

EcoScope Resistivity

1:240 Measured Depth

Schlumberger

Recorded Mode Data

Company: IODP

Well:

U1518A
HSM-15A

Field:

Joides Resolution

Rig Name:

372

Expedition:

Country: New Zealand

Latitude: 38° 51' 32.202"S

Longitude: 178° 53' 45.618"E

Block: EXP372

UWID:
Rig Name:
Rig Type:

Joides Resolution
Drill Ship

Rig Name: Joides Resolution

Field: HSM-15A

Expedition: 372

Company: IODP

Well:

U1518A

Field:

HSM-15A

Rig Name:

Joides Resolution

Expedition:

372

Country: New Zealand

Latitude: 38° 51' 32.202"S

Longitude: 178° 53' 45.618"E

Block: EXP372

UWID:
Rig Name:
Rig Type:

Joides Resolution
Drill Ship

Log Measured From: - Drill Floor: 11.00 m
Permanent Datum: - Mean Sea Level

Ground Level: 2636.30 m

Acquisition Dates: 19-Dec-2017 -- 20-Dec-2017

Log Interval: 2645.00(m) -- 2766.00(m)

Index Types: SonicScope

Index Scales: provISION Plus

Depth Source: geoVISION Images

Depth Sensor: StethoScope

Print Type: DES

Print Date: Final

Spud Date: 19-Dec-2017

Company: IODP

Well: U1518A

Field: HSM-15A

Rig Name: Joides Resolution

Expedition: 372

Country: New Zealand

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Disclaimer

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Run 1

FINAL ECO LOG 3

Software Version

| Acquisition System | Version |
|--------------------|----------------|
| Maxwell 2017 SP3 | 7.3.92069.3100 |

| Computation | Description | Version |
|----------------------------|---|----------------|
| ECO6GammaRay | Natural Gamma Ray Processing, ECO 6.75 | 7.3.92069.3100 |
| ARCR resistivity | ARC Resistivity Computation Package for ARC Tool Family | 7.3.92069.3100 |
| ECO6ResistivityComputation | Resistivity QC Processing, ECO 6.75 | 7.3.92069.3100 |

| SoftwareVersion_Tool | SoftwareVersion_System Version | SoftwareVersion_Loaded Version |
|----------------------|--------------------------------|--------------------------------|
| HSPM | 20.3c.062 | 7.3.92069.3100 |

| Tool Elements | Description | Software Version | Firmware Version |
|------------------|-------------------------------------|------------------|------------------|
| DRILLING_SURFACE | DRILLING_SURFACE | 7.3.92069.3100 | |
| DVME | GeoScope 6.75 – Electronics Chassis | 7.3.92069.3100 | V5.300 |

Pass Summary

| Run Name | Pass Objective | Direction | Top | Bottom | Start | Stop | Include Parallel Data |
|----------|----------------|-----------|-----------|-----------|---------------------------|----------------------------|-----------------------|
| Run 1 | Drilling | Down | 2643.78 m | 2765.96 m | 19-Dec-2017 7:05:13 AM | 20-Dec-2017 10:43:06 PM | Yes |

All depths are referenced to toolstring zero

Log

Company:IODP Well:U1518A
Run 1: Drilling:S008

Description: ARC + sonicVISION Format: Log (FINAL ECO LOG 3) Index Scale: 1:240 Index Unit: m Index Type: Measured Depth Creation Date: 29-Dec-2017 22:43:51

| - TICK_GR - Gamma Ray Samples DV6MTN RM

-| TICK_ARC_RES - ARC Resistivity Samples DV6MTN RM

| | | | | | | | |
|---|-----|-------|----|---|-----|-------|----|
| Uncorrected Phase Shift Resistivity for 16 inch Spacing at 2 MHz (P16H_UNC) DV6MTN RM | 0.2 | ohm.m | 20 | Uncorrected Phase Shift Resistivity 16 inch at 400 KHz (P16L_UNC) DV6MTN RM | 0.2 | ohm.m | 20 |
| Uncorrected Phase Shift Resistivity for 22 inch Spacing at 2 MHz (P22H_UNC) DV6MTN RM | 0.2 | ohm.m | 20 | Uncorrected Phase Shift Resistivity 22 inch at 400 KHz (P22L_UNC) DV6MTN RM | 0.2 | ohm.m | 20 |
| Uncorrected Phase Shift Resistivity for 28 inch Spacing at 2 MHz (P28H_UNC) DV6MTN RM | 0.2 | ohm.m | 20 | Uncorrected Phase Shift Resistivity 28 inch at 400 KHz (P28L_UNC) DV6MTN RM | 0.2 | ohm.m | 20 |
| Uncorrected Phase Shift Resistivity for 34 inch Spacing at 2 MHz (P34H_UNC) DV6MTN RM | 0.2 | ohm.m | 20 | Uncorrected Phase Shift Resistivity 34 inch at 400 KHz (P34L_UNC) DV6MTN RM | 0.2 | ohm.m | 20 |
| Uncorrected Phase Shift Resistivity 40 inch at 2 MHz (P40H_UNC) DV6MTN RM | 0.2 | ohm.m | 20 | Uncorrected Phase Shift Resistivity 40 inch at 400 KHz (P40L_UNC) DV6MTN RM | 0.2 | ohm.m | 20 |
| Uncorrected Attenuation Resistivity for 16 inch Spacing at 2 MHz (A16H_UNC) DV6MTN RM | 0.2 | ohm.m | 20 | Uncorrected Attenuation Resistivity 16 inch at 400 KHz (A16L_UNC) DV6MTN RM | 0.2 | ohm.m | 20 |
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Resistivity Time After Bit (TAB_RES) DV6MTN

Gamma Ray (GR) DV6M TN RM

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

100 m/h

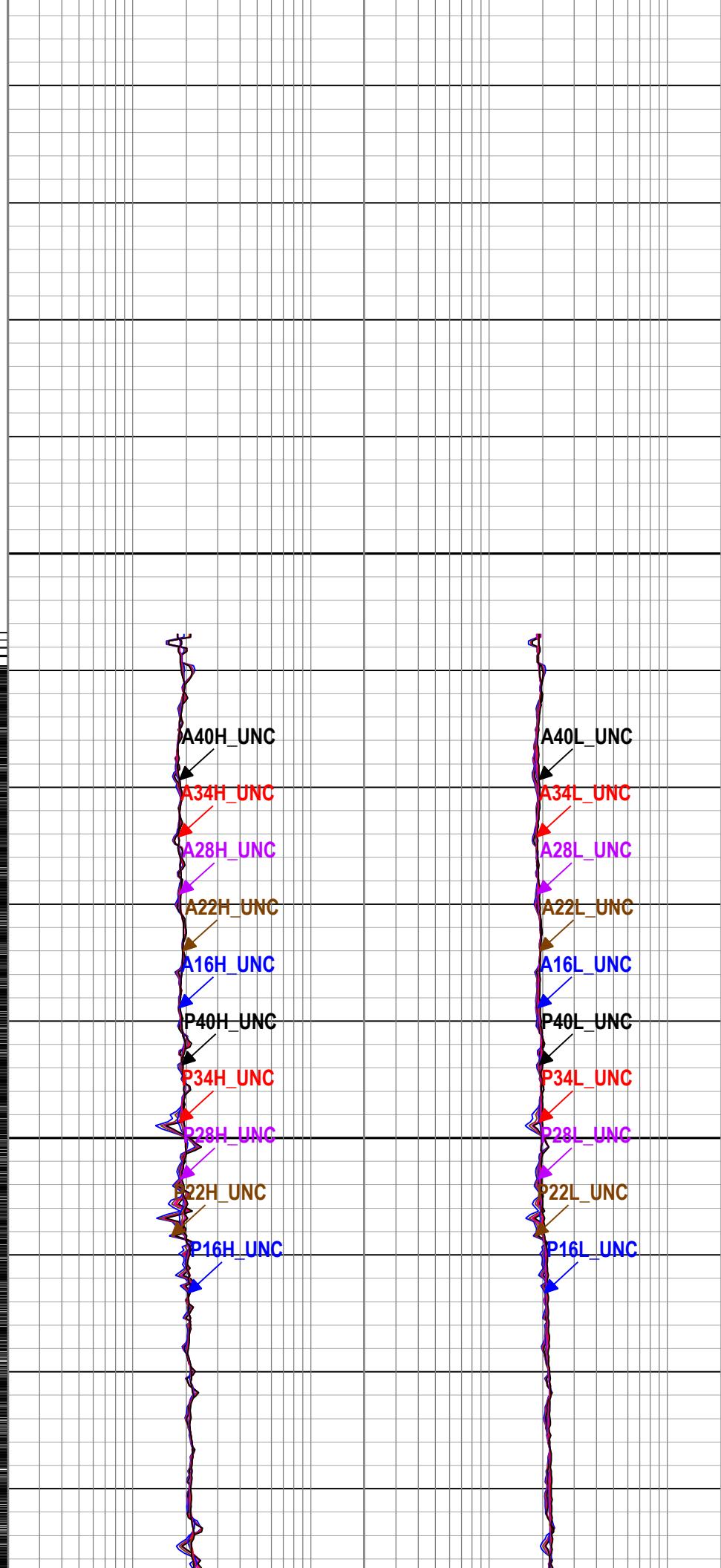
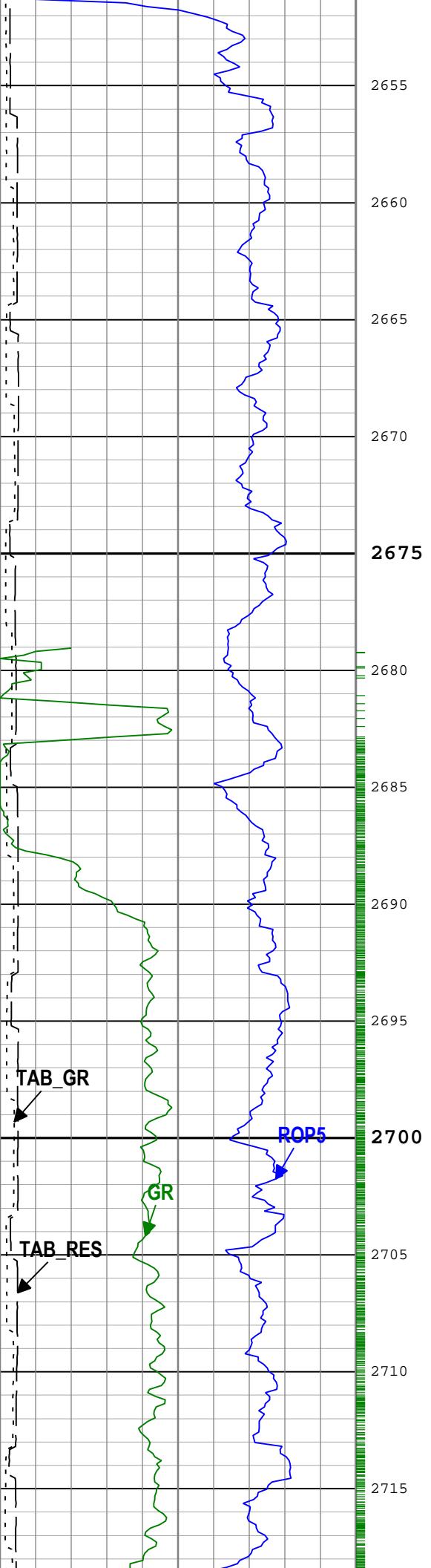
Journal of Oral Rehabilitation 2013; 40(12): 938–945

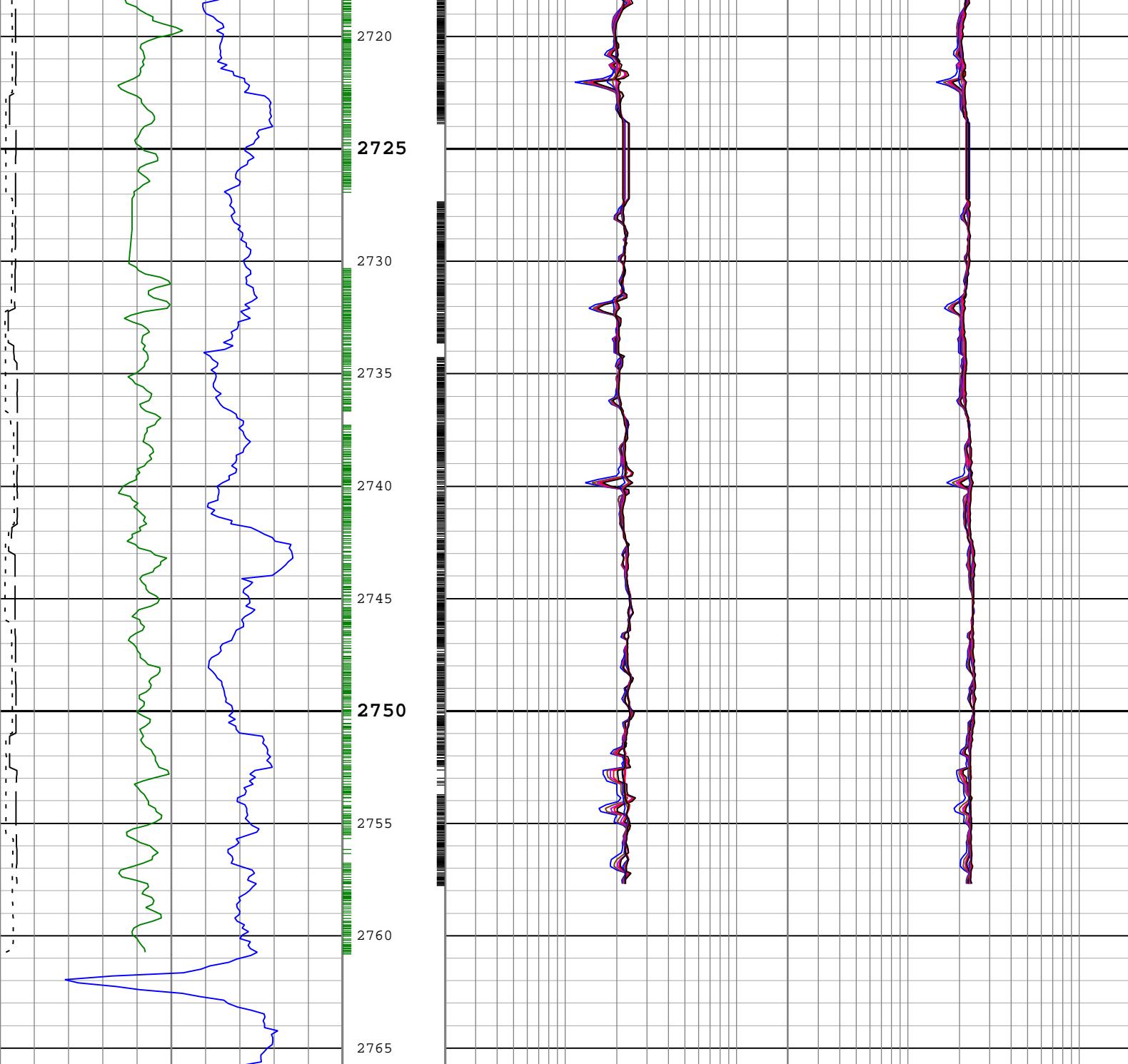
Gamma Ray Time after Bit (TAB_GR) DV6MTM

0 h 10

204.

2650





| | | |
|---|--------------------------|--------|
| Resistivity | Time After Bit (TAB_RES) | DV6MTN |
| 0 | h | 10 |
| | | |
| Gamma Ray (GR) | DV6MTN RM | |
| 0 | gAPI | 150 |
| | | |
| Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) | RT | |
| 100 | m/h | 0 |
| | | |
| Gamma Ray Time after Bit (TAB_GR) | DV6MTN | |
| 0 | h | 10 |

| | | | | | | | |
|---|-----|-------|----|---|-----|-------|----|
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| Uncorrected Phase Shift Resistivity 40 inch at 2 | | | | Uncorrected Phase Shift Resistivity 40 inch at | | | |

| MHz (P40H_UNC) DV6MTN RM | | | 400 KHz (P40L_UNC) DV6MTN RM | | |
|---|-------|----|---|-------|----|
| 0.2 | ohm.m | 20 | 0.2 | ohm.m | 20 |
| Uncorrected Attenuation Resistivity for 16 inch Spacing at 2 MHz (A16H_UNC) DV6MTN RM | | | Uncorrected Attenuation Resistivity 16 inch at 400 KHz (A16L_UNC) DV6MTN RM | | |
| 0.2 | ohm.m | 20 | 0.2 | ohm.m | 20 |
| Uncorrected Attenuation Resistivity for 22 inch Spacing at 2 MHz (A22H_UNC) DV6MTN RM | | | Uncorrected Attenuation Resistivity 22 inch at 400 KHz (A22L_UNC) DV6MTN RM | | |
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| 0.2 | ohm.m | 20 | 0.2 | ohm.m | 20 |
| Uncorrected Attenuation Resistivity 40 inch at 2 MHz (A40H_UNC) DV6MTN RM | | | Uncorrected Attenuation Resistivity 40 inch at 400 KHz (A40L_UNC) DV6MTN RM | | |
| 0.2 | ohm.m | 20 | 0.2 | ohm.m | 20 |

- TICK_ARC_RES - ARC Resistivity Samples DV6MTN RM

|- TICK_GR - Gamma Ray Samples DV6MTN RM

Description: ARC + sonicVISION Format: Log (FINAL ECO LOG 3) Index Scale: 1:240 Index Unit: m Index Type: Measured Depth Creation Date: 29-Dec-2017 22:43:51

Channel Processing Parameters

Run 1: Parameters

| Parameter | Description | Tool | Value | Unit |
|--------------|--|------------|-----------------|-------|
| ABNT | Abnormal Transmitter Indicator | DV6MTN | NO_TX_FAILED | |
| BH_OPT | Borehole Effect Computation Option | DV6MTN | No | |
| BHK | Drilling Fluid Potassium Concentration | Borehole | 0 | % |
| BHT | Bottom Hole Temperature | Borehole | 5 | degC |
| BS | Bit Size | DNMSESSION | 8.5 | in |
| CALI_SEL_GR | Hole-Size Correction Source for Gamma-Ray Processing | DV6MTN | GCSE | |
| DEPTH_SEL | Depth Selection Parameter | DNMSESSION | Driller's Depth | |
| DFD | Drilling Fluid Density | Borehole | 1.03 | g/cm3 |
| DFT_CATEGORY | Drilling Fluid Type | Borehole | Water | |
| ERRCT | Percentage Error Cutoff | DV6MTN | 4.5 | % |
| GCSE_RM | Generalized Caliper Selection for DnM recorded mode | Borehole | BS | |
| GR_O2COR_OPT | Enable Gamma Ray Oxygen Activation Correction | DV6MTN | Yes | |
| GRSE_RM | Generalized Mud Resistivity Selection for Recorded Mode | Borehole | REMS(RM) | |
| GRSH | Gamma Ray Shale | DV6MTN | 1000 | gAPI |
| GTSE_RM | Generalized Temperature Selection for Recorded Mode | Borehole | DHAT(RM) | |
| HIGH_BLEND | High Resistivity Threshold for Blending | DV6MTN | 2 | ohm.m |
| INVAS_OPT | Invasion Computation Option | DV6MTN | No | |
| LOW_BLEND | Low Resistivity Threshold for Blending | DV6MTN | 1 | ohm.m |
| MST | Mud Sample Temperature | Borehole | 23.89 | degC |
| MSWS | ARCWizard Model Switch Window Size | DV6MTN | 152.4 | cm |
| MULTIEFF_OPT | Multi-effect Computation Option | DV6MTN | No | |
| OACF | O2 Activation Correction Factor (RM) | DV6MTN | 8 | |
| PRTD | ARCWizard Preferred Resistivity Log for Rt Display while | DV6MTN | P34B | |

| | | | | |
|--------------|---|----------|----------|-------|
| | Multi-Effects | | | |
| RMS | Resistivity of Mud Sample | Borehole | 0.2 | ohm.m |
| STOH | Top of Hole Sector | DV6MTN | SECTOR_0 | |
| T1WM | ARCWizard Weight Multiplier to Measurements for Transmitter 1 | DV6MTN | 1 | |
| T2WM | ARCWizard Weight Multiplier to Measurements for Transmitter 2 | DV6MTN | 1 | |
| T3WM | ARCWizard Weight Multiplier to Measurements for Transmitter 3 | DV6MTN | 1 | |
| T4WM | ARCWizard Weight Multiplier to Measurements for Transmitter 4 | DV6MTN | 1 | |
| T5WM | ARCWizard Weight Multiplier to Measurements for Transmitter 5 | DV6MTN | 1 | |
| TEMP_SEL_ARC | ARC Temperature Selection | DV6MTN | Annular | |
| UNIFORM_OPT | Uniform Rock Computation Option | DV6MTN | No | |

Tool Control Parameters

Run 1: Parameters

| Parameter | Description | Tool | Value | Unit |
|-----------|--|------------|-------|------|
| OFFBTM_TH | Threshold for deciding whether the bit is off bottom | DNMSESSION | 0.3 | m |

Company: IODP

Well: U1518A

Field: HSM-15A

Rig Name: Joides Resolution

Expedition: 372

Country: New Zealand



EcoScope Resistivity

Schlumberger

1:240 Measured Depth

Recorded Mode Data