

OPERATOR: MARATHON OIL COMPANY

WELL: 596-31C-28

LOCATION: SEC. 31, T5S, R96W

COUNTY: GARFIELD

STATE: COLORADO

SPOT: 2128' FSL x 589' FWL

ELEVATION: G: 8521' KB: 8545'

FIELD: GRAND VALLEY

SPUD DATE: 03/06/09

TD DATE: 03/11/09

DATES LOGGED: 03/06/09 - 03/11/09

DEPTHS LOGGED: 2445' - 9946'

LOGGERS: MARK MCLAUGHLIN

DRILLING FLUID: LSND

DRILLING RIG: H&P 324

BOTTOM HOLE: CCNAD27, X:1235218, Y:642083.5
























































LOG TYPE: MUD LOG

SCALE: 1:240 (5.0 INCH/100 FT)

REMARKS:

API# 05-045-16029-0000

LITHOLOGIES

 SANDSTONE	 SILTSTONE	 SHALE	 COAL	 BENTONITE
 LIMESTONE	 DOLOMITE	 ANHYDRITE	 CHERT	 SALT
 CONGLOMERATE	 TUFF	 ALLUVIUM	 METAMORPHIC	 GLACIAL TILL
 DARK CHERT	 WELDED TUFF	 ARGILLACEOUS LIMESTONE	 LIME MUDSTONE	 CRYSTALLINE LIMESTONE
 LIME BOUNDSTONE	 LIME GRAINSTONE	 LIME PACKSTONE	 LIME WACKESTONE	 DOLOMITIC LIMESTONE
 CALCAREOUS DOLOMITE	 ARGILLACEOUS DOLOMITE	 DOLOMITIC MUDSTONE	 CRYSTALLINE DOLOMITE	 DOLOMITIC BOUNDSTONE
 DOLOMITIC GRAINSTONE	 DOLOMITIC PACKSTONE	 DOLOMITIC WACKESTONE	 SHALY SANDSTONE	 CLAYSTONE
 GRAY CLAYSTONE	 COLORED CLAYSTONE	 VOLCANICS	 BRIGHT COAL	 INTERMEDIATE COAL
 DULL COAL	 COALY SHALE	 NON COAL	 GRANITE	 BRECCIA
 MARL	 DOLOMITIC MARL	 CARBONACEOUS SHALE	 CHALK	 GYPSUM
 UNABLE TO INTERPRET	 NO SAMPLE	 BLACK SHALE	 COLORED SHALE	 GRAY SHALE

CH TV

CH V



CORE RECOVERED



CORE LOST



DST INTERVAL



ROTATING



SLIDING



CANISTER

ABBREVIATIONS

CB - CORE BIT

CG - CONNECTION GAS

CO - CIRCULATE OUT

SPM - STROKES/MIN

DST - DRILL STEM TEST

DTG - DOWNTIME GAS

LAT - LOGGED AFTER TRIP

TG - TRIP GAS

NR - NO RETURNS

NS - NO SAMPLE

PP - PUMP PRESSURE

WOB - WEIGHT ON BIT

RPM - REVOLUTIONS/MIN

RR - RE-RUN

SLM - STEEL LINE MEASURE

ROP MIN/FT

C1 PPM

C2 PPM

TOTAL GAS (UNITS)

C3 PPM

C4 PPM

C5 PPM

CO2 PPM

DIFP PSI

WOB KLBS

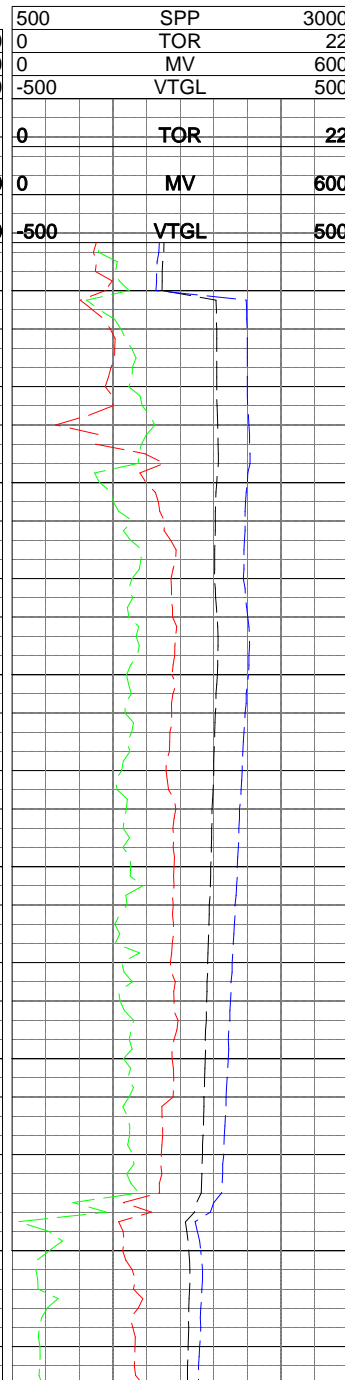
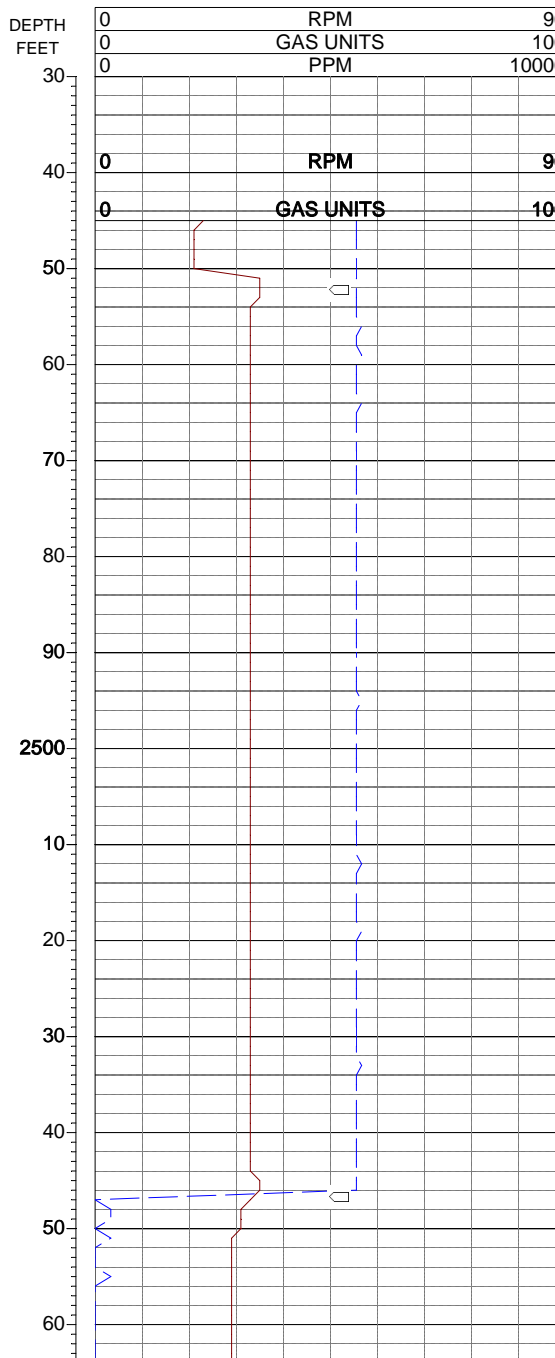
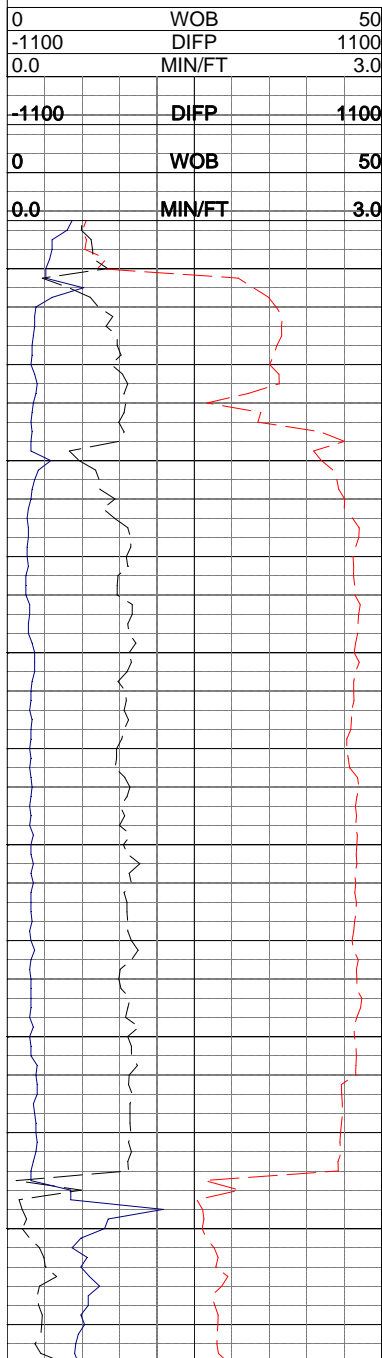
RPM RPM

VTGL BARRE

MV BBL

TOR UNITS

SPP PSI



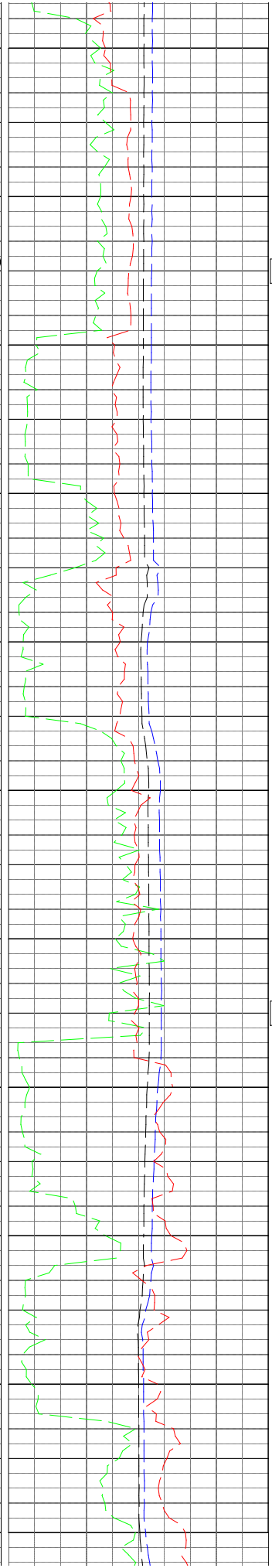
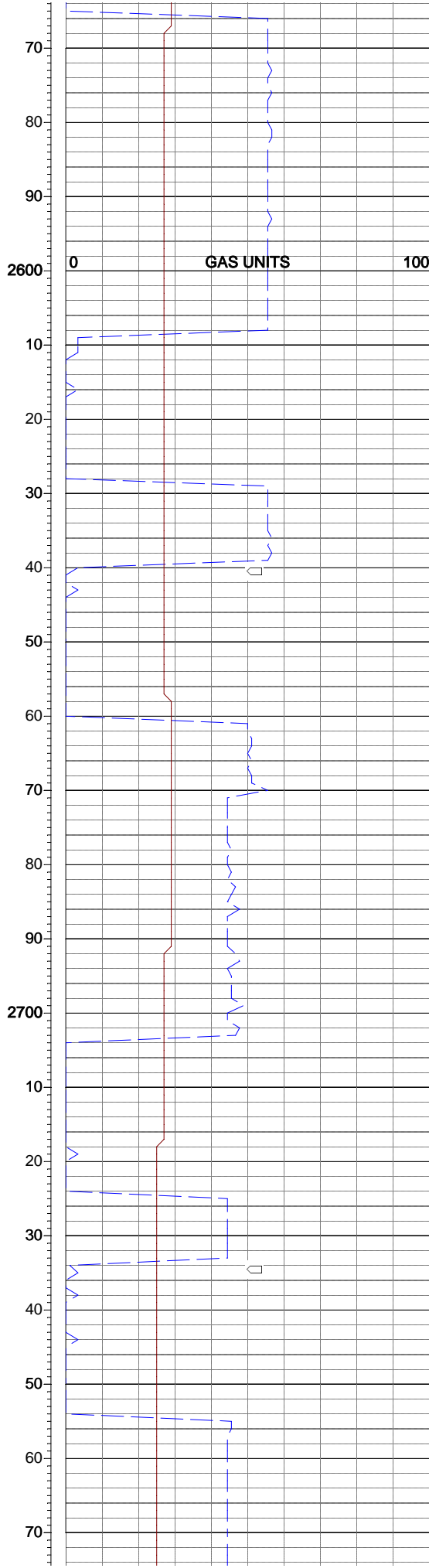
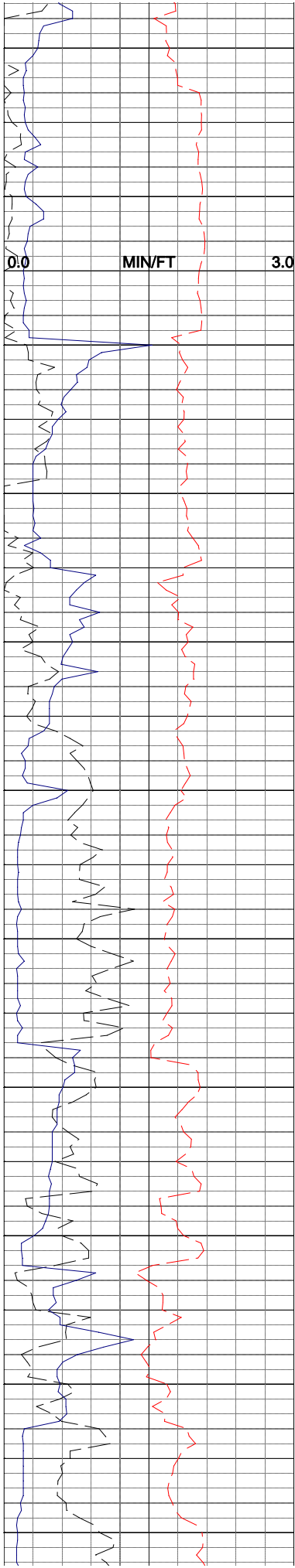
LITHOLOGY DESCRIPTIONS

PASON SYSTEMS
RIGGED AND
LOGGING ON
03/06/09 AT 5pm

TVD VS. MD = 335'

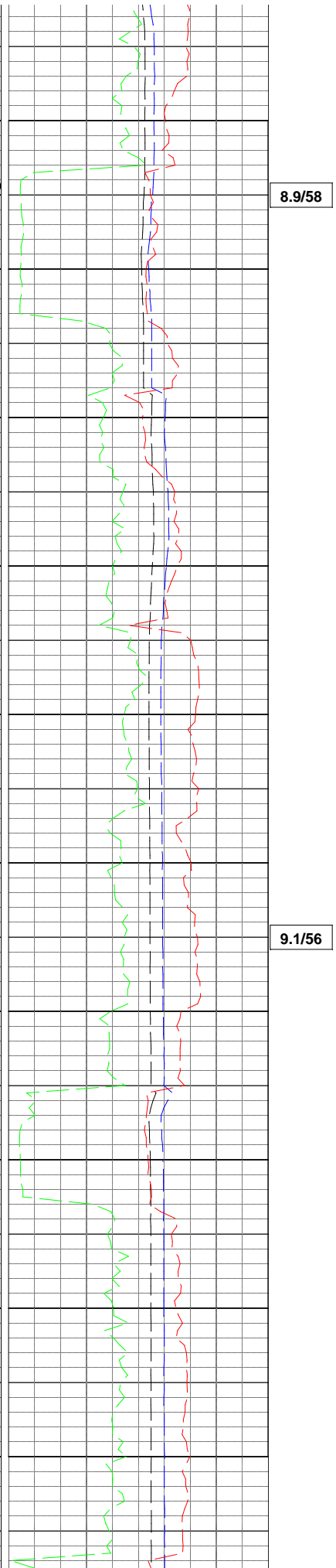
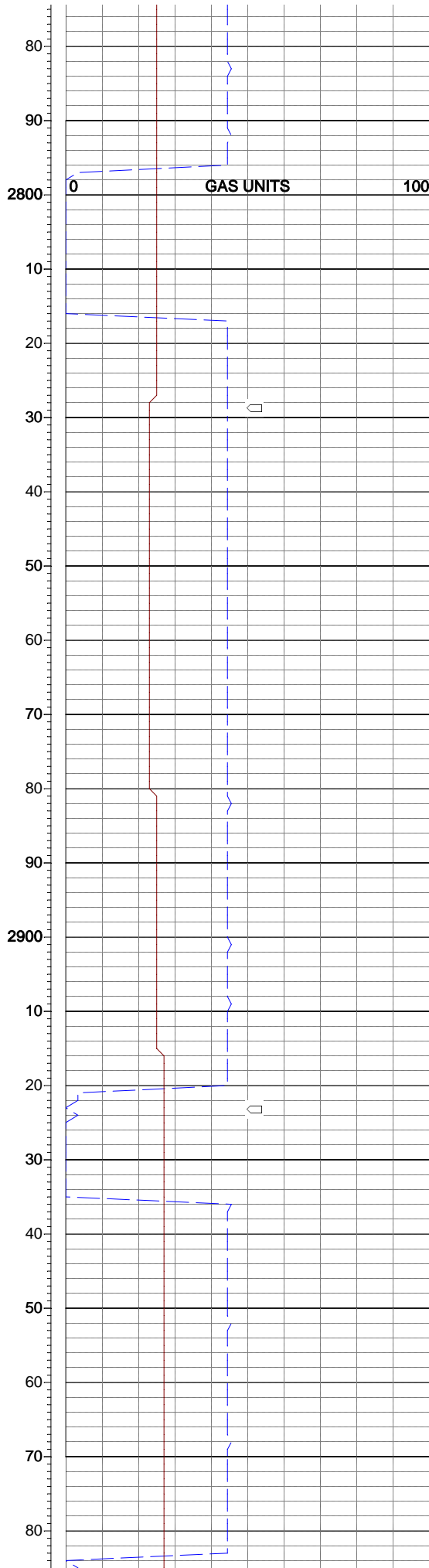
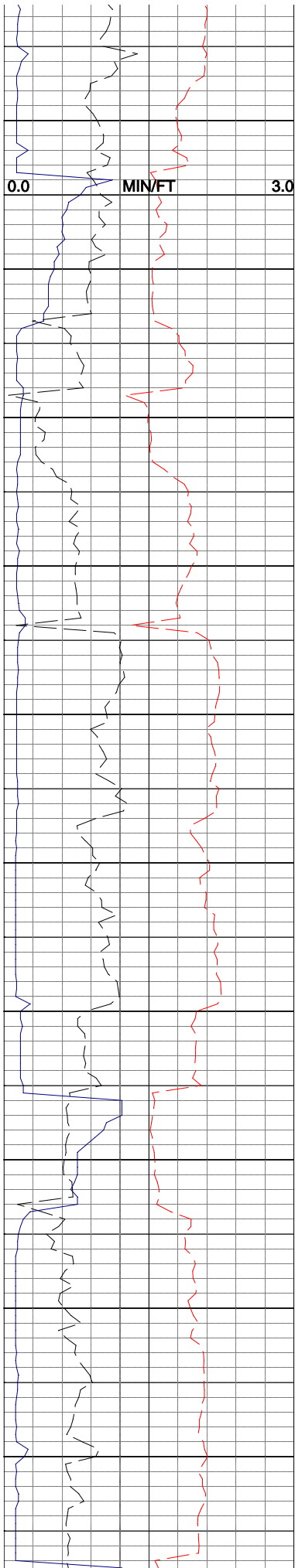
BIT #4
8 3/4"
SECURITY
FMHX555Z
IN AT 2443'

8.9/58



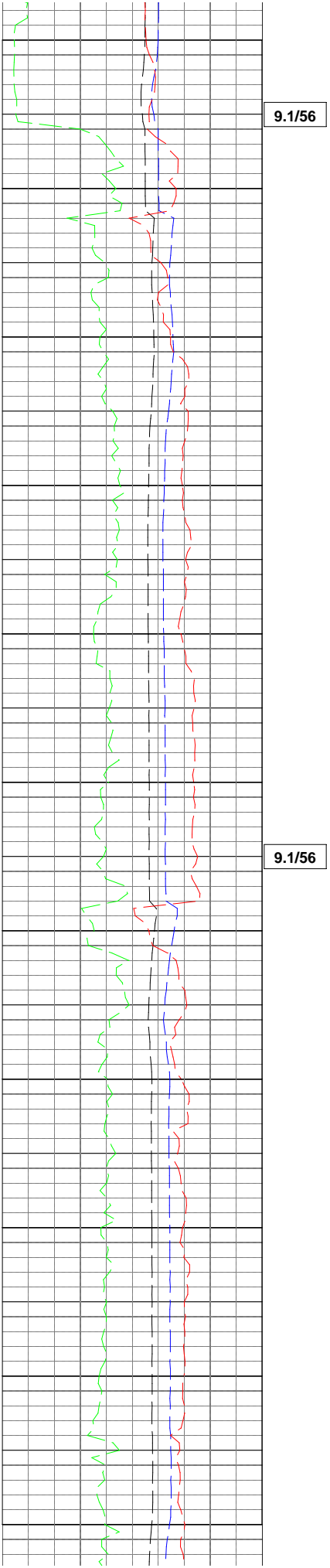
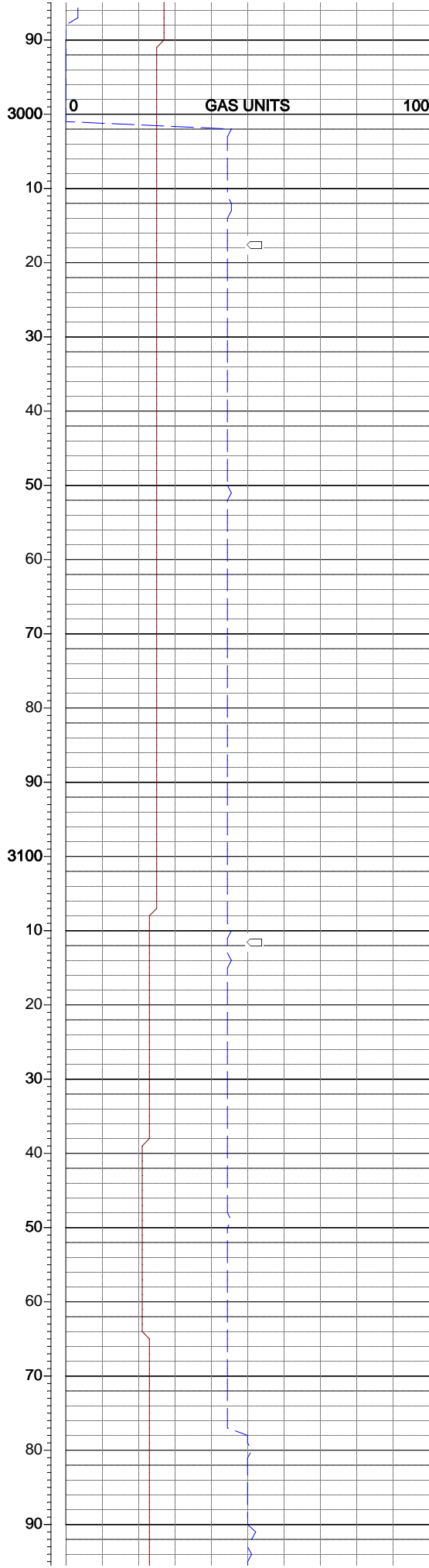
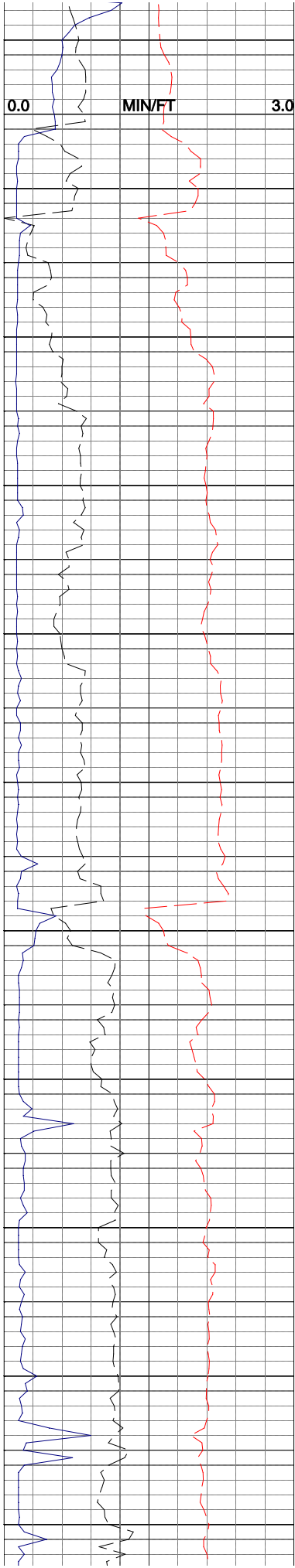
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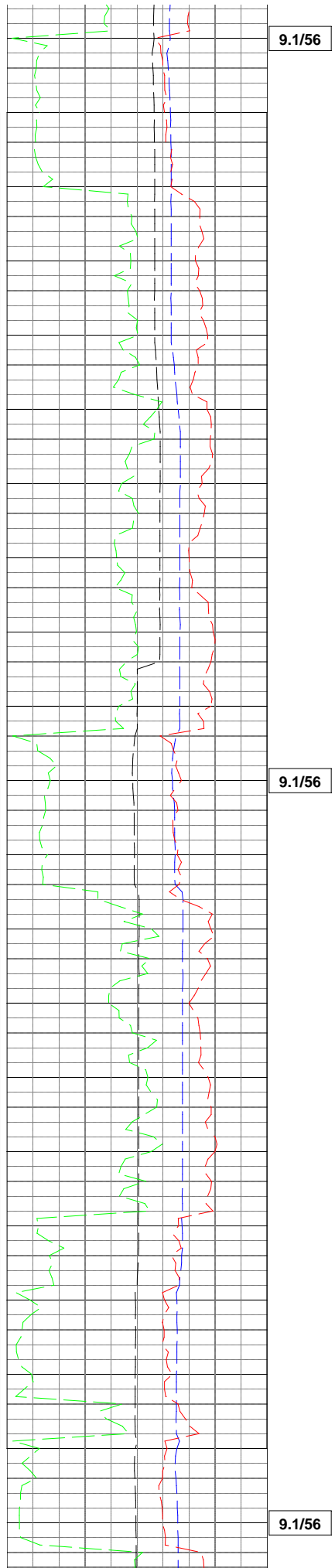
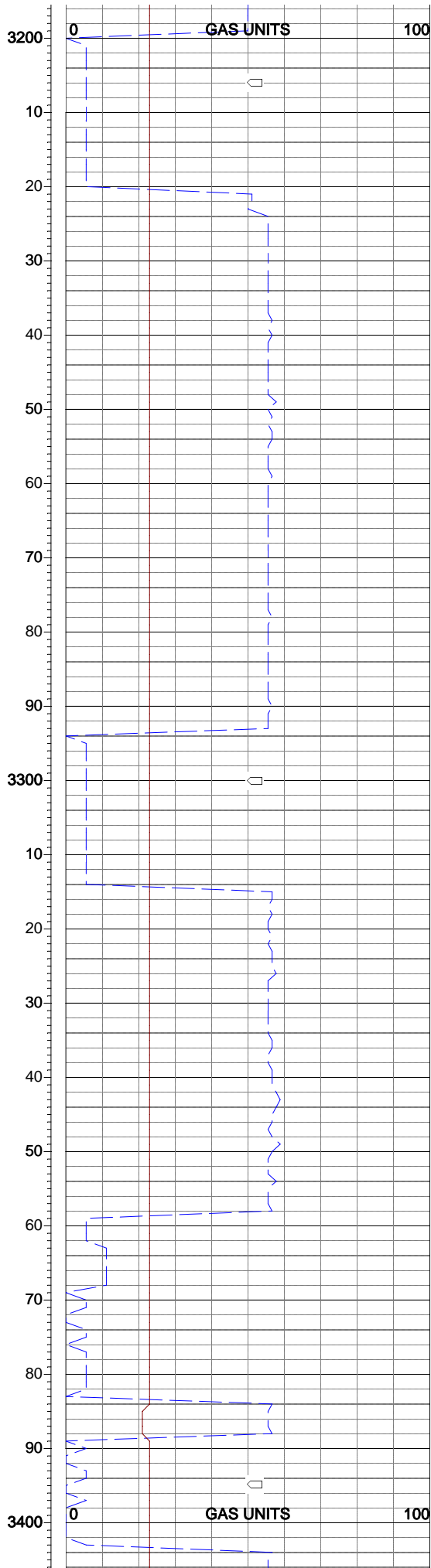
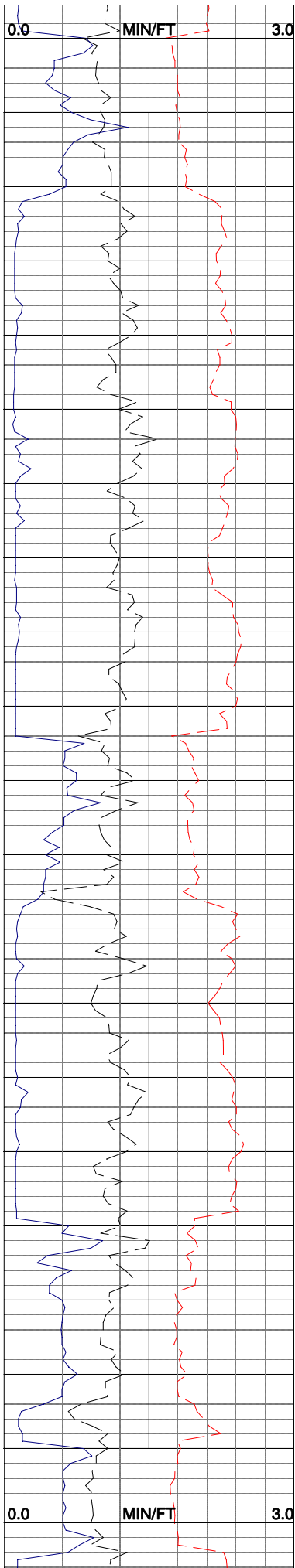
8.9/58



8.9/58

9.1/56

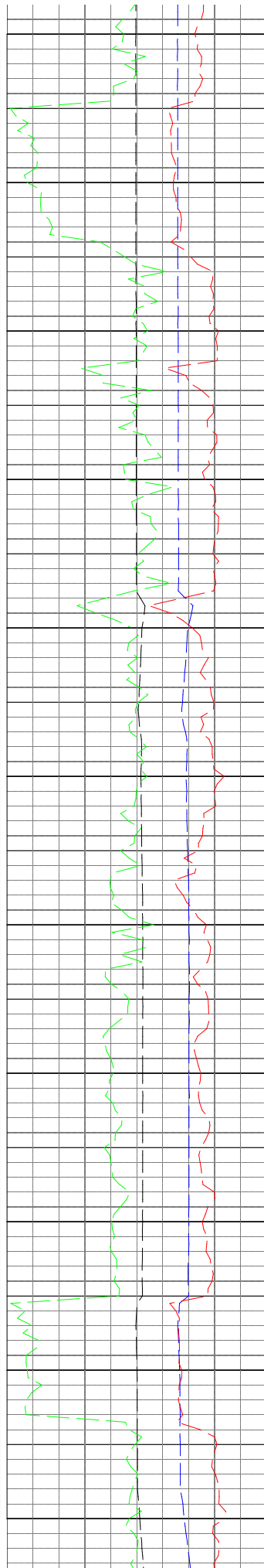
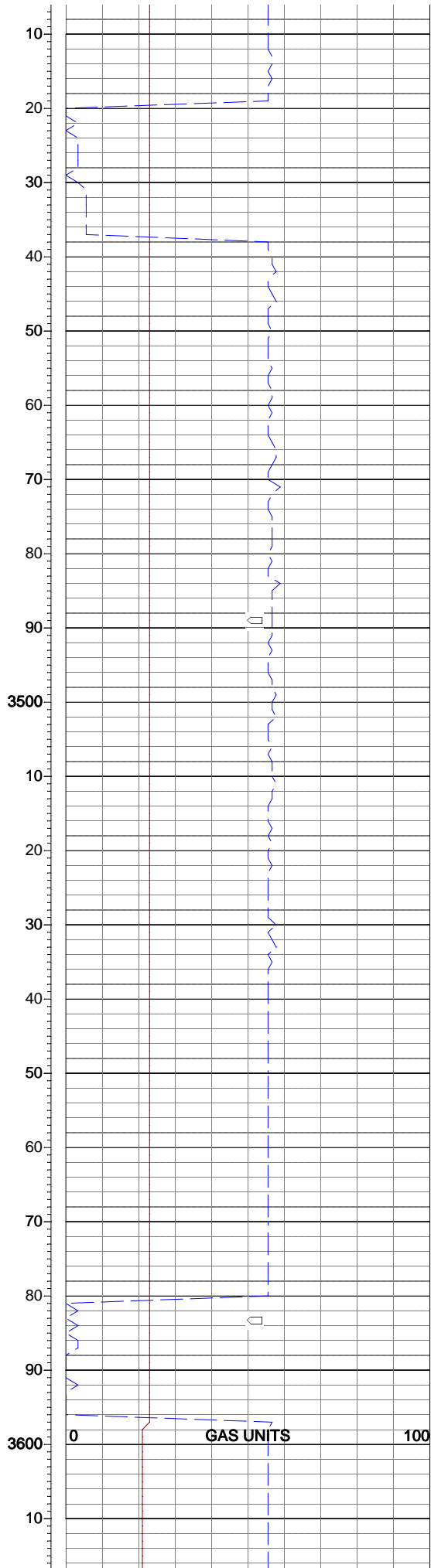
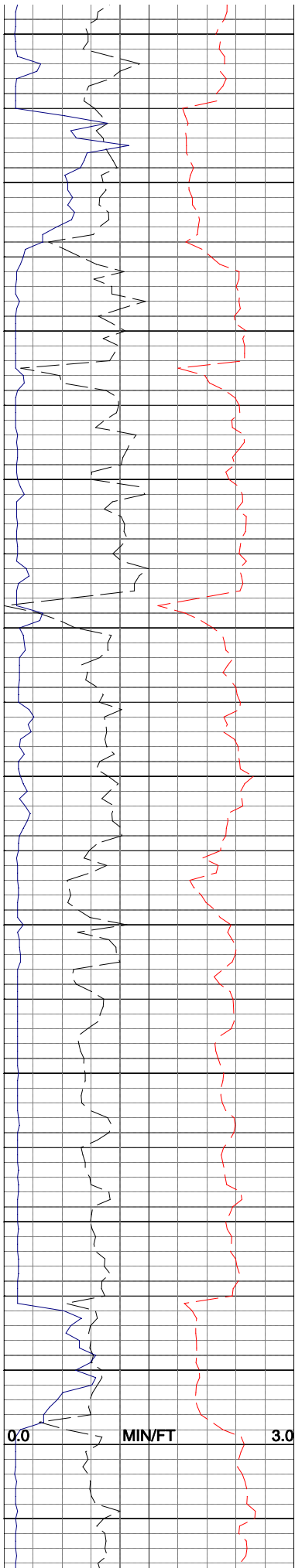


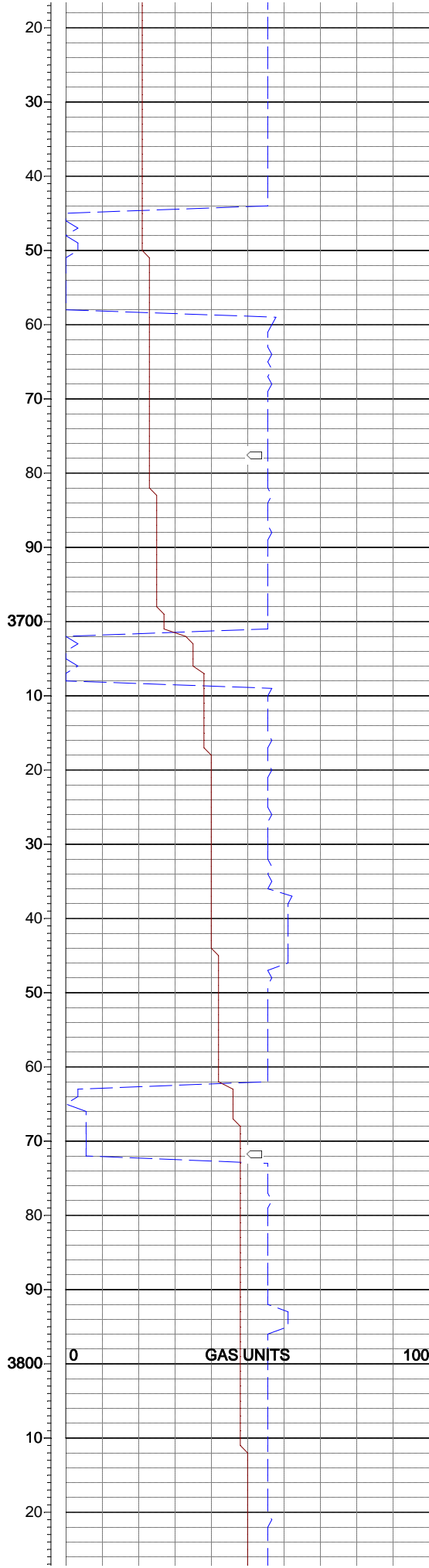
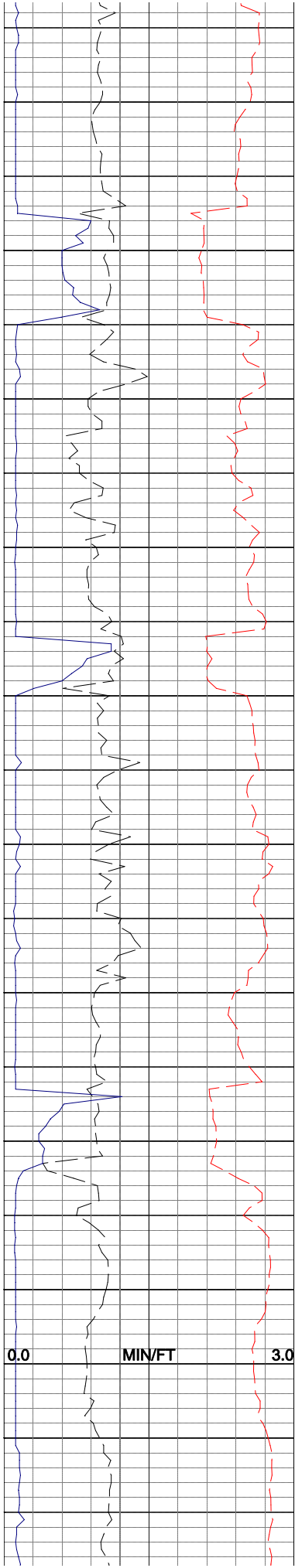


9.1/56

9.1/56

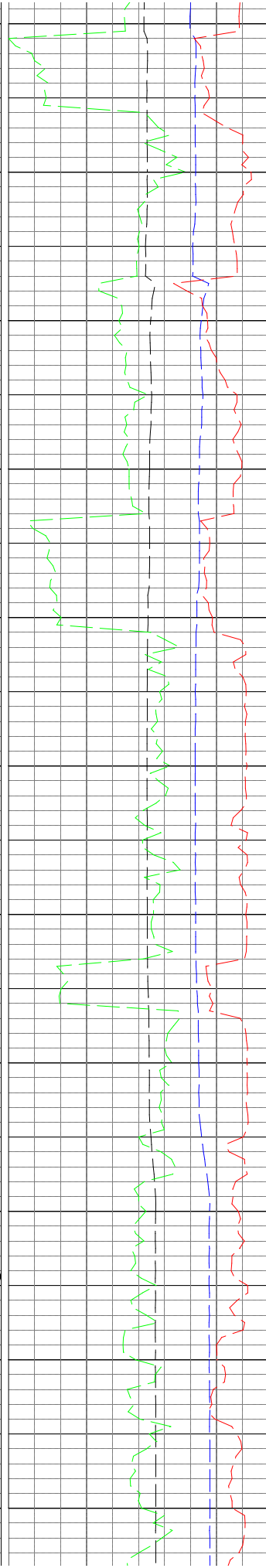
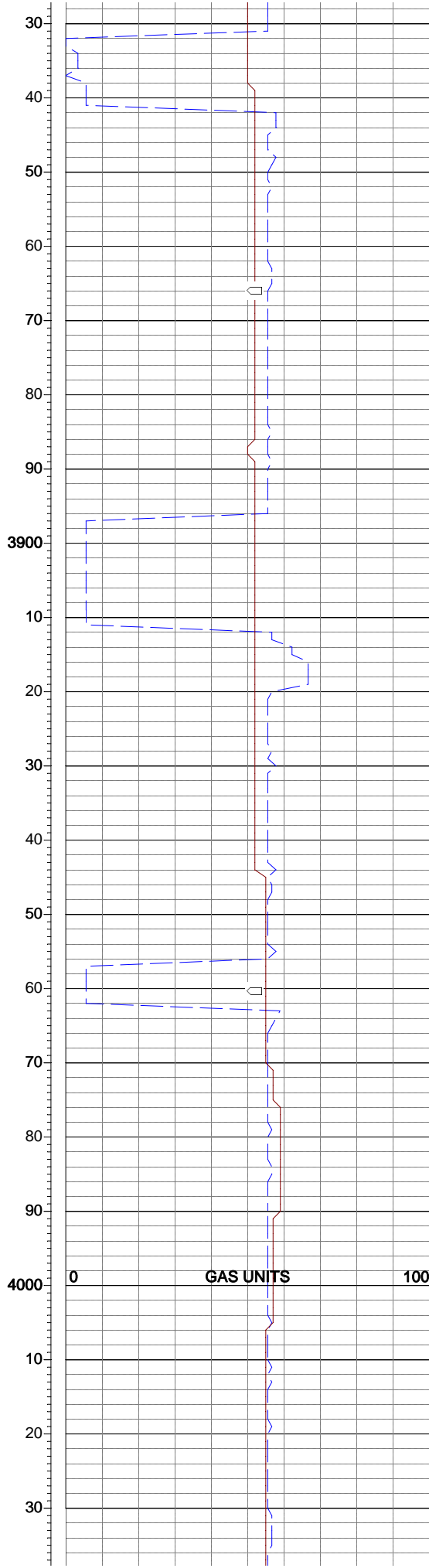
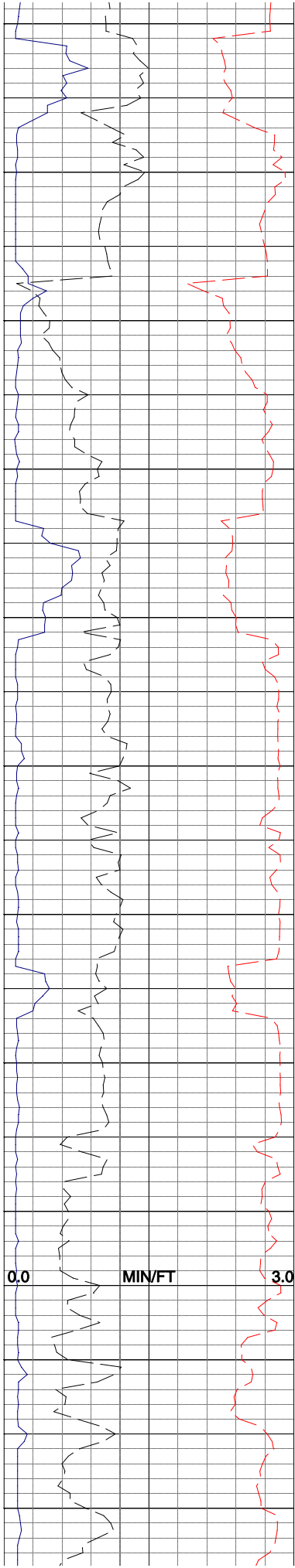
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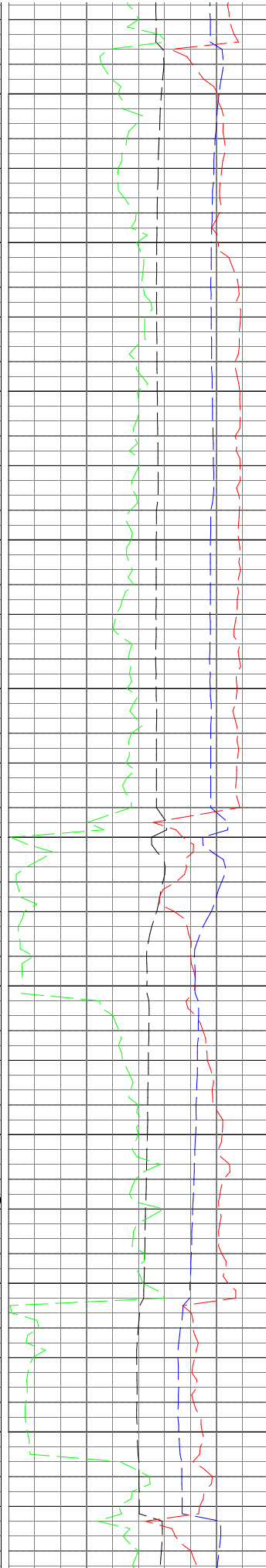
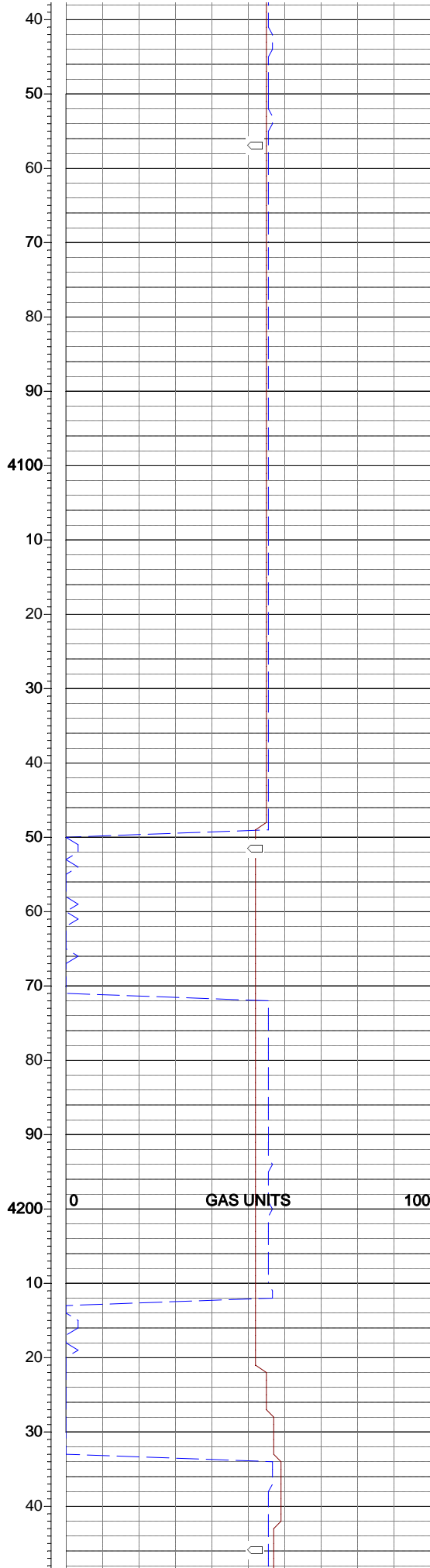
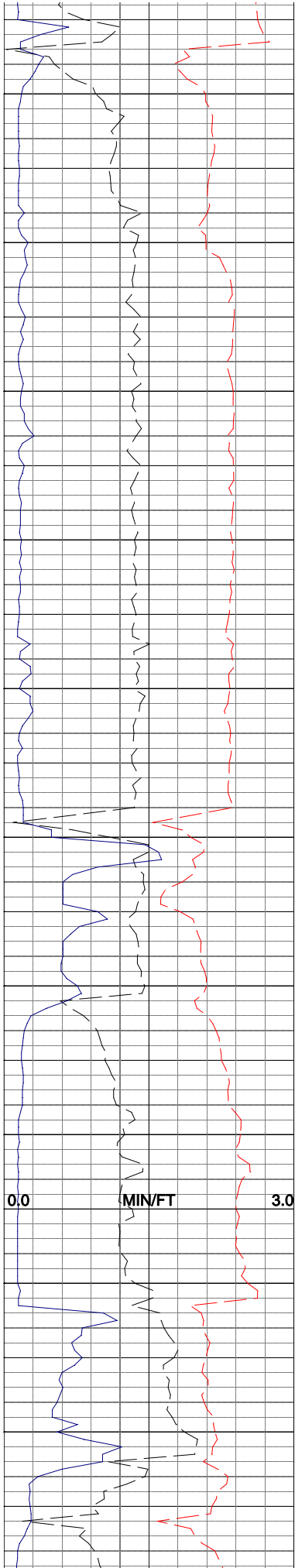
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9.1/56



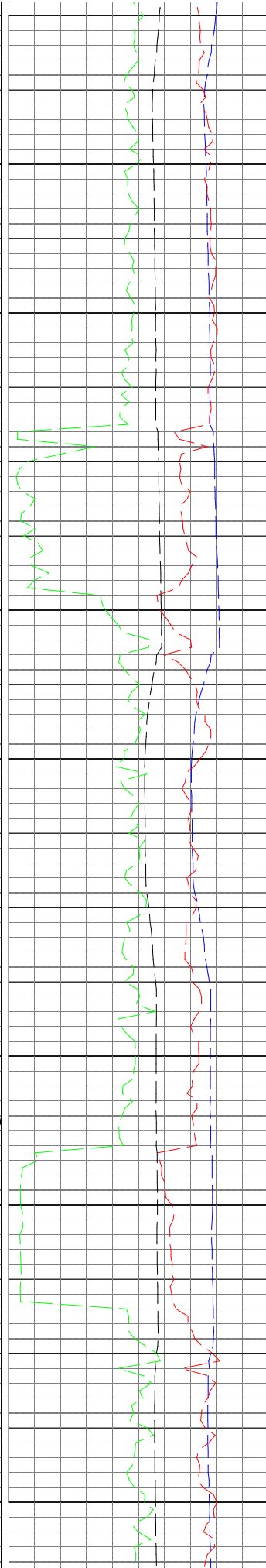
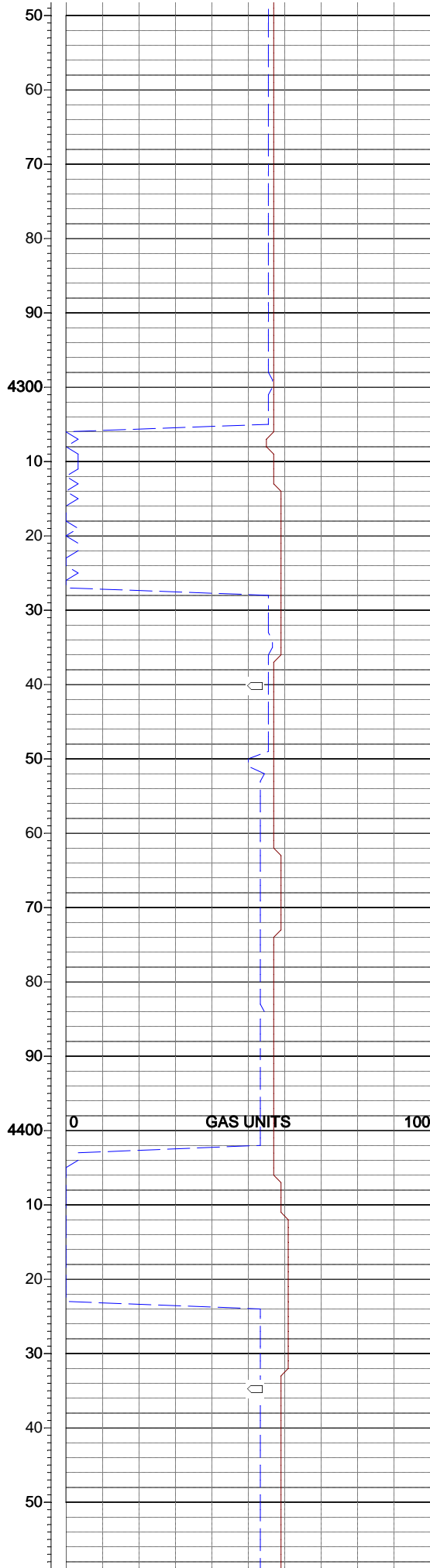
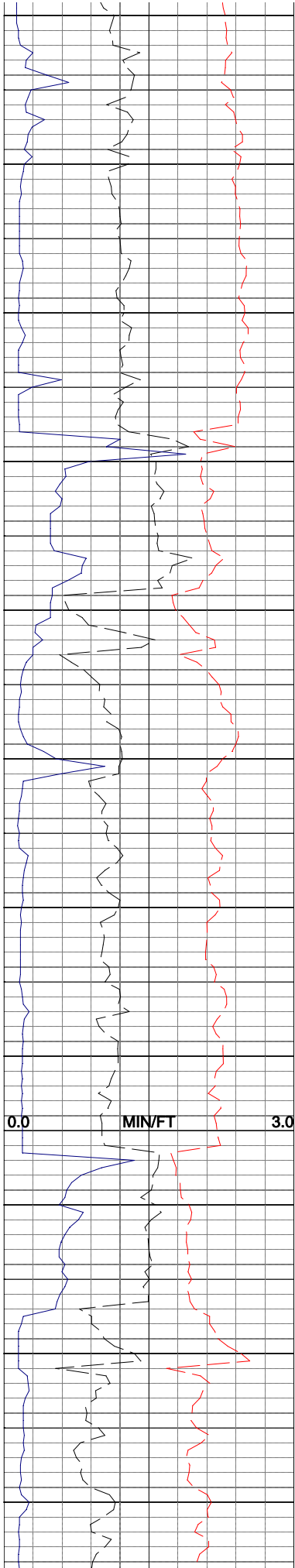
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9.3/61



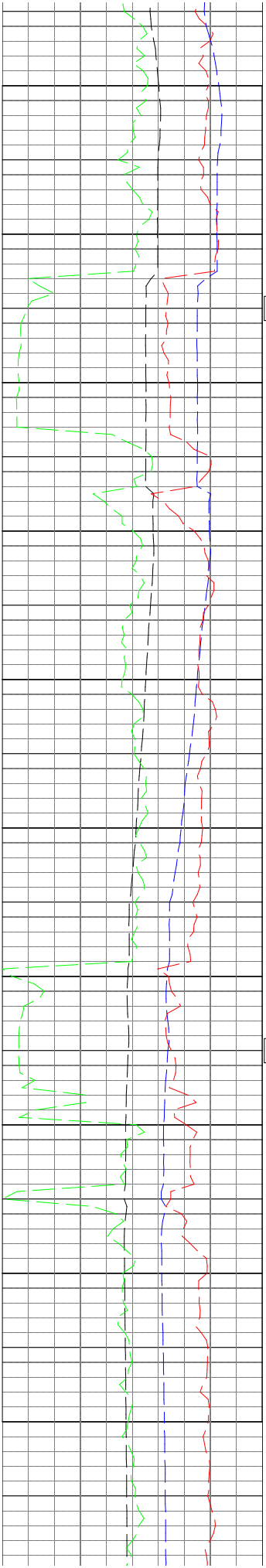
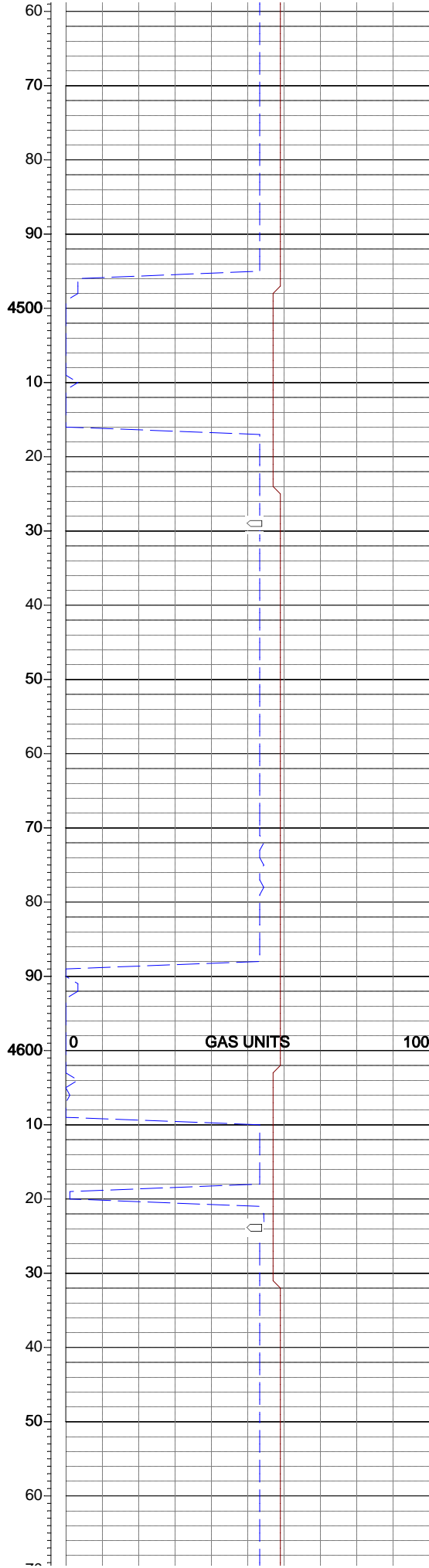
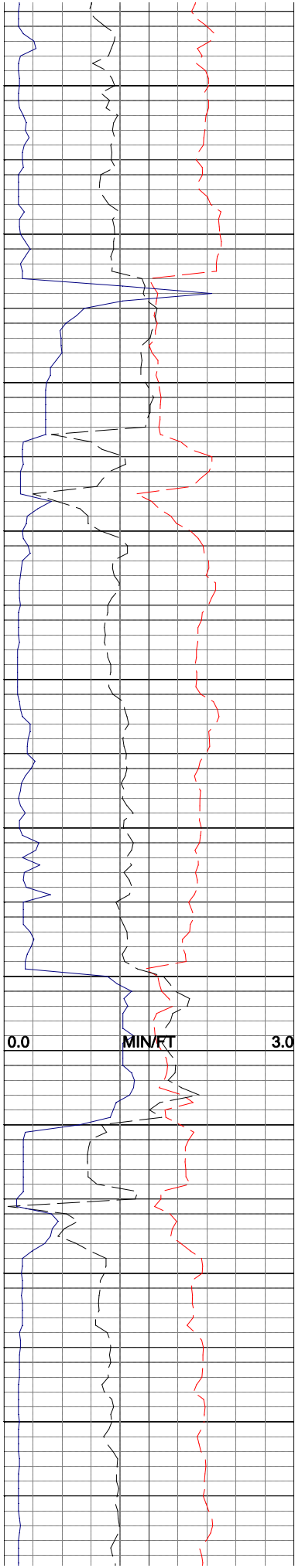
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9.3/61



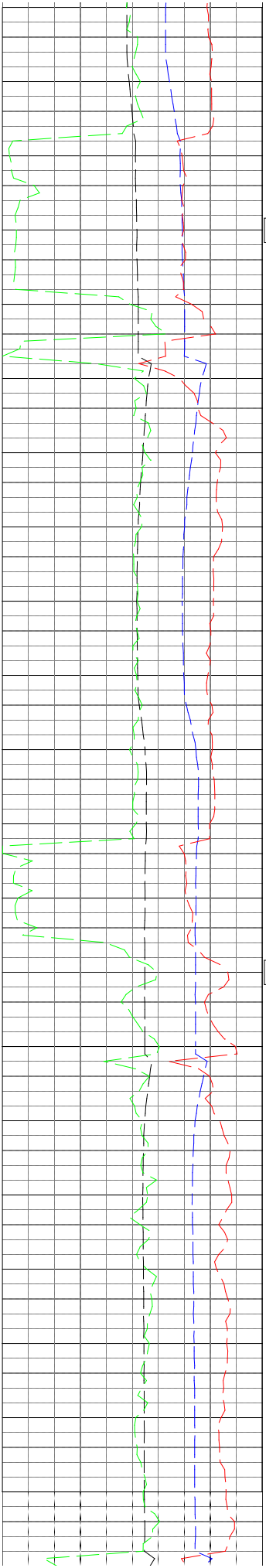
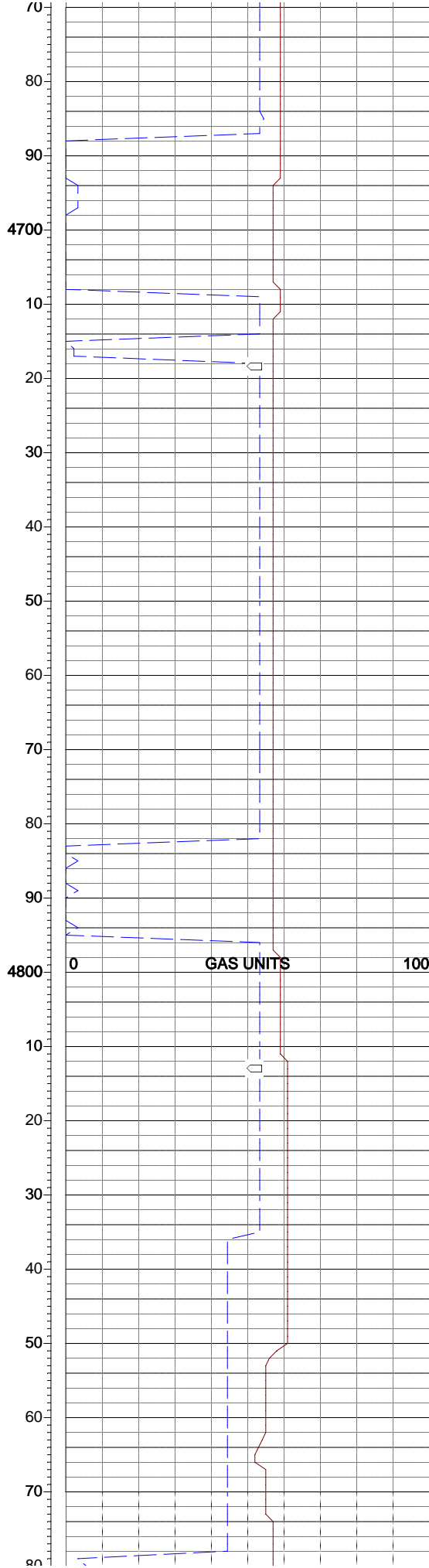
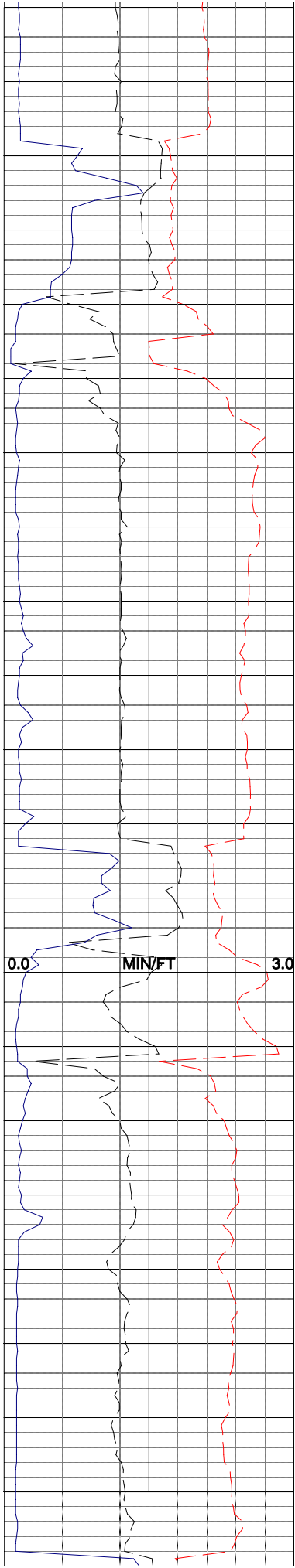
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9.3/50



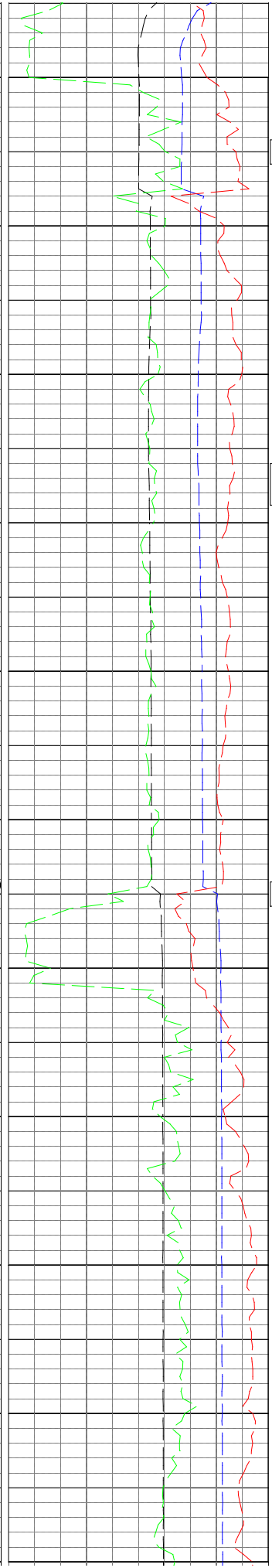
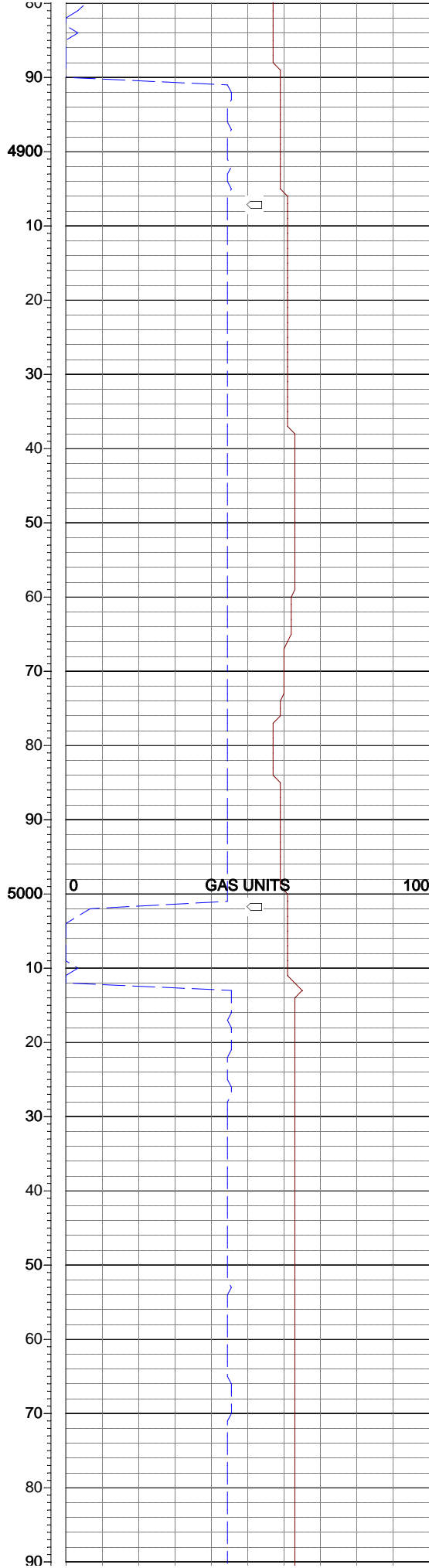
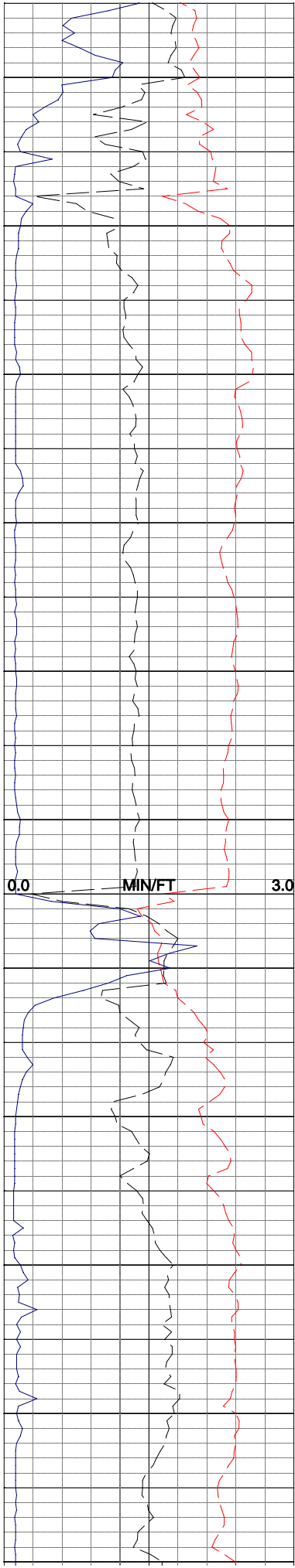
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9.3/65



9.3/65

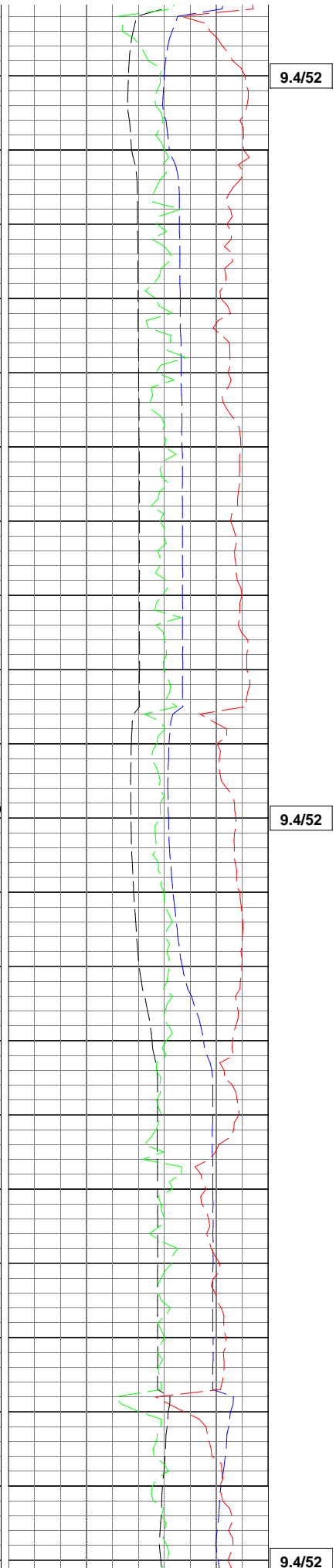
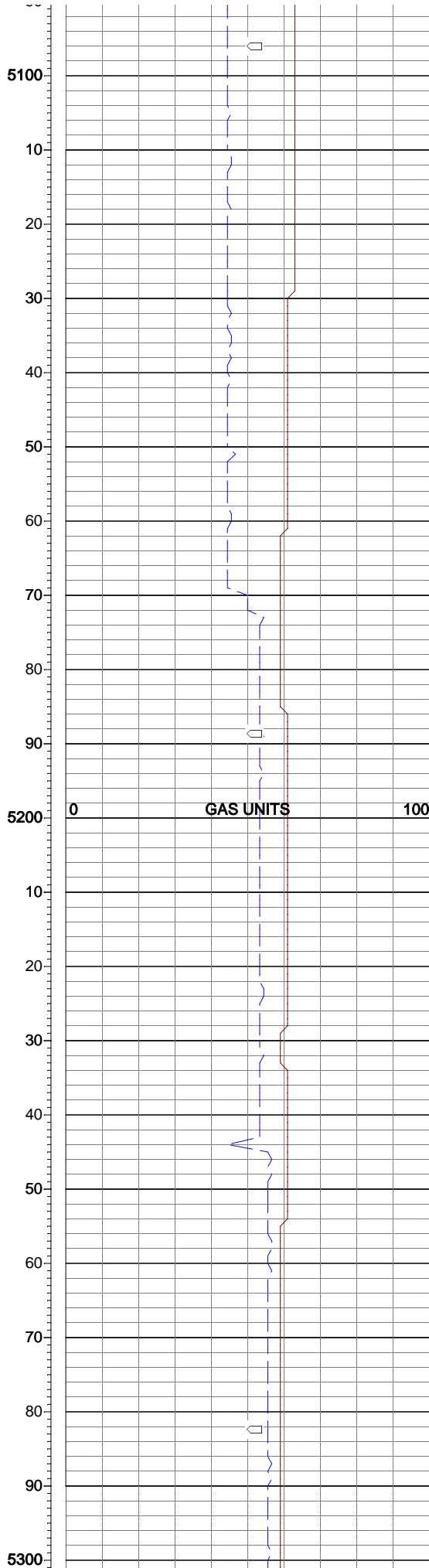
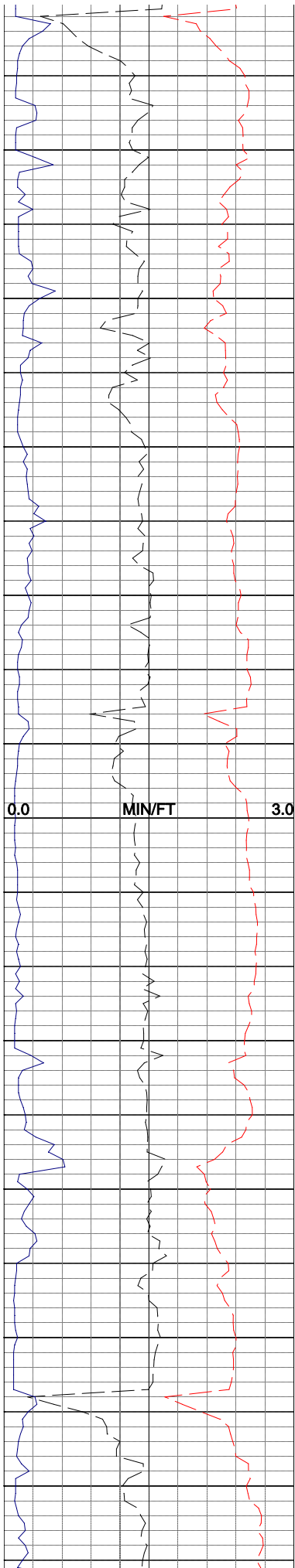
9.3/65



9.4/52

PROG "G" SAND
= 4945' MD

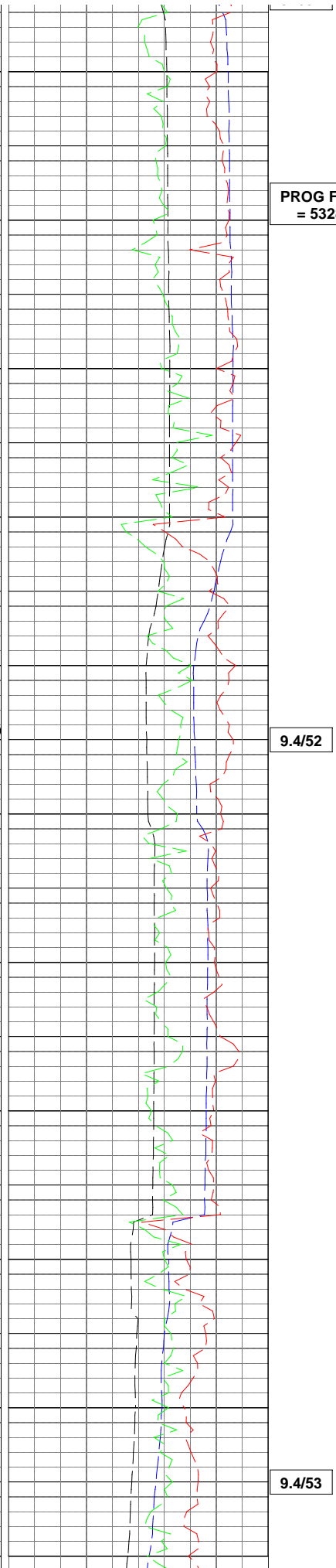
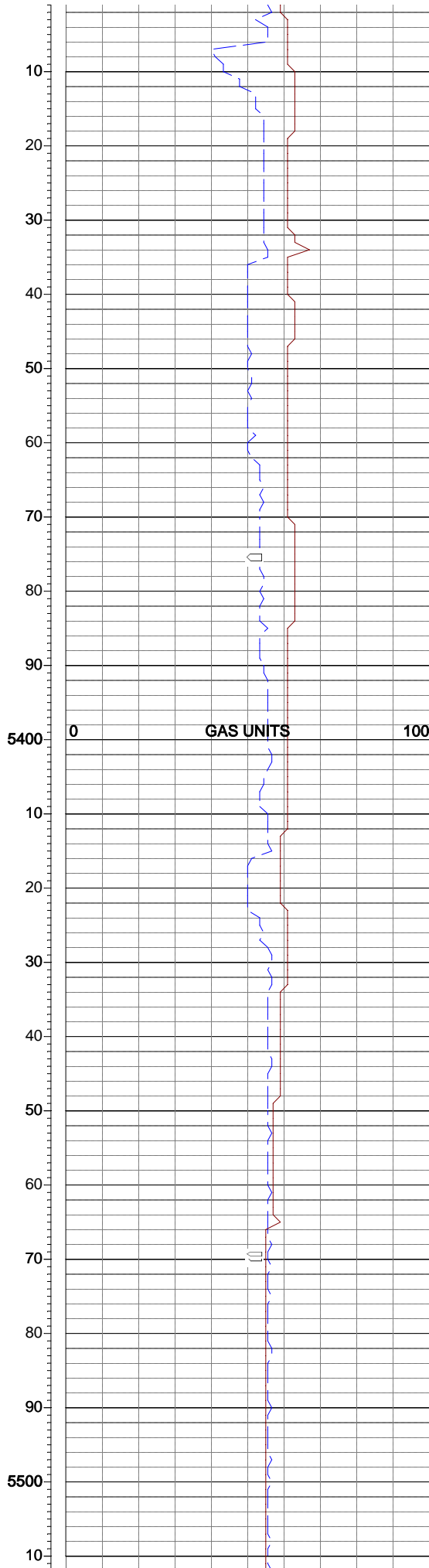
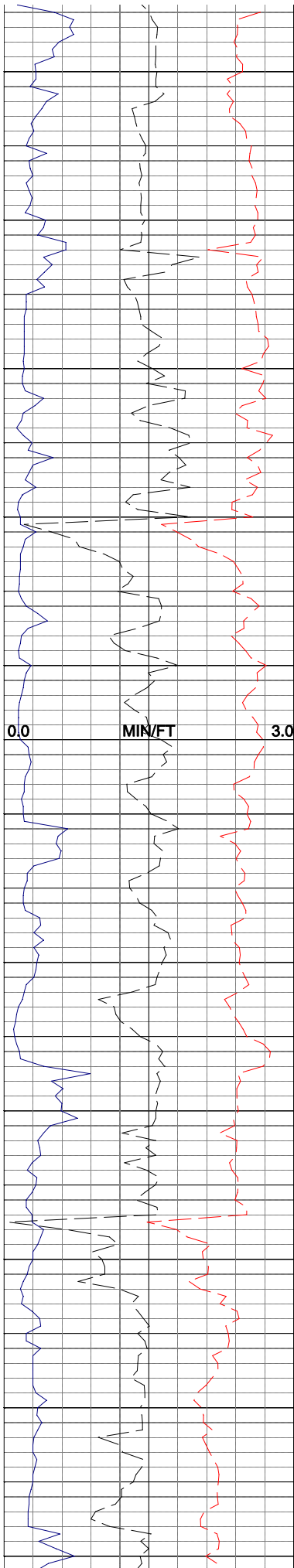
9.4/52



9.4/52

9.4/52

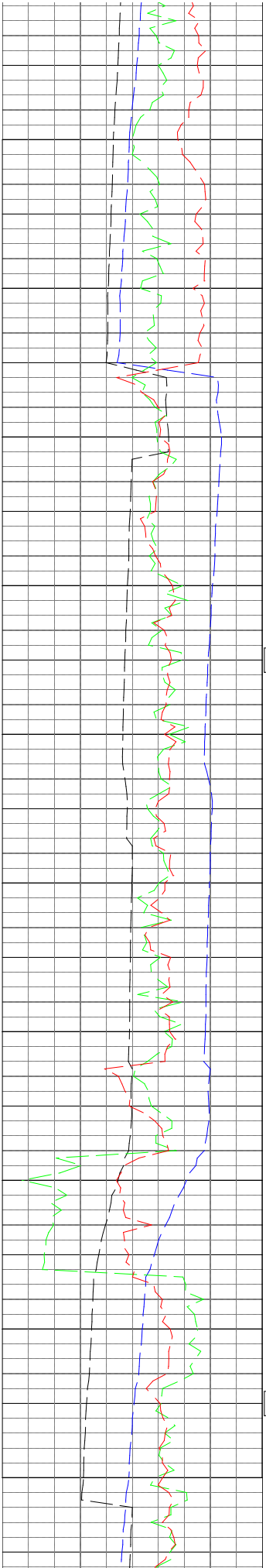
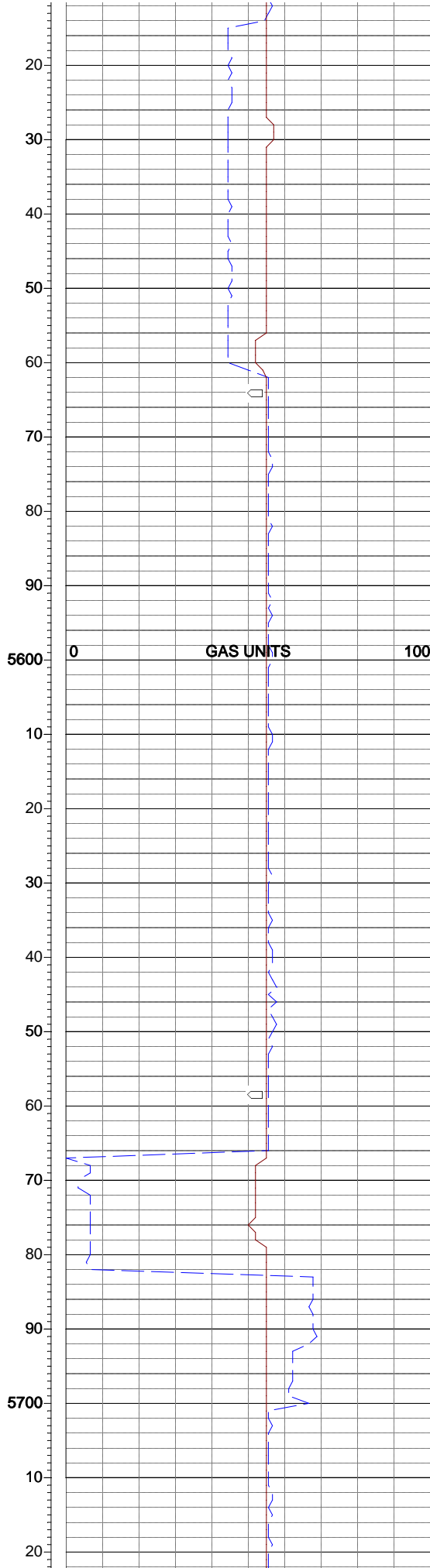
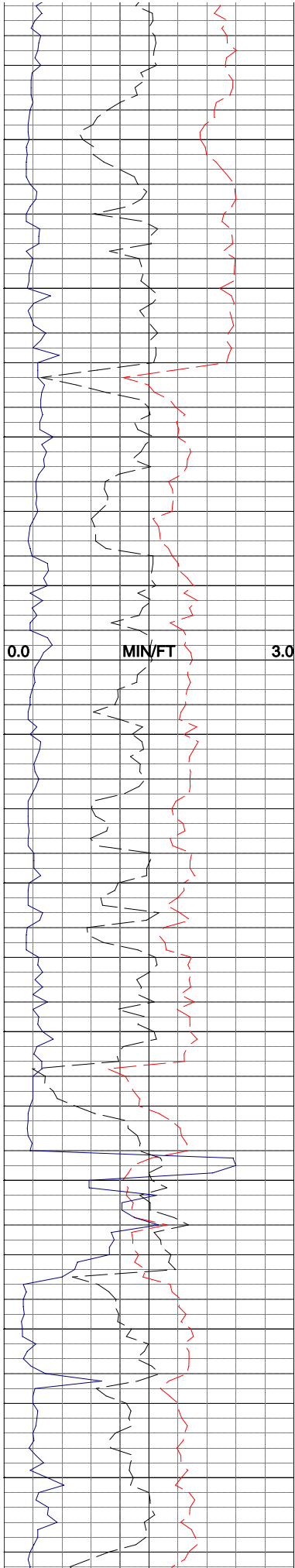
9.4/52



PROG FORT UNION
= 5328' MD

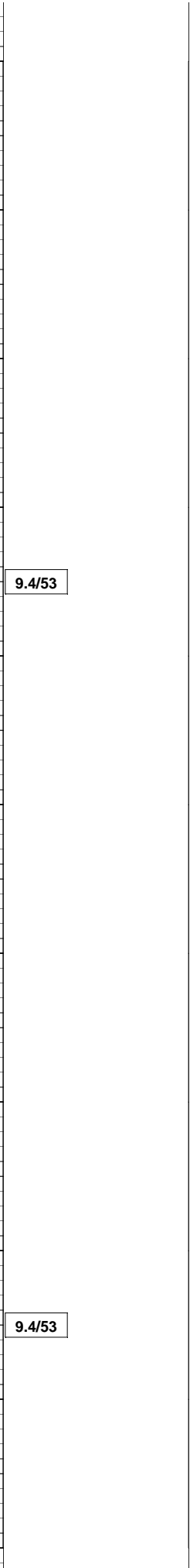
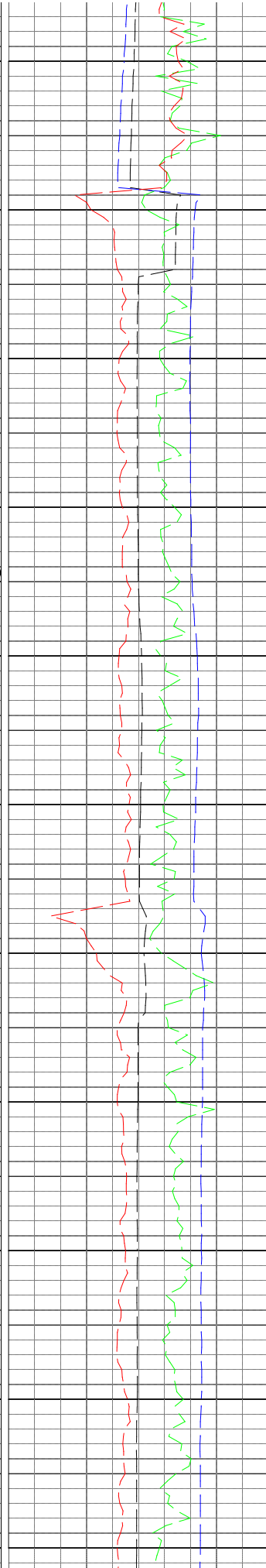
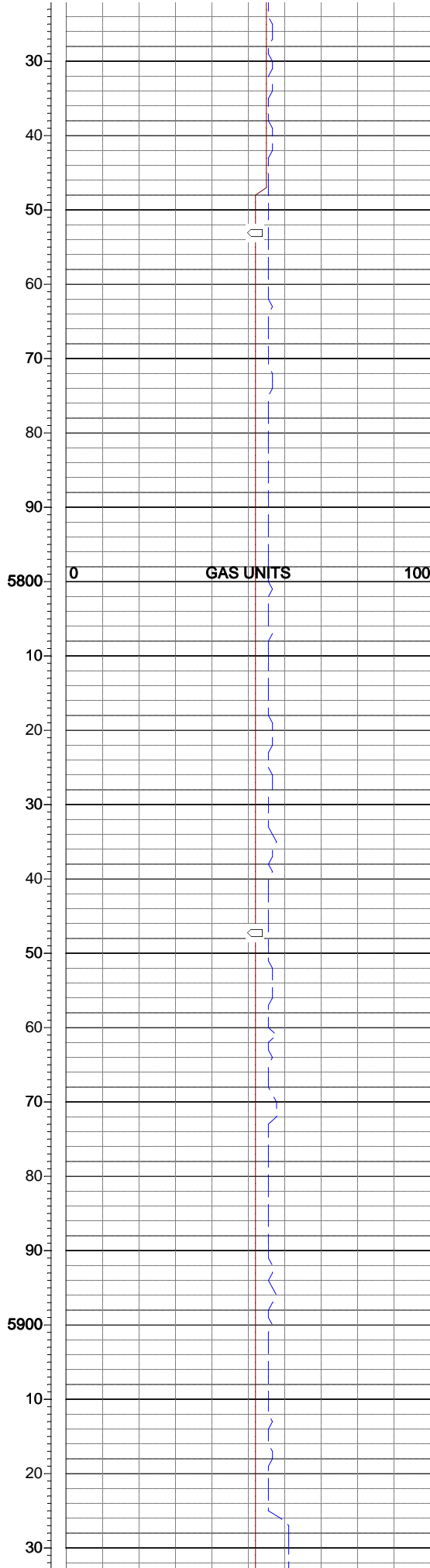
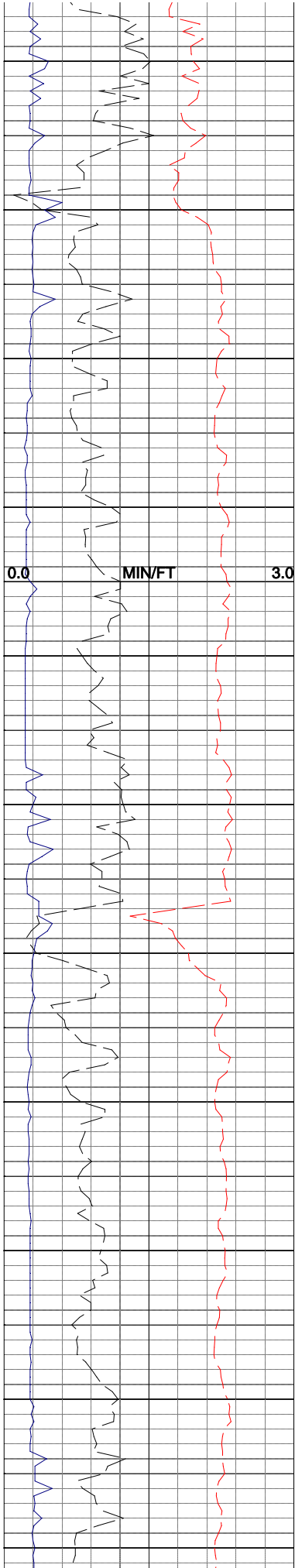
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9.4/53



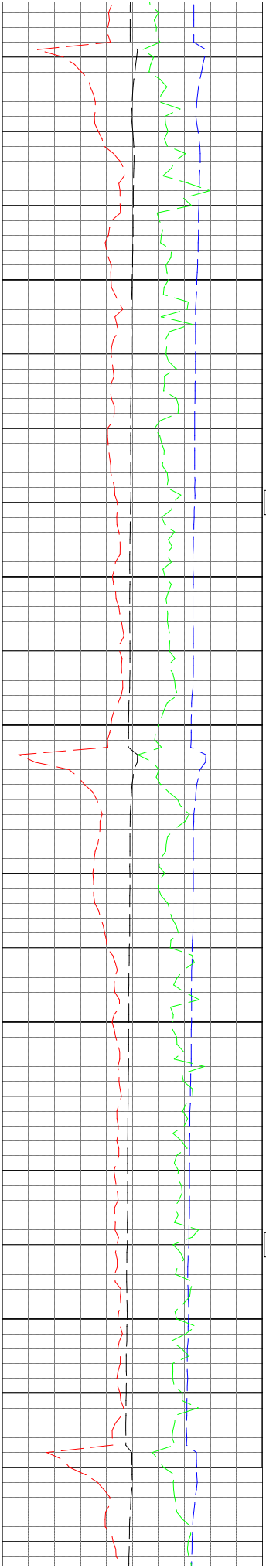
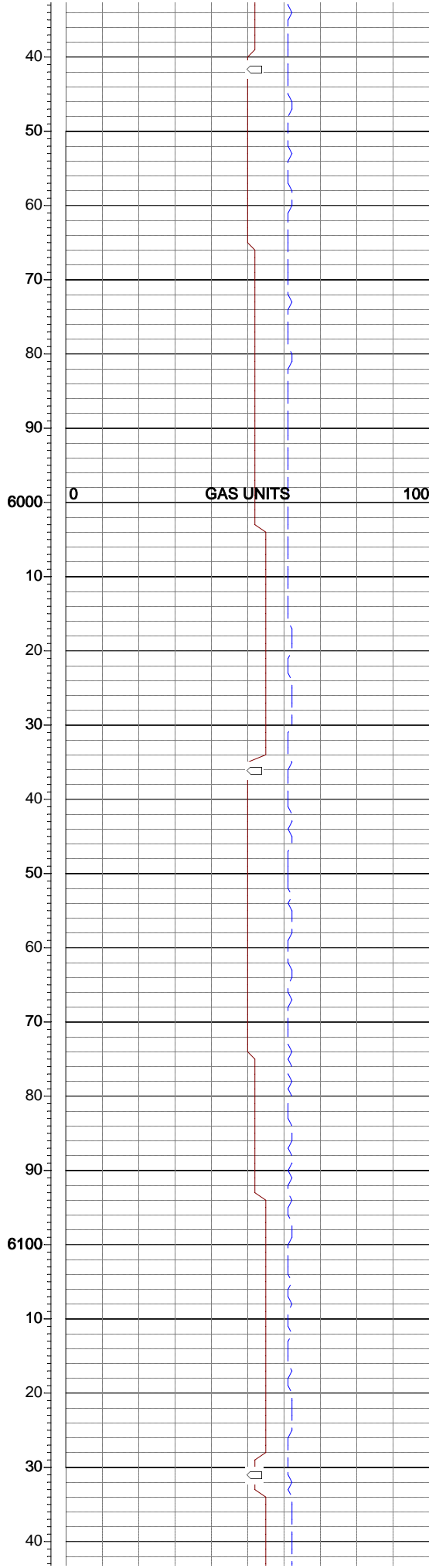
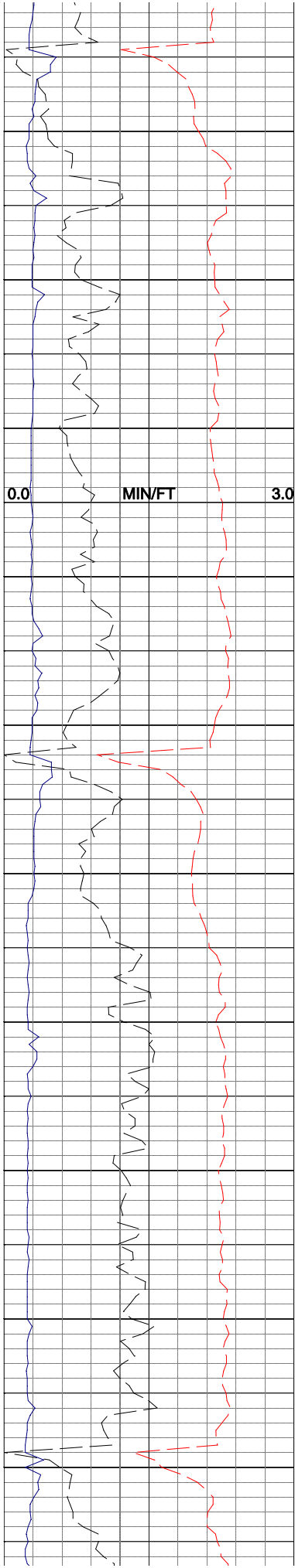
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9.4/53



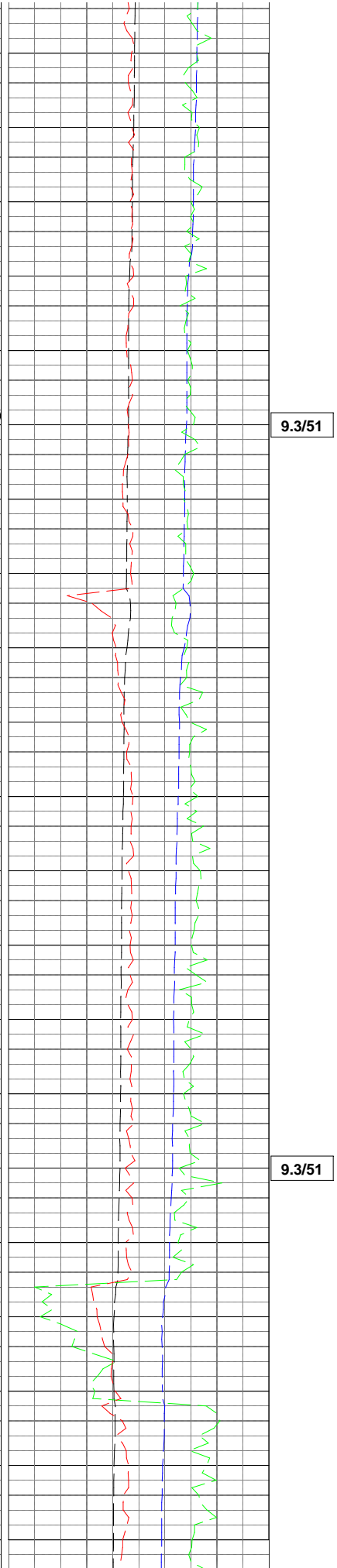
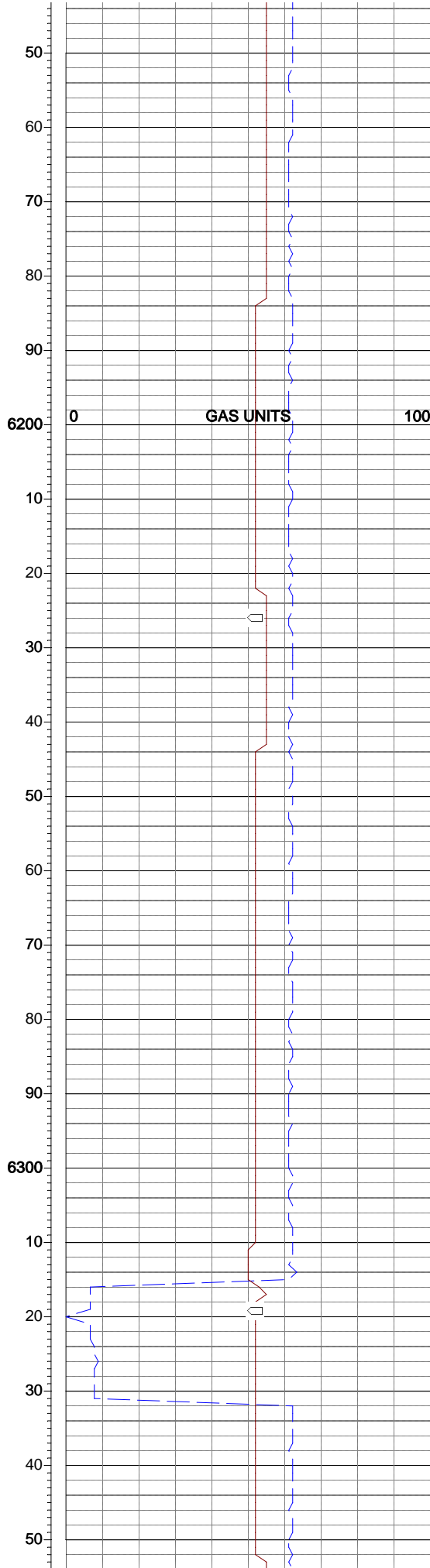
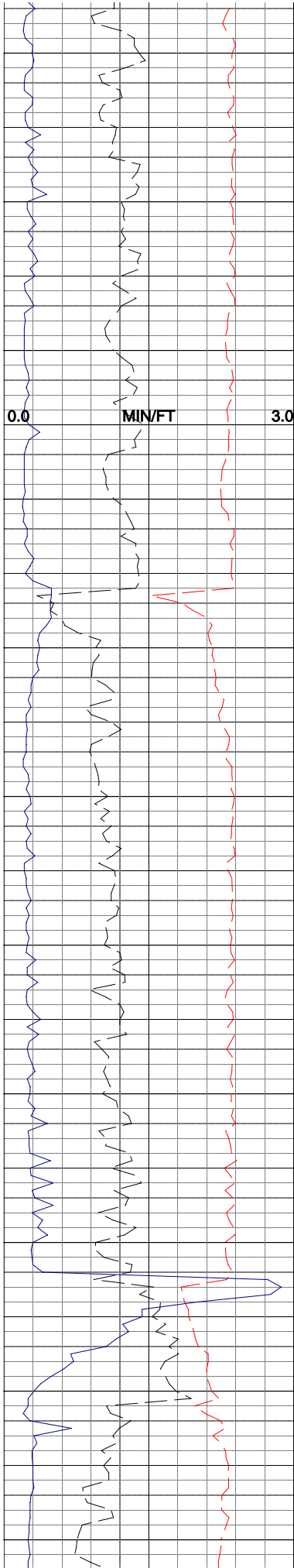
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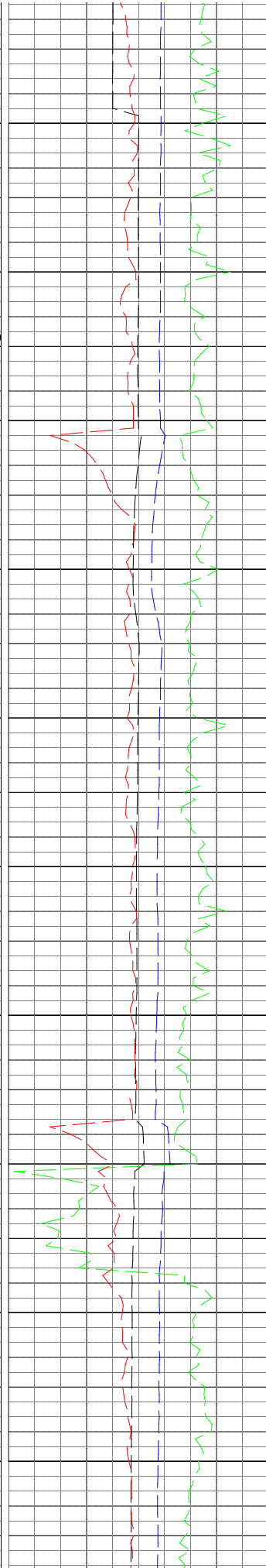
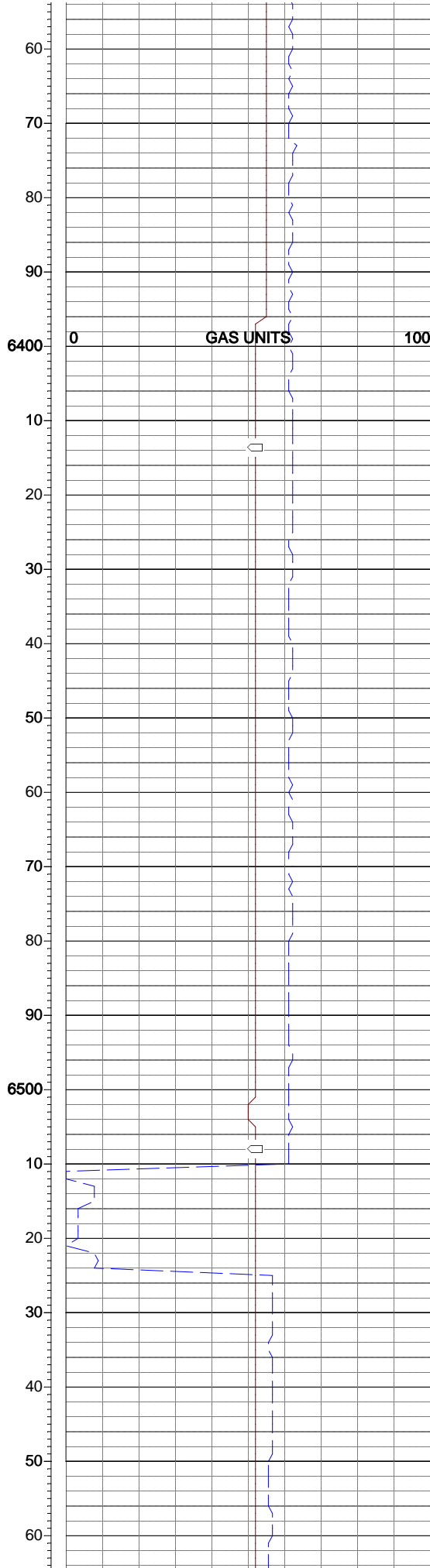
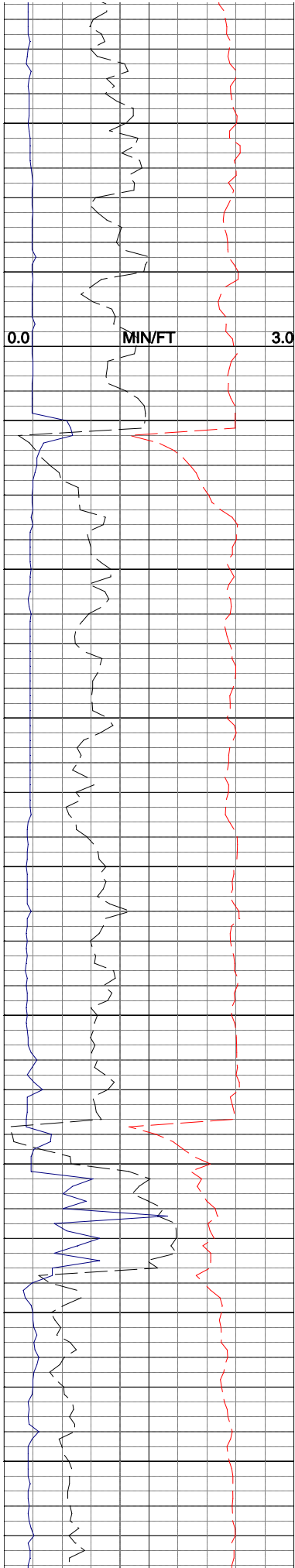
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9.3/51

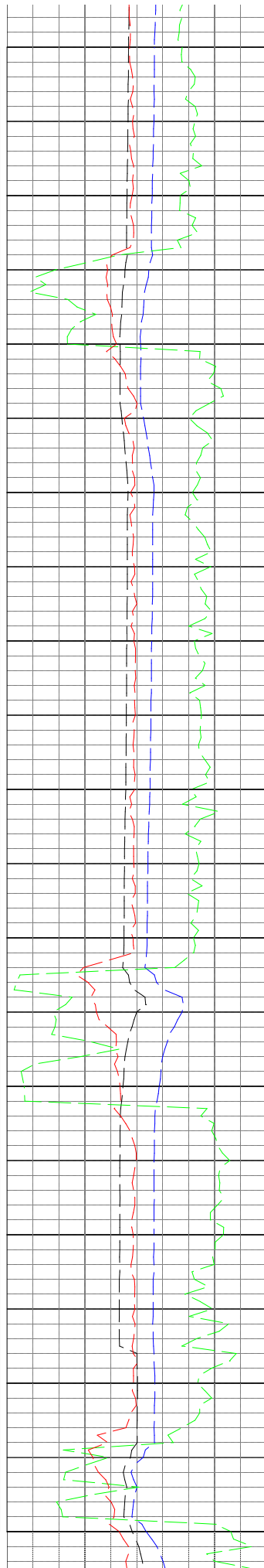
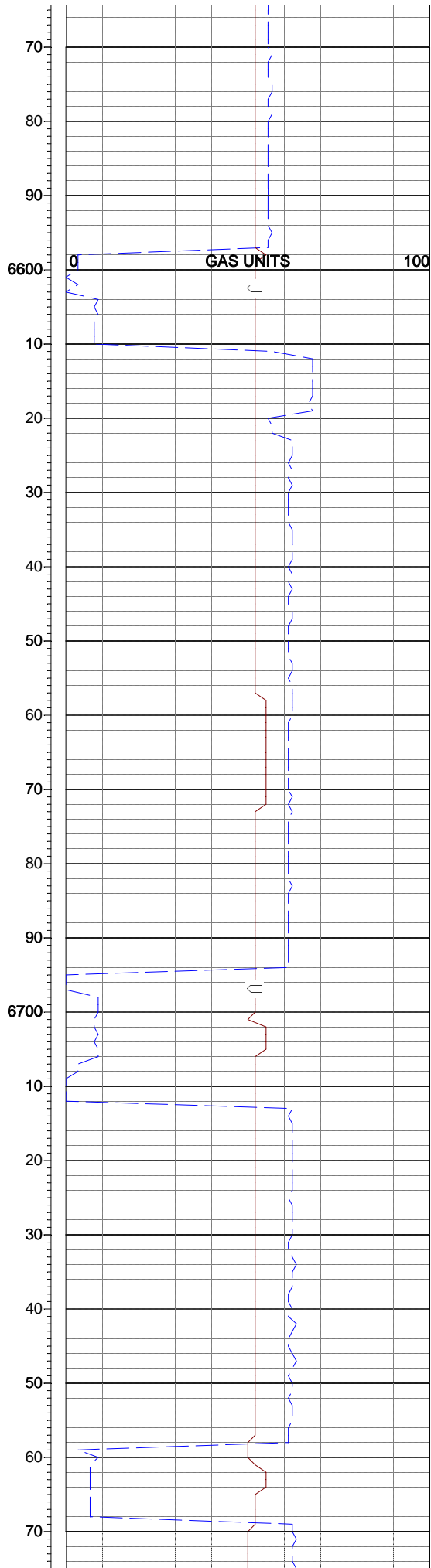
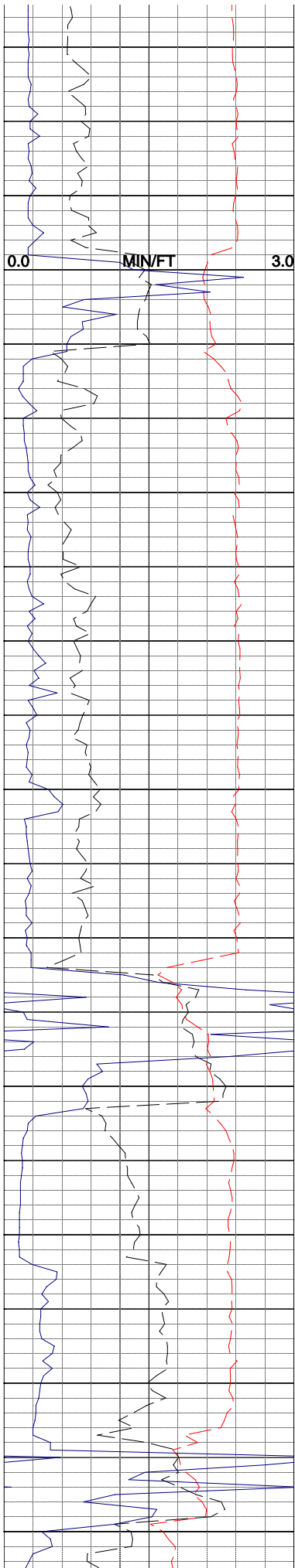
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9.3/55

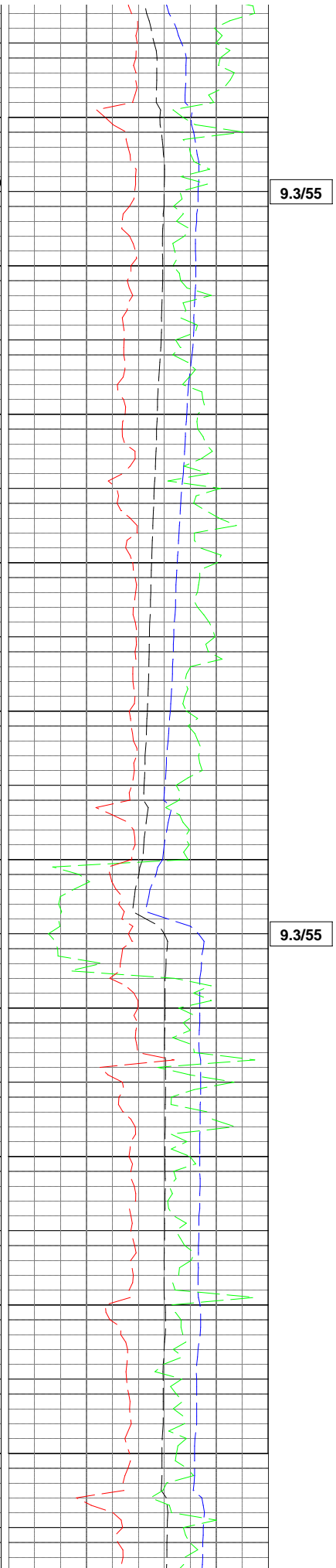
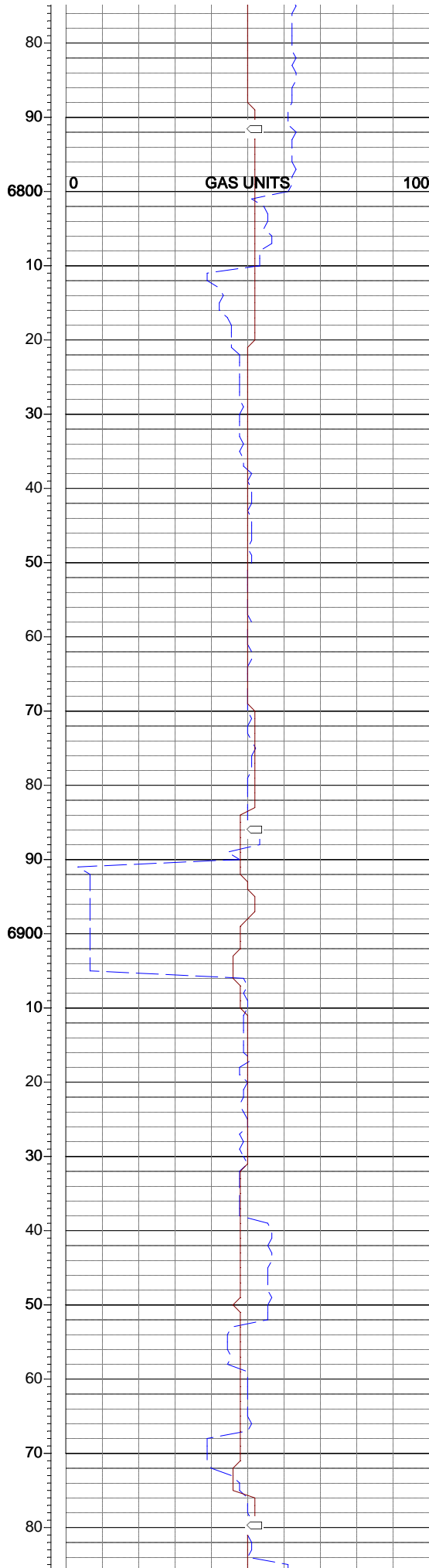
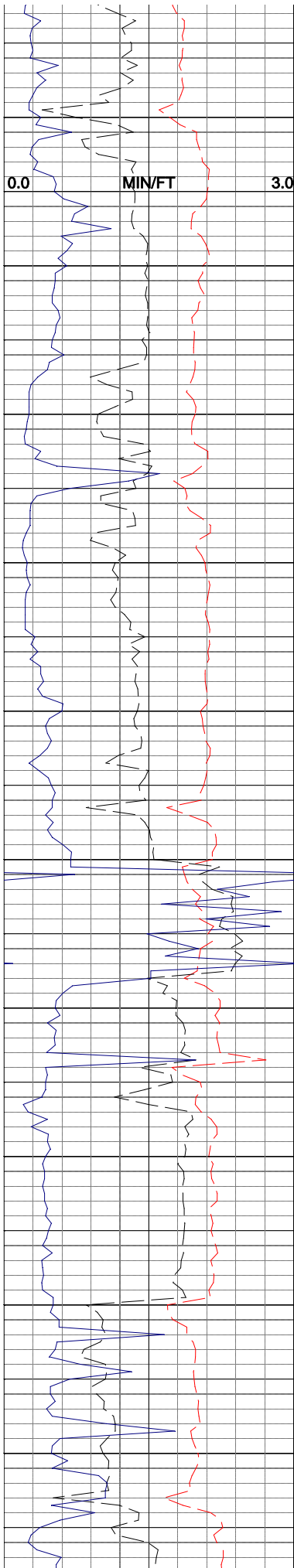
9.3/55

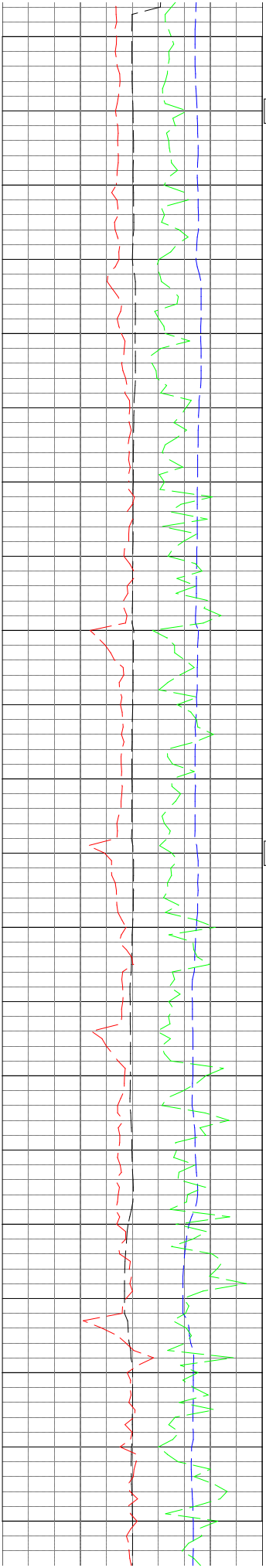
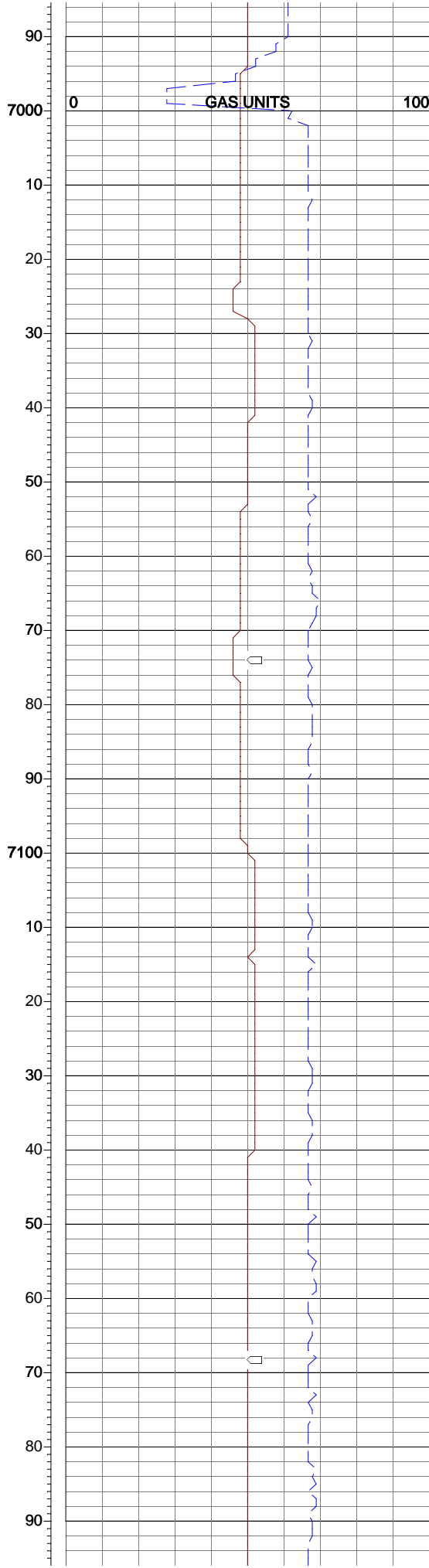
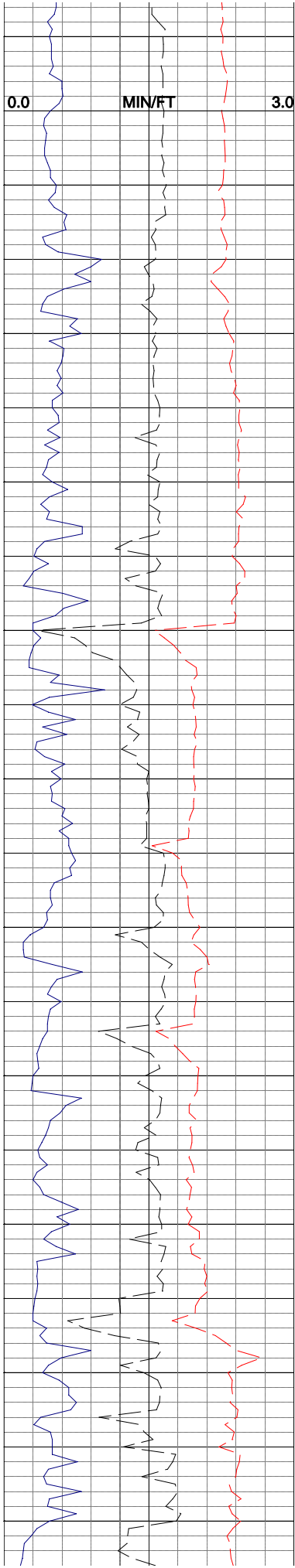


9.3/55

9.3/55

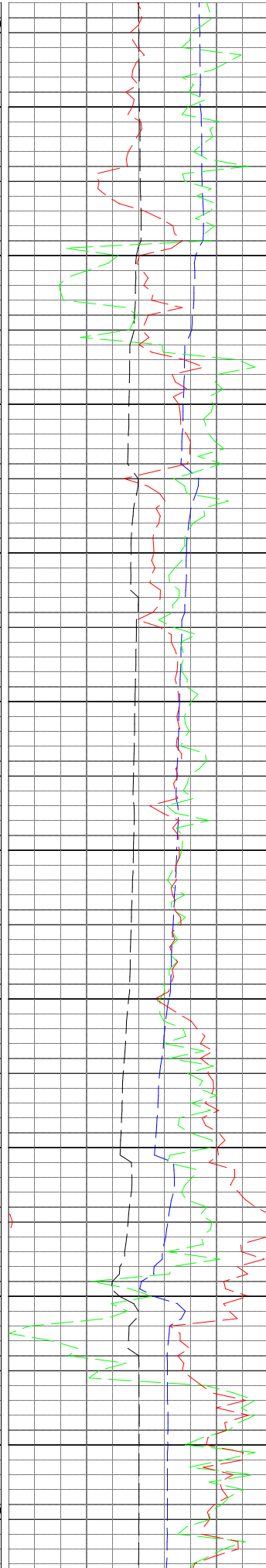
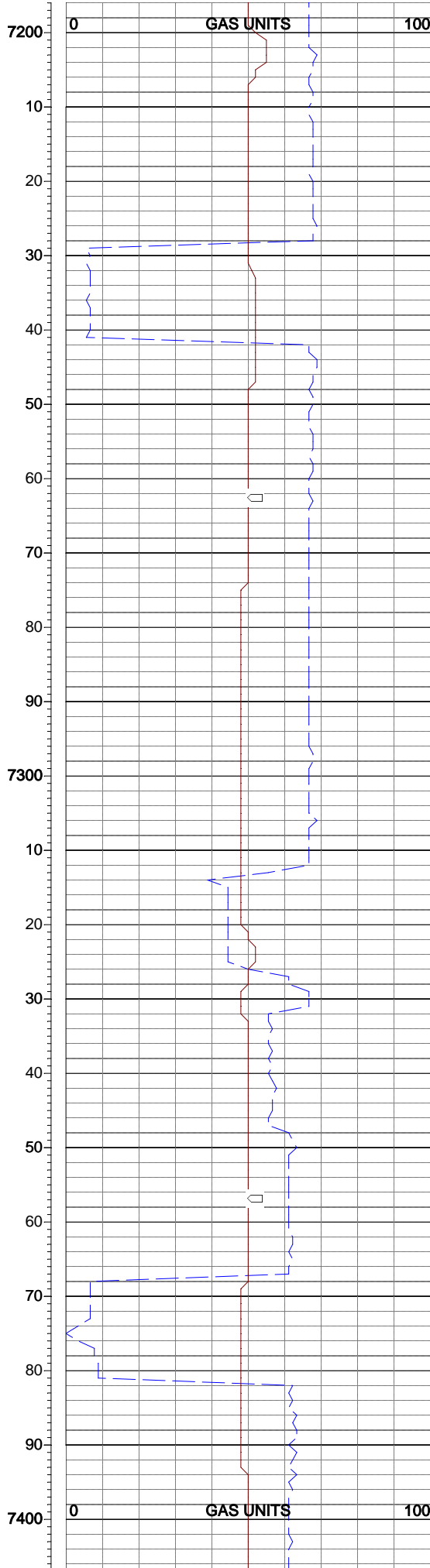
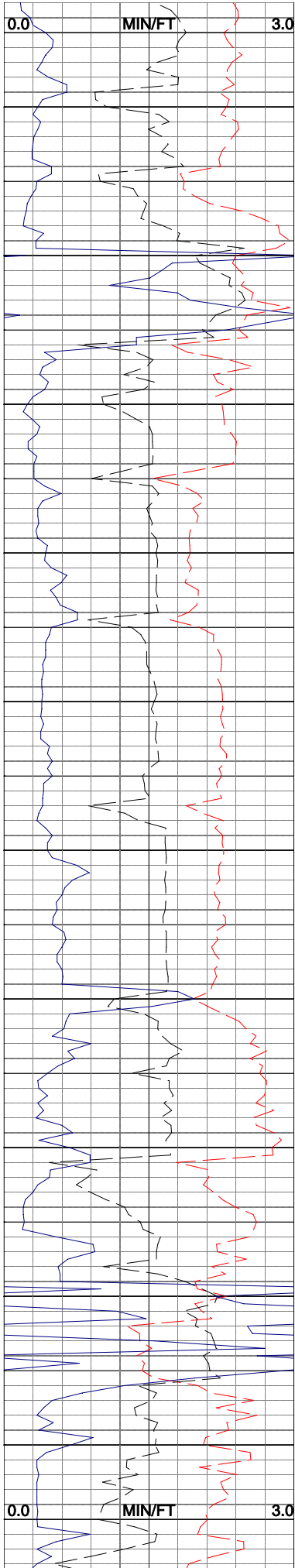
PROG MESAVERDE
= 6717' MD





9.3/55

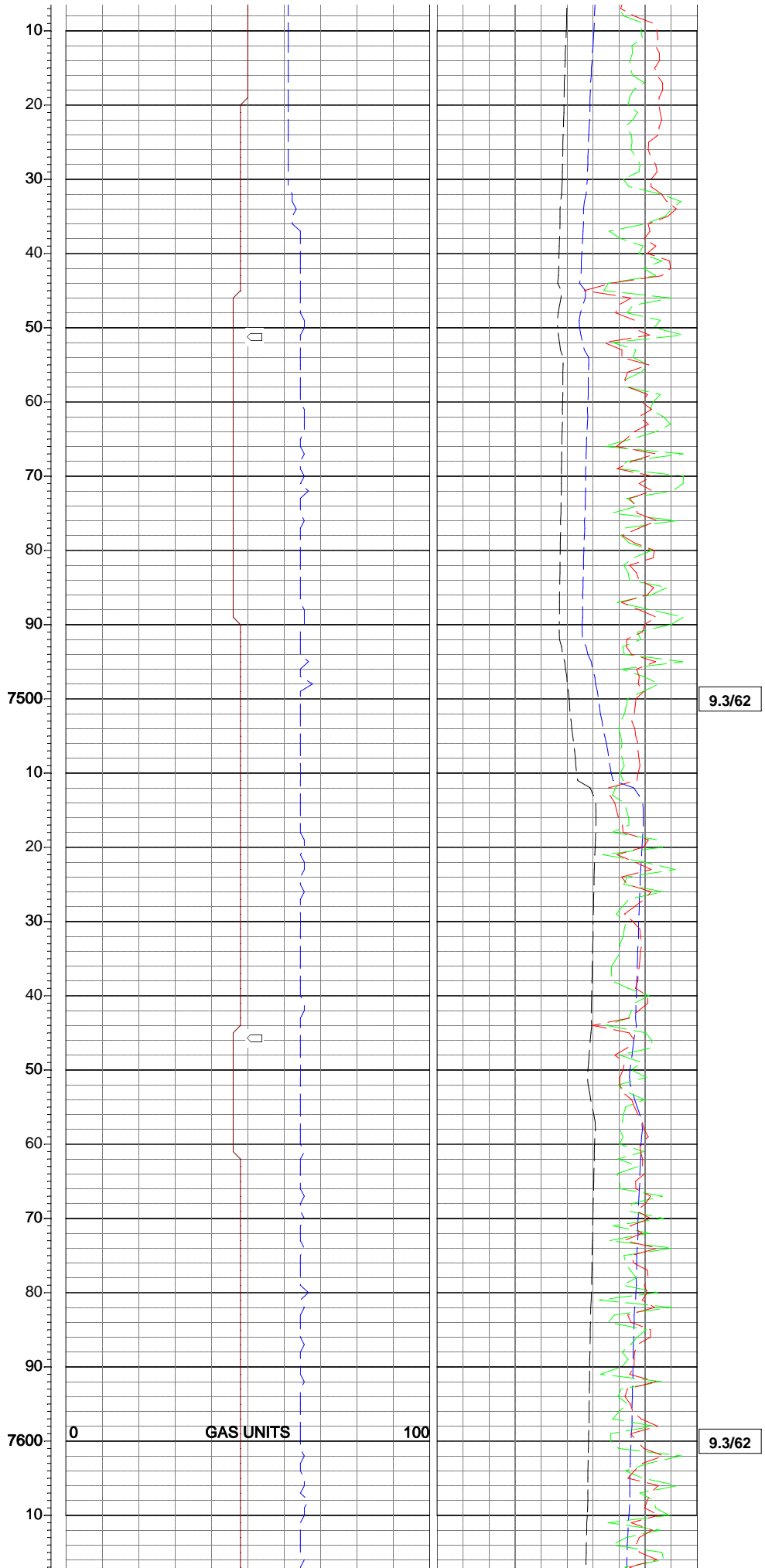
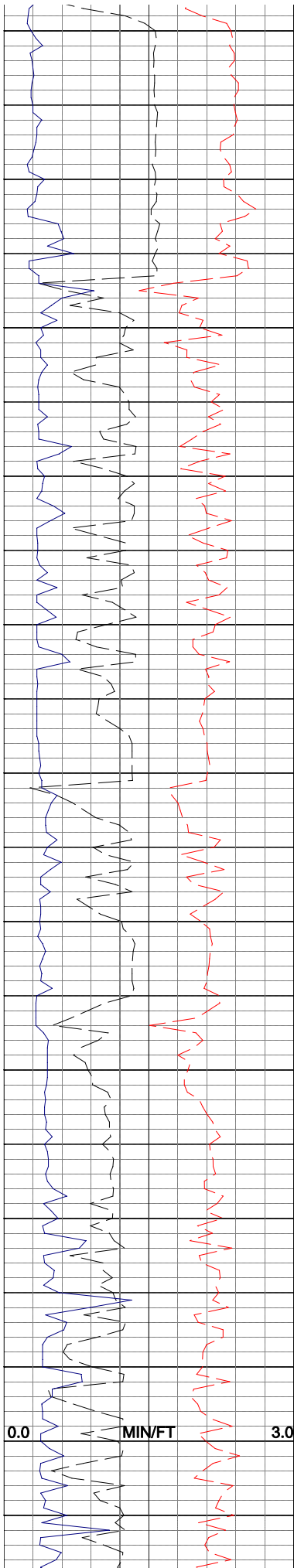
9.3/55

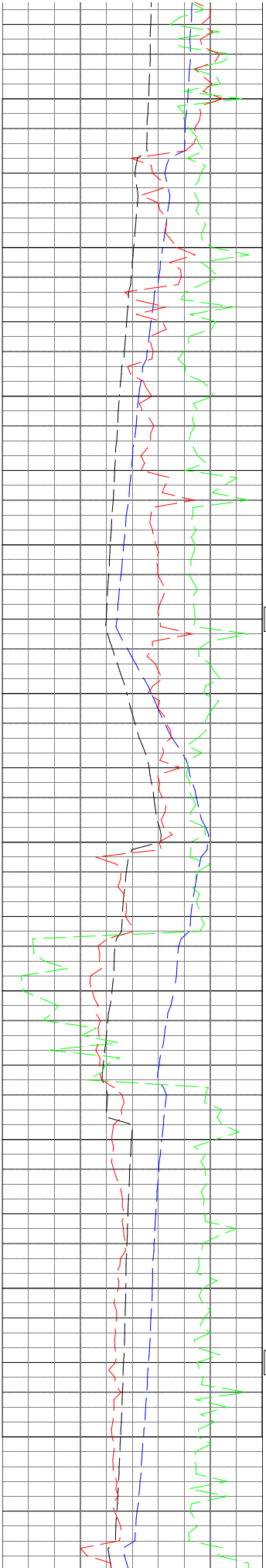
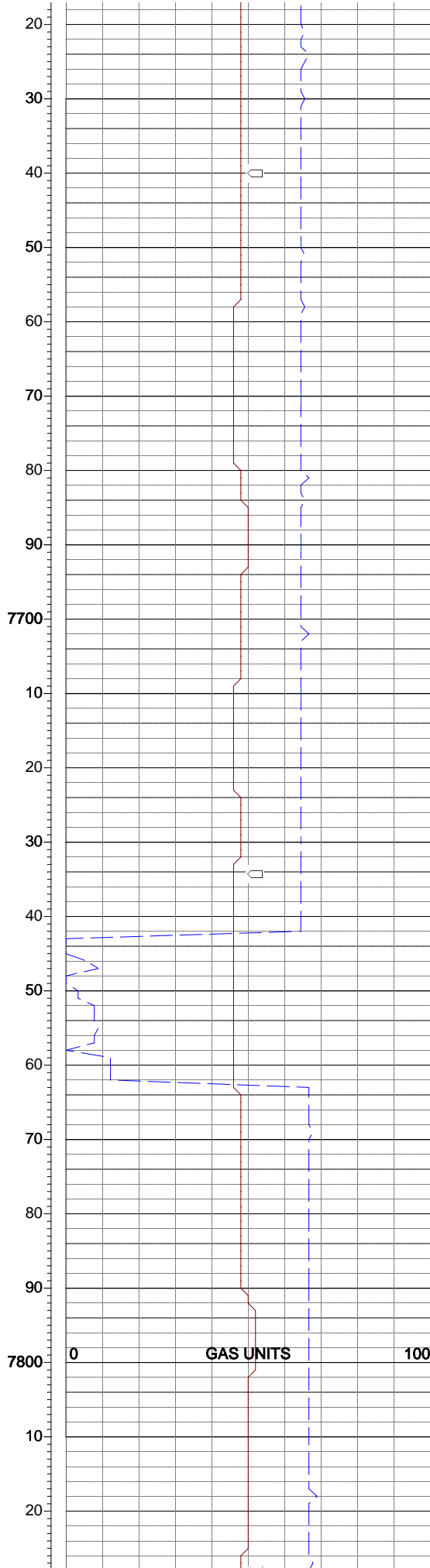
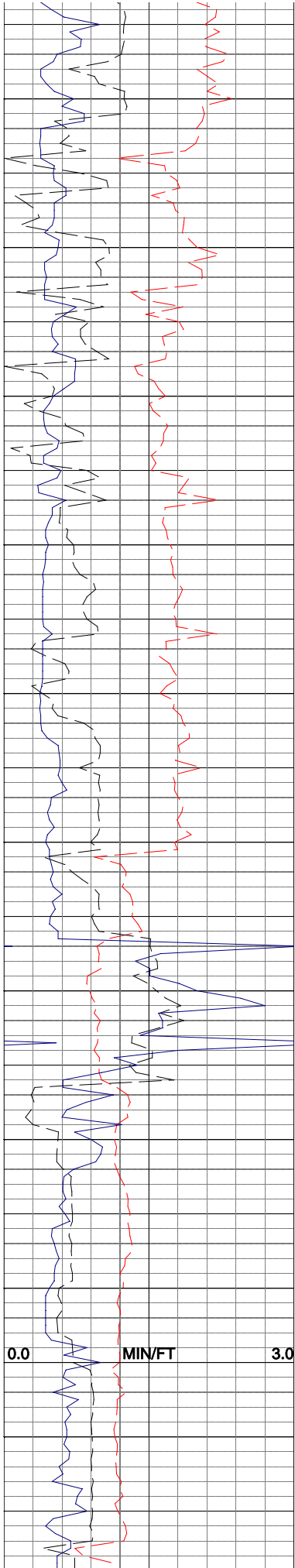


9.3/62

9.3/62

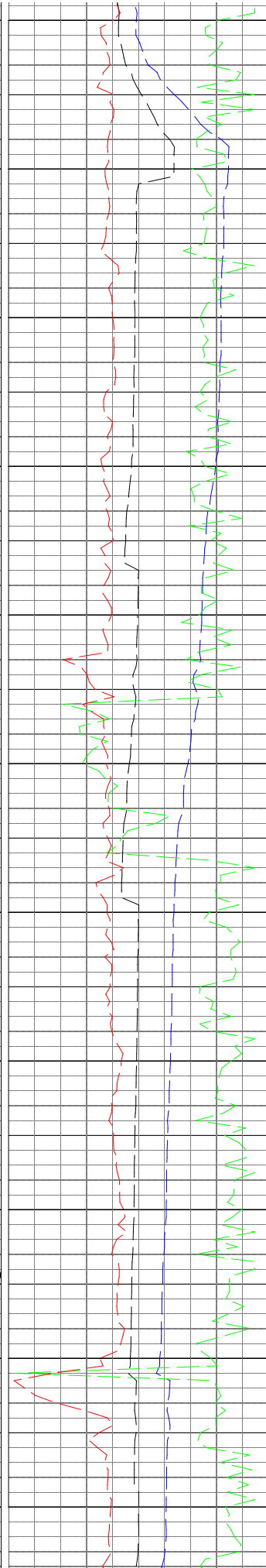
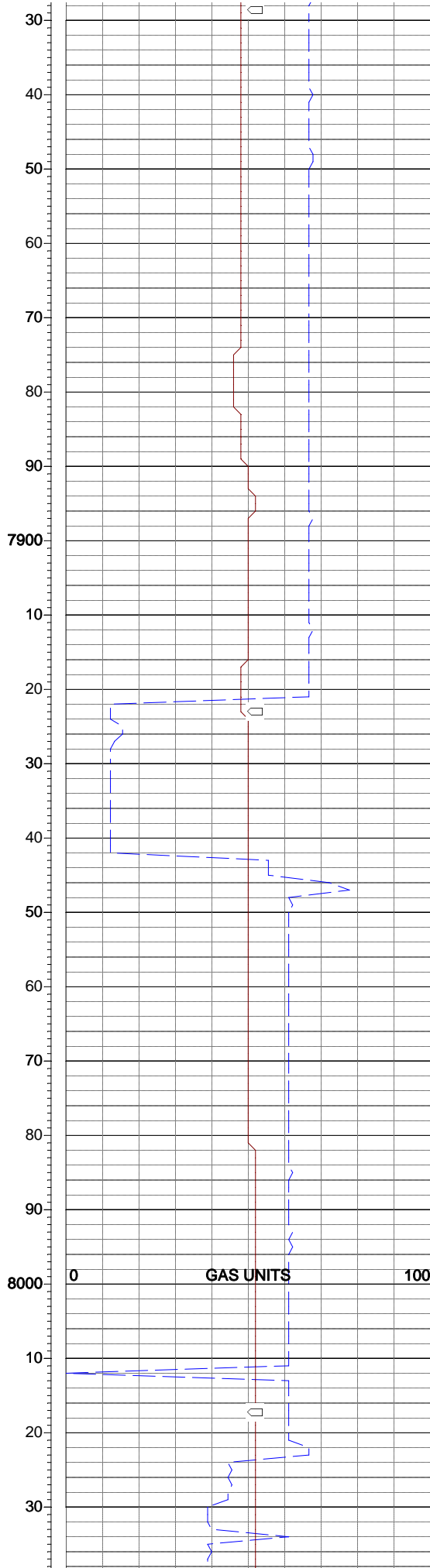
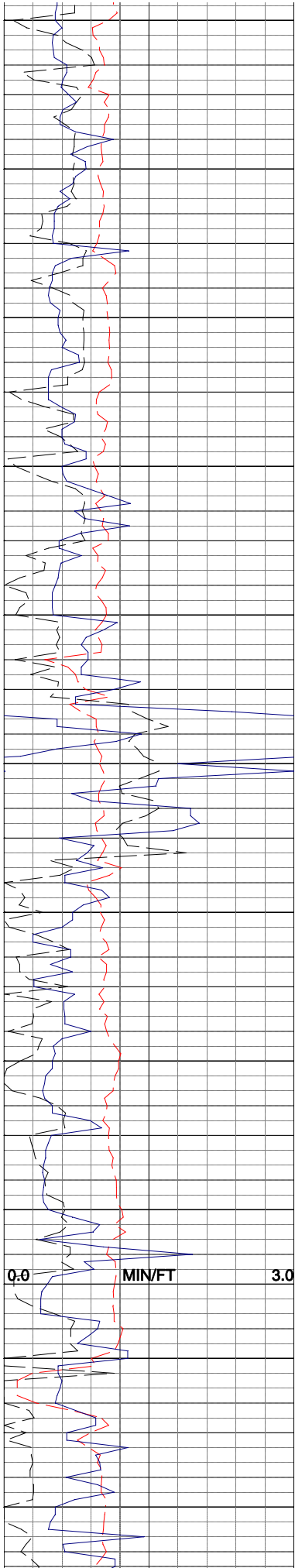
9.3/62





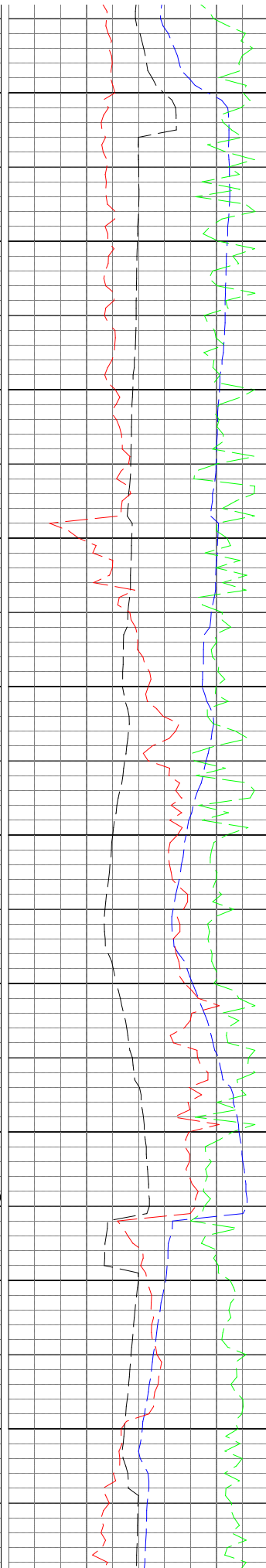
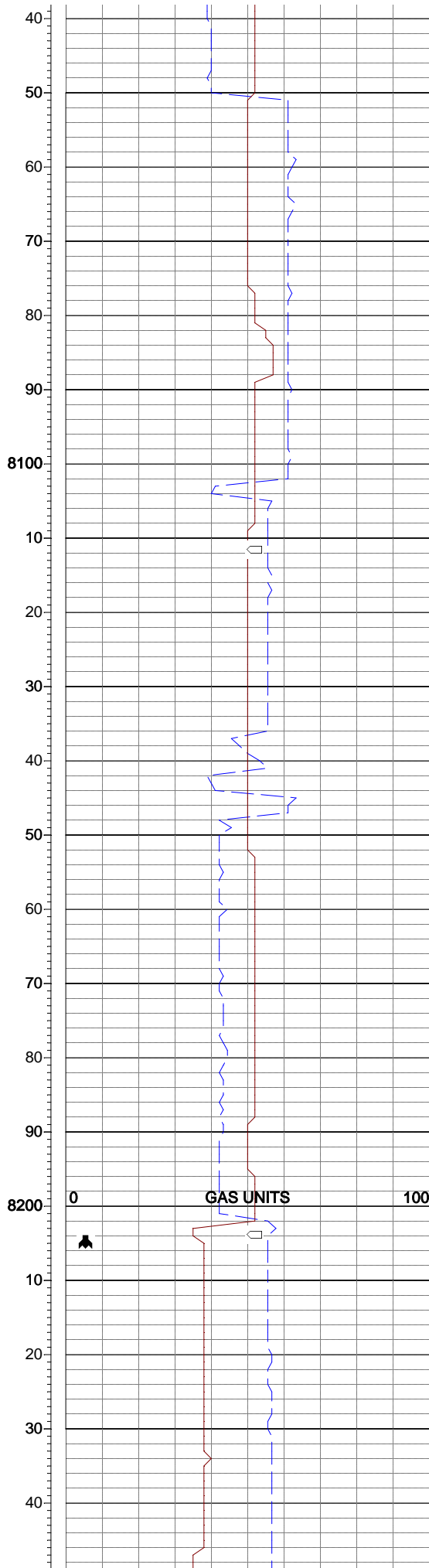
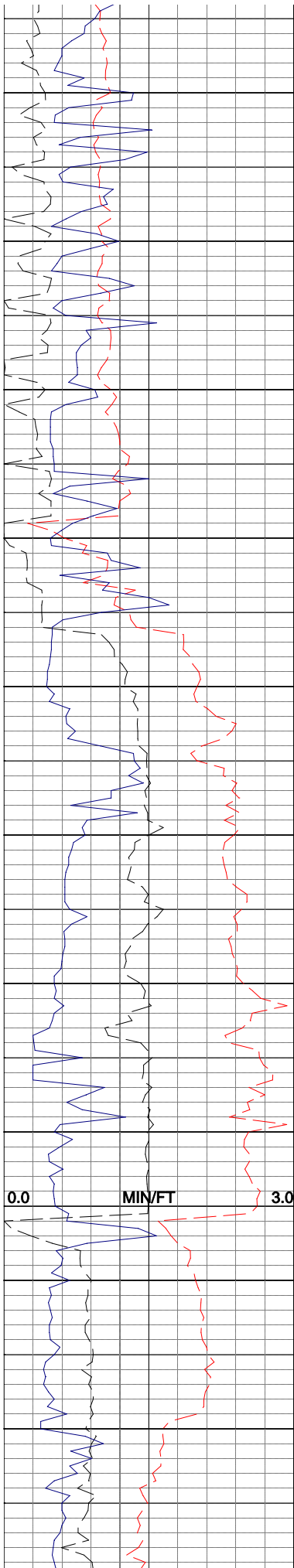
9.3/62

9.3/62



9.3/62

9.3/56



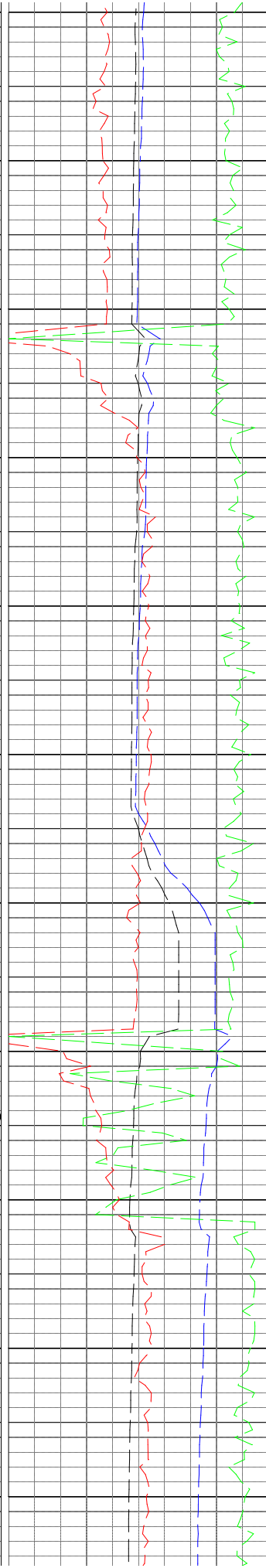
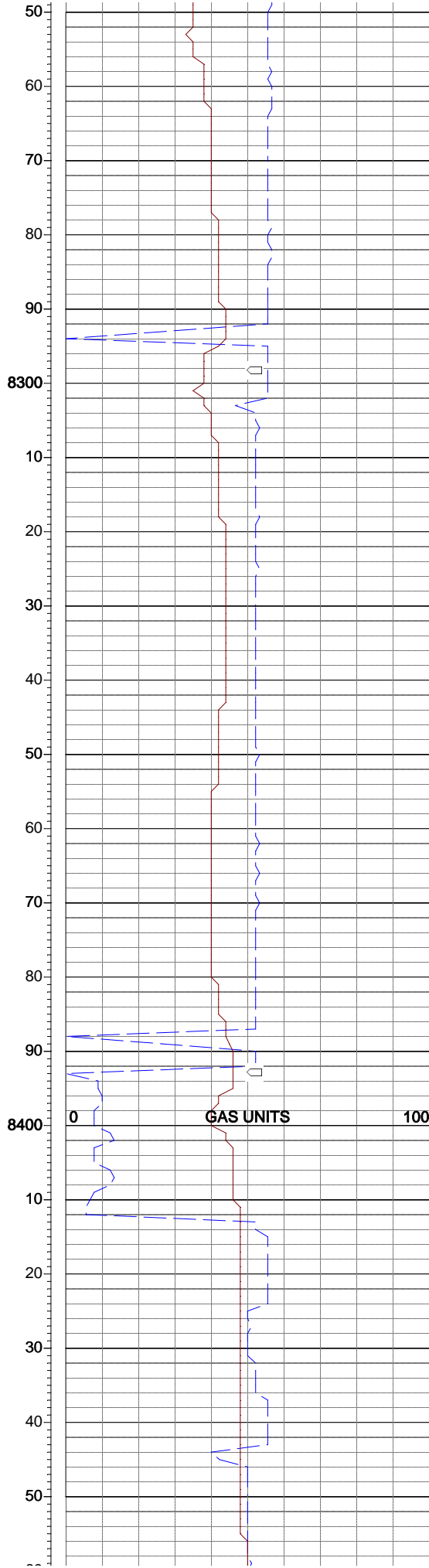
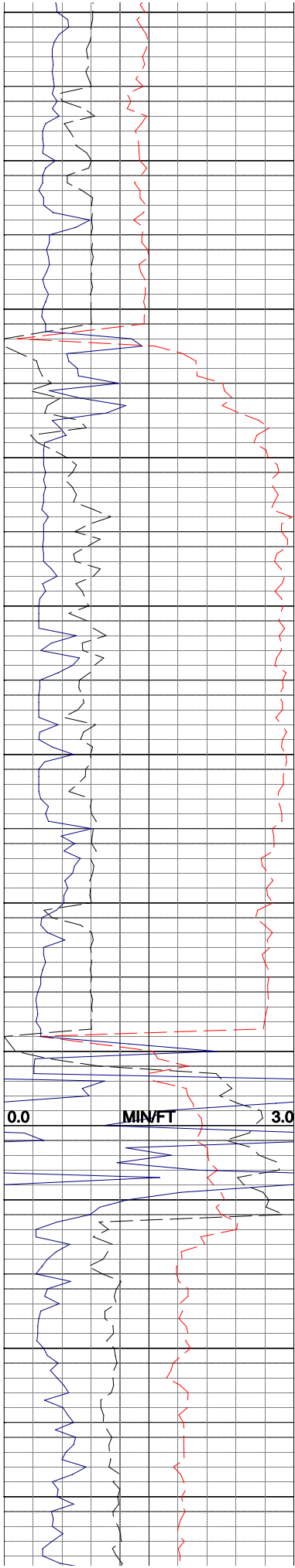
9.3/56

9.3/56

BIT #4
FTG: 5761'
HRS: 61

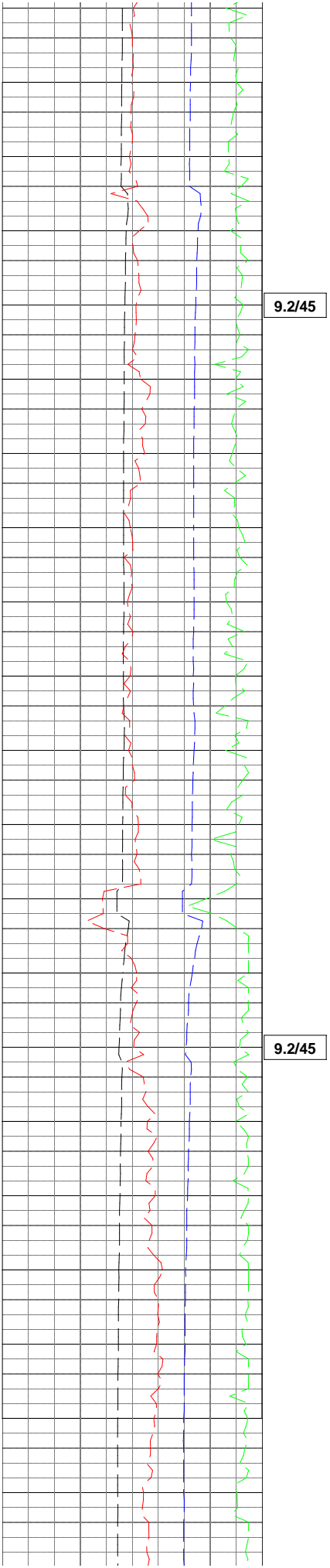
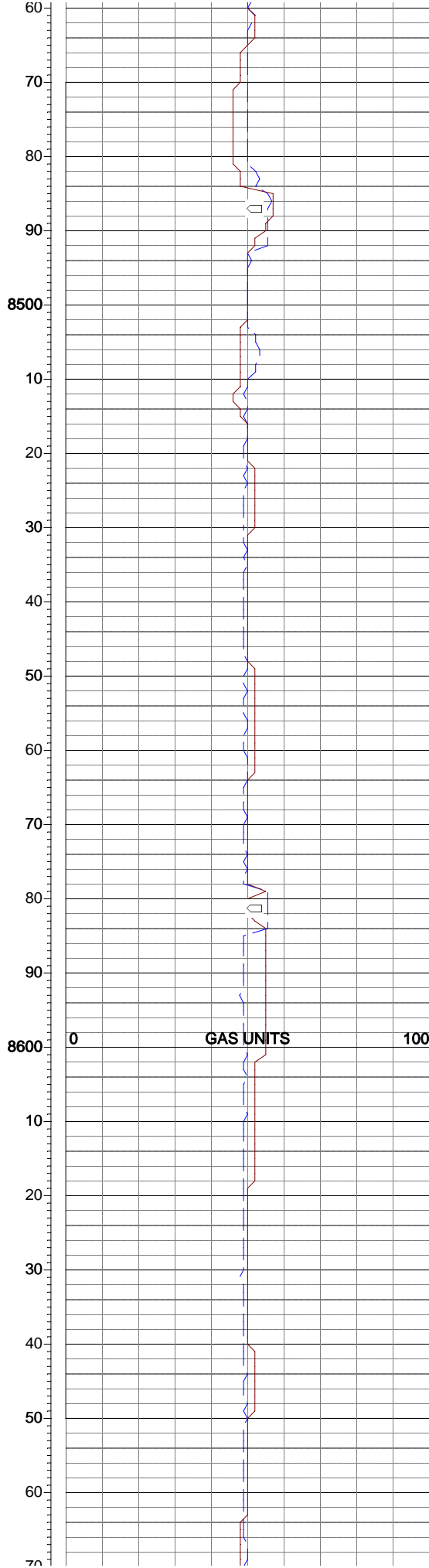
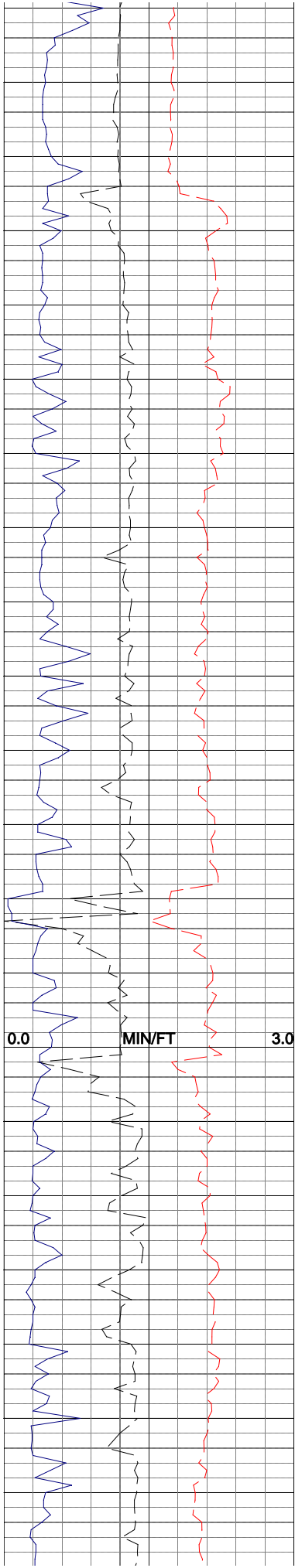
TOOH FOR BIT #5

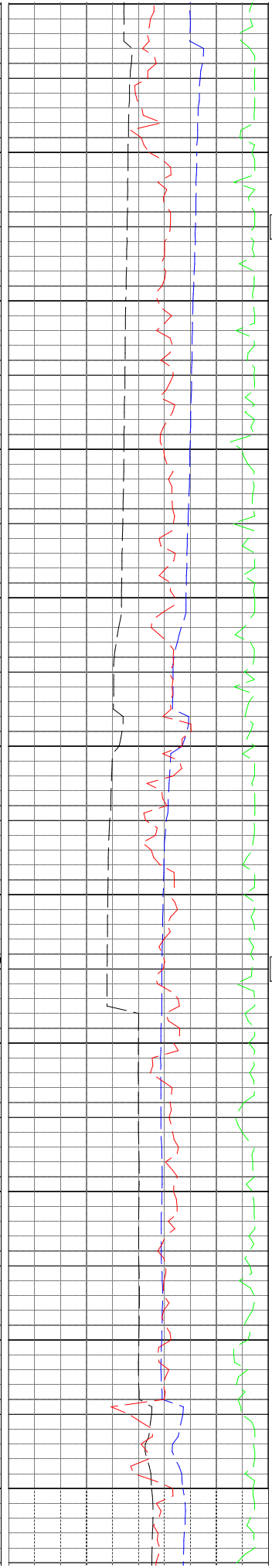
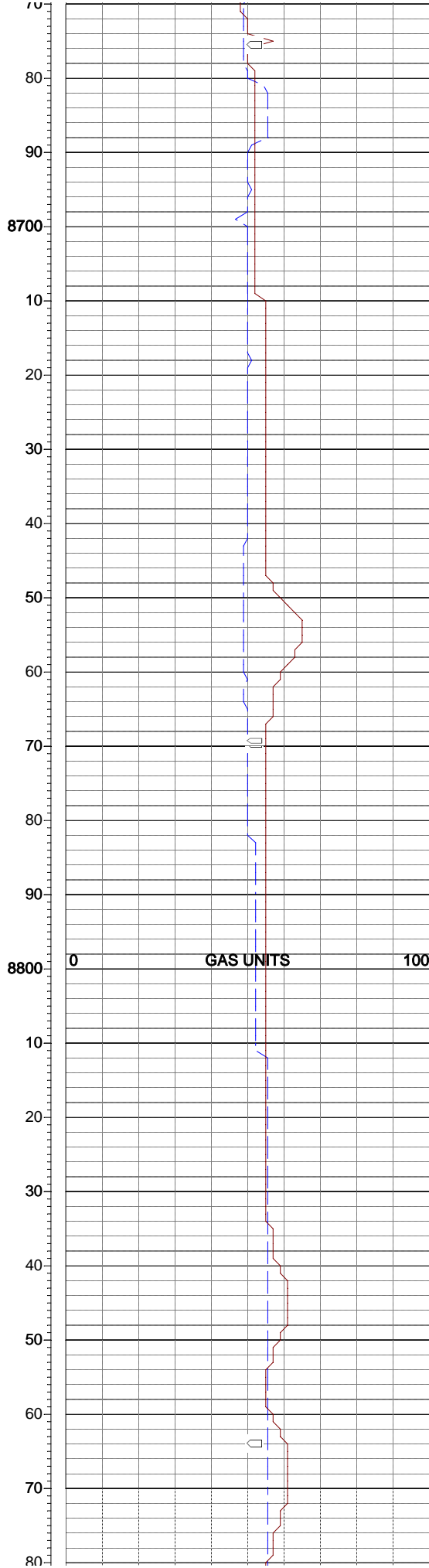
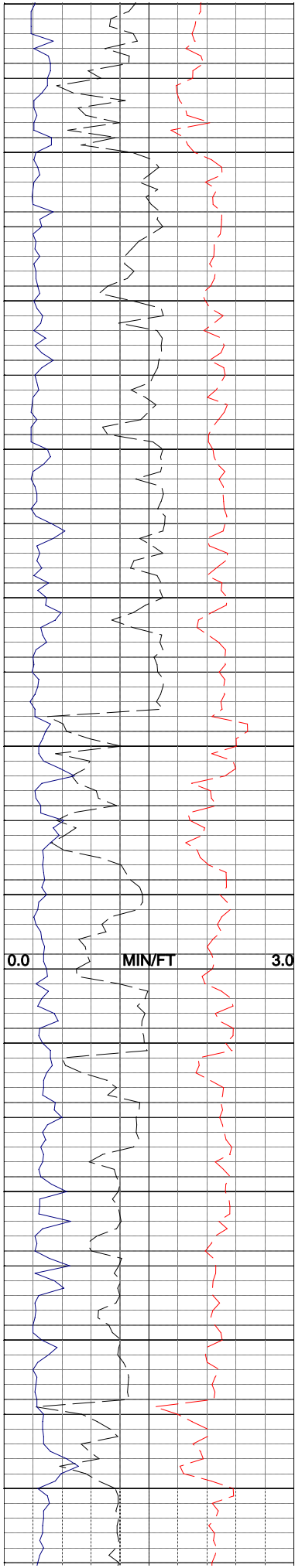
BIT #5
7 7/8"
SECURITY
FMHX555ZM
IN AT 8204'



9.2/45

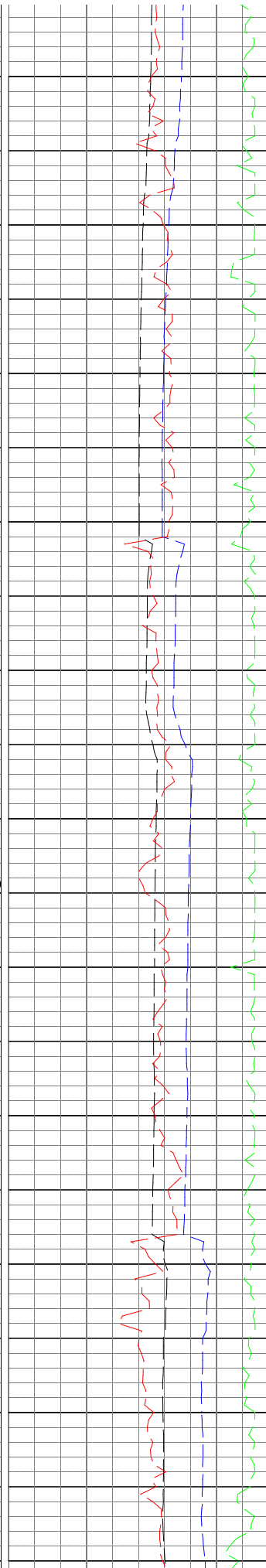
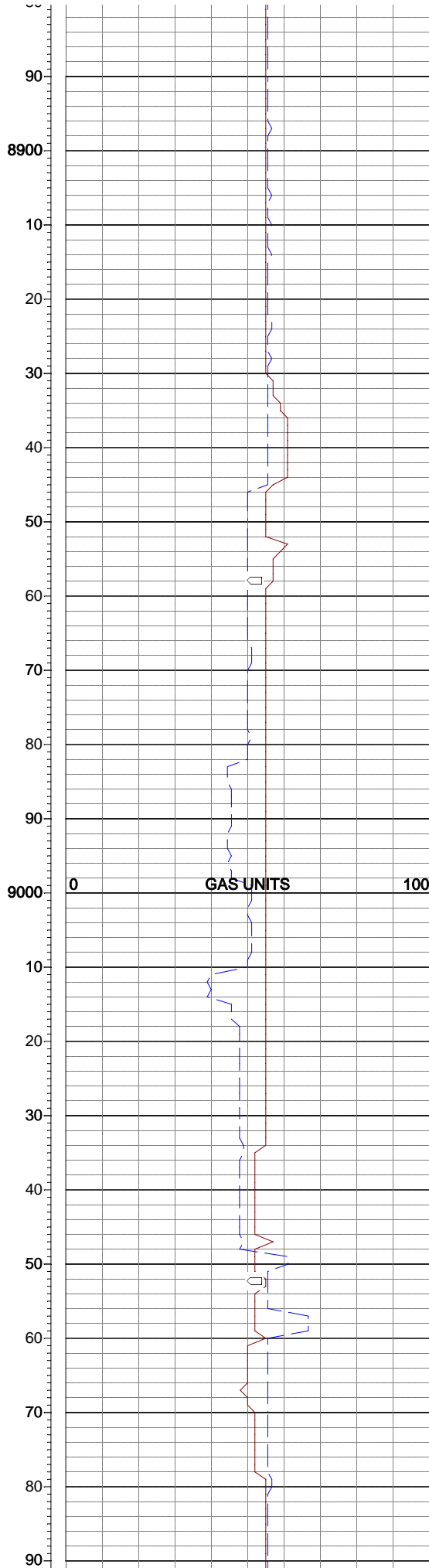
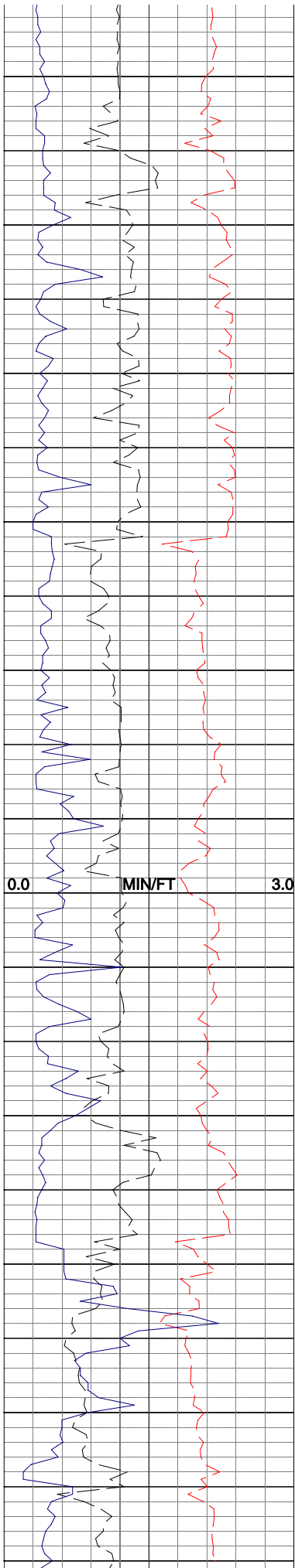
9.2/45





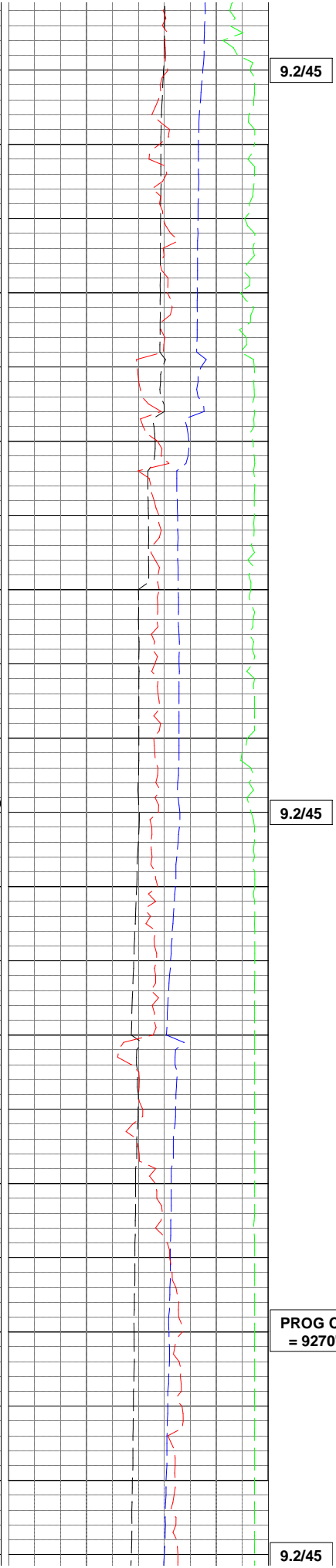
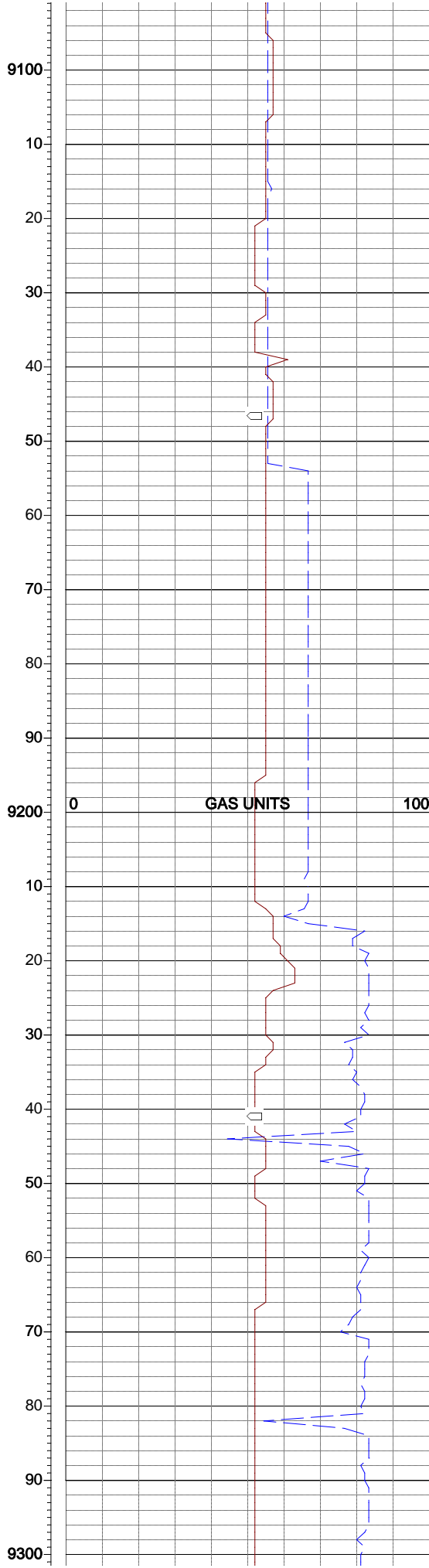
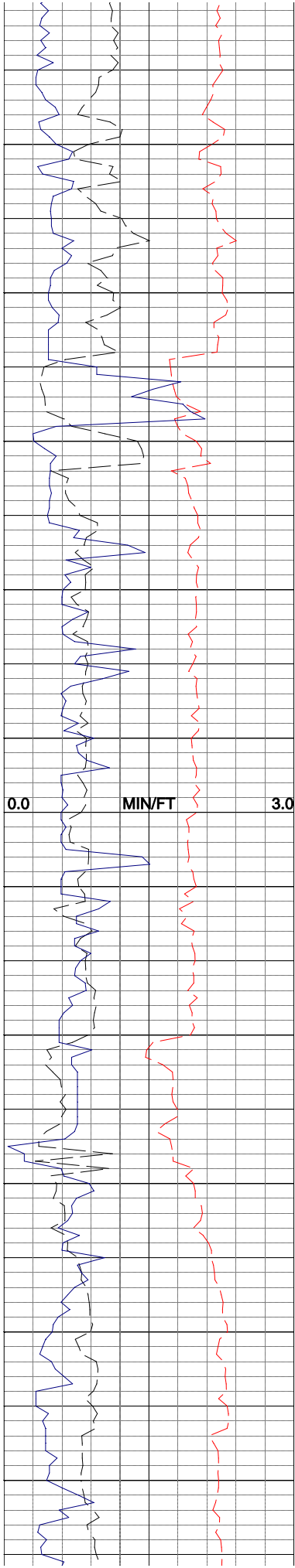
9.2/45

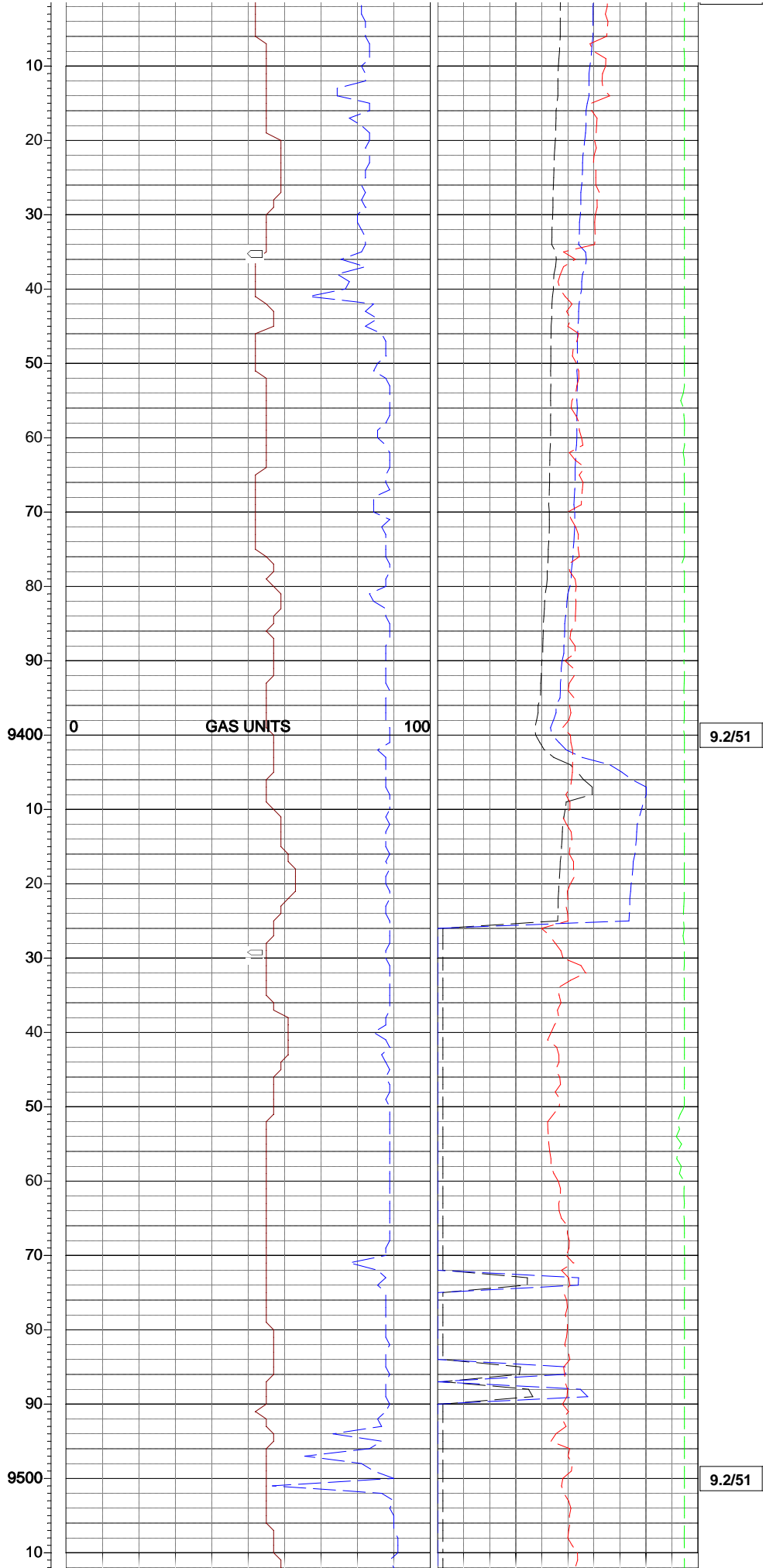
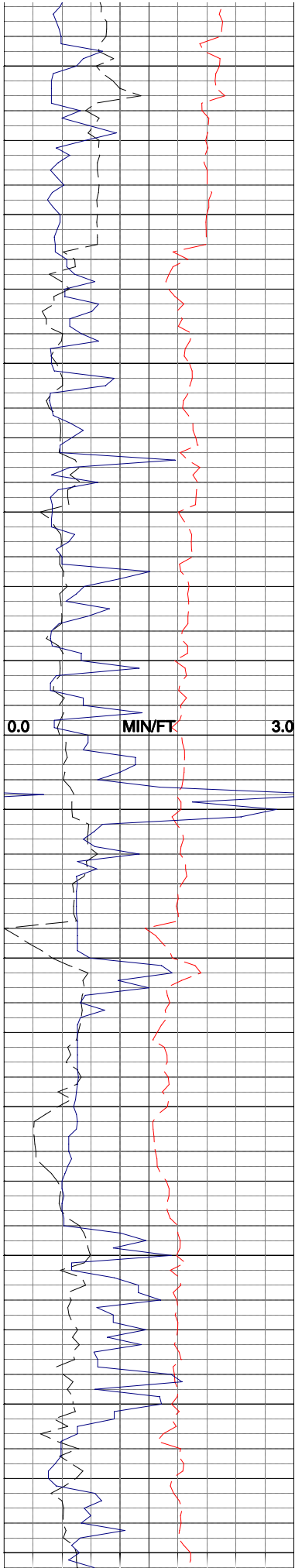
9.2/45

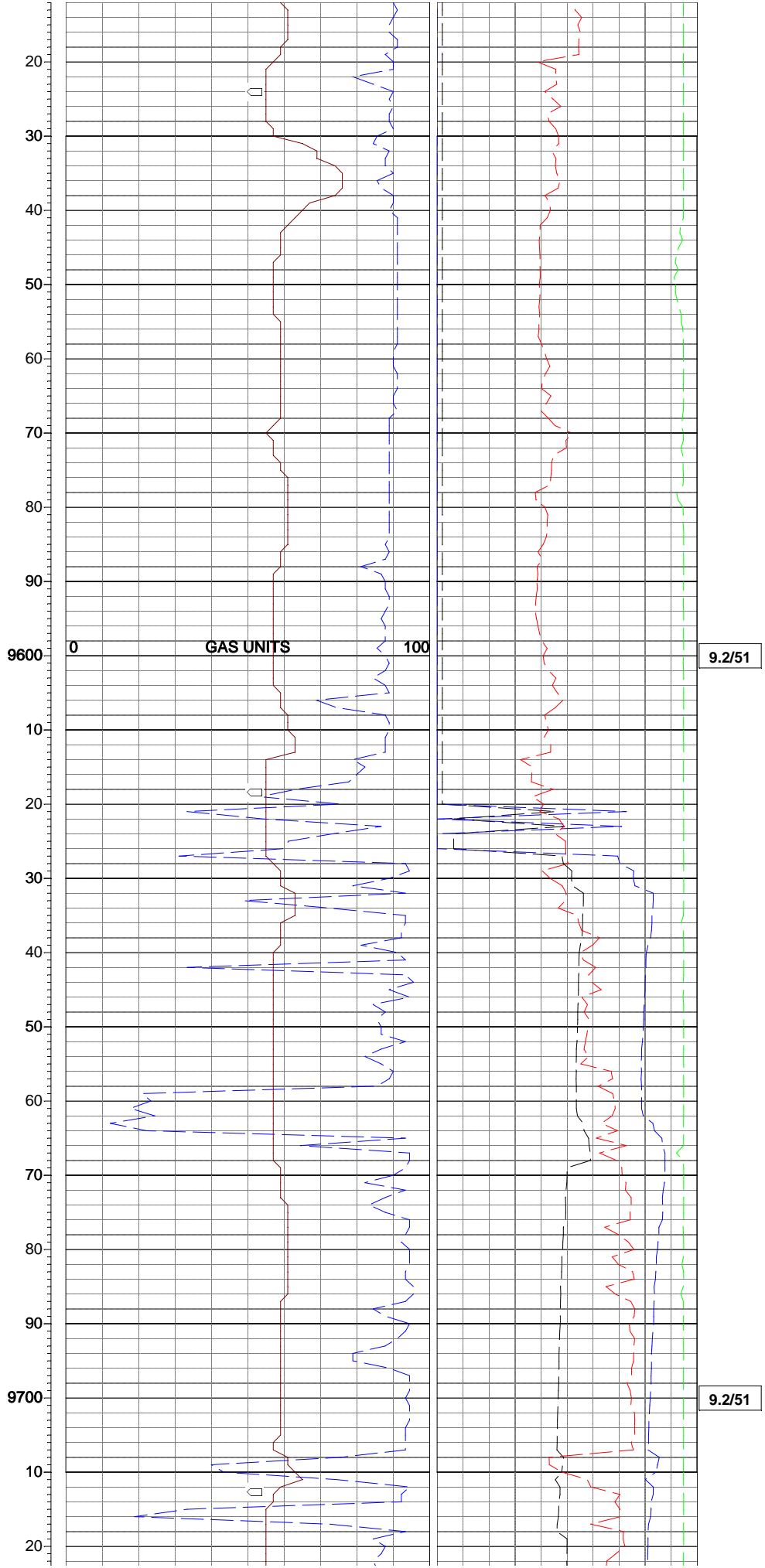
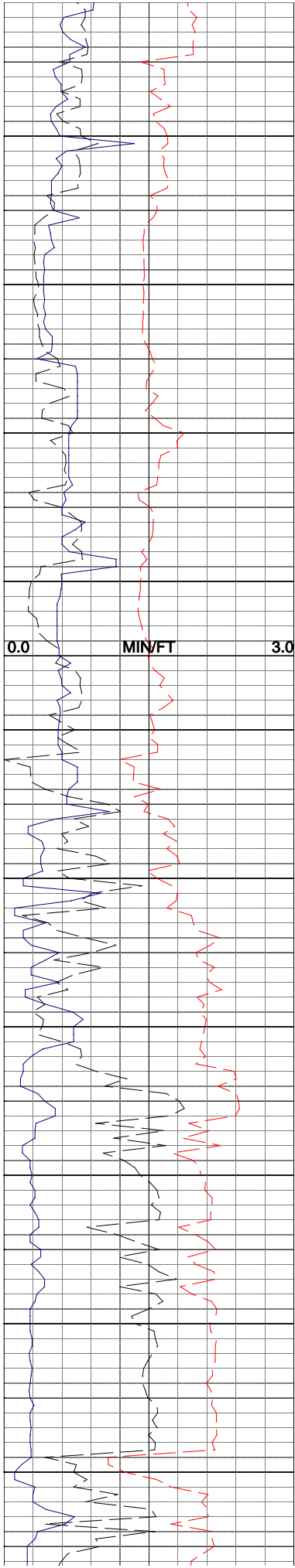


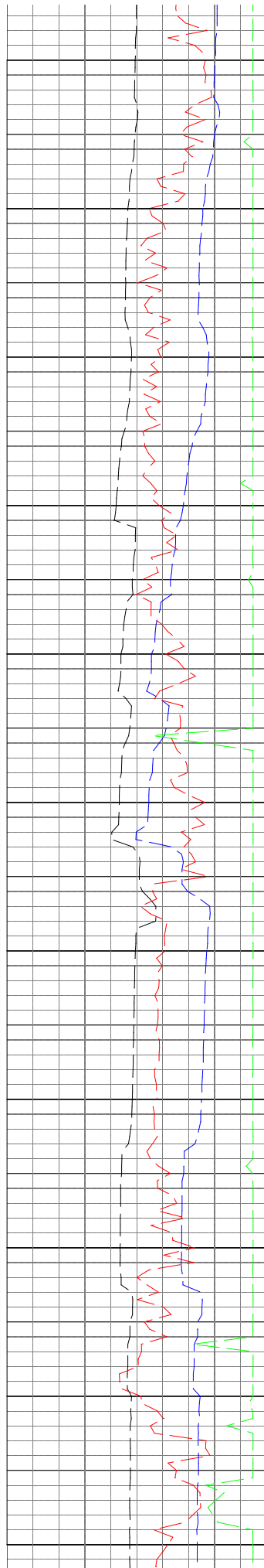
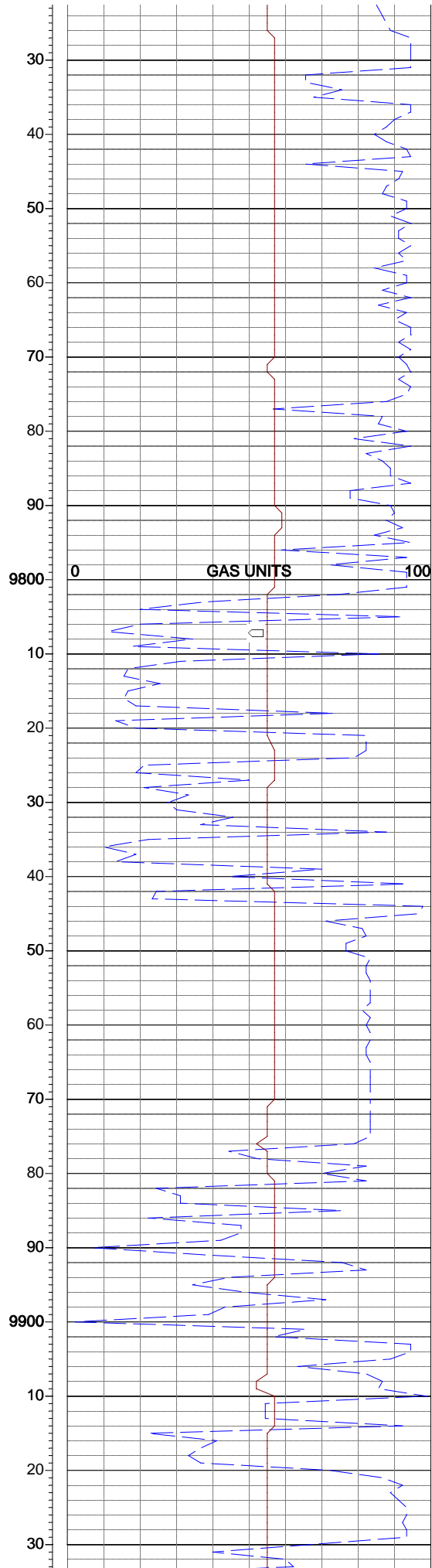
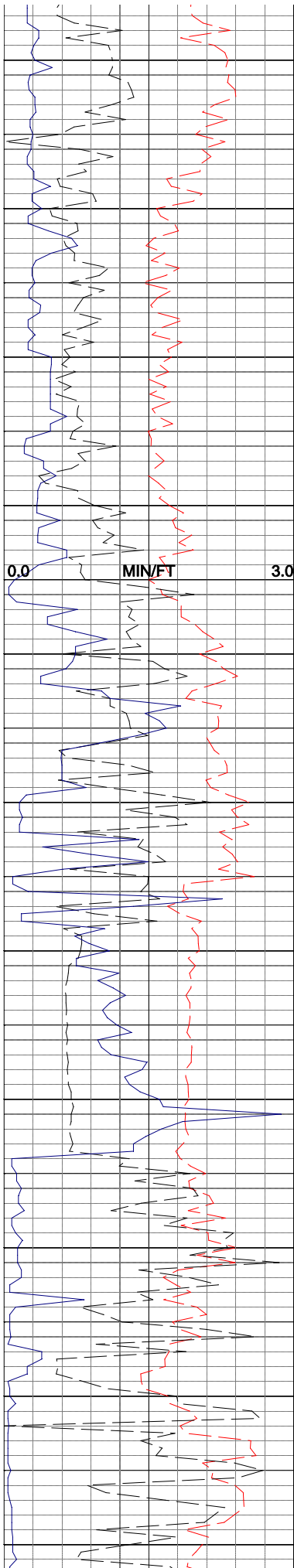
9.2/45

9.2/45







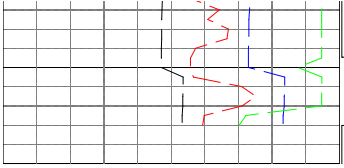
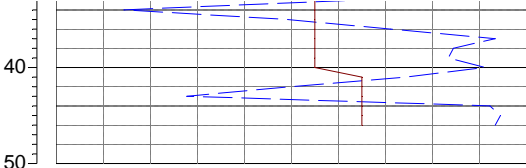
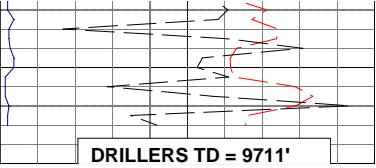


PROG ROLLINS
= 9752' MD

9.2/55

9.2/55

RIT #5



FTG: 17.2'
HRS: 38

PASON SYSTEMS
RELEASED ON