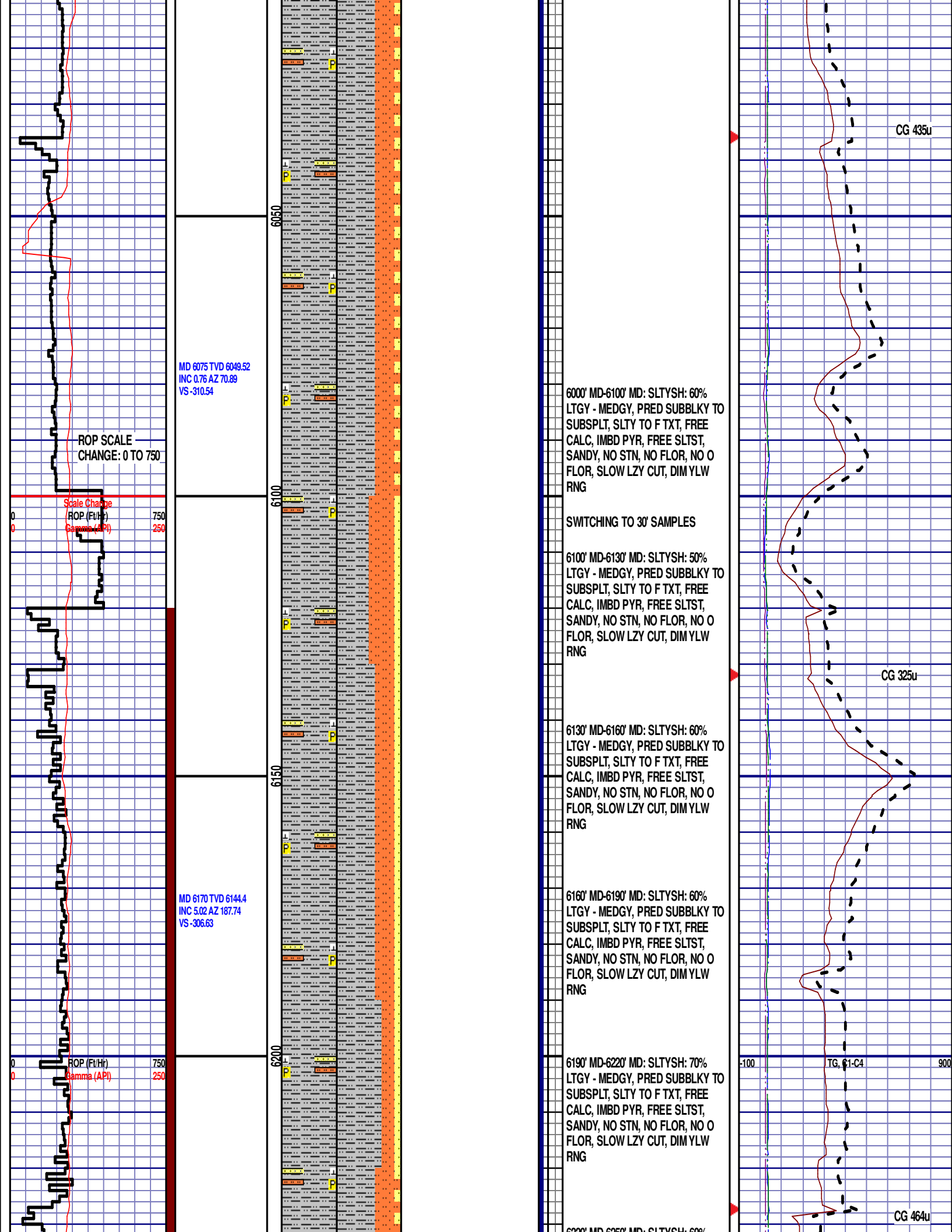
CG 657u

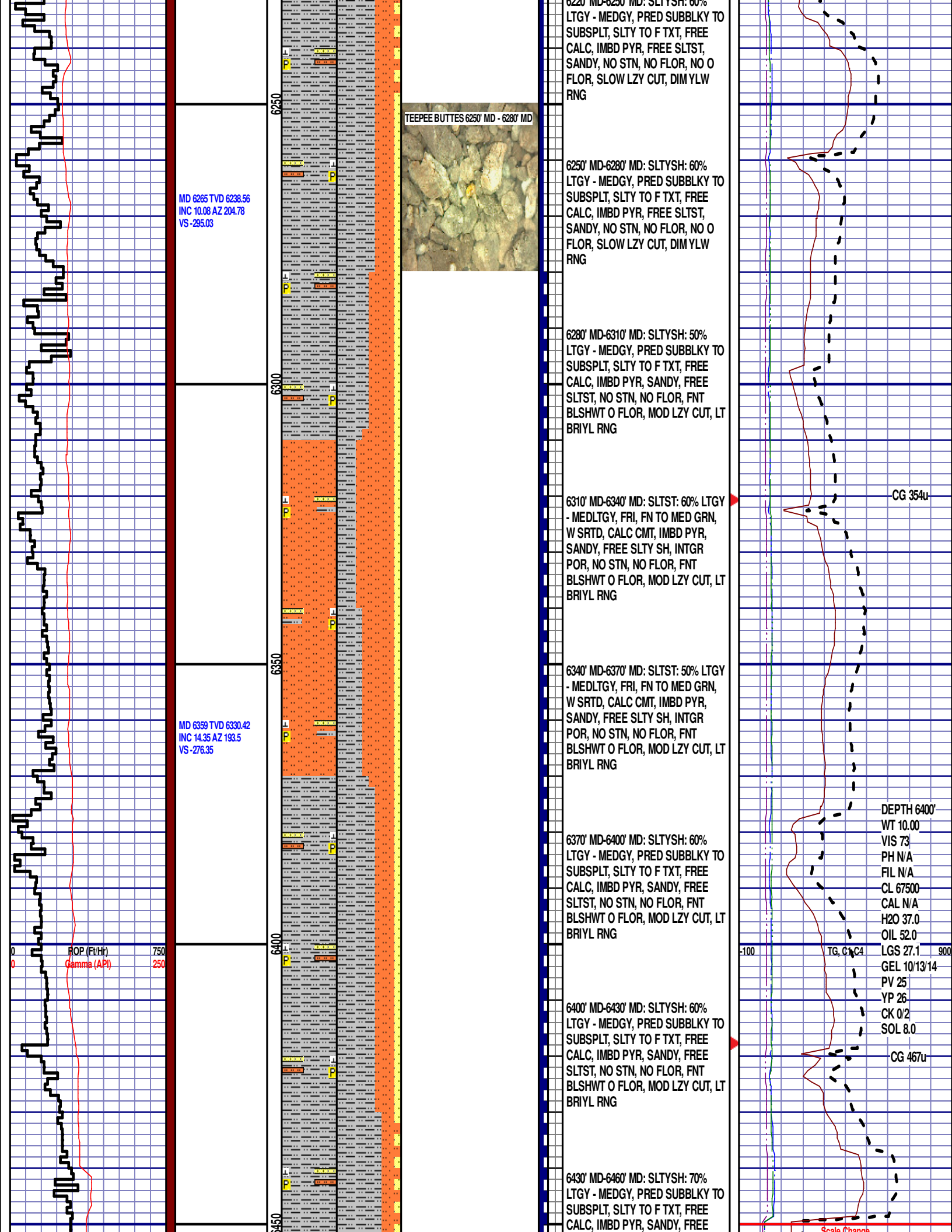


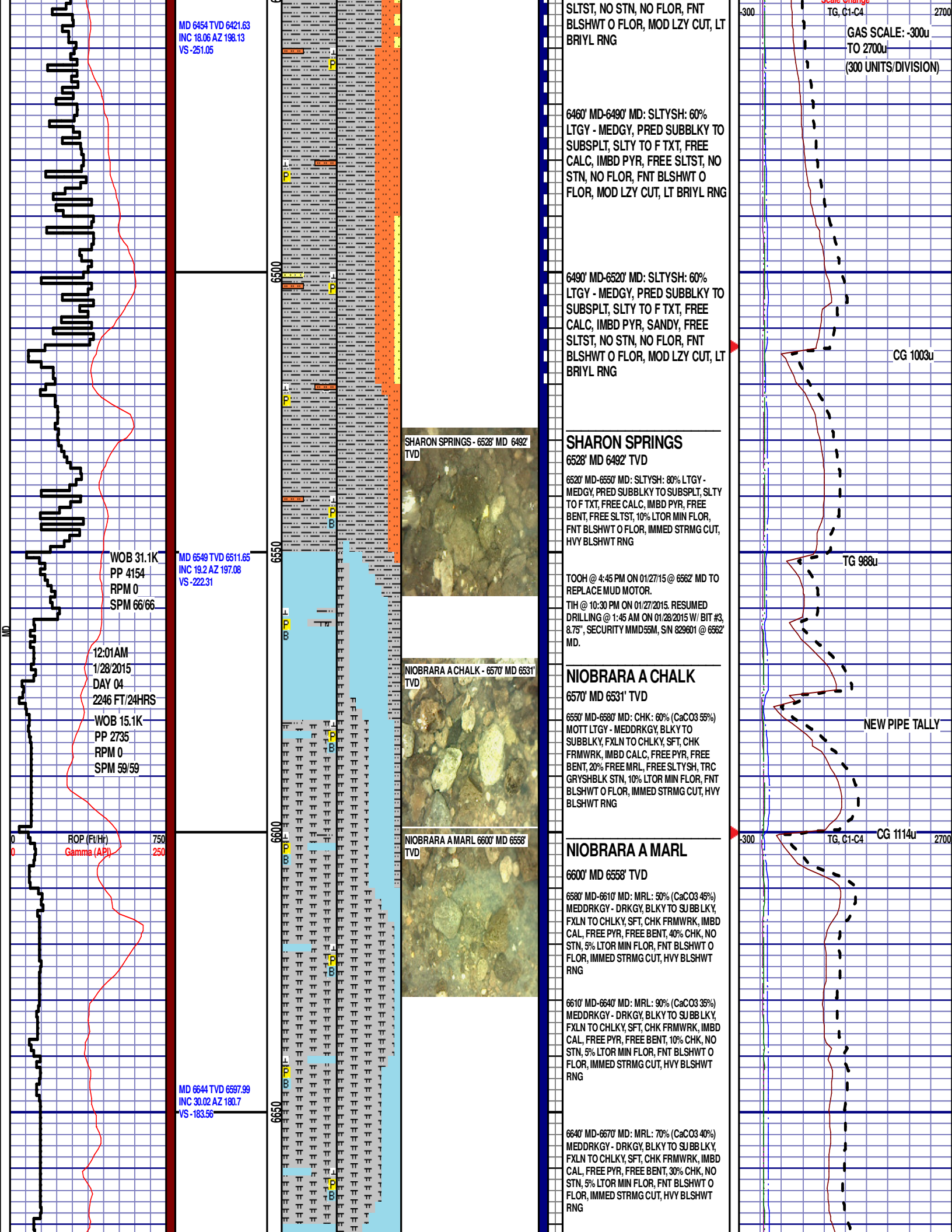
CG 804u

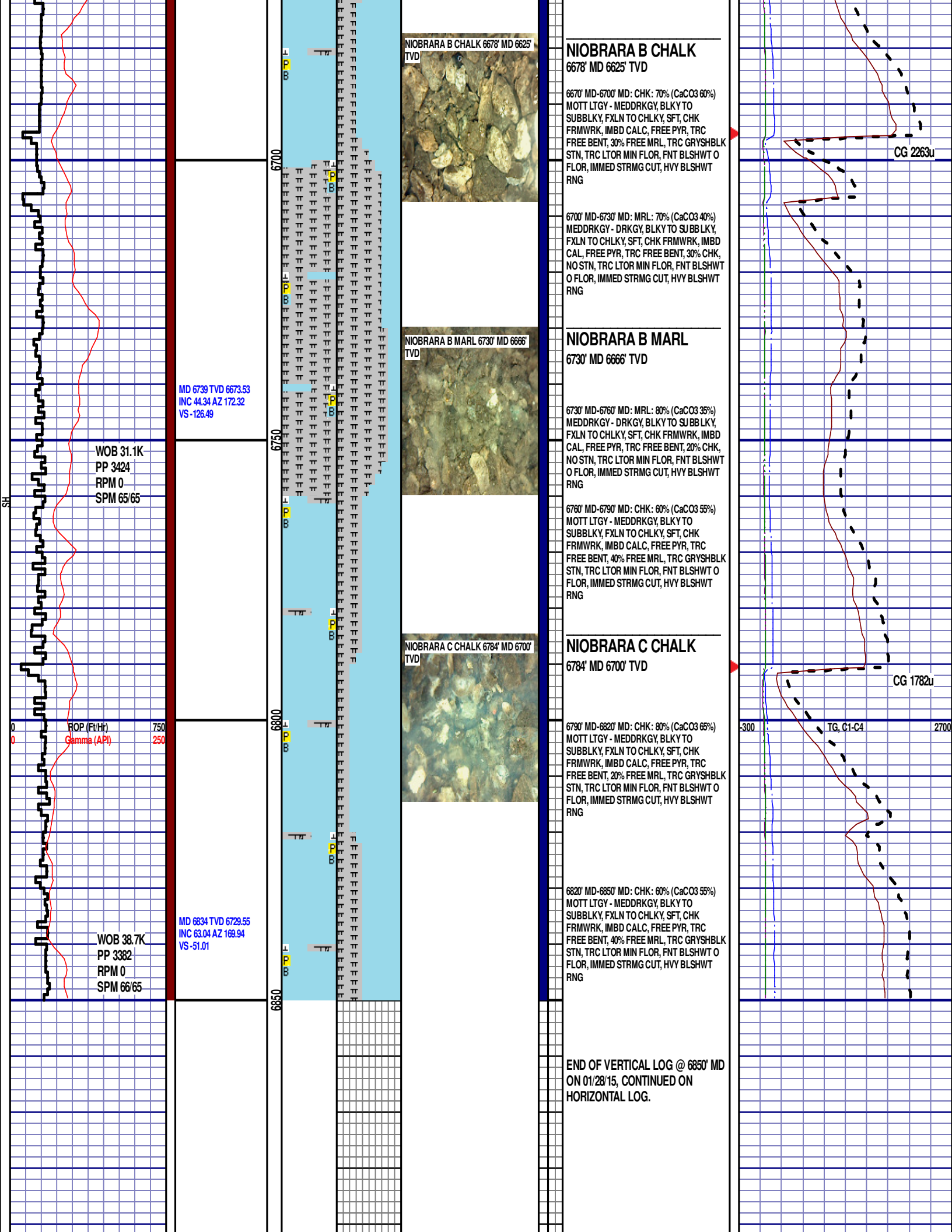












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