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MUDLOG MD

COMPANY	ExxonMobil Oil Corporation
WELL	PCU 297-12A1
FIELD	Piceance Creek
REGION	Rocky Mountains
COORDINATES	Lat: 39.8890710 Long: 108.2372410
ELEVATION	GL: 7183.6' RKB: 7197'
COUNTY, STATE	Rio Blanco, Colorado
API INDEX	051031115700
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	John Morris Bill Johanning
ADD. PERSONS	
CO. GEOLOGIST	CHRIS ALBA

LOG INTERVAL

DEPTHS: 4111' **TO** 6282'

DATES: 6/16/2009 **TO** 6/18/2009

SCALE: 5" = 100'

CASING DATA

16.000" **AT** 150'

10.750" **AT** 4111'

AT

AT

MUD TYPES

WATER BASE **TO** 5730'

DSF **TO** 6200'

LSND **TO** 6282'

TO

HOLE SIZE

14.250" **TO** 4111'

9.875" **TO** 6282'

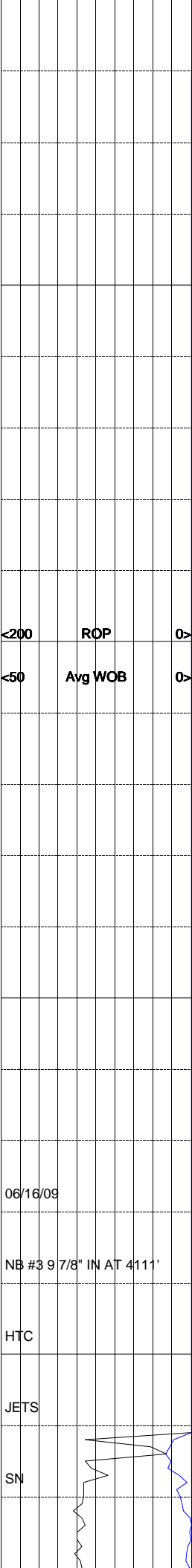
TO

TO

ABBREVIATIONS

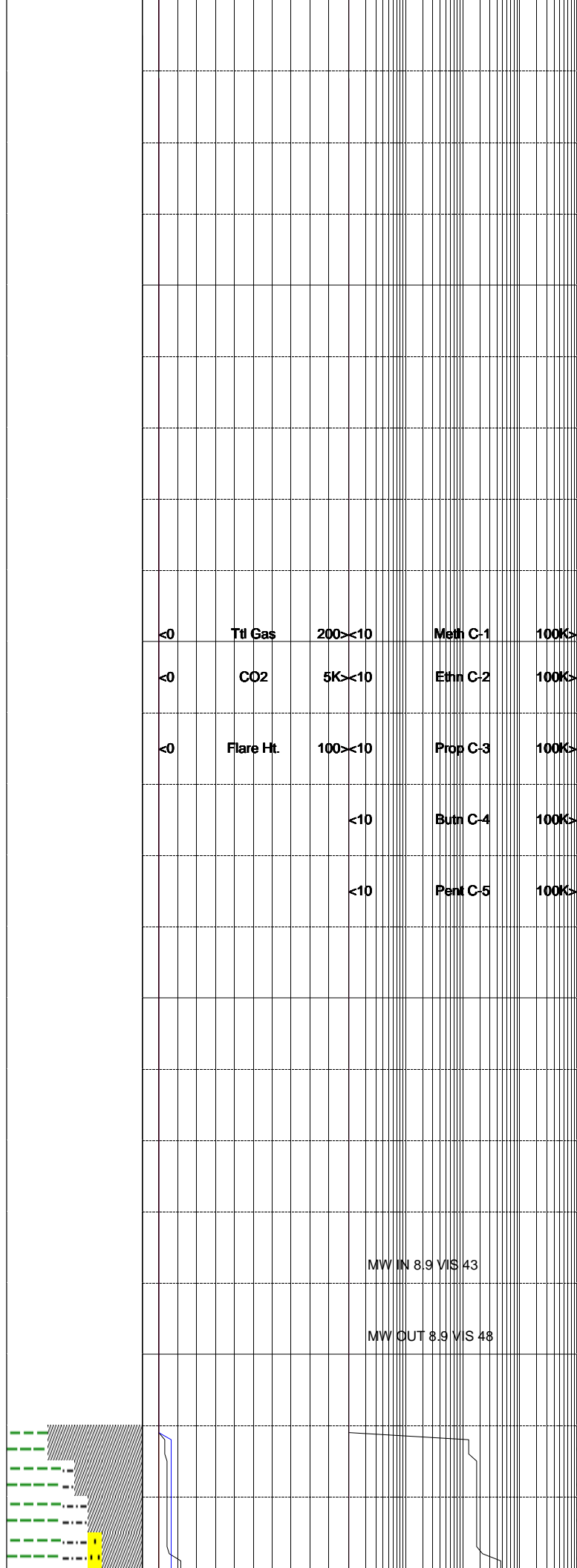
<i>NB</i> NEWBIT	<i>PV</i> PLASTIC VISCOSITY	<i>LC</i> LOST CIRCULATION
<i>RRB</i> RERUN BIT	<i>YP</i> YIELD POINT	<i>CO</i> CIRCULATE OUT
<i>CB</i> CORE BIT	<i>FL</i> FLUID LOSS	<i>NR</i> NO RETURNS
<i>WOB</i> WEIGHT ON BIT	<i>CL</i> PPM CLORIDE ION	<i>TG</i> TRIP GAS
<i>RPM</i> ROTARY REV/MIN	<i>Rm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



4000

4100



WHEN THE MUD IS CIRCULATED THROUGH THE GAS BUSTER, THE INTERVAL IS MARKED IN THE MGS COLUMN AND SIZE OF FLARES ARE NOTED.

EVIDENCE OF FRACTURE FILL IS NOTED ON THE MUD LOG. KAOLIN PERCENTAGE IN SS INTERVALS IS ALSO NOTED ON THE MUD LOG.

1 UNIT OF GAS = 200 PPM METHANE

SET 10 3/4" SURFACE CASING AT 4111'

EPOCH COMMENCED LOGGING ON 6/16/2009

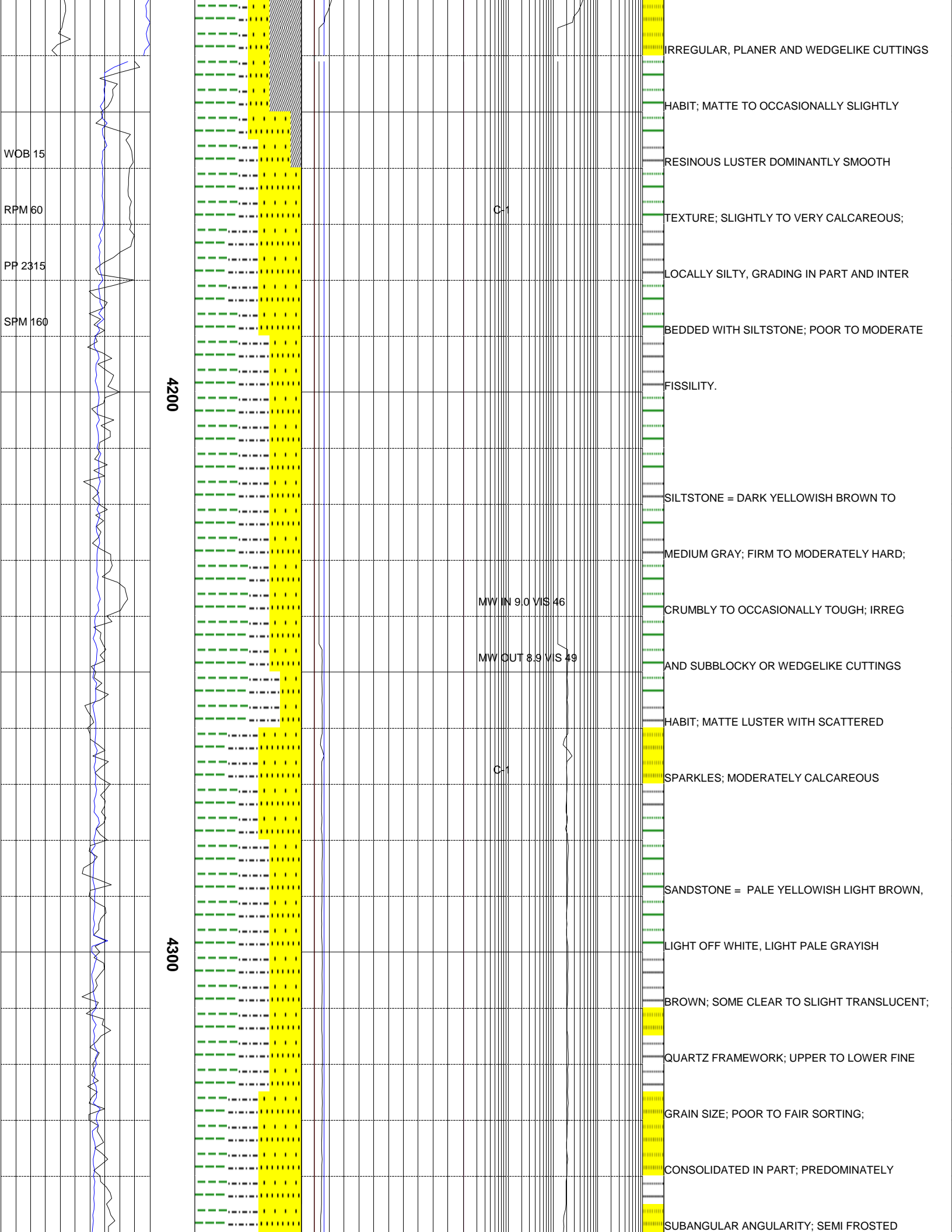
AT 4111' MD.

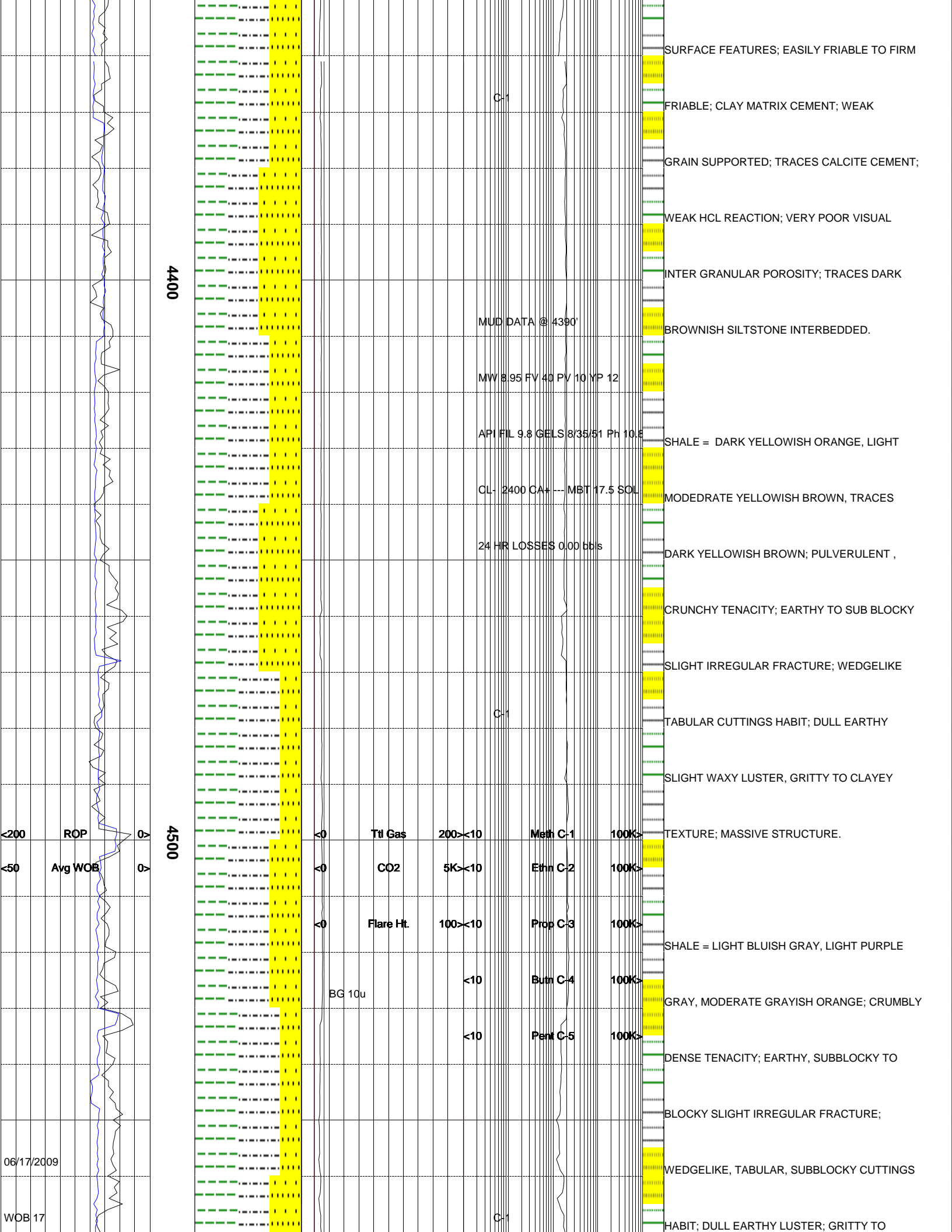
NOTE: DRILLING WITH POWER DRIVE AND MWD

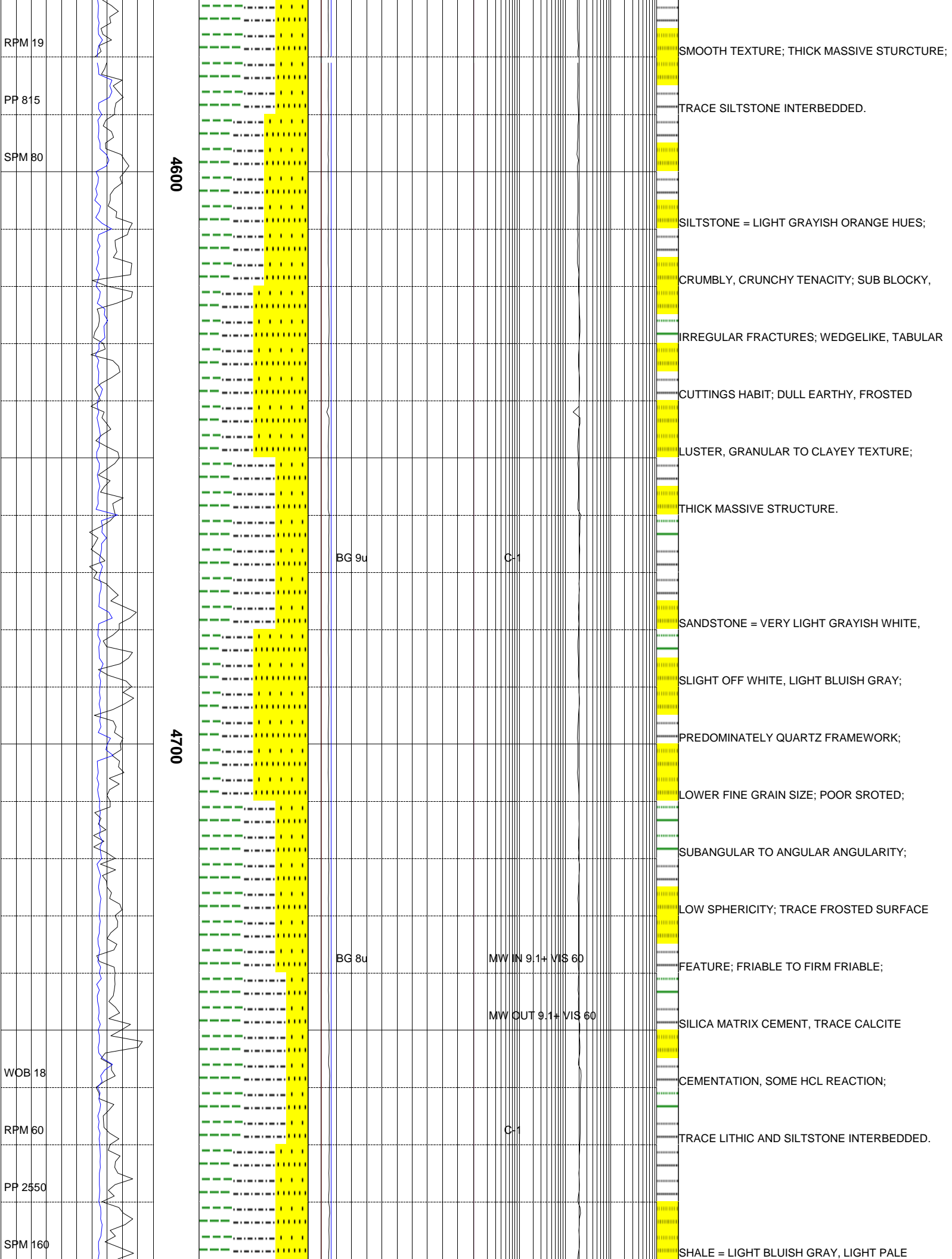
SHALE = DARK YELLOWISH BROWN, MEDIUM

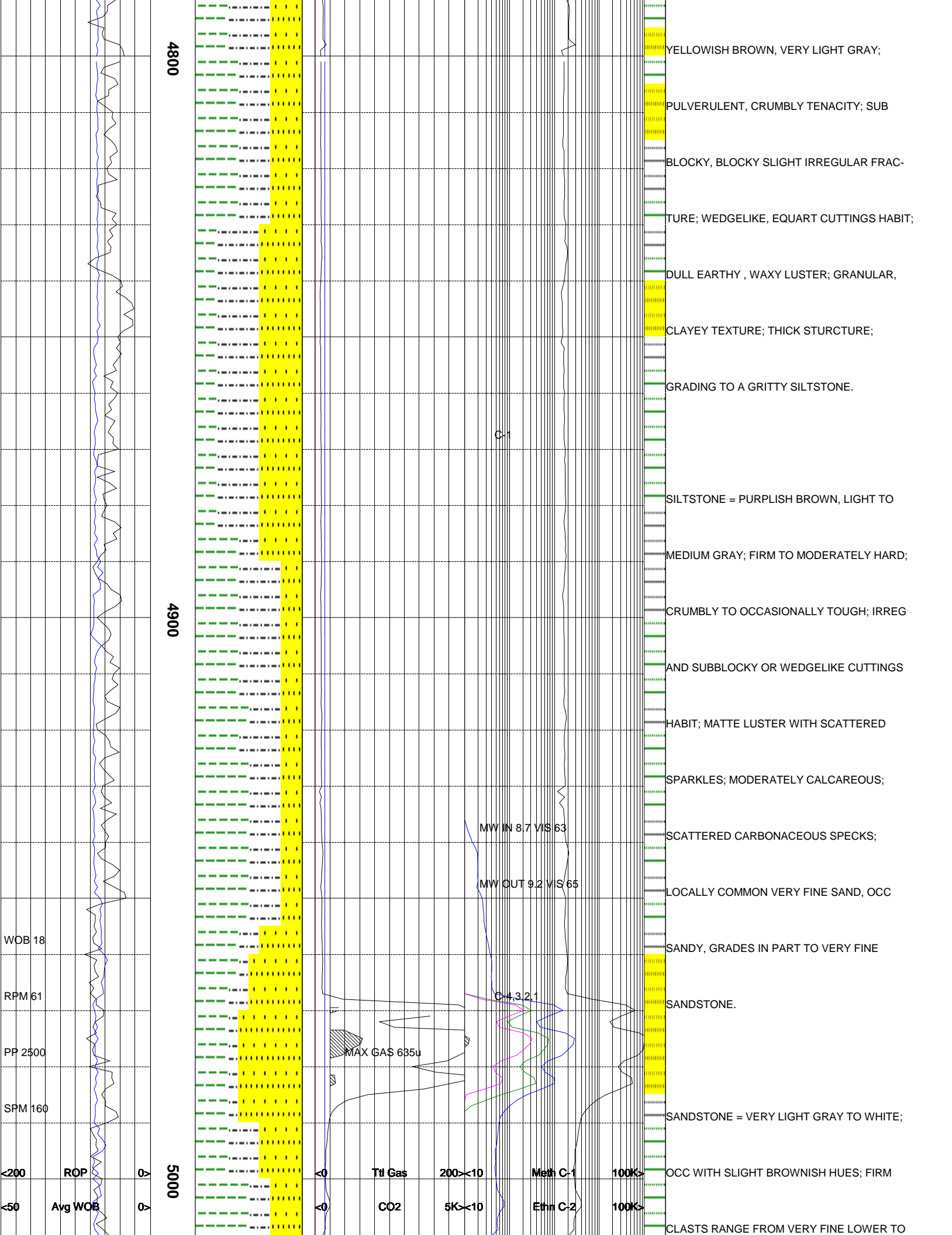
TO DARK OLIVE GRAY; FIRM TO MODERATELY

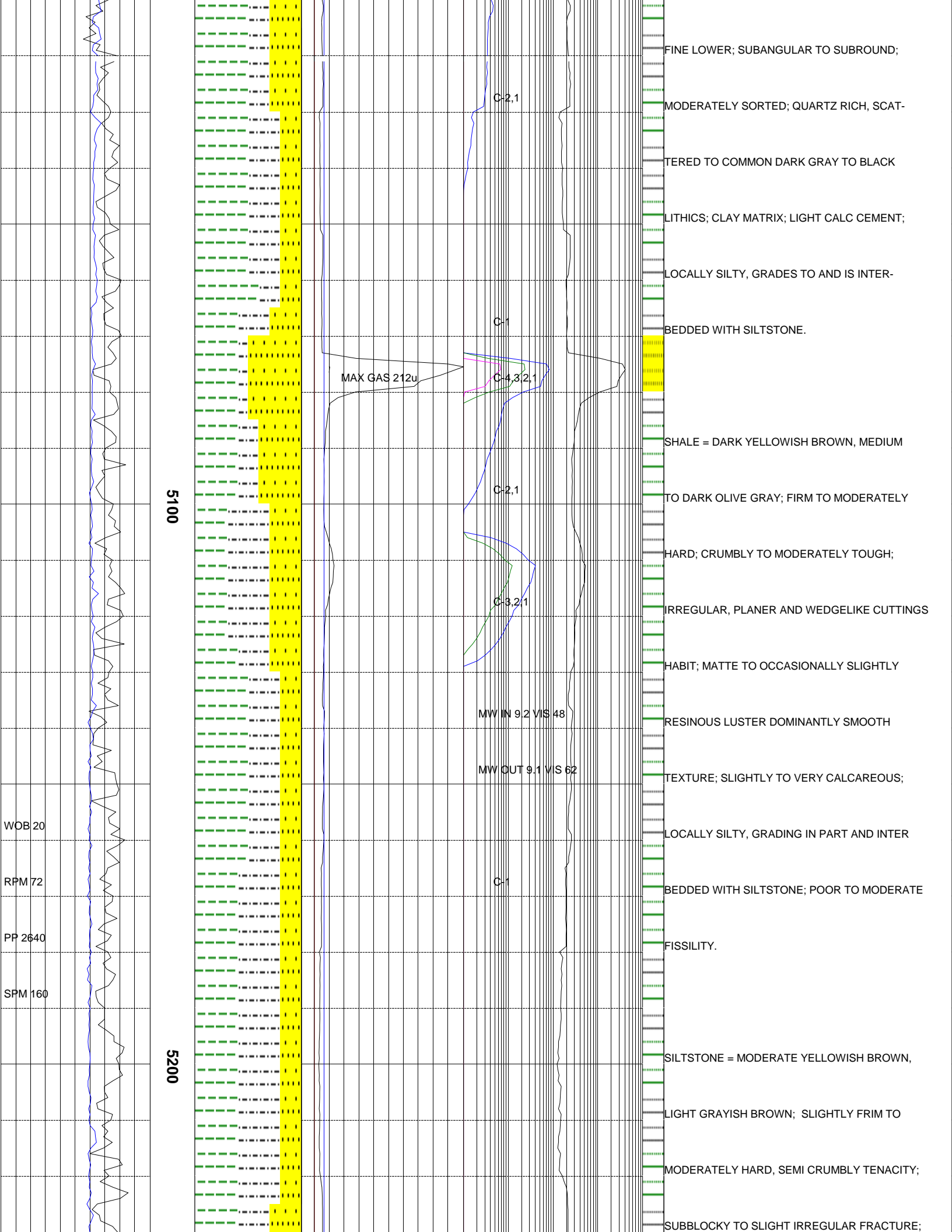
HARD; CRUMBLY TO MODERATELY TOUGH;

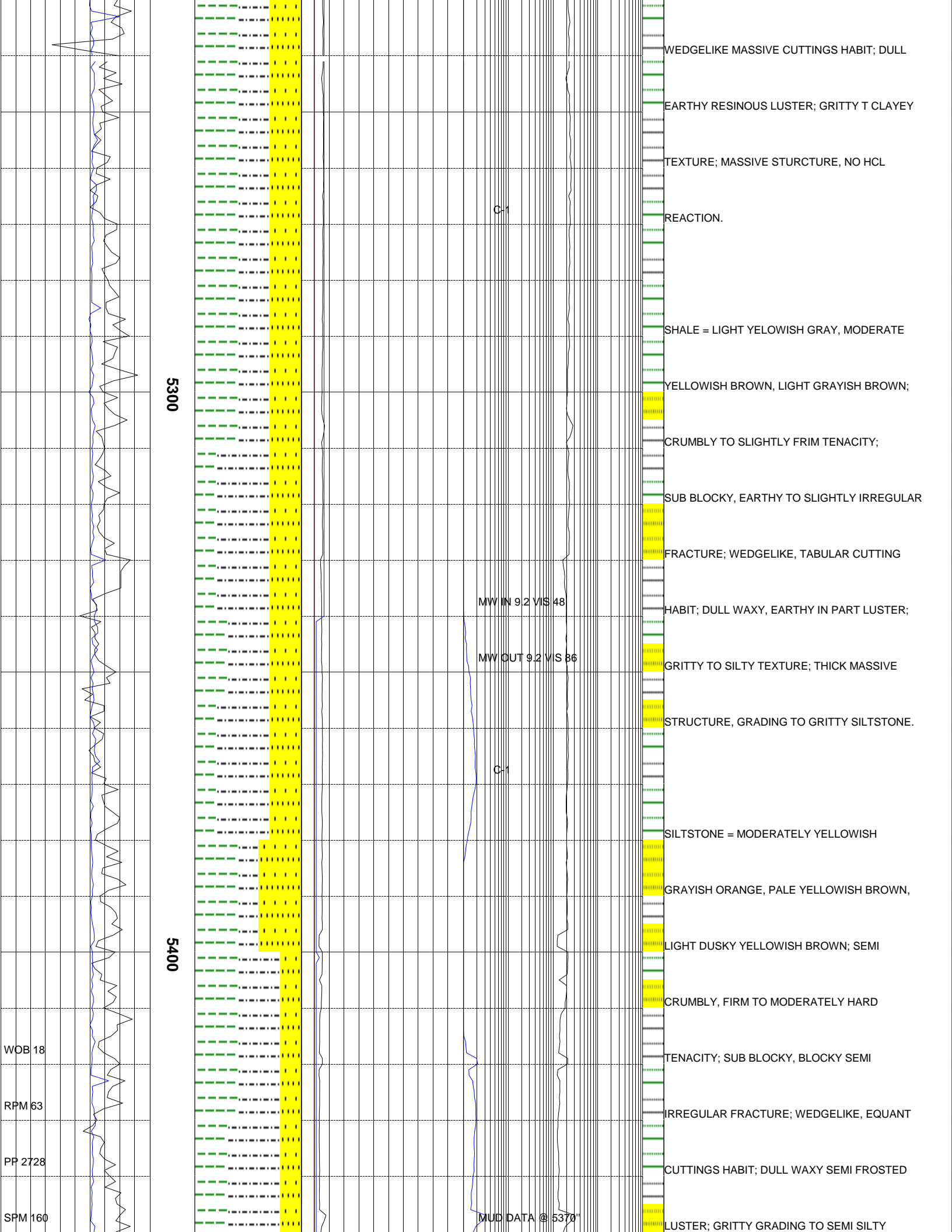


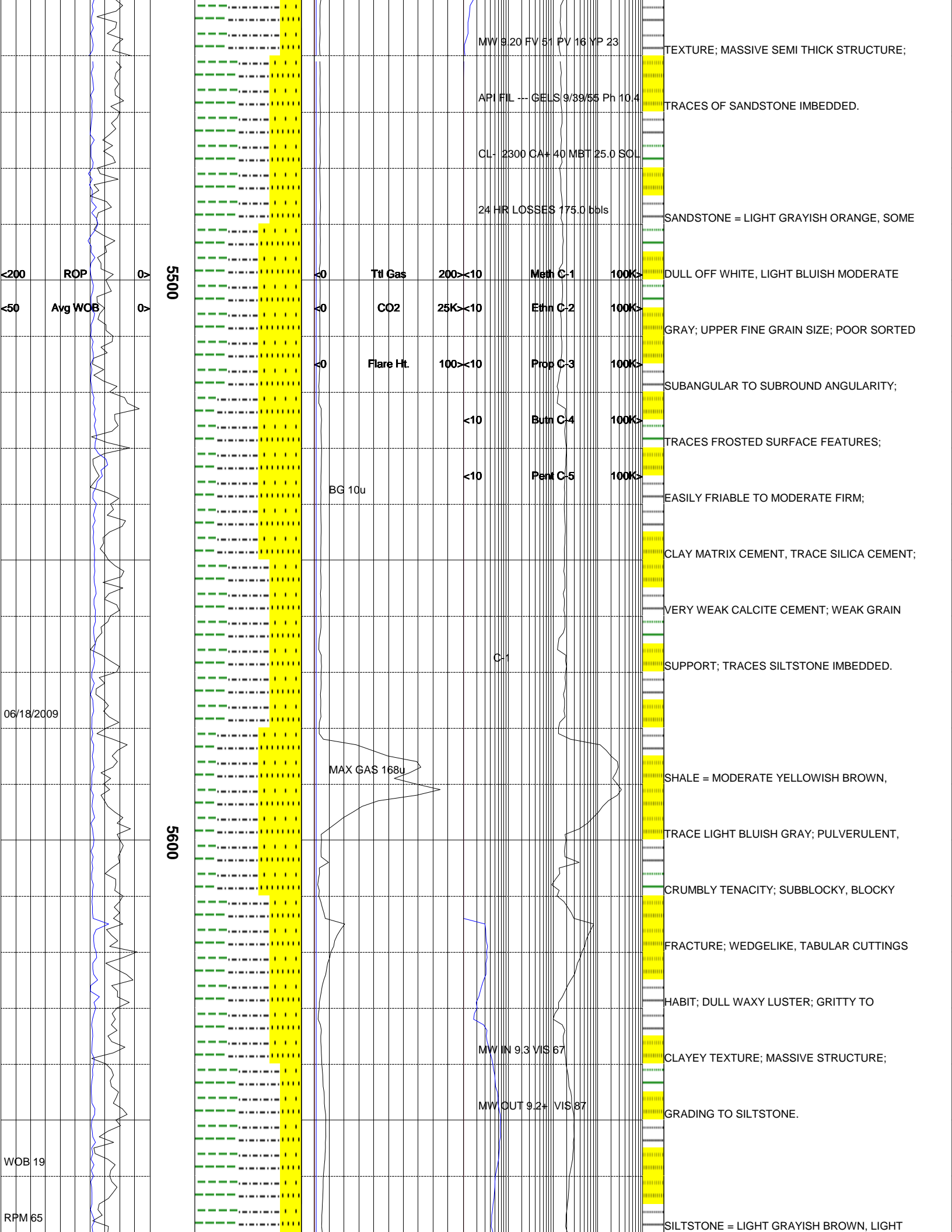


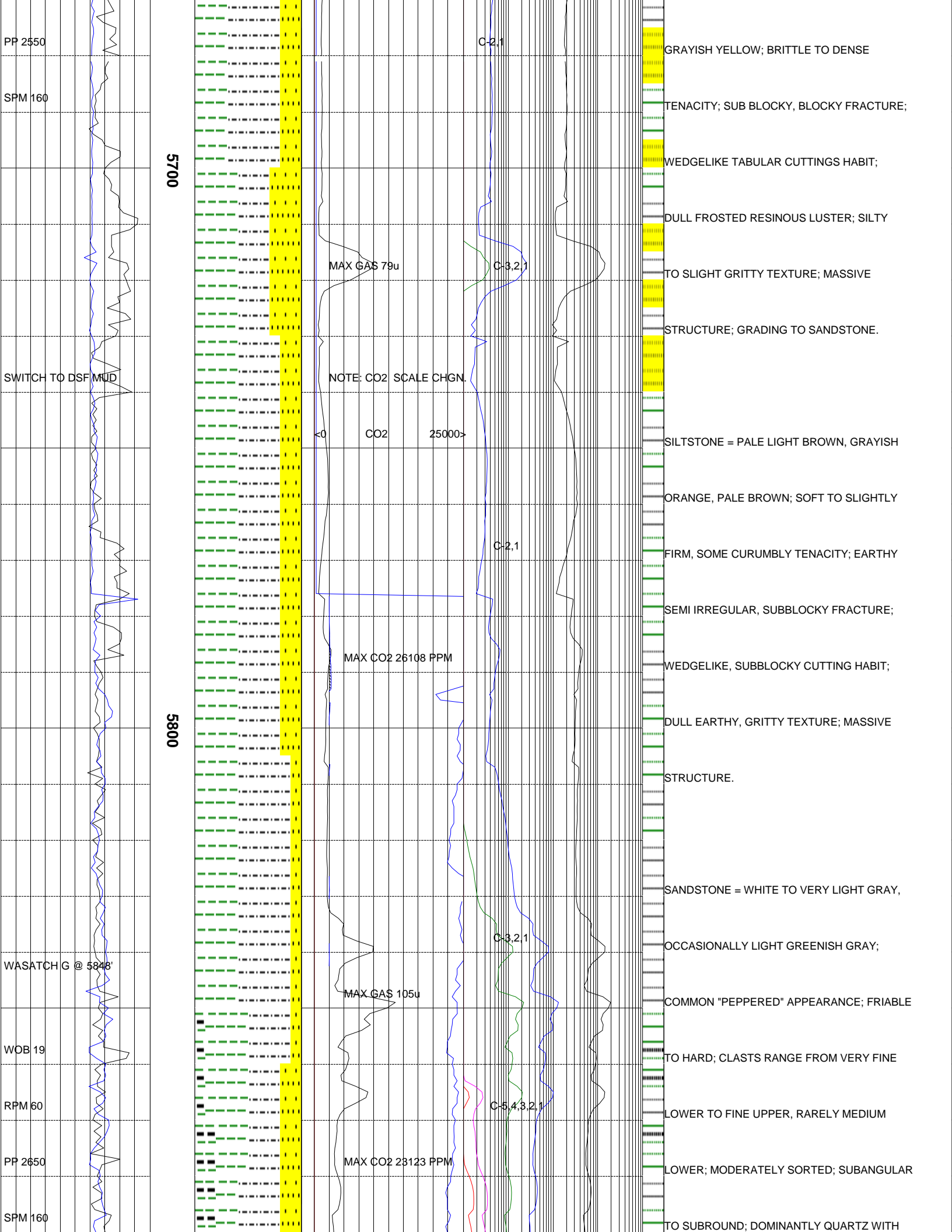


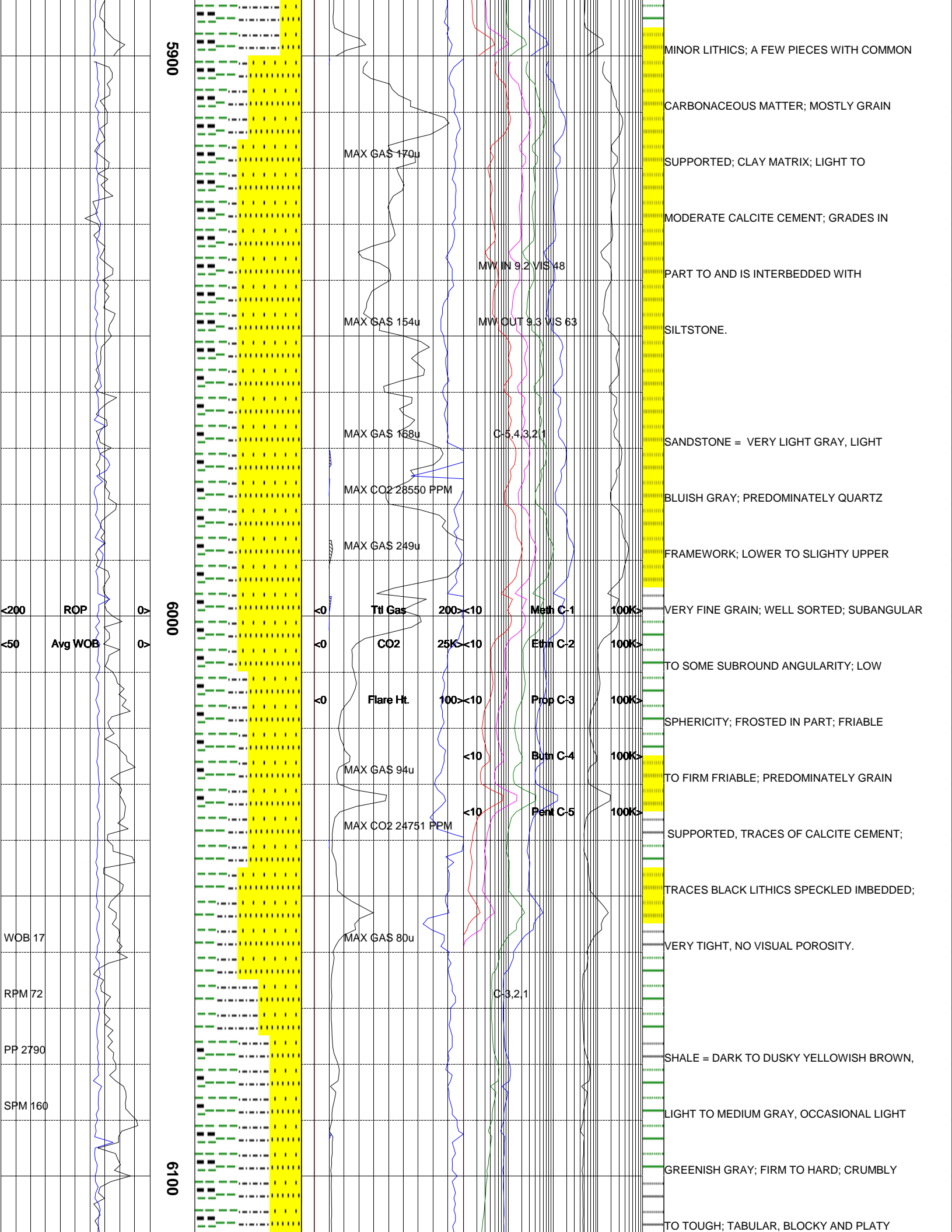


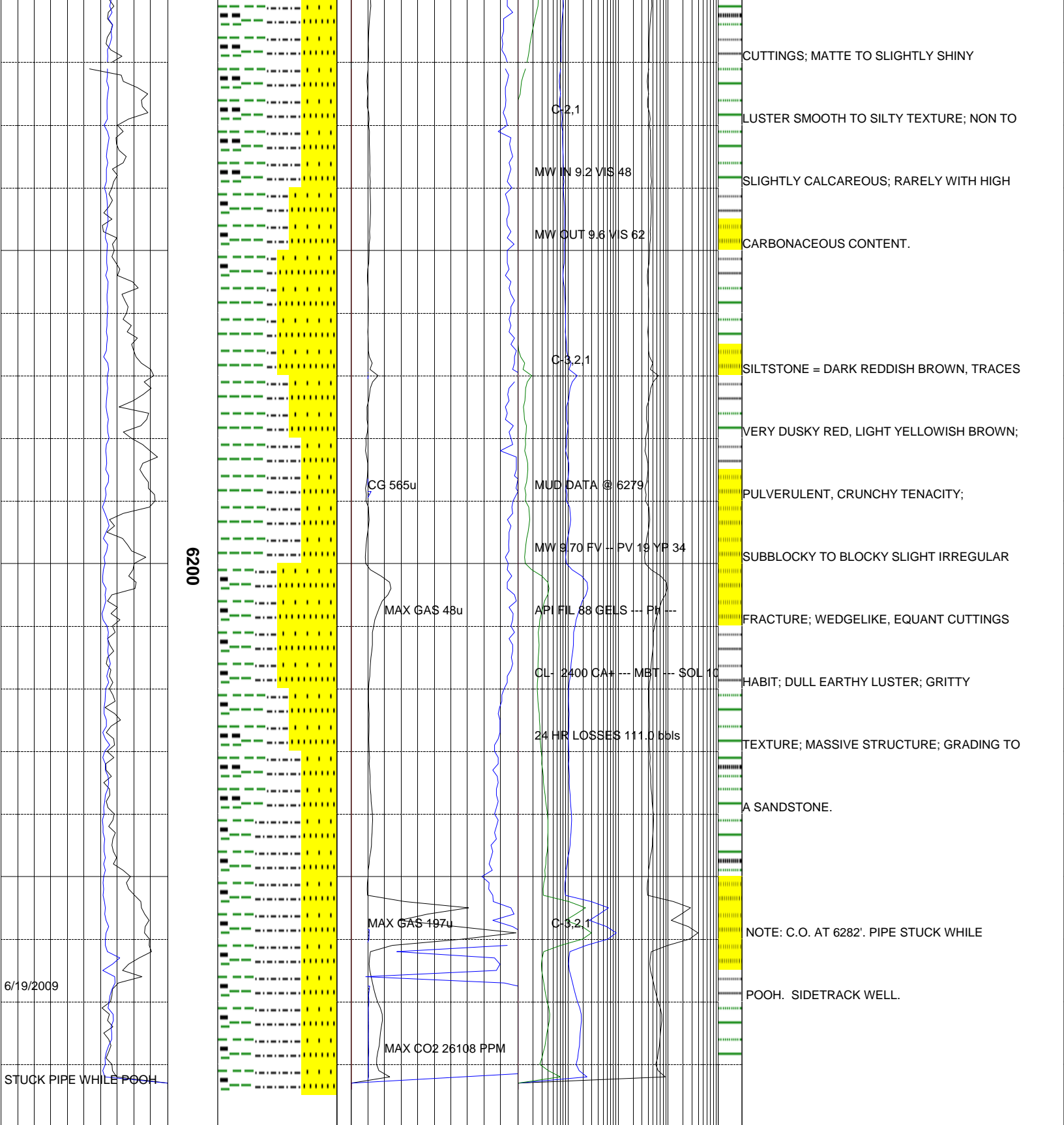












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