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MUDLOG TVD

COMPANY	ExxonMobil Oil Corporation
WELL	PCU 297-12A1-ST1
FIELD	Piceance Creek
REGION	Rocky Mountains
COORDINATES	Lat: 39.8890710 Long: 108.2372410
ELEVATION	GL: 7183.6' RKB: 7213'
COUNTY, STATE	Rio Blanco, Colorado
API INDEX	051031115701
SPUD DATE	09/22/2009
CONTRACTOR	HE DRILLING
CO. REP.	M. SADLER / J. WOODS
RIG/TYPE	326 FLEX FOUR
LOGGING UNIT	CANRIG UNIT ML036
GEOLOGISTS	Don Thibodeaux Brandon Laiche
ADD. PERSONS	Huel _Patti Strickland Linda Davison/Darryl Ebbert
CO. GEOLOGIST	CHRIS ALBA

LOG INTERVAL

DEPTHS: 4111' **TO** 13338'

DATES: 6/16/2009 **TO** 9/24/2009

SCALE: 5" = 100'

CASING DATA

16.000" **AT** 150'

10.750" **AT** 4111'

7.00" **AT** 9131'

4.50" **AT** 13338'

MUD TYPES

WATER BASE **TO** 5730'

DSF **TO** 6200'

LSND **TO** 13338'

TO

HOLE SIZE

14.250" **TO** 4111'

9.875" **TO** 9131'

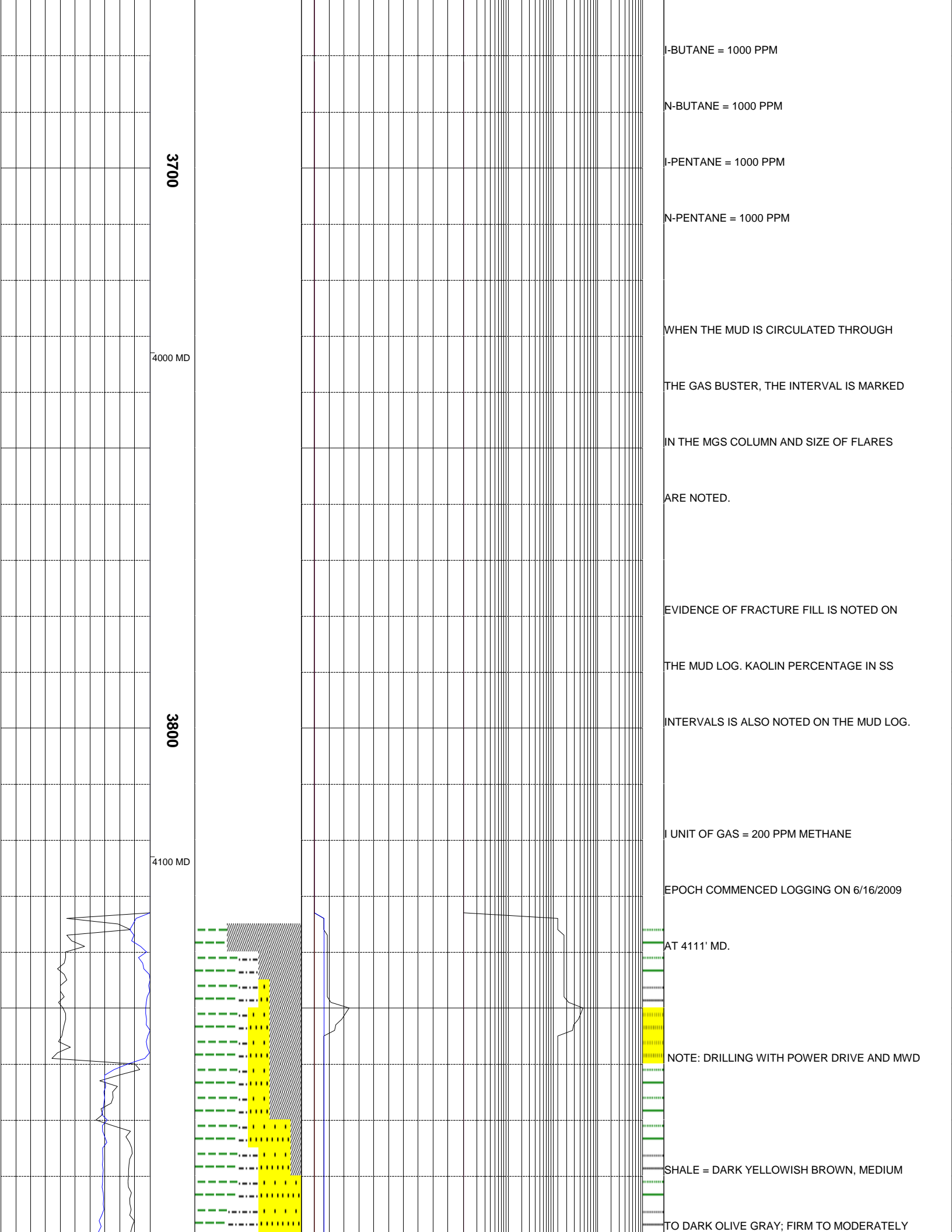
6.125" **TO** 13338'

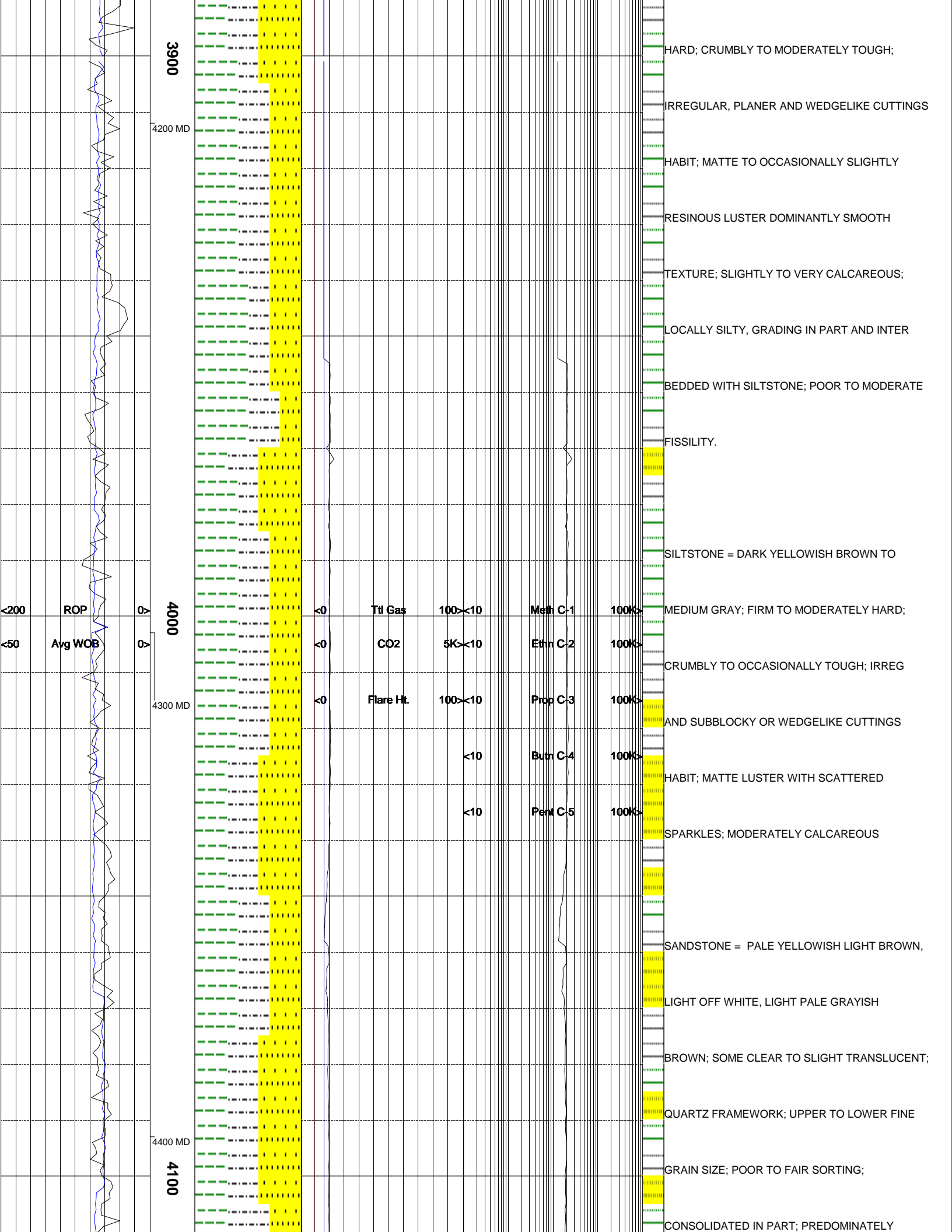
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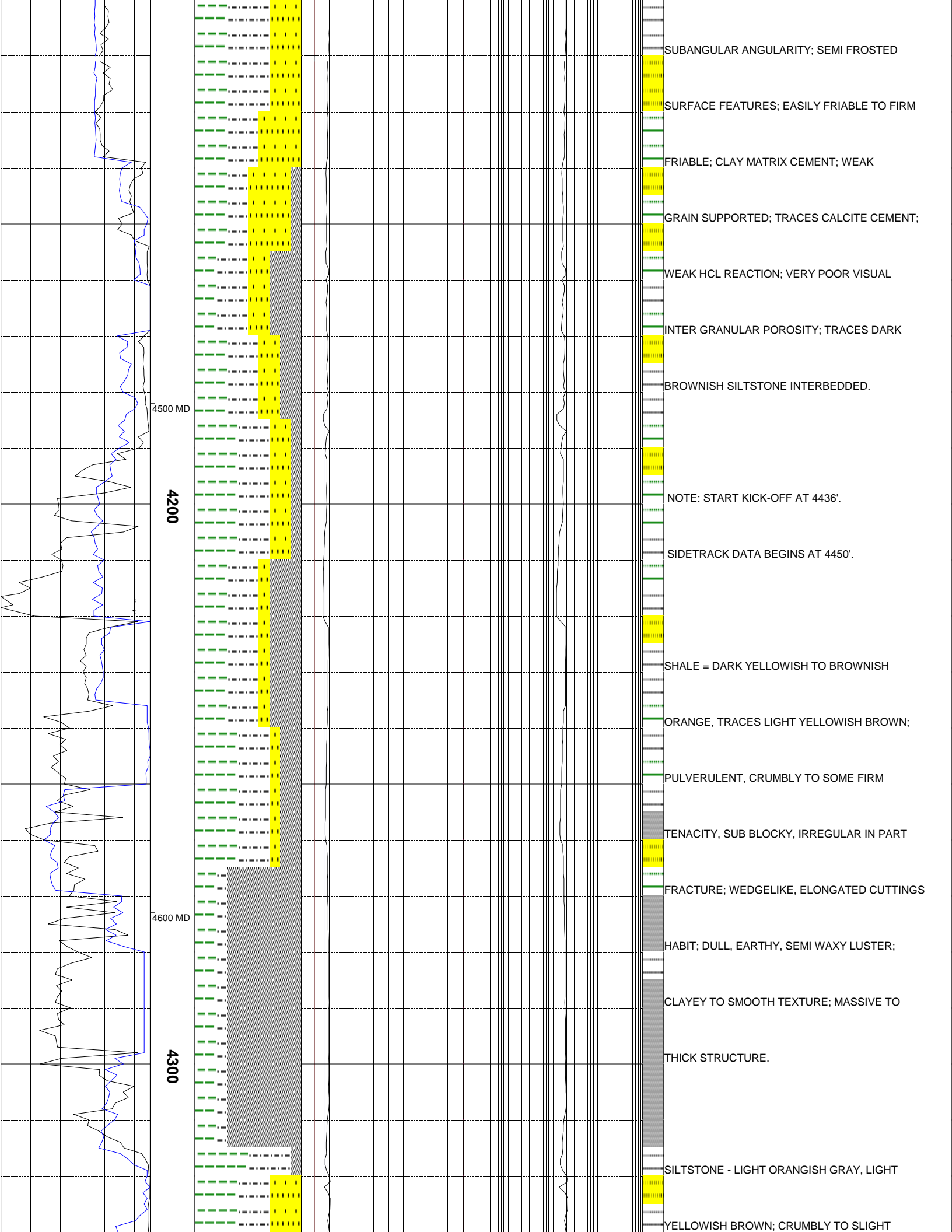
ABBREVIATIONS

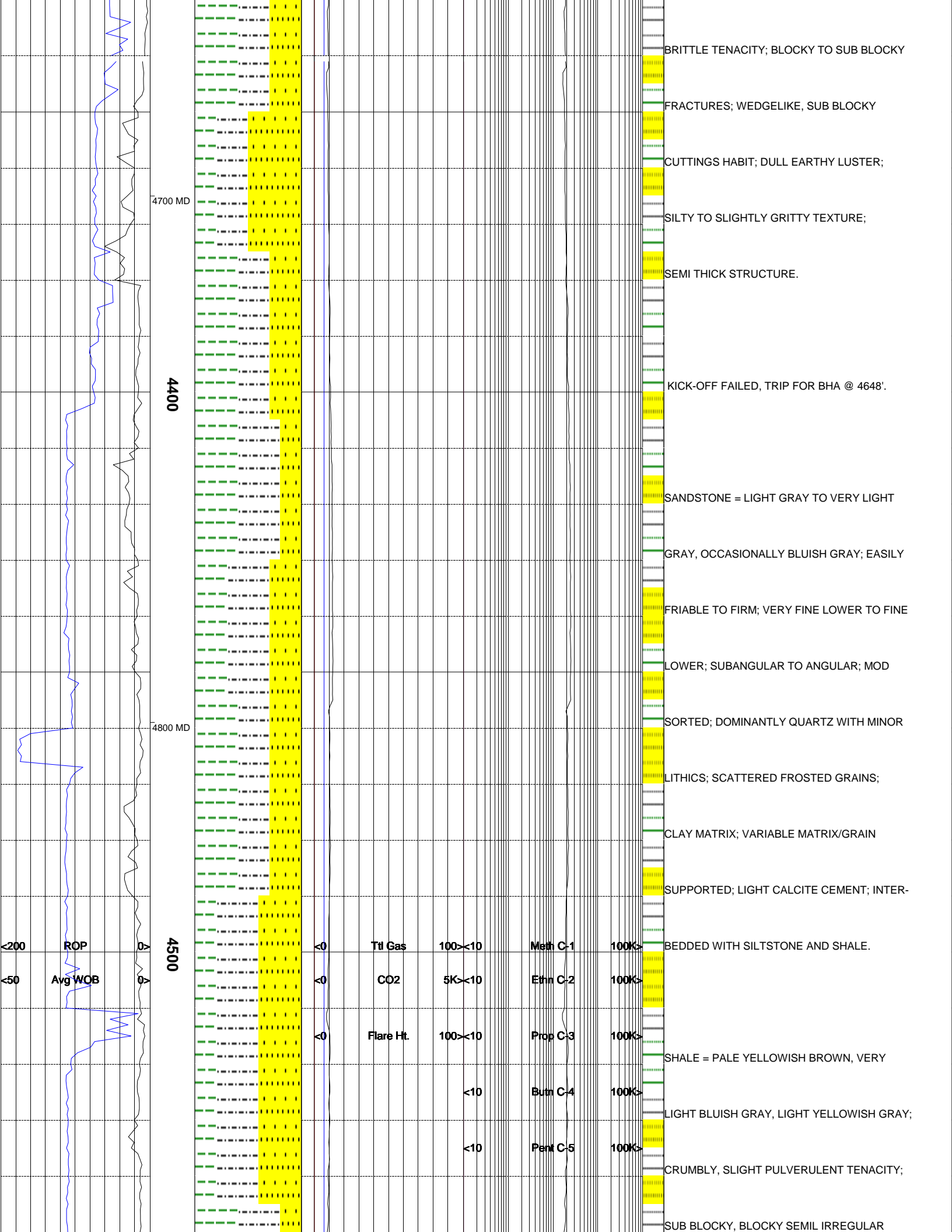
<i>NB</i> NEWBIT	<i>PV</i> PLASTIC VISCOSITY	<i>LC</i> LOST CIRCULATION
<i>RRB</i> RERUN BIT	<i>YP</i> YIELD POINT	<i>CO</i> CIRCULATE OUT
<i>CB</i> CORE BIT	<i>FL</i> FLUID LOSS	<i>NR</i> NO RETURNS
<i>WOB</i> WEIGHT ON BIT	<i>CL</i> PPM CLORIDE ION	<i>TG</i> TRIP GAS
<i>RPM</i> ROTARY REV/MIN	<i>Rm</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	

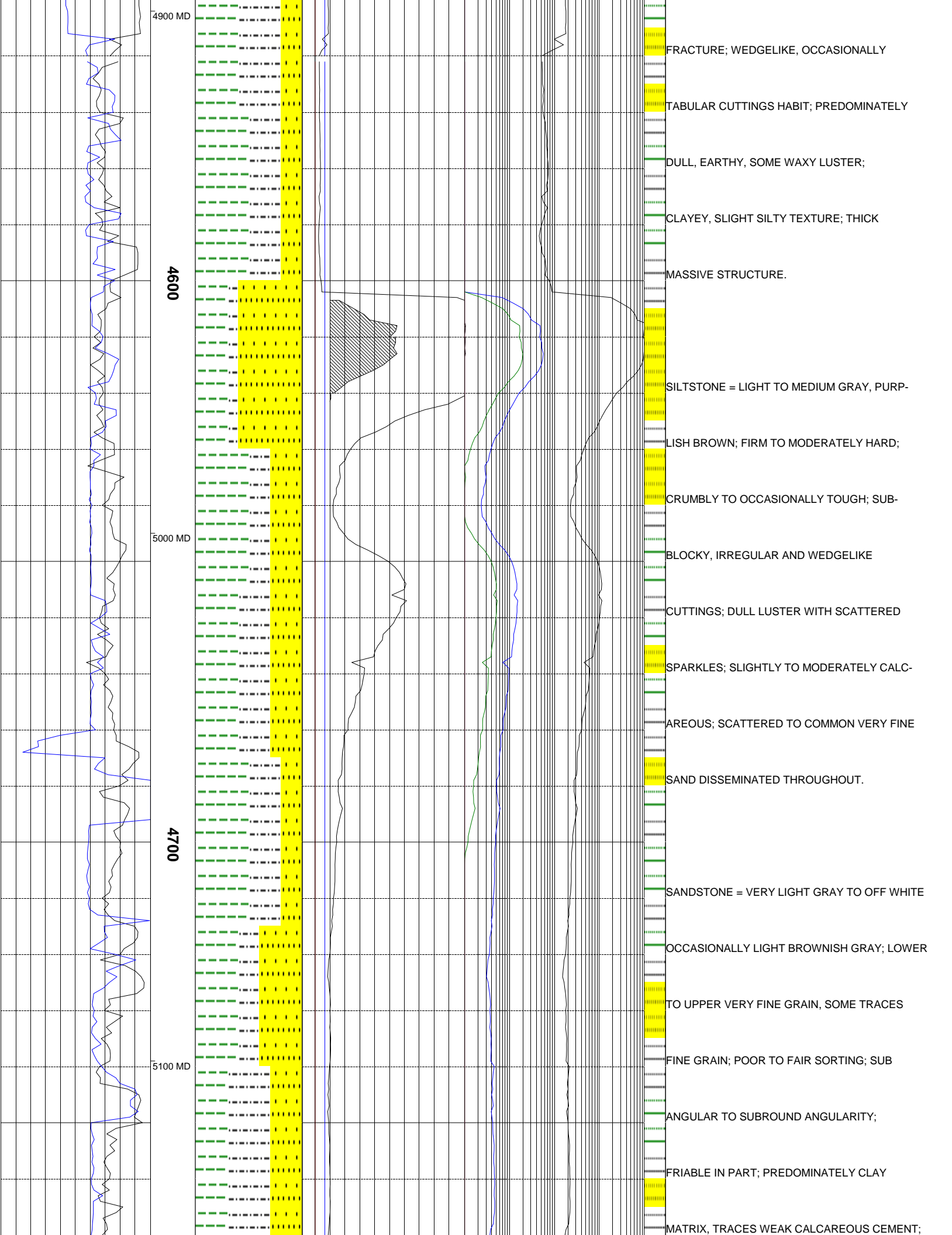
ALTERED ZONE	CHERT - GLASSY	FELSIC SILIC DIKE	MARL - CALC	SANDSTONE
ANDESITE	CHERT - PORCEL	FOSSIL	METAMORPHICS	SANDSTONE-TUFFACEOUS
ANHYDRITE	CHERT - TIGER STRIPE	GABBRO	MUDSTONE	SERICITIZATION
BASALT	CHERT - UNDIFF	GLASSY TUFF	OBSIDIAN	SERPENTINE
BENTONITE	CLAY	GRANITE	PALEOSOL	SHALE
BIOTITIZATION	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	

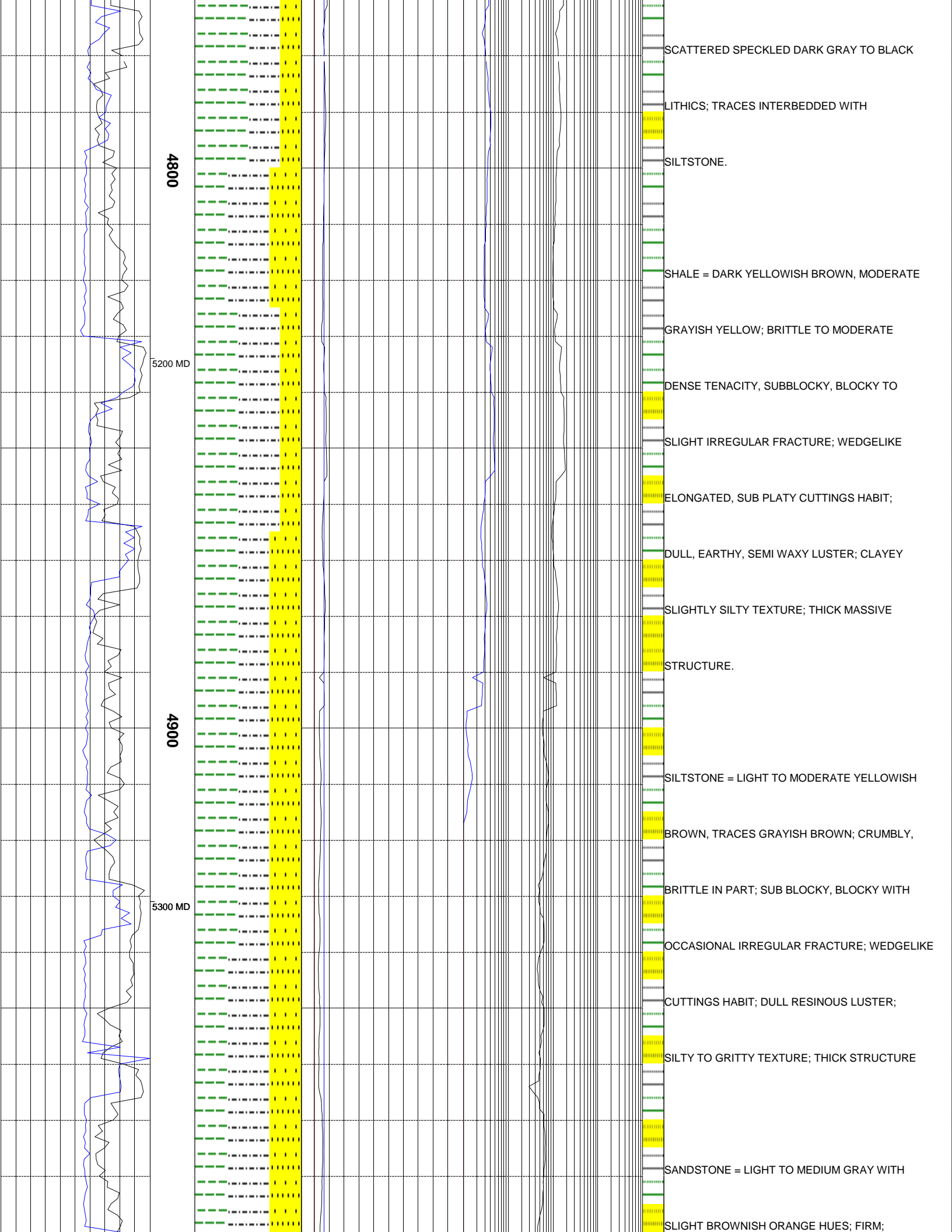


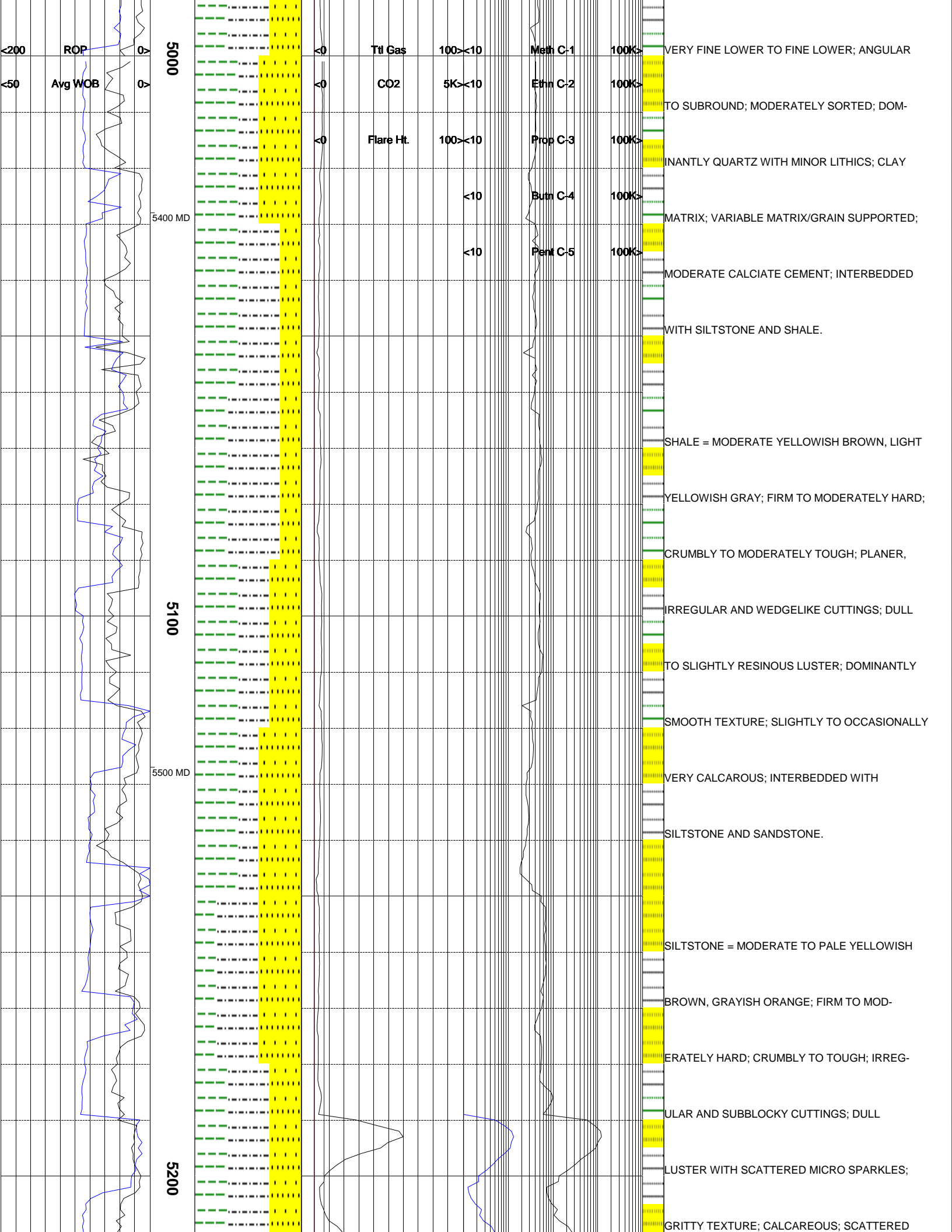


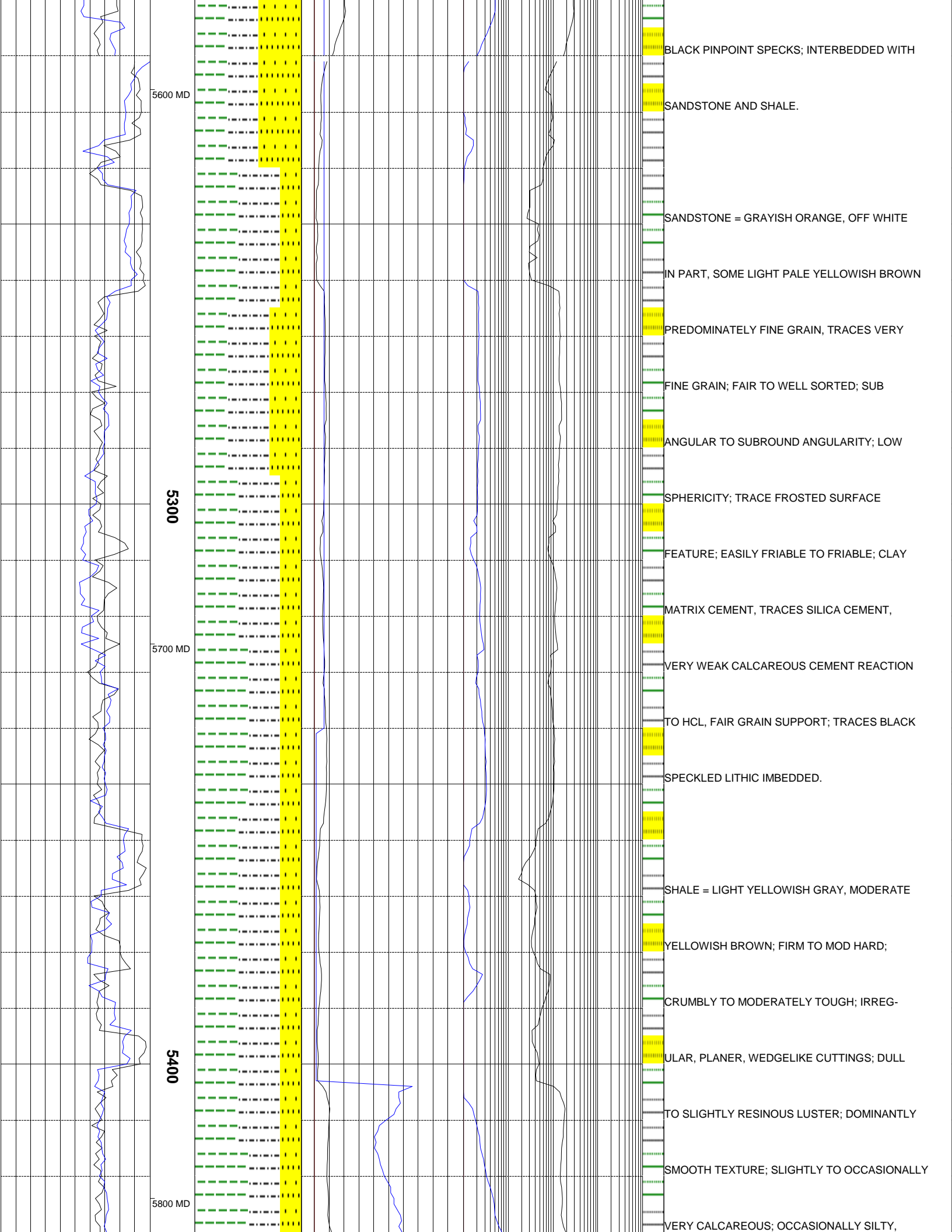


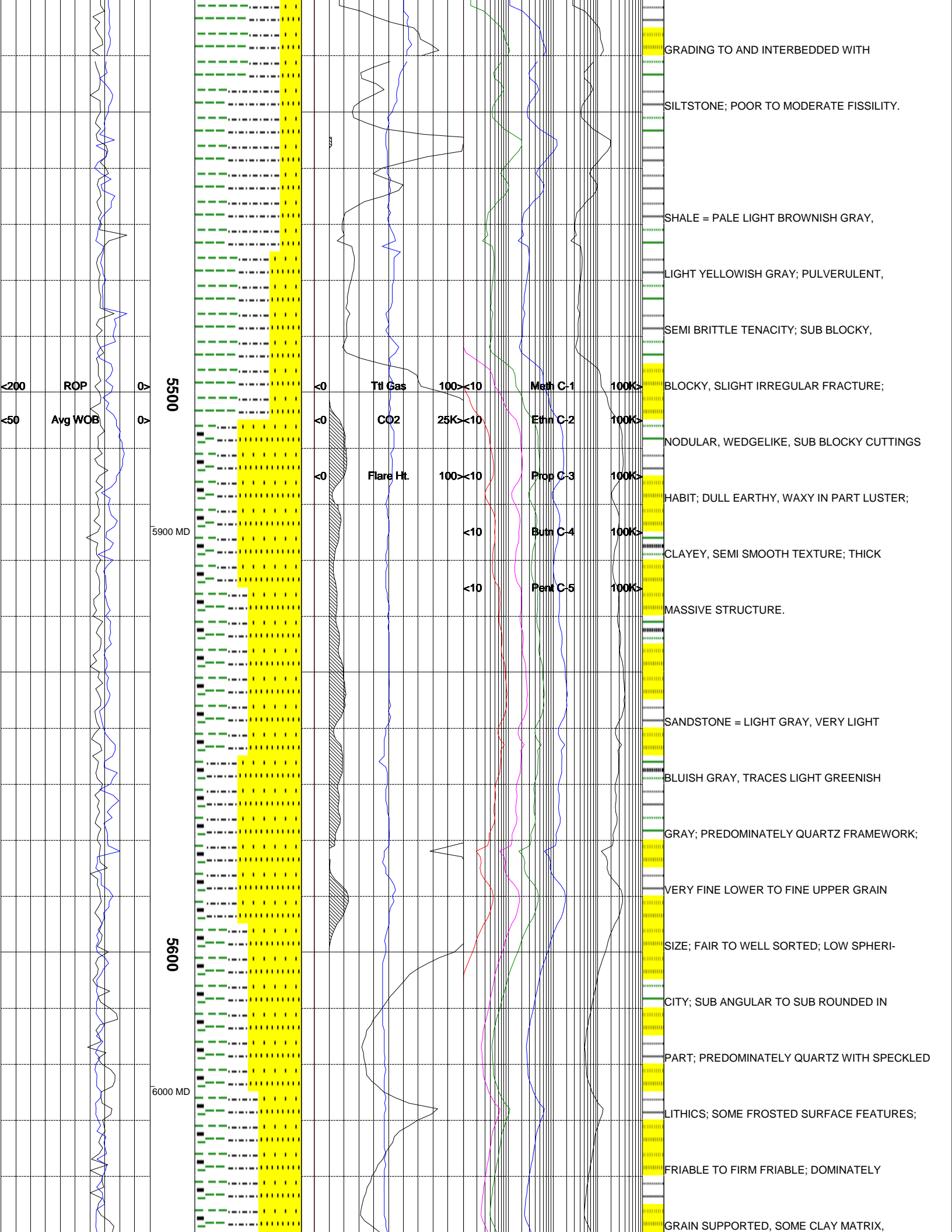


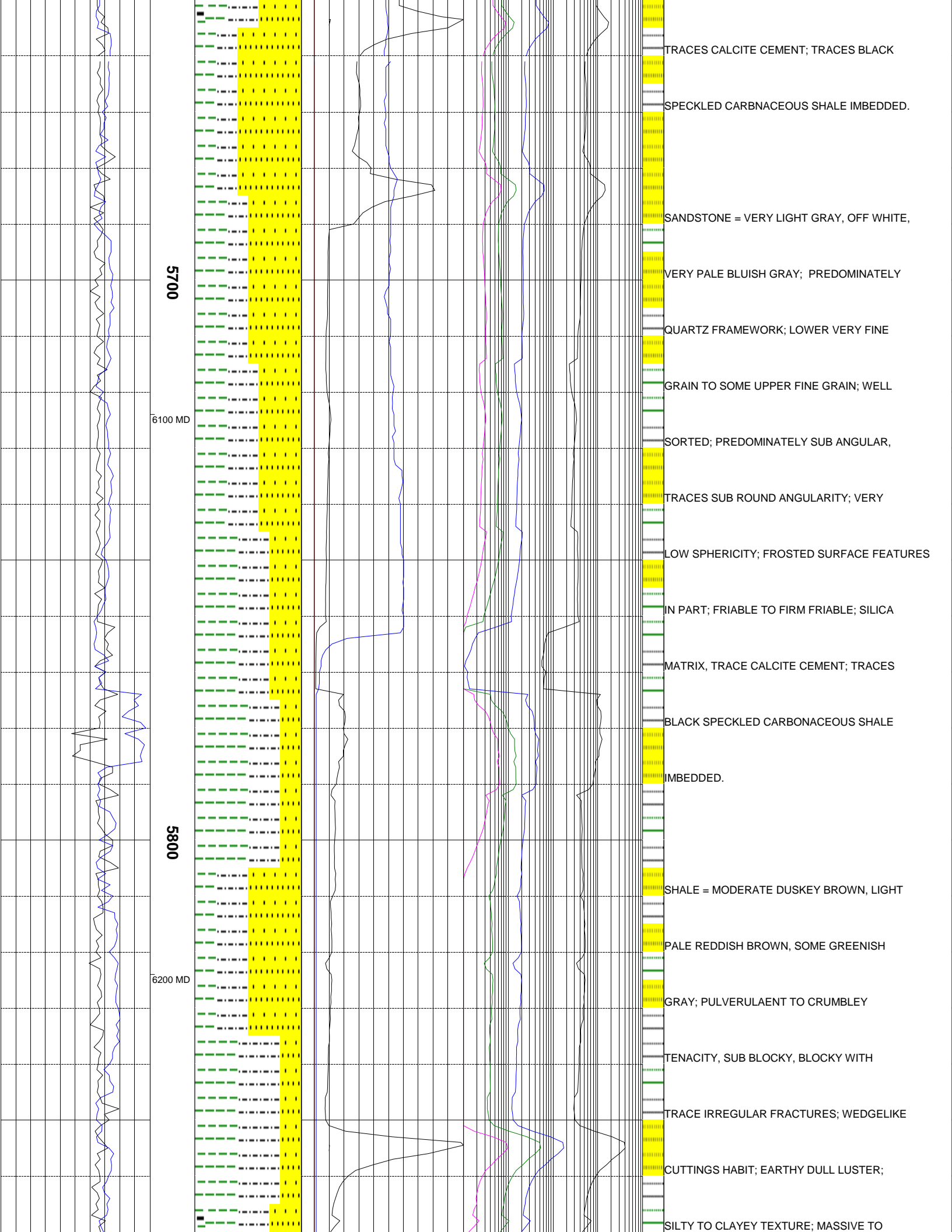


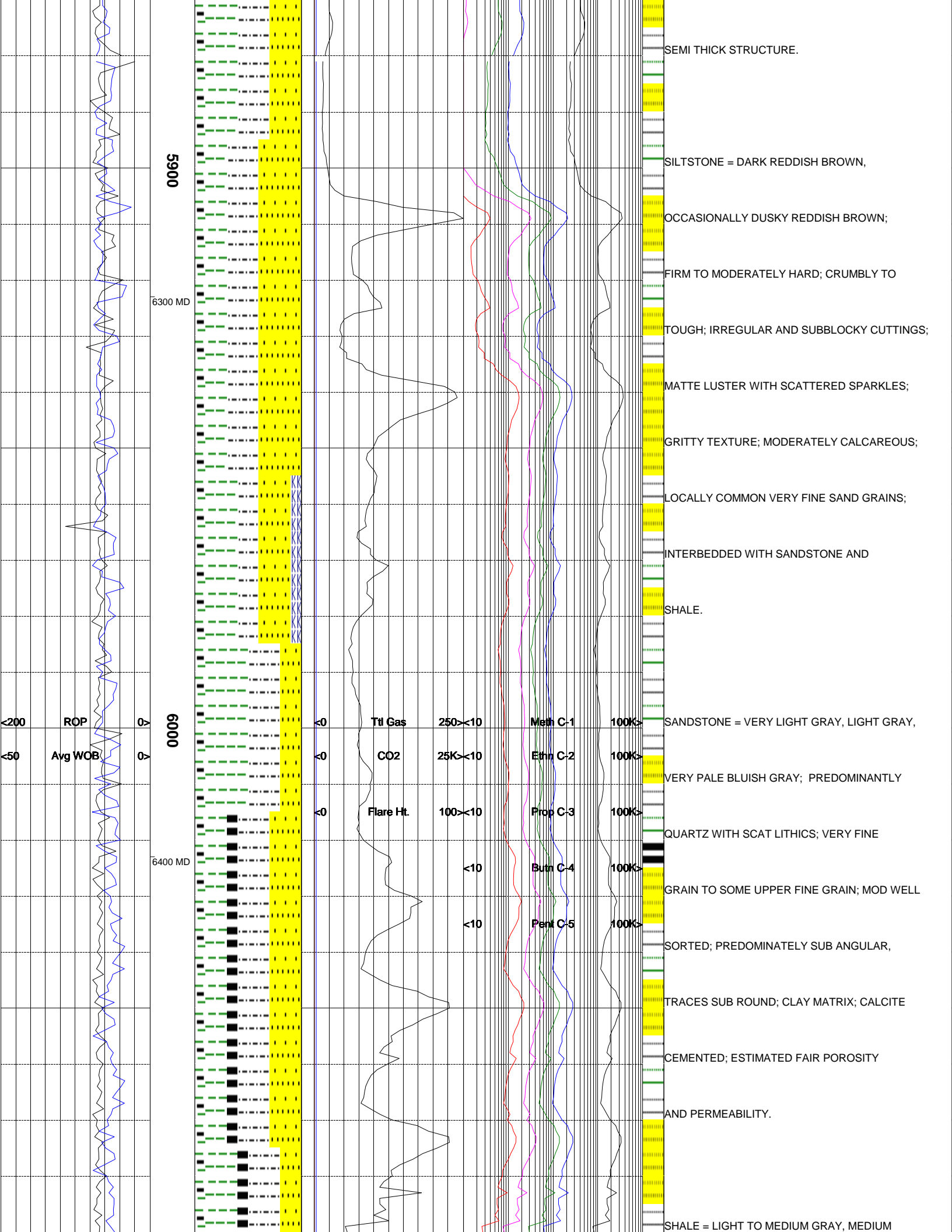


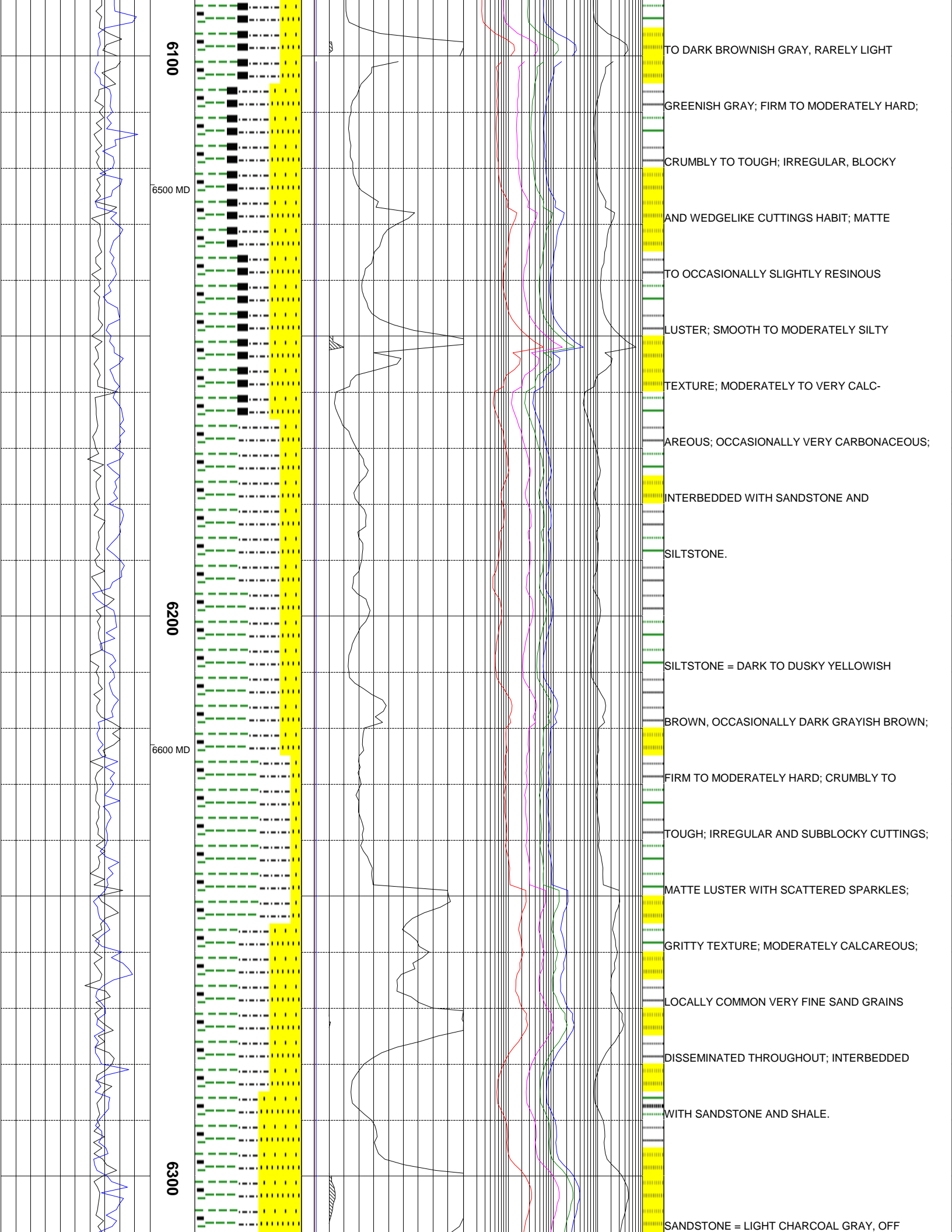


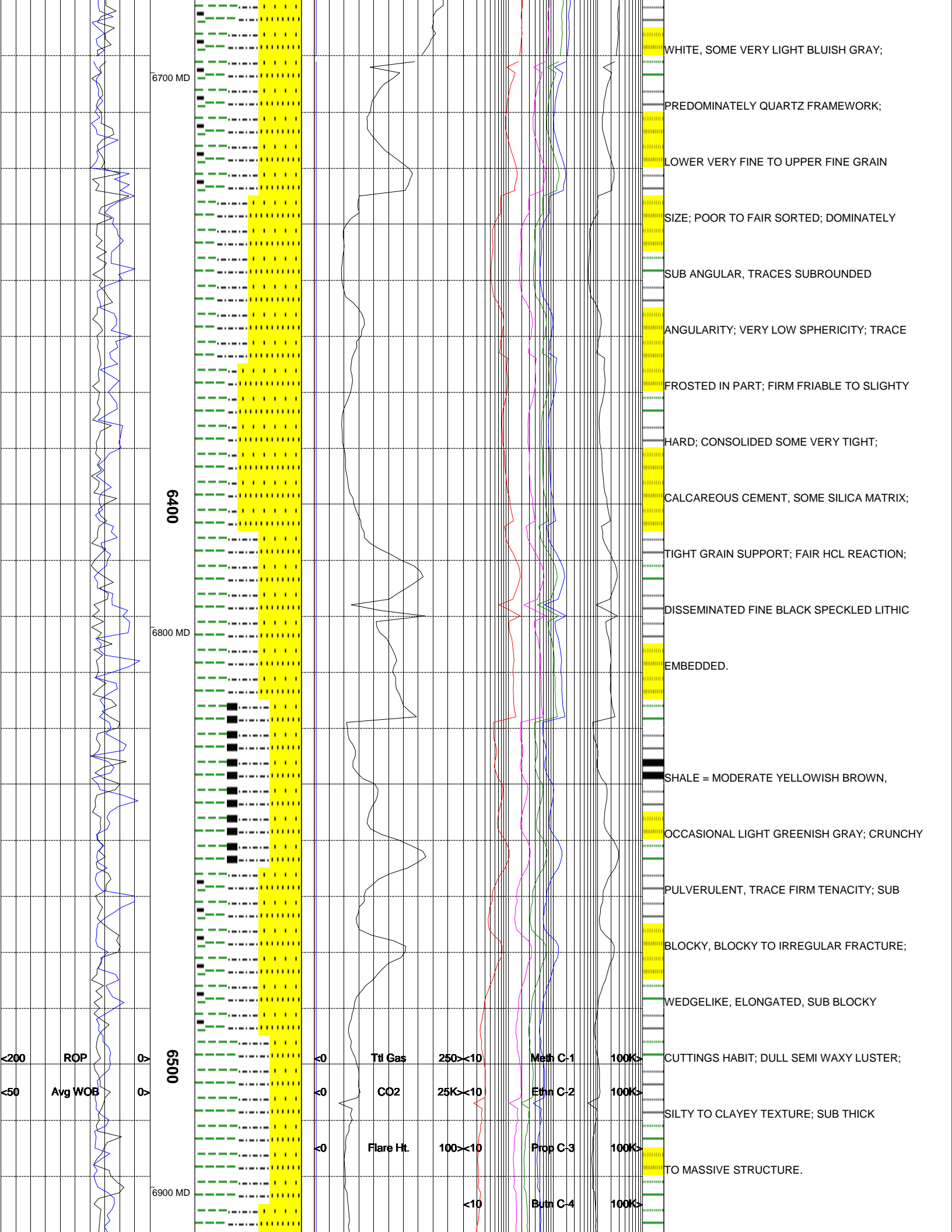


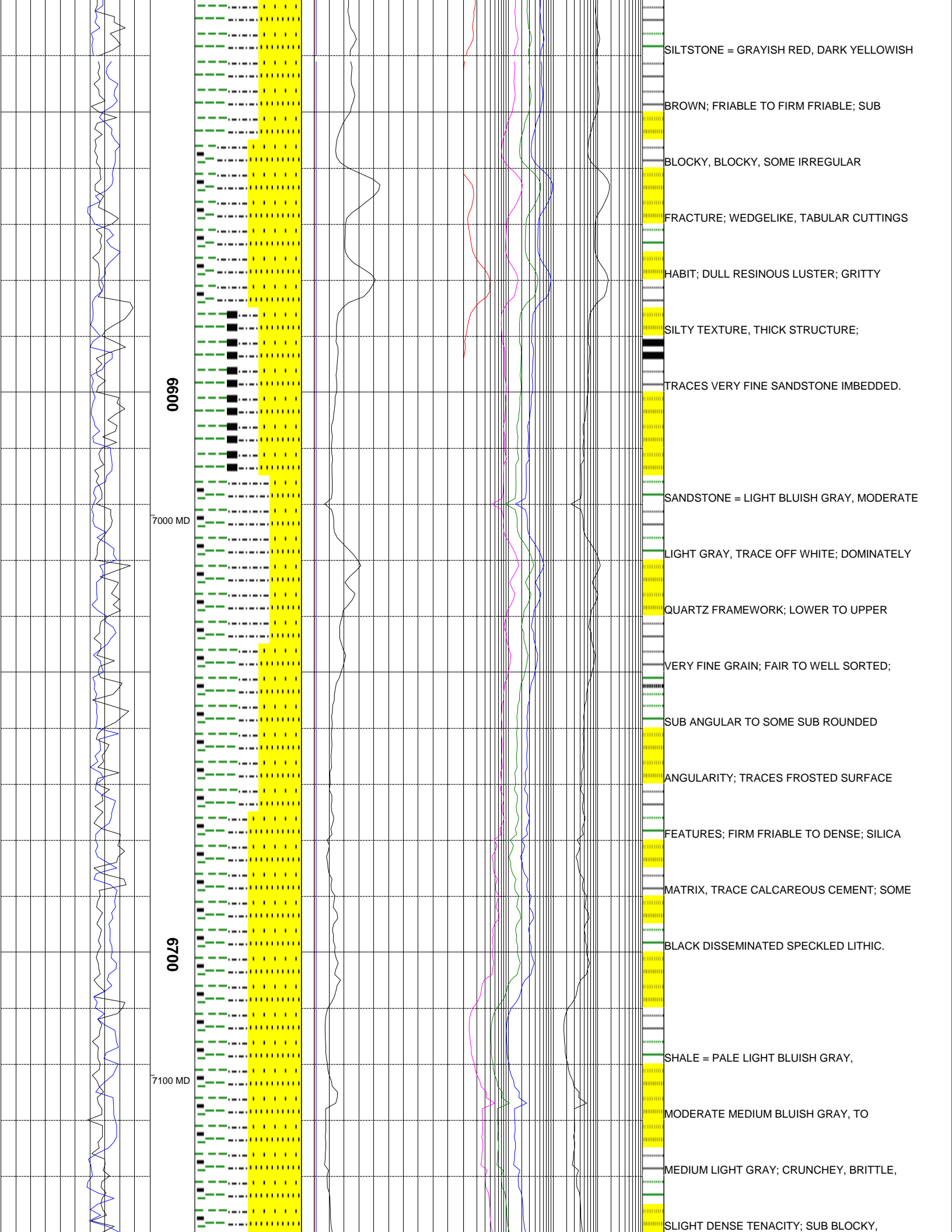


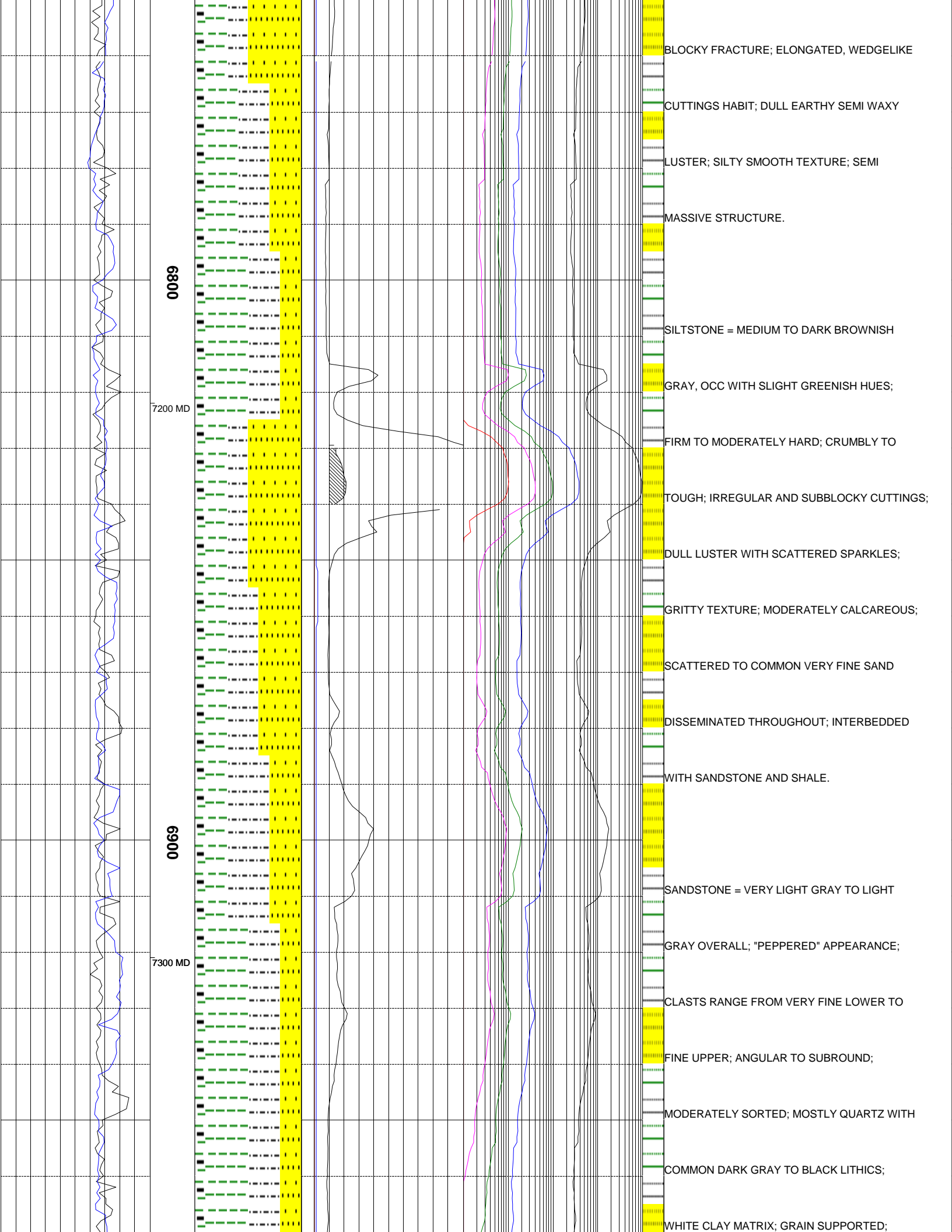


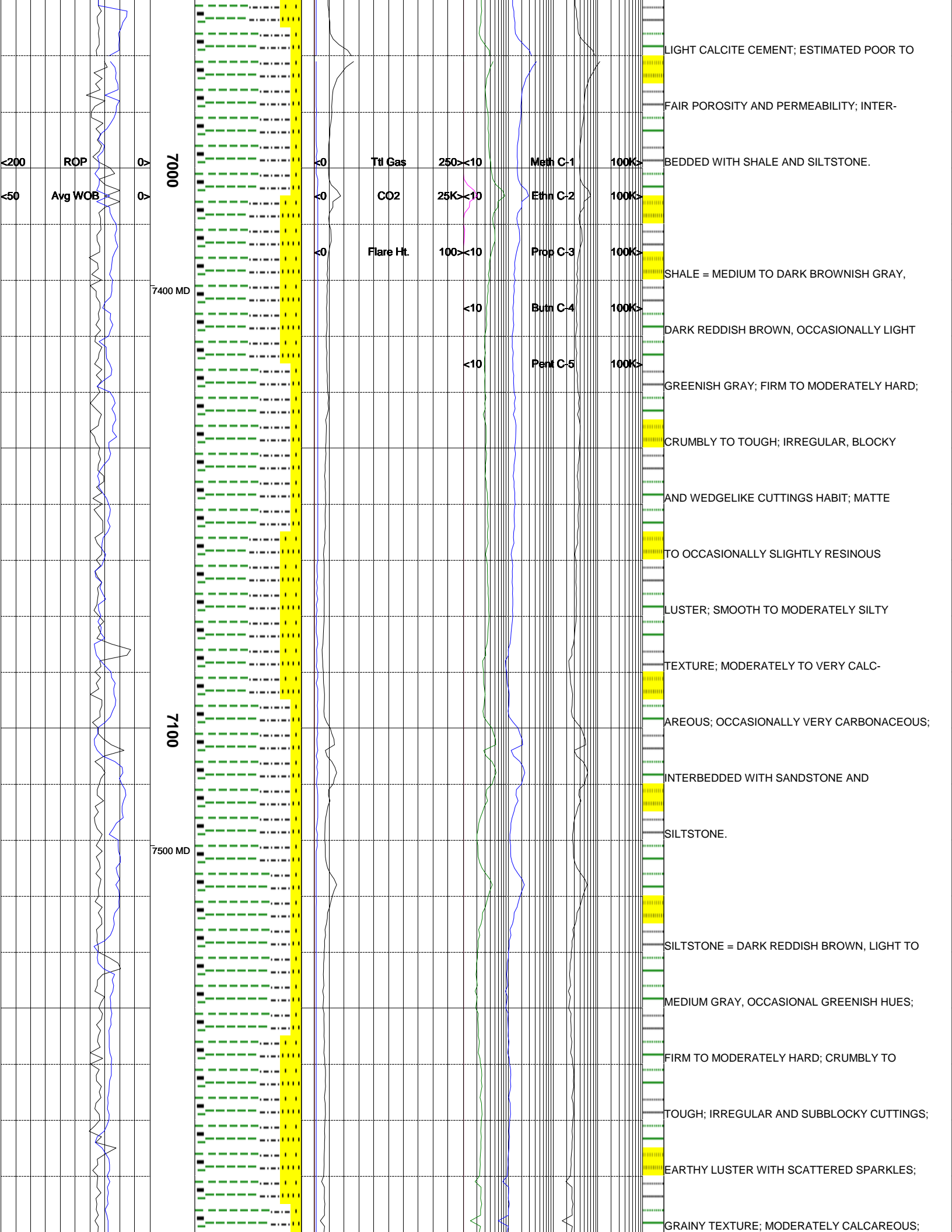


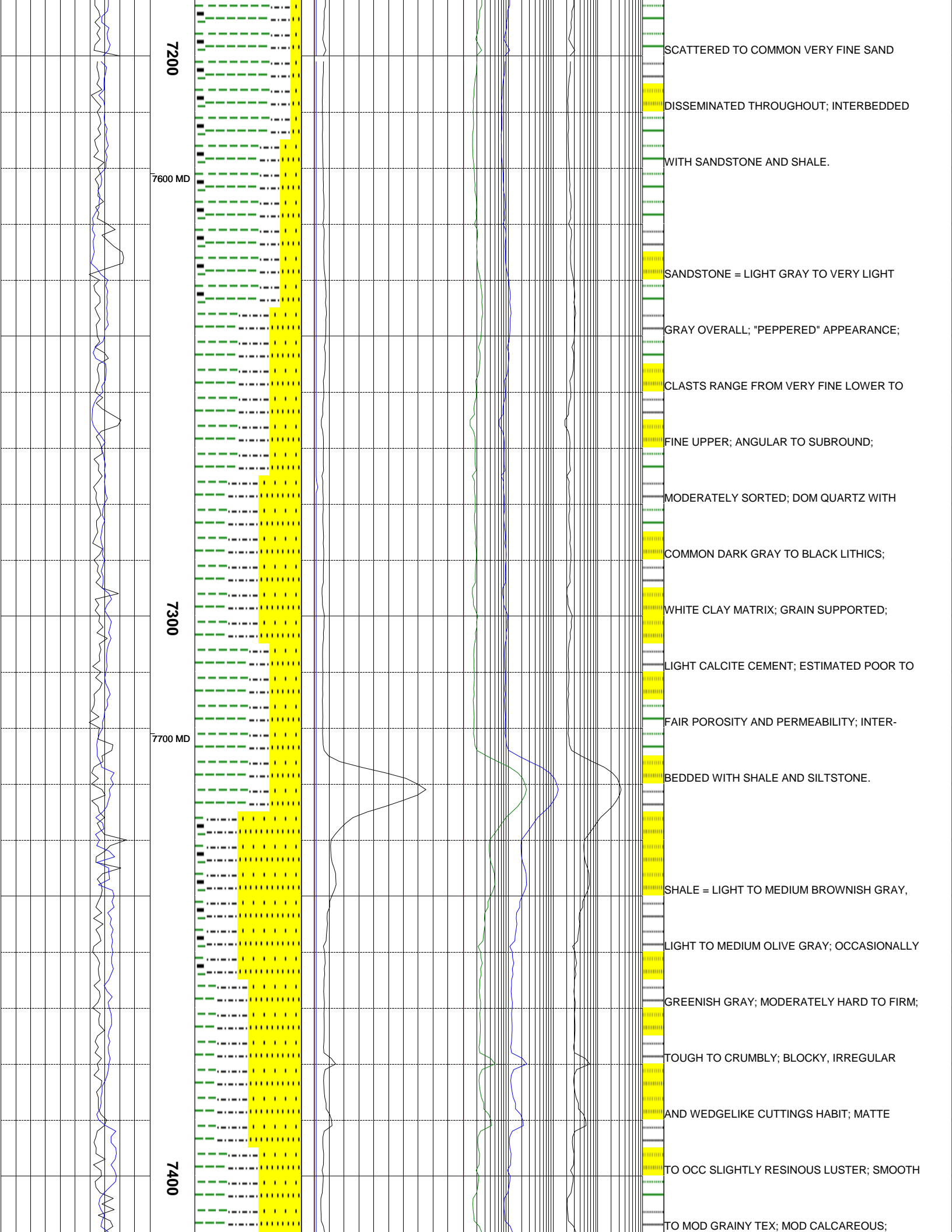


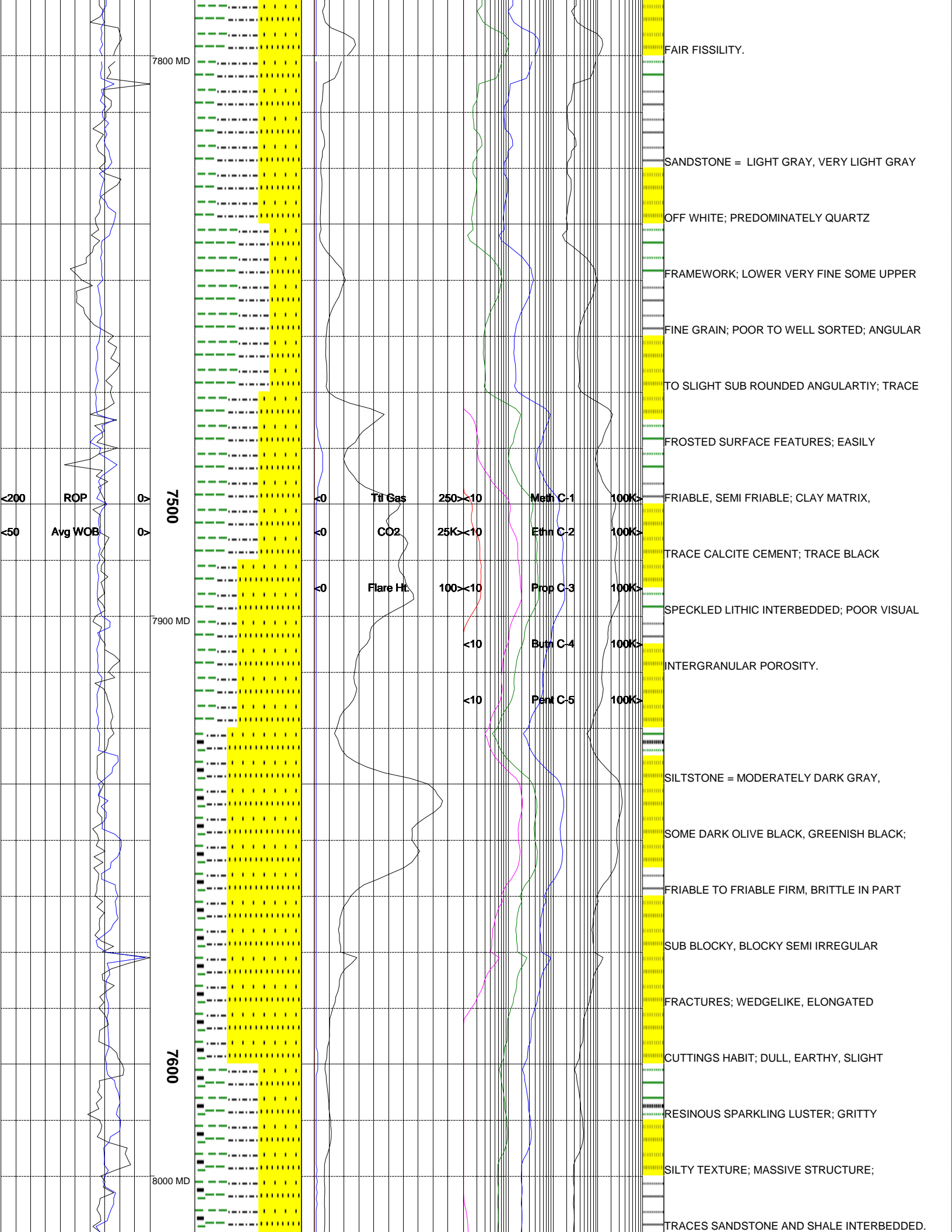


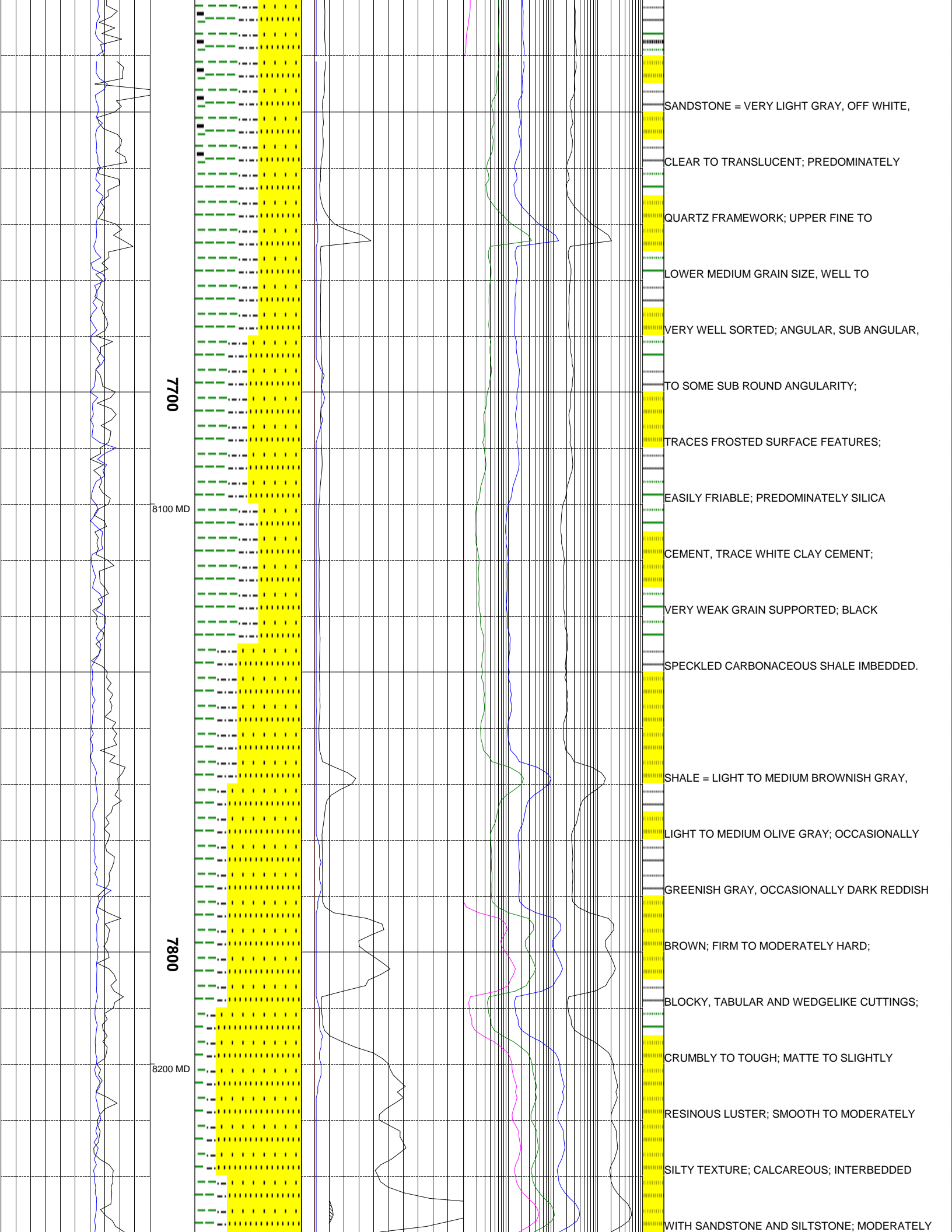


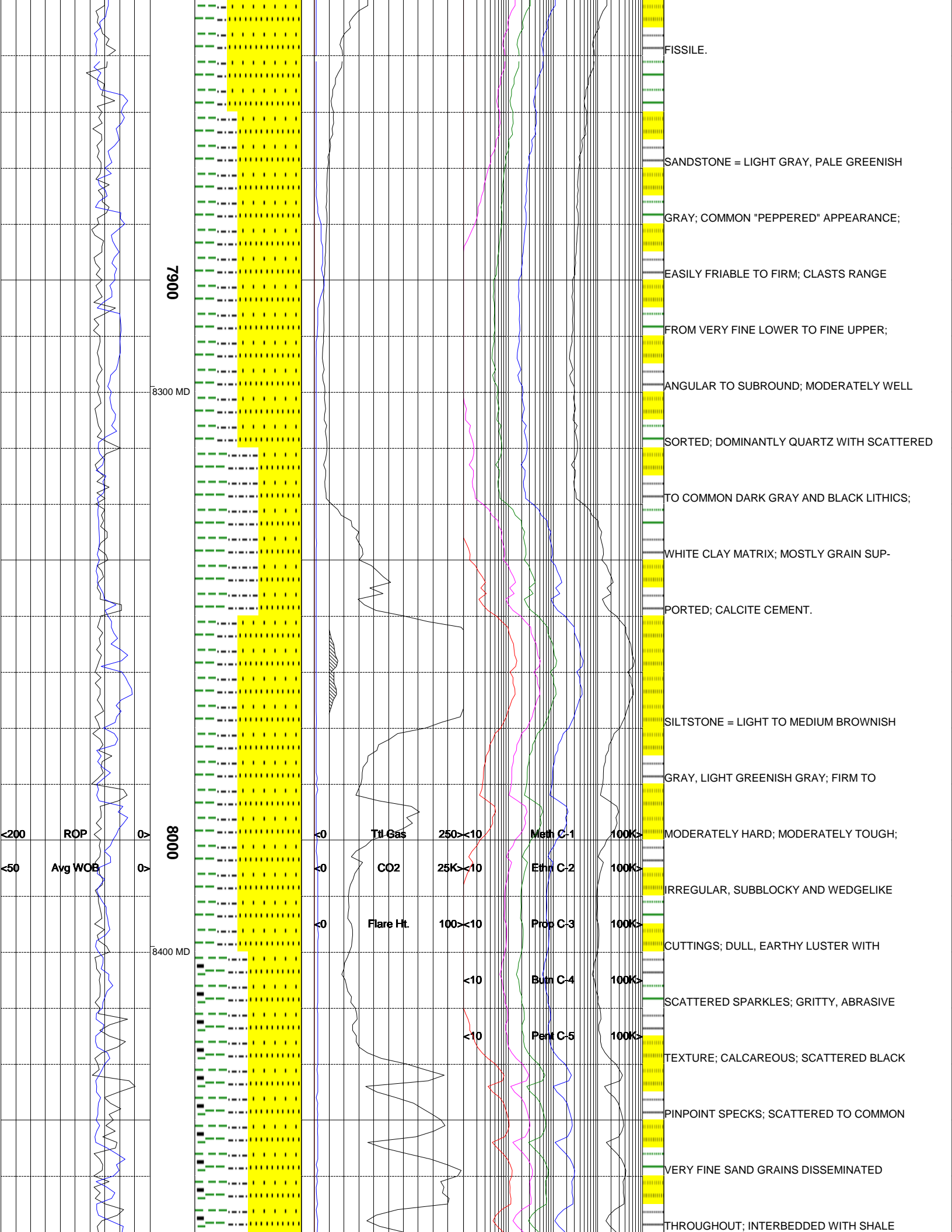


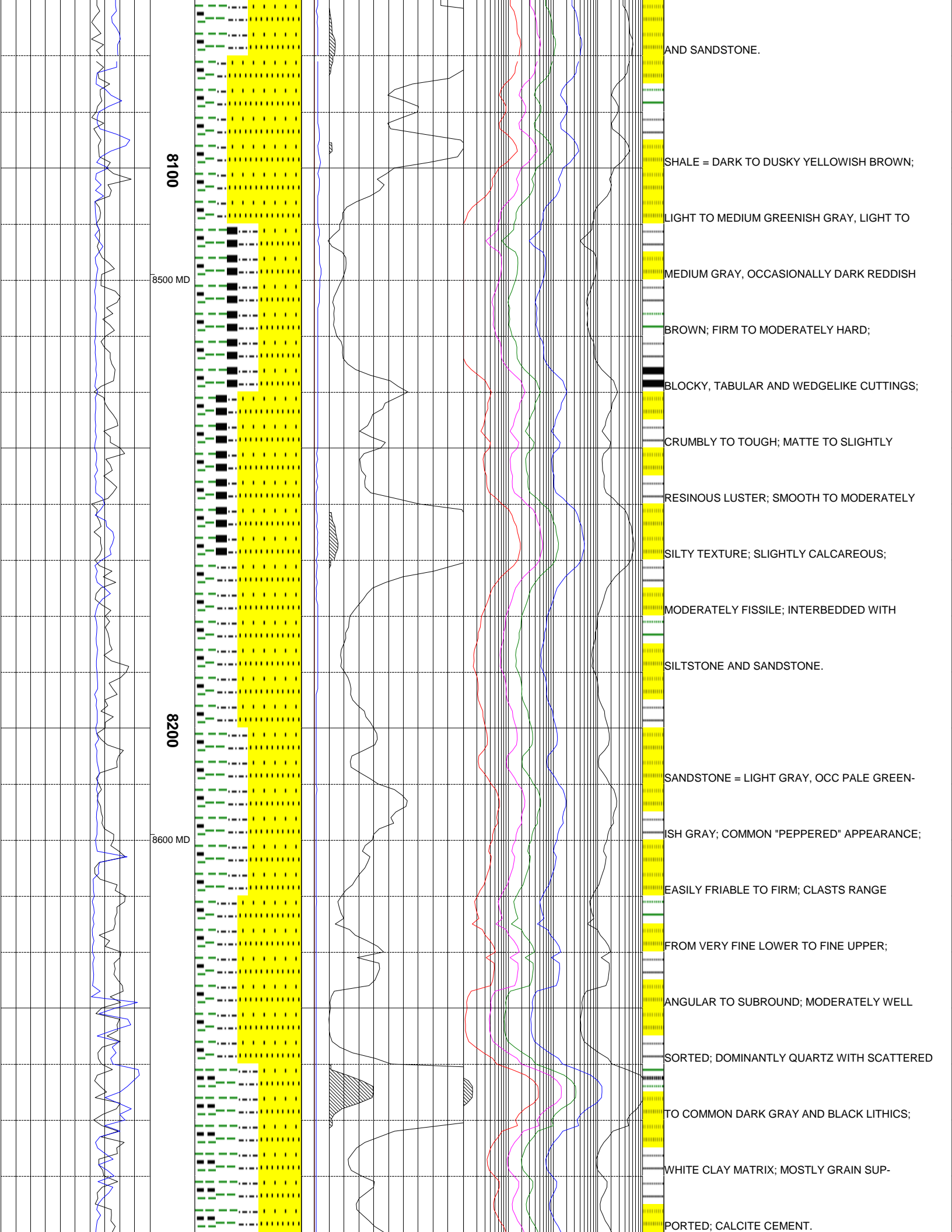


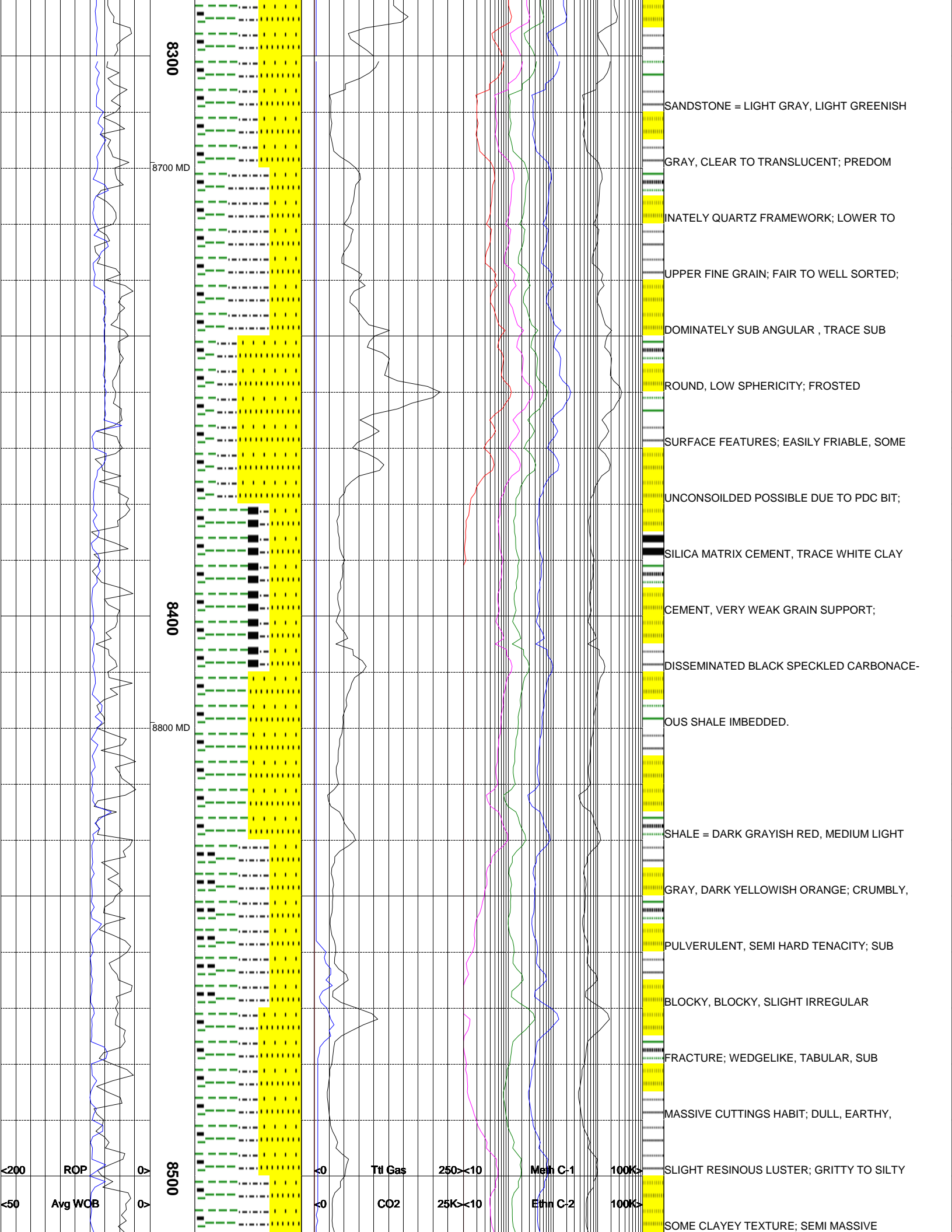


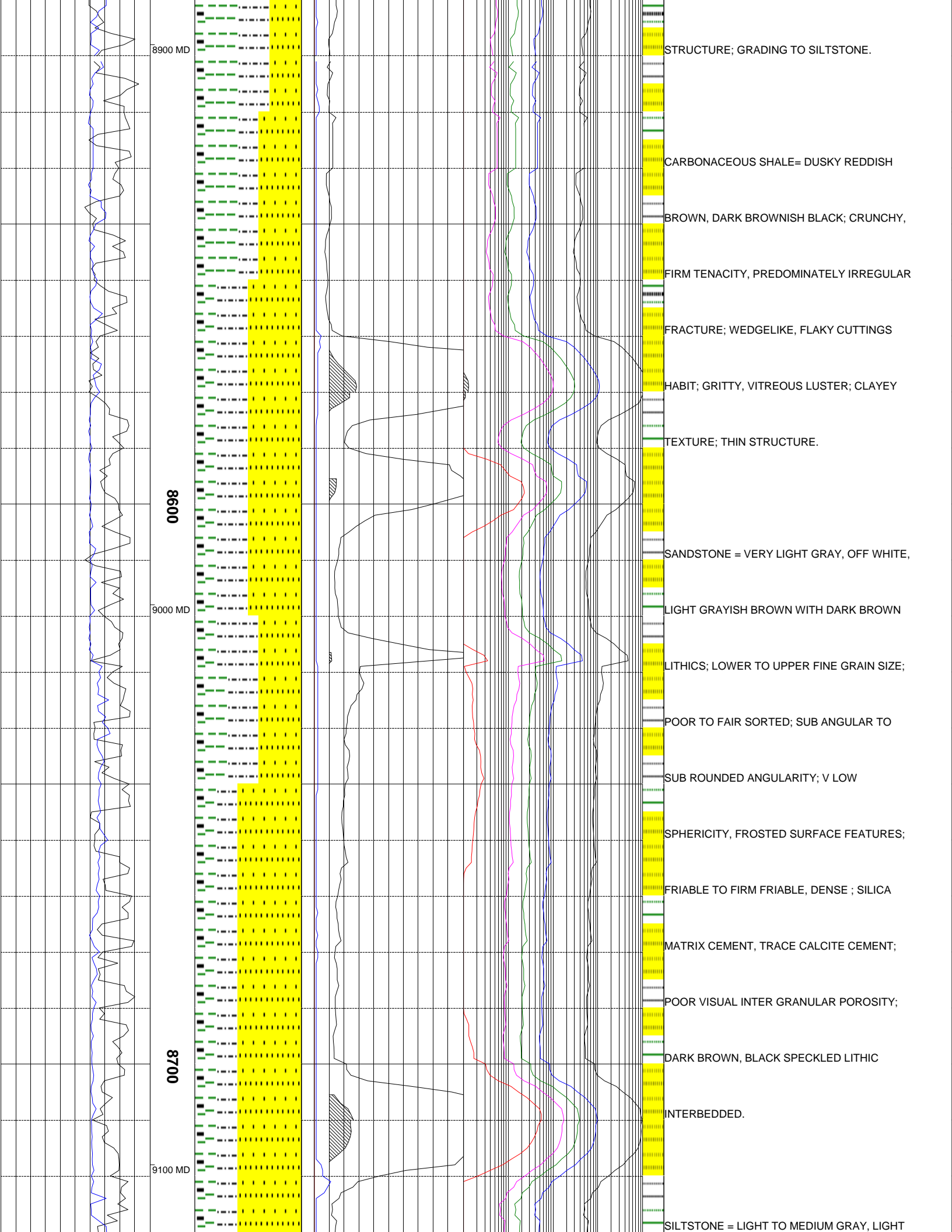


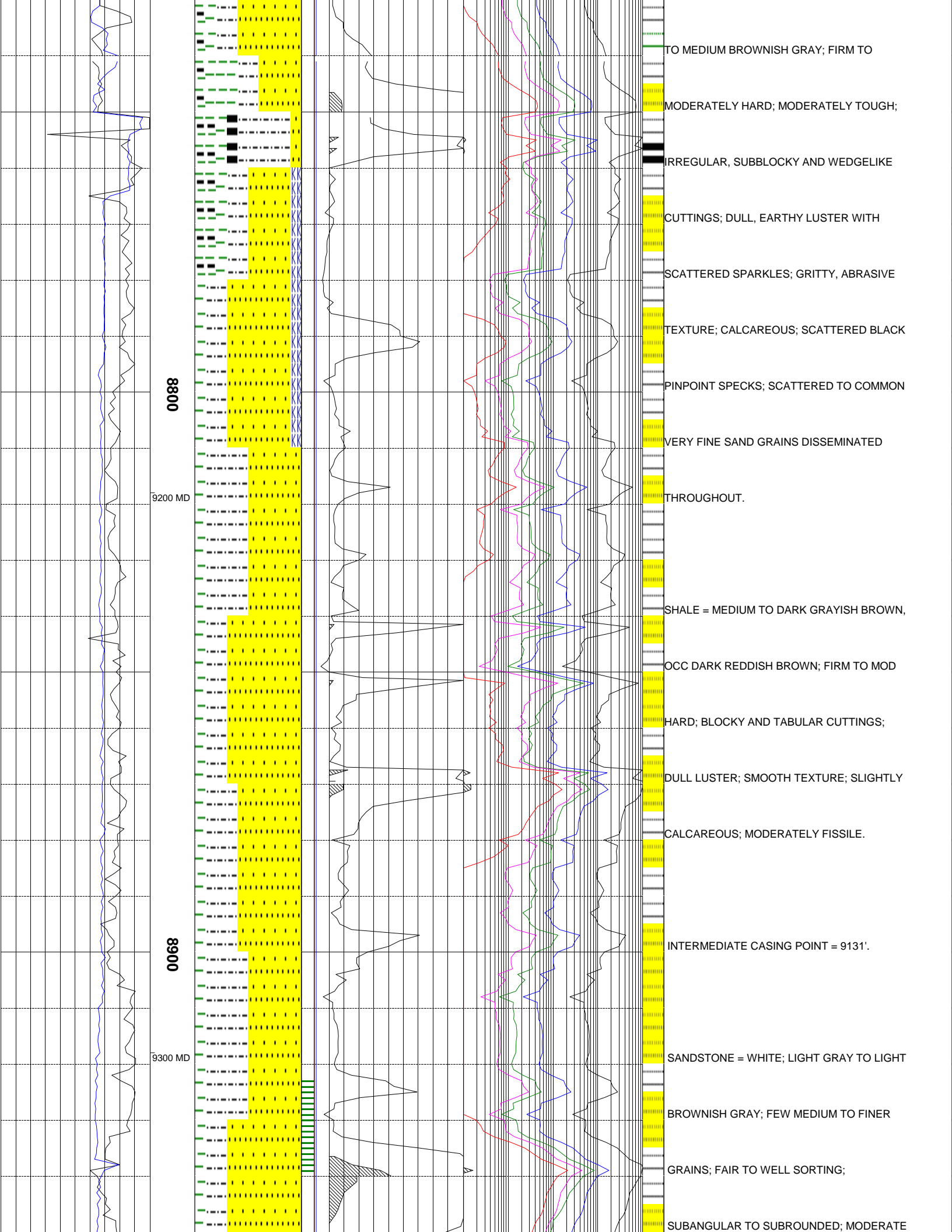


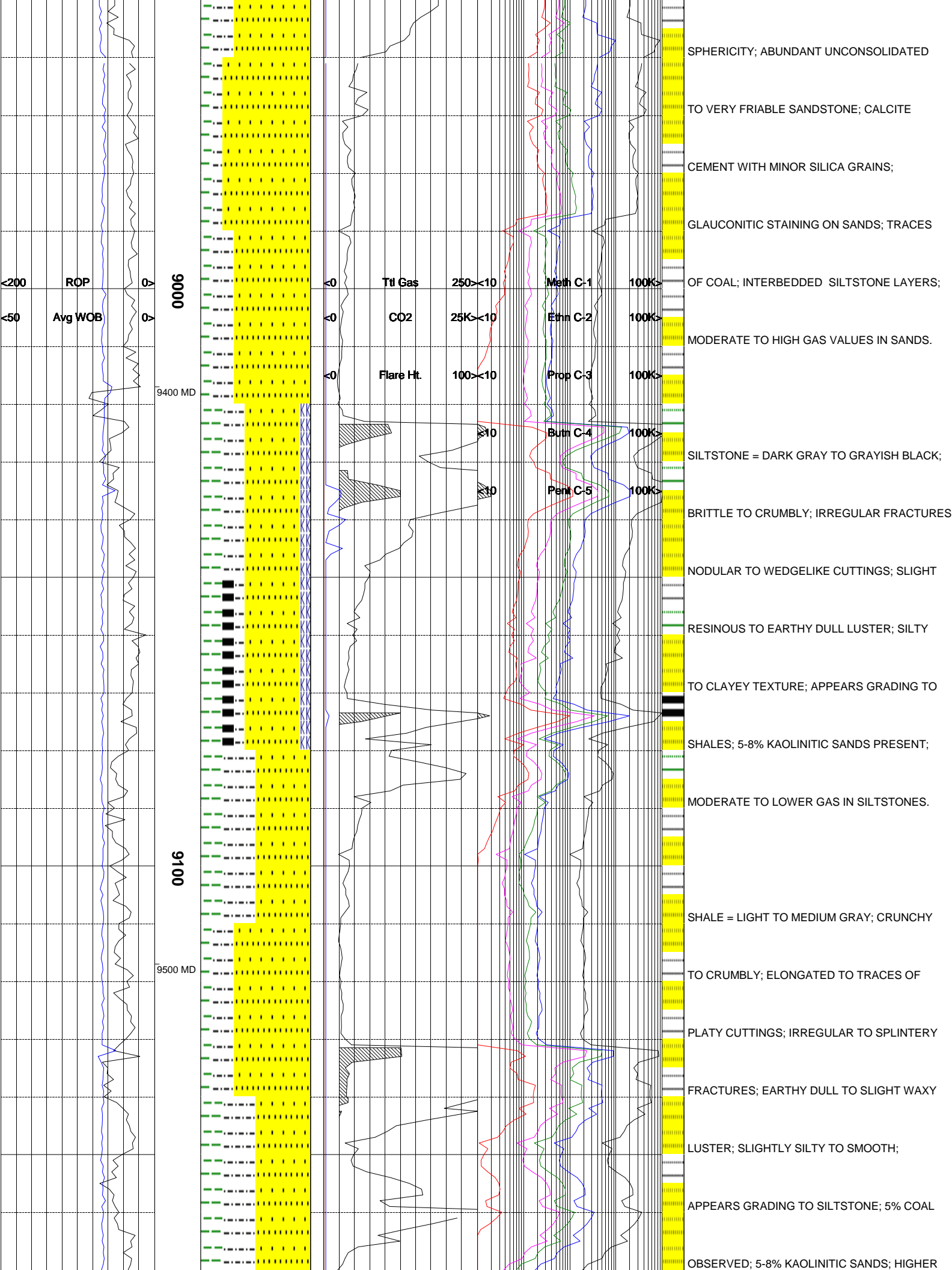


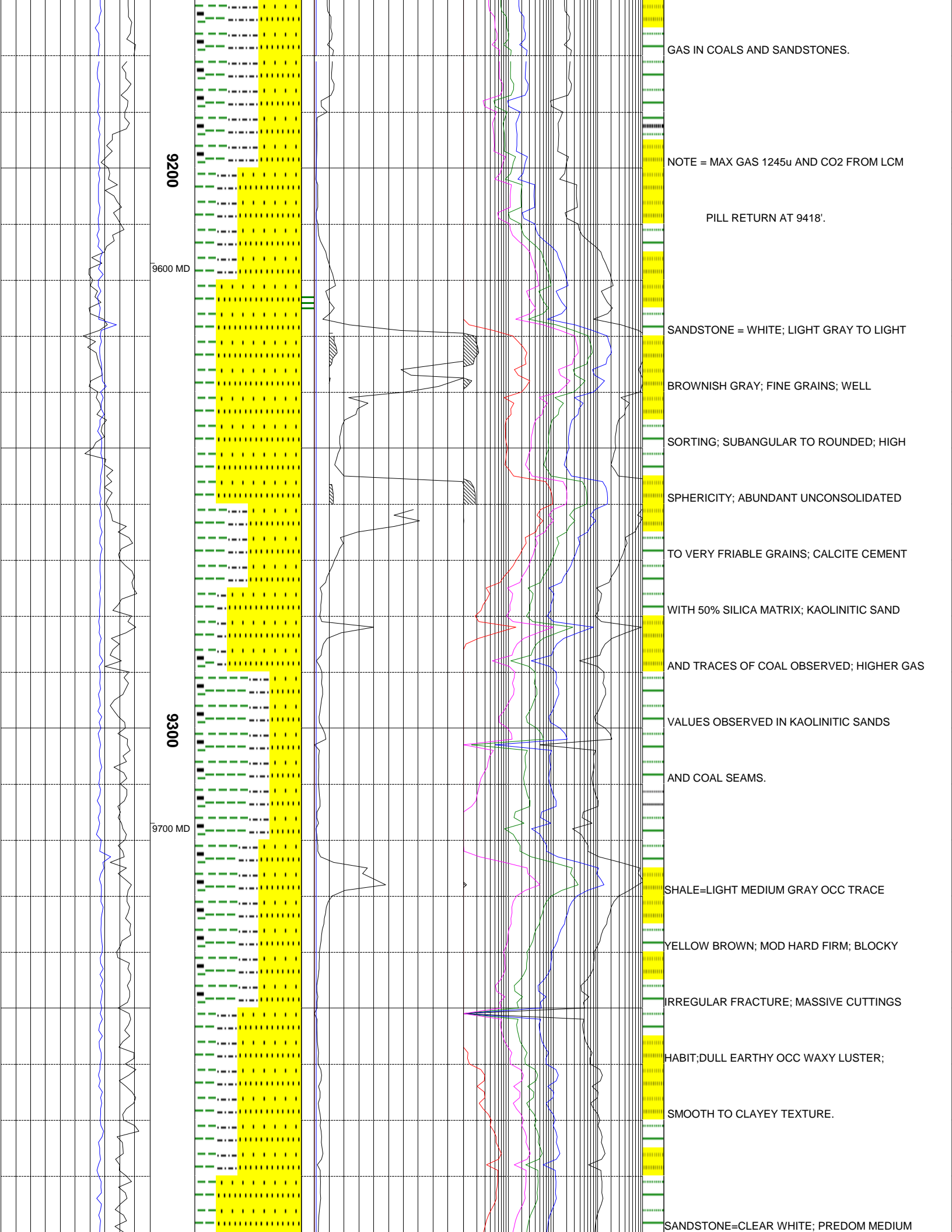












GAS IN COALS AND SANDSTONES.

NOTE = MAX GAS 1245u AND CO2 FROM LCM

PILL RETURN AT 9418'.

SANDSTONE = WHITE; LIGHT GRAY TO LIGHT

BROWNISH GRAY; FINE GRAINS; WELL

SORTING; SUBANGULAR TO ROUNDED; HIGH

SPHERICITY; ABUNDANT UNCONSOLIDATED

TO VERY FRIABLE GRAINS; CALCITE CEMENT

WITH 50% SILICA MATRIX; KAOLINITIC SAND

AND TRACES OF COAL OBSERVED; HIGHER GAS

VALUES OBSERVED IN KAOLINITIC SANDS

AND COAL SEAMS.

SHALE=LIGHT MEDIUM GRAY OCC TRACE

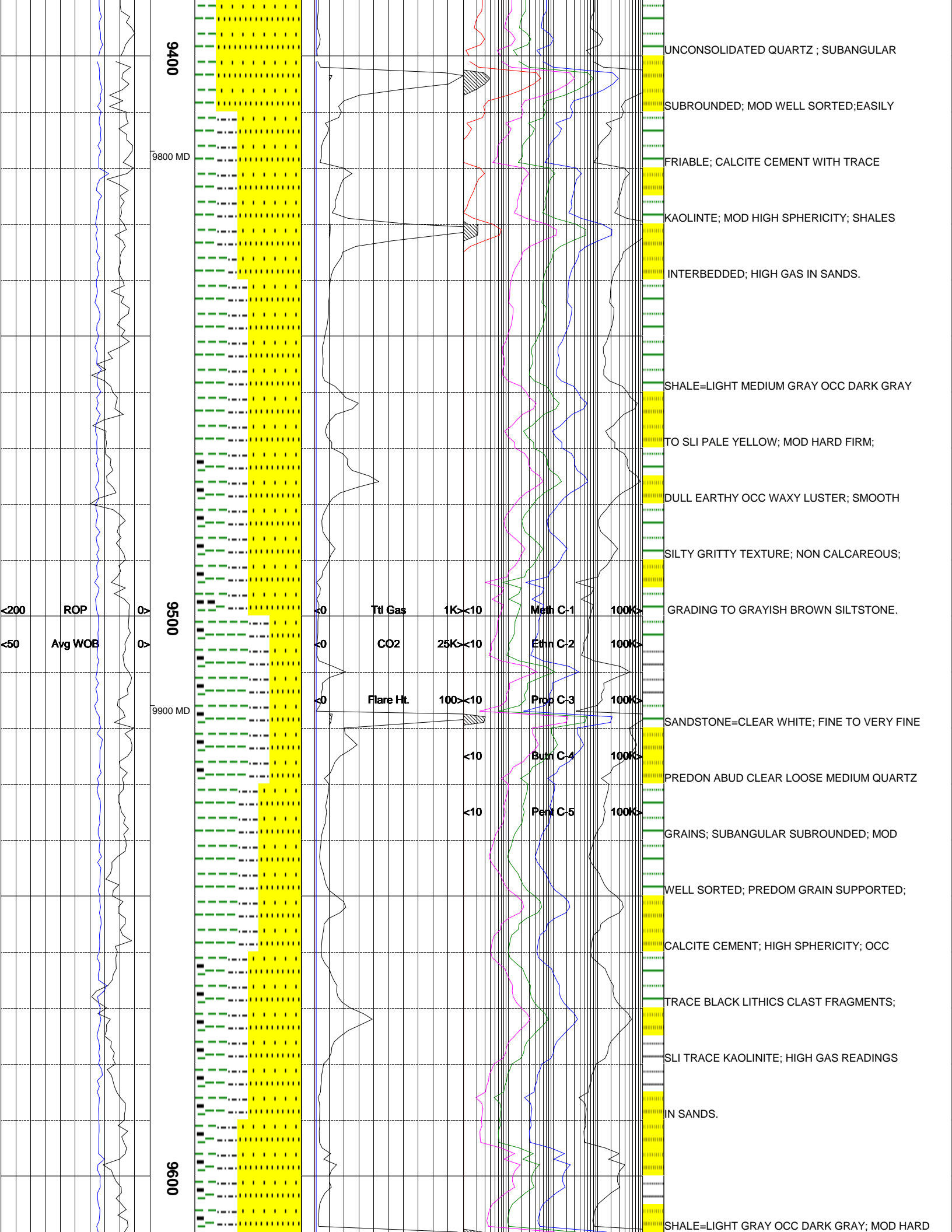
YELLOW BROWN; MOD HARD FIRM; BLOCKY

IRREGULAR FRACTURE; MASSIVE CUTTINGS

HABIT;DULL EARTHY OCC WAXY LUSTER;

SMOOTH TO CLAYEY TEXTURE.

SANDSTONE=CLEAR WHITE; PREDOM MEDIUM



9400

9800 MD

9500

9900 MD

9600

<200 ROP
<50 Avg WOB

Ttl Gas 1K<10
CO2 25K<10
Flare Ht. 100<10
Meth C-1 100K<
Ethn C-2 100K<
Prop C-3 100K<
Butn C-4 100K<
Pent C-5 100K<

UNCONSOLIDATED QUARTZ ; SUBANGULAR
SUBROUNDED; MOD WELL SORTED;EASILY
FRIABLE; CALCITE CEMENT WITH TRACE
KAOLINITE; MOD HIGH SPHERICITY; SHALES
INTERBEDDED; HIGH GAS IN SANDS.
SHALE=LIGHT MEDIUM GRAY OCC DARK GRAY
TO SLI PALE YELLOW; MOD HARD FIRM;
DULL EARTHY OCC WAXY LUSTER; SMOOTH
SILTY GRITTY TEXTURE; NON CALCAREOUS;
GRADING TO GRAYISH BROWN SILTSTONE.
SANDSTONE=CLEAR WHITE; FINE TO VERY FINE
PREDON ABUD CLEAR LOOSE MEDIUM QUARTZ
GRAINS; SUBANGULAR SUBROUNDED; MOD
WELL SORTED; PREDOM GRAIN SUPPORTED;
CALCITE CEMENT; HIGH SPHERICITY; OCC
TRACE BLACK LITHICS CLAST FRAGMENTS;
SLI TRACE KAOLINITE; HIGH GAS READINGS
IN SANDS.
SHALE=LIGHT GRAY OCC DARK GRAY; MOD HARD

