

Company: JAMSTEC

Well: C0019B

Field: Japan Trench - Miyagi Offshore

Rig Name: Chikyu

State: Miyagi

Country: Japan

Job Number: 12JAP0004

Rig Name: Chikyu

Drill Type: Drill Vessel

Location: Japan Trench

L1: X = 756 050.70 m

L2: Y=4 202 595.11 m

Log Measured From: - Drill Floor: 28.50 m  
Permanent Datum: - Mean Sea Level

Ground Level: 6889.50 m

Acquisition Dates: 21-Apr-2012 — 26-Apr-2012

Log Interval: 6910.00(m) — 7768.50(m)

Index Types: Measured Depth

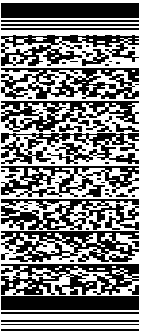
Index Scales: 1:200

Depth Source: Driller's Depth

Depth Sensor: DES

Print Type: Final

Print Date: 21-Apr-2012



## Disclaimer

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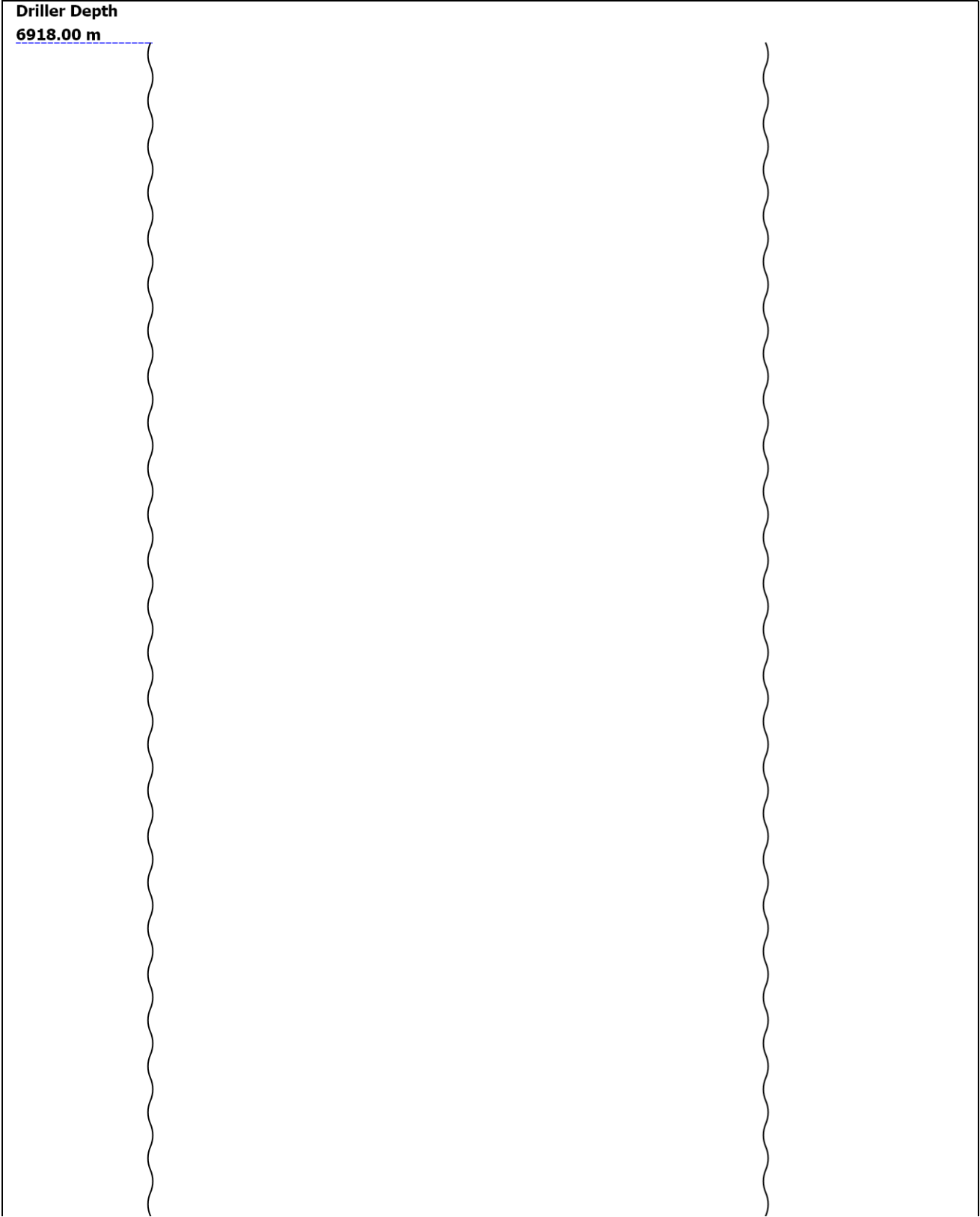
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## Well Sketch

Driller Depth

6918.00 m






| Borehole Size/Casing Record |        |  |  |  |  |  |
|-----------------------------|--------|--|--|--|--|--|
| Bit                         |        |  |  |  |  |  |
| Bit Size ( in )             | 8.5    |  |  |  |  |  |
| Top Driller ( m )           | 6918   |  |  |  |  |  |
| Bottom Driller ( m )        | 7768.5 |  |  |  |  |  |

| Operational Run Summary          |  |  |  |  |  |  |
|----------------------------------|--|--|--|--|--|--|
| Parameter ( unit )               | Run1                                       |  |  |  |  |  |
| Date Log Started                 | 21-Apr-2012                                |  |  |  |  |  |
| Time Log Started                 | 17:04:57                                   |  |  |  |  |  |
| Date Log Finished                | 26-Apr-2012                                |  |  |  |  |  |
| Time Log Finished                | 20:21:59                                   |  |  |  |  |  |
|                                  |  |  |  |  |  |  |
| Bit Size ( in )                  | 8.500                                      |  |  |  |  |  |
| Bit Start Depth ( m )            | 6918.00                                    |  |  |  |  |  |
| Bit Stop Depth ( m )             | 7768.50                                    |  |  |  |  |  |
| Top Log Interval ( m )           | 6918.00                                    |  |  |  |  |  |
| Bottom Log Interval ( m )        | 7767.58                                    |  |  |  |  |  |
|                                  |  |  |  |  |  |  |
| Max Hole Deviation ( deg )       | 8.27                                       |  |  |  |  |  |
| Azimuth of Max Deviation ( deg ) | 355.55                                     |  |  |  |  |  |
|                                  |  |  |  |  |  |  |
| Logging Unit Number              | OLU-KC-504                                 |  |  |  |  |  |
| Logging Unit Location            | Comp Deck                                  |  |  |  |  |  |
| Recorded By                      | Wang Feng<br>Chen Fei Fei<br>Yue Zhi Liang |  |  |  |  |  |
| Witnessed By                     | Yukari Kido<br>Yoshi Sanada                |  |  |  |  |  |
| Service Order Number             | 12JAP0004                                  |  |  |  |  |  |

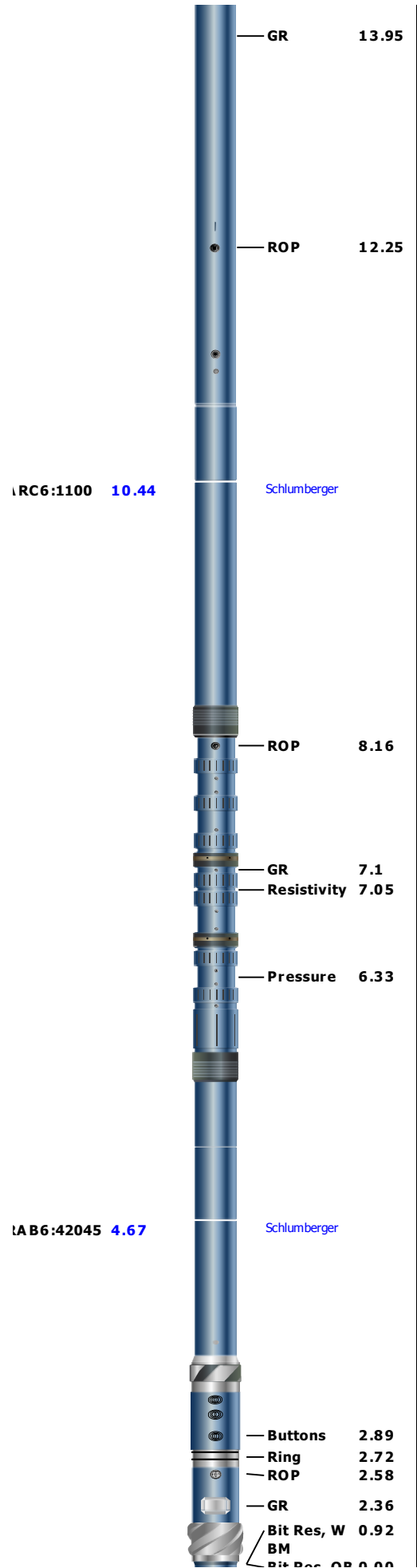
| Borehole Fluids                    |             |  |  |  |  |  |
|------------------------------------|-------------|--|--|--|--|--|
| Parameter( unit )                  | Run1        |  |  |  |  |  |
| Fluid Type                         | Water       |  |  |  |  |  |
| Max Recorded Temperatures ( degC ) | 12          |  |  |  |  |  |
| Source of Sample                   | Active Tank |  |  |  |  |  |
| Salinity ( ppm )                   | 38908.95    |  |  |  |  |  |

|                                 |          |  |  |  |  |  |
|---------------------------------|----------|--|--|--|--|--|
| 'H                              |          |  |  |  |  |  |
| source RMF                      |          |  |  |  |  |  |
| IMC                             |          |  |  |  |  |  |
| IM @ Meas Temp<br>ohm.m@degC )  | 0.29 @ 2 |  |  |  |  |  |
| IMF @ Meas Temp<br>ohm.m@degC ) |          |  |  |  |  |  |
| IMC @ Meas Temp<br>ohm.m@degC ) |          |  |  |  |  |  |
| IM @ BHT ( ohm.m@degC )         | 0.2 @ 12 |  |  |  |  |  |
| IMF @ BHT ( ohm.m@degC )        |          |  |  |  |  |  |
| IMC @ BHT ( ohm.m@degC )        |          |  |  |  |  |  |
| total Solid ( % )               |          |  |  |  |  |  |
| High Gravity Solids ( % )       |          |  |  |  |  |  |

## Remarks and Equipment Summary

| Run1: Toolstring  |  |  | Run1: Remarks |
|---|--|--|---------------|
| <div><div><div>Equipment name</div><div>Length</div></div><div><div>Bitab: 6 3/4"</div><div>28.75</div></div><div><div>OSS050860</div><div></div></div></div> <div></div> <div><div><div>MP name</div><div>Offset</div></div><div><div>Schlumberger</div><div></div></div></div> <div><div><div>IMDC: 6 3/4</div><div>27.00</div></div><div><div>SBD7365</div><div></div></div></div> <div><div><div>ELE67548</div><div>18.88</div></div><div><div>76</div><div></div></div></div> <div><div><div>Schlumberger</div><div></div></div><div><div>Schlumberger</div><div></div></div></div> | Data presented is Recorded Mode data which was acquired while drilling.                |  |               |
|   | Depth reference is driller's depth measured from Rotary Table.                         |  |               |
|   | geoVISION record rate is 10s, arcVISION record rate is 10s.                            |  |               |
|   | geoVISION GR is corrected for bit size, tool size and mud weight. No potassium in mud. |  |               |
|   | geoVISION resistivity is environmentally corrected for bit size and mud resistivity.   |  |               |
|   | Drill Time: 31.24 hrs  |  |               |
|   | Pump Time: 66.20 hrs   |  |               |
|   |  |  |               |
|   |  |  |               |
|   |  |  |               |





#:1500044

lit: 8 1/2":J 0.25  
6234



TOOL\_ZERO

Lengths are in m

Maximum Outer Diameter = 8.500 in

Line: Sensor Location, Value: Gating Offset

All measurements are relative to TOOL\_ZERO

## Survey Record

### Survey Calculation

|                    |                             |                            |                                 |
|--------------------|-----------------------------|----------------------------|---------------------------------|
| Method :           | Minimum Radius of Curvature | DLS Method :               | Lubinski                        |
| North Reference :  | Grid North                  | Total Correction Formula : | Magnetic Dec - Grid Convergence |
| Grid Convergence : | 1.79 deg                    |                            |                                 |

### Rig Location

|            |                 |             |                  |
|------------|-----------------|-------------|------------------|
| Latitude : | 37° 56' 20.2" N | Longitude : | 143° 54' 48.6" E |
|------------|-----------------|-------------|------------------|

### Tie In Point

|                      |        |                     |          |                           |          |
|----------------------|--------|---------------------|----------|---------------------------|----------|
| Measured Depth:      | 0.00 m | Inclination:        | 0.00 deg | Azimuth:                  | 0.00 deg |
| True Vertical Depth: | 0.00 m | North Displacement: | 0.00 m   | East Displacement:        | 0.00 m   |
| I/S VSec Origin:     | 0.00 m | E/-W VSec Origin:   | 0.00 m   | Vertical Section Azimuth: | 0.00 deg |

### DI Inits Computed and Values Used - Run1

|                             |                          |                         |                          |
|-----------------------------|--------------------------|-------------------------|--------------------------|
| Geomagnetic Model :         | BGGM 2011                | Geomagnetic Date :      | 22-Apr-2012              |
| Computed Location B :       | 46518.57 nT +/- 300.00nT | Used Location B :       | 46518.57 nT +/- 300.00nT |
| Computed Location G :       | 9.80 m/s2 +/- 0.02m/s2   | Used Location G :       | 9.80 m/s2 +/- 0.02m/s2   |
| Computed Magnetic Dip :     | 51.40 deg +/- 0.45deg    | Used Magnetic Dip :     | 51.40 deg +/- 0.45deg    |
| Computed Magnetic Dec :     | -7.20 deg                | Used Magnetic Dec :     | -7.20 deg                |
| Computed Total Correction : | -8.99 deg                | Used Total Correction : | -8.99 deg                |

### Survey Quality Index

1 : Long Survey failed mag criteria      4 : Long Survey failed all criteria      9 : Manual

8 : Tie-In Point

### Survey Correction Index

0 : No correction

### Survey Description Index

0 : Not Flagged Survey      11 : Secondary Tie-In Point

| Seq | MD<br>(m) | Incl<br>(deg) | Azim<br>(deg) | Course<br>(m) | TVD<br>(m) | V Sec<br>(m) | N/ -S<br>(m) | E/ -W<br>(m) | Closure<br>(m) | at Azim<br>(deg) | DLS<br>deg/30m | Tool Type | QI | CI | D |
|-----|-----------|---------------|---------------|---------------|------------|--------------|--------------|--------------|----------------|------------------|----------------|-----------|----|----|---|
|     | 0.00      | 0.00          | 0.00          | ----          | 0.00       | 0.00         | 0.00         | 0.00         | 0.00           | 90.00            | 0.00           | TIP       | 28 | 0  | 0 |
|     | 6918.00   | 0.00          | 0.00          | 6918.00       | 6918.00    | 0.00         | 0.00         | 0.00         | 0.00           | 90.00            | 0.00           | Other     | 9  | 0  | 1 |
|     | 6938.55   | 2.22          | 312.85        | 20.55         | 6938.54    | 0.27         | 0.27         | -0.29        | 0.40           | 312.85           | 3.24           | TeleScope | 4  | 0  | 0 |
|     | 6966.78   | 1.82          | 332.41        | 28.23         | 6966.76    | 1.04         | 1.04         | -0.90        | 1.37           | 319.11           | 0.84           | TeleScope | 4  | 0  | 0 |
|     | 6995.50   | 1.85          | 345.24        | 28.72         | 6995.46    | 1.89         | 1.89         | -1.23        | 2.25           | 326.99           | 0.43           | TeleScope | 4  | 0  | 0 |
|     | 7022.98   | 1.76          | 339.12        | 27.48         | 7022.93    | 2.71         | 2.71         | -1.49        | 3.09           | 331.20           | 0.23           | TeleScope | 4  | 0  | 0 |
|     | 7051.92   | 1.77          | 333.90        | 28.94         | 7051.86    | 3.53         | 3.53         | -1.85        | 3.98           | 332.38           | 0.17           | TeleScope | 2  | 0  | 0 |
|     | 7080.68   | 1.62          | 338.38        | 28.76         | 7080.60    | 4.30         | 4.30         | -2.19        | 4.83           | 333.03           | 0.21           | TeleScope | 4  | 0  | 0 |
|     | 7109.40   | 1.86          | 338.50        | 28.72         | 7109.31    | 5.12         | 5.12         | -2.51        | 5.70           | 333.85           | 0.25           | TeleScope | 2  | 0  | 0 |
| 0   | 7136.77   | 1.91          | 341.57        | 27.36         | 7136.66    | 5.96         | 5.96         | -2.82        | 6.60           | 334.70           | 0.12           | TeleScope | 4  | 0  | 0 |
| 1   | 7165.72   | 2.17          | 340.63        | 28.95         | 7165.59    | 6.94         | 6.94         | -3.15        | 7.62           | 335.56           | 0.26           | TeleScope | 4  | 0  | 0 |
| 2   | 7175.39   | 2.05          | 341.72        | 9.68          | 7175.26    | 7.28         | 7.28         | -3.27        | 7.98           | 335.81           | 0.37           | TeleScope | 4  | 0  | 0 |
| 3   | 7203.75   | 1.99          | 344.25        | 28.35         | 7203.60    | 8.23         | 8.23         | -3.56        | 8.97           | 336.61           | 0.11           | TeleScope | 4  | 0  | 0 |
| 4   | 7232.01   | 1.99          | 347.59        | 28.26         | 7231.84    | 9.18         | 9.18         | -3.80        | 9.94           | 337.52           | 0.12           | TeleScope | 4  | 0  | 0 |
| 5   | 7260.73   | 2.07          | 345.02        | 28.72         | 7260.54    | 10.17        | 10.17        | -4.04        | 10.95          | 338.33           | 0.13           | TeleScope | 2  | 0  | 0 |
| 6   | 7288.34   | 2.04          | 349.09        | 27.61         | 7288.14    | 11.14        | 11.14        | -4.26        | 11.93          | 339.05           | 0.16           | TeleScope | 4  | 0  | 0 |
| 7   | 7320.29   | 2.17          | 352.55        | 31.95         | 7320.07    | 12.30        | 12.30        | -4.45        | 13.08          | 340.11           | 0.17           | TeleScope | 4  | 0  | 0 |
| 8   | 7352.73   | 2.49          | 346.92        | 32.44         | 7352.48    | 13.59        | 13.59        | -4.69        | 14.38          | 340.97           | 0.36           | TeleScope | 4  | 0  | 0 |
| 9   | 7381.26   | 2.64          | 347.72        | 28.53         | 7380.98    | 14.84        | 14.84        | -4.97        | 15.64          | 341.48           | 0.17           | TeleScope | 2  | 0  | 0 |

|   |         |      |        |       |         |       |       |       |       |        |      |           |   |   |   |
|---|---------|------|--------|-------|---------|-------|-------|-------|-------|--------|------|-----------|---|---|---|
| 3 | 7470.38 | 3.30 | 351.72 | 28.31 | 7470.13 | 20.00 | 20.00 | -5.38 | 20.07 | 343.33 | 1.20 | TeleScope | 4 | 0 | 0 |
| 4 | 7504.90 | 4.22 | 351.85 | 28.32 | 7504.40 | 21.98 | 21.98 | -6.27 | 22.86 | 344.09 | 0.33 | TeleScope | 4 | 0 | 0 |
| 5 | 7532.49 | 4.65 | 352.75 | 27.60 | 7531.92 | 24.10 | 24.10 | -6.55 | 24.97 | 344.79 | 0.48 | TeleScope | 4 | 0 | 0 |
| 6 | 7561.25 | 4.92 | 355.71 | 28.76 | 7560.58 | 26.48 | 26.48 | -6.79 | 27.34 | 345.62 | 0.39 | TeleScope | 2 | 0 | 0 |
| 7 | 7588.98 | 5.48 | 352.73 | 27.73 | 7588.19 | 28.98 | 28.98 | -7.05 | 29.83 | 346.33 | 0.67 | TeleScope | 2 | 0 | 0 |
| 8 | 7621.71 | 5.96 | 355.13 | 32.73 | 7620.75 | 32.23 | 32.23 | -7.39 | 33.06 | 347.09 | 0.49 | TeleScope | 4 | 0 | 0 |
| 9 | 7627.56 | 6.03 | 356.23 | 5.85  | 7626.57 | 32.83 | 32.83 | -7.43 | 33.67 | 347.24 | 0.69 | TeleScope | 4 | 0 | 0 |
| 0 | 7656.14 | 6.31 | 352.35 | 28.58 | 7654.99 | 35.89 | 35.89 | -7.74 | 36.72 | 347.83 | 0.53 | TeleScope | 4 | 0 | 0 |
| 1 | 7684.97 | 7.11 | 354.55 | 28.83 | 7683.62 | 39.24 | 39.24 | -8.12 | 40.07 | 348.30 | 0.87 | TeleScope | 2 | 0 | 0 |
| 2 | 7713.15 | 7.62 | 354.47 | 28.18 | 7711.57 | 42.83 | 42.83 | -8.47 | 43.66 | 348.82 | 0.55 | TeleScope | 4 | 0 | 0 |
| 3 | 7741.26 | 8.27 | 355.55 | 28.11 | 7739.41 | 46.70 | 46.70 | -8.80 | 47.52 | 349.32 | 0.71 | TeleScope | 2 | 0 | 0 |

Run1

Integration Summary

| Output Channel(s) | Output Description | Input Parameter | Output Value | Unit |
|-------------------|--------------------|-----------------|--------------|------|
|-------------------|--------------------|-----------------|--------------|------|

Software Version

| Acquisition System | Version                   |
|--------------------|---------------------------|
| MaxWell            | 3.0.9609.0                |
| Application Patch  | SP-20120409-3.0.9609.1919 |

| Computation  | Description   | Version       |
|--------------|---|---------------|
| RAB6GR       | RAB6 Gamma Ray Computation Package for both Real-time and Recorded Mode   | 3.0.9609.1373 |
| RAB6Res      | RAB6 Resistivity Computation Package for both Real-time and Recorded Mode | 3.0.9609.1373 |
| ARC6Pressure | ARC6 Pressure Computation Package for both Real-time and Recorded Mode    | 3.0.9609.0    |

| Tool Elements    | Description                             | Software Version | Firmware Version |
|------------------|---|------------------|------------------|
| RBEC             | Electronics Chassis Assembly for RAB6-C | 3.0.9609.1373    | V8.5B            |
| DRILLING_SURFACE | DRILLING_SURFACE                        | 3.0.9609.1373    |                  |
| APWD             | APWD Sensor 25 kpsi                     | 3.0.9609.0       | V9.5B            |

Pass Summary

| Run Name | Pass Objective | Direction | Top       | Bottom    | Start                  | Stop                   | Include Parallel Data |
|----------|----------------|-----------|-----------|-----------|------------------------|------------------------|-----------------------|
| Run1     | Drilling       | Down      | 6899.71 m | 7768.31 m | 21-Apr-2012 5:04:57 PM | 26-Apr-2012 8:21:59 PM | true                  |

All depths are referenced to toolstring zero

LogRun1: Drilling 0171927D-C22B-449A-BF7F-37C8F1B668EB

Description: GVR Resistivity, Deep Button Image    Format: Log ( JFAST RM GVR+APWD MD Digital )    Index Scale: 1:200    Index Unit: m    Index Type: Measured Depth    Creation Date: 11-May-2012 17:56:20

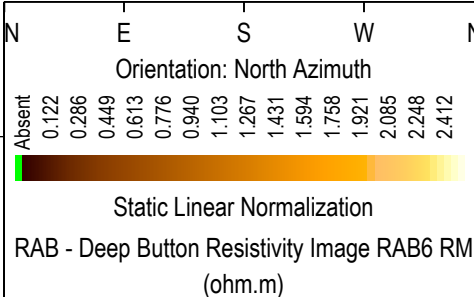
| Channel | Source         | Sampling   |
|---------|----------------|------------|
| RAP     | ARC6:ARC6      | 6in - RM   |
| RAT     | ARC6:ARC6      | 6in - RM   |
| APWD    | ARC6:ARC6:APWD | 6in - RM   |
| R       | RAB6:RAB6:RBEC | 6in - RM   |
| ES_BD   | RAB6:RAB6:RBEC | 1.2in - RM |
| ES_BIT  | RAB6:RAB6:RBEC | 1.2in - RM |
| ES_BM   | RAB6:RAB6:RBEC | 1.2in - RM |
| ES_BS   | RAB6:RAB6:RBEC | 1.2in - RM |
| ES_RING | RAB6:RAB6:RBEC | 1.2in - RM |

RES\_RING - Ring Resistivity RAB6 RM

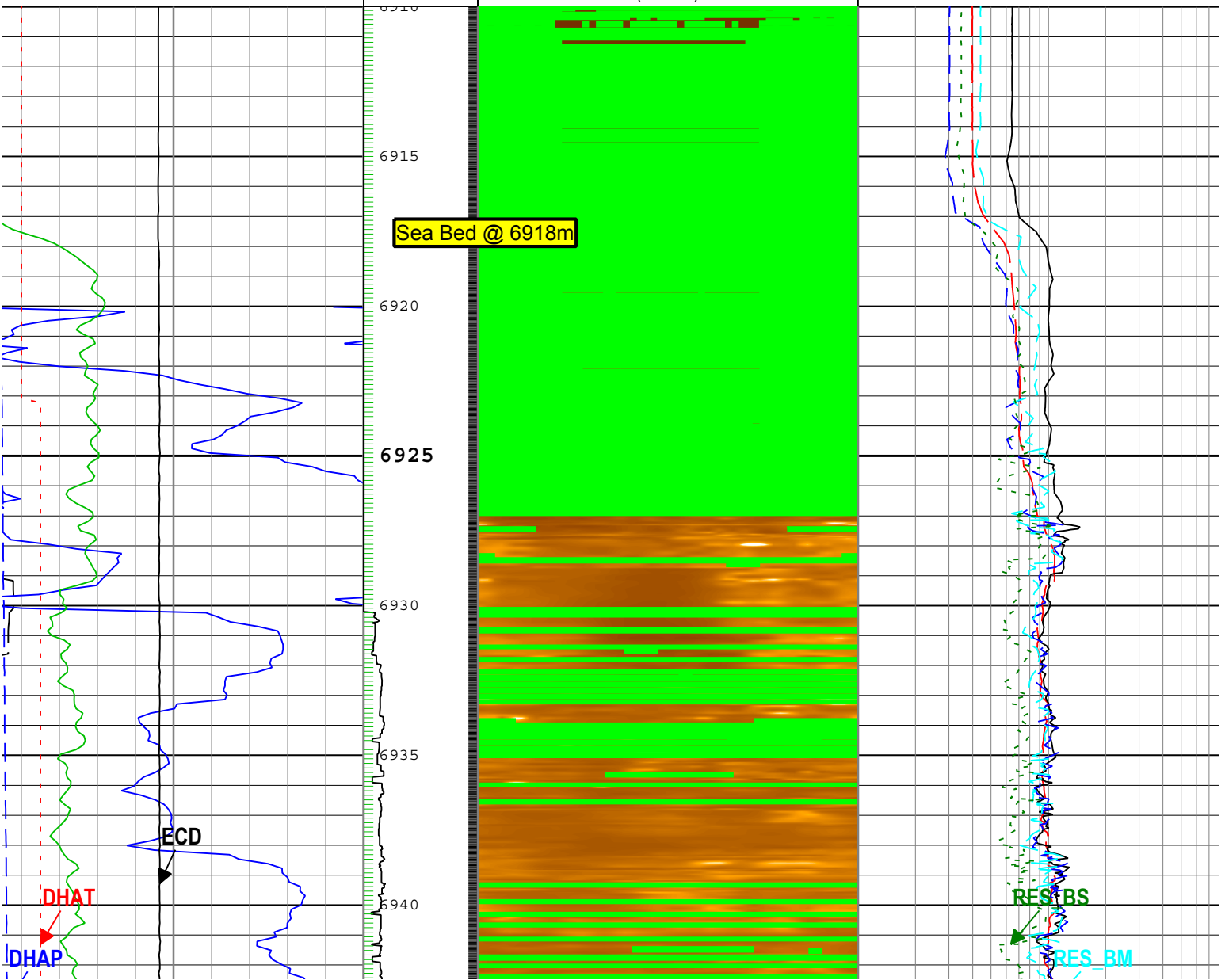
GR - Gamma Ray RAB6 RM

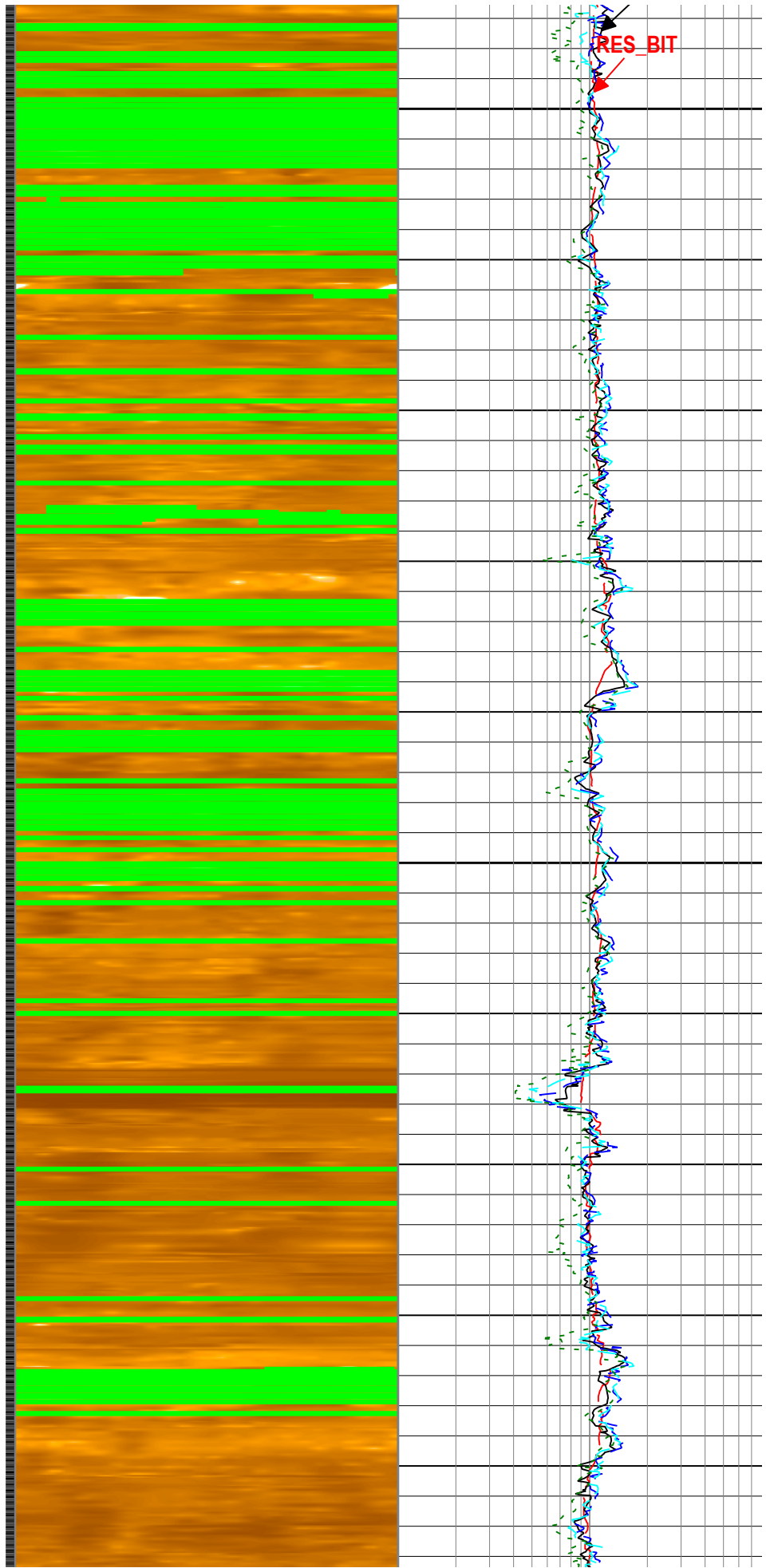
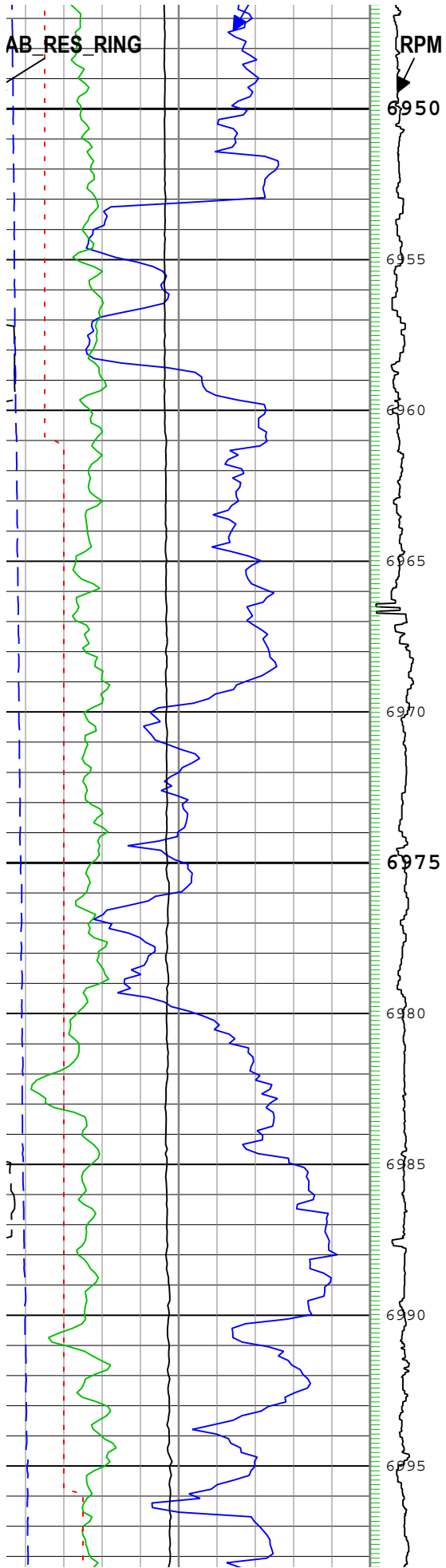
|  |       |       |
|--|-------|-------|
| Ring Resistivity Time After Bit<br>(TAB_RES_RING) RAB6               |       |       |
| h  |       | 10    |
| Rate of penetration averaged over the last 5 ft<br>(1.5 m) (ROP5) RT |       |       |
| 0  | m/h   | 0     |
| Gamma Ray (GR) RAB6 RM   |       |       |
| gAPI   |       | 150   |
| Downhole Annulus Pressure (DHAP) ARC6 RM                             |       |       |
| 0000   | kPa   | 85000 |
| Downhole Annulus Temperature (DHAT) ARC6 RM                          |       |       |
|  | degC  | 20    |
| Equivalent Circulating Density (ECD) ARC6 RM                         |       |       |
|  | g/cm3 | 1.1   |

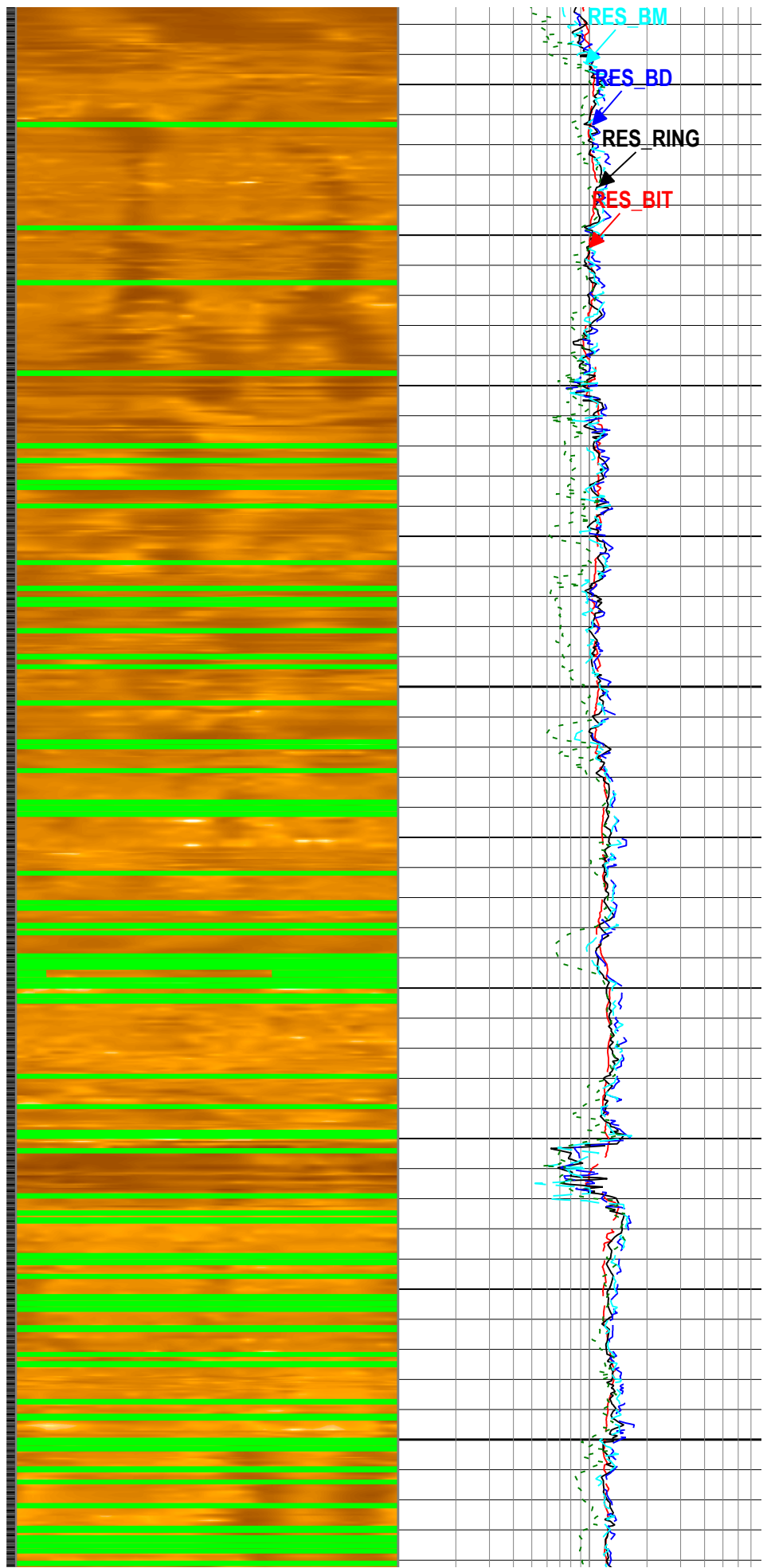
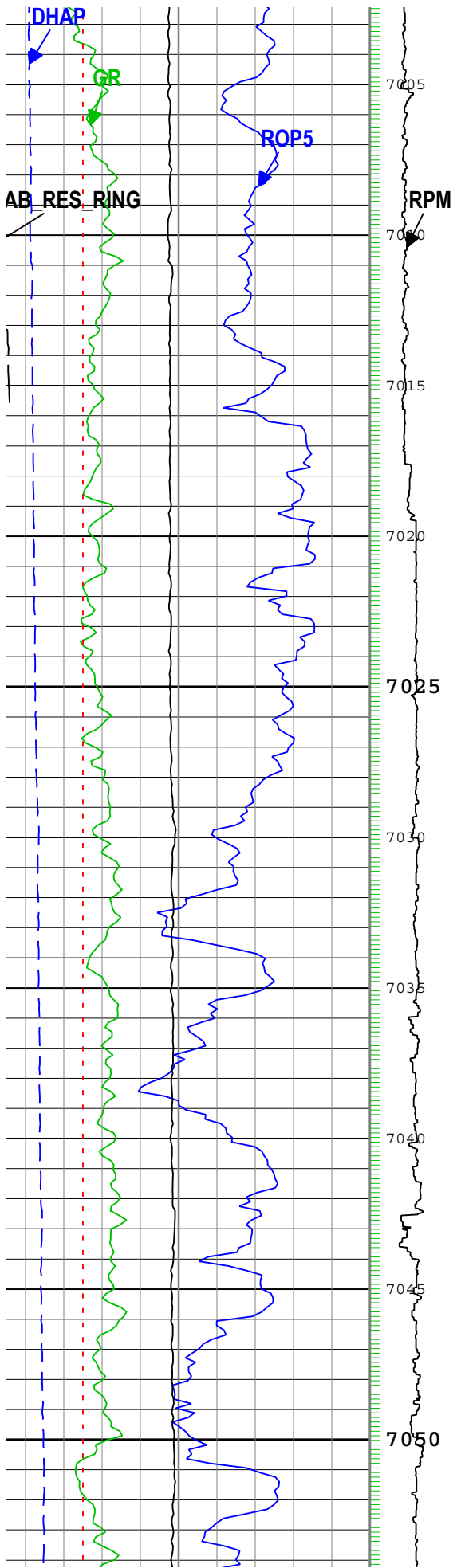
Rotational  
Speed (RPM)  
RAB6 RM  
0 c/min 200

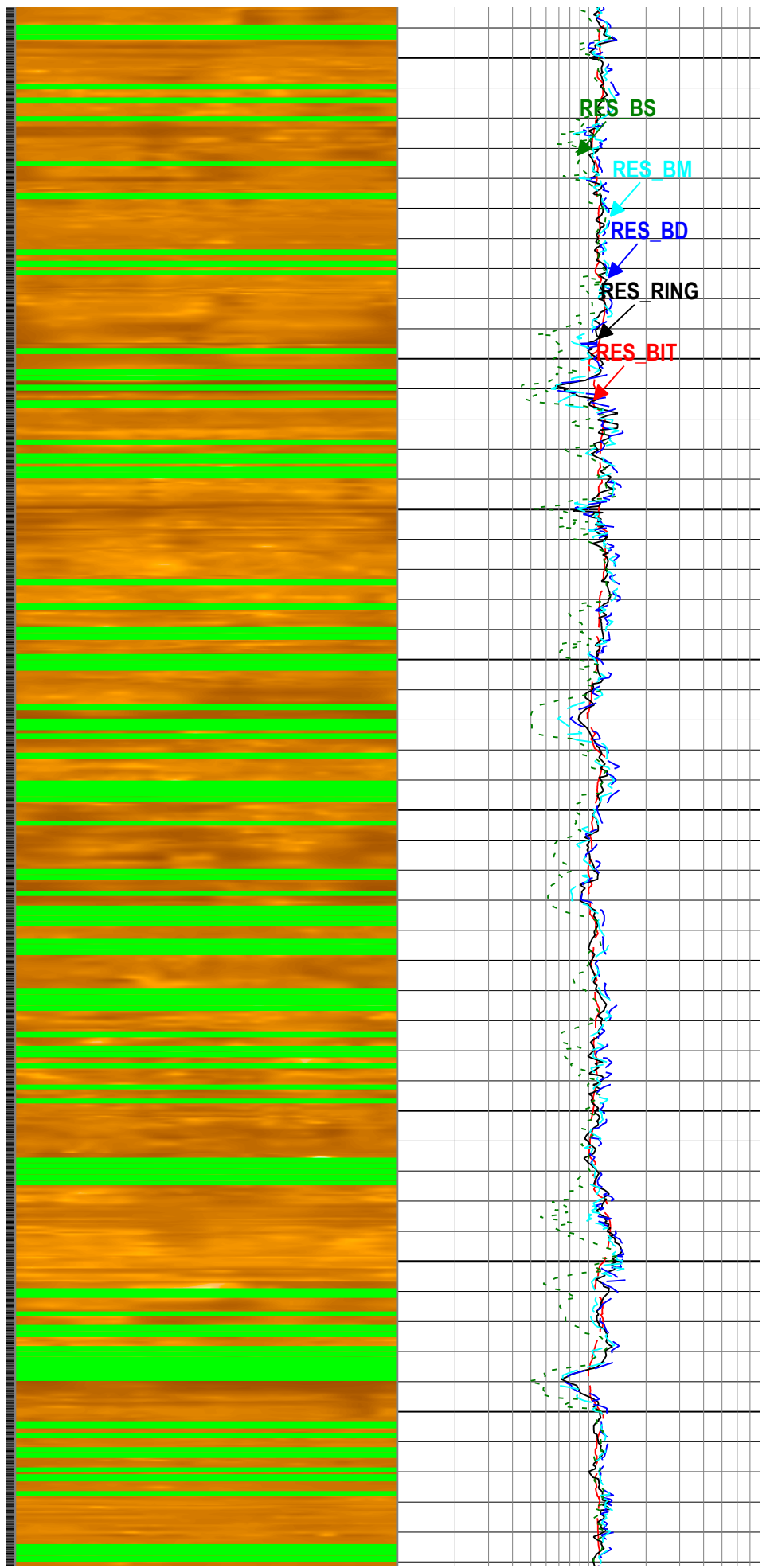
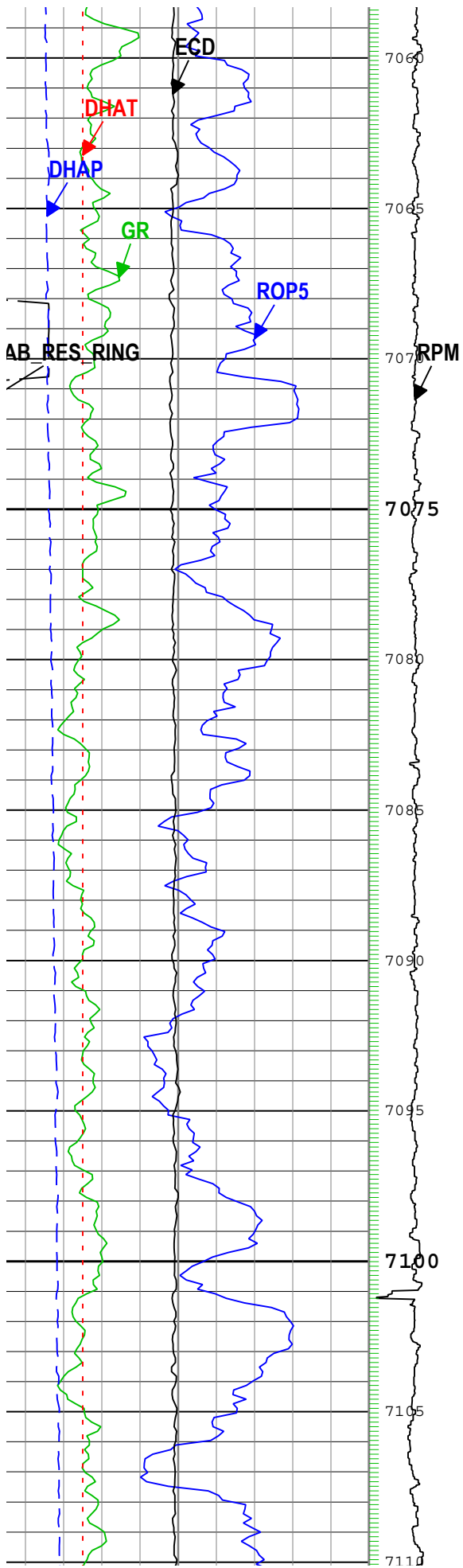


|   |       |  |
|---|-------|--|
| Bit Resistivity (RES_BIT) RAB6 RM           |       |  |
| 0.1   | ohm.m |  |
| Ring Resistivity (RES_RING) RAB6 RM         |       |  |
| 0.1   | ohm.m |  |
| Deep Button Resistivity (RES_BD) RAB6 RM    |       |  |
| 0.1   | ohm.m |  |
| Medium Button Resistivity (RES_BM) RAB6 RM  |       |  |
| 0.1   | ohm.m |  |
| Shallow Button Resistivity (RES_BS) RAB6 RM |       |  |
| 0.1   | ohm.m |  |

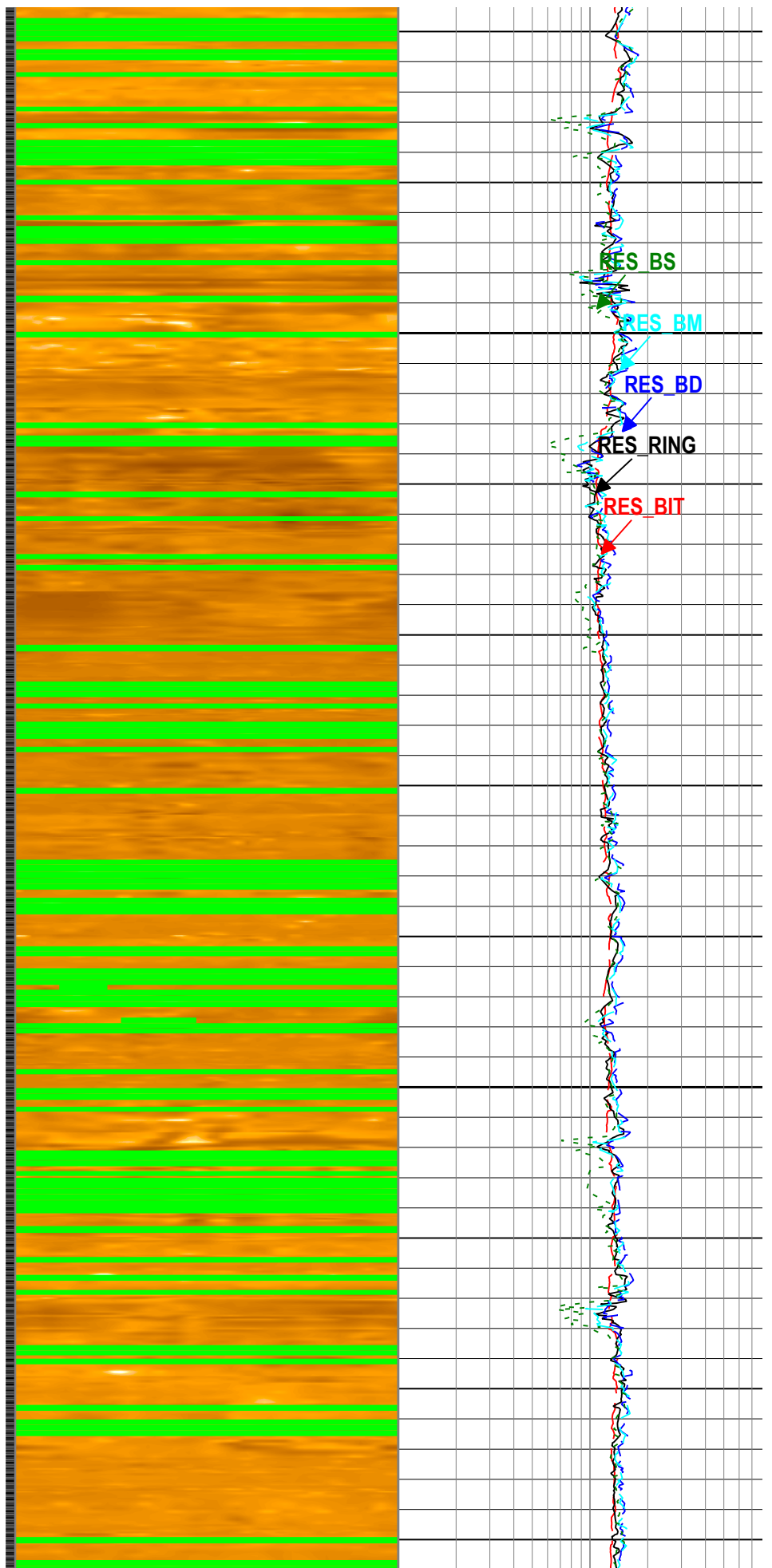
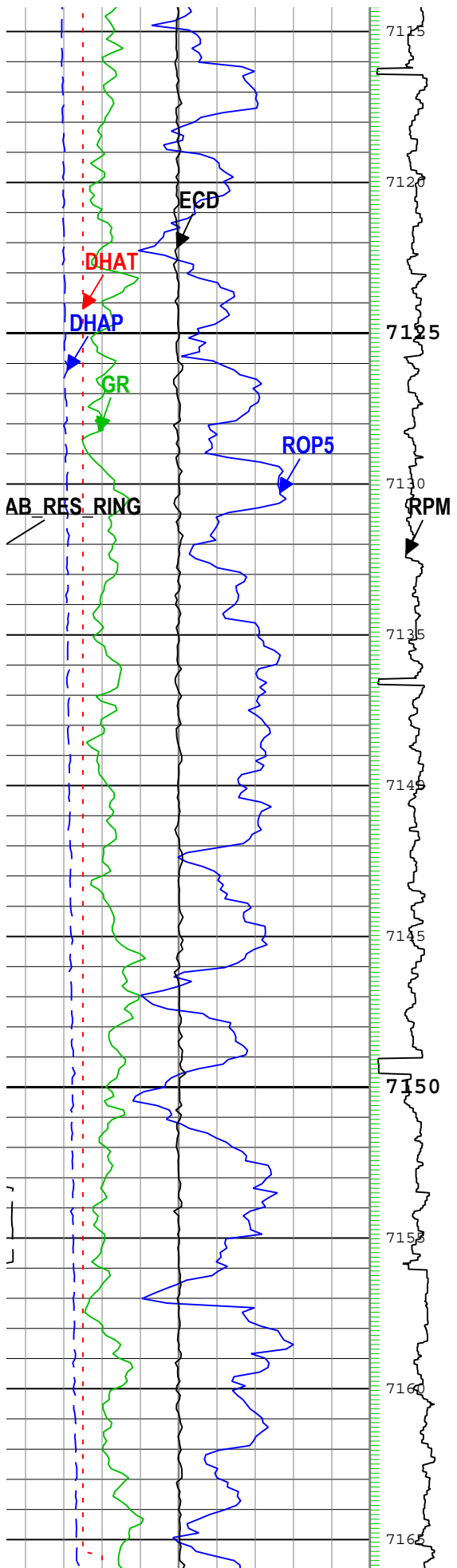




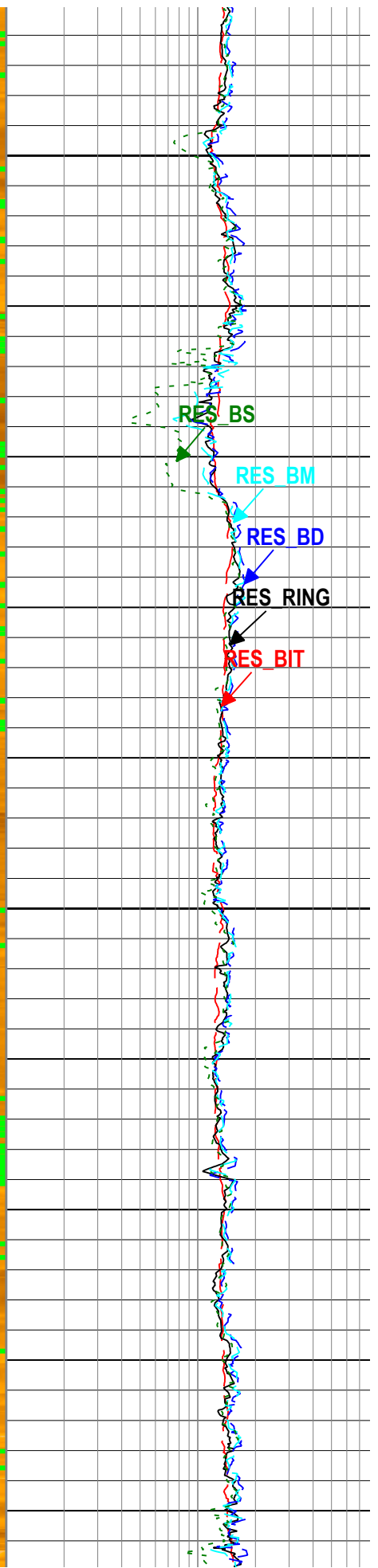
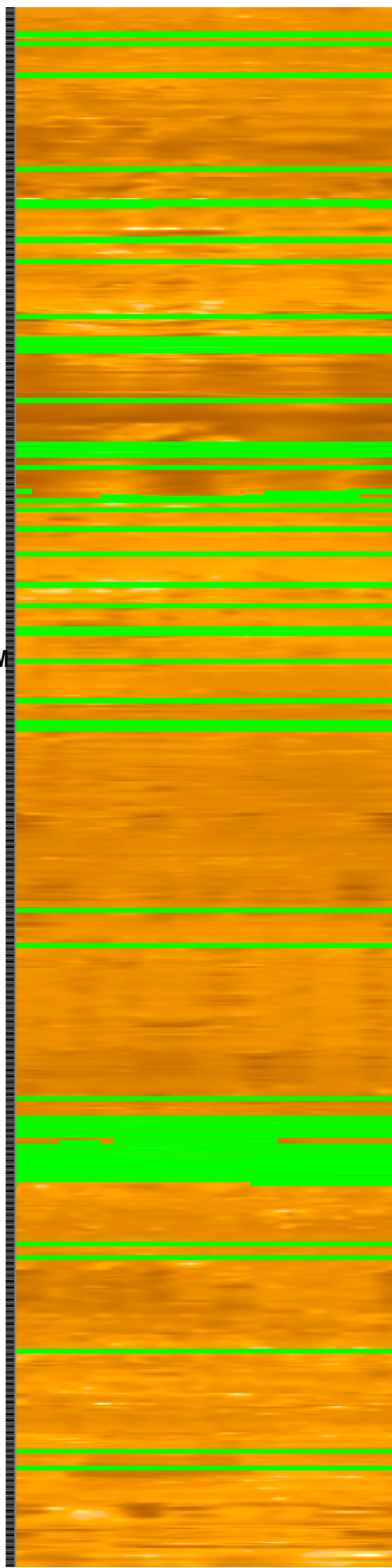
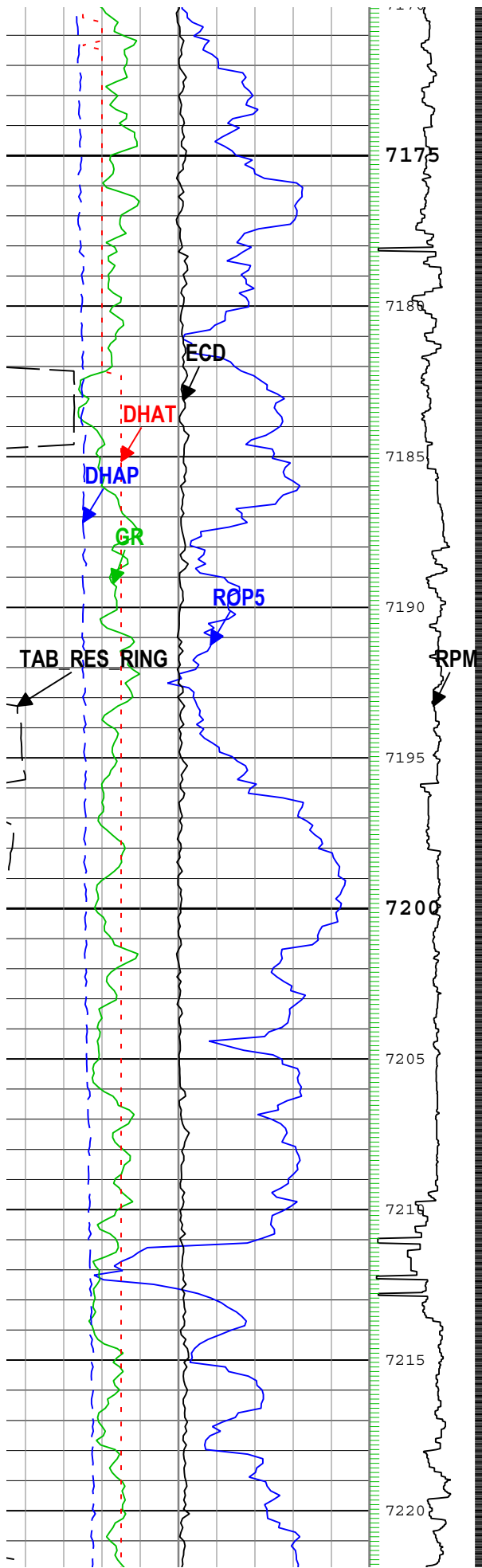


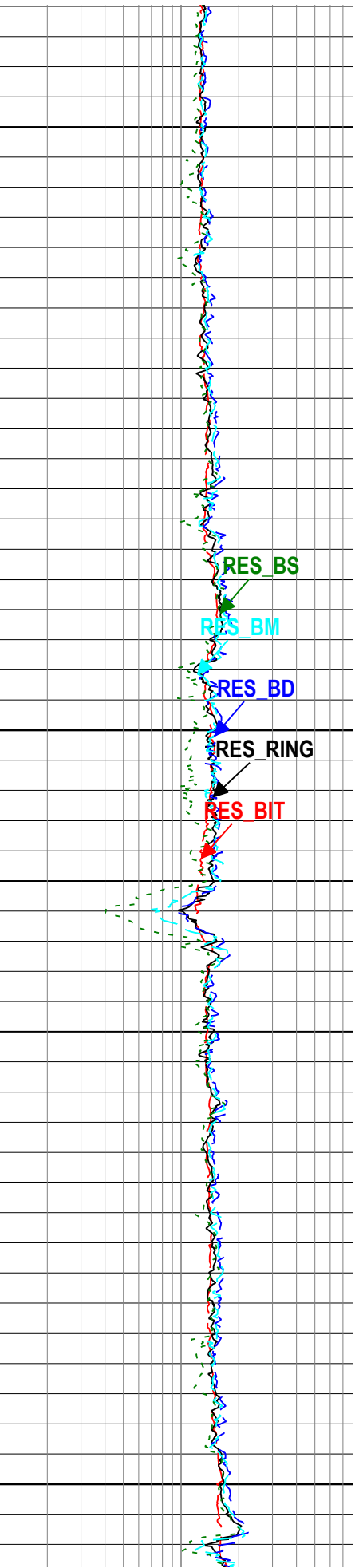
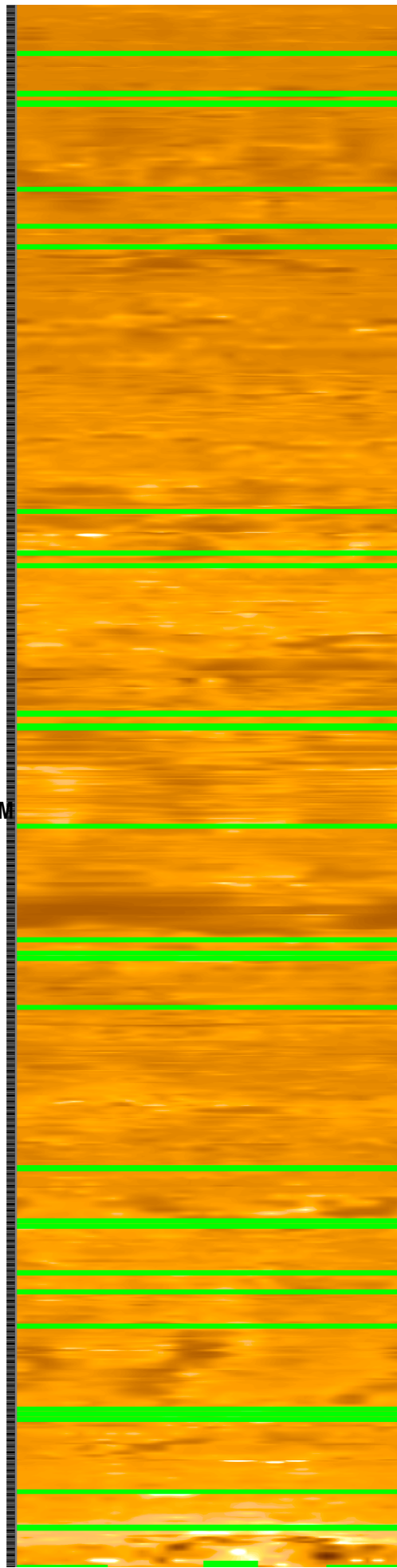
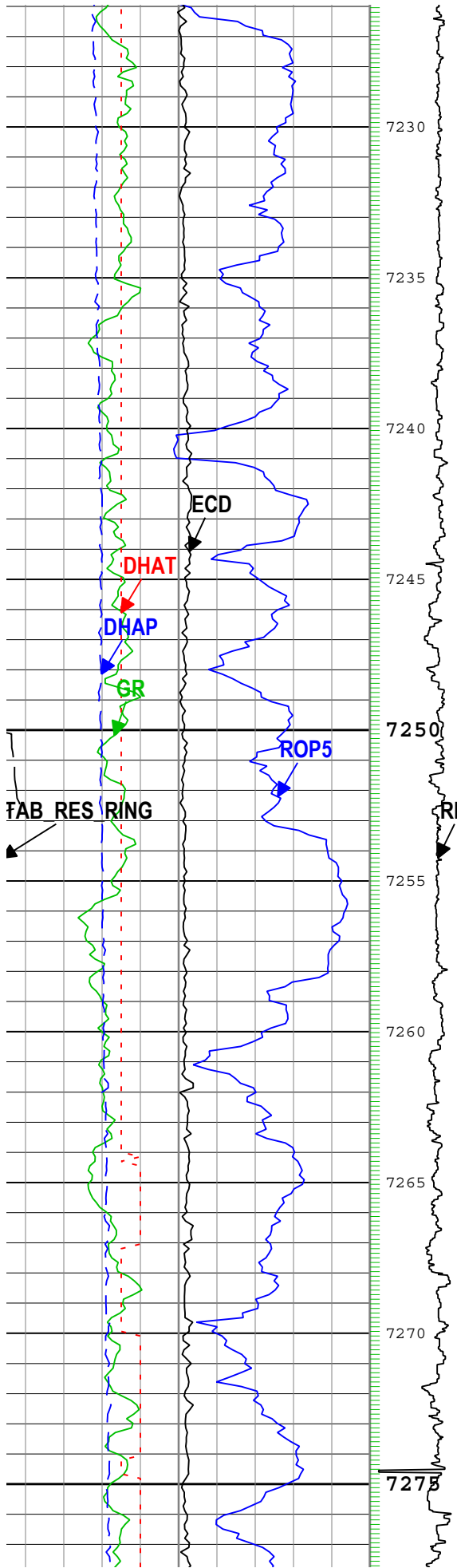


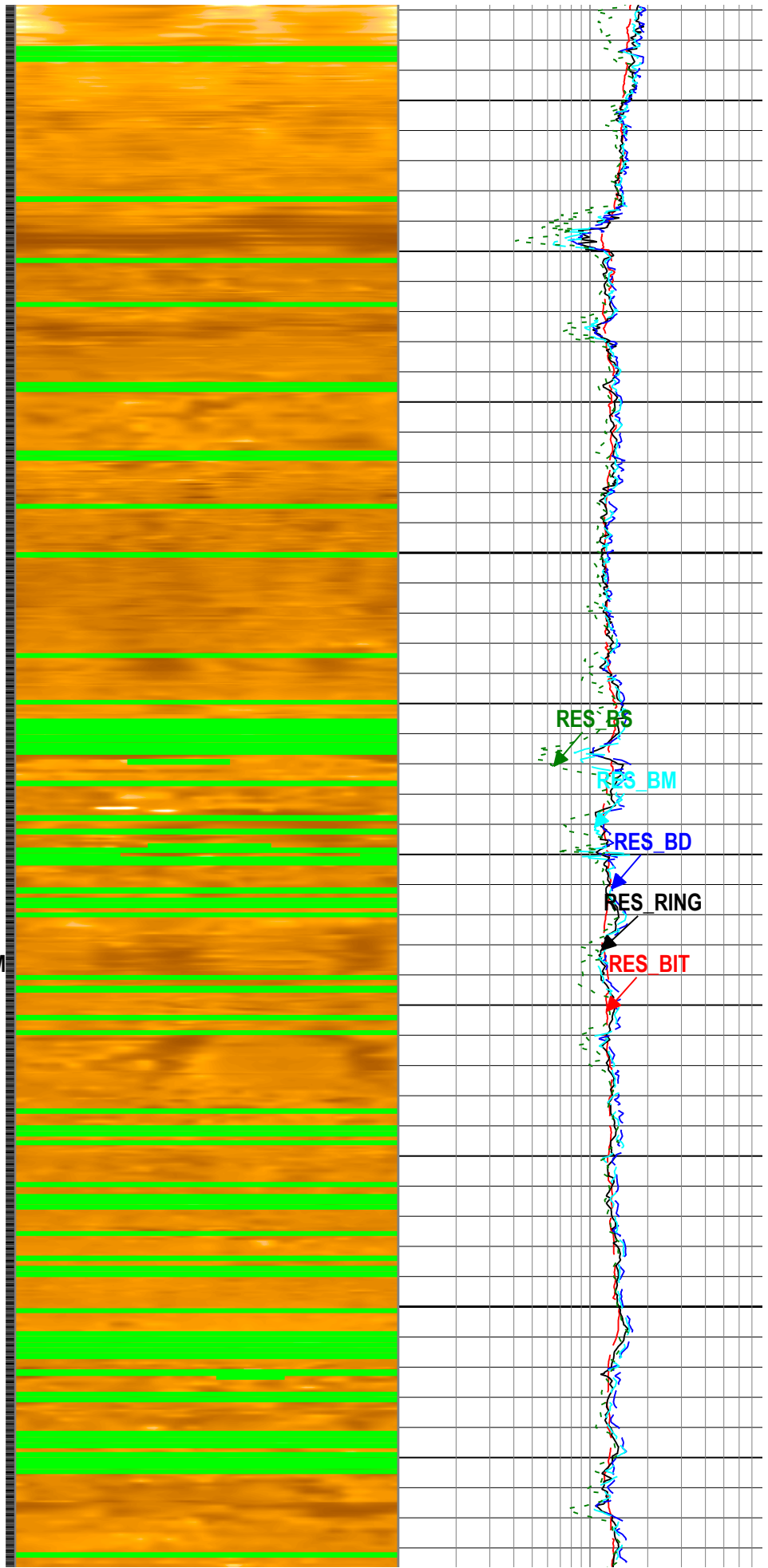
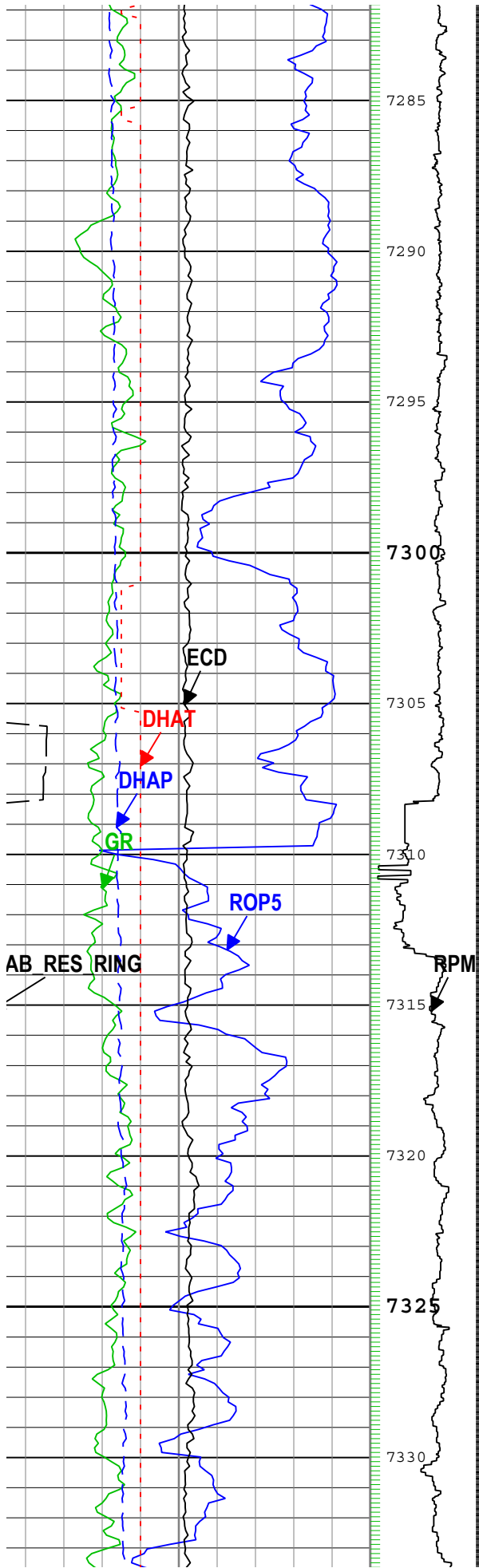


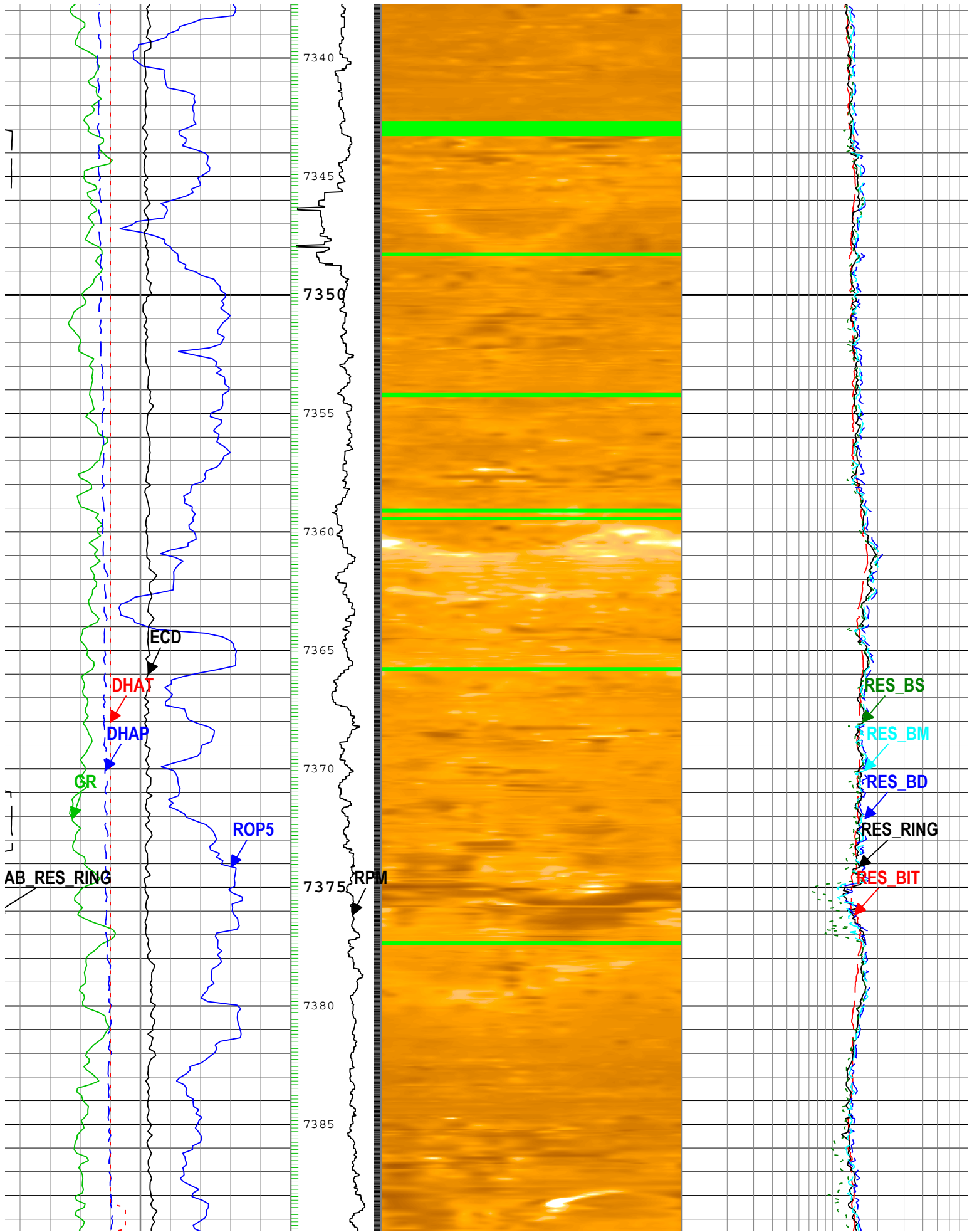


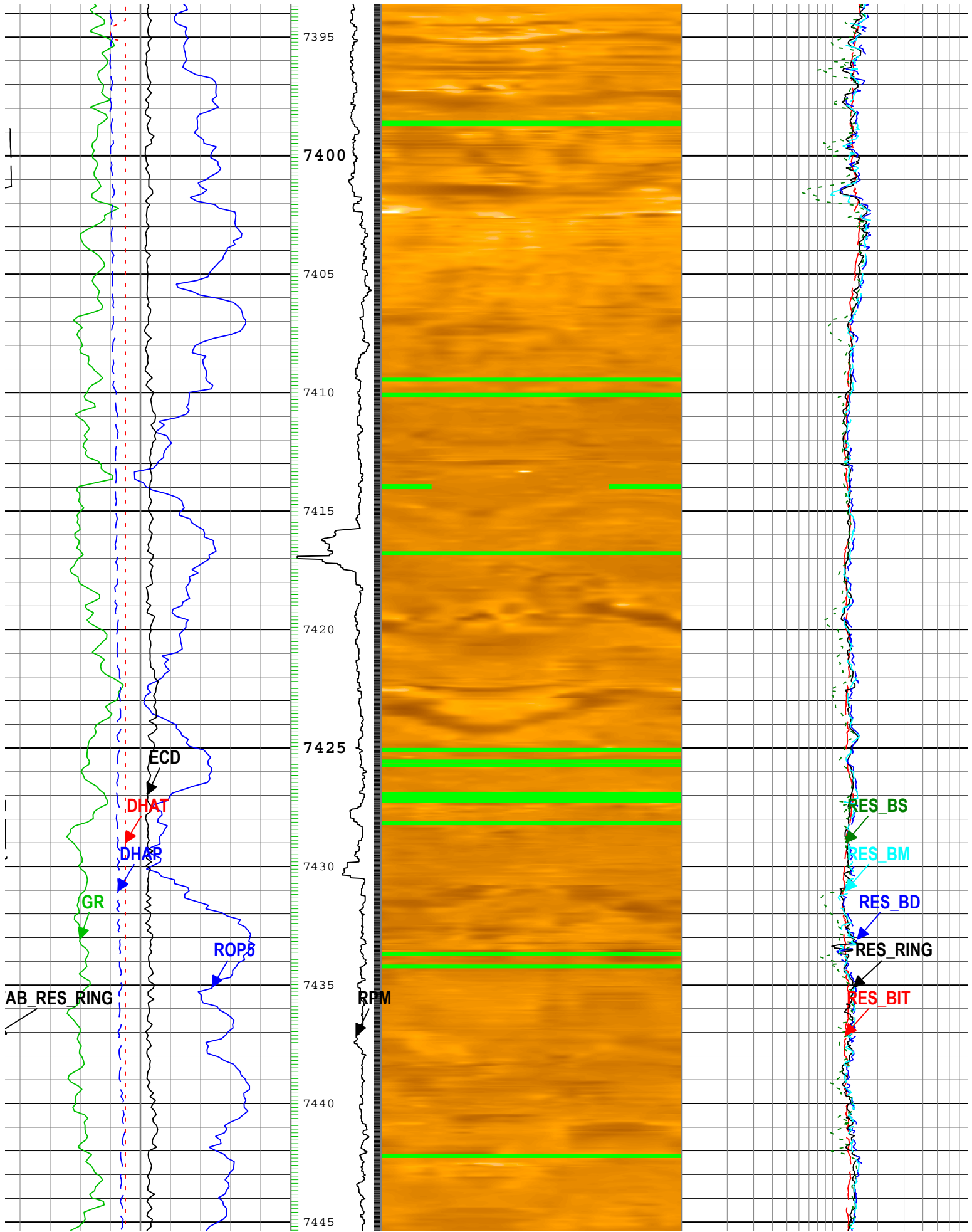




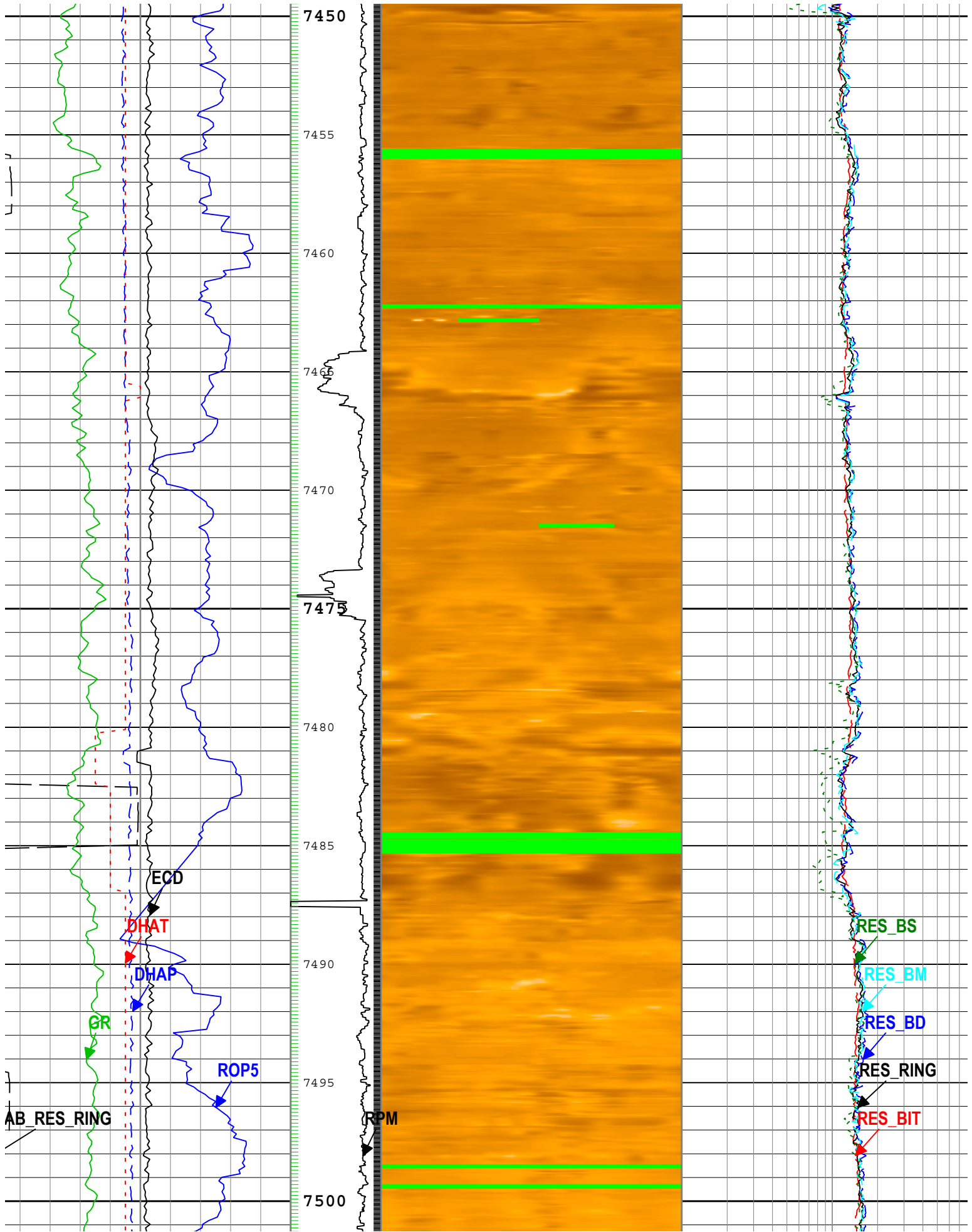


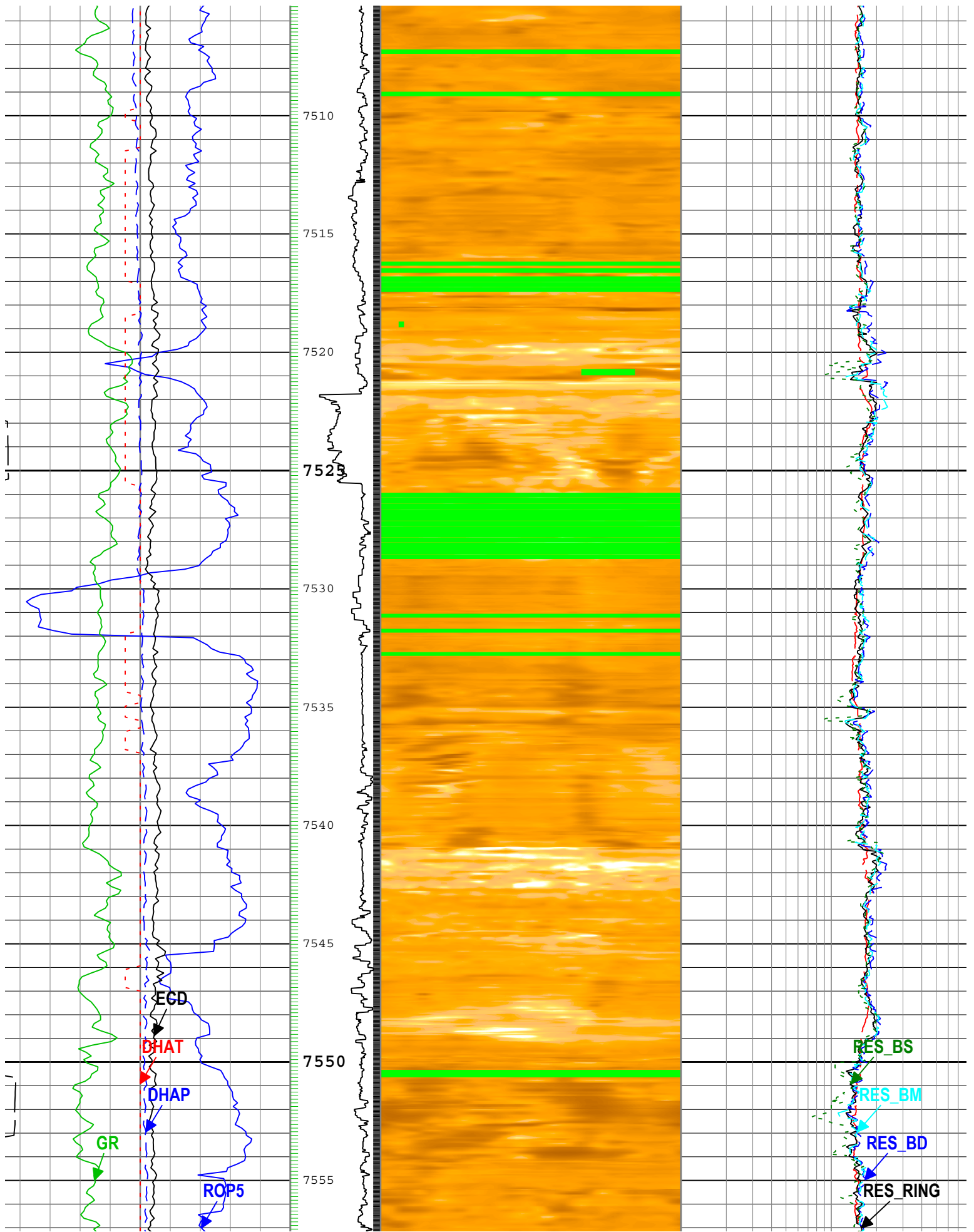


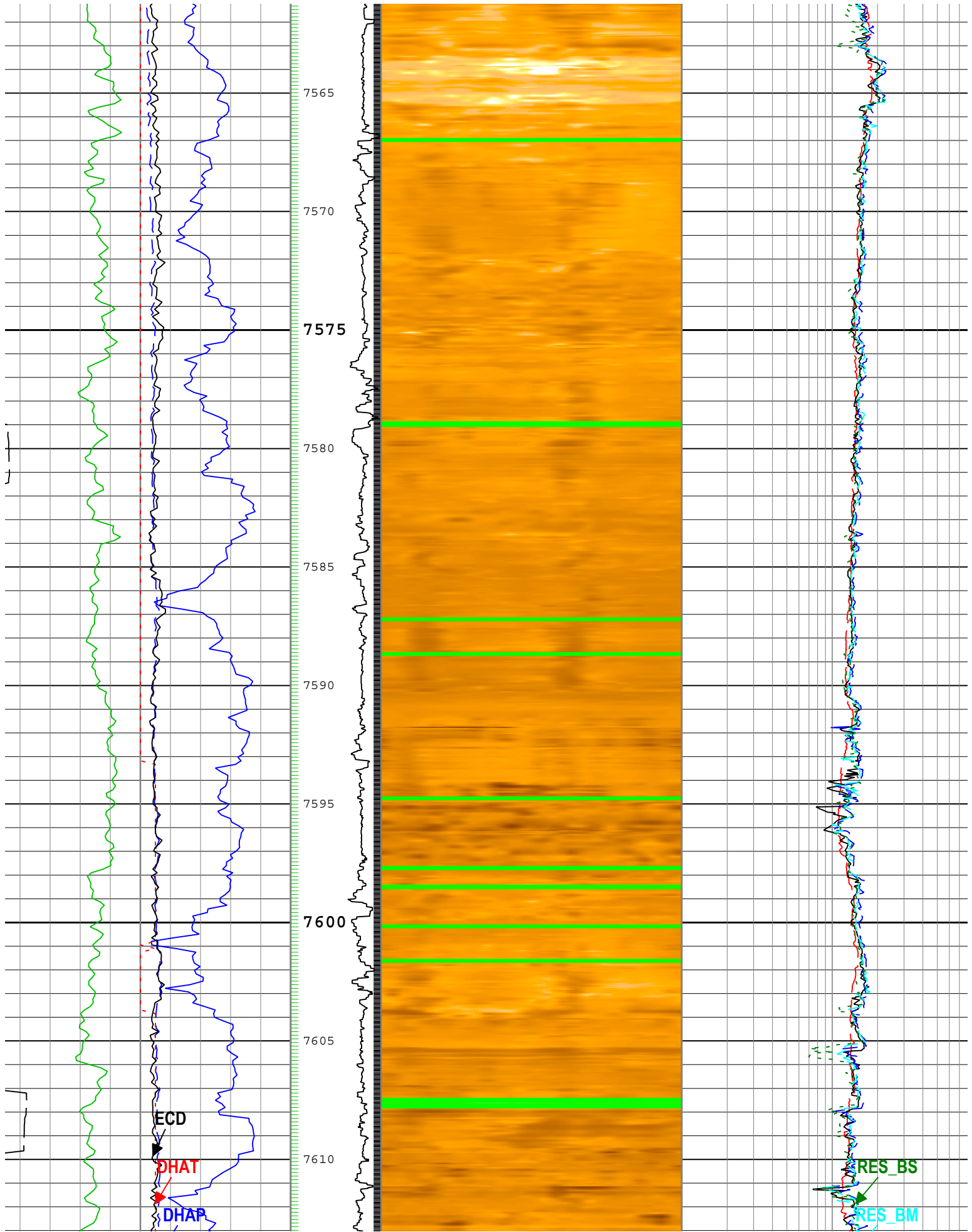




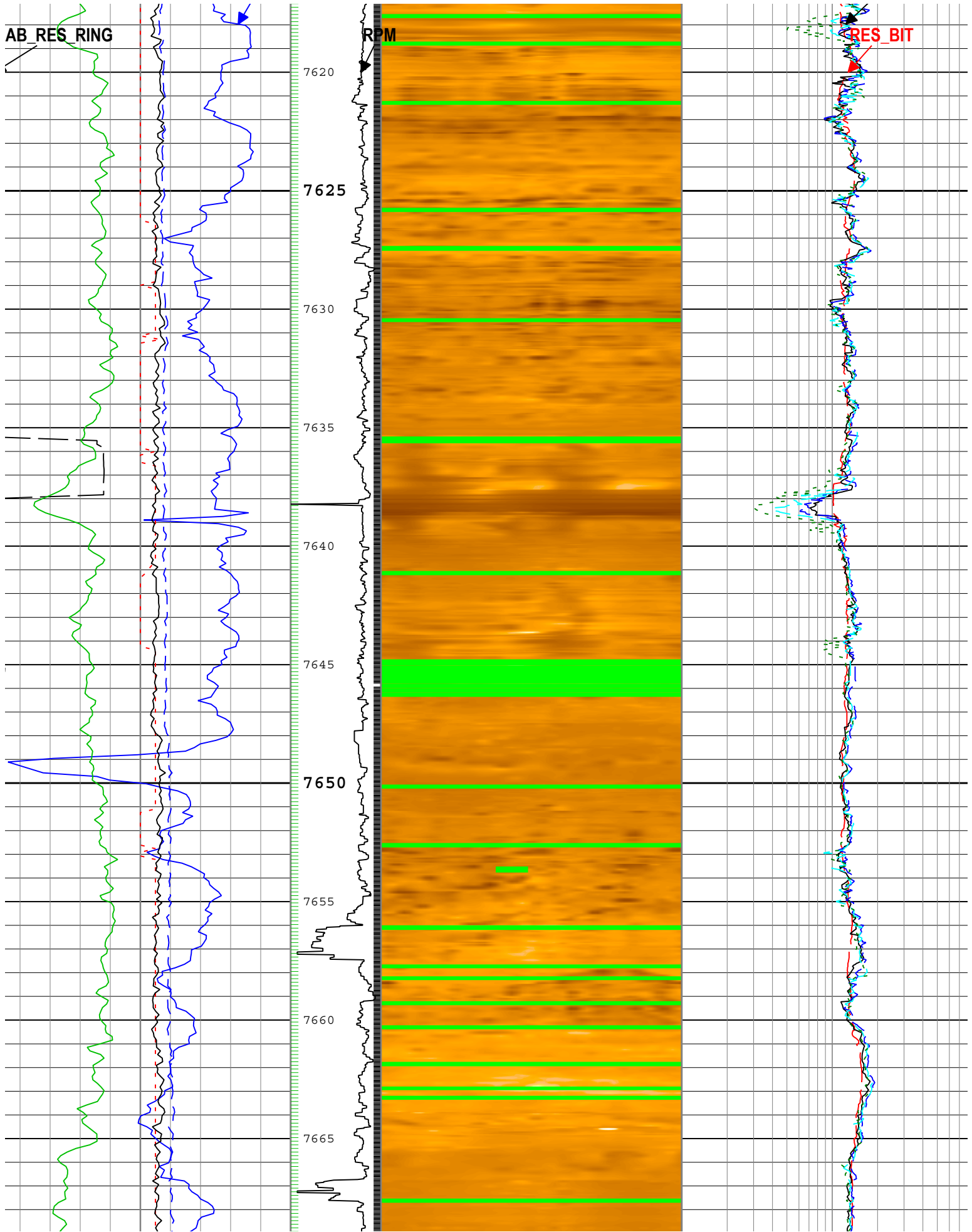


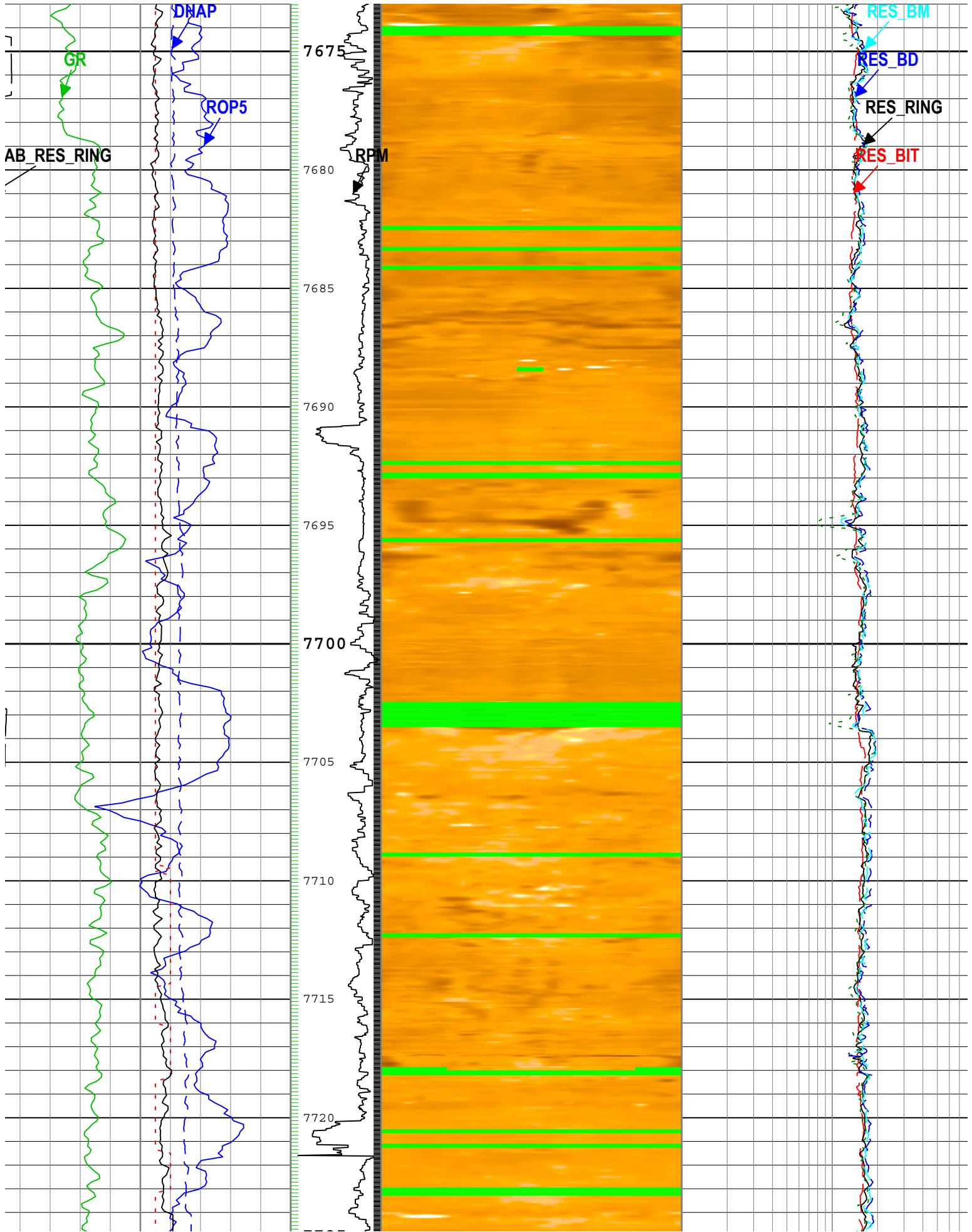


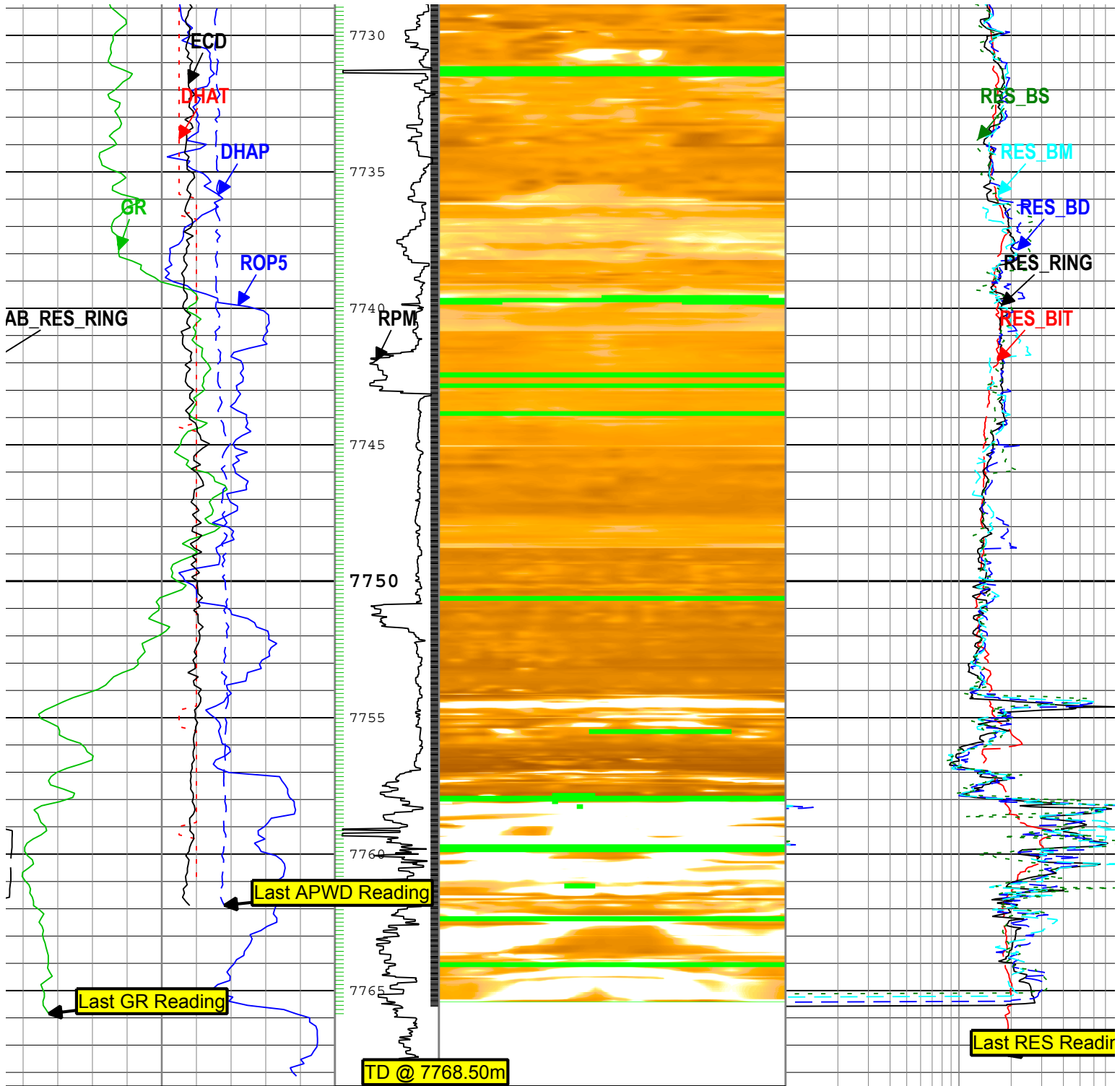




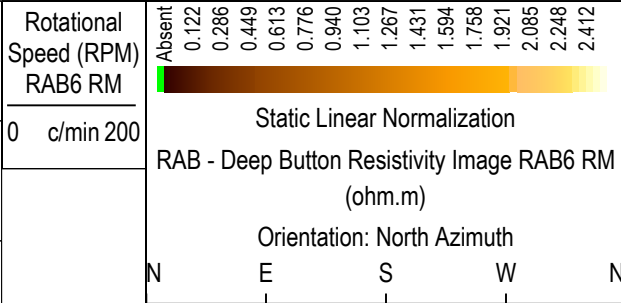








|  |  |  |
|--|--|--|
| Ring Resistivity Time After Bit<br>(TAB_RES_RING) RAB6               |  |  |
| h  |  |  |
| 10   |  |  |
| Rate of penetration averaged over the last 5 ft<br>(1.5 m) (ROP5) RT |  |  |
| m/h  |  |  |
| 0  |  |  |
| Gamma Ray (GR) RAB6 RM   |  |  |
| gAPI   |  |  |
| 150  |  |  |
| Downhole Annulus Pressure (DHAP) ARC6 RM                             |  |  |
| kPa  |  |  |
| 85000  |  |  |
| Downhole Annulus Temperature (DHAT) ARC6                             |  |  |



|   |  |  |
|---|--|--|
| Bit Resistivity (RES_BIT) RAB6 RM           |  |  |
| ohm.m                                       |  |  |
| 0.1   |  |  |
| Ring Resistivity (RES_RING) RAB6 RM         |  |  |
| ohm.m                                       |  |  |
| 0.1   |  |  |
| Deep Button Resistivity (RES_BD) RAB6 RM    |  |  |
| ohm.m                                       |  |  |
| 0.1   |  |  |
| Medium Button Resistivity (RES_BM) RAB6 RM  |  |  |
| ohm.m                                       |  |  |
| 0.1   |  |  |
| Shallow Button Resistivity (RES_BS) RAB6 RM |  |  |
| ohm.m                                       |  |  |
| 0.1   |  |  |

Description: GVR Resistivity, Deep Button Image    Format: Log ( JFAST RM GVR+APWD MD Digital )    Index Scale: 1:200    Index Unit: m    Index Type: Measured Depth    Creation Date: 11-May-2012 17:56:20

| Channel Processing Parameters |  |                |                    |         |
|-------------------------------|--|----------------|--------------------|---------|
| Parameter                     | Description  | ToolPath       | Value              | Unit    |
| HK                            | Drilling Fluid Potassium Concentration                   | Borehole       | 0                  | %       |
| HT                            | Bottom Hole Temperature                                  | Borehole       | 12                 | degC    |
| S                             | Bit Size   | COMPLETION     | Depth Zoned        | in      |
| EPth_SEL                      | Depth Selection Parameter                                | DNMSESSION     | Driller's Depth    |         |
| FD                            | Drilling Fluid Density                                   | Borehole       | 1.04               | g/cm3   |
| FT                            | Drilling Fluid Type                                      | Borehole       | Water              |         |
| LEV                           | Depth of Drilling Fluid Level to LMF (Log Measured From) | Borehole       | 28.5               | m       |
| GRD                           | Geothermal Gradient                                      | Borehole       | 11.66              | degC/km |
| RSE_RM                        | Generalized Mud Resistivity Selection for Recorded Mode  | Borehole       | REMS               |         |
| TSE_RT                        | Generalized Temperature Selection for Realtime Mode      | Borehole       | GTEM_GRDBOTTOM(RT) |         |
| IG_INTERP_WIN                 | Maximum Interpolation Window Size for Image              | RAB6:RAB6:RBEC | 0.15               | m       |
| ST                            | Mud Sample Temperature                                   | Borehole       | 2                  | degC    |
| ES_BD_IMG_SEL                 | GVR Output Resistivity Image Selection, Deep Button      | RAB6:RAB6:RBEC | Compensated Uphole |         |
| HO_SEAWATER                   | Density of the Sea Water                                 | Borehole       | 1.04               | g/cm3   |
| MS                            | Resistivity of Mud Sample                                | Borehole       | 0.29               | ohm.m   |
| F_FLAG                        | Mud Return to Sea Floor (No Riser)?                      | Borehole       | No                 |         |
| HT                            | Surface Hole Temperature                                 | Borehole       | 10                 | degC    |
| D                             | Total Measured Depth                                     | Borehole       | 7768.5             | m       |
| EMP_SEL_RAB                   | RAB Temperature Selection                                | RAB6:RAB6:RBEC | Tool               |         |

Depth Zone Parameters

| Parameter | Value | Start ( m ) | Stop ( m ) |
|-----------|-------|-------------|------------|
| S         | 0     | 6910        | 6918       |
| S         | 8.5   | 6918        | 7768.5     |

    All depth are actual.

| Tool Control Parameters |  |             |            |      |
|-------------------------|--|-------------|------------|------|
| Parameter               | Description  | ToolPath    | Value      | Unit |
| FFBTM_TH                | Threshold for deciding whether the bit is off bottom | DnMWorkflow | Time Zoned | m    |

Time Zone Parameters

| Parameter | Value | Start Time           | Stop Time            | Start Depth ( m ) | Stop Depth ( m ) |
|-----------|-------|----------------------|----------------------|-------------------|------------------|
| FFBTM_TH  | 0.2   | 21-Apr-2012 17:04:57 | 25-Apr-2012 22:24:51 | 6899.71           | 7768.18          |
| FFBTM_TH  | 0.4   | 25-Apr-2012 22:24:51 | 26-Apr-2012 20:21:59 | 7768.18           | 7768.31          |

    All depth are at tool zero.

ReamUp Composite 1

| Integration Summary |                    |                 |              |      |
|---------------------|--------------------|-----------------|--------------|------|
| Output Channel(s)   | Output Description | Input Parameter | Output Value | Unit |

all depths are referenced to toolstring zero

## Log

ReamUp Composite 1 766C8710-111A-4D28-8E1B-D490FB185D14

Description: GVR Resistivity, Deep Button Image    Format: Log ( JFAST RM GVR+APWD MD Digital )    Index Scale: 1:200    Index Unit: m    Index Type:

Measured Depth    Creation Date: 11-May-2012 17:56:58

| Channel     | Source                | Sampling   |
|-------------|-----------------------|------------|
| MAP         | ARC[1]:ARC[1]         | 6in - RM   |
| MAT         | ARC[1]:ARC[1]         | 6in - RM   |
| MD          | ARC[1]:ARC[1]:APWD[1] | 6in - RM   |
| R           | RAB[1]:RAB[1]:RBEC[1] | 6in - RM   |
| ES_BD       | RAB[1]:RAB[1]:RBEC[1] | 1.2in - RM |
| ES_BIT      | RAB[1]:RAB[1]:RBEC[1] | 1.2in - RM |
| ES_BM       | RAB[1]:RAB[1]:RBEC[1] | 1.2in - RM |
| ES_BS       | RAB[1]:RAB[1]:RBEC[1] | 1.2in - RM |
| ES_RING     | RAB[1]:RAB[1]:RBEC[1] | 1.2in - RM |
| DP5         | DRILLING_SURFACE      | 6in - RT   |
| PM          | RAB[1]:RAB[1]         | 1.2in - RM |
| AB RES RING | RAB[1]:RAB[1]:RBEC[1] | 6in        |

-|RES\_RING - Ring Resistivity RAB[1] RM

- GR - Gamma Ray RAB[1] RM

Ring Resistivity Time After Bit  
(TAB\_RES\_RING) RAB[1]

Rate of penetration averaged over the last 5 ft  
(1.5 m) (ROP5) RT

00 m/h 0

Gamma Ray (GR) RAB[1] RM

qAPI 150

Downhole Annulus Pressure (DHAP) ARC[1]  
RM

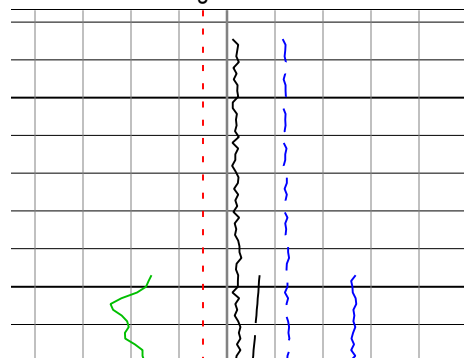
0000 kPa 85000

Downhole Annulus Temperature (DHAT) ARC[1]  
BM

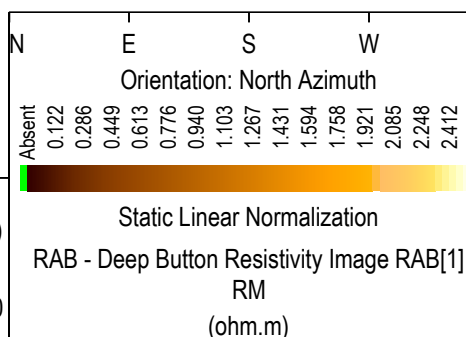
degC 20

Equivalent Circulating Density (ECD) ARC[1]  
RM

|                   |     |
|-------------------|-----|
| g/cm <sup>3</sup> | 1.1 |
|-------------------|-----|



|                           |           |
|---------------------------|-----------|
| Rotational<br>Speed (RPM) | RAB[1] RM |
| 0 c/min                   | 200       |



| Bit Resistivity (RES_BIT) | RAB[1] RM |
|---------------------------|-----------|
| 0.1                       | ohm.m     |

Ring Resistivity (RES\_RING) RAB[1] RM

|     |       |
|-----|-------|
| 0.1 | ohm.m |
|-----|-------|

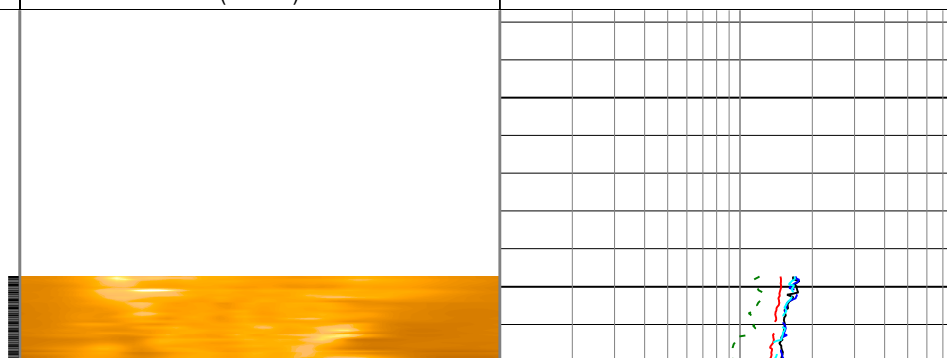
|  |
|--|
| Deep Button Resistivity (RES_BD) RAB[1] RM |
| 0.1 ohm.m                                  |

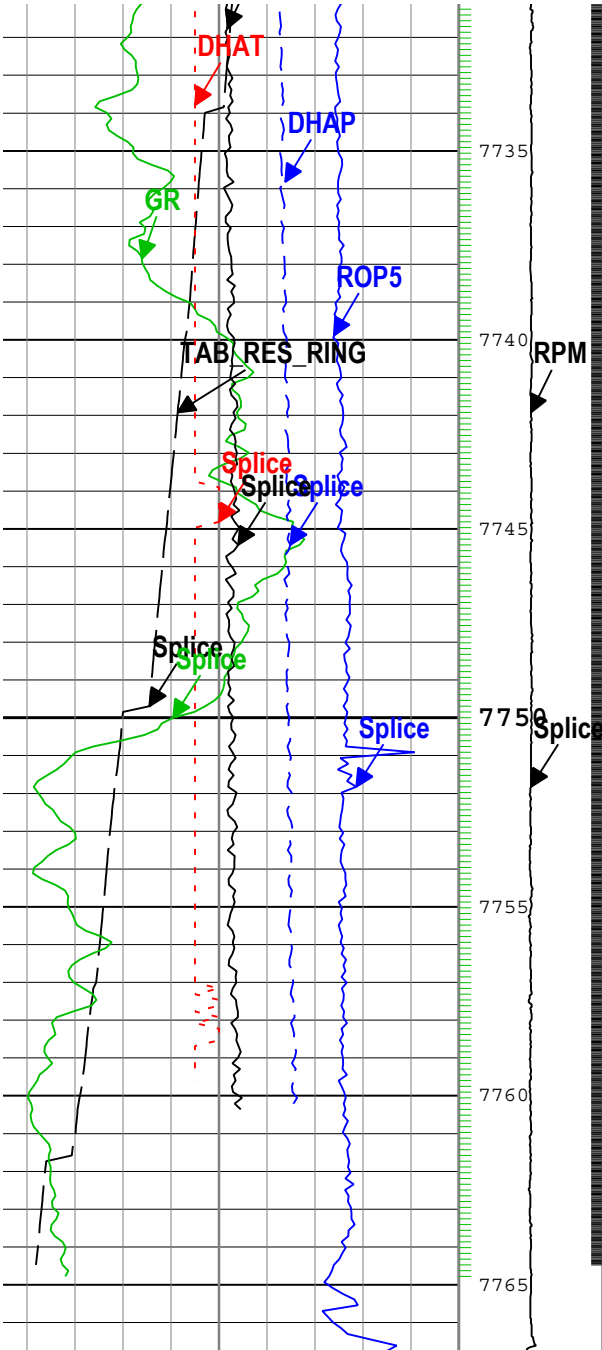
|   |
|---|
| Medium Button Resistivity (RES_BM) RAB[1]<br>BM |
|---|

0.1 ohm.m

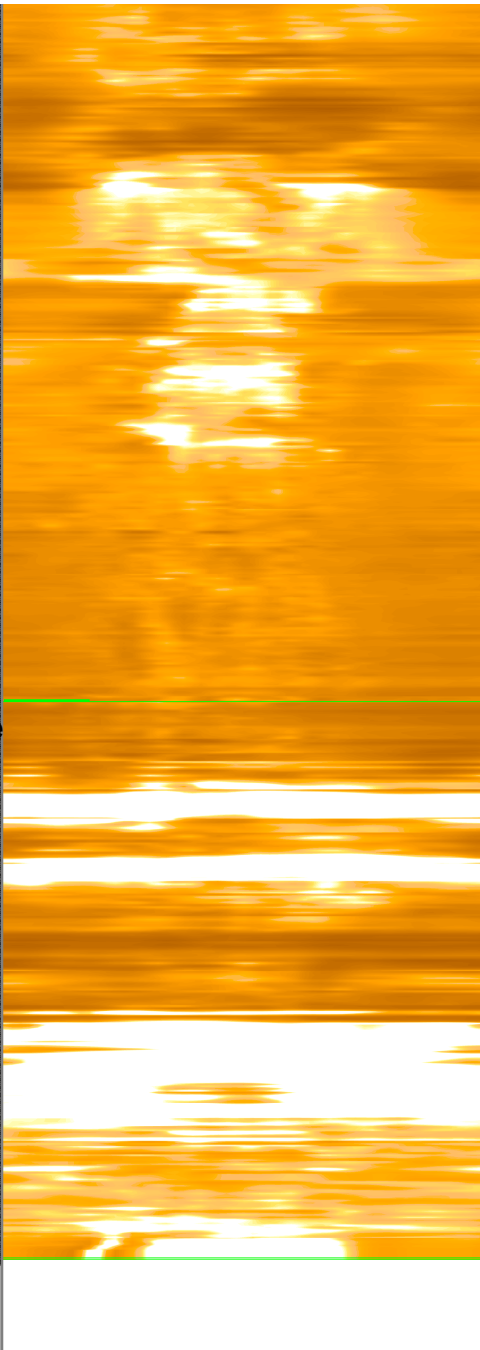
|  |
|--|
| Shallow Button Resistivity (RES_BS) RAB[1] |
| BM   |

0.1 ohm.m

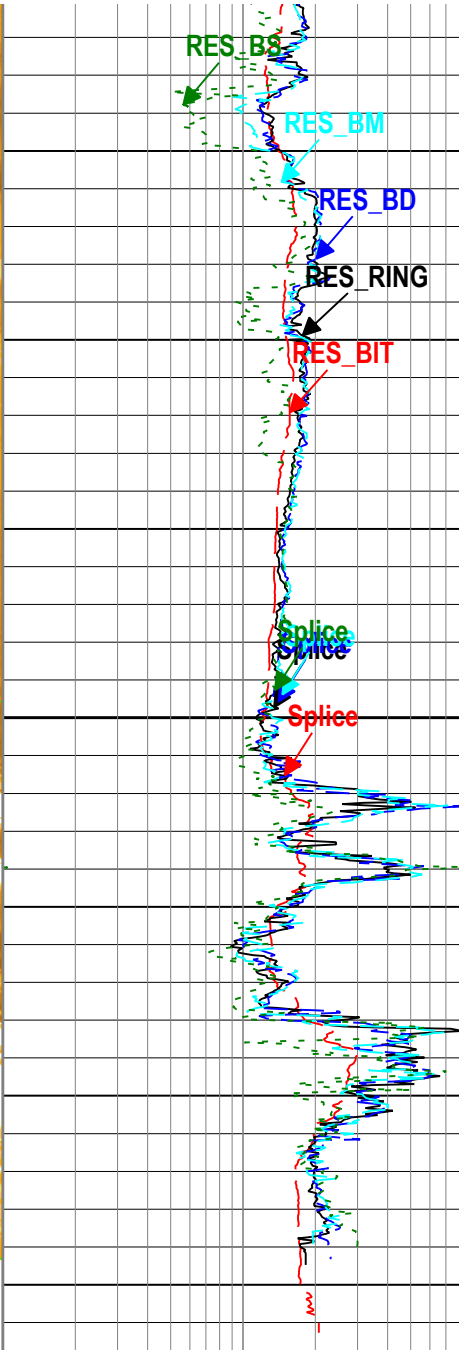




|  |  |  |
|--|--|--|
| Ring Resistivity Time After Bit<br>(TAB_RES_RING) RAB[1]             |  |  |
| h  |  |  |
| 10   |  |  |
| Rate of penetration averaged over the last 5 ft<br>(1.5 m) (ROP5) RT |  |  |
| m/h  |  |  |
| 0  |  |  |
| Gamma Ray (GR) RAB[1] RM   |  |  |
| gAPI   |  |  |
| 150  |  |  |
| Downhole Annulus Pressure (DHAP) ARC[1]                              |  |  |
| RM   |  |  |
| kPa  |  |  |
| 1000   |  |  |
| 85000  |  |  |
| Downhole Annulus Temperature (DHAT) ARC[1]                           |  |  |
| RM   |  |  |
| degC   |  |  |
| 20   |  |  |
| Equivalent Circulating Density (ECD) ARC[1]                          |  |  |



|  |   |   |   |   |
|--|---|---|---|---|
| Rotational<br>Speed (RPM)<br>RAB[1] RM     |   |   |   |   |
| 0 c/min 200                                |   |   |   |   |
| Static Linear Normalization                |   |   |   |   |
| RAB - Deep Button Resistivity Image RAB[1] |   |   |   |   |
| RM   |   |   |   |   |
| (ohm.m)                                    |   |   |   |   |
| Orientation: North Azimuth                 |   |   |   |   |
| N  | E | S | W | N |



|   |       |
|---|-------|
| Bit Resistivity (RES_BIT) RAB[1] RM           |       |
| 0.1   | ohm.m |
| Ring Resistivity (RES_RING) RAB[1] RM         |       |
| 0.1   | ohm.m |
| Deep Button Resistivity (RES_BD) RAB[1] RM    |       |
| 0.1   | ohm.m |
| Medium Button Resistivity (RES_BM) RAB[1] RM  |       |
| 0.1   | ohm.m |
| Shallow Button Resistivity (RES_BS) RAB[1] RM |       |
| 0.1   | ohm.m |



Description: GVR Resistivity, Deep Button Image    Format: Log ( JFAST RM GVR+APWD MD Digital )    Index Scale: 1:200    Index Unit: m    Index Type: Measured Depth    Creation Date: 11-May-2012 17:56:58

ReamUp Composite 2

Integration Summary

| Output Channel(s) | Output Description | Input Parameter | Output Value | Unit |
|-------------------|--------------------|-----------------|--------------|------|
|-------------------|--------------------|-----------------|--------------|------|

Composite Summary

| Run Name | Pass Objective | Direction | Top       | Bottom    | Start                  | Stop                   | Include Parallel Data |
|----------|----------------|-----------|-----------|-----------|------------------------|------------------------|-----------------------|
| Run1     | Ream Up 3      | Up        | 7645.02 m | 7657.03 m | 26-Apr-2012 1:48:22 AM | 26-Apr-2012 2:21:04 AM | true                  |
| Run1     | Ream Up 4      | Up        | 7609.15 m | 7646.24 m | 26-Apr-2012 2:37:56 AM | 26-Apr-2012 4:12:01 AM | true                  |
| Run1     | Ream Up 5      | Up        | 7600.19 m | 7610.27 m | 26-Apr-2012 4:41:47 AM | 26-Apr-2012 5:07:30 AM | true                  |

All depths are referenced to toolstring zero

Log

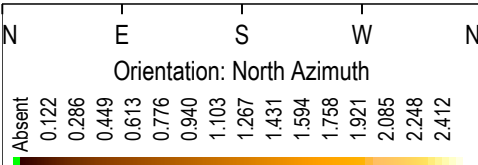
ReamUp Composite 2 77C2AC54-7156-400A-A577-CD68B5B4BEC2

Description: GVR Resistivity, Deep Button Image    Format: Log ( JFAST RM GVR+APWD MD Digital )    Index Scale: 1:200    Index Unit: m    Index Type: Measured Depth    Creation Date: 11-May-2012 17:57:09

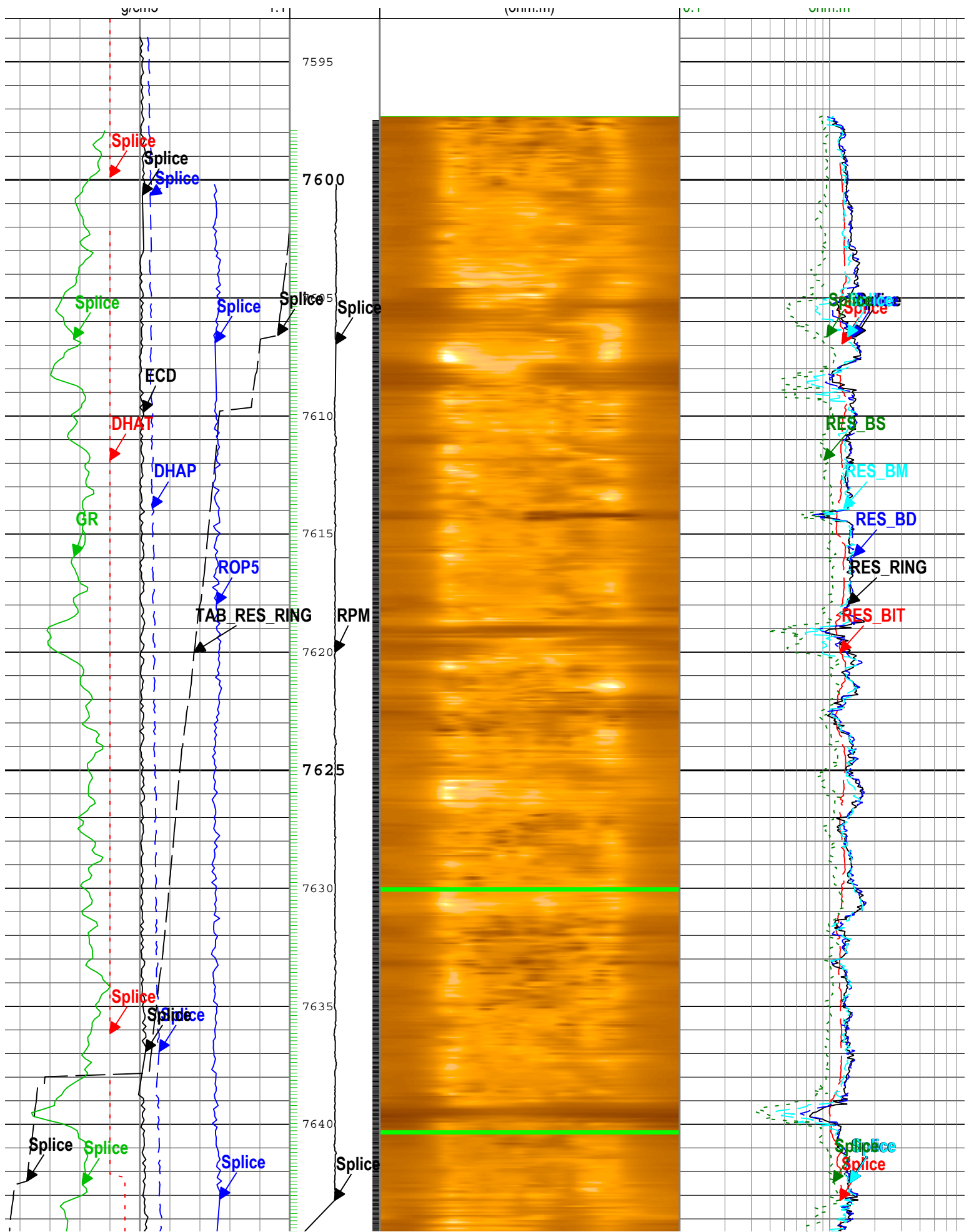
|              |                       |            |
|--------------|-----------------------|------------|
| Channel      | Source                | Sampling   |
| THAP         | ARC[1]:ARC[1]         | 6in - RM   |
| THAT         | ARC[1]:ARC[1]         | 6in - RM   |
| THD          | ARC[1]:ARC[1]:APWD[1] | 6in - RM   |
| THR          | RAB[1]:RAB[1]:RBEC[1] | 6in - RM   |
| RES_BD       | RAB[1]:RAB[1]:RBEC[1] | 1.2in - RM |
| RES_BIT      | RAB[1]:RAB[1]:RBEC[1] | 1.2in - RM |
| RES_BM       | RAB[1]:RAB[1]:RBEC[1] | 1.2in - RM |
| RES_BS       | RAB[1]:RAB[1]:RBEC[1] | 1.2in - RM |
| RES_RING     | RAB[1]:RAB[1]:RBEC[1] | 1.2in - RM |
| ROP5         | DRILLING_SURFACE      | 6in - RT   |
| RTM          | RAB[1]:RAB[1]         | 1.2in - RM |
| RTB_RES_RING | RAB[1]:RAB[1]:RBEC[1] | 6in        |

GR - Gamma Ray RAB[1] RM

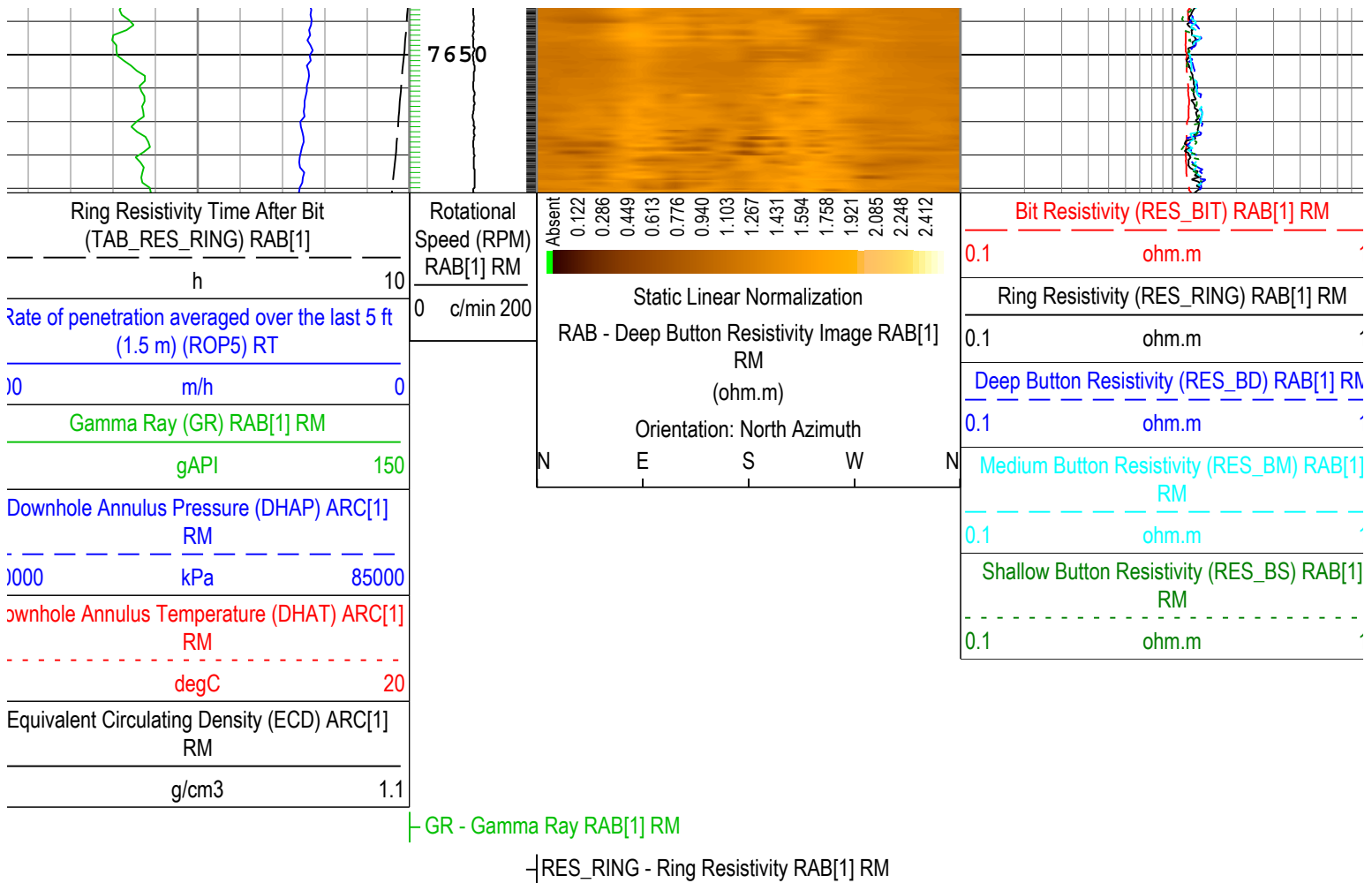
|  |     |       |
|--|-----|-------|
| Ring Resistivity Time After Bit<br>(TAB_RES_RING) RAB[1]             |     |       |
| h  |     | 10    |
| Rate of penetration averaged over the last 5 ft<br>(1.5 m) (ROP5) RT |     |       |
| ROP  | m/h | 0     |
| Gamma Ray (GR) RAB[1] RM   |     |       |
| gAPI   |     | 150   |
| Downhole Annulus Pressure (DHAP) ARC[1]<br>RM                        |     |       |
| POD  | kPa | 85000 |
| Downhole Annulus Temperature (DHAT) ARC[1]<br>RM                     |     |       |



|  |       |  |
|--|-------|--|
| Bit Resistivity (RES_BIT) RAB[1] RM          |       |  |
| 0.1  | ohm.m |  |
| Ring Resistivity (RES_RING) RAB[1] RM        |       |  |
| 0.1  | ohm.m |  |
| Deep Button Resistivity (RES_BD) RAB[1] RM   |       |  |
| 0.1  | ohm.m |  |
| Medium Button Resistivity (RES_BM) RAB[1] RM |       |  |







Description: GVR Resistivity, Deep Button Image Format: Log ( JFAST RM GVR+APWD MD Digital ) Index Scale: 1:200 Index Unit: m Index Type: Measured Depth Creation Date: 11-May-2012 17:57:09

## ReamUp Composite 3

### Integration Summary

| Output Channel(s) | Output Description | Input Parameter | Output Value | Unit |
|-------------------|--------------------|-----------------|--------------|------|
|-------------------|--------------------|-----------------|--------------|------|

### Composite Summary

| Run Name | Pass Objective | Direction | Top       | Bottom    | Start                   | Stop                    | Include Parallel Data |
|----------|----------------|-----------|-----------|-----------|-------------------------|-------------------------|-----------------------|
| Run1     | Ream Up 6      | Up        | 7296.07 m | 7311.47 m | 26-Apr-2012 7:05:37 AM  | 26-Apr-2012 7:37:43 AM  | true                  |
| Run1     | Ream Up 7      | Up        | 7267.04 m | 7298.56 m | 26-Apr-2012 8:02:07 AM  | 26-Apr-2012 9:21:38 AM  | true                  |
| Run1     | Ream Up 8      | Up        | 7250.07 m | 7268.79 m | 26-Apr-2012 10:10:43 AM | 26-Apr-2012 10:59:30 AM | true                  |

All depths are referenced to toolstring zero

### Log

ReamUp Composite 3 EF59FE12-AD2D-45B6-BD54-BEE86F46066D

Description: GVR Resistivity, Deep Button Image Format: Log ( JFAST RM GVR+APWD MD Digital ) Index Scale: 1:200 Index Unit: m Index Type: Measured Depth Creation Date: 11-May-2012 17:57:18

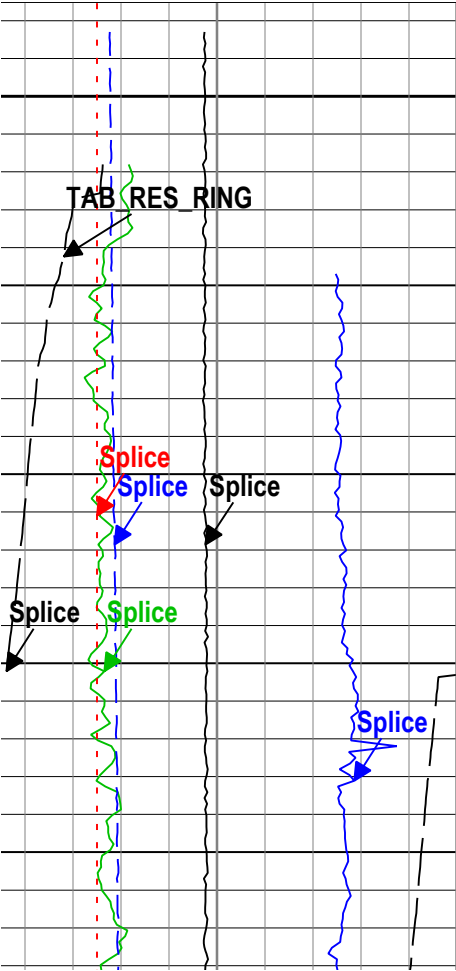
| Channel | Source                 | Sampling |
|---------|------------------------|----------|
| DHAP    | ARC[1]:ARC[1]          | 6in - RM |
| DHAT    | ARC[1]:ARC[1]          | 6in - RM |
| ECD     | ARC[1]:ARC[1]:APWD[1]  | 6in - RM |
| R       | RAB[1]:RAB[1]:RREFC[1] | 6in - RM |

ES\_BS RAB[1]:RAB[1]:RBEC[1] 1.2in - RM  
ES\_RING RAB[1]:RAB[1]:RBEC[1] 1.2in - RM  
DP5 DRILLING\_SURFACE 6in - RT  
PM RAB[1]:RAB[1] 1.2in - RM  
AB\_RES\_RING RAB[1]:RAB[1]:RBEC[1] 6in

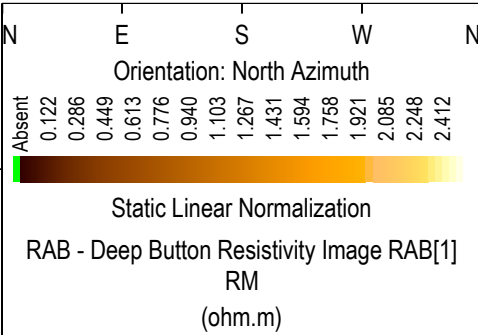
RES\_RING - Ring Resistivity RAB[1] RM

GR - Gamma Ray RAB[1] RM

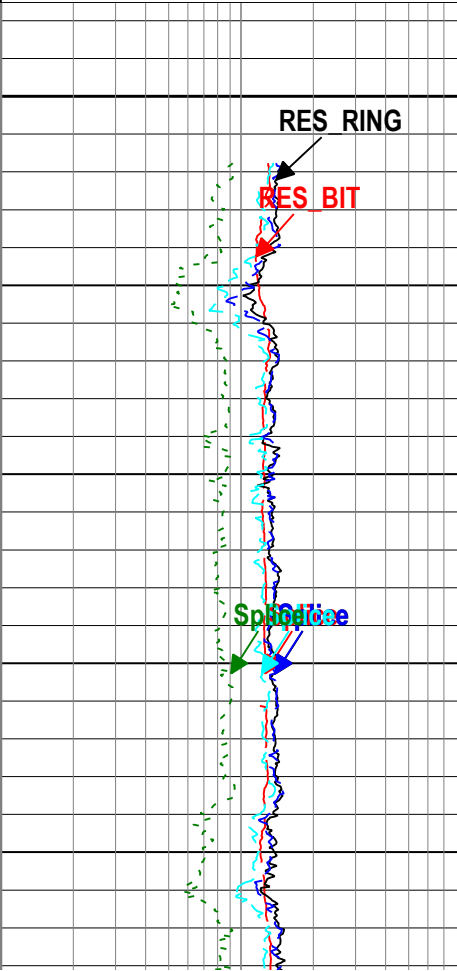
| Ring Resistivity Time After Bit<br>(TAB_RES_RING) RAB[1]             |  |       |
|--|--|-------|
| h  |  |       |
| 10   |  |       |
| Rate of penetration averaged over the last 5 ft<br>(1.5 m) (ROP5) RT |  |       |
| m/h  |  |       |
| 10   |  | 0     |
| Gamma Ray (GR) RAB[1] RM   |  |       |
| gAPI   |  |       |
| 150  |  |       |
| Downhole Annulus Pressure (DHAP) ARC[1]<br>RM                        |  |       |
| kPa  |  |       |
| 1000   |  | 85000 |
| Downhole Annulus Temperature (DHAT) ARC[1]<br>RM                     |  |       |
| degC   |  |       |
| 20   |  |       |
| Equivalent Circulating Density (ECD) ARC[1]<br>RM                    |  |       |
| g/cm3  |  |       |
| 1.1  |  |       |

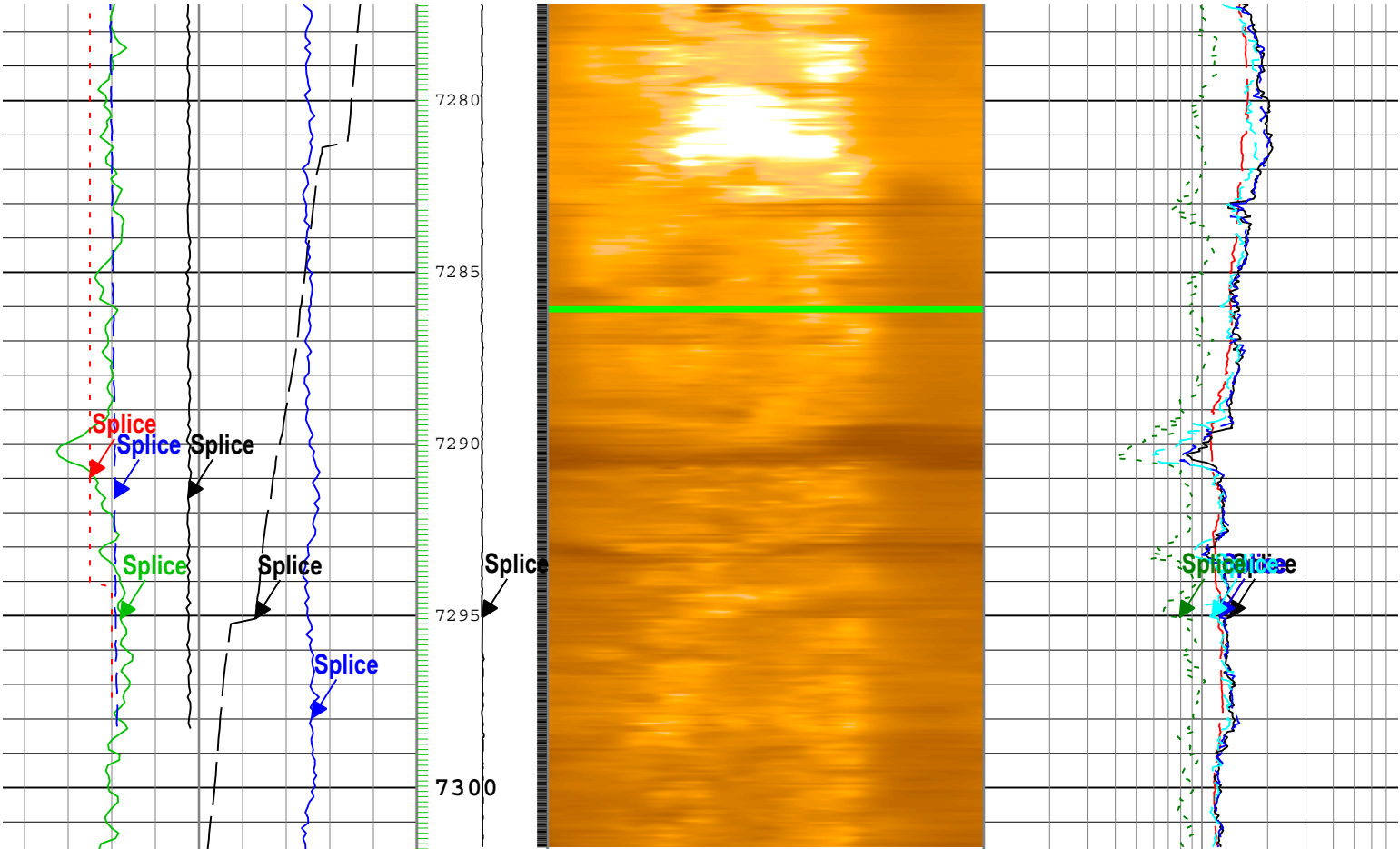


Rotational  
Speed (RPM)  
RAB[1] RM  
0 c/min 200



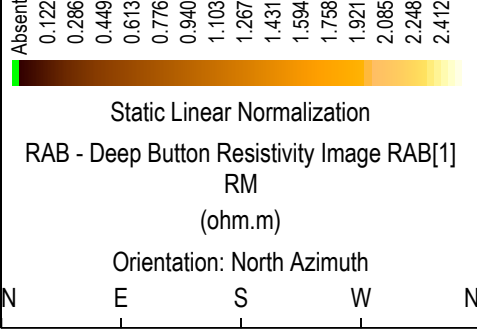
| Bit Resistivity (RES_BIT) RAB[1] RM           |  |  |
|---|--|--|
| ohm.m   |  |  |
| 0.1   |  |  |
| Ring Resistivity (RES_RING) RAB[1] RM         |  |  |
| ohm.m   |  |  |
| 0.1   |  |  |
| Deep Button Resistivity (RES_BD) RAB[1] RM    |  |  |
| ohm.m   |  |  |
| 0.1   |  |  |
| Medium Button Resistivity (RES_BM) RAB[1] RM  |  |  |
| ohm.m   |  |  |
| 0.1   |  |  |
| Shallow Button Resistivity (RES_BS) RAB[1] RM |  |  |
| ohm.m   |  |  |
| 0.1   |  |  |





|  |     |       |
|--|-----|-------|
| Ring Resistivity Time After Bit<br>(TAB_RES_RING) RAB[1]             |     |       |
| h  |     |       |
| 10   |     |       |
| Rate of penetration averaged over the last 5 ft<br>(1.5 m) (ROP5) RT |     |       |
| 10   | m/h | 0     |
| Gamma Ray (GR) RAB[1] RM   |     |       |
| gAPI   |     |       |
| 150  |     |       |
| Downhole Annulus Pressure (DHAP) ARC[1]                              |     |       |
| RM   |     |       |
| 1000   | kPa | 85000 |
| Downhole Annulus Temperature (DHAT) ARC[1]                           |     |       |
| RM   |     |       |
| degC   |     |       |
| 20   |     |       |
| Equivalent Circulating Density (ECD) ARC[1]                          |     |       |
| RM   |     |       |
| g/cm3  |     |       |
| 1.1  |     |       |

Rotational  
Speed (RPM)  
RAB[1] RM  
0 c/min 200



|   |       |  |
|---|-------|--|
| Bit Resistivity (RES_BIT) RAB[1] RM           |       |  |
| 0.1   | ohm.m |  |
| Ring Resistivity (RES_RING) RAB[1] RM         |       |  |
| 0.1   | ohm.m |  |
| Deep Button Resistivity (RES_BD) RAB[1] RM    |       |  |
| 0.1   | ohm.m |  |
| Medium Button Resistivity (RES_BM) RAB[1] RM  |       |  |
| 0.1   | ohm.m |  |
| Shallow Button Resistivity (RES_BS) RAB[1] RM |       |  |
| 0.1   | ohm.m |  |

GR - Gamma Ray RAB[1] RM  
RES\_RING - Ring Resistivity RAB[1] RM

Description: GVR Resistivity, Deep Button Image    Format: Log ( JFAST RM GVR+APWD MD Digital )    Index Scale: 1:200    Index Unit: m    Index Type:  
Measured Depth    Creation Date: 11-May-2012 17:57:18

Calibration Report

121V - Resistivity

| Master (Time Frame File): 02:32:29 27-Mar-2012 |      |        |         |           |        |            |  |
|--|------|--------|---------|-----------|--------|------------|--|
| Measurement                                    | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
| Monitor 2 at T1 Calibration Coefficient        |      | Master | 1.0000  | 0.9750    | 0.9984 | 1.0250     |  |

122V - Resistivity

| Master (Time Frame File): 02:32:29 27-Mar-2012 |      |        |         |           |        |            |  |
|--|------|--------|---------|-----------|--------|------------|--|
| Measurement                                    | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
| Monitor 2 at T2 Calibration Coefficient        |      | Master | 1.0000  | 0.9750    | 0.9942 | 1.0250     |  |

101V - Resistivity

| Master (Time Frame File): 02:32:29 27-Mar-2012 |      |        |         |           |        |            |  |
|--|------|--------|---------|-----------|--------|------------|--|
| Measurement                                    | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
| Monitor 0 at T1 Calibration Coefficient        |      | Master | 1.0000  | 0.9750    | 1.0058 | 1.0250     |  |

102V - Resistivity

| Master (Time Frame File): 02:32:29 27-Mar-2012 |      |        |         |           |        |            |  |
|--|------|--------|---------|-----------|--------|------------|--|
| Measurement                                    | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
| Monitor 0 at T2 Calibration Coefficient        |      | Master | 1.0000  | 0.9750    | 1.0016 | 1.0250     |  |

11V - Resistivity

| Master (Time Frame File): 02:32:29 27-Mar-2012 |      |        |         |           |        |            |  |
|--|------|--------|---------|-----------|--------|------------|--|
| Measurement                                    | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
| Monitor 1 at T1 Calibration Coefficient        |      | Master | 1.0000  | 0.9750    | 0.9954 | 1.0250     |  |

12V - Resistivity

| Master (Time Frame File): 02:32:29 27-Mar-2012 |      |        |         |           |        |            |  |
|--|------|--------|---------|-----------|--------|------------|--|
| Measurement                                    | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
| Monitor 1 at T2 Calibration Coefficient        |      | Master | 1.0000  | 0.9750    | 0.9918 | 1.0250     |  |

3DM1 - Resistivity

| Master (Time Frame File): 02:32:29 27-Mar-2012 |      |        |         |           |        |            |  |
|--|------|--------|---------|-----------|--------|------------|--|
| Measurement                                    | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
| Monitor Deep at T1 Calibration Coefficient     |      | Master | 1.0000  | 0.9750    | 0.9937 | 1.0250     |  |

3DM2 - Resistivity

| Master (Time Frame File): 02:32:29 27-Mar-2012 |      |        |         |           |        |            |  |
|--|------|--------|---------|-----------|--------|------------|--|
| Measurement                                    | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
| Monitor Deep at T2 Calibration Coefficient     |      | Master | 1.0000  | 0.9750    | 0.9895 | 1.0250     |  |

3MM1 - Resistivity

| Master (Time Frame File): 02:32:29 27-Mar-2012 |      |        |         |           |        |            |  |
|--|------|--------|---------|-----------|--------|------------|--|
| Measurement                                    | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
| Monitor Medium at T1 Calibration Coefficient   |      | Master | 1.0000  | 0.9750    | 0.9998 | 1.0250     |  |

3MM2 - Resistivity

| Master (Time Frame File): 02:32:29 27-Mar-2012 |      |        |         |           |        |            |  |
|--|------|--------|---------|-----------|--------|------------|--|
| Measurement                                    | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
| Monitor Medium at T2 Calibration Coefficient   |      | Master | 1.0000  | 0.9750    | 0.9956 | 1.0250     |  |

3SM1 - Resistivity

| Master (Time Frame File): 02:32:29 27-Mar-2012 |      |        |         |           |        |            |  |
|--|------|--------|---------|-----------|--------|------------|--|
| Measurement                                    | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
| Monitor Shallow at T1 Calibration Coefficient  |      | Master | 1.0000  | 0.9750    | 1.0061 | 1.0250     |  |

3SM2 - Resistivity

| Master (Time Frame File): 02:32:29 27-Mar-2012 |      |        |         |           |        |            |  |
|--|------|--------|---------|-----------|--------|------------|--|
| Measurement                                    | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
| Monitor Shallow at T2 Calibration Coefficient  |      | Master | 1.0000  | 0.9750    | 1.0021 | 1.0250     |  |

2GR - Gamma Ray: Blanket

| Master (Time Frame File): 18:47:12 26-Mar-2012 |      |        |         |           |        |            |  |
|--|------|--------|---------|-----------|--------|------------|--|
| Measurement                                    | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
| Gamma Ray Calibration Gain                     |      | Master | 1.0000  | 0.7500    | 0.8716 | 1.2500     |  |

Master (Time Frame File): 22:15:21 25-Feb-2012

| Measurement               | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
|---------------------------|------|--------|---------|-----------|--------|------------|--|
| Attenuation T1 at 2 MHz   | dB   | Master | 8.500   | 6.500     | 8.697  | 10.500     |  |
| Attenuation T2 at 2 MHz   | dB   | Master | 6.500   | 4.500     | 6.322  | 8.500      |  |
| Attenuation T3 at 2 MHz   | dB   | Master | 4.500   | 2.500     | 5.294  | 6.500      |  |
| Attenuation T4 at 2 MHz   | dB   | Master | 4.600   | 2.600     | 4.218  | 6.600      |  |
| Attenuation T5 at 2 MHz   | dB   | Master | 3.600   | 1.600     | 3.843  | 5.600      |  |
| Phase Shift T1 at 2 MHz   | deg  | Master | 0.100   | -3.900    | 0.985  | 4.100      |  |
| Phase Shift T2 at 2 MHz   | deg  | Master | 0.100   | -3.900    | -0.887 | 4.100      |  |
| Phase Shift T3 at 2 MHz   | deg  | Master | 0.100   | -3.900    | 0.867  | 4.100      |  |
| Phase Shift T4 at 2 MHz   | deg  | Master | 0.100   | -3.900    | -0.932 | 4.100      |  |
| Phase Shift T5 at 2 MHz   | deg  | Master | 0.100   | -3.900    | 0.858  | 4.100      |  |
| Attenuation T1 at 400 KHz | dB   | Master | 8.500   | 6.500     | 8.708  | 10.500     |  |
| Attenuation T2 at 400 KHz | dB   | Master | 6.500   | 4.500     | 6.315  | 8.500      |  |
| Attenuation T3 at 400 KHz | dB   | Master | 4.500   | 2.500     | 5.302  | 6.500      |  |
| Attenuation T4 at 400 KHz | dB   | Master | 4.600   | 2.600     | 4.205  | 6.600      |  |
| Attenuation T5 at 400 KHz | dB   | Master | 3.600   | 1.600     | 3.860  | 5.600      |  |
| Phase Shift T1 at 400 KHz | deg  | Master | 0.100   | -3.900    | 0.047  | 4.100      |  |
| Phase Shift T2 at 400 KHz | deg  | Master | 0.100   | -3.900    | -0.090 | 4.100      |  |
| Phase Shift T3 at 400 KHz | deg  | Master | 0.100   | -3.900    | 0.077  | 4.100      |  |
| Phase Shift T4 at 400 KHz | deg  | Master | 0.100   | -3.900    | -0.105 | 4.100      |  |
| Phase Shift T5 at 400 KHz | deg  | Master | 0.100   | -3.900    | 0.053  | 4.100      |  |

Gamma Ray - Blanket

Master (Time Frame File): 09:48:08 27-Feb-2012

| Measurement                | Unit | Phase  | Nominal | Low Limit | Actual | High Limit |  |
|----------------------------|------|--------|---------|-----------|--------|------------|--|
| Gamma Ray Calibration Gain |      | Master | 1.000   | 0.580     | 0.933  | 1.250      |  |

Company: JAMSTEC

Well: C0019B

Field: Japan Trench - Miyagi Offshore

Rig Name: Chikyu

State: Miyagi

Country: Japan

