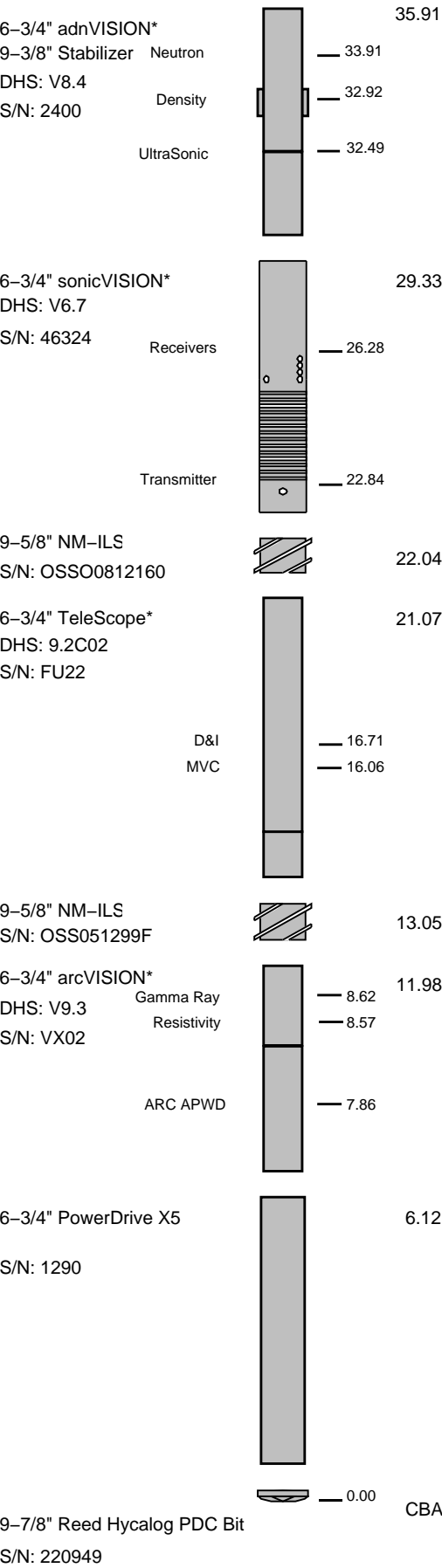


| | | | | | | | | | | | |
|---------------------------|-----|--------------------|---------|------------|----------|----------|--|--|--|--|--|
| Potassium | % | n.a | | | | | | | | | |
| Environmental data | | | | | | | | | | | |
| GR | | | | | | | | | | | |
| Mud weight | ppg | 11.65 | | | | | | | | | |
| Bit size | in | 9.875 | | | | | | | | | |
| Resistivity | | | | | | | | | | | |
| Neutron porosity | | | | | | | | | | | |
| Hole Size | in | 9.875 | | | | | | | | | |
| Mud weight | ppg | 11.65 | | | | | | | | | |
| Temperature | °C | 91.0 | | | | | | | | | |
| Mud salinity | ppk | 58.628 | | | | | | | | | |
| Formation salinity | | n.a | | | | | | | | | |
| Recording rate 1 | SEC | 6 (arc) | | | | | | | | | |
| Recording rate 2 | SEC | 5 (adn) 10 (sonic) | | | | | | | | | |
| Filtering GR | | 3 pts. | | | | | | | | | |
| Filtering density | | 3 pts. | | | | | | | | | |
| Filtering Neutron | | 3 pts. | | | | | | | | | |
| Company representative | | R. C. Moore | G. Doty | D. Daniels | | | | | | | |
| D&M personnel | | M. Amarasena | B. Low | W. Chehabi | C. Soper | S. Ahmad | | | | | |

| | | |
|--|-------------------------------|-------------------------------|
| <p style="text-align: center;">DISCLAIMER</p> <p>THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.</p> | | |
| OTHER SERVICES FOR RUN2 Directional Drilling Directional Surveys Annular Pressure & Temperature Shock & Vibrations | OTHER SERVICES FOR RUN | OTHER SERVICES FOR RUN |
| REMARKS: RUN NUMBER 2 Depth is referenced to Driller's depth Gamma ray is corrected for mud weight, tool size and bit size Resistivity is borehole compensated and environmentally corrected Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity and mud hydrogen index (a factor of mud weight, mud temperature and pressure) Neutron porosity is calculated using a limestone matrix density of 2.71 g/cm3 ADN was run with a 9-3/8" clamp on stabilizer Delta-T is borehole compensated POOH upon reaching TD of CBA A33 | REMARKS: RUN NUMBER | REMARKS: RUN NUMBER |

| EQUIPMENT DESCRIPTION | | |
|------------------------------|------------|------------|
| RUN2 | RUN | RUN |
| DOWNHOLE EQUIPMENT | | |

DOWNHOLE EQUIPMENT



Maximum string diameter 9.88 in.
E148° 18' 32.826"

CBA A33

| Variable Name | Variable Description | Run Name & Value | | | |
|---------------------|---|------------------|-----------|-------|--|
| Run Number | | 2 | | | |
| General Information | | | | | |
| BHT_RM | Bottom Hole Temperature (RM) | DEGC | 91.000 | | |
| BSAL_RM | Mud Salinity (RM) | PPK | 58.628 | | |
| BS_RM | Bit Size (RM) | IN | 9.875 | | |
| COEF_M | User Defined FEXP in Clean Sand | ---- | 1.650 | | |
| C_WS | Overpressure correction to Sw and M | ---- | 1.000 | | |
| FEXP | Formation Factor Exponent(RM) | ---- | 2.000 | | |
| FNUM | Formation Factor Enumerator(RM) | ---- | 1.000 | | |
| FPHI_RM | Formation Factor Porosity Source (RM) | ---- | XPLOT | | |
| MST_RM | Mud Sample temperature (RM) | DEGC | 23.889 | | |
| MW_RM | Mud Weight (RM) | LB/G | 11.650 | | |
| OBMF_RM | Oil Based Mud (RM) | ---- | YES | | |
| RHOF_RM | Mud Filtrate Density (RM) | G/C3 | 1.000 | | |
| RHOM_RM | Matrix density (RM) | G/C3 | 2.710 | | |
| RMS_RM | Resistivity of Mud Sample (RM) | OHMM | 1000.000 | | |
| RWA_COMP_M | Rwa computation model | | | | |
| RWA_DEN_AD | Rwa Density Input ADN | | | | |
| RWA_DEN_CD | Rwa Density Input CDN | | | | |
| RWA_DEN_IN | Rwa Density Input | | | | |
| RWA_FORM_M | Rwa computation formation model | | | | |
| RWA_RES_IN | Rwa computation resistivity input | | | | |
| RWS_RM | Resistivity of Connate Water (RM) | OHMM | 1.000 | | |
| SHT_RM | Ground Level Temperature (Mud-Line When Offshore) (RM) | DEGC | 10.000 | | |
| TD_RM | Total Measured Depth (RM) | M | 2579.000 | | |
| TWS_RM | Temperature of Connate Water (RM) | DEGC | 23.889 | | |
| VF_ILLI | Fraction of illite in shales | ---- | 0.500 | | |
| VF_KAOL | Fraction of kaolinite in shales | ---- | 0.500 | | |
| VF_MONT | Fraction of montmorillonite in shales | ---- | 0.000 | | |
| XPDM_RM | Cross plot density porosity multiplier | ---- | 0.675 | | |
| XPNM_RM | Cross plot neutron porosity multiplier | ---- | 0.325 | | |
| ADN | | | | | |
| ADN_CHASSIS_STR | Type String | Chassis | ADN | | |
| ADN_COLLAR_STR | Type String | Collar | ADN | | |
| ADN_DATA_FIX | ADN: Create A Corrected ADN Time Data File | ---- | NO | | |
| ADN_DATA_LTB | ADN: Create An ADN LTB Data File | ---- | NO | | |
| ADN_ORIENTATION | ADN Image Orientation | ---- | TOH | | |
| ADN_STAB_STR | ADN Stabilizer Type String | ---- | TOH | | |
| ALPHA_COMPUTE_D | Perform Density Enhanced Vertical Resolution process ? | ---- | YES | | |
| ALPHA_COMPUTE_N | Perform Neutron Enhanced Vertical Resolution process ? | ---- | YES | | |
| AVE_ADN | ADN/Array Channels: perform averaging(RM) : | ---- | YES | | |
| A_DHS | ADN Down Hole Software Version String | ---- | YES | | |
| CHI_RM | Caliper High limit from BS (RM) | IN | 3.000 | | |
| CLO_RM | Caliper Low limit from BS (RM) | IN | 0.000 | | |
| DEVI | Well Section Deviation | DEG | 14.540 | | |
| DTIK_SEL | ADN: Density Tick Channel Name | ---- | LSAZ | | |
| DTMUD | Delta-T for Mud | US/F | 237.589 | | |
| DYN_IMG_COMPUTE | Generate Dynamic Normalized Image? | ---- | YES | | |
| ECC_CORR_ADN | Perform Eccentering Correction for TNPH? | ---- | YES | | |
| ENVCOR | Neutron Processing: Environmental Correction? | ---- | YES | | |
| EVRL | EVR Process averaging number of samples (RM) | ---- | 49 | | |
| FCD | Future Casing (Outer) Diameter | IN | TBA | | |
| GCSE | Generalized Caliper Selection | ---- | BS | | |
| HPS | ADSE-EB (High Pressure Inconel Chassis)? | ---- | NO | | |
| IBS | Intergal Blade Stabilizer Collar? | ---- | NO | | |
| IDQT | Image Derived Quality Threshold | ---- | 2.000 | | |
| IHVS | Integrated Hole Volume Start Value(RM) | F3 | 0.000 | | |
| IMAGE_MAX_SOA | Image SOA (Quadrant) Right Scale | IN | 2.500 | | |
| IMAGE_MAX_SPEF | Image PEF(Segment) Right Scale | ---- | 6.000 | | |
| IMAGE_MAX_SRHOB | Image RHOB(Segment) Right Scale | | G/C3 | 2.650 | |
| IMAGE_MIN_SOA | Image SOA (Quadrant) Left Scale | IN | 0.000 | | |
| IMAGE_MIN_SPEF | Image PEF(Segment) Left Scale | ---- | 2.000 | | |
| IMAGE_MIN_SRHOB | Image RHOB(Segment) Left Scale | | G/C3 | 2.050 | |
| JSD_ADN | ADN Acquisition start date | G/C3 | 2.050 | | |
| LITHO_TYPE_ADN | Lithology (RM) | ---- | LIME | | |
| N1FTU_6_RM | ADN: Neutron Bank 1 Far Tubes used : | ---- | 1-2-3 | | |
| N2FTU_6_RM | ADN: Neutron Bank 2 Far Tubes used : | ---- | 1-2-3 | | |
| NNTU_RM | ADN Neutron Near Banks Used | ---- | 1-2 | | |
| NTIK_SEL | ADN: Neutron Tick Channel Name | ---- | FR11 | | |
| RSD | LWD run start date dd-mmm-yy | ---- | 22-Jun-09 | | |
| RWA_COMP_MOD | Rwa computation model | ---- | BASIC | | |
| RWA_DEN_ADN | Rwa Density Input | ---- | RHOB | | |
| RWA_DEN_CDN | Rwa Density Input | ---- | RHOB | | |
| RWA_DEN_INPUT | Rwa Density Input | ---- | RHOB | | |
| RWA_FORM_MOD | Rwa computation formation model | ---- | CLASTIC | | |
| RWA_RES_INPUT | Rwa computation resistivity input | ---- | RT | | |
| SOCNL | Standoff Distance of the CNL Tool | ---- | 1.000 | | |
| SSIZ_ADN | ADN Stabilizer Size | IN | 9.331 | | |
| STOH | ADN Density Top of Hole Sector (Left Boundary): | ---- | SECTOR_0 | | |
| TRPM_RM | Average Tool Rotational Speed | RPM | 20.000 | | |
| USMIN_RM | ADN:Minimum Ultrasonic standoff (RM) | IN | 0.180 | | |
| USWF_RM | ADN:Process Ultrasonic Waveform? | ---- | YES | | |
| VERS_ADN | ADN Downhole Software Version | ---- | 8.400 | | |
| WSDI | Window Size of Dynamic Normalization Image | M | 15.240 | | |
| ARC | | | | | |
| A12A | ARC Air Cal Attenuation From T1 at 2 MHz | DB | 8.950 | | |
| A14A | ARC Air Cal Attenuation From T1 at 400 KHz | DB | 8.936 | | |

| | | | | |
|-----------------|--|------|----------------|------|
| A22A | ARC Air Cal Attenuation From T2 at 2 MHz | DB | 6.014 | |
| A24A | ARC Air Cal Attenuation From T2 at 400 KHz | DB | 5.566 | |
| A32A | ARC Air Cal Attenuation From T3 at 2 MHz | DB | 5.543 | |
| A34A | ARC Air Cal Attenuation From T3 at 400 KHz | DB | 3.912 | |
| A42A | ARC Air Cal Attenuation From T4 at 2 MHz | DB | 3.936 | |
| A44A | ARC Air Cal Attenuation From T4 at 400 KHz | DB | 4.116 | |
| A52A | ARC Air Cal Attenuation From T5 at 2 MHz | DB | 4.099 | |
| A54A | ARC Air Cal Attenuation From T5 at 400 KHz | DB | | |
| ABNT | Abnormal Transmitter Indicator | ---- | No_Tx_Failed | |
| ADHS | ARC Down Hole Software Version | ---- | v9.3b13 | |
| AM2A | ARC Air Cal Amplitude Offset at 2 MHz | ---- | -50000.000 | |
| ANISO_COMPUTE | Anisotropy Computation Option | ---- | YES | |
| APICG | ARC5 Gamma Ray Gain Factor | ---- | 1.046 | |
| APIG | ARC Gamma Ray API Gain Factor | ---- | -1.000 | |
| ARC_DATA_FIX | ARC: Create A Corrected ARC Time Data File | ---- | | NO |
| ARC_DATA_LTB | ARC: Create An ARC LTB Data File | ---- | | NO |
| ATMP_ARC | ARC Select Temperature Channel | ---- | Annulus_Temp | |
| ATRN | ARC Tool Run Number | -- | SLB #2, RIG #4 | |
| ATSN | ARC Tool Serial Number | ---- | VX02 | |
| AZMF | Formation DIP Azimuth | DEG | 0.000 | |
| BH_COMPUTE | Borehole Inversion Computation Option | ---- | | YES |
| CALG | ARC Gamma Ray Cal Gain Factor | ---- | 1.046 | |
| CALI_SLCT_ARC | ARC Caliper Selection | ---- | BITSIZE | |
| CDPTH_ARC | Process Start Depth | M | 30.480 | |
| DIELEC_COMPUTE | Dielectric Computation Option | ---- | | YES |
| DIPF | Formation DIP Angle | DEG | 0.000 | |
| ERRCT | Percentage Error Cutoff | ---- | 4.500 | |
| GRSH | GR Shale (Invasion Computation Cutoff) | | GAPI 1000.000 | |
| HIGH_BLEND | High Resistivity Threshold for Blending | | OHMM 2.000 | |
| INCLIN_B0 | ARC Bias Constant (mg) | ---- | 0.000 | |
| INCLIN_B1 | ARC Bias First-order Coefficient (mg/degC) | ---- | 0.000 | |
| INCLIN_B2 | ARC Bias Secod-order Coeeficient (mg/degC) | ---- | 0.000 | |
| INCLIN_B3 | ARC Bias Third-order Coeeficient (mg/degC) | ---- | 0.000 | |
| INCLIN_C0 | ARC Current Scale Factor Constant (mA/g) | ---- | 1.000 | |
| INCLIN_C1 | ARC Scale First-order Coeeficient (mA/g/degC) | ---- | 0.000 | |
| INCLIN_C2 | ARC Scale Second-order Coeeficient (mA/g/degC) | ---- | 0.000 | |
| INCLIN_C3 | ARC Scale Third-order Coeeficient (mA/g/degC) | ---- | 0.000 | |
| INVAS_COMPUTE | Invasion Computation Option | ---- | | YES |
| JSD_ARC | ARC Acquisition start date | ---- | YES | |
| KPER | Potassium Concentration (RM) | ---- | 0.000 | |
| LOW_BLEND | Low Resistivity Threshold for Blending | | OHMM 1.000 | |
| MSWS | ARC Wizard Model Switch Window | M | 1.524 | |
| MULTIEFFECT_COM | Multi Effect Option | ---- | YES | |
| P11AC_RM | ARC: Air Calibration For Phase T1 to R1 | DEG | -999.250 | |
| P12A | ARC Air Cal Phase-Shift From T1 at 2 MHz | DEG | 0.090 | |
| P14A | ARC Air Cal Phase-Shift From T1 at 400 KHz | DEG | 1.267 | |
| P22A | ARC Air Cal Phase-Shift From T2 at 2 MHz | DEG | -0.053 | |
| P24A | ARC Air Cal Phase-Shift From T2 at 400 KHz | DEG | -1.300 | |
| P32A | ARC Air Cal Phase-Shift From T3 at 2 MHz | DEG | -0.001 | |
| P34A | ARC Air Cal Phase-Shift From T3 at 400 KHz | DEG | 1.279 | |
| P42A | ARC Air Cal Phase-Shift From T4 at 2 MHz | DEG | -0.105 | |
| P44A | ARC Air Cal Phase-Shift From T4 at 400 KHz | DEG | -1.349 | |
| P52A | ARC Air Cal Phase-Shift From T5 at 2 MHz | DEG | 0.002 | |
| P54A | ARC Air Cal Phase-Shift From T5 at 400 KHz | DEG | 1.278 | |
| POFFSET_ARC | ARC: Pressure Offset | PSI | 0.000 | |
| PRTD | Preferred Resistivity Log for Rt Display while Multi-Effects | ---- | | P34B |
| PSOF_ADJ_T1 | ARC: User Input Phase offset | DEG | 0.000 | |
| RESTIK | ARC resistivity tick source | ---- | Phase | |
| SHIG | ARC High Shock Risk Level | CPS | 0.500 | |
| SMED | ARC Medium Shock Risk Level | CPS | 0.330 | |
| SMIN | ARC Minimum Shock Risk Level | CPS | 0.160 | |
| SUPD | ARC Real Time Shock Update Rate | S | 30.000 | |
| TCODE_ARC | ARC Tool File Code | S | 30.000 | |
| TSIZ_ARC | ARC Tool Size | IN | 6.750 | |
| UNIFORM_COMPUTE | Uniform Rock Option | ---- | | YES |
| VERS_ARC | ARC Down hole software version Number | ---- | 9.300 | |
| WRK | to Report Potassium Concentration (RM) | ---- | K_by_Wgt_% | |

Schlumberger Drilling & Measurements

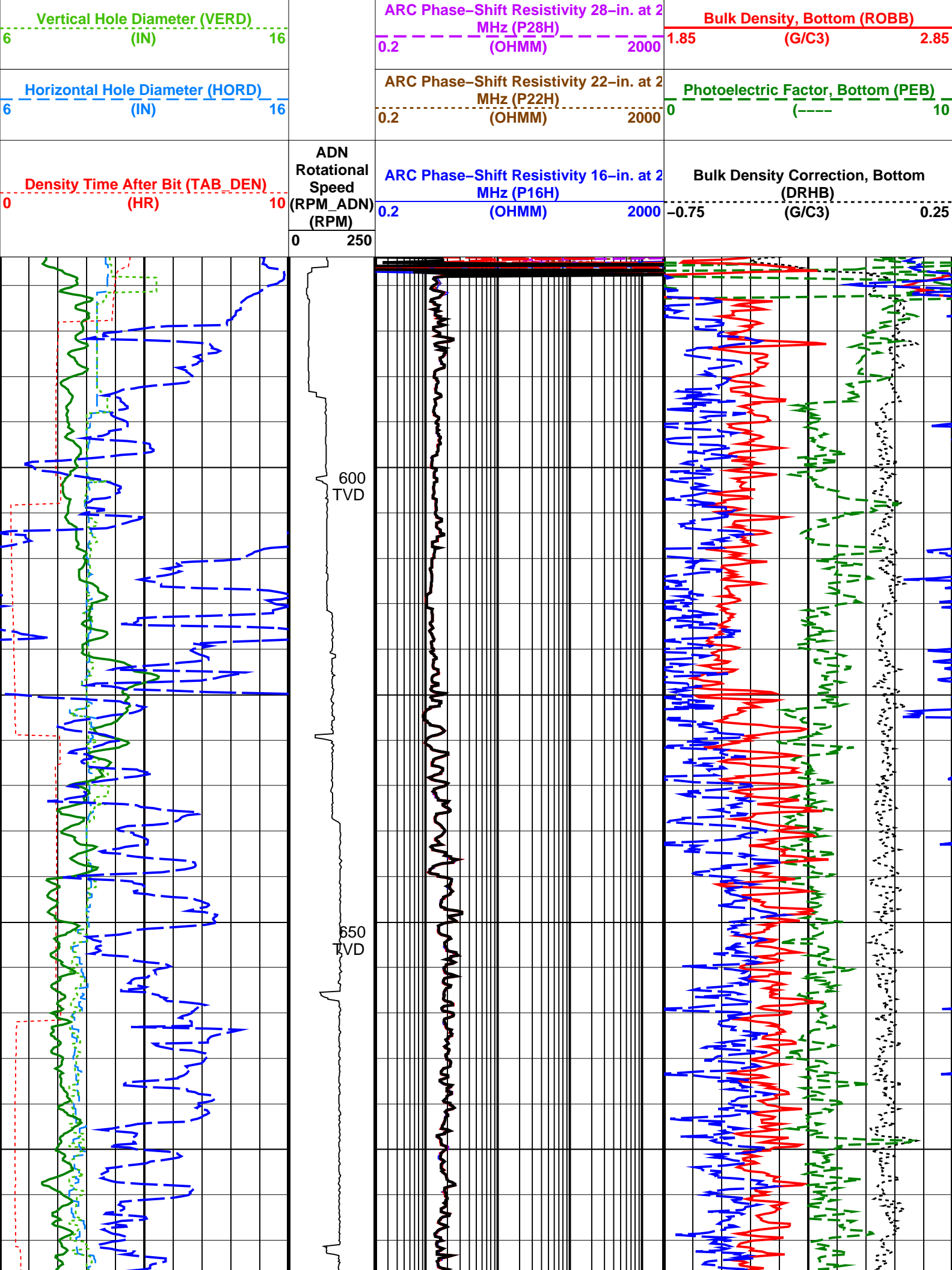
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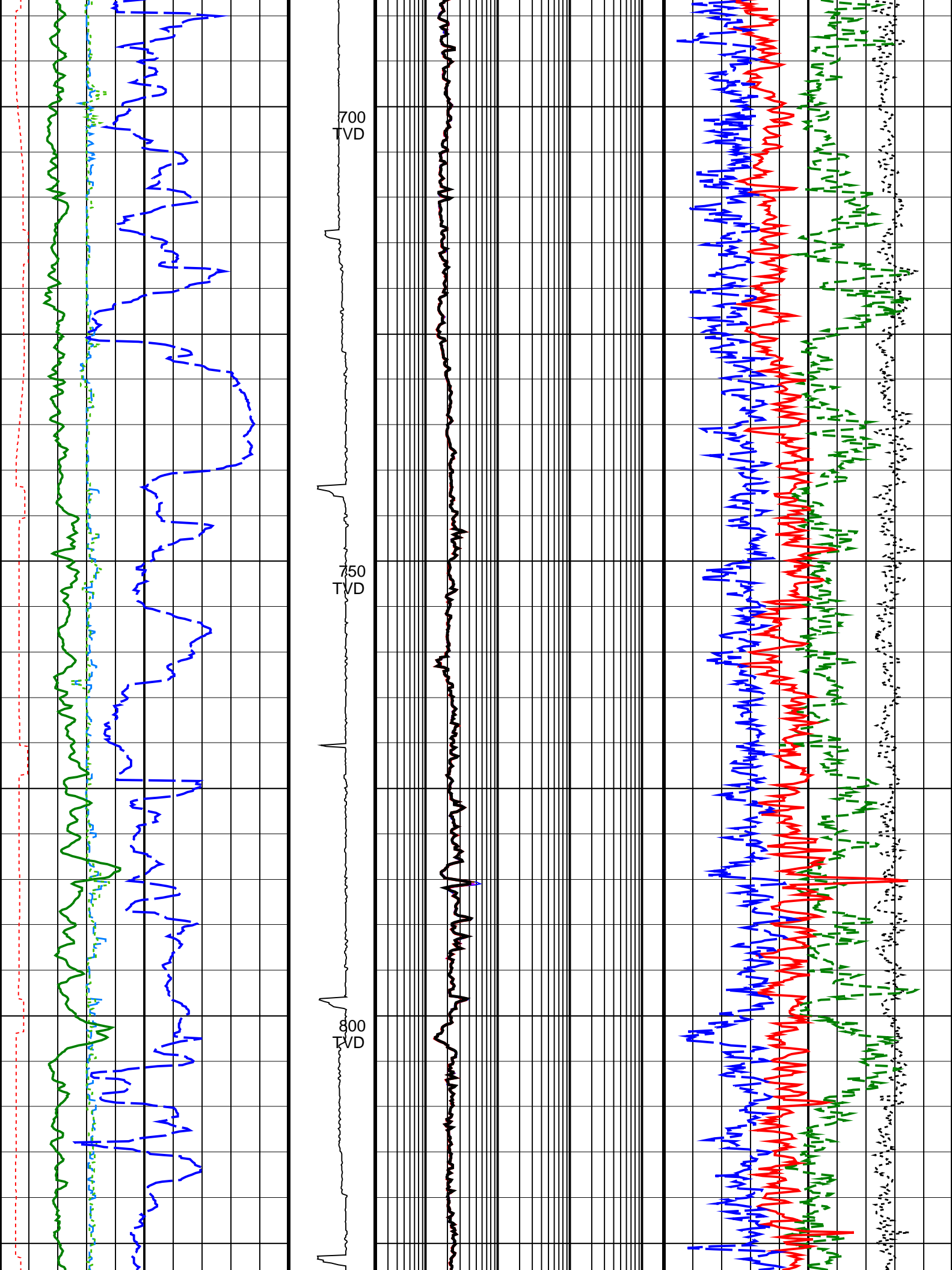
True Vertical Depth Log

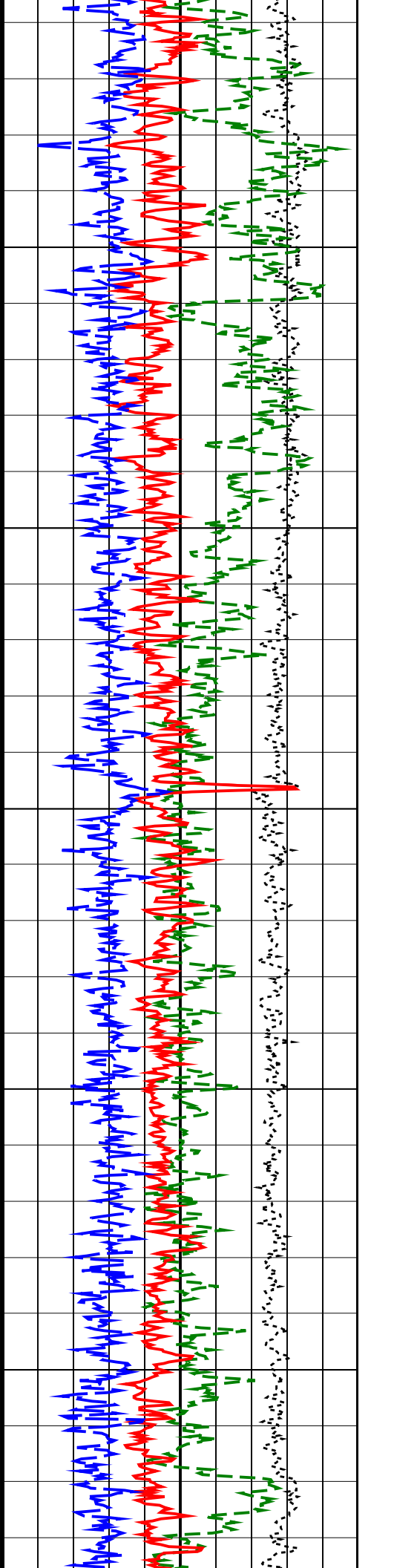
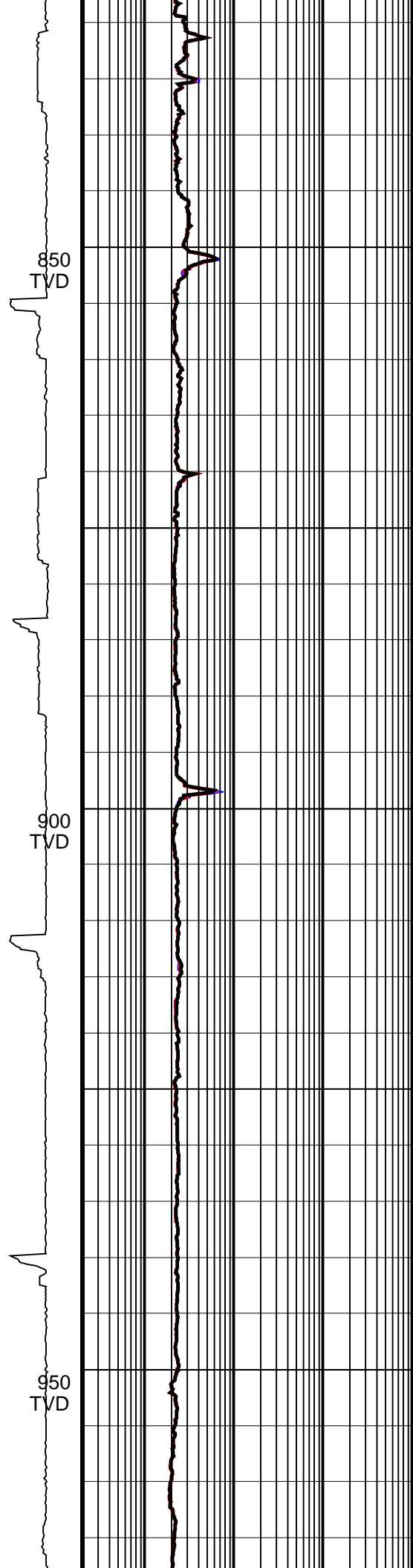
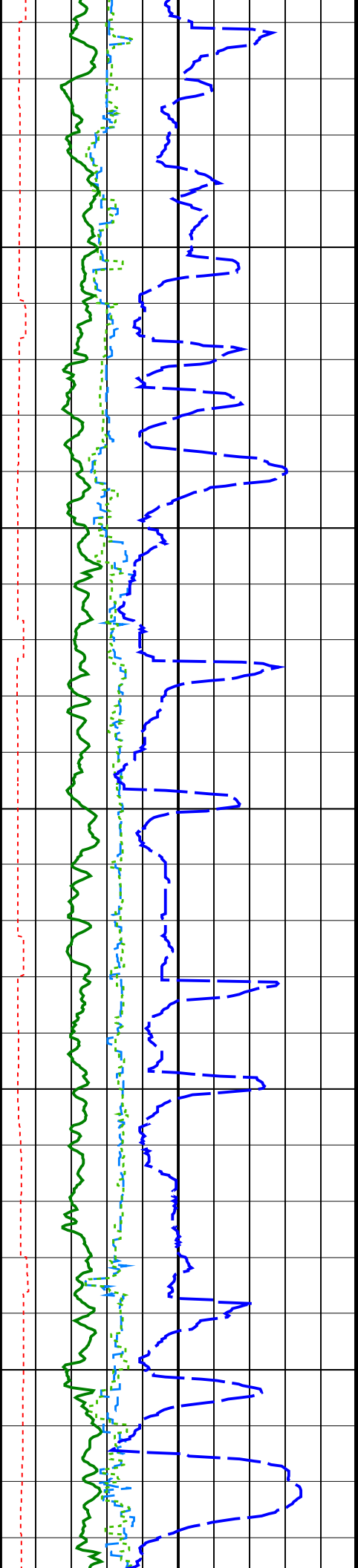
IDEAL Version: ID14_0C_14

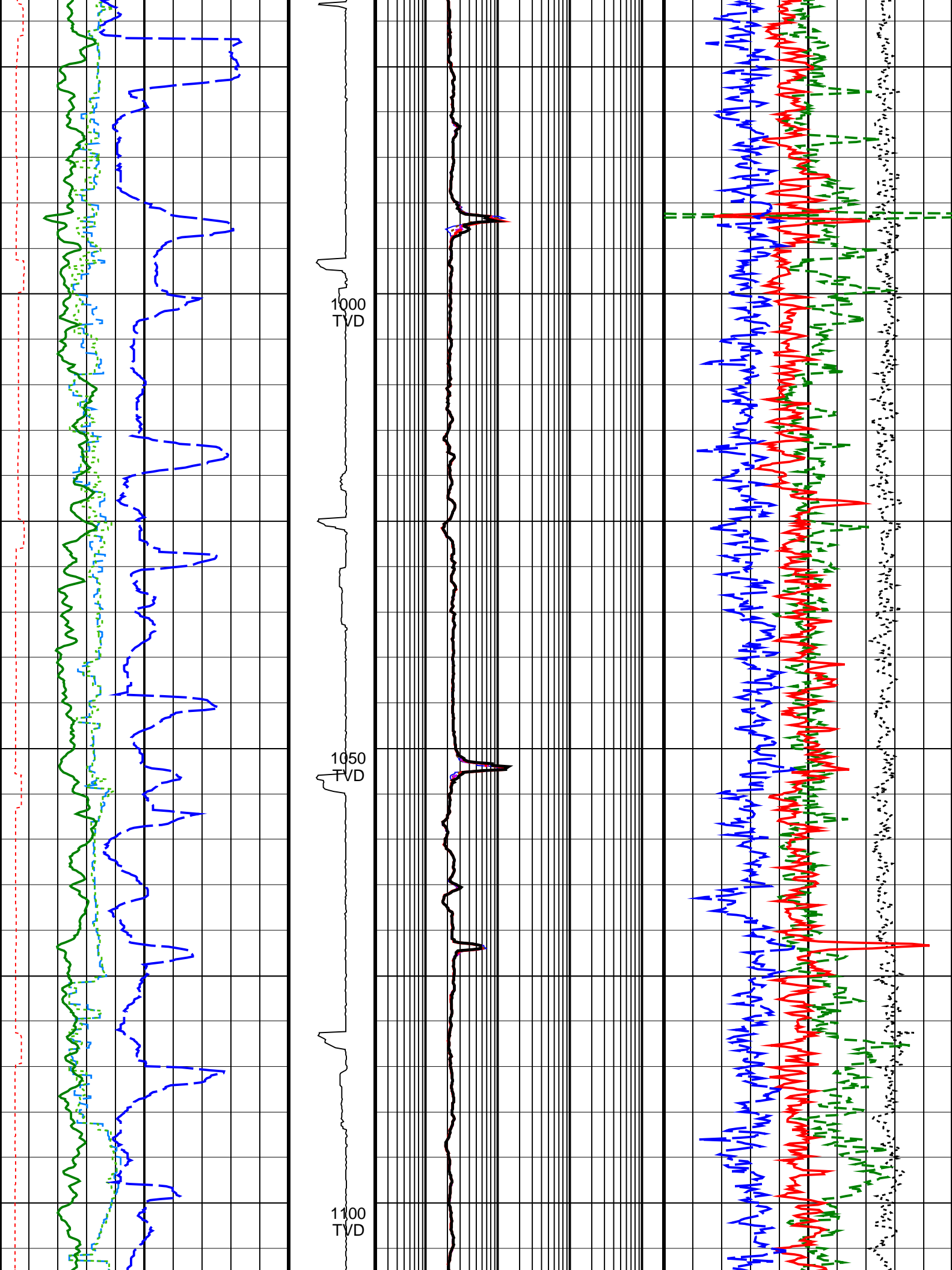
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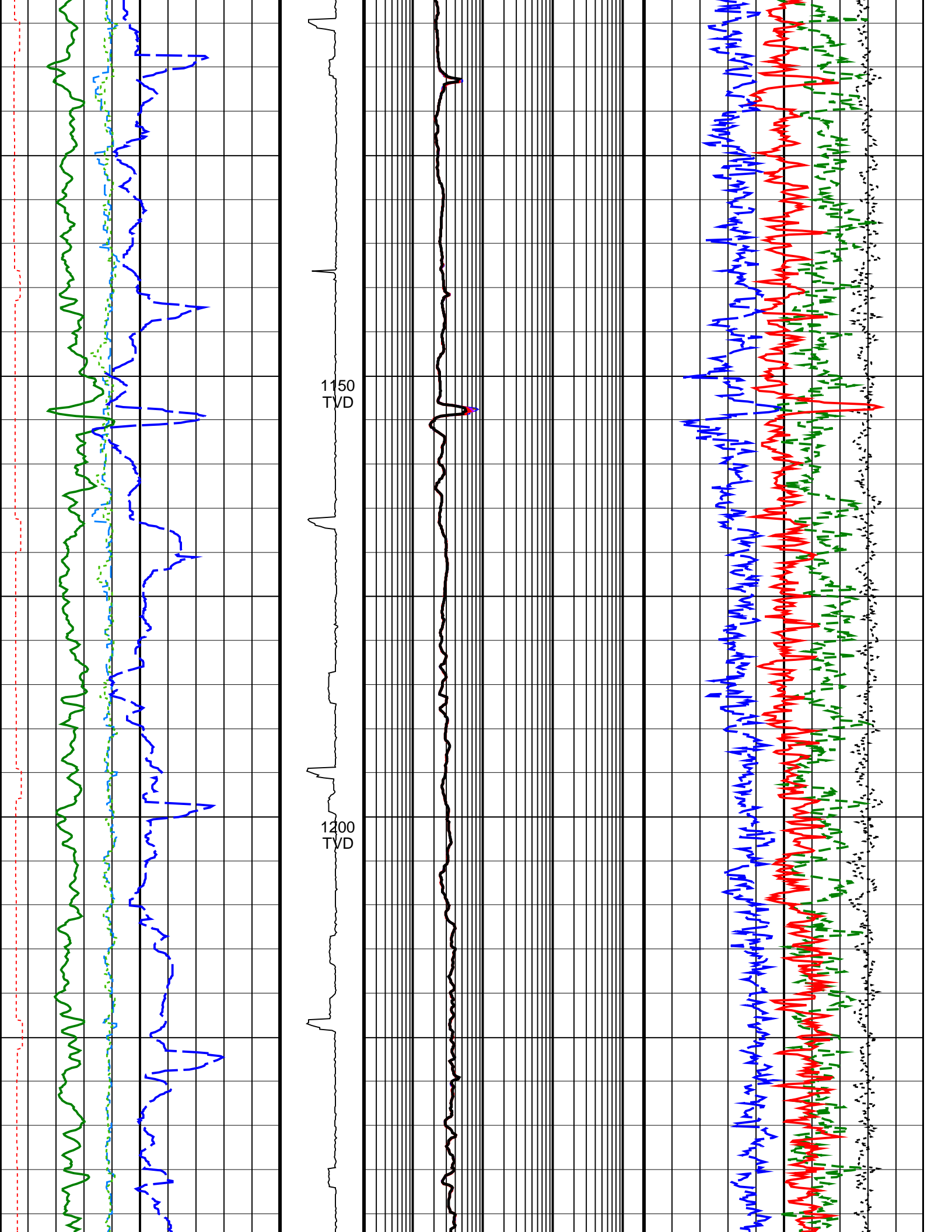
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| Rate of Penetration, Averaged over Last 5ft (ROP5_RM) | | ARC Phase-Shift Resistivity 40-in. at 2 MHz (P40H) | | | |
| 200 | (M/HR) | 0 | | 0.2 | (OHMM) 2000 |
| ARC Gamma Ray (GR_ARC) | | ARC Phase-Shift Resistivity 34-in. at 2 MHz (P34H) | | Thermal Neutron Porosity (TNPH) | |
| 0 | (GAPI) | 200 | | 0.2 | (OHMM) 2000 |
| | | | | 0.45 | (V/V) -0.15 |

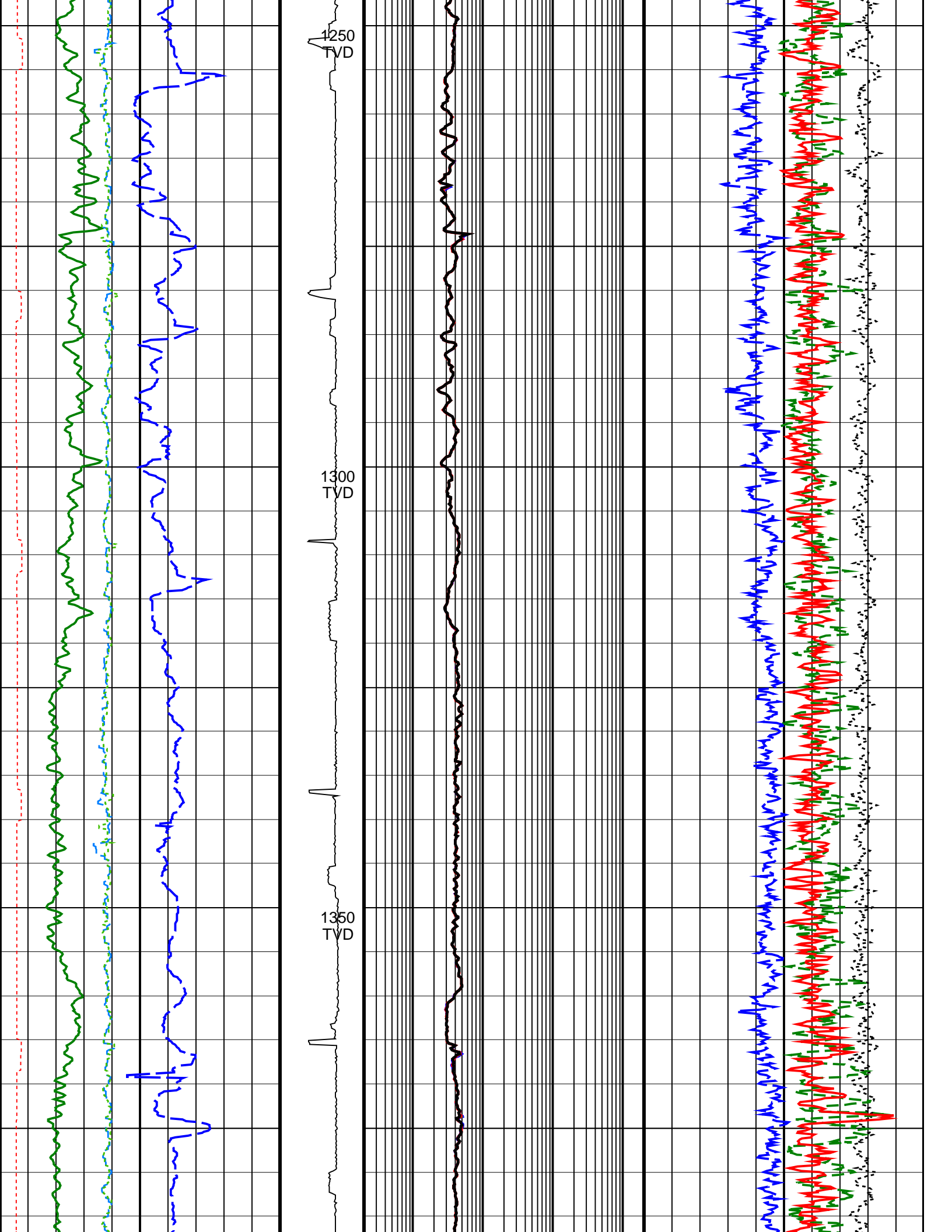


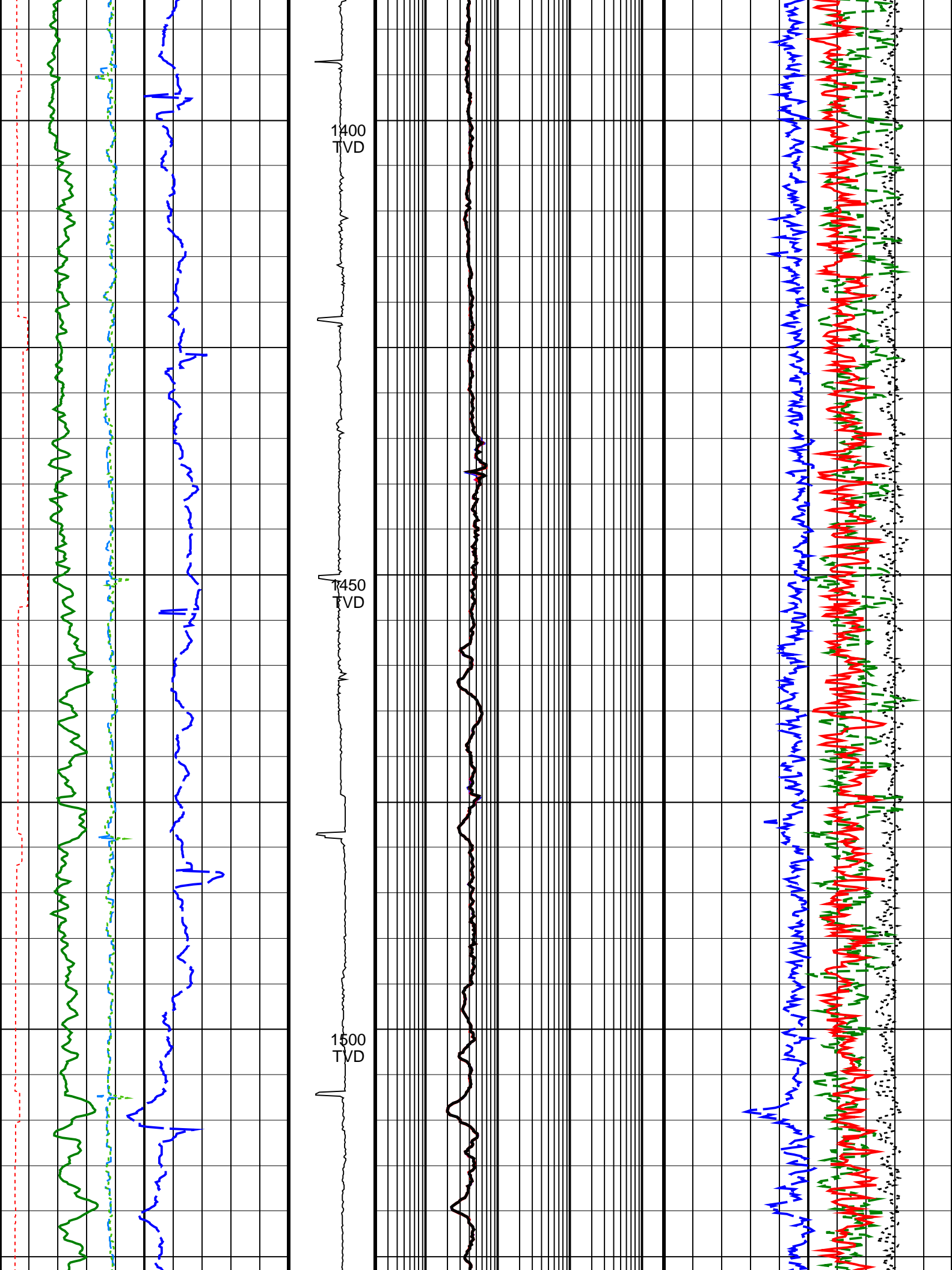


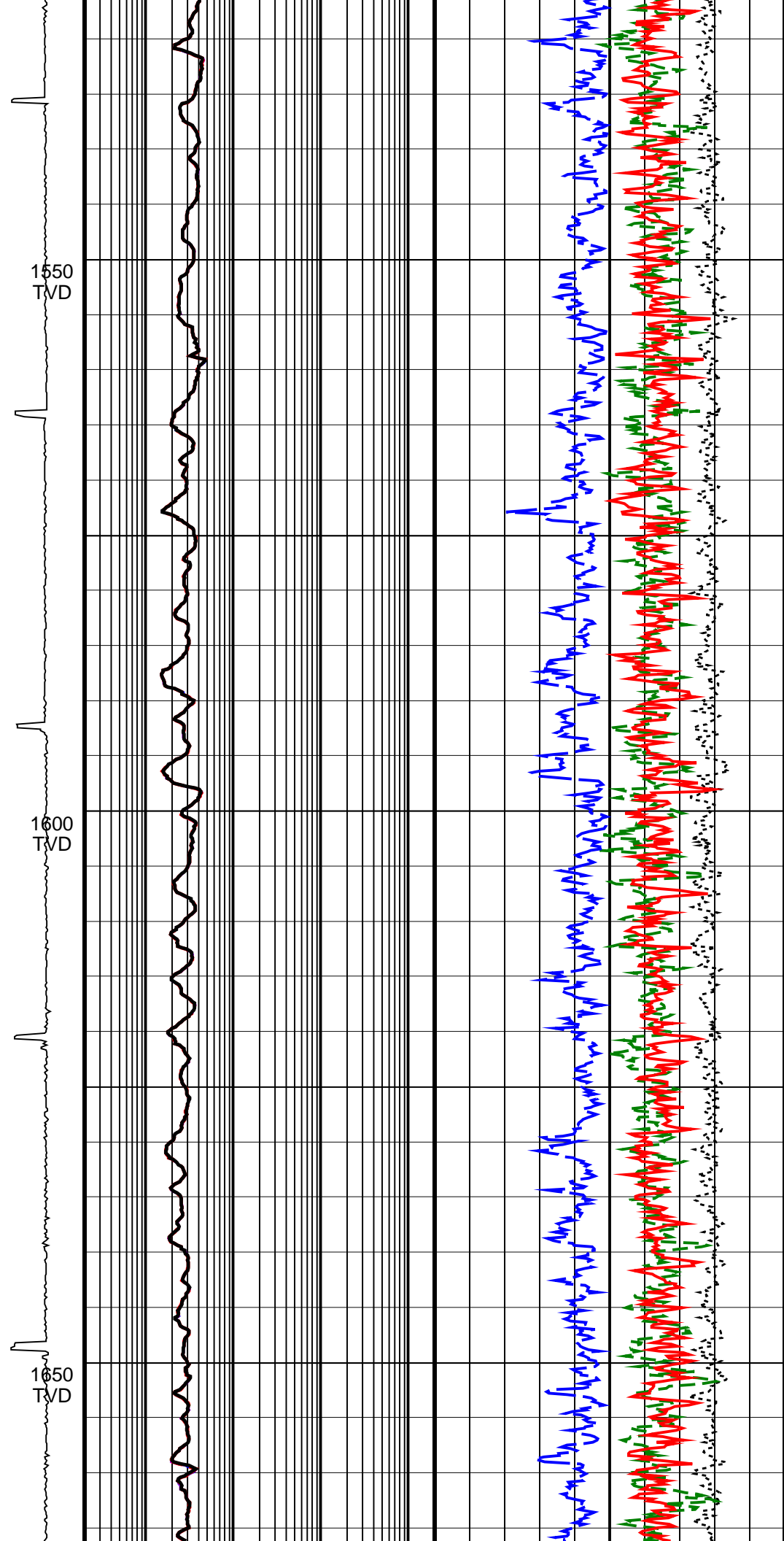
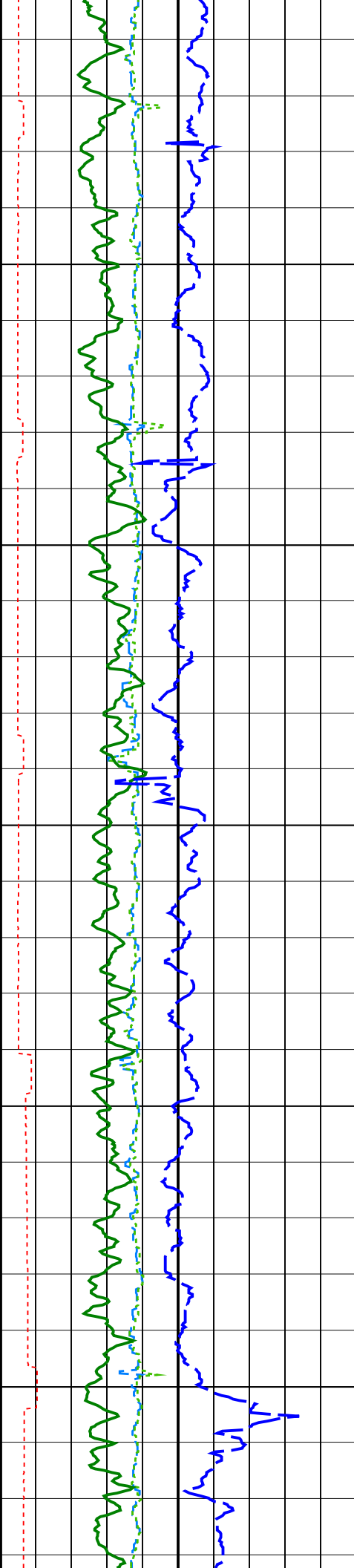


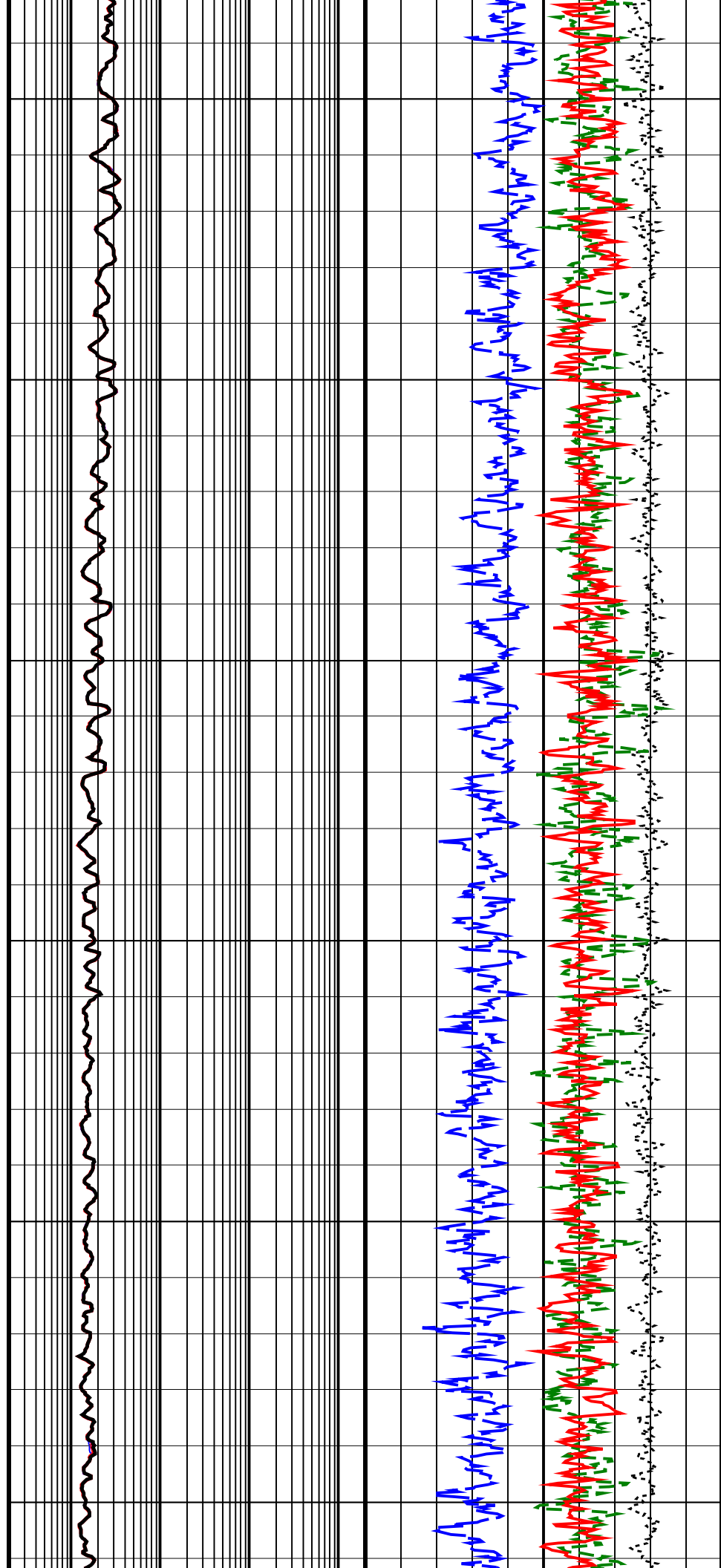
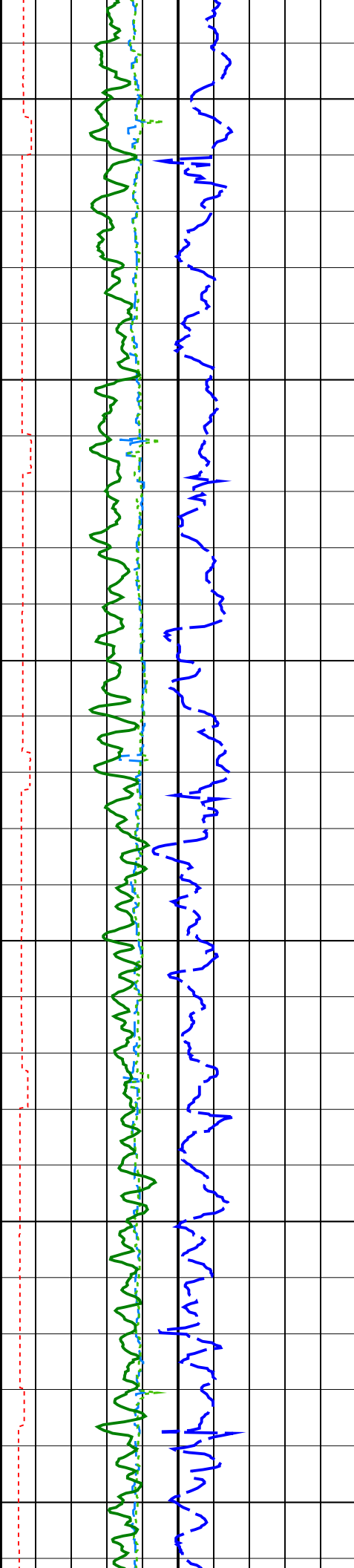


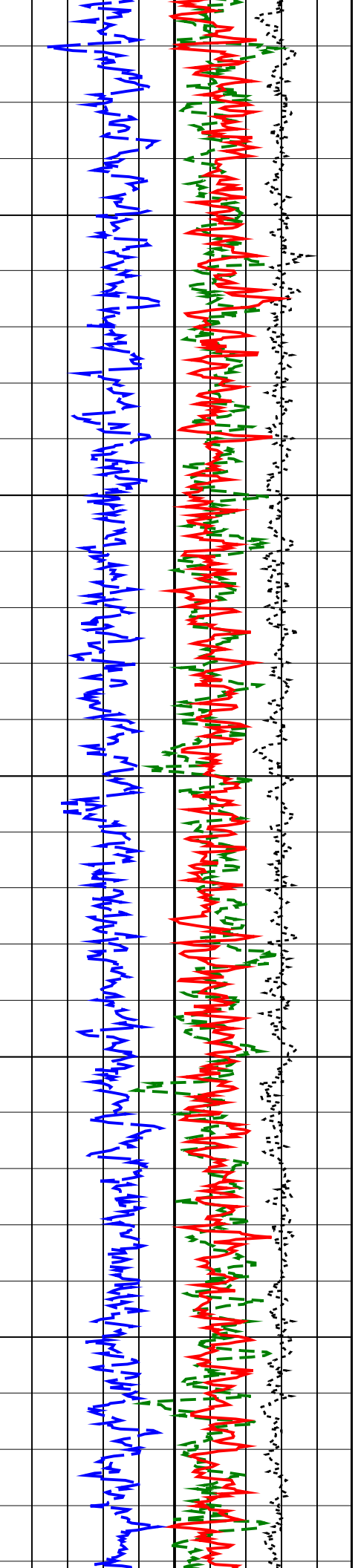
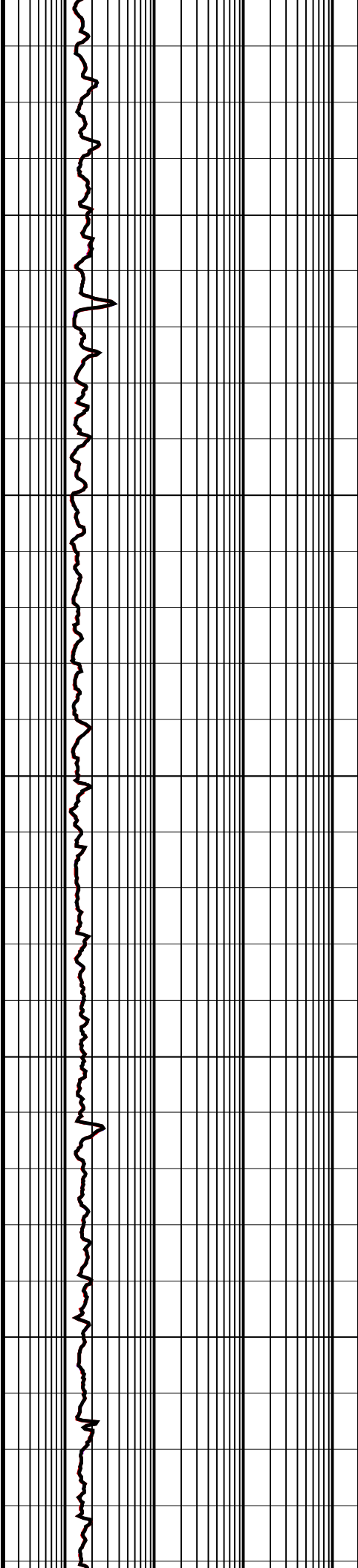
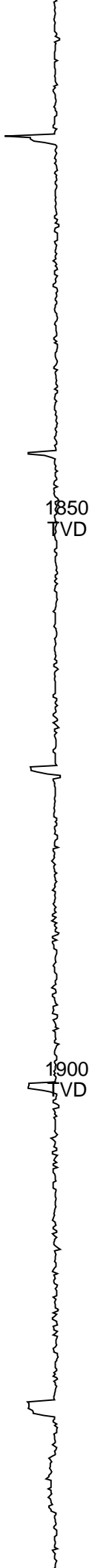
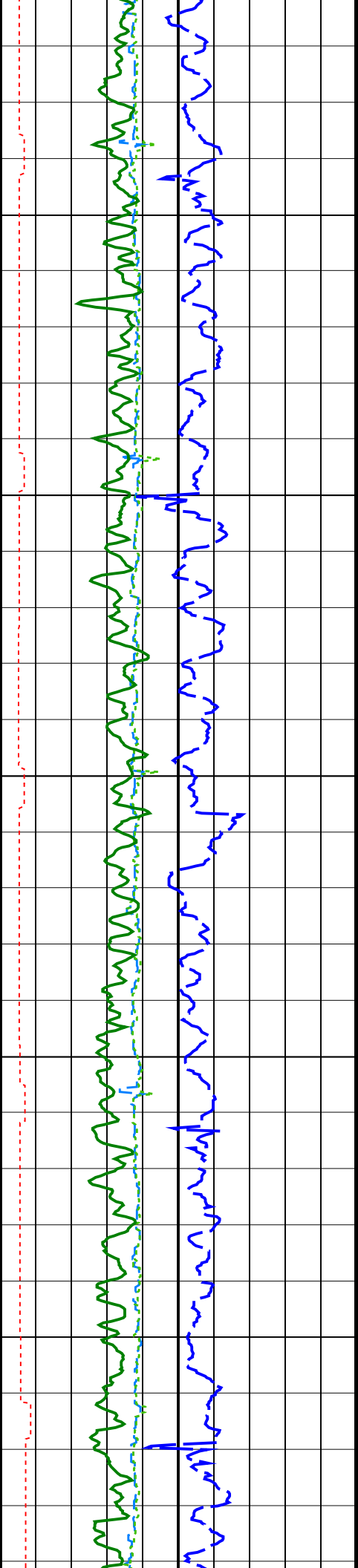


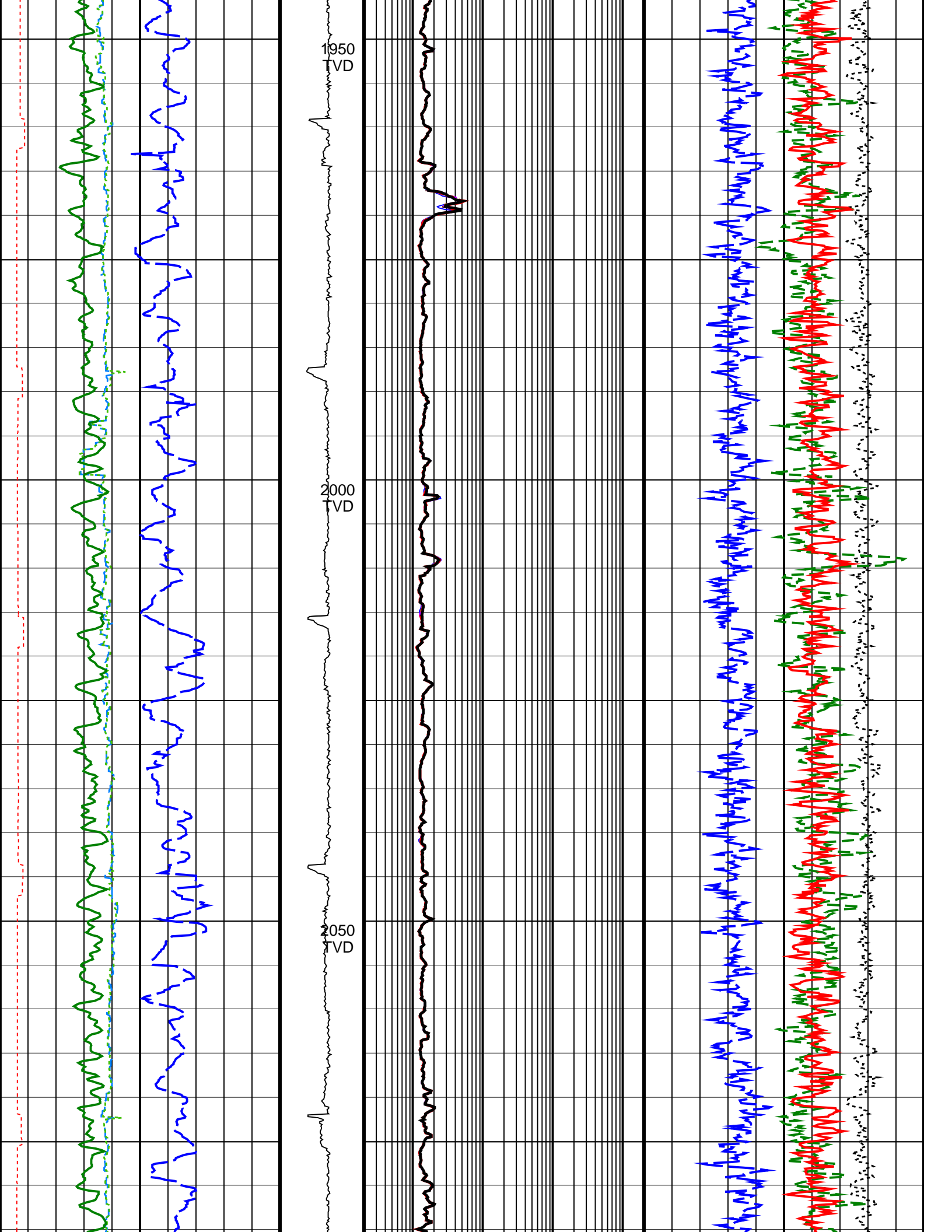


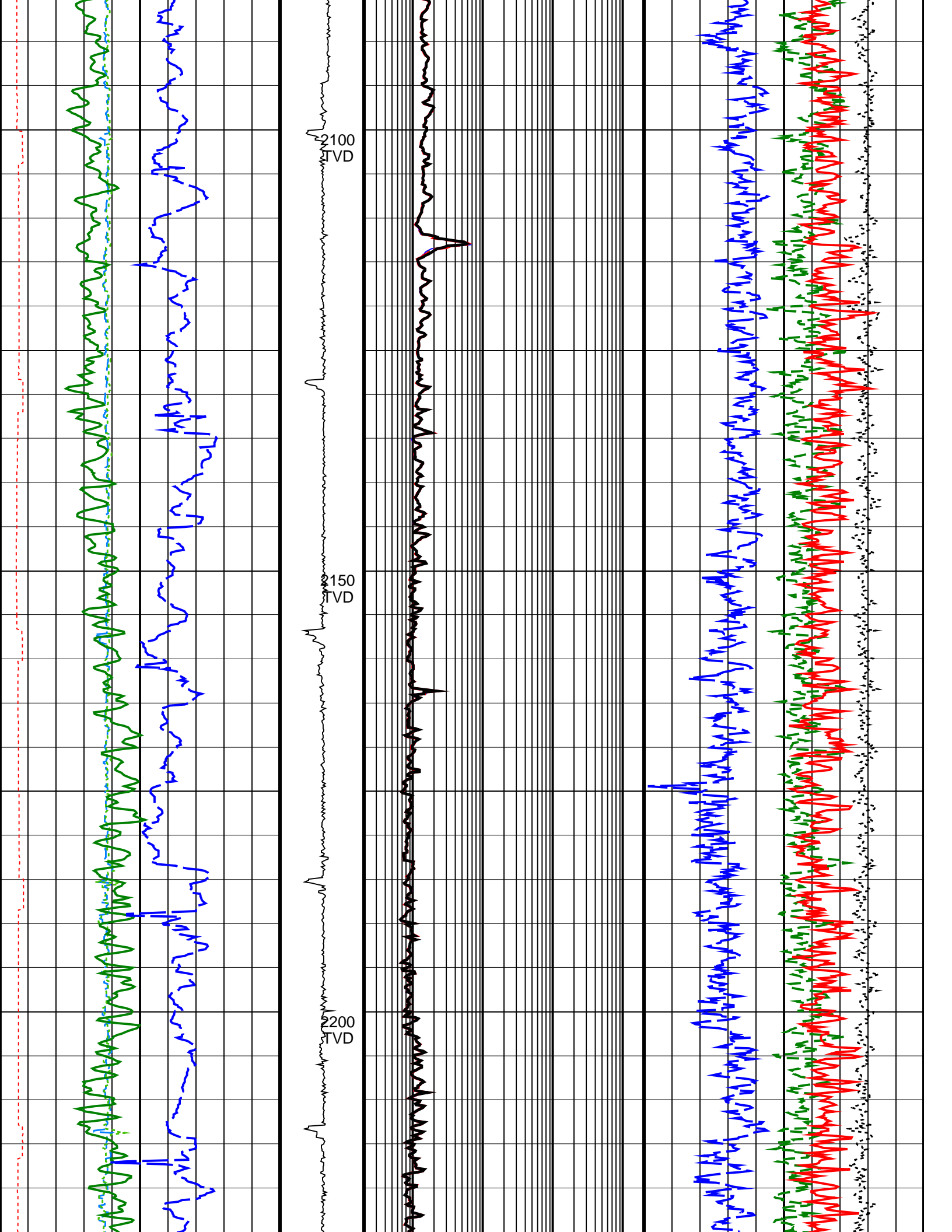


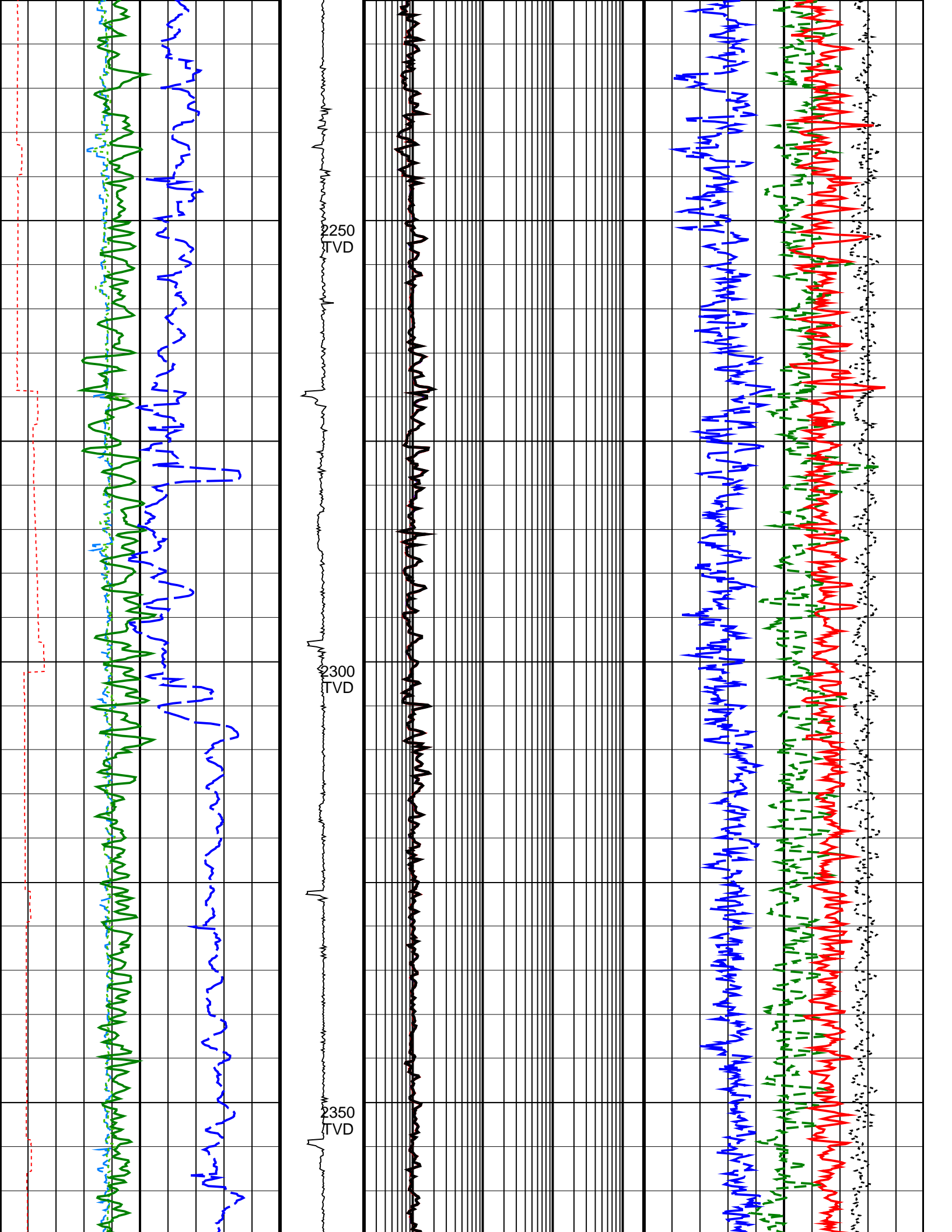


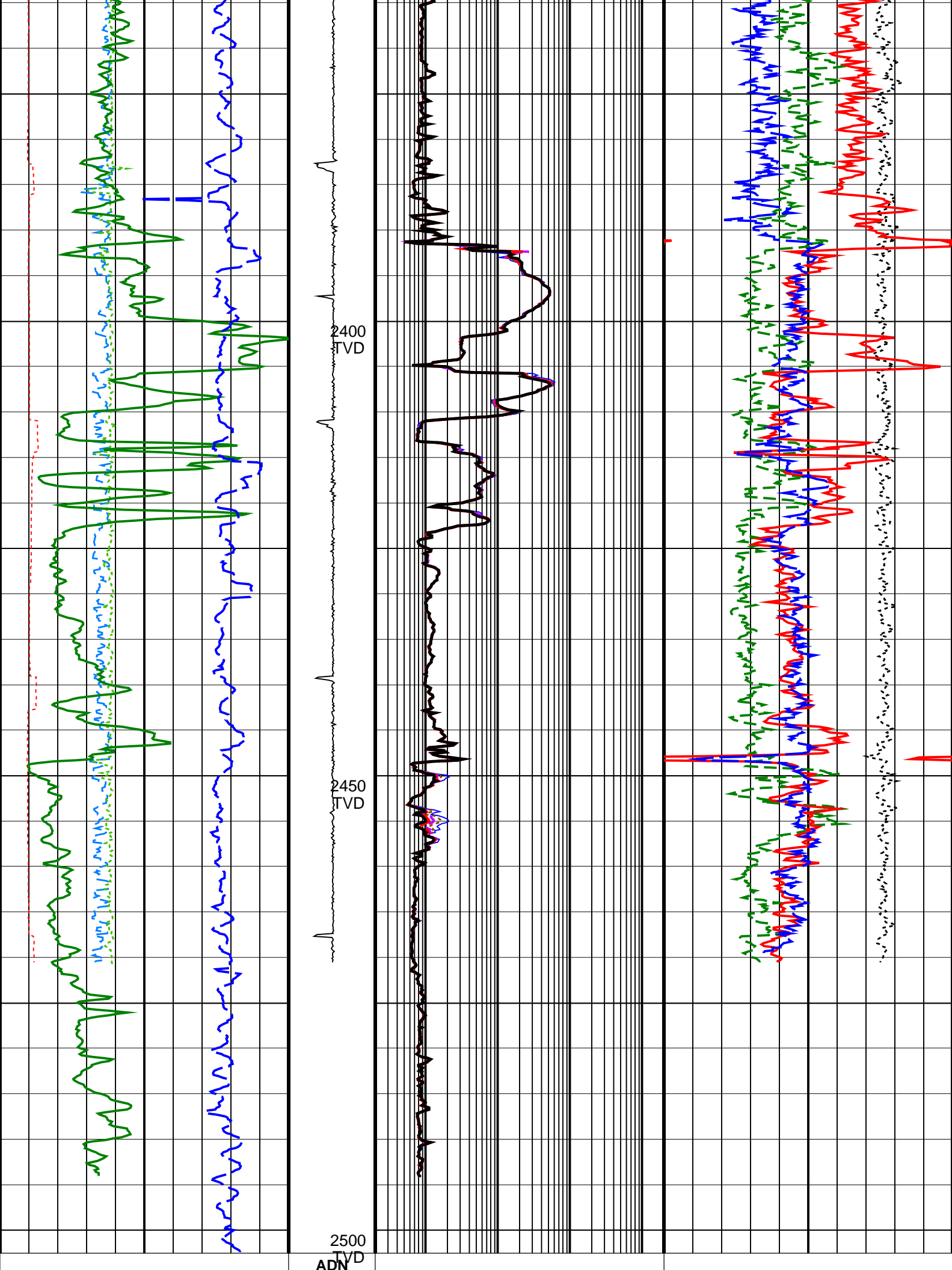












| | | | |
|--|--|--|--|
| Density Time After Bit (TAB_DEN) (HR) 0 10 | Rotational Speed (RPM_ADN) (RPM) 0 250 | ARC Phase–Shift Resistivity 16–in. at 2 MHz (P16H) 0.2 (OHMM) 2000 | Bulk Density Correction, Bottom (DRHB) (G/C3) 0.25 |
| | | | |
| Horizontal Hole Diameter (HORD) (IN) 6 16 | | ARC Phase–Shift Resistivity 22–in. at 2 MHz (P22H) 0.2 (OHMM) 2000 | Photoelectric Factor, Bottom (PEB) (----) 0 10 |
| | | | |
| Vertical Hole Diameter (VERD) (IN) 6 16 | | ARC Phase–Shift Resistivity 28–in. at 2 MHz (P28H) 0.2 (OHMM) 2000 | Bulk Density, Bottom (ROBB) (G/C3) 1.85 2.85 |
| | | | |
| ARC Gamma Ray (GR_ARC) (GAPI) 0 200 | | ARC Phase–Shift Resistivity 34–in. at 2 MHz (P34H) 0.2 (OHMM) 2000 | Thermal Neutron Porosity (TNPH) (V/V) 0.45 –0.15 |
| | | | |
| Rate of Penetration, Averaged over Last 5ft (ROP5_RM) 200 (M/HR) 0 | | ARC Phase–Shift Resistivity 40–in. at 2 MHz (P40H) 0.2 (OHMM) 2000 | |
| | | | |

IDEAL Version: ID14_0C_14

IDF

True Vertical Depth Log

| | | |
|--|---|---------------------------------|
| 6.75–in. Azimuthal Density Neutron / Equipment Identification | | |
| Primary Equipment: Tool Name and Serial Number Collar Type and Serial Number Chassis Type and Serial Number Stabilizer Type and Serial Number Neutron Logging Source Density Logging Source Stabilizer Size Calibration Status | ADN6 – CA E148° 18' 32.826" ADSE – EA NSR – M GSR – J/Z 9.33 in. AUTO – | 2400 373 1 202 1994 |

| | | | | |
|--|---|-------|--------|--|
| Master: 13–Jun–2009 20:01 | | | | |
| 6.75–in. Azimuthal Density Neutron Calibration | | | | |
| Density: Magnesium Block | | | | |
| Phase | LS window 3 – Mg CPS | Value | Phase | SS window 1 – Mg CPS |
| Master | <div></div> | 656.9 | Master | <div></div> |
| | 250.0 (Minimum) 4125 (Nominal) 8000 (Maximum) | | | 700.0 (Minimum) 9350 (Nominal) 18000 (Maximum) |
| | | | Phase | SS window 3 – Mg CPS |
| | | | Master | <div></div> |
| | | | | 2500 (Minimum) 23750 (Nominal) 45000 (Maximum) |

| | | | | |
|--|--|-------|--------|--|
| Master: 13–Jun–2009 20:01 | | | | |
| 6.75–in. Azimuthal Density Neutron Calibration | | | | |
| Density: Aluminum Block | | | | |
| Phase | LS window 3 – Al CPS | Value | Phase | SS window 1 – Al CPS |
| Master | <div></div> | 109.5 | Master | <div></div> |
| | 50.00 (Minimum) 725.0 (Nominal) 1400 (Maximum) | | | 500.0 (Minimum) 4250 (Nominal) 8000 (Maximum) |
| | | | Phase | SS window 3 – Al CPS |
| | | | Master | <div></div> |
| | | | | 1500 (Minimum) 15750 (Nominal) 30000 (Maximum) |

| | | | | |
|--|---|-------|--------|---|
| Master: 13–Jun–2009 20:01 | | | | |
| 6.75–in. Azimuthal Density Neutron Calibration | | | | |
| Density: Background | | | | |
| Phase | LS window 3 – Background CPS | Value | Phase | SS window 1 – Background CPS |
| Master | <div></div> | 48.40 | Master | <div></div> |
| | 15.00 (Minimum) 82.50 (Nominal) 150.0 (Maximum) | | | 40.00 (Minimum) 220.0 (Nominal) 400.0 (Maximum) |
| | | | Phase | SS window 3 – Background CPS |
| | | | Master | <div></div> |
| | | | | 150.0 (Minimum) 825.0 (Nominal) 1500 (Maximum) |

| | | | | |
|--|---------------------------------|-------|--------|----------------------------------|
| Master: 13–Jun–2009 20:01 | | | | |
| 6.75–in. Azimuthal Density Neutron Calibration | | | | |
| Density: Water Block Check | | | | |
| Phase | Long spacing water density G/C3 | Value | Phase | Short spacing water density G/C3 |
| Master | <div></div> | 1.016 | Master | <div></div> |
| | | | | 1.115 |

| | | | | | |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 1.005 (Minimum) | 1.020 (Nominal) | 1.035 (Maximum) | 1.081 (Minimum) | 1.111 (Nominal) | 1.141 (Maximum) |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|

| | | | | | | | | | | | |
|--|---------------------------------|--------------------|--------------------|--------|---------------------------------|--------------------|--------------------|--------|---------------------------------|--------------------|--------------------|
| Master: 13-Jun-2009 20:01 | | | | | | | | | | | |
| 6.75-in. Azimuthal Density Neutron Calibration | | | | | | | | | | | |
| Neutron: 3-Point Calibration | | | | | | | | | | | |
| Phase | Far 1 tube 1 Air Point Measure | CPS | Value | Phase | Far 1 tube 1 Rod Point Measure | CPS | Value | Phase | Far 1 tube 1 H2O Point Measure | CPS | Value |
| Master | | | 17.93 | Master | | | 4.529 | Master | | | 2.114 |
| | 13.30 (Minimum) | 19.05 (Nominal) | 24.70 (Maximum) | | 3.400 (Minimum) | 4.857 (Nominal) | 6.200 (Maximum) | | 1.600 (Minimum) | 2.363 (Nominal) | 3.100 (Maximum) |
| Phase | Far 1 tube 2 Air Point Measure | CPS | Value | Phase | Far 1 tube 2 Rod Point Measure | CPS | Value | Phase | Far 1 tube 2 H2O Point Measure | CPS | Value |
| Master | | | 18.62 | Master | | | 4.667 | Master | | | 2.235 |
| | 13.30 (Minimum) | 19.05 (Nominal) | 24.70 (Maximum) | | 3.400 (Minimum) | 4.857 (Nominal) | 6.200 (Maximum) | | 1.600 (Minimum) | 2.363 (Nominal) | 3.100 (Maximum) |
| Phase | Far 1 tube 3 Air Point Measure | CPS | Value | Phase | Far 1 tube 3 Rod Point Measure | CPS | Value | Phase | Far 1 tube 3 H2O Point Measure | CPS | Value |
| Master | | | 16.87 | Master | | | 4.339 | Master | | | 2.013 |
| | 13.30 (Minimum) | 19.05 (Nominal) | 24.70 (Maximum) | | 3.400 (Minimum) | 4.857 (Nominal) | 6.200 (Maximum) | | 1.600 (Minimum) | 2.363 (Nominal) | 3.100 (Maximum) |
| Phase | Far 2 tube 1 Air Point Measure | CPS | Value | Phase | Far 2 tube 1 Rod Point Measure | CPS | Value | Phase | Far 2 tube 1 H2O Point Measure | CPS | Value |
| Master | | | 16.92 | Master | | | 4.699 | Master | | | 2.168 |
| | 13.30 (Minimum) | 19.05 (Nominal) | 24.70 (Maximum) | | 3.400 (Minimum) | 4.857 (Nominal) | 6.200 (Maximum) | | 1.600 (Minimum) | 2.363 (Nominal) | 3.100 (Maximum) |
| Phase | Far 2 tube 2 Air Point Measure | CPS | Value | Phase | Far 2 tube 2 Rod Point Measure | CPS | Value | Phase | Far 2 tube 2 H2O Point Measure | CPS | Value |
| Master | | | 18.66 | Master | | | 4.713 | Master | | | 2.280 |
| | 13.30 (Minimum) | 19.05 (Nominal) | 24.70 (Maximum) | | 3.400 (Minimum) | 4.857 (Nominal) | 6.200 (Maximum) | | 1.600 (Minimum) | 2.363 (Nominal) | 3.100 (Maximum) |
| Phase | Far 2 tube 3 Air Point Measure | CPS | Value | Phase | Far 2 tube 3 Rod Point Measure | CPS | Value | Phase | Far 2 tube 3 H2O Point Measure | CPS | Value |
| Master | | | 17.89 | Master | | | 4.538 | Master | | | 2.162 |
| | 13.30 (Minimum) | 19.05 (Nominal) | 24.70 (Maximum) | | 3.400 (Minimum) | 4.857 (Nominal) | 6.200 (Maximum) | | 1.600 (Minimum) | 2.363 (Nominal) | 3.100 (Maximum) |
| Phase | Near 1 tube 1 Air Point Measure | CPS | Value | Phase | Near 1 tube 1 Rod Point Measure | CPS | Value | Phase | Near 1 tube 1 H2O Point Measure | CPS | Value |
| Master | | | 470.7 | Master | | | 721.6 | Master | | | 339.2 |
| | 345.0 (Minimum) | 487.5 (Nominal) | 595.0 (Maximum) | | 535.0 (Minimum) | 768.8 (Nominal) | 925.0 (Maximum) | | 230.0 (Minimum) | 343.7 (Nominal) | 430.0 (Maximum) |
| Phase | Near 2 tube 1 Air Point Measure | CPS | Value | Phase | Near 2 tube 1 Rod Point Measure | CPS | Value | Phase | Near 2 tube 1 H2O Point Measure | CPS | Value |
| Master | | | 476.5 | Master | | | 716.6 | Master | | | 337.4 |
| | 345.0 (Minimum) | 487.5 (Nominal) | 595.0 (Maximum) | | 535.0 (Minimum) | 768.8 (Nominal) | 925.0 (Maximum) | | 230.0 (Minimum) | 343.7 (Nominal) | 430.0 (Maximum) |

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|--|-------------------------------|--|--------------------|--|--|--|--------------------|--|-------|--|--|
| Master: 13-Jun-2009 20:01 | | | | | | | | | | | |
| 6.75-in. Azimuthal Density Neutron Calibration | | | | | | | | | | | |
| Neutron: Water Block Check | | | | | | | | | | | |
| Phase | Far Neutron water porosity PU | | | | | | | | Value | | |
| Master | | | | | | | | | 106.2 | | |
| | 90.00 (Minimum) | | 100.0 (Nominal) | | | | 125.0 (Maximum) | | | | |

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|---|--|--|--|--|--|--|--|--|--|--|--|
| 6.75-in. Array Resistivity Compensated / Equipment Identification | | | | | | | | | | | |
| Primary Equipment: | | | | | | | | | | | |
| Tool Name and Serial Number | | | | | | | | | | | |
| ARC675 Calibration Status | | | | | | | | | | | |
| ARC6 – BA | | | | | | | | | | | |
| 437 | | | | | | | | | | | |
| AUTO – | | | | | | | | | | | |

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|--|---------------------|---------------------|--------------------|---------|---------------------|---------------------|--------------------|--|----------|---------------------|--------------------------|--------------------|--|-----------|
| Master: 17-Apr-2009 14:12 | | | | | | | | | | | | | | |
| 6.75-in. Array Resistivity Compensated Calibration | | | | | | | | | | | | | | |
| Resistivity: Air | | | | | | | | | | | | | | |
| Phase | Phase-Shift T1 | | | Value | Phase | Phase-Shift T2 | | | Value | Phase | Phase-Shift T3 | | | Value |
| Master | | | | 0.09000 | Master | | | | -0.05300 | Master | | | | -0.001000 |
| | -3.900 (Minimum) | 0.1000 (Nominal) | 4.100 (Maximum) | | -3.900 (Minimum) | 0.1000 (Nominal) | 4.100 (Maximum) | | | -3.900 (Minimum) | 0.1000 (Nominal) | 4.100 (Maximum) | | |
| Phase | Phase-Shift T4 | | | Value | Phase | Phase-Shift T5 | | | Value | Phase | Phase-Shift T1 at 400KHz | | | Value |
| | | | | | | | | | | | | | | |

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|--------|--|---------|--------|--|----------|--------|--|--------|
| Master | | -0.1050 | Master | | 0.002000 | Master | | 1.267 |
| | -3.900 (Minimum) 0.1000 (Nominal) 4.100 (Maximum) | | | -3.900 (Minimum) 0.1000 (Nominal) 4.100 (Maximum) | | | -3.900 (Minimum) 0.1000 (Nominal) 4.100 (Maximum) | |
| Phase | Phase-Shift T2 at 400KHz | Value | Phase | Phase-Shift T3 at 400KHz | Value | Phase | Phase-Shift T4 at 400KHz | Value |
| Master | | -1.300 | Master | | 1.279 | Master | | -1.349 |
| | -3.900 (Minimum) 0.1000 (Nominal) 4.100 (Maximum) | | | -3.900 (Minimum) 0.1000 (Nominal) 4.100 (Maximum) | | | -3.900 (Minimum) 0.1000 (Nominal) 4.100 (Maximum) | |
| Phase | Phase-Shift T5 at 400KHz | Value | | | | | | |
| Master | | 1.278 | | | | | | |
| | -3.900 (Minimum) 0.1000 (Nominal) 4.100 (Maximum) | | | | | | | |

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|--|--|-------|--------|--|-------|--------|--|-------|
| Master: 17-Apr-2009 14:12 | | | | | | | | |
| 6.75-in. Array Resistivity Compensated Calibration | | | | | | | | |
| Resistivity: Air | | | | | | | | |
| Phase | Attenuation T1 | Value | Phase | Attenuation T2 | Value | Phase | Attenuation T3 | Value |
| Master | | 8.950 | Master | | 6.014 | Master | | 5.566 |
| | 6.500 (Minimum) 8.500 (Nominal) 10.50 (Maximum) | | | 4.500 (Minimum) 6.500 (Nominal) 8.500 (Maximum) | | | 2.500 (Minimum) 4.500 (Nominal) 6.500 (Maximum) | |
| Phase | Attenuation T4 | Value | Phase | Attenuation T5 | Value | Phase | Attenuation T1 at 400KHz | Value |
| Master | | 3.912 | Master | | 4.116 | Master | | 8.936 |
| | 2.600 (Minimum) 4.600 (Nominal) 6.600 (Maximum) | | | 1.600 (Minimum) 3.600 (Nominal) 5.600 (Maximum) | | | 6.500 (Minimum) 8.500 (Nominal) 10.50 (Maximum) | |
| Phase | Attenuation T2 at 400KHz | Value | Phase | Attenuation T3 at 400KHz | Value | Phase | Attenuation T4 at 400KHz | Value |
| Master | | 6.040 | Master | | 5.543 | Master | | 3.936 |
| | 4.500 (Minimum) 6.500 (Nominal) 8.500 (Maximum) | | | 2.500 (Minimum) 4.500 (Nominal) 6.500 (Maximum) | | | 2.600 (Minimum) 4.600 (Nominal) 6.600 (Maximum) | |
| Phase | Attenuation T5 at 400KHz | Value | | | | | | |
| Master | | 4.099 | | | | | | |
| | 1.600 (Minimum) 3.600 (Nominal) 5.600 (Maximum) | | | | | | | |

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|--|--|--|--------------------|--|--------------------|--|-------|--|
| Master: 17-Apr-2009 13:43 | | | | | | | | |
| 6.75-in. Array Resistivity Compensated Calibration | | | | | | | | |
| Gamma Ray: Blanket | | | | | | | | |
| Phase | Gamma ray factor (equals Calibration Gain multiplied by API Gain Factor) CPS | | | | | | Value | |
| Master | | | | | | | 5.022 | |
| | 2.780 (Minimum) | | 4.800 (Nominal) | | 6.000 (Maximum) | | | |

SCHLUMBERGER

Survey report 28-Jun-2009 10:51:46

Client.....: Esso Australia Pty. Ltd.
Field.....: Halibut

Well.....: CBA A-33 Spud date.....: 15-Jun-09
API number.....: n/a Last survey date.....: 24-Jun-09
Engineer.....: M. Amarasena, B. Low Total accepted surveys...: 164
MD of first survey.....: 0.00 m
Rig Label.....: ISDL 175 MD of last survey.....: 2579.00 m
STATE.....: Victoria

----- Survey calculation methods -----
Method for positions.....: Minimum curvature Magnetic model.....: BGM version 2008
Method for DLS.....: Mason & Taylor Magnetic date.....: 22-Jun-2009
Magnetic field strength...: 1199.42 HCNT
----- Depth reference -----
Permanent datum.....: Mean Sea Level Magnetic dec (+E/W-).....: 13.22 degrees
Depth reference.....: Driller's Depth Magnetic dip.....: -68.86 degrees
GL above permanent.....: -79.00 m
KB above permanent.....: Top Drive
DF above permanent.....: 41.00 m
----- MWD survey Reference Criteria -----
Reference G.....: 1000.05 mGal
Reference H.....: 1199.43 HCNT
Reference Dip.....: -68.86 degrees
----- Vertical section origin -----
Tolerance of G.....: (+/-) 2.50 mGal
Latitude (+N/S-).....: -2.70 m Tolerance of H.....: (+/-) 6.00 HCNT
Departure (+E/W-).....: 8.71 m Tolerance of Dip.....: (+/-) 0.45 degrees
----- Platform reference point -----
Latitude (+N/S-).....: -304.57 m
Departure (+E/W-).....: -304.57 m
----- Corrections -----
Magnetic dec (+E/W-).....: 13.22 degrees
Grid convergence (+E/W-).....: -0.81 degrees
Total az corr (+E/W-).....: 14.03 degrees
Azimuth from Vsect Origin to target: 207.22 degrees (Total az corr = magnetic dec - grid conv)
Survey Correction Type ...: G
I=Sag Corrected Inclination
M=Schlumberger Magnetic Correction
S=Shell Magnetic Correction
F=Failed Axis Correction
R=Magnetic Resonance Tool Correction
G=Gmag Magnetic Correction

[(c)2009 IDEAL ID14_OC_14]
SCHLUMBERGER Survey Report

28-Jun-2009 10:51:46

| Seq | Measured | Incl | Azimuth | Course | TVD | Vertical | Displ | Displ | Total | At | DLS | Srvy | Tool |
|-----|----------|-------|---------|--------|-------|----------|-------|-------|-------|--------|-------|-------|------|
| # | depth | angle | angle | length | depth | section | +N/S- | +E/W- | displ | Azim | (deg/ | tool | Corr |
| - | (m) | (deg) | (deg) | (m) | (m) | (m) | (m) | (m) | (deg) | 100f) | type | (deg) | |
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -2.70 | 8.71 | 9.12 | 107.22 | 0.00 | TIP | None |
| 2 | 16.66 | 0.00 | 0.00 | 16.66 | 16.66 | 0.00 | -2.70 | 8.71 | 9.12 | 107.22 | 0.00 | MWD_M | None |
| 3 | 36.66 | 0.24 | 294.89 | 20.00 | 36.66 | 0.00 | -2.68 | 8.67 | 9.08 | 107.19 | 0.37 | MWD_M | None |
| 4 | 38.66 | 0.25 | 303.61 | 2.00 | 38.66 | 0.00 | -2.68 | 8.66 | 9.07 | 107.18 | 0.59 | MWD_M | None |
| 5 | 40.66 | 0.23 | 259.46 | 2.00 | 40.66 | 0.00 | -2.68 | 8.66 | 9.06 | 107.18 | 2.76 | MWD_M | None |
| 6 | 42.66 | 0.18 | 292.07 | 2.00 | 42.66 | 0.01 | -2.68 | 8.65 | 9.05 | 107.19 | 1.90 | MWD_M | None |
| 7 | 44.66 | 0.25 | 248.27 | 2.00 | 44.66 | 0.01 | -2.68 | 8.64 | 9.05 | 107.21 | 2.64 | MWD_M | None |
| 8 | 46.66 | 0.17 | 292.97 | 2.00 | 46.66 | 0.01 | -2.68 | 8.64 | 9.04 | 107.22 | 2.68 | MWD_M | None |
| 9 | 48.66 | 0.19 | 310.99 | 2.00 | 48.66 | 0.01 | -2.67 | 8.63 | 9.04 | 107.21 | 0.91 | MWD_M | None |
| 10 | 50.66 | 0.17 | 259.27 | 2.00 | 50.66 | 0.01 | -2.67 | 8.63 | 9.03 | 107.21 | 2.41 | MWD_M | None |
| 11 | 52.66 | 0.15 | 297.42 | 2.00 | 52.66 | 0.02 | -2.67 | 8.62 | 9.02 | 107.22 | 1.62 | MWD_M | None |
| 12 | 54.66 | 0.26 | 223.06 | 2.00 | 54.66 | 0.02 | -2.67 | 8.62 | 9.02 | 107.24 | 4.01 | MWD_M | None |
| 13 | 56.66 | 0.19 | 237.40 | 2.00 | 56.66 | 0.03 | -2.68 | 8.61 | 9.02 | 107.28 | 1.36 | MWD_M | None |
| 14 | 58.66 | 0.18 | 256.40 | 2.00 | 58.66 | 0.03 | -2.68 | 8.60 | 9.01 | 107.31 | 0.94 | MWD_M | None |
| 15 | 60.66 | 0.20 | 297.74 | 2.00 | 60.66 | 0.03 | -2.68 | 8.60 | 9.01 | 107.32 | 2.06 | MWD_M | None |
| 16 | 62.66 | 0.24 | 276.40 | 2.00 | 62.66 | 0.04 | -2.68 | 8.59 | 9.00 | 107.32 | 1.38 | MWD_M | None |
| 17 | 64.66 | 0.22 | 273.19 | 2.00 | 64.66 | 0.04 | -2.68 | 8.58 | 8.99 | 107.33 | 0.36 | MWD_M | None |
| 18 | 66.66 | 0.29 | 249.88 | 2.00 | 66.66 | 0.04 | -2.68 | 8.57 | 8.98 | 107.35 | 1.89 | MWD_M | None |
| 19 | 68.66 | 0.29 | 256.71 | 2.00 | 68.66 | 0.05 | -2.68 | 8.56 | 8.97 | 107.39 | 0.53 | MWD_M | None |
| 20 | 70.66 | 0.27 | 270.40 | 2.00 | 70.66 | 0.06 | -2.68 | 8.55 | 8.96 | 107.41 | 1.06 | MWD_M | None |
| 21 | 72.66 | 0.32 | 265.13 | 2.00 | 72.66 | 0.06 | -2.68 | 8.54 | 8.96 | 107.44 | 0.87 | MWD_M | None |
| 22 | 74.66 | 0.30 | 298.10 | 2.00 | 74.66 | 0.06 | -2.68 | 8.53 | 8.94 | 107.44 | 2.70 | MWD_M | None |
| 23 | 76.66 | 0.33 | 257.14 | 2.00 | 76.66 | 0.07 | -2.68 | 8.52 | 8.93 | 107.46 | 3.39 | MWD_M | None |
| 24 | 78.66 | 0.29 | 290.54 | 2.00 | 78.66 | 0.07 | -2.68 | 8.51 | 8.92 | 107.47 | 2.78 | MWD_M | None |
| 25 | 80.66 | 0.29 | 286.15 | 2.00 | 80.66 | 0.07 | -2.68 | 8.50 | 8.91 | 107.47 | 0.34 | MWD_M | None |
| 26 | 82.66 | 0.33 | 279.92 | 2.00 | 82.66 | 0.08 | -2.67 | 8.49 | 8.90 | 107.48 | 0.80 | MWD_M | None |
| 27 | 84.66 | 0.34 | 290.80 | 2.00 | 84.66 | 0.08 | -2.67 | 8.48 | 8.89 | 107.48 | 0.98 | MWD_M | None |
| 28 | 86.66 | 0.34 | 294.63 | 2.00 | 86.66 | 0.08 | -2.67 | 8.47 | 8.88 | 107.47 | 0.35 | MWD_M | None |
| 29 | 88.66 | 0.29 | 307.58 | 2.00 | 88.66 | 0.08 | -2.66 | 8.46 | 8.87 | 107.46 | 1.32 | MWD_M | None |

| | | | | | | | | | | | | | |
|-----|--------|-------|--------|-------|--------|--------|---------|--------|--------|--------|------|-------|------|
| 30 | 90.66 | 0.26 | 281.54 | 2.00 | 90.66 | 0.08 | -2.66 | 8.45 | 8.86 | 107.45 | 1.94 | MWD_M | None |
| 31 | 92.66 | 0.25 | 293.72 | 2.00 | 92.66 | 0.08 | -2.65 | 8.44 | 8.85 | 107.45 | 0.84 | MWD_M | None |
| 32 | 94.66 | 0.25 | 302.92 | 2.00 | 94.66 | 0.08 | -2.65 | 8.44 | 8.84 | 107.44 | 0.61 | MWD_M | None |
| 33 | 96.66 | 0.26 | 285.89 | 2.00 | 96.66 | 0.08 | -2.65 | 8.43 | 8.83 | 107.43 | 1.16 | MWD_M | None |
| 34 | 98.66 | 0.25 | 302.46 | 2.00 | 98.66 | 0.08 | -2.64 | 8.42 | 8.83 | 107.43 | 1.13 | MWD_M | None |
| 35 | 100.66 | 0.22 | 293.72 | 2.00 | 100.66 | 0.08 | -2.64 | 8.41 | 8.82 | 107.42 | 0.71 | MWD_M | None |
| 36 | 102.66 | 0.23 | 282.98 | 2.00 | 102.66 | 0.08 | -2.64 | 8.41 | 8.81 | 107.41 | 0.66 | MWD_M | None |
| 37 | 104.66 | 0.19 | 278.57 | 2.00 | 104.66 | 0.08 | -2.64 | 8.40 | 8.80 | 107.42 | 0.66 | MWD_M | None |
| 38 | 106.66 | 0.21 | 273.94 | 2.00 | 106.66 | 0.09 | -2.63 | 8.39 | 8.80 | 107.43 | 0.39 | MWD_M | None |
| 39 | 108.66 | 0.21 | 270.34 | 2.00 | 108.66 | 0.09 | -2.63 | 8.38 | 8.79 | 107.44 | 0.20 | MWD_M | None |
| 40 | 110.66 | 0.24 | 288.48 | 2.00 | 110.66 | 0.09 | -2.63 | 8.38 | 8.78 | 107.45 | 1.17 | MWD_M | None |
| 41 | 112.66 | 0.25 | 293.12 | 2.00 | 112.66 | 0.09 | -2.63 | 8.37 | 8.77 | 107.44 | 0.34 | MWD_M | None |
| 42 | 114.66 | 0.21 | 265.48 | 2.00 | 114.66 | 0.10 | -2.63 | 8.36 | 8.76 | 107.45 | 1.78 | MWD_M | None |
| 43 | 116.66 | 0.19 | 242.45 | 2.00 | 116.66 | 0.10 | -2.63 | 8.35 | 8.76 | 107.48 | 1.25 | MWD_M | None |
| 44 | 118.66 | 0.25 | 225.46 | 2.00 | 118.66 | 0.11 | -2.63 | 8.35 | 8.75 | 107.52 | 1.34 | MWD_M | None |
| 45 | 120.76 | 0.29 | 213.32 | 2.10 | 120.76 | 0.12 | -2.64 | 8.34 | 8.75 | 107.58 | 1.01 | MWD_M | None |
| 46 | 122.66 | 0.39 | 203.57 | 1.90 | 122.66 | 0.13 | -2.65 | 8.34 | 8.75 | 107.65 | 1.85 | MWD_M | None |
| 47 | 124.66 | 0.51 | 197.13 | 2.00 | 124.66 | 0.14 | -2.67 | 8.33 | 8.75 | 107.75 | 1.98 | MWD_M | None |
| 48 | 126.66 | 0.68 | 191.96 | 2.00 | 126.66 | 0.16 | -2.69 | 8.33 | 8.75 | 107.89 | 2.71 | MWD_M | None |
| 49 | 128.66 | 0.87 | 189.82 | 2.00 | 128.66 | 0.19 | -2.71 | 8.32 | 8.75 | 108.06 | 2.93 | MWD_M | None |
| 50 | 130.66 | 0.97 | 187.72 | 2.00 | 130.66 | 0.22 | -2.75 | 8.32 | 8.76 | 108.27 | 1.61 | MWD_M | None |
| 51 | 132.66 | 1.25 | 187.37 | 2.00 | 132.66 | 0.26 | -2.78 | 8.31 | 8.77 | 108.52 | 4.27 | MWD_M | None |
| 52 | 134.66 | 1.40 | 186.55 | 2.00 | 134.66 | 0.30 | -2.83 | 8.31 | 8.78 | 108.81 | 2.30 | MWD_M | None |
| 53 | 136.66 | 1.66 | 186.65 | 2.00 | 136.66 | 0.35 | -2.88 | 8.30 | 8.79 | 109.15 | 3.96 | MWD_M | None |
| 54 | 138.76 | 1.90 | 186.78 | 2.10 | 138.76 | 0.41 | -2.95 | 8.29 | 8.80 | 109.57 | 3.48 | MWD_M | None |
| 55 | 140.66 | 2.12 | 187.54 | 1.90 | 140.65 | 0.47 | -3.01 | 8.28 | 8.82 | 109.99 | 3.55 | MWD_M | None |
| 56 | 142.66 | 2.37 | 188.74 | 2.00 | 142.65 | 0.55 | -3.09 | 8.27 | 8.83 | 110.49 | 3.88 | MWD_M | None |
| 57 | 144.66 | 2.64 | 189.86 | 2.00 | 144.65 | 0.63 | -3.18 | 8.26 | 8.85 | 111.04 | 4.18 | MWD_M | None |
| 58 | 146.66 | 2.85 | 190.62 | 2.00 | 146.65 | 0.72 | -3.27 | 8.24 | 8.87 | 111.65 | 3.25 | MWD_M | None |
| 59 | 148.66 | 3.07 | 191.59 | 2.00 | 148.65 | 0.82 | -3.37 | 8.22 | 8.89 | 112.31 | 3.44 | MWD_M | None |
| 60 | 150.66 | 3.34 | 192.90 | 2.00 | 150.64 | 0.93 | -3.48 | 8.20 | 8.91 | 113.02 | 4.26 | MWD_M | None |
| 61 | 152.66 | 3.59 | 194.13 | 2.00 | 152.64 | 1.05 | -3.60 | 8.17 | 8.93 | 113.78 | 3.97 | MWD_M | None |
| 62 | 154.66 | 3.82 | 195.57 | 2.00 | 154.64 | 1.17 | -3.72 | 8.14 | 8.95 | 114.60 | 3.78 | MWD_M | None |
| 63 | 156.66 | 3.94 | 196.59 | 2.00 | 156.63 | 1.31 | -3.85 | 8.10 | 8.97 | 115.45 | 2.11 | MWD_M | None |
| 64 | 158.66 | 4.15 | 198.51 | 2.00 | 158.63 | 1.45 | -3.99 | 8.06 | 8.99 | 116.34 | 3.81 | MWD_M | None |
| 65 | 160.66 | 4.32 | 200.37 | 2.00 | 160.62 | 1.59 | -4.13 | 8.01 | 9.01 | 117.28 | 3.33 | MWD_M | None |
| 66 | 162.66 | 4.46 | 202.53 | 2.00 | 162.61 | 1.74 | -4.27 | 7.95 | 9.03 | 118.24 | 3.30 | MWD_M | None |
| 67 | 164.66 | 4.70 | 204.24 | 2.00 | 164.61 | 1.90 | -4.42 | 7.89 | 9.04 | 119.25 | 4.21 | MWD_M | None |
| 68 | 166.66 | 4.88 | 205.96 | 2.00 | 166.60 | 2.07 | -4.57 | 7.82 | 9.05 | 120.31 | 3.51 | MWD_M | None |
| 69 | 168.66 | 4.99 | 208.02 | 2.00 | 168.59 | 2.24 | -4.72 | 7.74 | 9.07 | 121.39 | 3.18 | MWD_M | None |
| 70 | 170.66 | 5.05 | 210.33 | 2.00 | 170.59 | 2.42 | -4.87 | 7.65 | 9.07 | 122.49 | 3.21 | MWD_M | None |
| 71 | 172.66 | 5.21 | 212.62 | 2.00 | 172.58 | 2.60 | -5.03 | 7.56 | 9.08 | 123.62 | 3.96 | MWD_M | None |
| 72 | 174.66 | 5.26 | 214.97 | 2.00 | 174.57 | 2.78 | -5.18 | 7.46 | 9.08 | 124.77 | 3.36 | MWD_M | None |
| 73 | 176.66 | 5.38 | 216.71 | 2.00 | 176.56 | 2.96 | -5.33 | 7.35 | 9.08 | 125.94 | 3.06 | MWD_M | None |
| 74 | 178.66 | 5.47 | 218.25 | 2.00 | 178.55 | 3.15 | -5.48 | 7.24 | 9.08 | 127.14 | 2.61 | MWD_M | None |
| 75 | 180.66 | 5.46 | 220.58 | 2.00 | 180.54 | 3.33 | -5.63 | 7.11 | 9.07 | 128.34 | 3.39 | MWD_M | None |
| 76 | 182.66 | 5.57 | 222.21 | 2.00 | 182.53 | 3.52 | -5.77 | 6.99 | 9.06 | 129.55 | 2.92 | MWD_M | None |
| 77 | 184.66 | 5.51 | 224.72 | 2.00 | 184.52 | 3.70 | -5.91 | 6.85 | 9.05 | 130.77 | 3.80 | MWD_M | None |
| 78 | 187.46 | 5.48 | 227.37 | 2.80 | 187.31 | 3.96 | -6.10 | 6.66 | 9.03 | 132.47 | 2.78 | MWD_M | None |
| 79 | 196.67 | 5.54 | 228.80 | 9.21 | 196.48 | 4.78 | -6.69 | 6.00 | 8.99 | 138.09 | 0.50 | MWD_M | None |
| 80 | 209.16 | 5.89 | 229.07 | 12.49 | 208.91 | 5.94 | -7.50 | 5.07 | 9.05 | 145.98 | 0.86 | MWD_M | None |
| 81 | 217.66 | 6.33 | 225.20 | 8.50 | 217.36 | 6.79 | -8.12 | 4.40 | 9.24 | 151.53 | 2.16 | MWD_M | None |
| 82 | 227.85 | 7.48 | 218.96 | 10.19 | 227.47 | 7.97 | -9.03 | 3.59 | 9.72 | 158.34 | 4.10 | MWD_M | None |
| 83 | 251.74 | 8.80 | 209.91 | 23.89 | 251.12 | 11.32 | -11.83 | 1.70 | 11.95 | 171.83 | 2.34 | MWD_M | None |
| 84 | 267.36 | 9.50 | 202.96 | 15.62 | 266.55 | 13.80 | -14.05 | 0.60 | 14.06 | 177.55 | 2.55 | MWD_M | None |
| 85 | 281.30 | 9.77 | 197.69 | 13.94 | 280.29 | 16.11 | -16.23 | -0.21 | 16.24 | 180.73 | 2.02 | MWD_M | None |
| 86 | 310.66 | 9.68 | 198.83 | 29.36 | 309.23 | 21.01 | -20.94 | -1.76 | 21.02 | 184.81 | 0.22 | MWD_M | None |
| 87 | 339.16 | 9.77 | 199.97 | 28.50 | 337.32 | 25.78 | -25.48 | -3.36 | 25.70 | 187.51 | 0.23 | MWD_M | None |
| 88 | 369.16 | 10.73 | 198.83 | 30.00 | 366.84 | 31.07 | -30.52 | -5.13 | 30.95 | 189.54 | 1.00 | MWD_M | None |
| 89 | 397.59 | 12.23 | 198.57 | 28.43 | 394.70 | 36.67 | -35.88 | -6.95 | 36.55 | 190.96 | 1.61 | MWD_M | None |
| 90 | 428.70 | 13.90 | 198.57 | 31.11 | 425.00 | 43.62 | -42.55 | -9.18 | 43.53 | 192.18 | 1.64 | MWD_M | None |
| 91 | 456.74 | 14.08 | 198.48 | 28.04 | 452.21 | 50.32 | -48.97 | -11.34 | 50.27 | 193.04 | 0.20 | MWD_M | None |
| 92 | 486.51 | 13.55 | 199.01 | 29.77 | 481.12 | 57.35 | -55.71 | -13.62 | 57.35 | 193.74 | 0.56 | MWD_M | None |
| 93 | 511.01 | 14.08 | 199.10 | 24.50 | 504.91 | 63.14 | -61.23 | -15.53 | 63.17 | 194.23 | 0.66 | MWD_M | None |
| 94 | 544.75 | 14.60 | 200.15 | 33.74 | 537.60 | 71.42 | -69.11 | -18.34 | 71.50 | 194.86 | 0.53 | MWD_M | None |
| 95 | 573.45 | 14.78 | 200.06 | 28.70 | 565.36 | 78.65 | -75.94 | -20.84 | 78.75 | 195.35 | 0.19 | MWD_M | None |
| 96 | 584.77 | 14.87 | 200.33 | 11.32 | 576.30 | 81.52 | -78.66 | -21.84 | 81.63 | 195.52 | 0.31 | MWD_M | None |
| 97 | 625.93 | 15.90 | 204.02 | 41.16 | 615.99 | 92.39 | -88.76 | -25.97 | 92.48 | 196.31 | 1.05 | MWD_M | None |
| 98 | 655.19 | 16.22 | 209.88 | 29.26 | 644.11 | 100.48 | -95.97 | -29.64 | 100.44 | 197.16 | 1.72 | MWD_M | None |
| 99 | 684.66 | 15.92 | 210.09 | 29.47 | 672.43 | 108.63 | -103.03 | -33.72 | 108.41 | 198.12 | 0.32 | MWD_M | None |
| 100 | 713.95 | 16.16 | 209.41 | 29.29 | 700.58 | 116.71 | -110.06 | -37.73 | 116.35 | 198.92 | 0.32 | MWD_M | None |
| 101 | 743.19 | 15.68 | 208.22 | 29.24 | 728.70 | 124.73 | -117.08 | -41.60 | 124.25 | 199.56 | 0.61 | MWD_M | None |
| 102 | 772.40 | 14.98 | 208.55 | 29.21 | 756.87 | 132.45 | -123.88 | -45.27 | 131.89 | 200.07 | 0.74 | MWD_M | None |
| 103 | 801.40 | 14.91 | 209.56 | 29.00 | 784.89 | 139.92 | -130.42 | -48.90 | 139.28 | 200.55 | 0.28 | MWD_M | None |
| 104 | 830.63 | 14.94 | 208.77 | 29.23 | 813.13 | 147.45 | -136.99 | -52.57 | 146.73 | 200.99 | 0.21 | MWD_M | None |
| 105 | 859.76 | 15.02 | 208.82 | 29.13 | 841.27 | 154.97 | -143.59 | -56.20 | 154.19 | 201.37 | 0.08 | MWD_M | None |
| 106 | 889.23 | 14.88 | 208.70 | 29.47 | 869.74 | 162.57 | -150.25 | -59.85 | 161.74 | 201.72 | 0.15 | MWD_M | None |
| 107 | 918.51 | 14.66 | 208.30 | 29.28 | 898.06 | 170.04 | -156.81 | -63.42 | 169.15 | 202.02 | 0.25 | MWD_M | None |
| 108 | 947.98 | 14.89 | 209.02 | 29.47 | 926.55 | 177.55 | -163.41 | -67.02 | 176.62 | 202.30 | 0.30 | MWD_M | None |
| 109 | 977.14 | 14.96 | 209.35 | 29.16 | 954.73 | 185.06 | -169.96 | -70.68 | 184.08 | 202.58 | 0.12 | MWD_M | None |

| | | | | | | | | | | | | | |
|-----|---------|-------|--------|-------|---------|--------|---------|---------|--------|--------|------|----------|------|
| 110 | 1006.32 | 14.71 | 208.53 | 29.18 | 982.93 | 192.52 | -176.50 | -74.30 | 191.50 | 202.83 | 0.34 | MWD_M | None |
| 111 | 1035.66 | 14.82 | 209.66 | 29.34 | 1011.31 | 200.00 | -183.04 | -77.93 | 198.94 | 203.06 | 0.32 | MWD_M | None |
| 112 | 1064.89 | 14.66 | 209.55 | 29.23 | 1039.57 | 207.43 | -189.50 | -81.61 | 206.33 | 203.30 | 0.17 | MWD_M | None |
| 113 | 1094.20 | 14.74 | 211.09 | 29.31 | 1067.92 | 214.85 | -195.92 | -85.36 | 213.71 | 203.54 | 0.41 | MWD_M | None |
| 114 | 1123.53 | 14.71 | 211.77 | 29.33 | 1096.29 | 222.29 | -202.28 | -89.25 | 221.10 | 203.81 | 0.18 | MWD_M | None |
| 115 | 1152.85 | 15.04 | 212.46 | 29.32 | 1124.63 | 229.79 | -208.66 | -93.25 | 228.55 | 204.08 | 0.39 | MWD_M | None |
| 116 | 1182.12 | 14.69 | 209.57 | 29.27 | 1152.92 | 237.28 | -215.09 | -97.12 | 236.00 | 204.30 | 0.85 | MWD_M | None |
| 117 | 1211.30 | 14.68 | 206.12 | 29.18 | 1181.15 | 244.67 | -221.63 | -100.58 | 243.38 | 204.41 | 0.91 | MWD_M | None |
| 118 | 1240.74 | 14.15 | 206.77 | 29.44 | 1209.66 | 252.00 | -228.19 | -103.84 | 250.70 | 204.47 | 0.57 | MWD_M | None |
| 119 | 1269.92 | 13.90 | 210.27 | 29.18 | 1237.97 | 259.07 | -234.40 | -107.21 | 257.76 | 204.58 | 0.92 | MWD_M | None |
| 120 | 1299.50 | 13.73 | 213.99 | 29.58 | 1266.70 | 266.10 | -240.38 | -110.97 | 264.76 | 204.78 | 0.93 | MWD_M | None |
| 121 | 1328.69 | 13.96 | 212.17 | 29.19 | 1295.04 | 273.05 | -246.23 | -114.78 | 271.67 | 204.99 | 0.51 | MWD_M | None |
| 122 | 1357.81 | 14.35 | 210.06 | 29.12 | 1323.27 | 280.15 | -252.33 | -118.46 | 278.75 | 205.15 | 0.68 | MWD_M | None |
| 123 | 1387.06 | 14.47 | 208.60 | 29.25 | 1351.60 | 287.42 | -258.68 | -122.02 | 286.01 | 205.25 | 0.40 | MWD_M | None |
| 124 | 1416.40 | 14.49 | 205.63 | 29.34 | 1380.01 | 294.76 | -265.20 | -125.36 | 293.34 | 205.30 | 0.77 | MWD_M | None |
| 125 | 1445.66 | 14.27 | 203.93 | 29.26 | 1408.36 | 302.02 | -271.80 | -128.41 | 300.61 | 205.29 | 0.50 | MWD_M | None |
| 126 | 1474.99 | 14.64 | 207.57 | 29.33 | 1436.76 | 309.33 | -278.39 | -131.59 | 307.92 | 205.30 | 1.02 | MWD_M | None |
| 127 | 1504.27 | 14.41 | 209.48 | 29.28 | 1465.10 | 316.67 | -284.84 | -135.10 | 315.25 | 205.37 | 0.55 | MWD_M | None |
| 128 | 1533.67 | 14.42 | 207.32 | 29.40 | 1493.58 | 323.99 | -291.28 | -138.58 | 322.56 | 205.44 | 0.56 | MWD_M | None |
| 129 | 1562.71 | 14.32 | 206.77 | 29.04 | 1521.71 | 331.20 | -297.70 | -141.85 | 329.77 | 205.48 | 0.18 | MWD_M | None |
| 130 | 1592.18 | 14.27 | 205.46 | 29.47 | 1550.27 | 338.47 | -304.23 | -145.06 | 337.04 | 205.49 | 0.34 | MWD_M | None |
| 131 | 1621.56 | 15.02 | 205.25 | 29.38 | 1578.69 | 345.90 | -310.94 | -148.24 | 344.47 | 205.49 | 0.78 | MWD_M | None |
| 132 | 1650.85 | 14.85 | 205.80 | 29.29 | 1606.99 | 353.44 | -317.76 | -151.49 | 352.02 | 205.49 | 0.23 | MWD_M | None |
| 133 | 1680.39 | 14.93 | 206.81 | 29.54 | 1635.54 | 361.03 | -324.56 | -154.85 | 359.61 | 205.51 | 0.28 | MWD_M | None |
| 134 | 1709.10 | 15.86 | 206.11 | 28.71 | 1663.22 | 368.65 | -331.38 | -158.25 | 367.23 | 205.53 | 1.01 | MWD_M | None |
| 135 | 1738.52 | 15.34 | 203.39 | 29.42 | 1691.55 | 376.55 | -338.56 | -161.56 | 375.14 | 205.51 | 0.93 | MWD_M | None |
| 136 | 1767.97 | 15.56 | 201.42 | 29.45 | 1719.94 | 384.37 | -345.82 | -164.55 | 382.97 | 205.45 | 0.59 | MWD_M | None |
| 137 | 1797.30 | 15.79 | 203.69 | 29.33 | 1748.18 | 392.27 | -353.13 | -167.59 | 390.88 | 205.39 | 0.68 | MWD_M | None |
| 138 | 1826.72 | 15.68 | 205.51 | 29.42 | 1776.50 | 400.24 | -360.39 | -170.91 | 398.86 | 205.37 | 0.52 | MWD_M | None |
| 139 | 1856.15 | 15.77 | 207.85 | 29.43 | 1804.83 | 408.21 | -367.51 | -174.49 | 406.83 | 205.40 | 0.66 | MWD_M | None |
| 140 | 1885.47 | 15.47 | 210.31 | 29.32 | 1833.06 | 416.10 | -374.41 | -178.33 | 414.71 | 205.47 | 0.76 | MWD_M | None |
| 141 | 1914.60 | 15.71 | 208.22 | 29.13 | 1861.12 | 423.92 | -381.24 | -182.15 | 422.52 | 205.54 | 0.64 | MWD_M | None |
| 142 | 1943.73 | 15.58 | 205.83 | 29.13 | 1889.17 | 431.78 | -388.24 | -185.72 | 430.37 | 205.57 | 0.69 | MWD_M | None |
| 143 | 1973.09 | 15.56 | 203.40 | 29.36 | 1917.46 | 439.65 | -395.40 | -189.00 | 438.25 | 205.55 | 0.68 | MWD_M | None |
| 144 | 2002.63 | 15.54 | 205.83 | 29.54 | 1945.92 | 447.56 | -402.60 | -192.30 | 446.17 | 205.53 | 0.67 | MWD_M | None |
| 145 | 2031.86 | 15.58 | 209.23 | 29.23 | 1974.07 | 455.39 | -409.55 | -195.92 | 454.00 | 205.57 | 0.95 | MWD_M | None |
| 146 | 2061.17 | 15.43 | 212.43 | 29.31 | 2002.32 | 463.21 | -416.27 | -199.94 | 461.80 | 205.66 | 0.90 | MWD_M | None |
| 147 | 2090.40 | 15.47 | 215.54 | 29.23 | 2030.49 | 470.94 | -422.73 | -204.29 | 469.50 | 205.79 | 0.86 | MWD_M | None |
| 148 | 2119.77 | 15.10 | 213.93 | 29.37 | 2058.82 | 478.62 | -429.09 | -208.70 | 477.15 | 205.94 | 0.58 | MWD_M | None |
| 149 | 2148.86 | 15.06 | 211.56 | 29.09 | 2086.91 | 486.15 | -435.45 | -212.79 | 484.67 | 206.04 | 0.65 | MWD_M | None |
| 150 | 2178.21 | 15.05 | 209.16 | 29.35 | 2115.26 | 493.76 | -442.03 | -216.65 | 492.27 | 206.11 | 0.65 | MWD_M | None |
| 151 | 2207.53 | 15.15 | 206.46 | 29.32 | 2143.56 | 501.39 | -448.78 | -220.21 | 499.90 | 206.14 | 0.74 | MWD_M | None |
| 152 | 2236.73 | 15.13 | 203.55 | 29.20 | 2171.75 | 509.01 | -455.69 | -223.43 | 507.52 | 206.12 | 0.79 | MWD_M | None |
| 153 | 2265.88 | 15.16 | 202.00 | 29.15 | 2199.89 | 516.60 | -462.71 | -226.38 | 515.12 | 206.07 | 0.42 | MWD_M | None |
| 154 | 2295.20 | 15.30 | 205.05 | 29.32 | 2228.18 | 524.29 | -469.77 | -229.45 | 522.82 | 206.03 | 0.85 | MWD_M | None |
| 155 | 2324.26 | 15.12 | 207.01 | 29.06 | 2256.22 | 531.91 | -476.62 | -232.80 | 530.44 | 206.03 | 0.57 | MWD_M | None |
| 156 | 2353.69 | 14.98 | 208.10 | 29.43 | 2284.64 | 539.55 | -483.40 | -236.33 | 538.08 | 206.05 | 0.33 | MWD_M | None |
| 157 | 2382.99 | 14.97 | 208.38 | 29.30 | 2312.95 | 547.12 | -490.07 | -239.92 | 545.64 | 206.08 | 0.08 | MWD_M | None |
| 158 | 2412.25 | 14.90 | 210.09 | 29.26 | 2341.22 | 554.66 | -496.65 | -243.60 | 553.17 | 206.13 | 0.46 | MWD_M | None |
| 159 | 2441.61 | 14.90 | 210.72 | 29.36 | 2369.59 | 562.19 | -503.16 | -247.42 | 560.70 | 206.18 | 0.17 | MWD_M | None |
| 160 | 2470.87 | 15.14 | 212.27 | 29.26 | 2397.85 | 569.75 | -509.62 | -251.38 | 568.25 | 206.26 | 0.49 | MWD_M | None |
| 161 | 2499.77 | 15.34 | 211.52 | 28.90 | 2425.74 | 577.33 | -516.07 | -255.39 | 575.81 | 206.33 | 0.30 | MWD_M | None |
| 162 | 2529.30 | 15.41 | 207.80 | 29.53 | 2454.21 | 585.14 | -522.88 | -259.27 | 583.62 | 206.37 | 1.02 | MWD_M | None |
| 163 | 2558.69 | 15.28 | 203.33 | 29.39 | 2482.55 | 592.91 | -529.89 | -262.62 | 591.40 | 206.36 | 1.23 | MWD_M | None |
| 164 | 2579.00 | 15.20 | 202.50 | 20.31 | 2502.15 | 598.24 | -534.80 | -264.70 | 596.72 | 206.33 | 0.35 | Proj. TD | |

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| | | |
|---------------------------|------------------------|-------------------|
| Company: | ESSO Australia Pty Ltd | Schlumberger |
| Well: | CBA A33 | |
| Field: | Halibut | |
| Rig: | ISDL 175 | 9.875 in. Section |
| State: | Victoria | |
| VISION Service | | |
| 1:500 True Vertical Depth | | |
| Recorded Mode Log | | |

