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MUDLOG MD

COMPANY	ExxonMobil Production
WELL	FRU 197-33A7
FIELD	PICEANCE CREEK
REGION	ROCKIES
COORDINATES	39.915575000 108.28575000
ELEVATION	GL 6386 KB 6359
COUNTY, STATE	RIO BLANCO, CO
API INDEX	05-103-1139-900
SPUD DATE	02/16/2010
CONTRACTOR	HP
CO. REP.	R.T. OWENS
RIG/TYPE	215/FLEX 3
LOGGING UNIT	MLU051
GEOLOGISTS	G.BAKER B.MARSH
ADD. PERSONS	D.CLAAR B.JOHANNING
CO. GEOLOGIST	MELANIE BIGGS

LOG INTERVAL

CASING DATA

DEPTHS: 3,790' **TO** 12,375'
DATES: 02/16/2010 **TO** 02/26/2010
SCALE: 5"=100'

10.75" **AT** 3,808'
7.00" **AT** 8,609'
AT
AT

MUD TYPES

HOLE SIZE

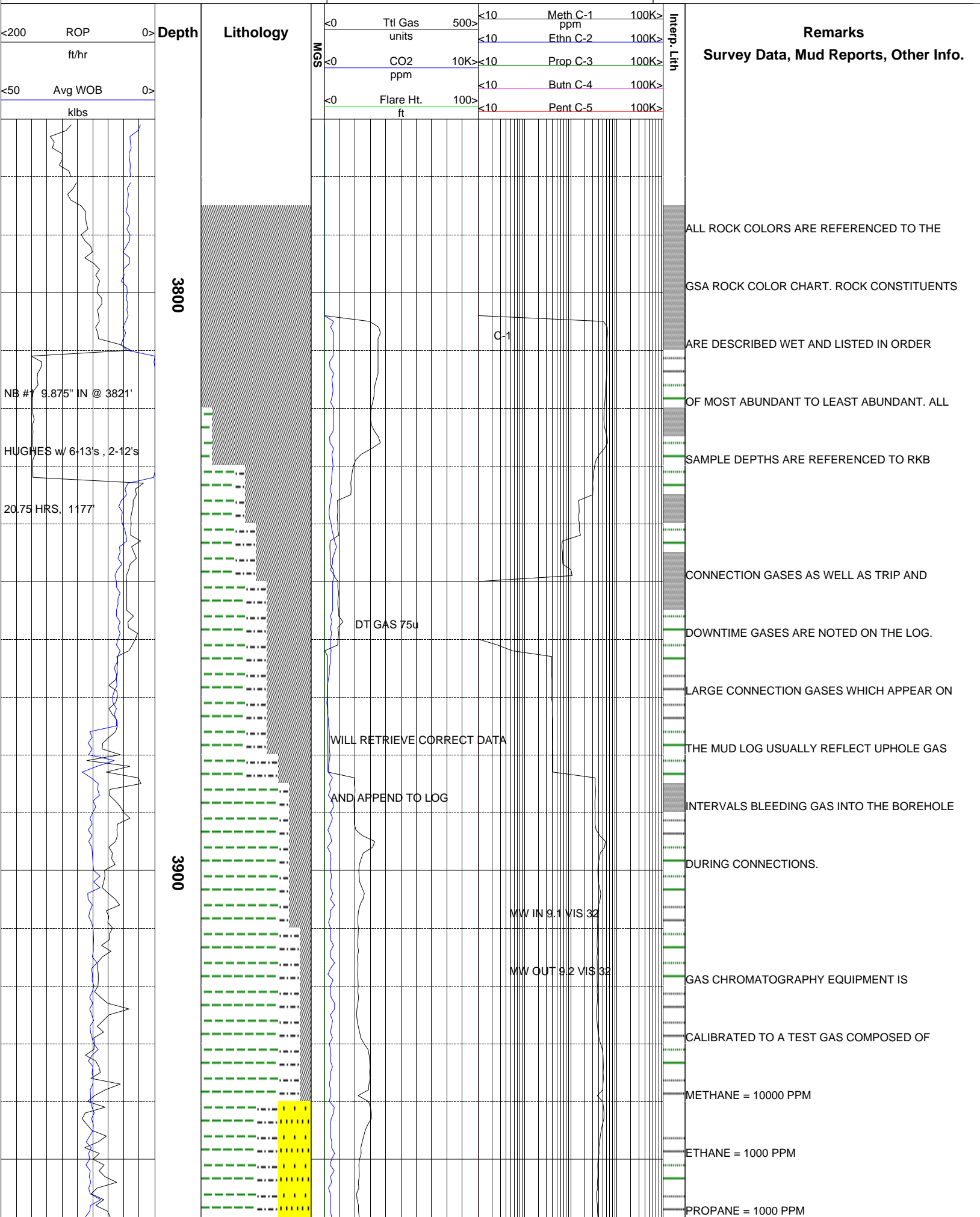
LSND **TO** 12,375"
TO
TO
TO

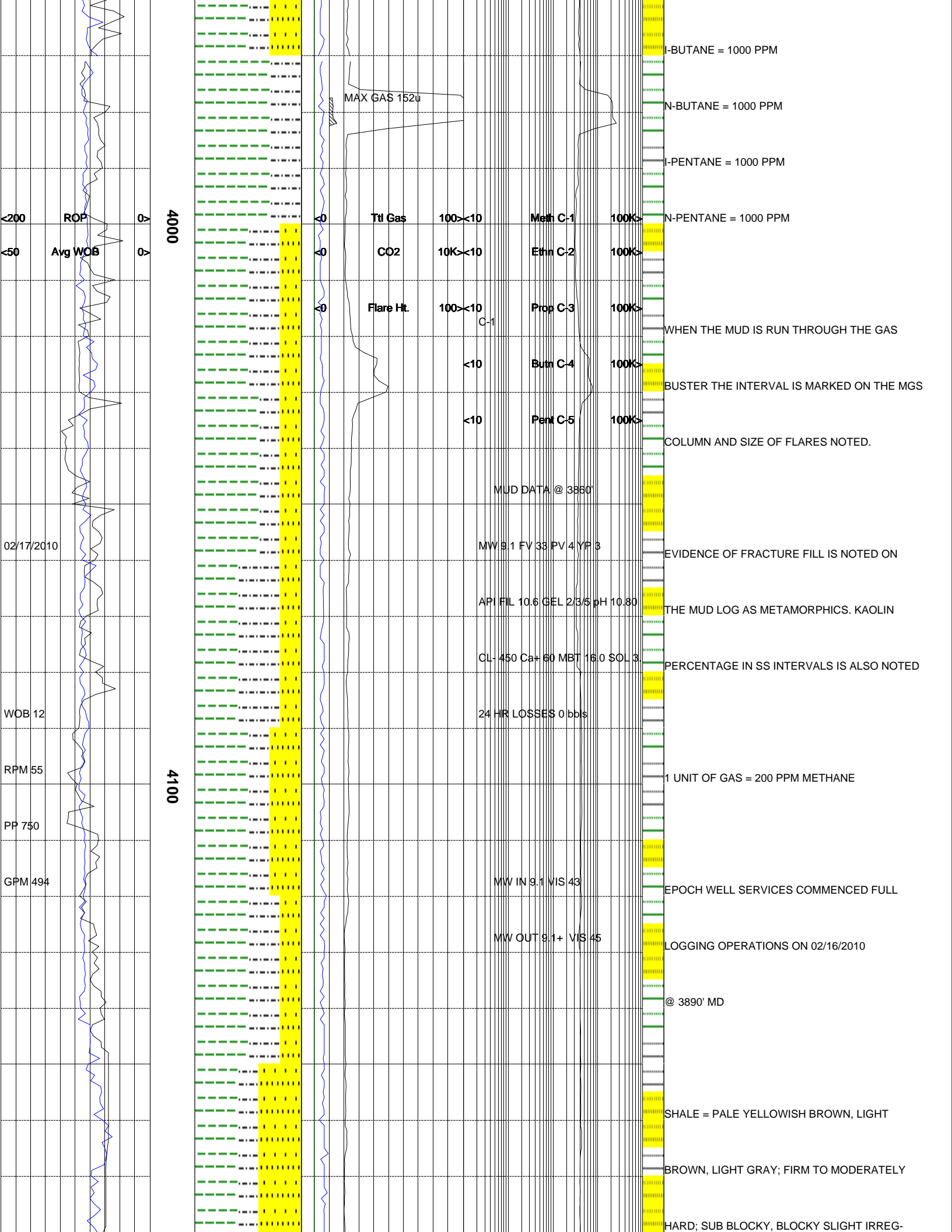
9.875" **TO** 8,619'
6.125" **TO** 12,375'
TO
TO

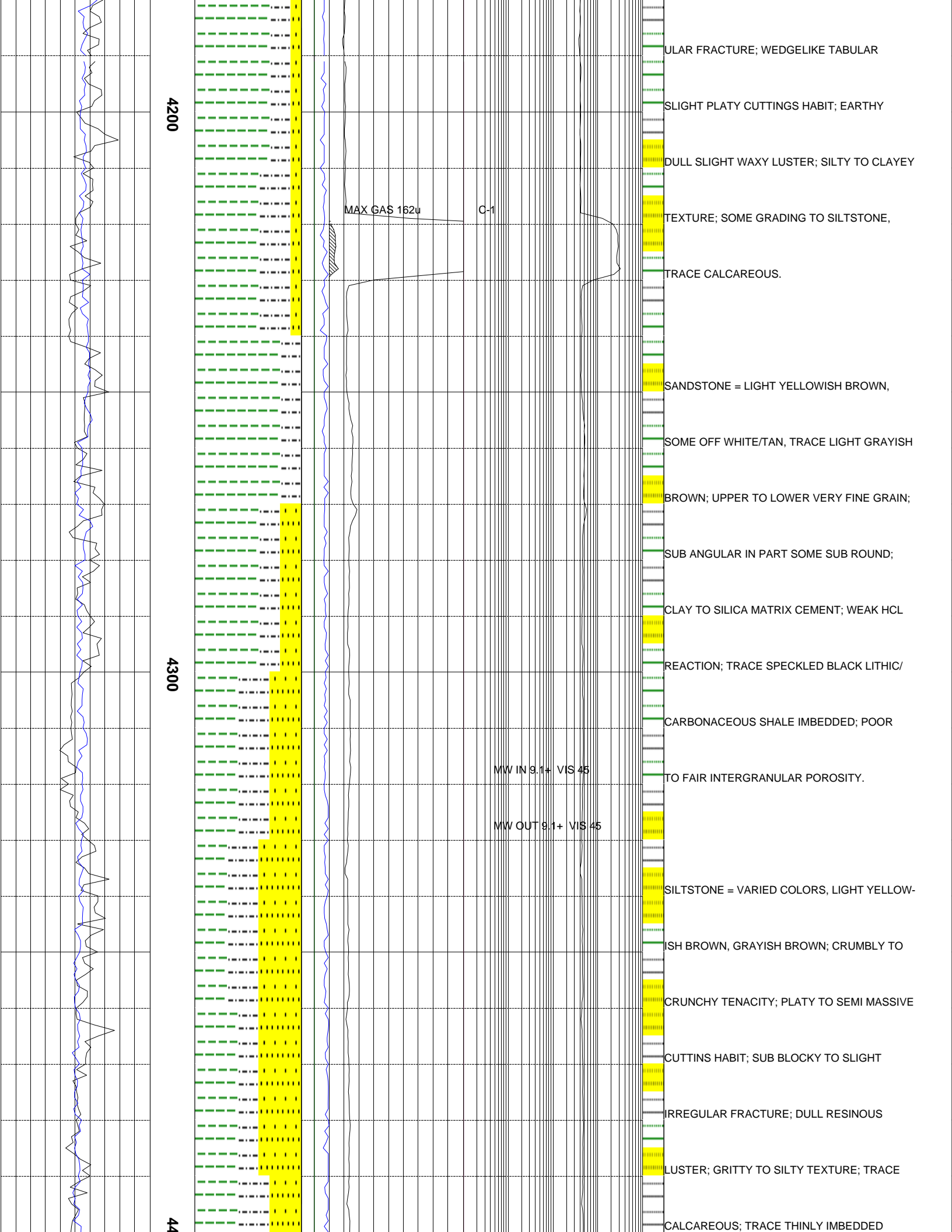
ABBREVIATIONS

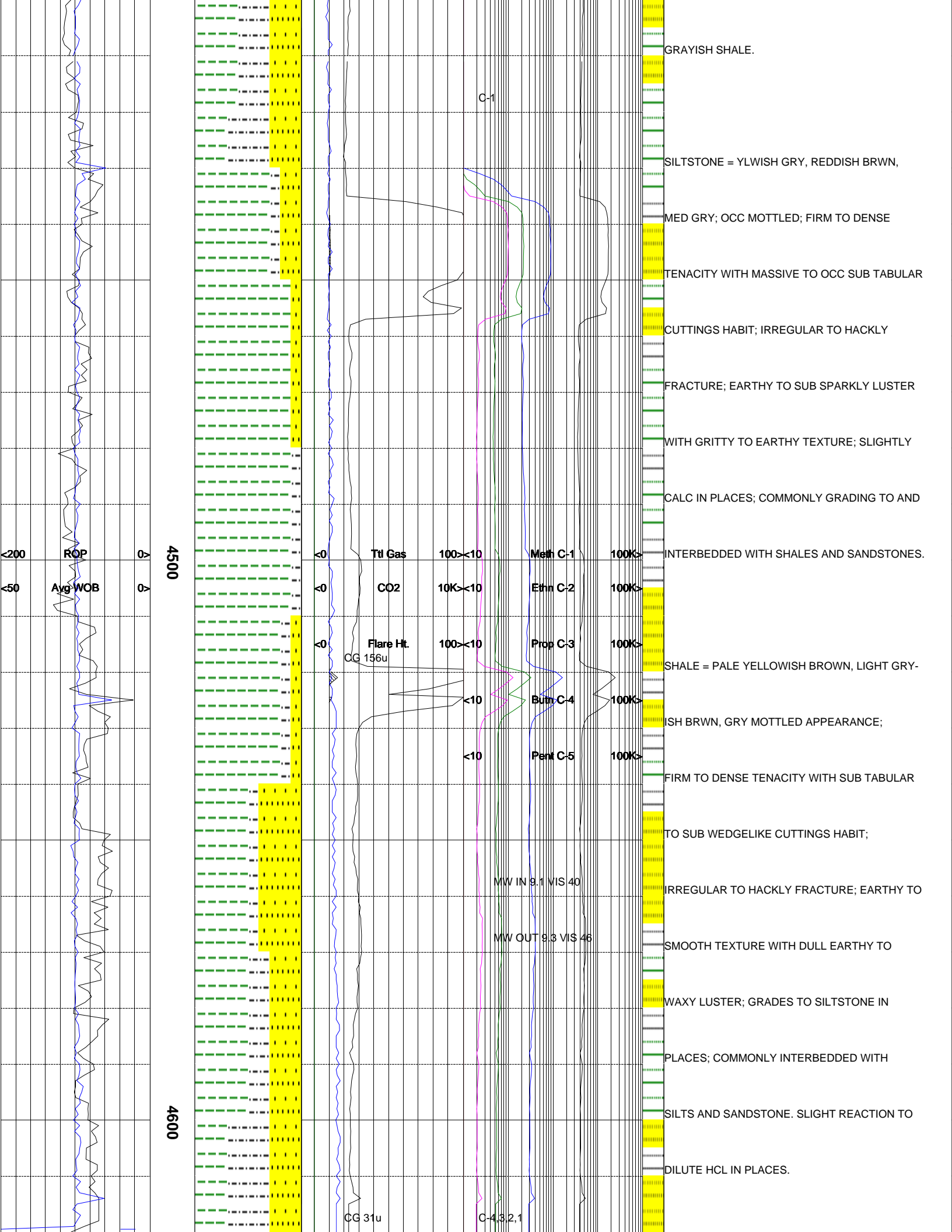
<i>NB</i> NEWBIT	<i>PV</i> PLASTIC VISCOSITY	<i>LC</i> LOST CIRCULATION
<i>RRB</i> RERUN BIT	<i>YP</i> YIELD POINT	<i>CO</i> CIRCULATE OUT
<i>CB</i> CORE BIT	<i>FL</i> FLUID LOSS	<i>NR</i> NO RETURNS
<i>WOB</i> WEIGHT ON BIT	<i>CL</i> PPM CLORIDE ION	<i>TG</i> TRIP GAS
<i>RPM</i> ROTARY REV/MIN	<i>Rm</i> MUD RESISTIVITY	<i>SG</i> SURVEY GAS
<i>PP</i> PUMP PRESSURE	<i>Rmf</i> FILTRATE RESISTIVITY	<i>WG</i> WIPER GAS
<i>SPM</i> STROKES/MIN	<i>PR</i> POOR RETURNS	<i>CG</i> CONNECTION GAS
<i>MW</i> MUD WEIGHT	<i>LAT</i> LOGGED AFTER TRIP	
<i>VIS</i> FUNNEL VISCOSITY	<i>LAS</i> LOGGED AFTER SURVEY	

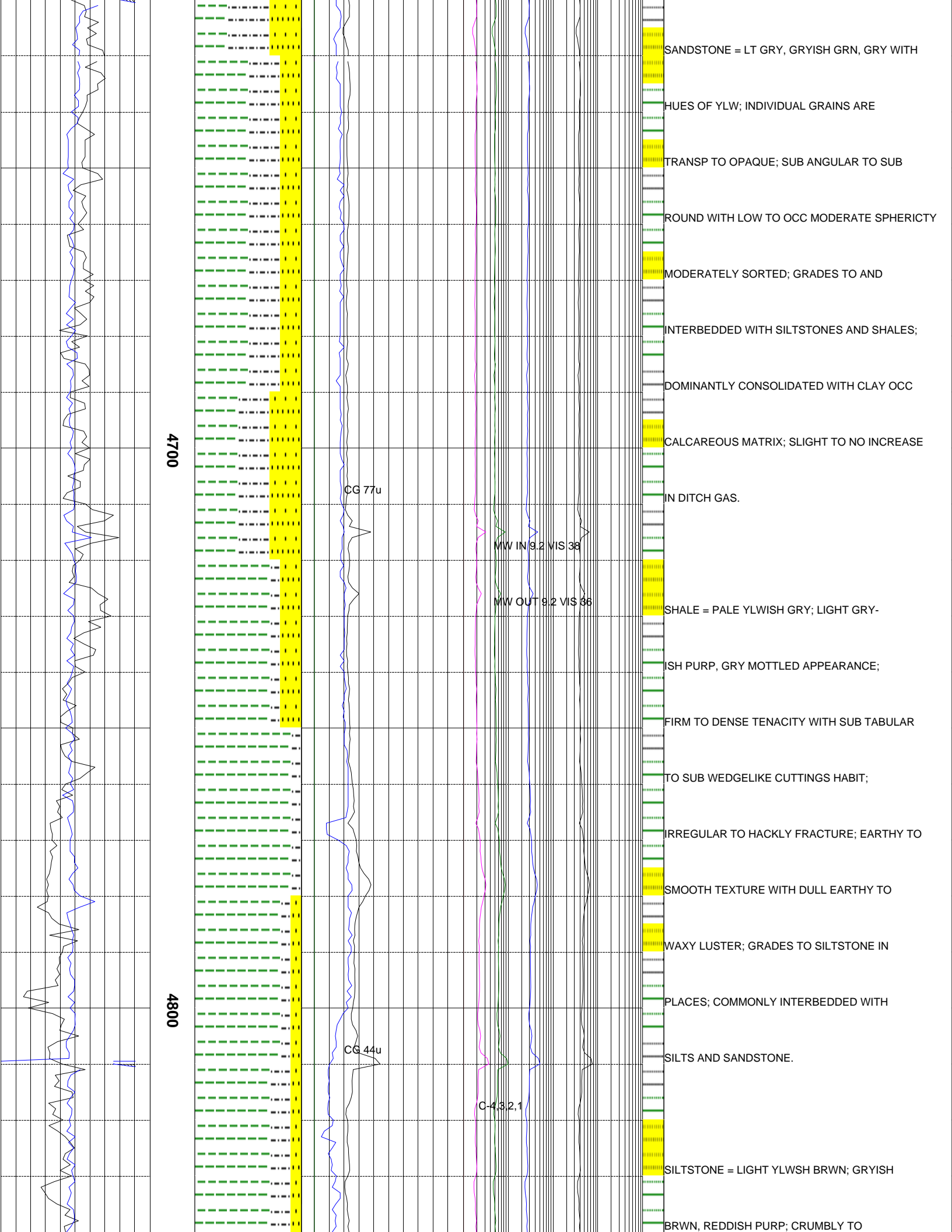
ALTERED ZONE	CHERT - GLASSY	FELSIC SILIC DIKE	MARL - CALC	SANDSTONE
ANDESITE	CHERT - PORCEL	FOSSIL	METAMORPHICS	SANDSTONE-TUFFACEOUS
ANHYDRITE	CHERT - TIGER STRIPE	GABBRO	MUDSTONE	SERICITIZATION
BASALT	CHERT - UNDIFF	GLASSY TUFF	OBSIDIAN	SERPENTINE
BENTONITE	CLAY	GRANITE	PALEOSOL	SHALE
BIOTITIZATION	CLAY-MUDSTONE	GRANITE WASH	PHOSPHATE	SHALE TUFFACEOUS
BRECCIA	CLYST-TUFFACEOUS	GRANODIORITE	PORCELANITE	SHELL FRAGMENTS
CALCARENITE	CHLORITIZATION	GYPSUM	PORCELANEOUS CLYST	SIDERITE
CALCAREOUS TUFF	COAL	HALITE	PYRITE	SILICIFICATION
CALCILUTITE	CONGLOMERATE	HORNBL-QTZ-DIO	PYROCLASTICS	SILTSTONE
CARBONATES	CONGL. SAND	IGNEOUS (ACIDIC)	QUARTZ DIORITE	SILTST-TUFFACEOUS
CARBONACEOUS MAT	CONGL. SANDSTONE	IGNEOUS (BASIC)	QUARTZ LATITE	TUFF
CARBONACEOUS SH	COQUINA	INTRUSIVES	QUARTZ MONZONITE	VOLCANICLASTICS SEDS
CEMENT CONTAM.	DACITE	KAOLINITIC	RECRYSTALLIZED CALCITE	VOLCANICS
CHALK	DIATOMITE	LIMESTONE	RHYOLITE	
CRYSTALLINE TUFF	DIORITE	LITHIC TUFF	SALT	
CHERT - ARGILL	DOLOSTONE	MARL - DOLO	SAND	

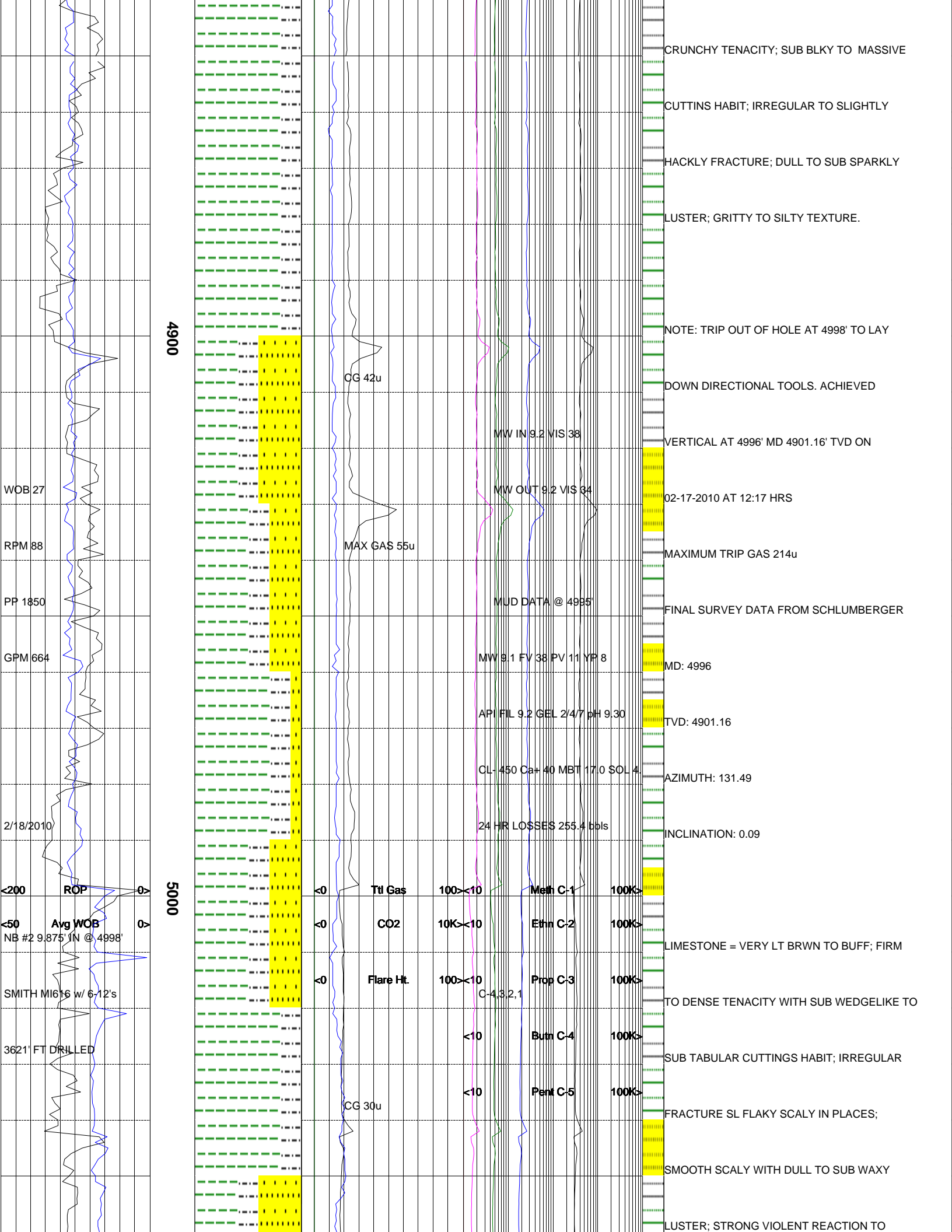


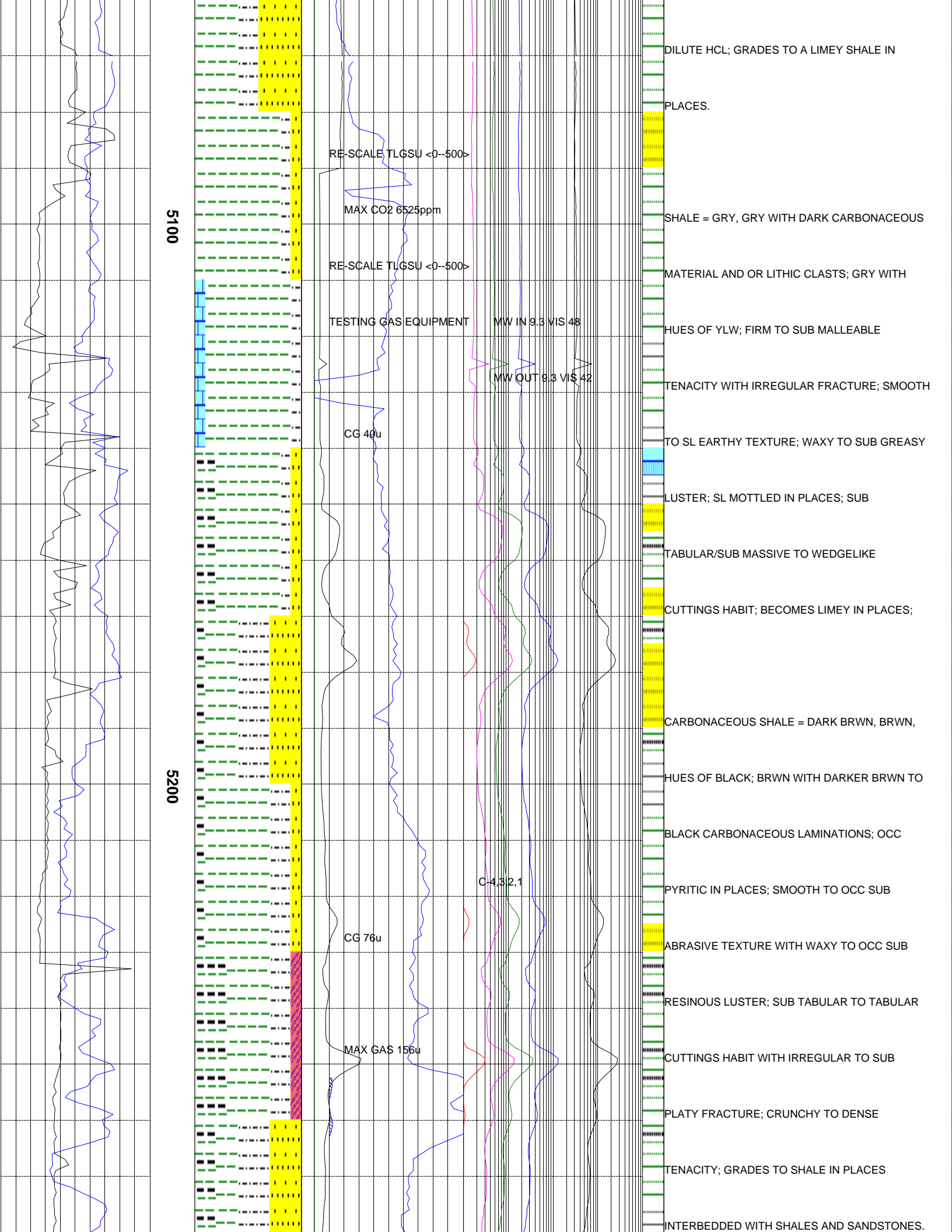


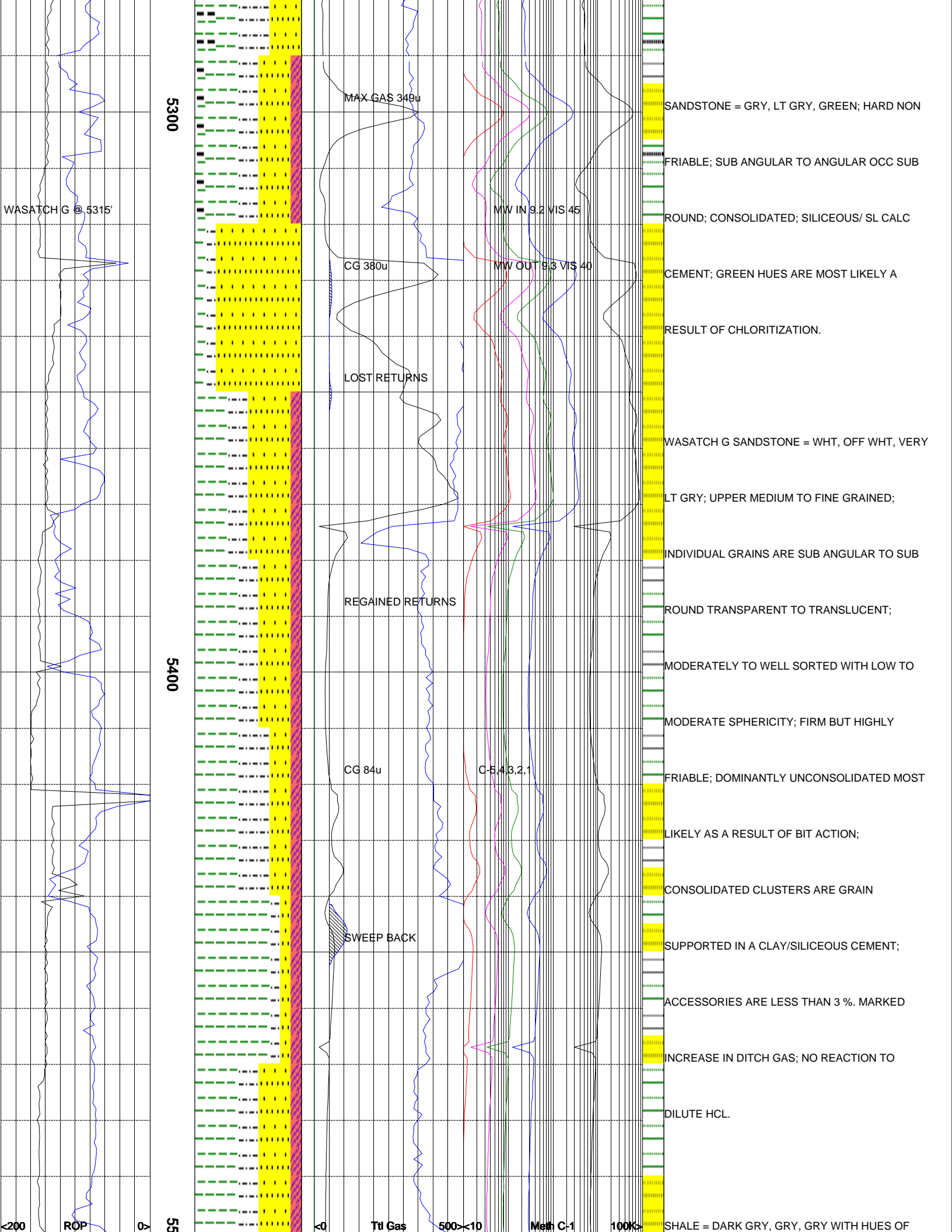


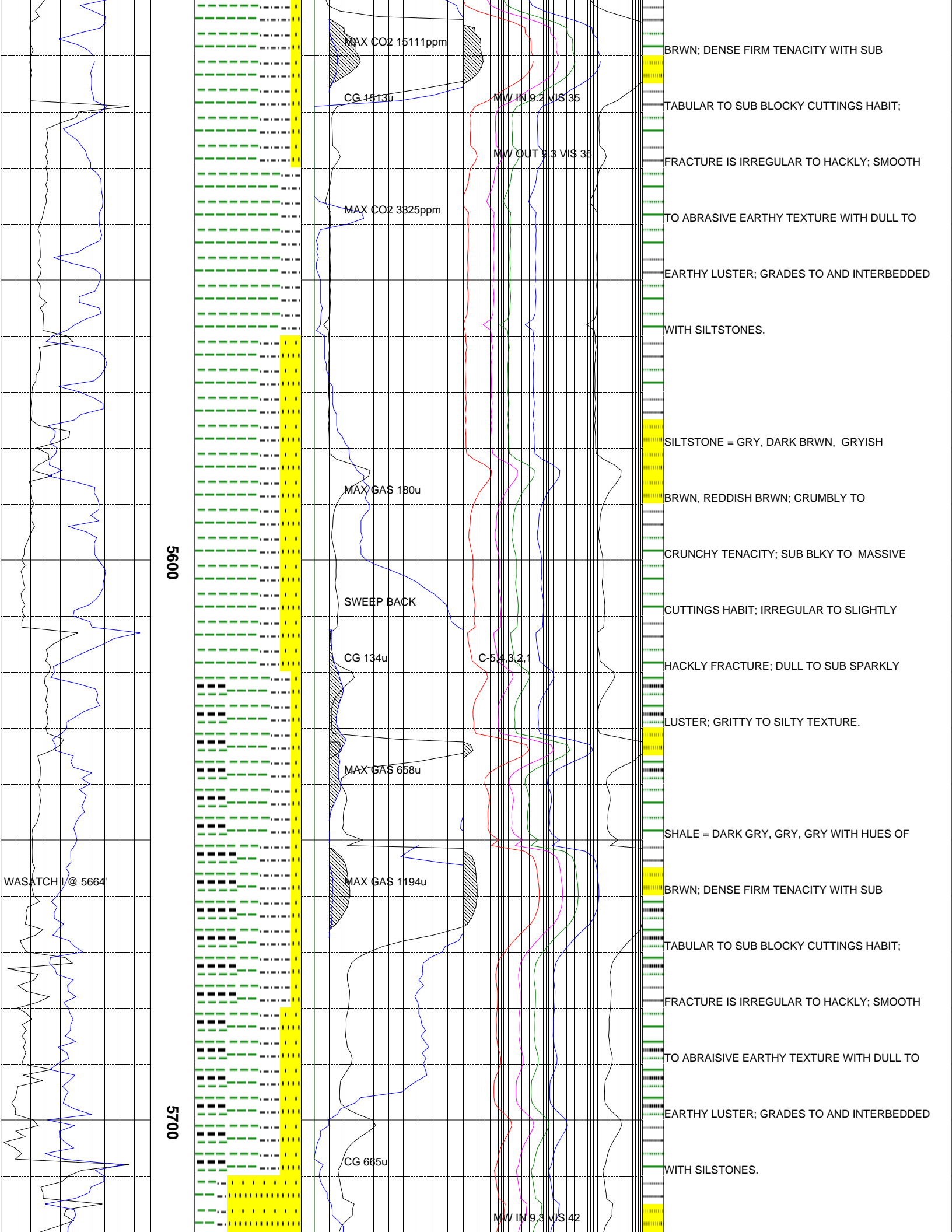


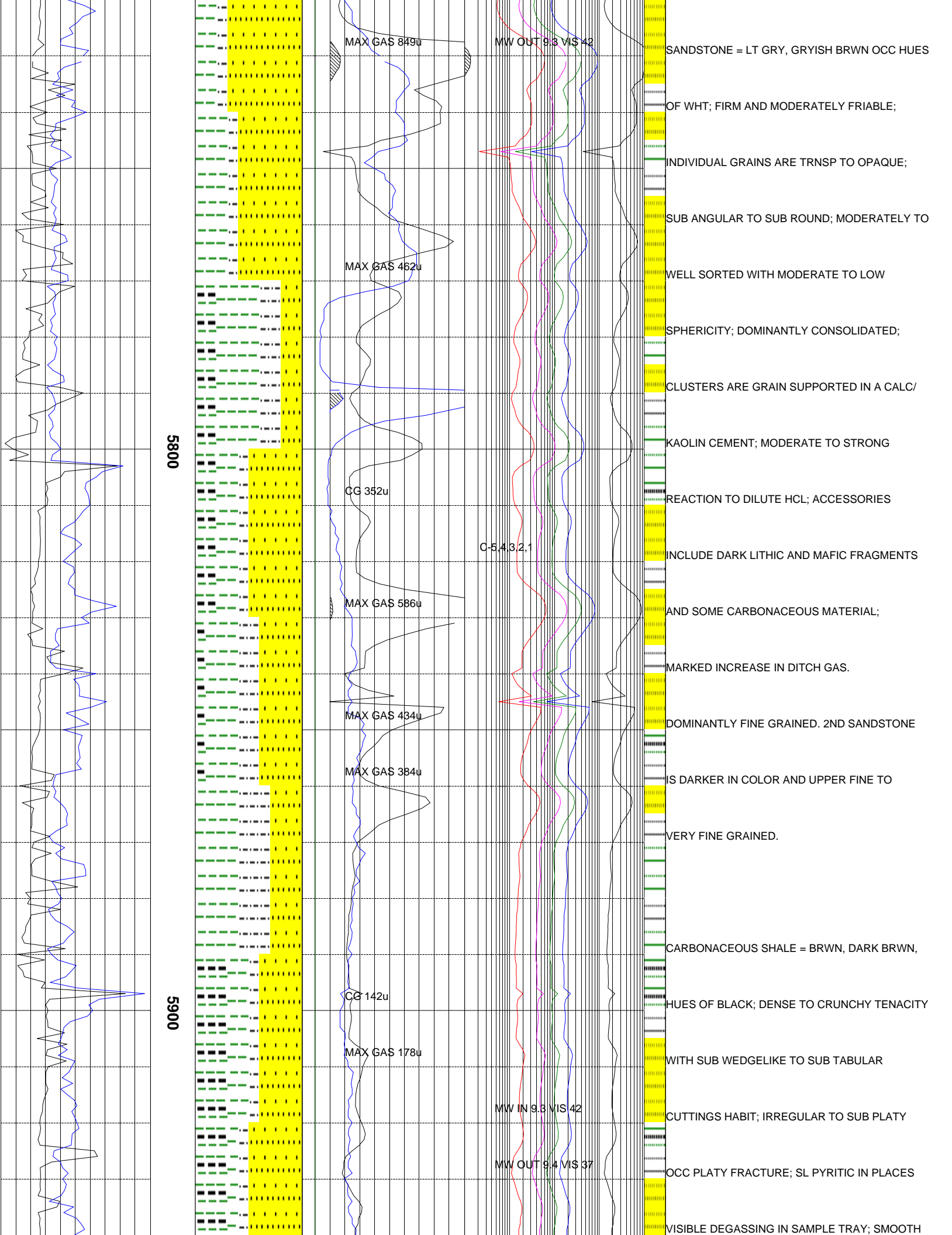


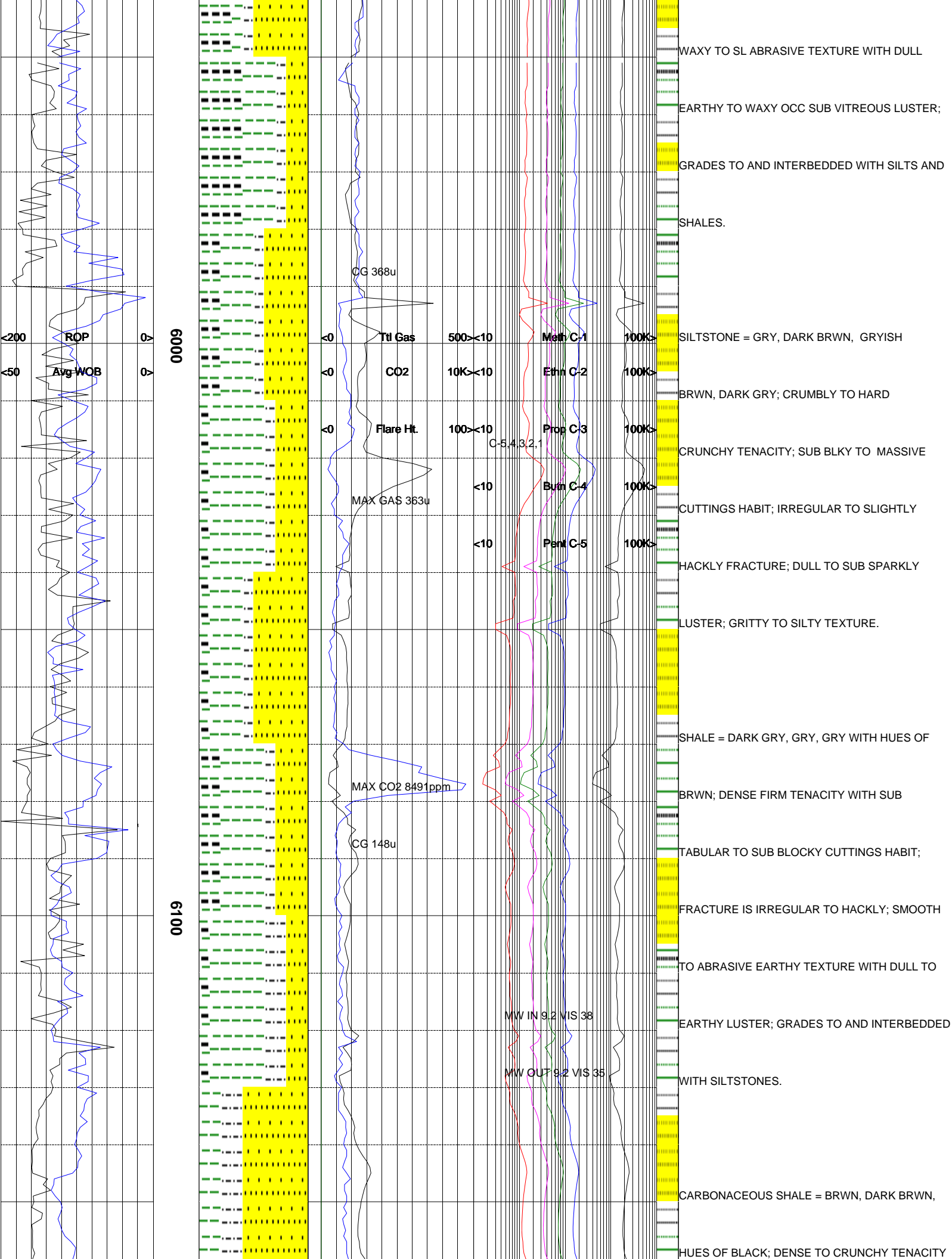


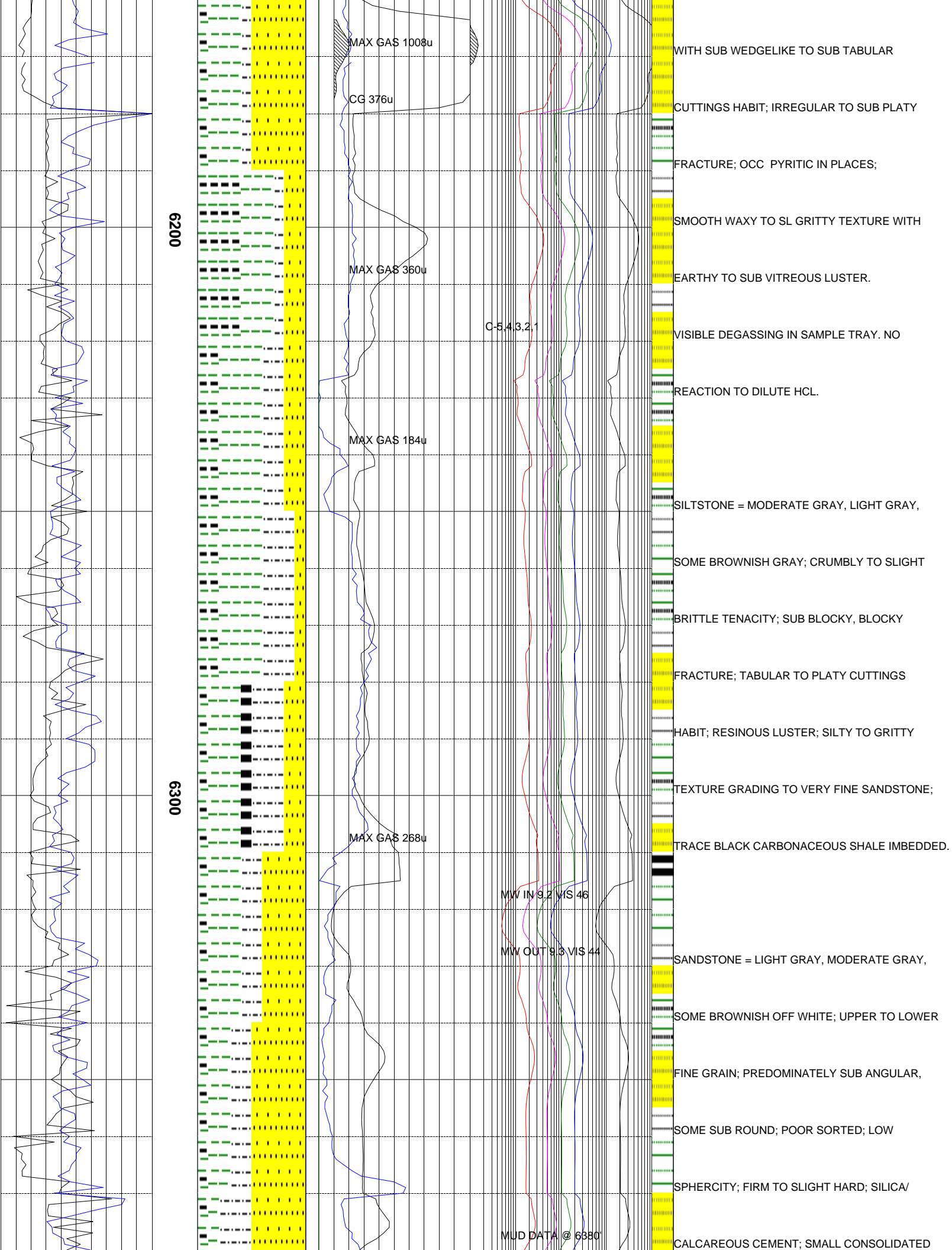


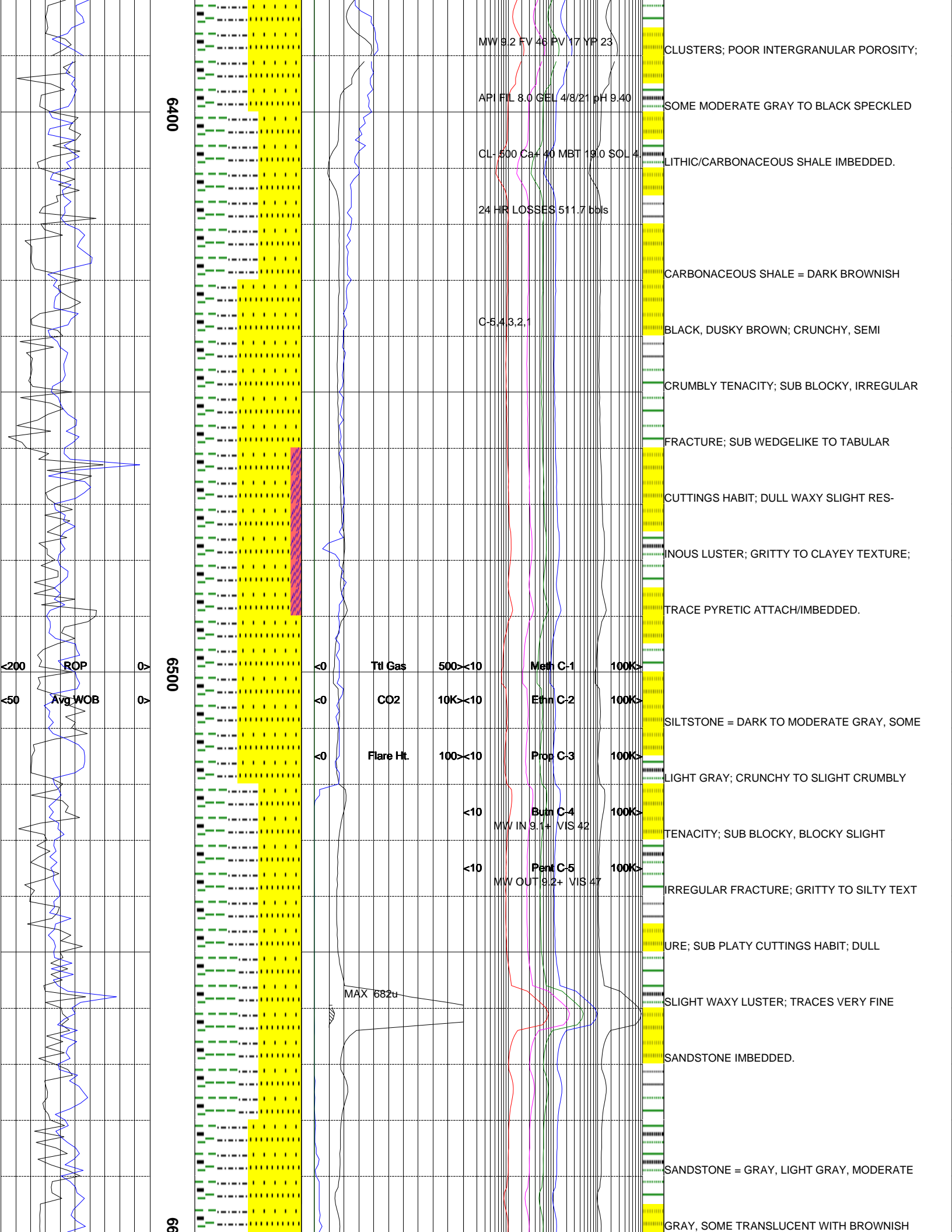


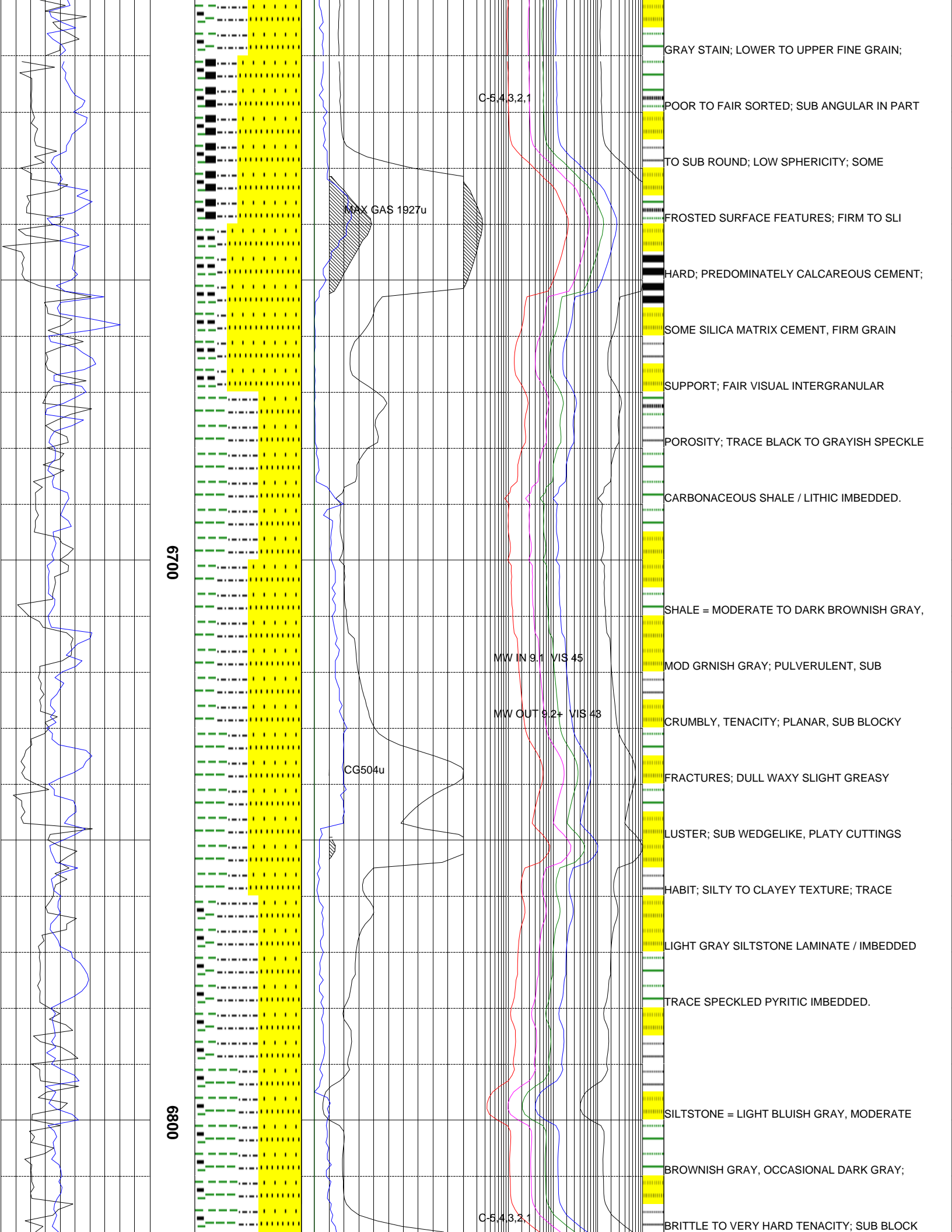


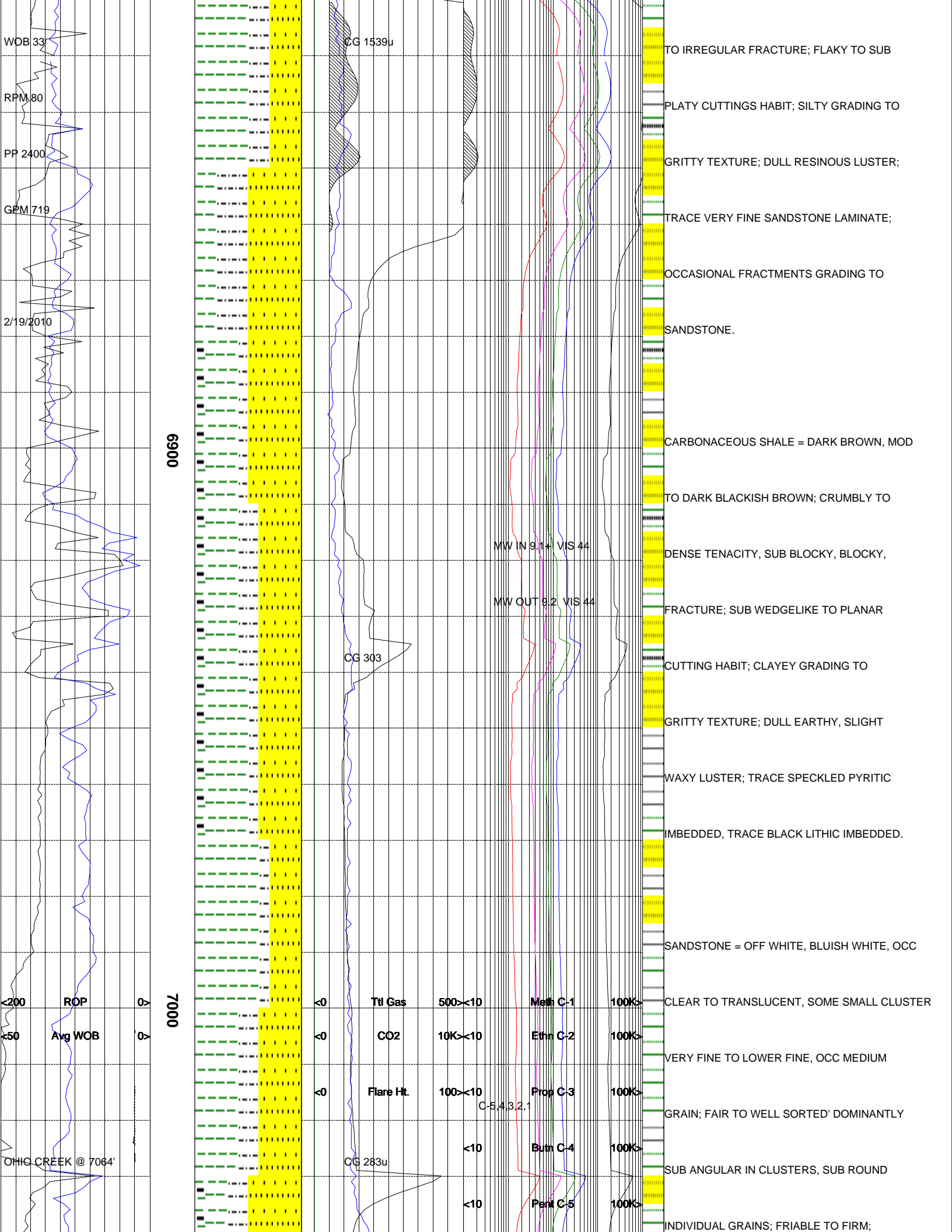


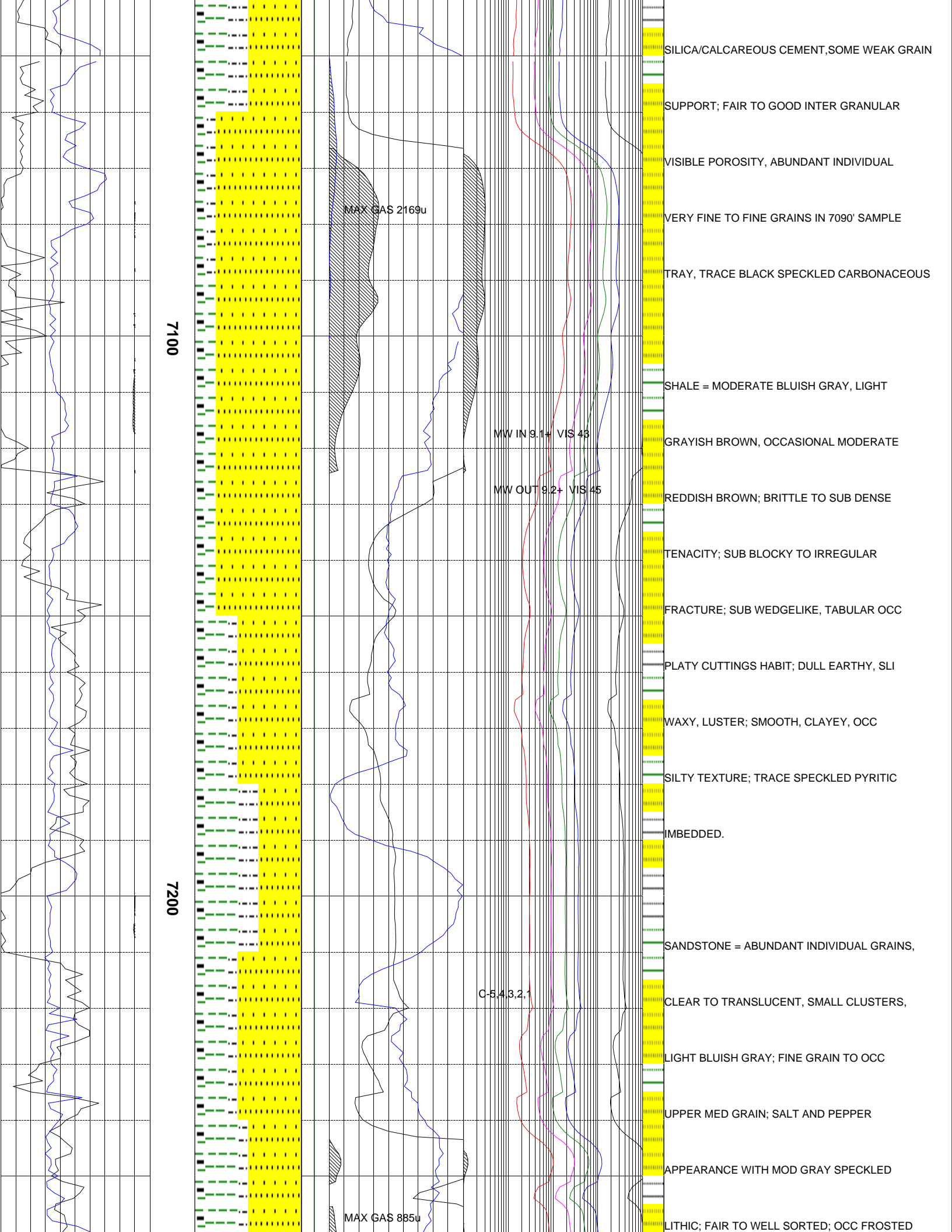












7100

7200

MAX GAS 2169u

MW IN 9.1+ VIS 43

MW OUT 9.2+ VIS 45

C-5.43.2.1

MAX GAS 885u

SILICA/CALCAREOUS CEMENT,SOME WEAK GRAIN

SUPPORT; FAIR TO GOOD INTER GRANULAR

VISIBLE POROSITY, ABUNDANT INDIVIDUAL

VERY FINE TO FINE GRAINS IN 7090' SAMPLE

TRAY, TRACE BLACK SPECKLED CARBONACEOUS

SHALE = MODERATE BLUISH GRAY, LIGHT

GRAYISH BROWN, OCCASIONAL MODERATE

REDDISH BROWN; BRITTLE TO SUB DENSE

TENACITY; SUB BLOCKY TO IRREGULAR

FRACTURE; SUB WEDGELIKE, TABULAR OCC

PLATY CUTTINGS HABIT; DULL EARTHY, SLI

WAXY, LUSTER; SMOOTH, CLAYEY, OCC

SILTY TEXTURE; TRACE SPECKLED PYRITIC

IMBEDDED.

SANDSTONE = ABUNDANT INDIVIDUAL GRAINS,

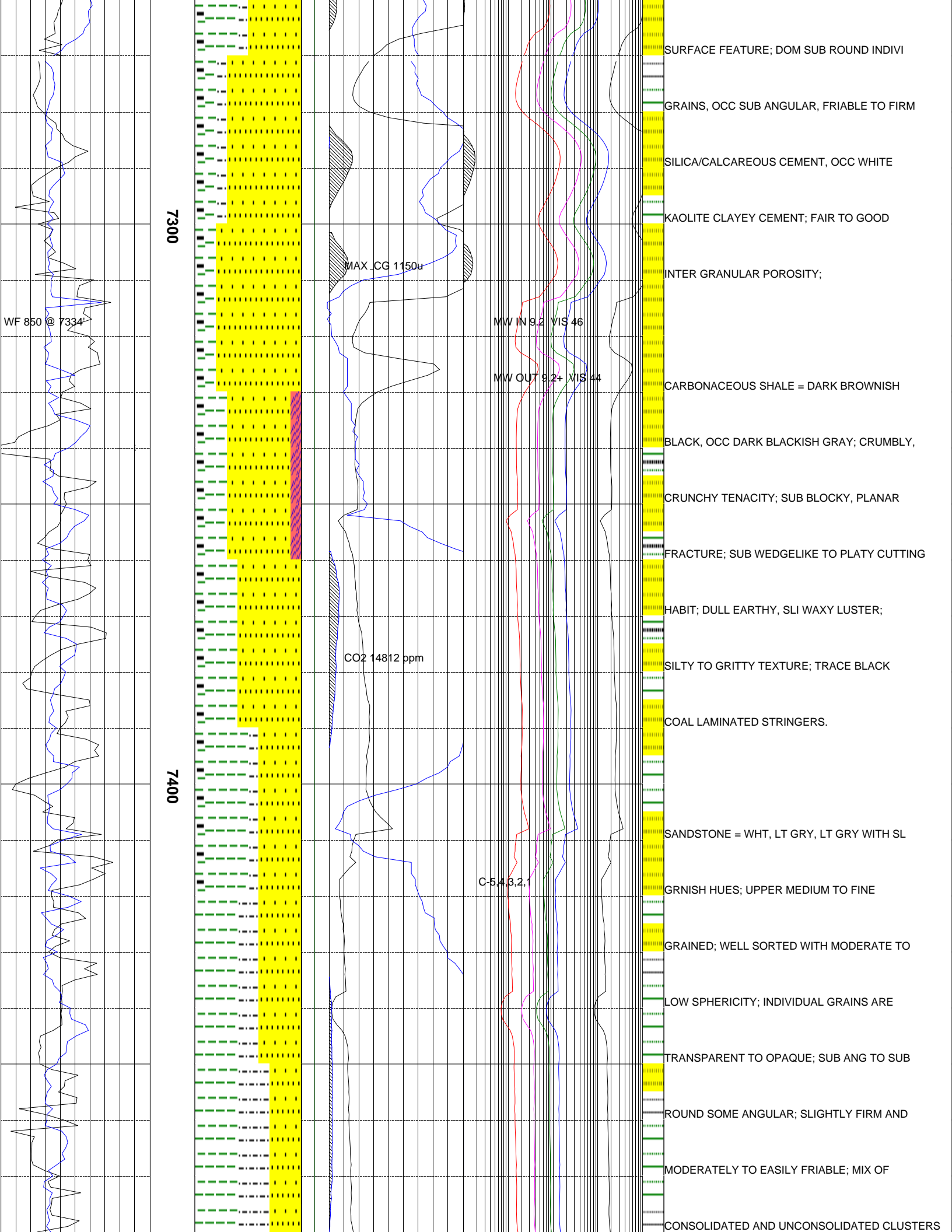
CLEAR TO TRANSLUCENT, SMALL CLUSTERS,

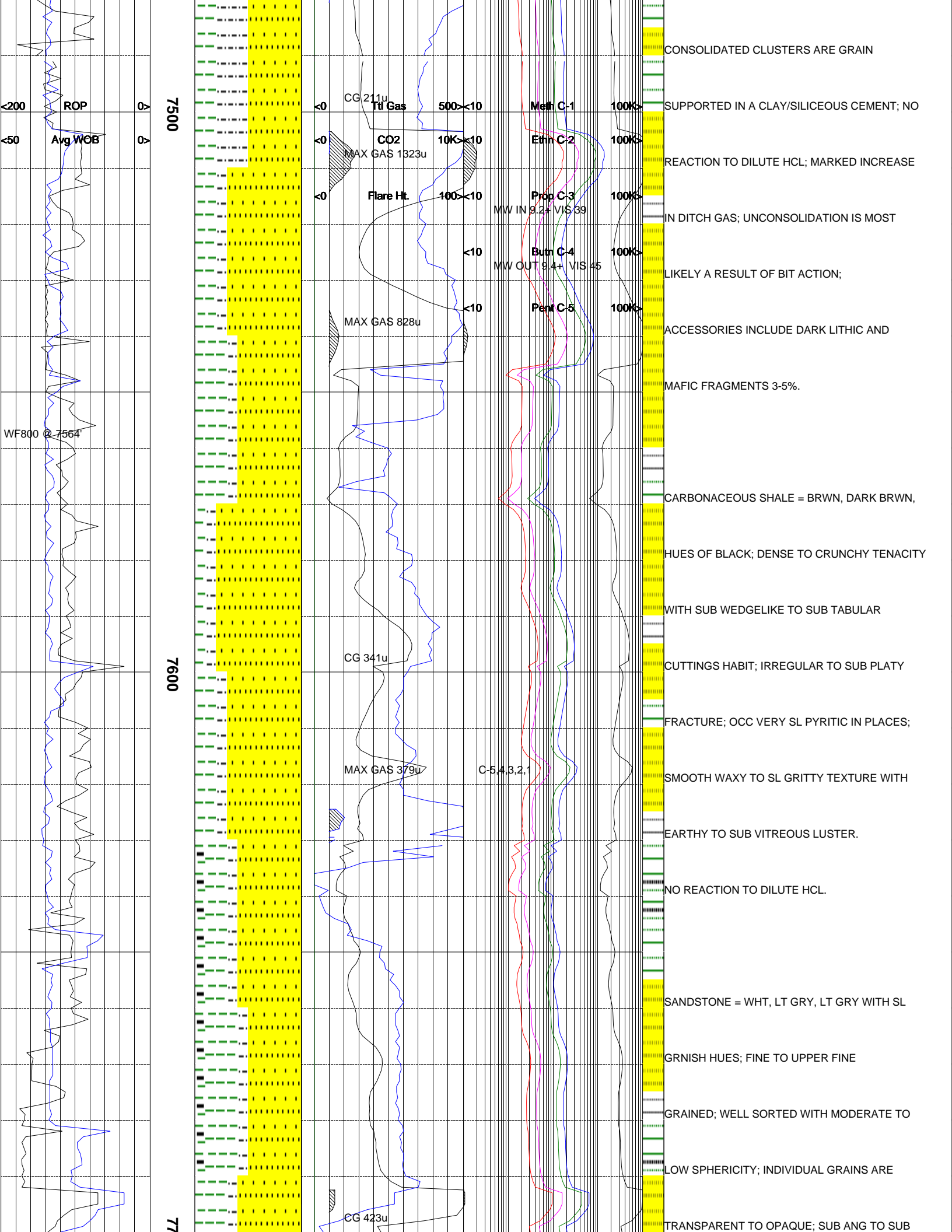
LIGHT BLUISH GRAY; FINE GRAIN TO OCC

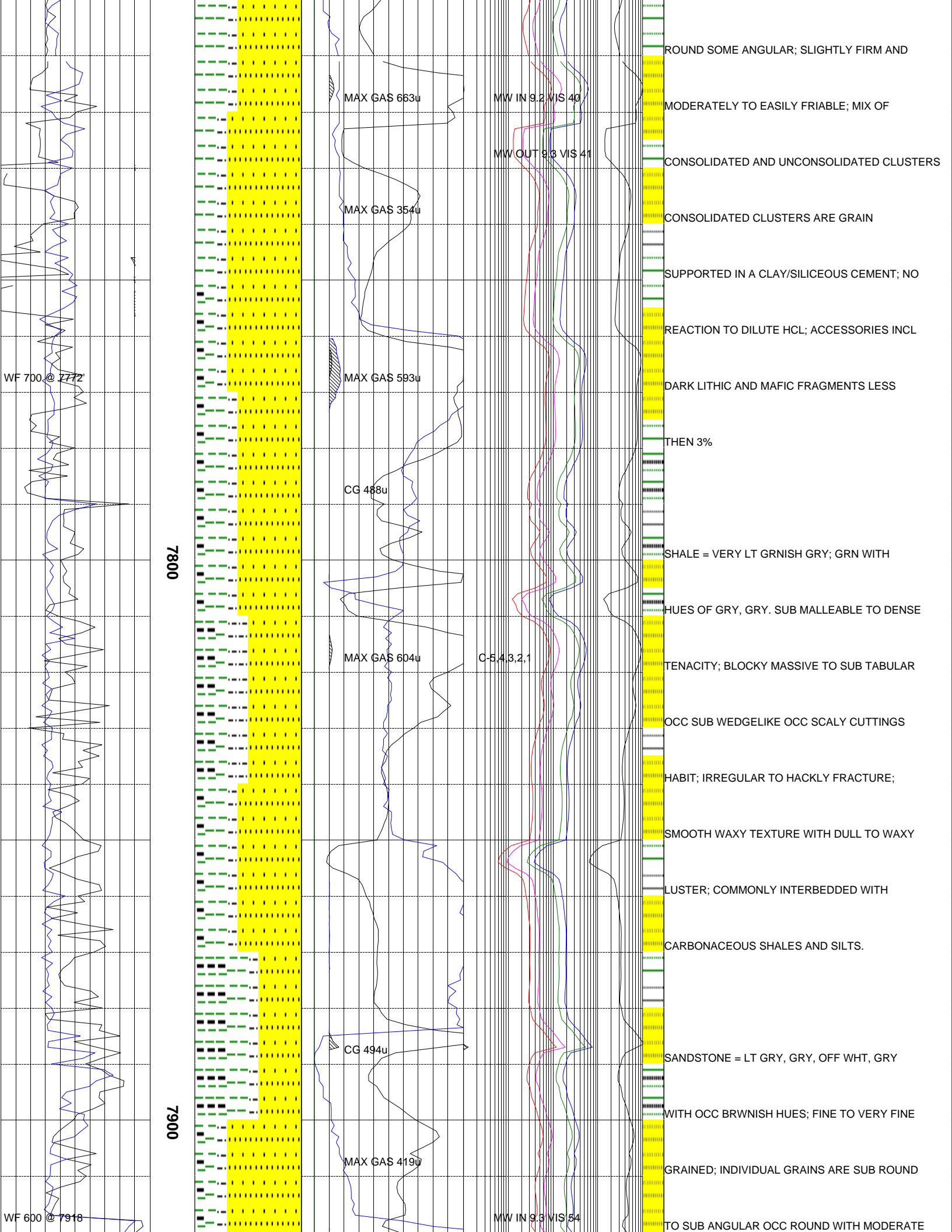
UPPER MED GRAIN; SALT AND PEPPER

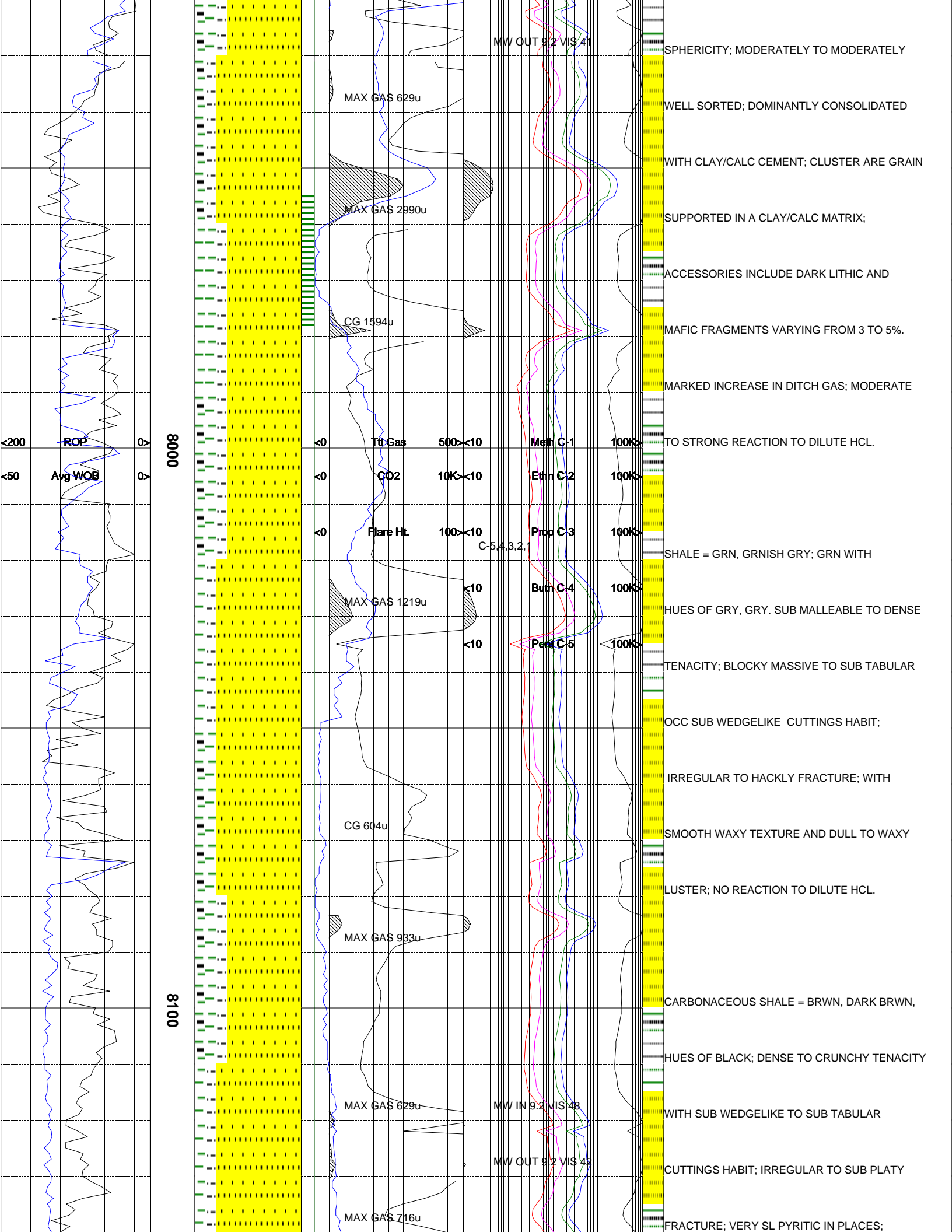
APPEARANCE WITH MOD GRAY SPECKLED

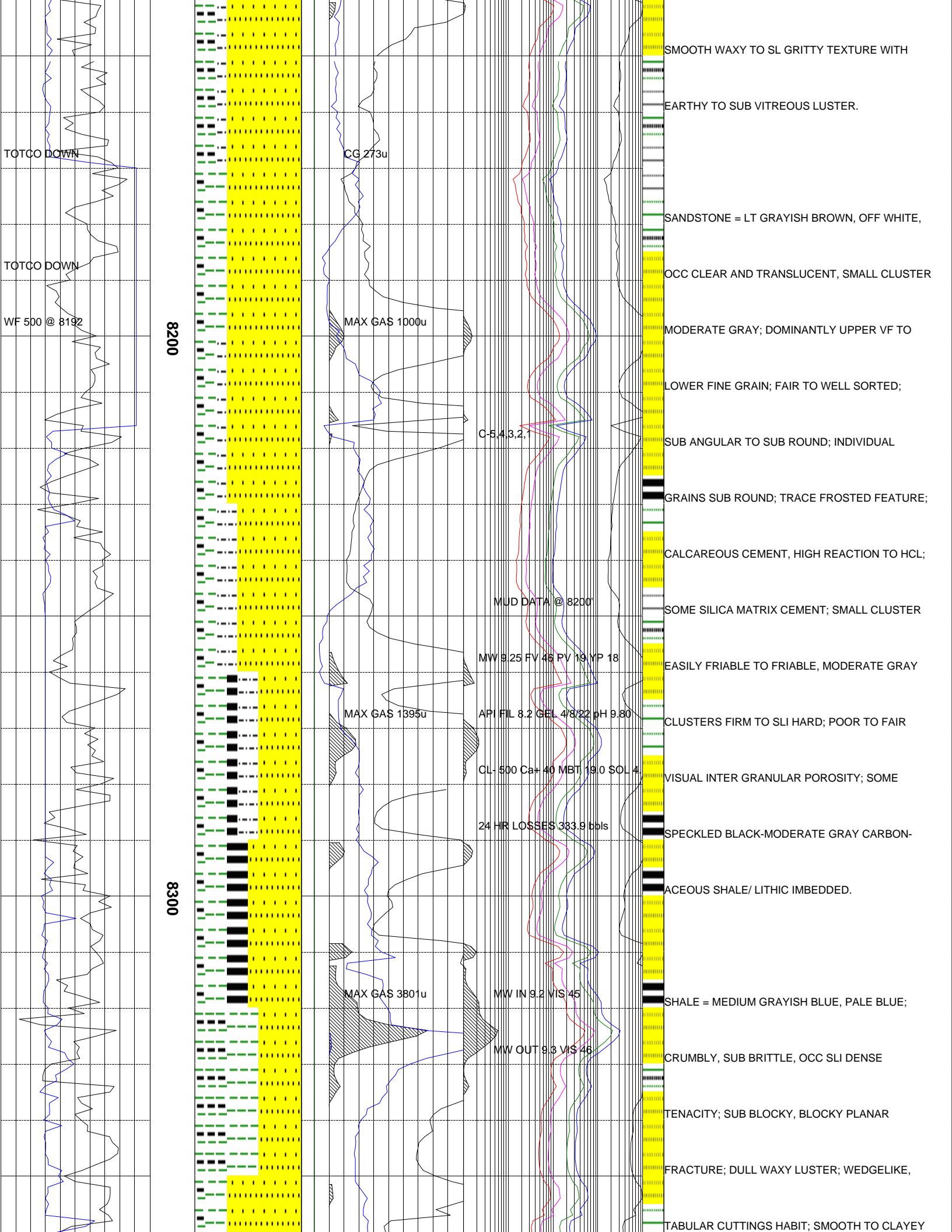
LITHIC; FAIR TO WELL SORTED; OCC FROSTED

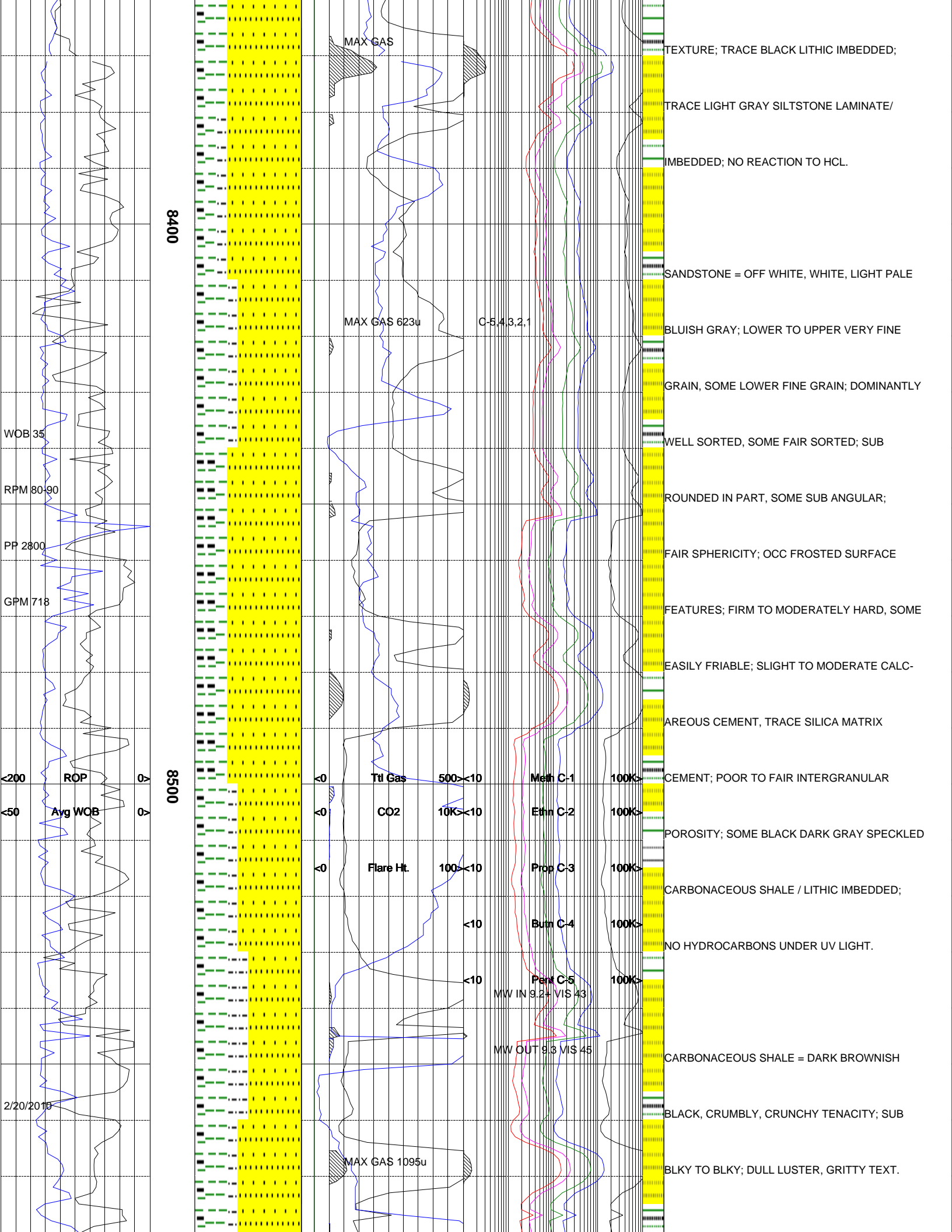


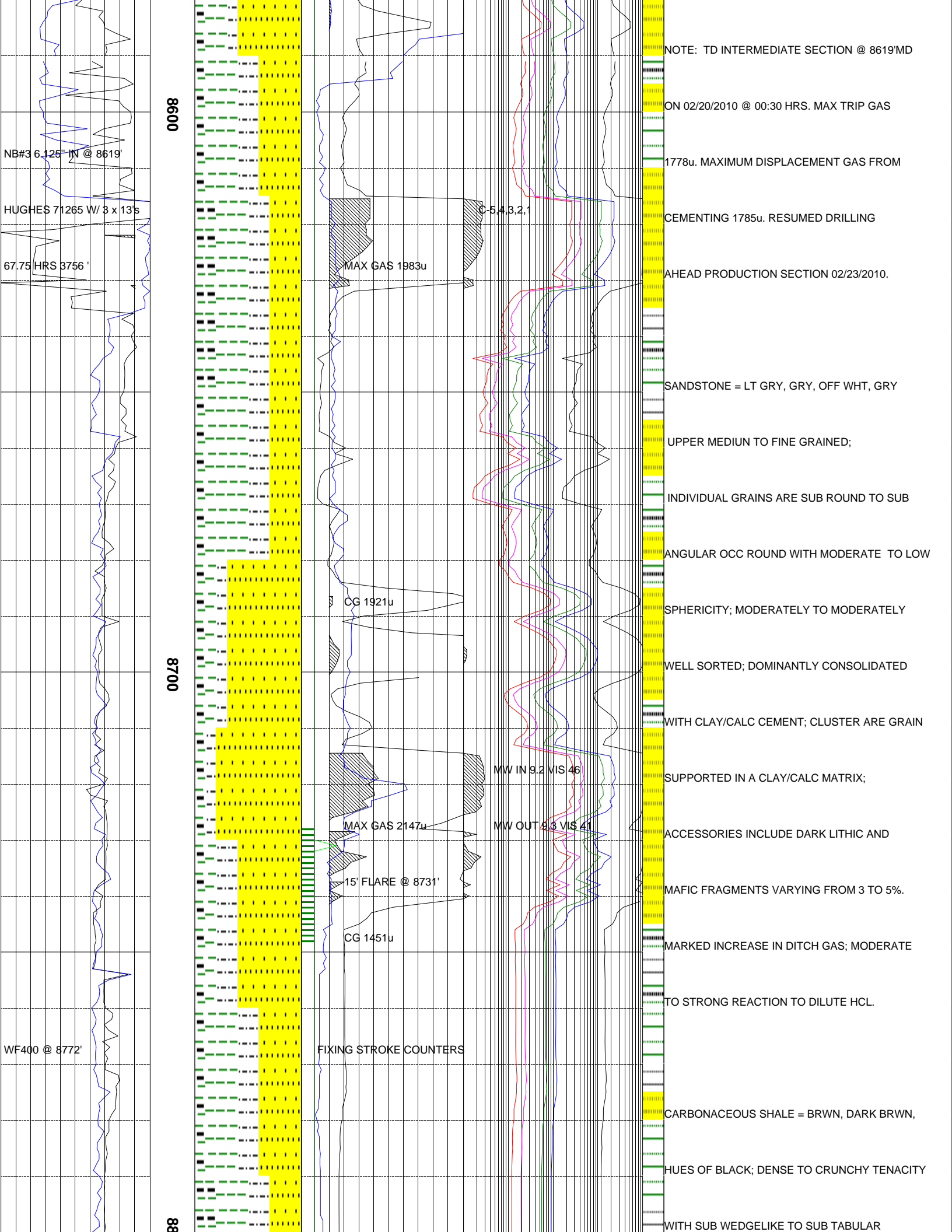


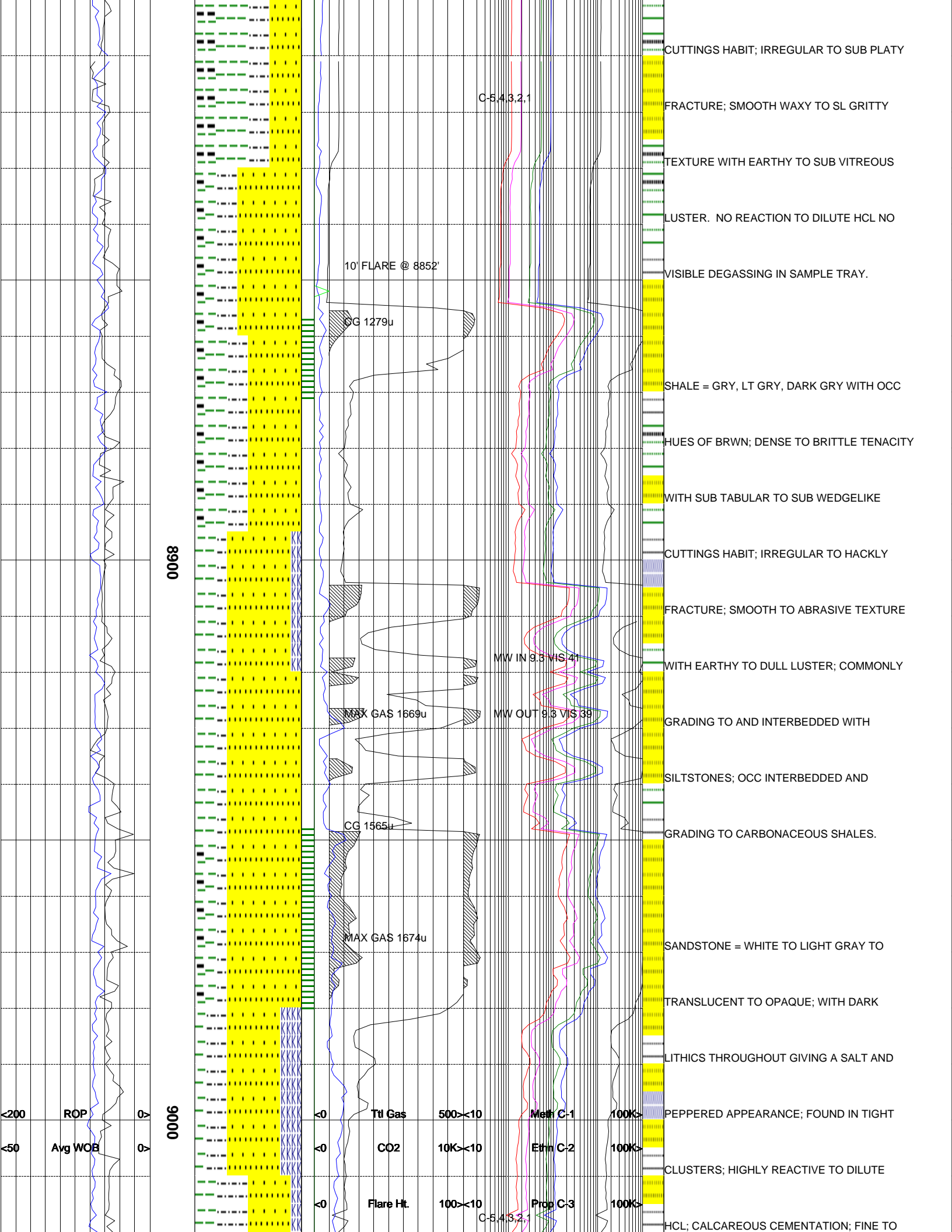


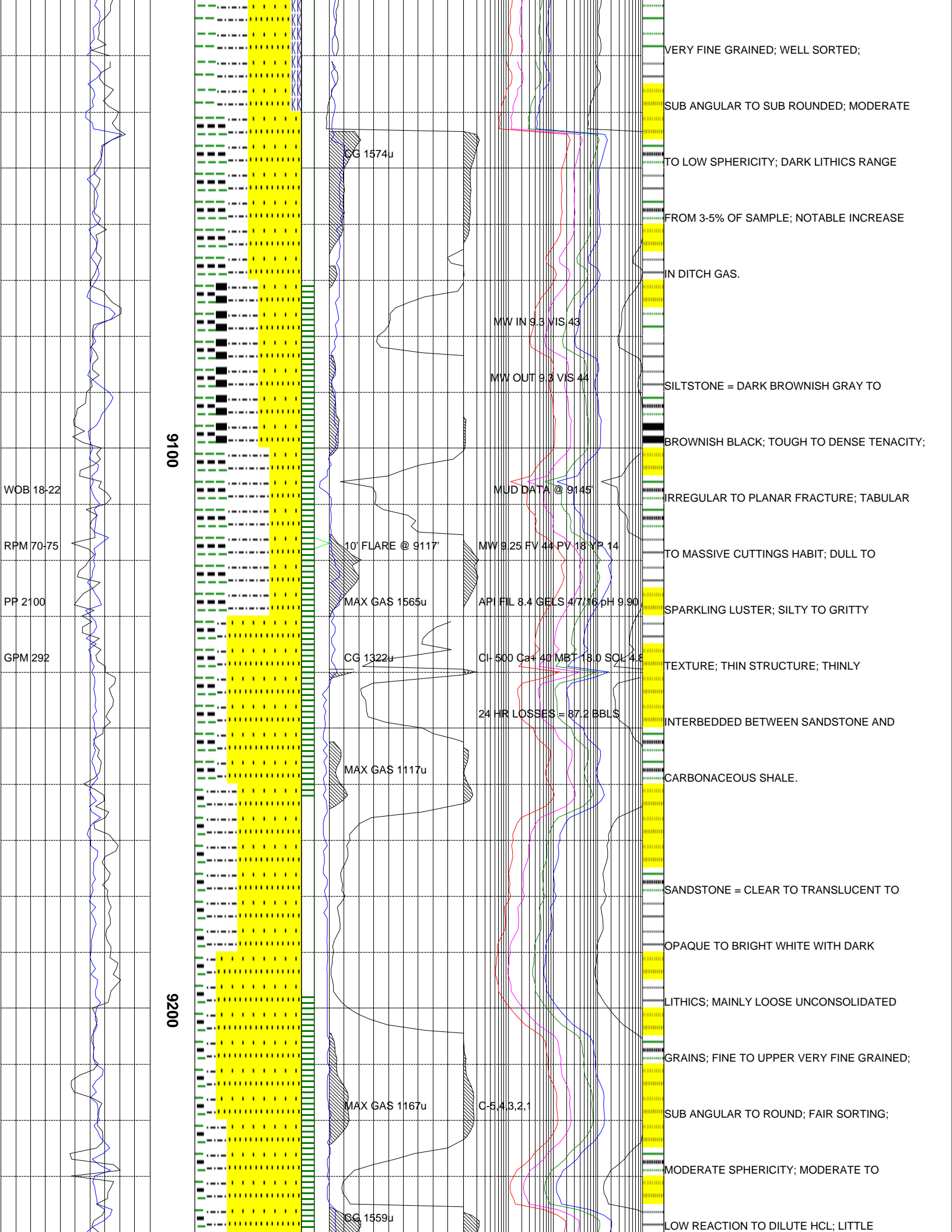


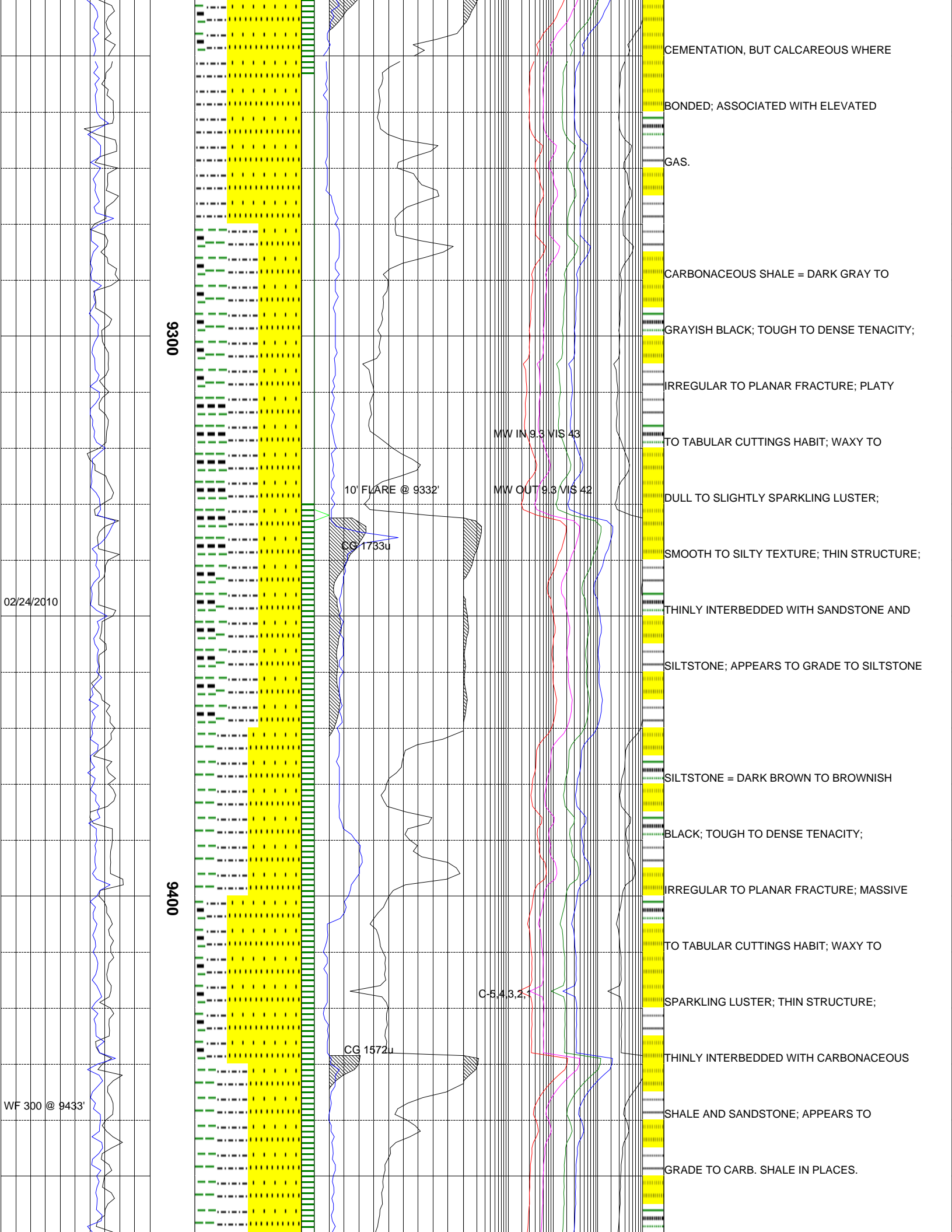












9300

9400

CEMENTATION, BUT CALCAREOUS WHERE

BONDED; ASSOCIATED WITH ELEVATED

GAS.

CARBONACEOUS SHALE = DARK GRAY TO

GRAYISH BLACK; TOUGH TO DENSE TENACITY;

IRREGULAR TO PLANAR FRACTURE; PLATY

MW IN 9.3 VIS 43

TO TABULAR CUTTINGS HABIT; WAXY TO

MW OUT 9.3 VIS 42

DULL TO SLIGHTLY SPARKLING LUSTER;

10' FLARE @ 9332'

CG 1733u

SMOOTH TO SILTY TEXTURE; THIN STRUCTURE;

THINLY INTERBEDDED WITH SANDSTONE AND

SILTSTONE; APPEARS TO GRADE TO SILTSTONE

SILTSTONE = DARK BROWN TO BROWNISH

BLACK; TOUGH TO DENSE TENACITY;

IRREGULAR TO PLANAR FRACTURE; MASSIVE

TO TABULAR CUTTINGS HABIT; WAXY TO

C-543.2

SPARKLING LUSTER; THIN STRUCTURE;

CG 1572u

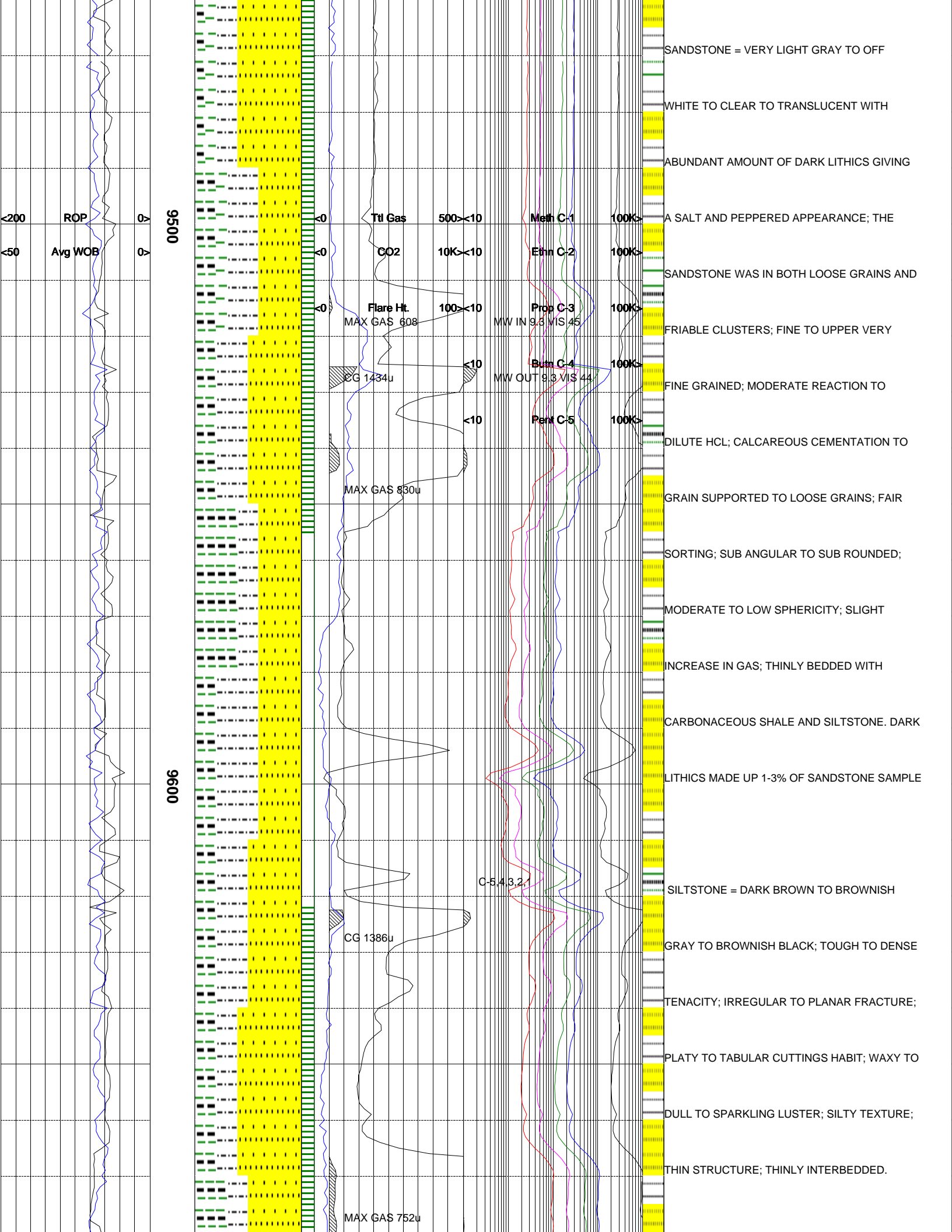
THINLY INTERBEDDED WITH CARBONACEOUS

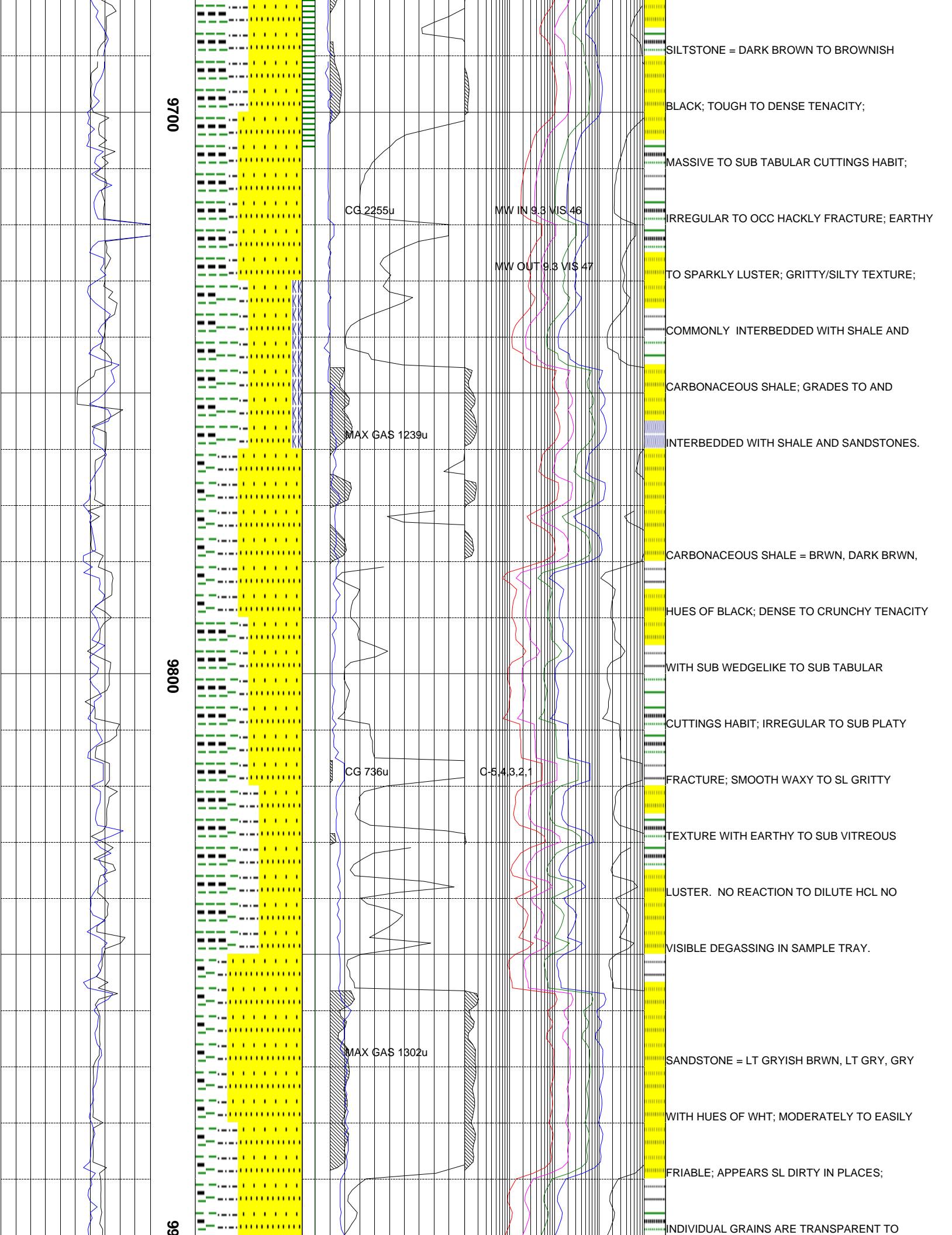
SHALE AND SANDSTONE; APPEARS TO

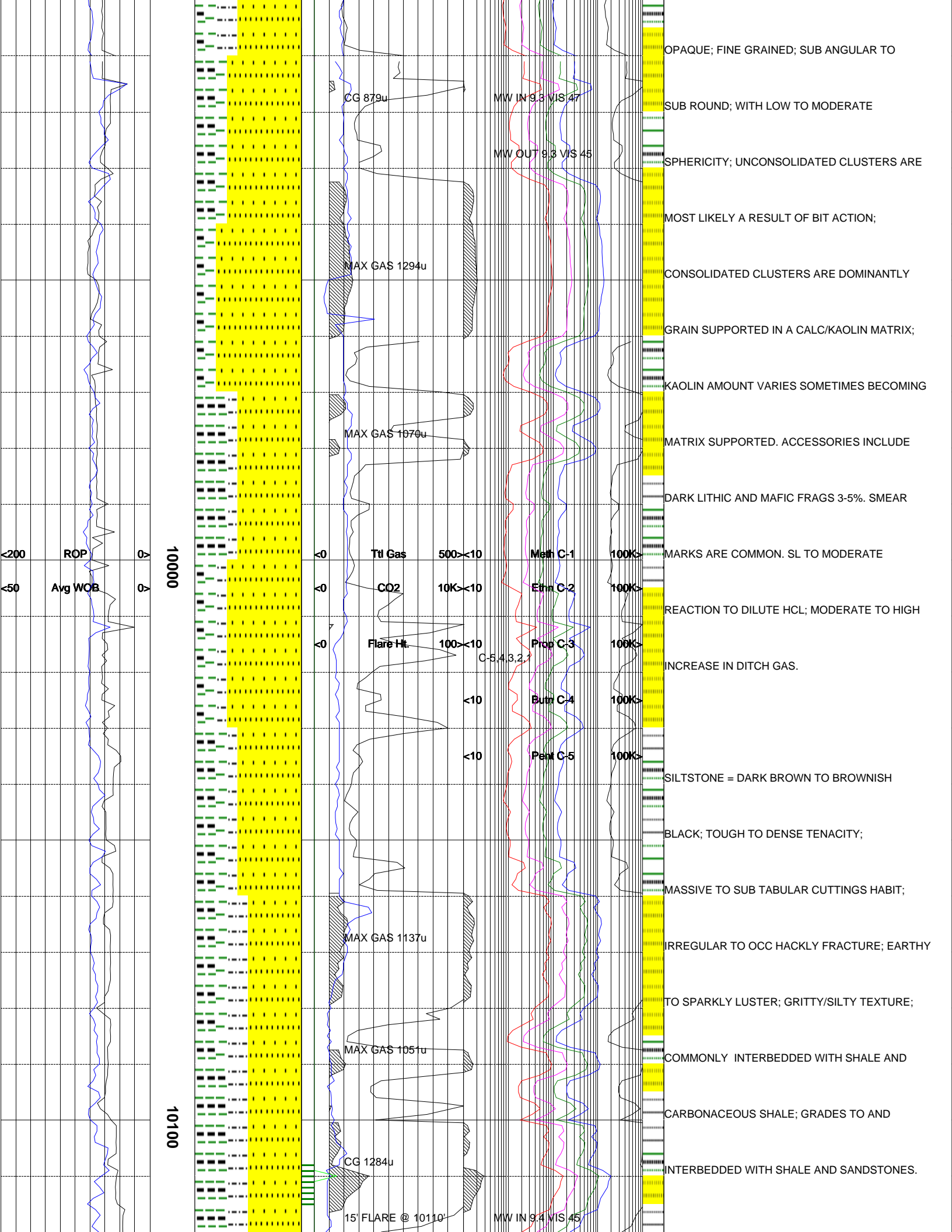
GRADE TO CARB. SHALE IN PLACES.

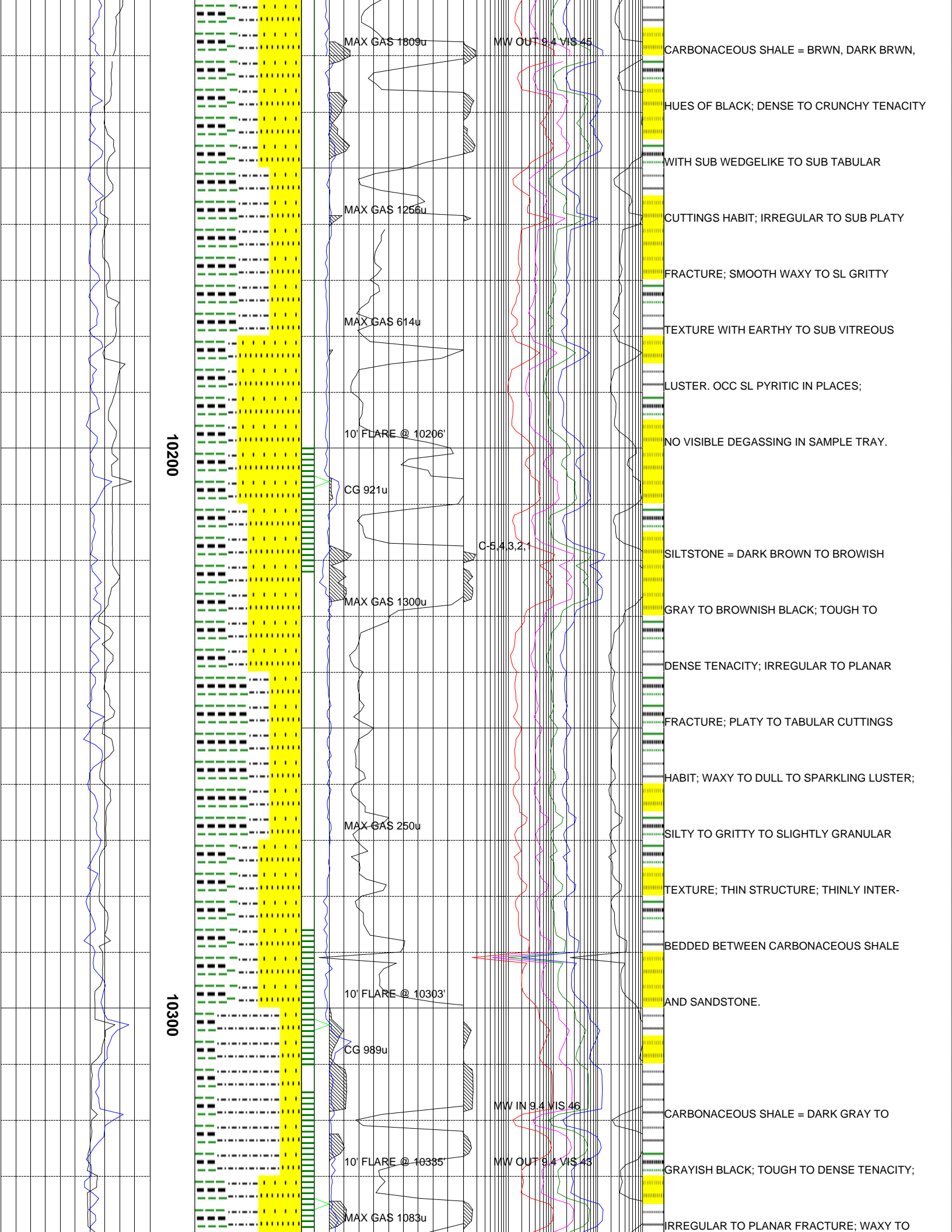
02/24/2010

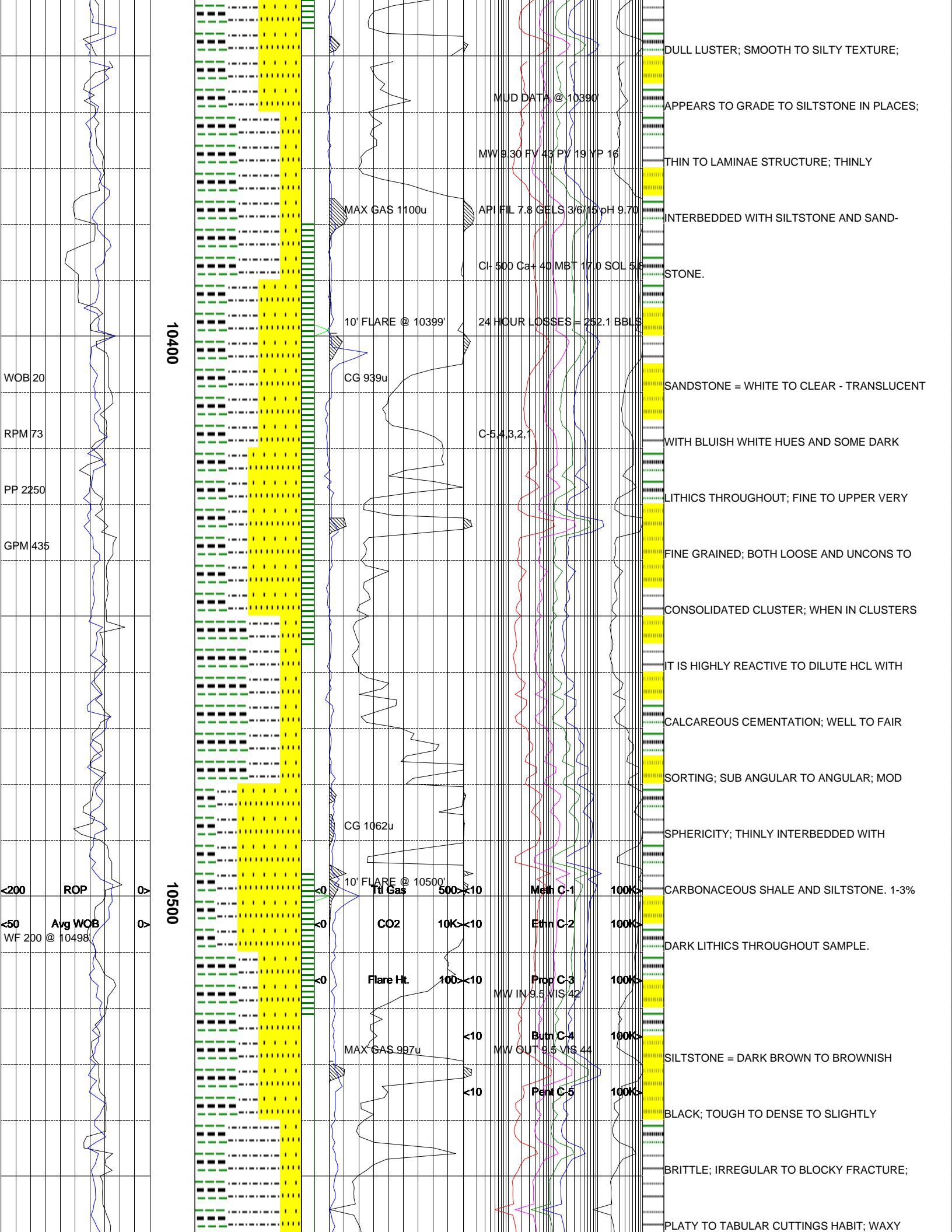
WF 300 @ 9433'

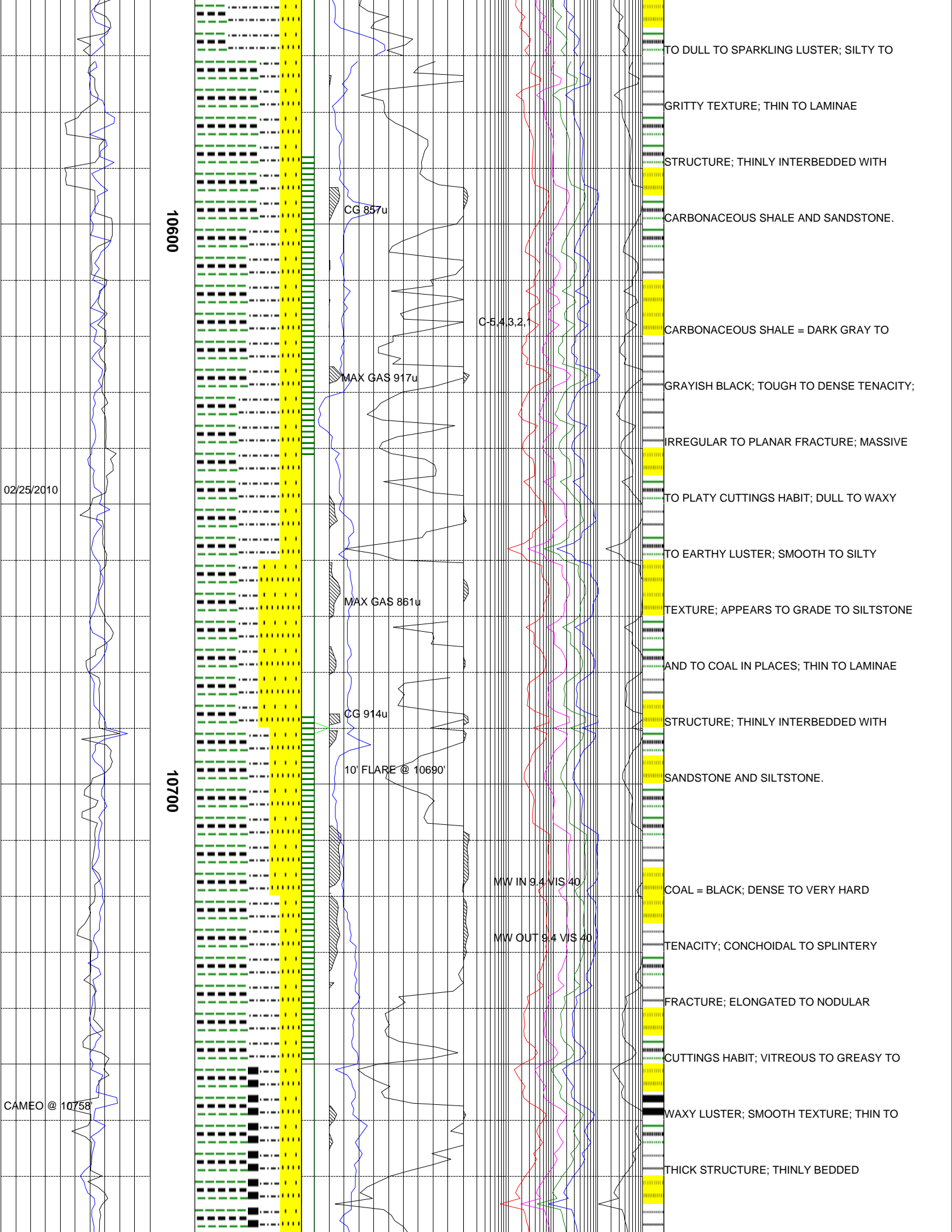


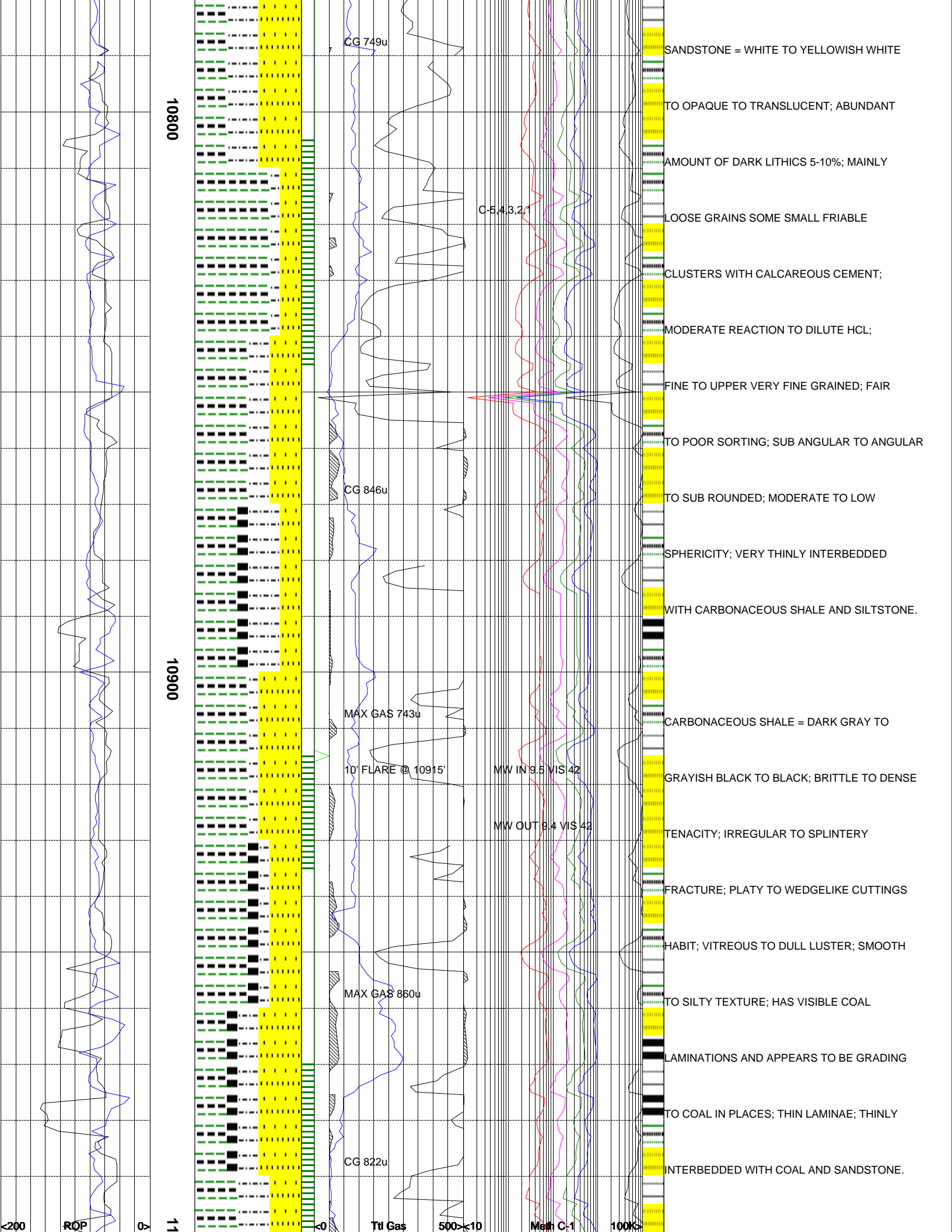


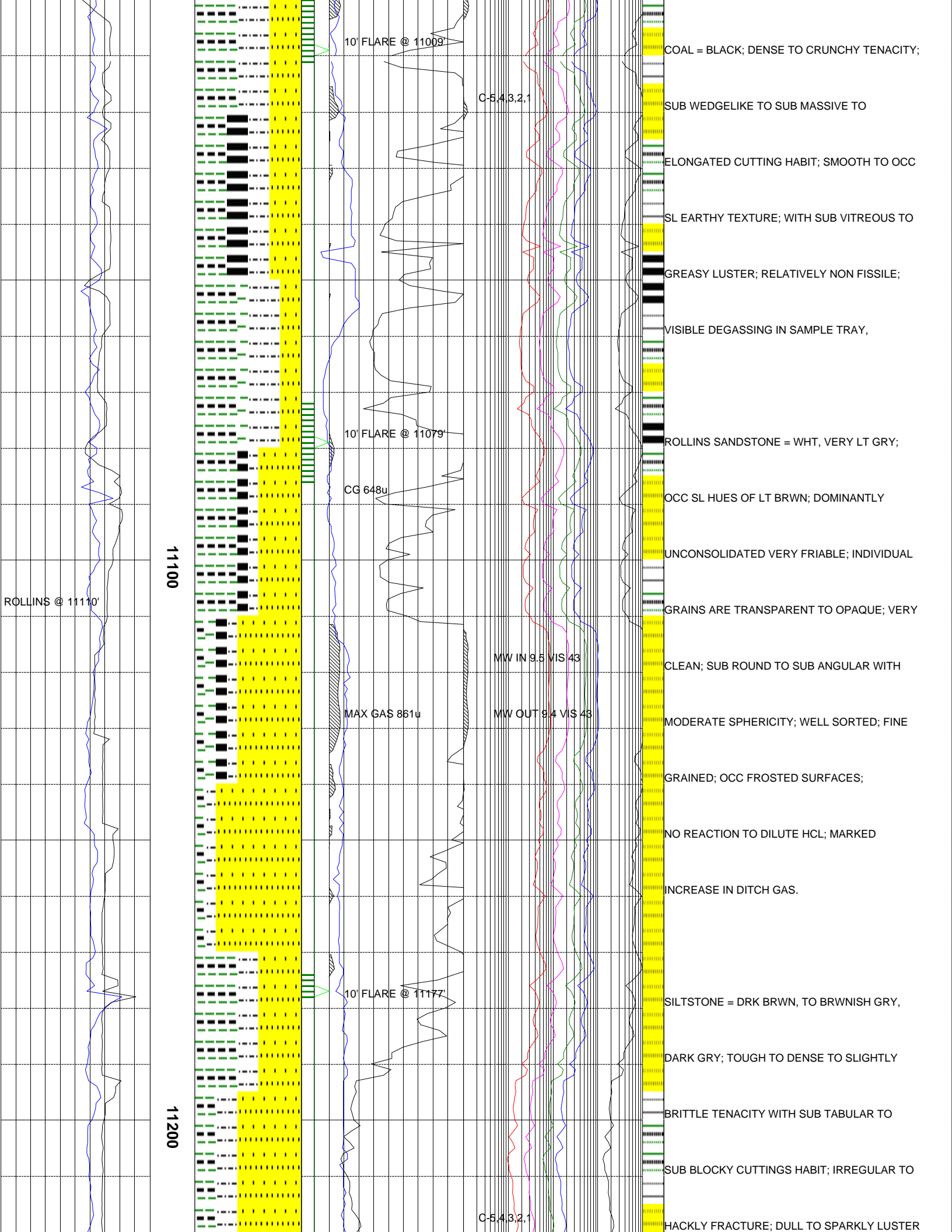


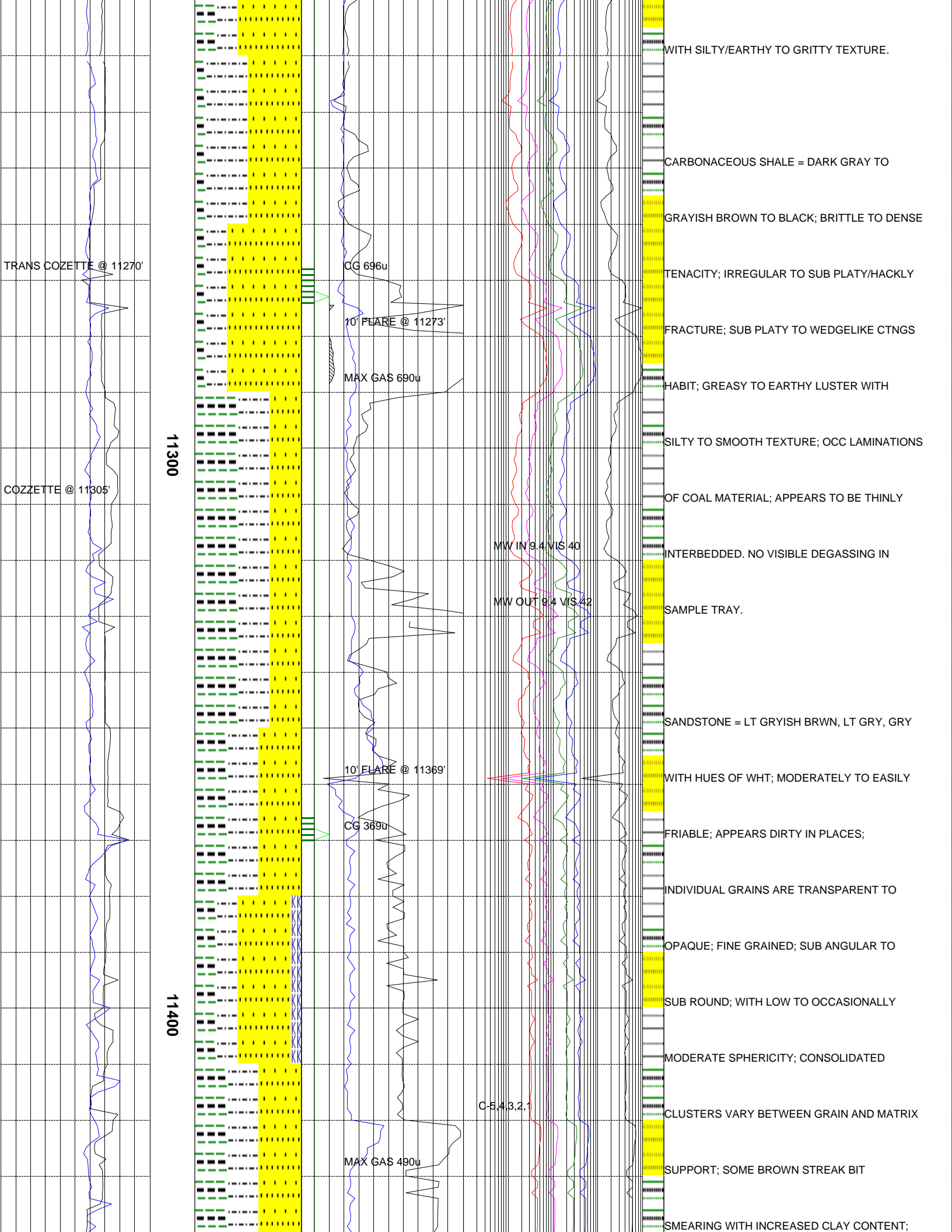


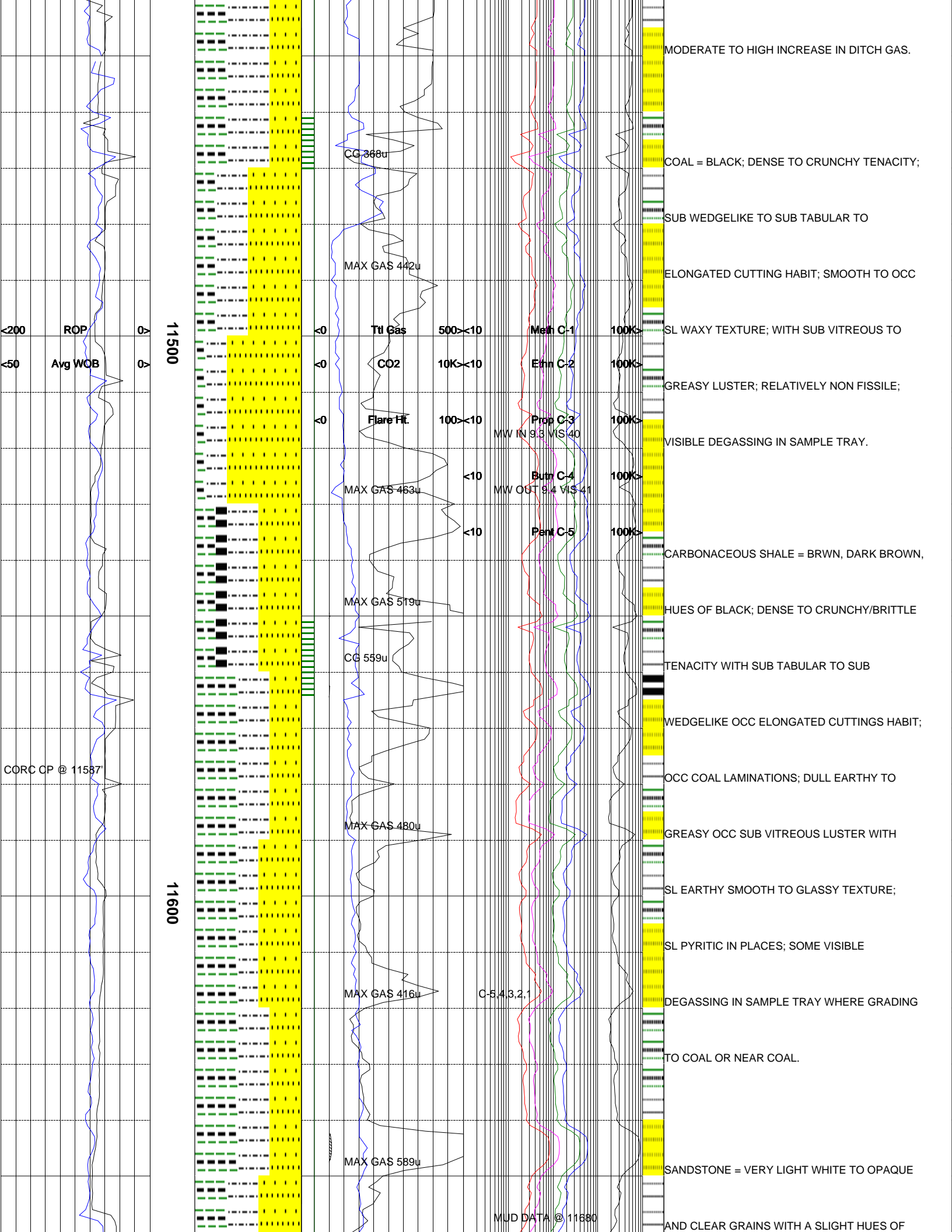


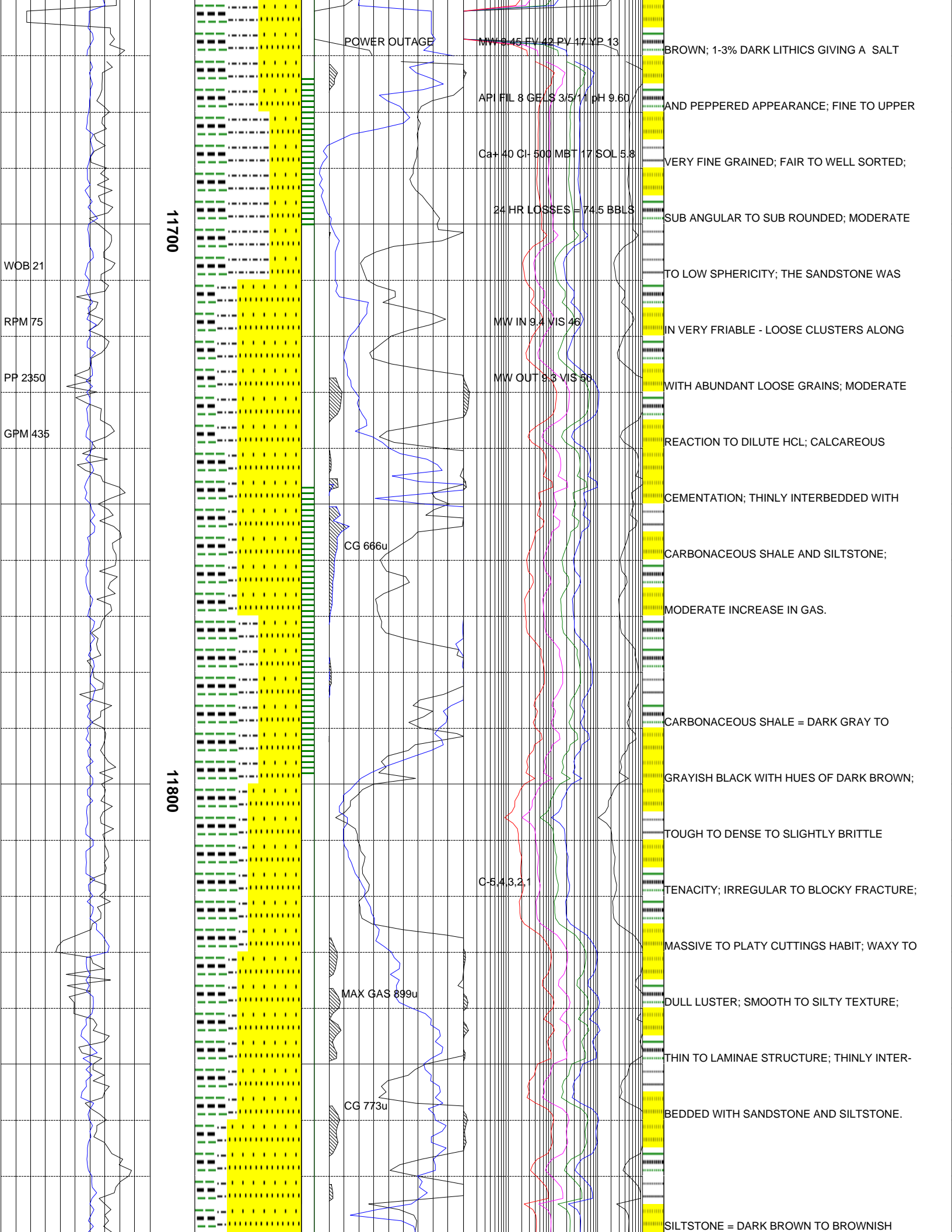


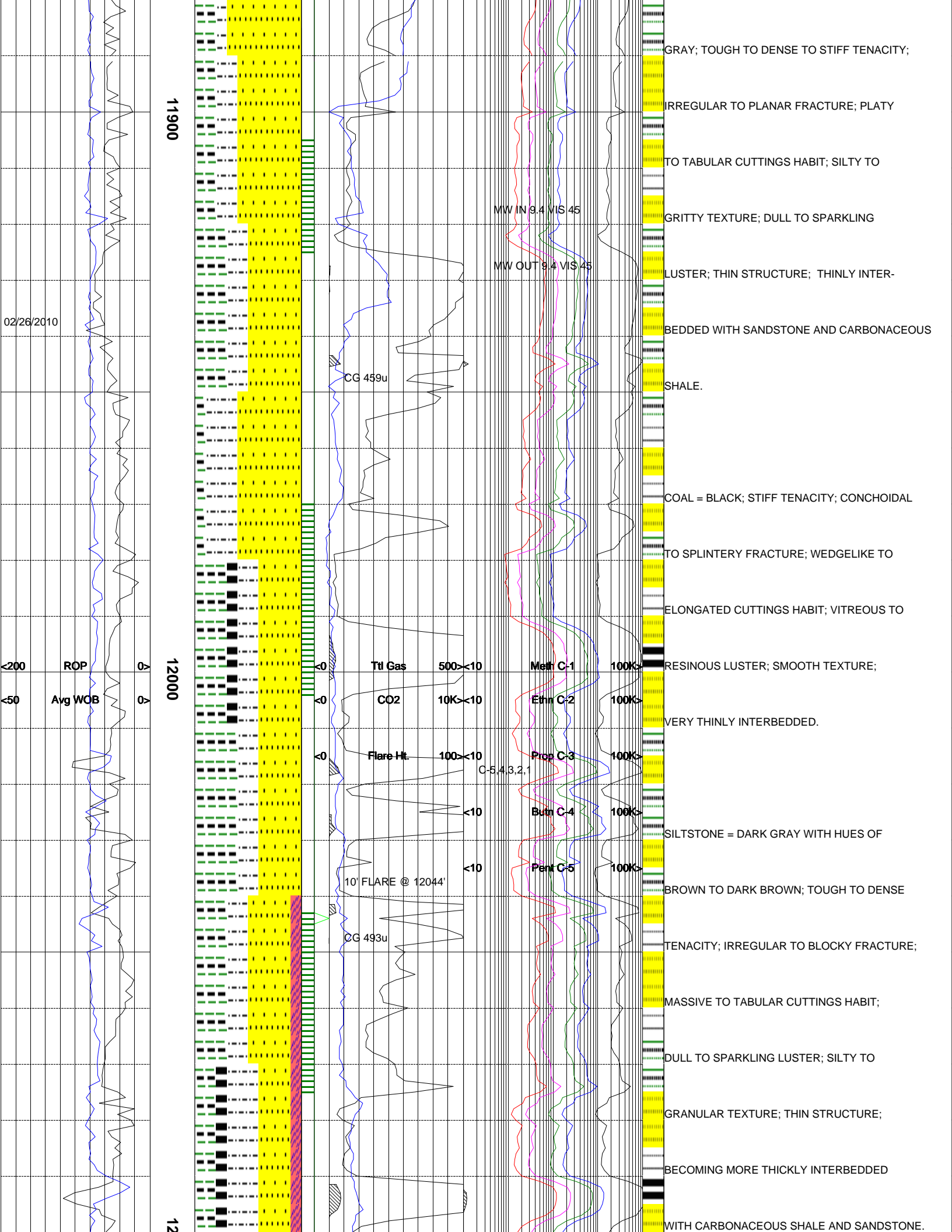


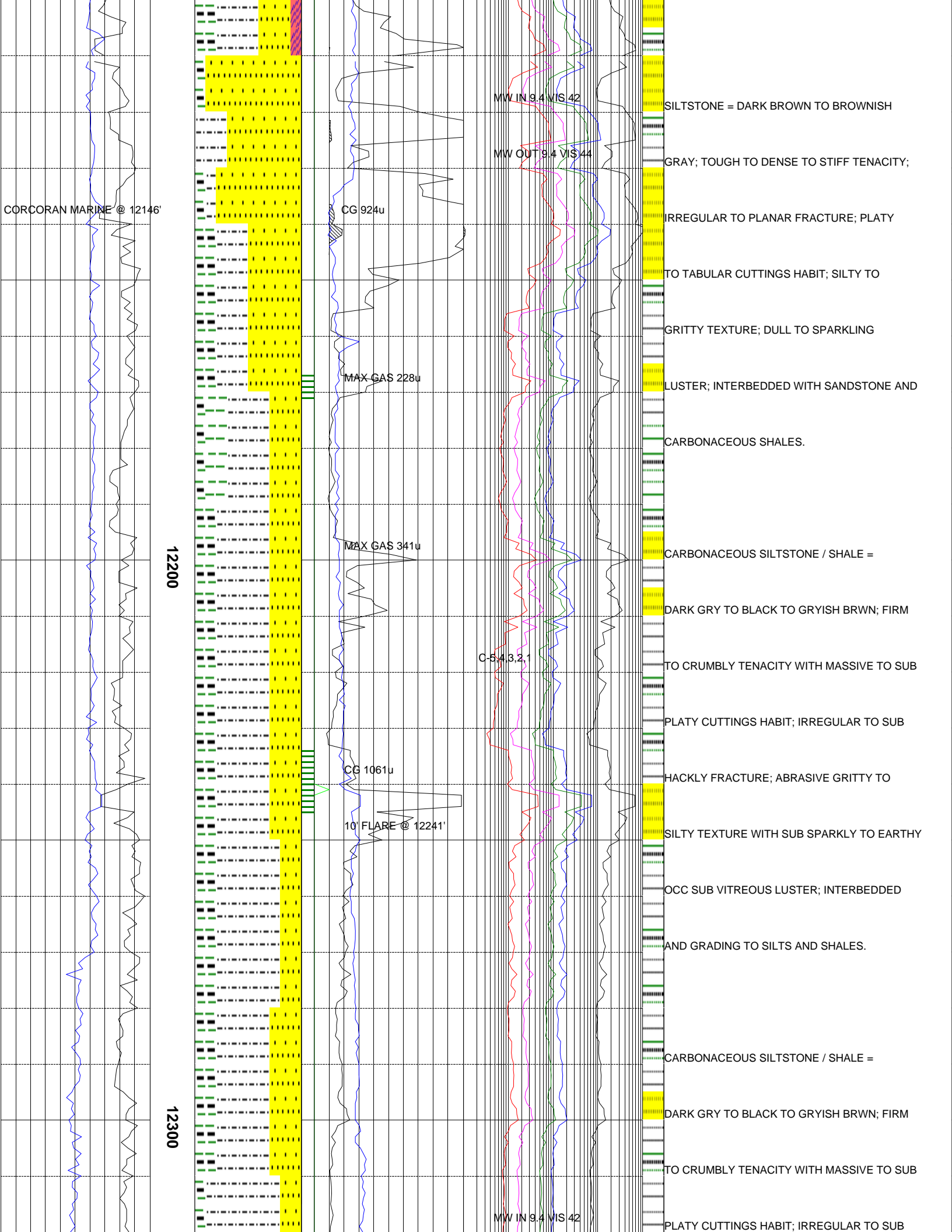


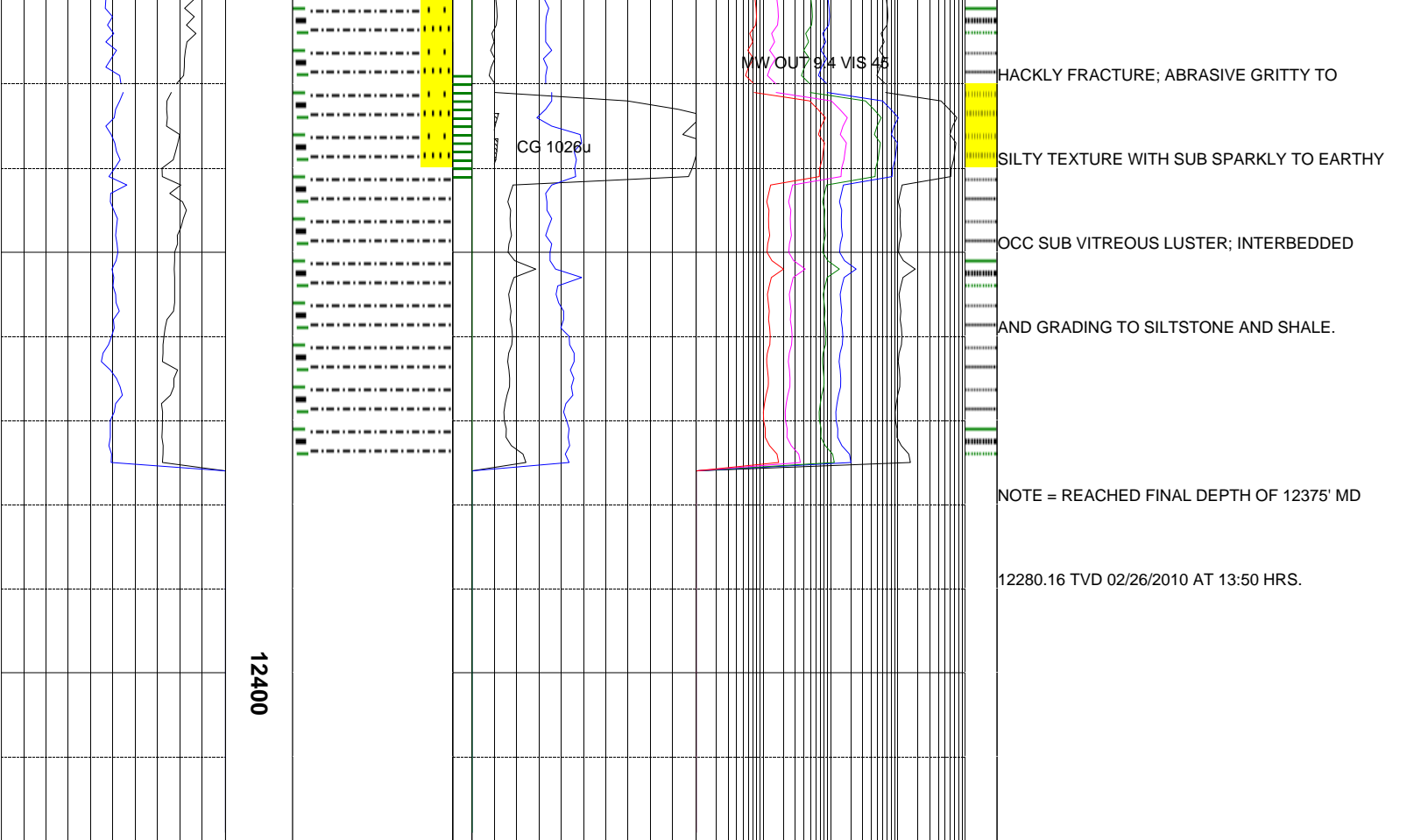












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