



Weatherford®

Tooke Rockies, Inc.
(A Weatherford Company)

884 Implement Dr.
Dickinson, ND 58601
701-227-4408

717 West Platte
PO BOX 435
Casper, WY 82601
307-265-2124

Surface Logging Systems

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Cottonwood Creek 4-65 27 1H (Pilot Hole)
Location: SW/NW, Sec 27, T4S-R65W. Arapahoe County, CO
License Number: API- 05-005-07215-00
Spud Date: 2/21/2014
Surface Coordinates: 1750' FNL & 325' FWL of SW/NW, Sec. 27, T4S-R65W

Region: DJ Basin

Drilling Completed: 3/2/2014

Bottom Hole Coordinates: 1980' FSL & 480' FEL of SE/NE
Ground Elevation (ft): 5706' K.B. Elevation (ft): 5730'
Logged Interval (ft): 6000 To: 8248 Total Depth (ft): 8248
Formation: Niobrara
Type of Drilling Fluid: INVERT/OBM

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Conoco/Phillips
Address: Attn: Aaron Summerfield
Three Westlake Park, Rm 14013
550 Westlake Park Blvd, Houston, TX 77079, Office: 832-486-2543.

GEOLOGIST

Name: Gabriel Genitempo, Dion Friedt
Company: Tooke Rockies/ Weatherford SLS
Address: PO Box 435
Casper, WY. 82602
307.265.2124

Supervision

Project Geologist:
Drilling Engineer: Gary Hamilton, Ben Tolman, John Benge- Conoco/Phillips
Drilling Sup: Bob Strickler- Conoco/Phillips
Company Rep: Wayne Morgan, Mike Johnson, (Day Leads)
Company Rep: Clint Valentine, Clint Goins (Night Leads)
Well Site Safety: Rainey Schexnider, Jeff Frantz
Contact Geologist: Aaron Summerfield- Conoco/Phillips
Drilling & Comp. Mgr: Derly Gonzalez-Conoco/Phillips

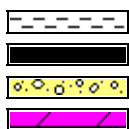
Comments

Drilling Co.--H & P, Rig #276
Toolpusher-
Dir. Co.- Sperry
Mud Co.- Baroid/Haliburton, Dave Howell, Alex Blau

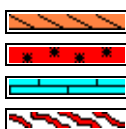
ROCK TYPES



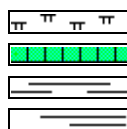
Anhy
Bent
Brec
Cht



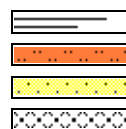
Clyst
Coal
Congl
Dol



Gyp
Igne
Lmst
Meta


















Mrlst
Salt
Shale
Shcol







Shgy
Sltst
Ss
Till
















ACCESSORIES






MINERAL

	Anhy
	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Calc
	Carb
	Chtdk
	Chtlit
	Dol
	Feldspar
	Ferrpel
	Ferr
	Glau









	Gyp
	Hvymin
	Kaol
	Marl
	Minxl
	Nodule
	Phos
	Pyr
	Salt
	Sandy
	Silt
	Sil
	Sulphur
	Tuff

FOSSIL

-  **Algae**
-  **Amph**
-  **Belm**
-  **Bioclst**
-  **Brach**
-  **Bryozoa**
-  **Cephal**
-  **Coral**
-  **Crin**
-  **Echin**
-  **Fish**
-  **Foram**
-  **Fossil**
-  **Gastro**
-  **Oolite**

	Ostra
	Pelec
	Pellet
	Pisolite
	Plant
	Strom

STRINGER

 **Anhy**
 **Arg**
 **Bent**
 **Coal**
 **Dol**
 **Gyp**
 **Ls**
 **Mrst**

Sltstrg
Ssstrg

TEXTURE

BS	Boundst
C	Chalky
CX	Cryxln
E	Earthy
FX	Finexln
GS	Grainst
L	Lithogr
MX	Microxln
MS	Mudst
PS	Packst
WS	Wackest

OTHER SYMBOLS







INTERVALS

Core
Dst

EVENTS

Rft
Sidewall

POROSITY TYPE





	Earthy
	Fenest
	Fracture
	Inter
	Moldic
	Organic

☐ Pinpoint
☒ Vuggy

SORTING

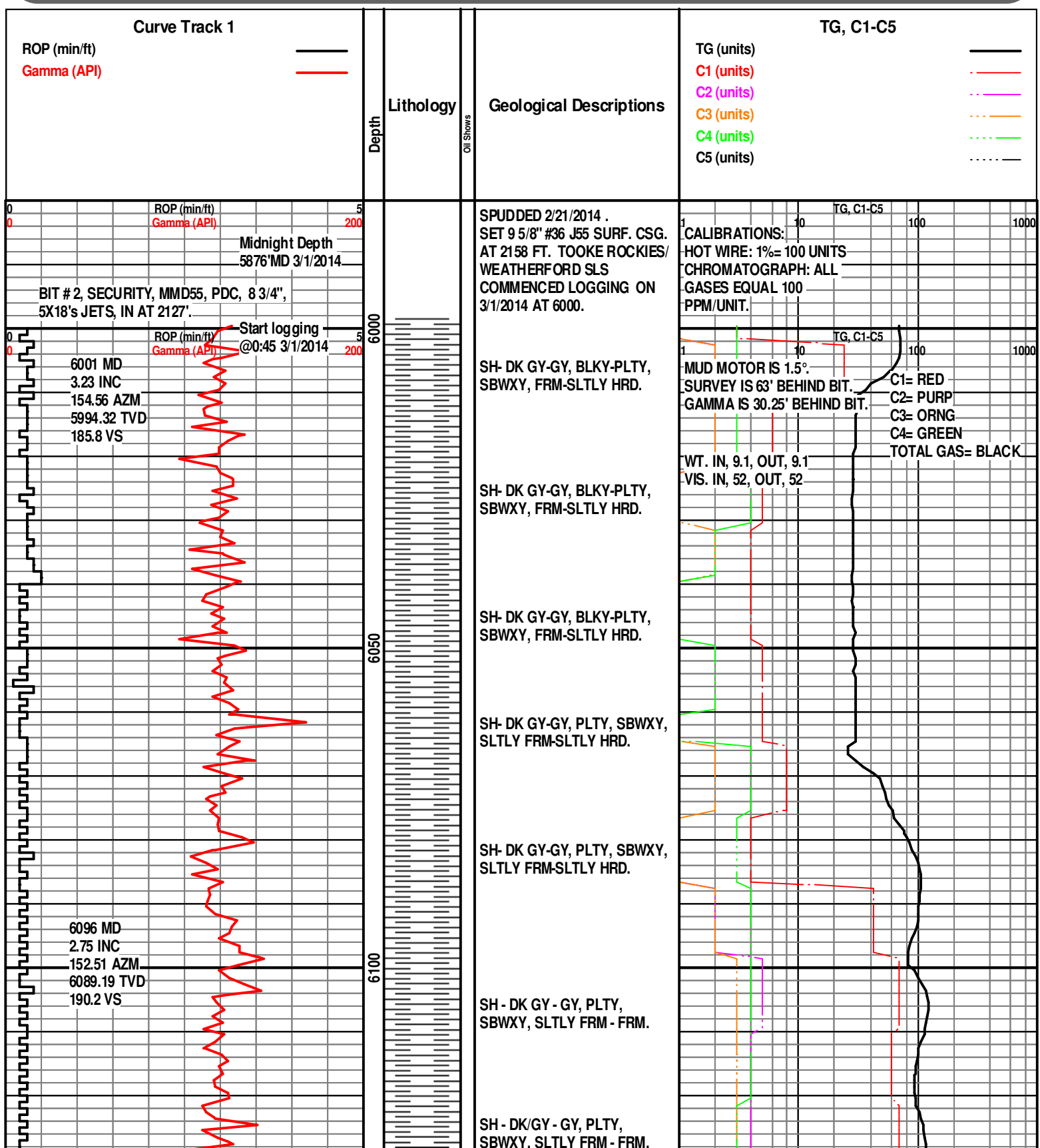
 Well
 Moderate
 Poor

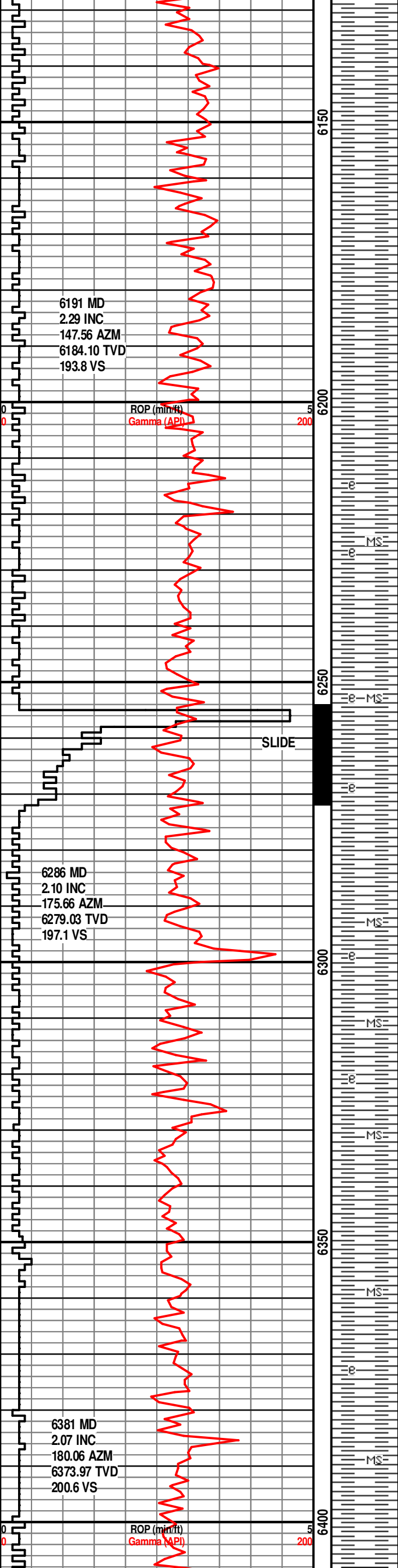
ROUNDING

	Rounded
	Subrond
	Subang
	Angular

OIL SHOWS

☐ Even
☐ Spotted
☐ Ques
☐ Dead





SH- DK GY-GY, BLKY-PLTY,
SBWXY, SLTLY FRM-SLTLY
HRD.

SH- DK GY-GY, BLKY-PLTY,
SBWXY, FRM-SLTLY HRD.

SH- DK GY-GY, BLKY-PLTY,
SBWXY, FRM-SLTLY HRD.

SH- DK GY-GY,
BLK,BLKY-PLTY, SBWXY,
SLTLY FRM - FRM, SME HRD.

SH- DK GY-GY, BLK, BLKY
-PLTY, SBWXY, SME RTHY,
SLTLY FRM - FRM, SME HRD.

SH- DK GY-GY, BLK,
BLKY-PLTY, SBWXY, SME
RTHY, SLTLY FRM - FRM, SME
HRD.

SH- DK GY-GY,BLK, BLKY
-PLTY, SBWXY, SME RTHY,
SLTLY FRM - FRM, SME HRD, V
SLTLY CALC.

SH- DK GY-GY, BLK, BLKY-
PLTY, SBWXY, SME RTHY,
SLTLY FRM - FRM, V SLTLY
CALC.

SH- DK GY-GY, BLKY-PLTY,
SBWXY, SME RTHY, SLTLY
FRM - FRM, V SLTLY CALC.

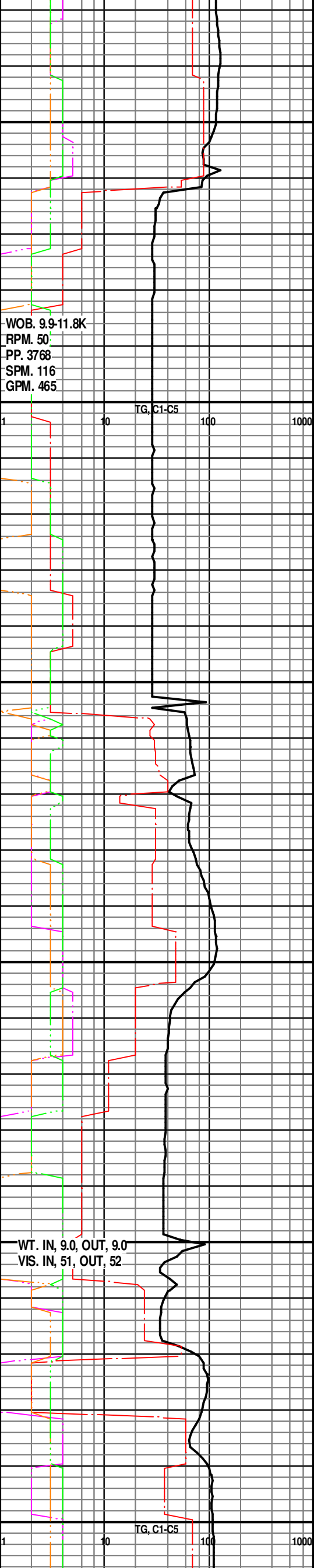
SH- DK GY-GY, BLKY-PLTY,
SBWXY, SME RTHY, SLTLY
FRM - FRM, V SLTLY CALC.

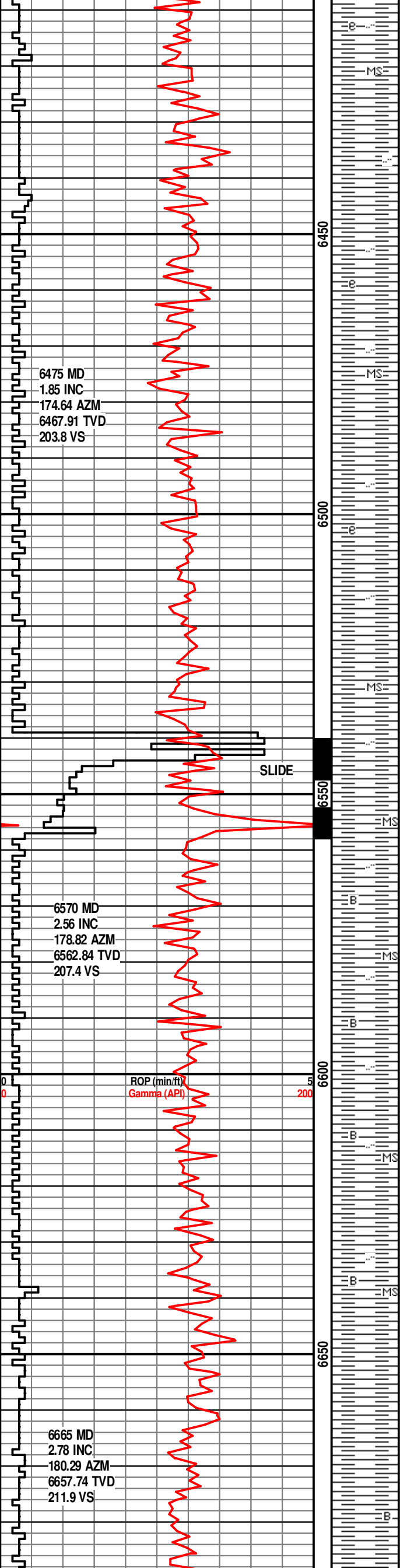
SH- DK GY-GY, BLKY-PLTY,
SBWXY, SME RTHY, SLTLY
FRM - FRM, V SLTLY CALC.

SH- DK GY-GY, BLKY-PLTY,
SBWXY, SME RTHY, SLTLY
FRM - FRM, V SLTLY CALC.

SH- DK GY-GY, BLKY-PLTY,
SBWXY, SME RTHY, SLTLY
FRM - FRM, SLTLY CALC.

SH- DK GY-GY, SME BRN
BLKY-PLTY, SBWXY, SME
RTHY, SME FIS, SFT - FRM,





6450

6500

6550

6600

6650

SLTY .

SH- DK GY-GY, SME BRN
BLKY-PLTY, SBWXY, SME
RTHY, SME FIS, SFT - FRM,
SLTY .

SH- DK GY-GY, SME BRN
BLKY-PLTY, SBWXY, SME
RTHY, SME FIS, SFT - FRM,
SLTY .

SH- DK GY-GY, SME BRN
BLKY-PLTY, SBWXY, SME
RTHY, SME FIS, SFT - FRM,
SLTY .

SH- DK GY-GY, SME BRN
BLKY-PLTY, SBWXY, SME
RTHY, SME FIS, SFT - FRM,
SLTY .

SH- DK GY-GY, SME BRN
BLKY-PLTY, SBWXY, SME
RTHY, SME FIS, SFT - FRM,
SLTY .

SH- DK GY-GY, SME BRN
BLKY-PLTY, SBWXY, SME
RTHY, SME FIS, SFT - FRM,
SLTY .

SH- DK GY-GY, SME BRN
BLKY-PLTY, SBWXY, SME
RTHY, SME FIS, SFT - FRM,
SLTY .

SH- DK GY-GY, SME BRN
BLKY-PLTY, SBWXY, SME
RTHY, SME FIS, SFT - FRM,
SLTY ,TR BENT.

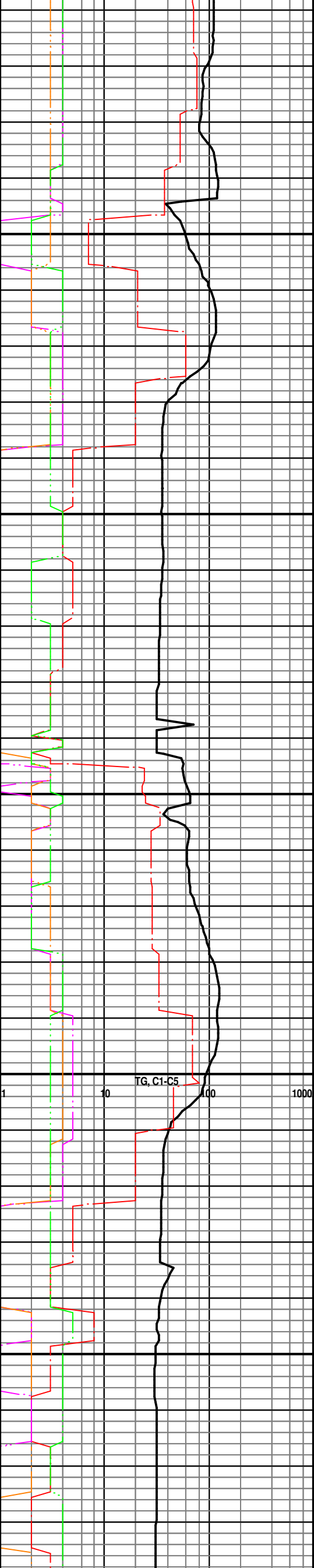
SH- DK GY-GY, SME BRN
BLKY-PLTY, SBWXY, SME
RTHY, SME FIS, SFT - FRM,
SLTY ,TR BENT.

SH- DK GY-GY, SME BRN
BLKY-PLTY, SBWXY, SME
RTHY, SME FIS, SFT - FRM,
SLTY ,TR BENT.

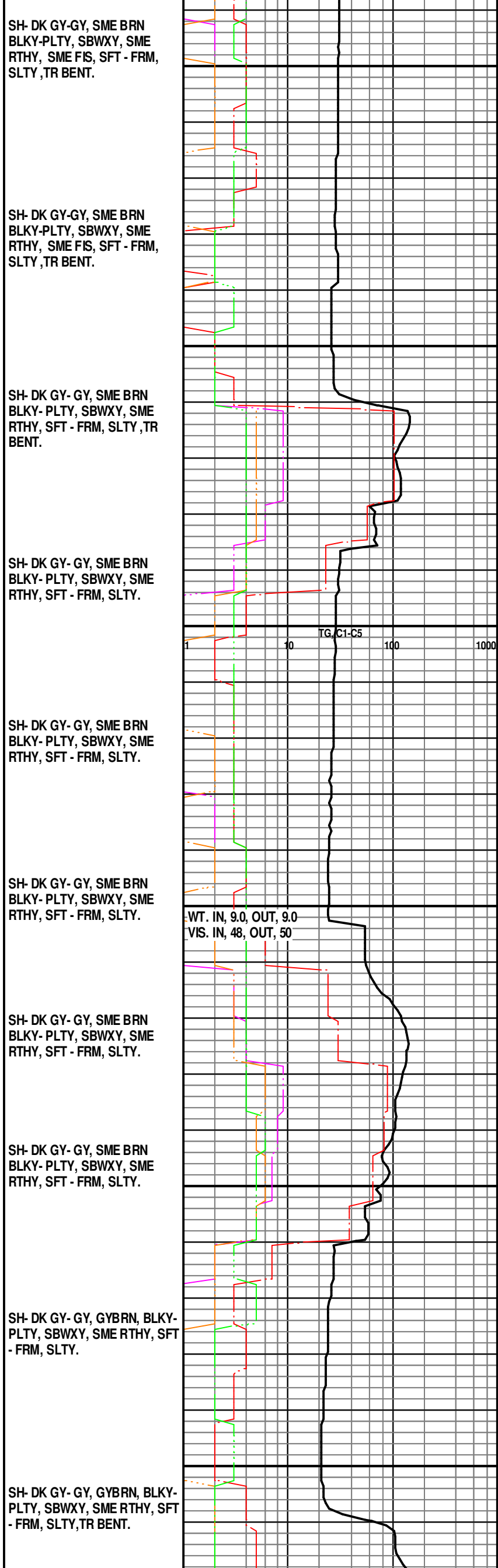
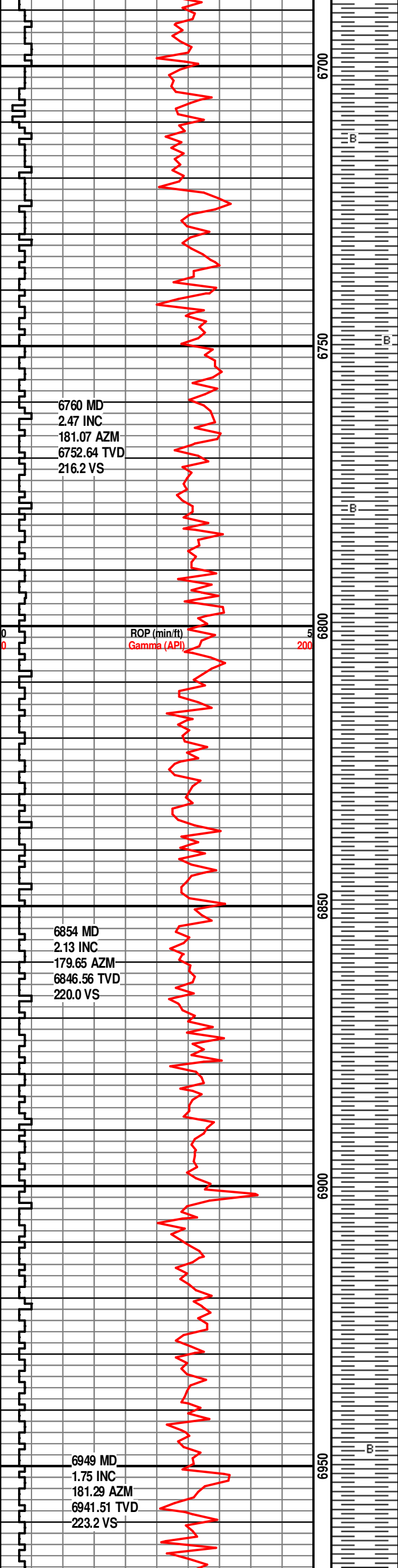
SH- DK GY-GY, SME BRN
BLKY-PLTY, SBWXY, SME
RTHY, SME FIS, SFT - FRM,
SLTY ,TR BENT.

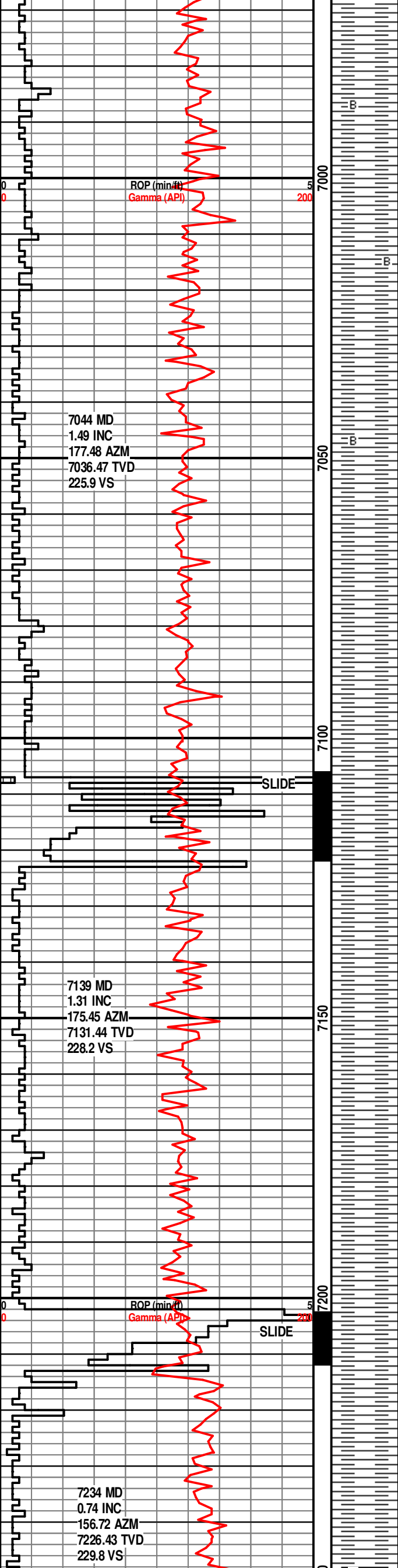
SH- DK GY-GY, SME BRN
BLKY-PLTY, SBWXY, SME
RTHY, SME FIS, SFT - FRM,
SLTY ,TR BENT.

SH- DK GY-GY, SME BRN
BLKY-PLTY, SBWXY, SME
RTHY, SME FIS, SFT - FRM,
SLTY ,TR BENT.



TG, C1-C5





SH- DK GY- GY, GYBRN, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, SLTY,TR BENT.

SH- DK GY- GY, GYBRN, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, SLTY,TR BENT.

SH- DK GY- GY, GYBRN, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, SLTY,TR BENT.

SH- DK GY- GY, GYBRN, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, SLTY.

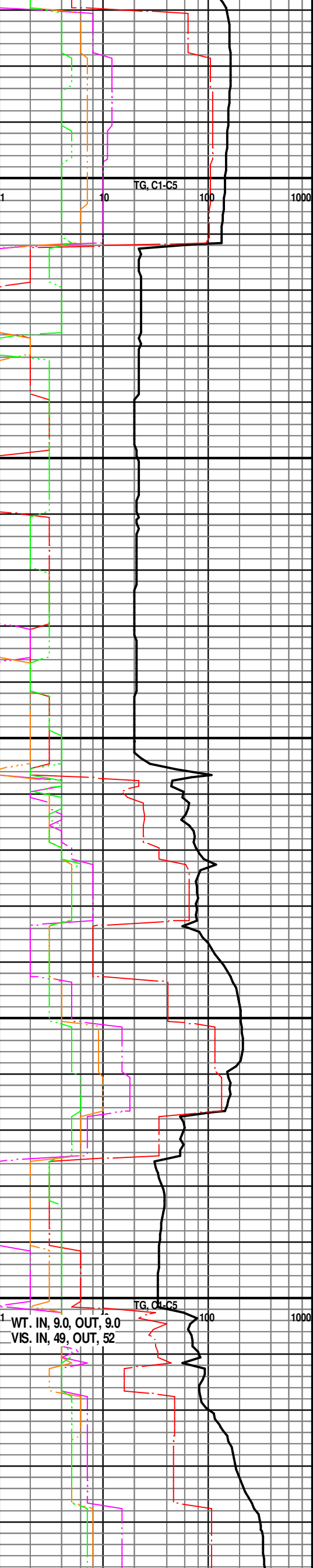
SH- DK GY- GY, GYBRN, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM.

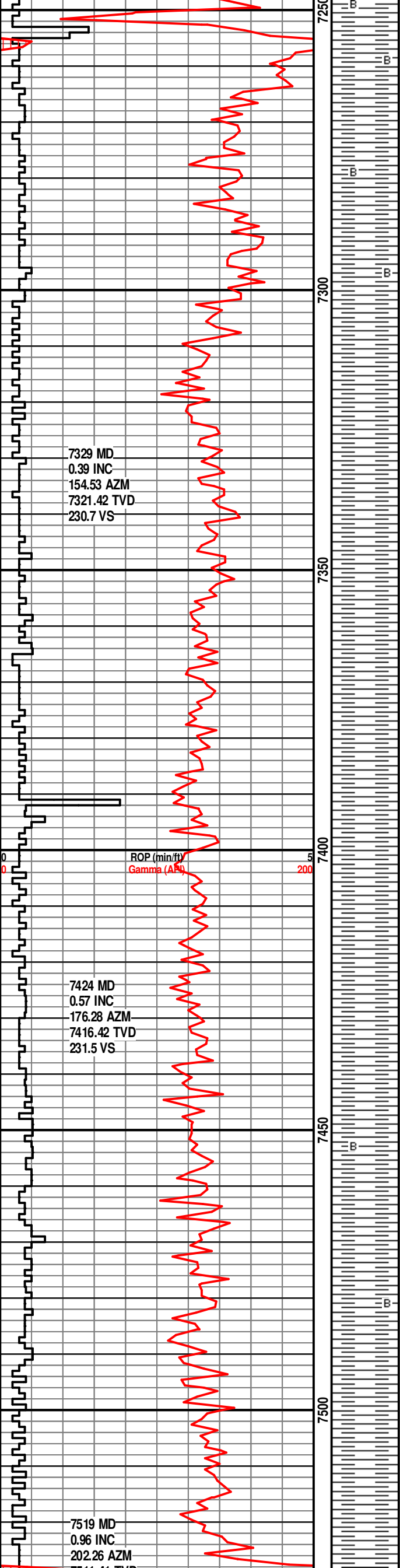
SH- DK GY- GY, GYBRN, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM.

SH- DK GY- GY, GYBRN, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM.

SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, TR CALC.

SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, TR CALC.





SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, TR BENT.

SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, TR BENT.

SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, TR BENT.

SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM.

SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM.

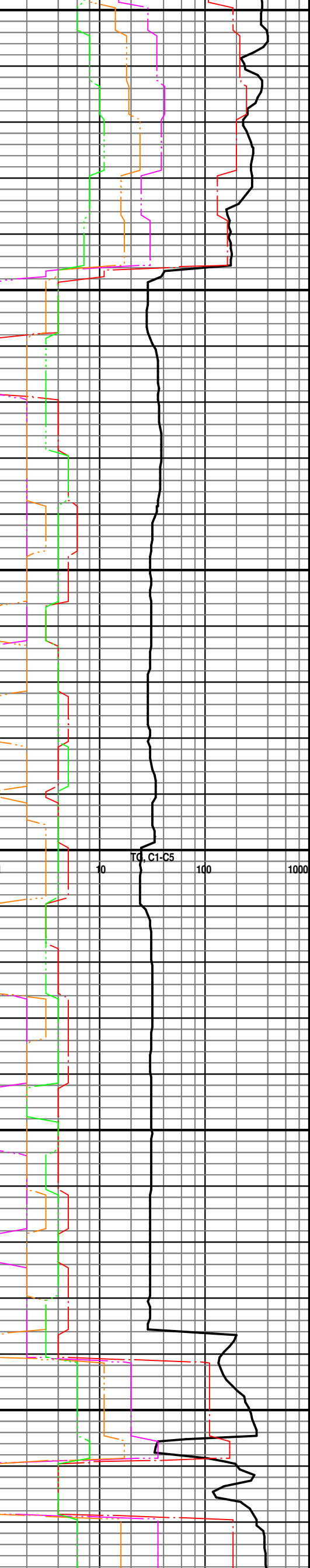
SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM.

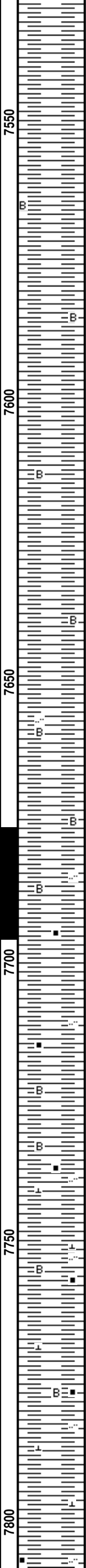
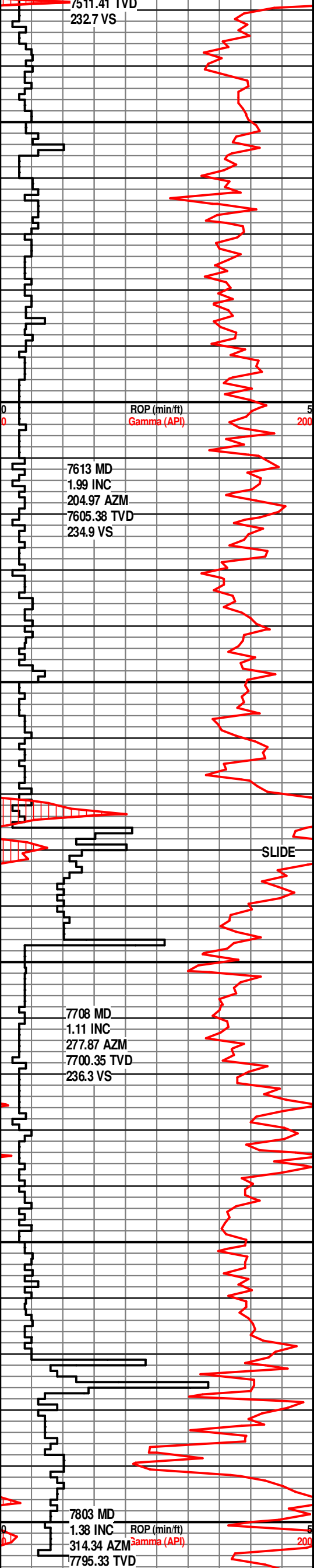
SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM.

SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, TR BENT.

SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, TR BENT.

SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, TR BRN CLYST.





SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, TR BRN CLYST.

SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, TR BRN CLYST & BENT.

SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, TR BRN CLYST & BENT.

SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, TR BENT.

SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, TR BENT.

SH- DK GY- GY, LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, TR BENT.

SH- DK GY- GY, SME LTGY,
BLKY- PLTY, SBWXY, SME
RTHY, SFT - SLTLY FRM, TR
BENT, SLTY, CARB INCL.

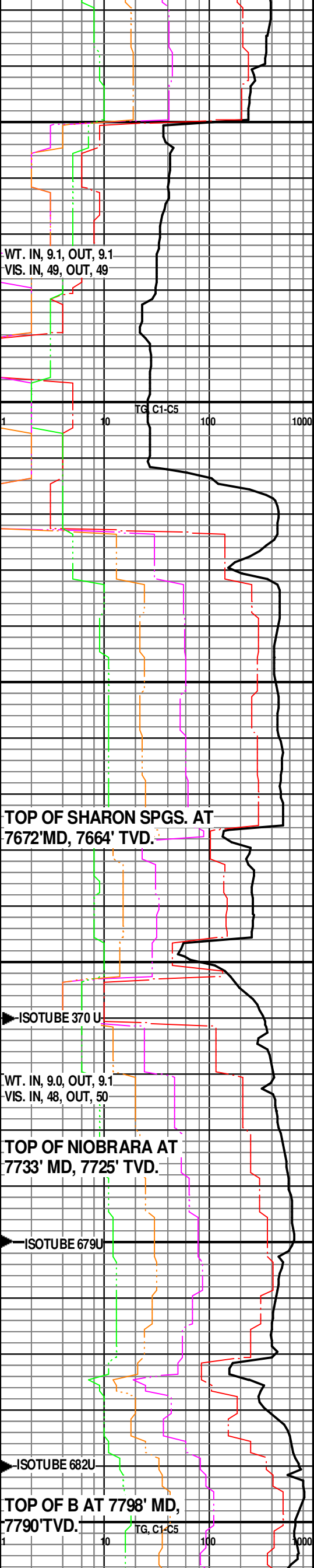
SH- DK GY- GY, SME LTGY,
BLKY- PLTY, SBWXY, SME
RTHY, SFT - SLTLY FRM, V
CALC, TR BENT, SLTY, CARB
INCL.

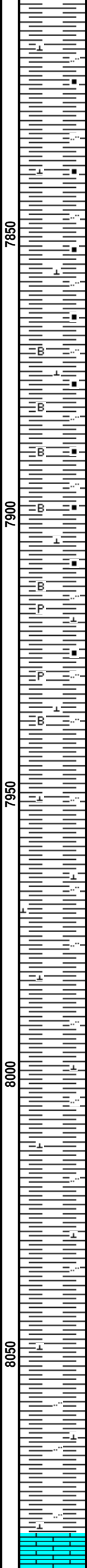
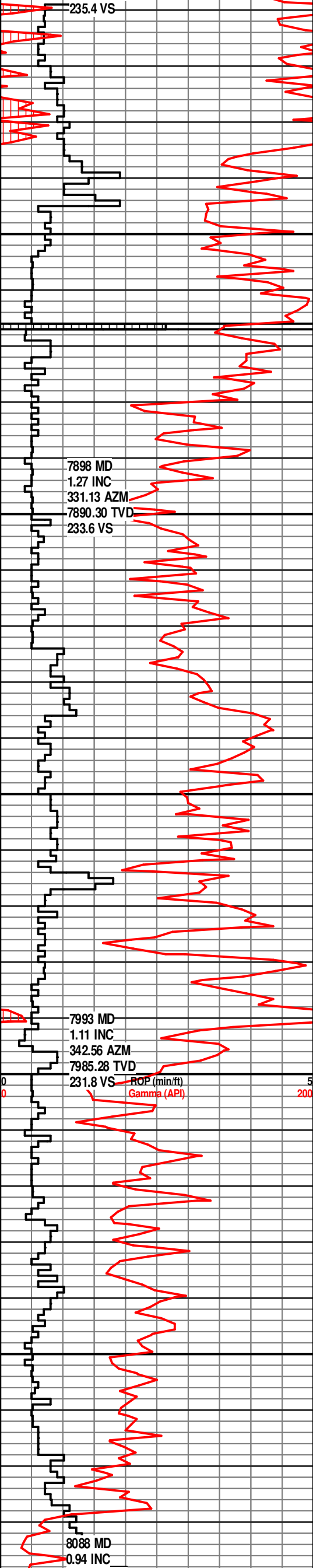
SH- DK GY- GY, SME LTGY,
BLKY- PLTY, SBWXY, SME
RTHY, SFT - SLTLY FRM, V
CALC, TR BENT, SLTY, CARB
INCL.

SH- DK GY- GY, SME LTGY,
BLKY- PLTY, SBWXY, SME
RTHY, SFT - SLTLY FRM, V
CALC, TR BENT, SLTY, CARB
INCL.

SH- DK GY- GY, SME LTGY,
BLKY- PLTY, SBWXY, SME
RTHY, SFT - SLTLY FRM, V
CALC, TR BENT, SLTY, CARB
INCL.

SH- GY, SME LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT





PLTY, SBWXY, SME RTHY, SFT
- SLTLY FRM, SLTY, V CALC,
CARB INCL. NO FLUOR, BL/WH
BLOOM CUT.

SH- GY, SME LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- SLTLY FRM, SLTY, V CALC,
CARB INCL. NO FLUOR, BL/WH
BLOOM CUT.

SH- GY, SME LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- SLTLY FRM, SLTY, V CALC,
CARB INCL. NO FLUOR, BL/WH
BLOOM CUT.

SH- GY, SME LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, SLTY, V CALC, CARB
INCL. SME MNRL FLUOR,
BL/WH BLOOM CUT.

SH- GY, SME LTGY, BLKY-
PLTY, SBWXY, SME RTHY, SFT
- FRM, SLTY, V CALC, CARB
INCL. SME MNRL FLUOR,
BL/WH BLOOM CUT.

SH- GY/DK GY, BLKY- PLTY,
RTHY, SFT - FRM, SLTY, SME
CARB INCL. PYR NOD, V
CALC, RR MNRL FLUOR,
BL/WH BLOOM CUT.

SH- GY/DK GY, BLKY- PLTY,
RTHY, SFT - FRM, SLTY, SME
CARB INCL., V CALC, PYR
NOD, RR MNRL FLUOR, BL/WH
BLOOM CUT.

SH- GY/DK GY, PLTY, RTHY,
SFT - SLTLY FRM, SLTY, V
CALC, NO FLUOR, SLT BL/WH
BLOOM CUT.

SH- GY/DK GY, PLTY, RTHY,
SFT - SLTLY FRM, V CALC,
SLTY, NO FLUOR, SLT BL/WH
BLOOM CUT.

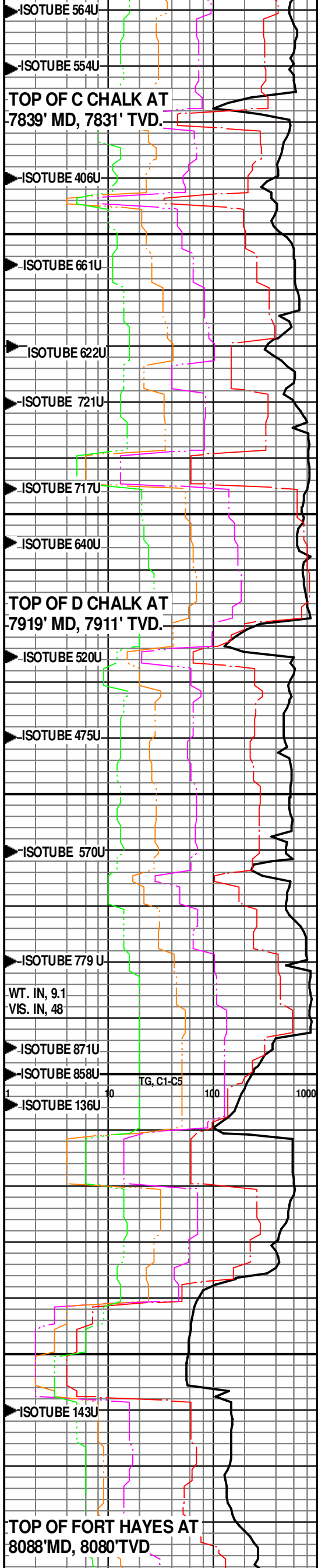
SH- GY/DK GY, PLTY, RTHY,
SFT - SLTLY FRM, V CALC,
SLTY, NO FLUOR, SLT BL/WH
BLOOM CUT.

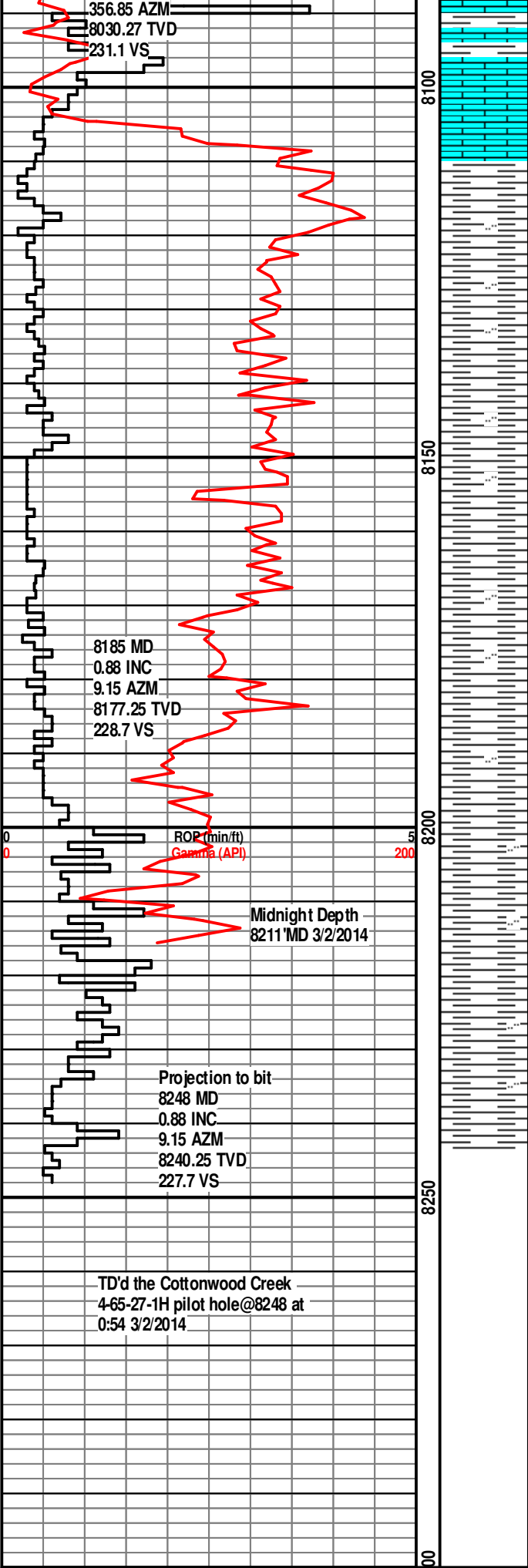
SH- GY/DK GY, PLTY, RTHY,
SFT - SLTLY FRM, V CALC,
SLTY, NO FLUOR, SLT BL/WH
BLOOM CUT.

SH- GY/DK GY, PLTY, RTHY,
SFT - SLTLY FRM, V CALC,
SLTY, NO FLUOR, SLT BL/WH
BLOOM CUT.

SH- GY/DK GY, PLTY, RTHY,
SFT - SLTLY FRM, V CALC,
SLTY, NO FLUOR, SLT BL/WH
BLOOM CUT.

SH- LT GY, RR DRK GY, PLTY,
WXY, SFT - SLTLY FRM, SLTY.
LST-LT GY/WH, SFT, CHKY. NO
FLUOR, SLT BL/WH BLOOM
CUT.





CUT.

LST-LT GY/WH, , CHKY,SFT.
NO FLUOR, NO CUT.

SH- GY/DK GY, PLTY, BLKY,
RTHY, SFT - SLTLY FRM, SLTY,
NO FLUOR, SLT BL/WH CUT.

SH- GY/DK GY, PLTY, BLKY,
RTHY, SFT - SLTLY FRM, SLTY,
NO FLUOR, SLT BL/WH CUT.

SH- GY/DK GY, PLTY, BLKY,
RTHY, SFT - SLTLY FRM, SLTY,
NO FLUOR, SLT BL/WH CUT.

SH- GY/DK GY, SLTLY CALC,
BLKY, RTHY, FRM -SLTLY HRD,
SLTY, NO FLUOR, NO CUT.

SH- GY/DK GY, SLTLY CALC,
BLKY, RTHY, FRM -SLTLY HRD,
SLTY, NO FLUOR, NO CUT.

