

Company: Japan Agency for Marine–Earth Science and Technology
Well: C0006B
Field: Nankai–Kumano
Rig: Chikyu
Country: Japan

Drilling Parameters

Real Time Log 1:500 Measured Depth

Location		Philippines Sea	K.B. Top Drive
		N 33° 1.635'	G.L. -3871.5 mMSL
		E 136° 47.639'	D.F. 28.5 m
Permanent datum:	Mean Sea Level	Elev.: 0 m	
Log measured from:	Drill Floor	28.5 m	above Perm. datum
Depth reference:	Driller's Depth		

Information updated on

13–Nov–07

Logging date	13–Nov–07	Downhole tool numbers	
Run number	1	GVR 42860 SON 46324	PP VL03
Bottom log interval	4175.0 m	ADN 1468	SVWD 45224
Top log interval	3900.0 m		
Bit size/type	8.5/PPDC		
Type fluid in hole	Seawater	Frame ID:	982/983/984
Density	1.05 SG	Viscosity	77 s
Fluid loss	PH		12.1
Source of sample	Suction	Curve	Time (seconds)
Rm @ measured temperature	0.08 Ohmm	APWD	n/a
Rmf @ measured temperature	na	GVR GR	1.0
Rmc @ measured temperature	na		
Rm @ E.B.H.T.	na		
Estimated B.H.T.	11°C		
Recorded by	Matto Jakuj / Chen Xi / QG Ming		
Witnessed by	Kaminishi / Koide		

Do not cut this header. It contains important information

DISCLAIMER

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.

OTHER SERVICES FOR RUN 1 Direction and Inclination MWD APWD	OTHER SERVICES FOR RUN	OTHER SERVICES FOR RUN
REMARKS: RUN NUMBER 1 All data provided is from Real Time Acquisition GR Measurement is corrected for bit size, hole size and mud weight. ADN was IBS with 8–1/4" OD. There were no Radioactive Sources included in the BHA, ADN was used for Caliper only Real Time transmission failure occurred	REMARKS: RUN NUMBER	REMARKS: RUN NUMBER

at 13:09 on 13-Nov-07, 4175m BRT
 Real Time Data is only presented up to this
 depth. Full Recorded Mode data will be
 available when LWD tools come to surface

Estimated TD @ 4850.0 mBRT

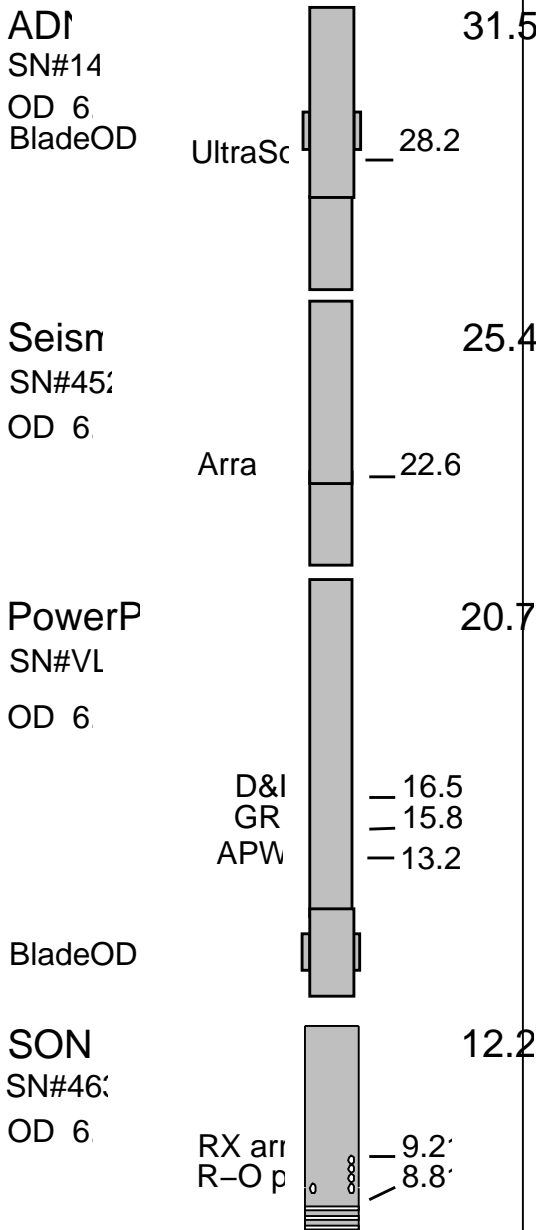
EQUIPMENT DESCRIPTION

RUN1

RUN

RUN

C0001 DOWNHOLE E



Filtering GR	3								
Filtering density	3								
Filtering Neutron	3								
Company representative	T. Abe								
Schlumberger D&M Personnel	M. Jakulj	Chen Xi	Q G Ming						

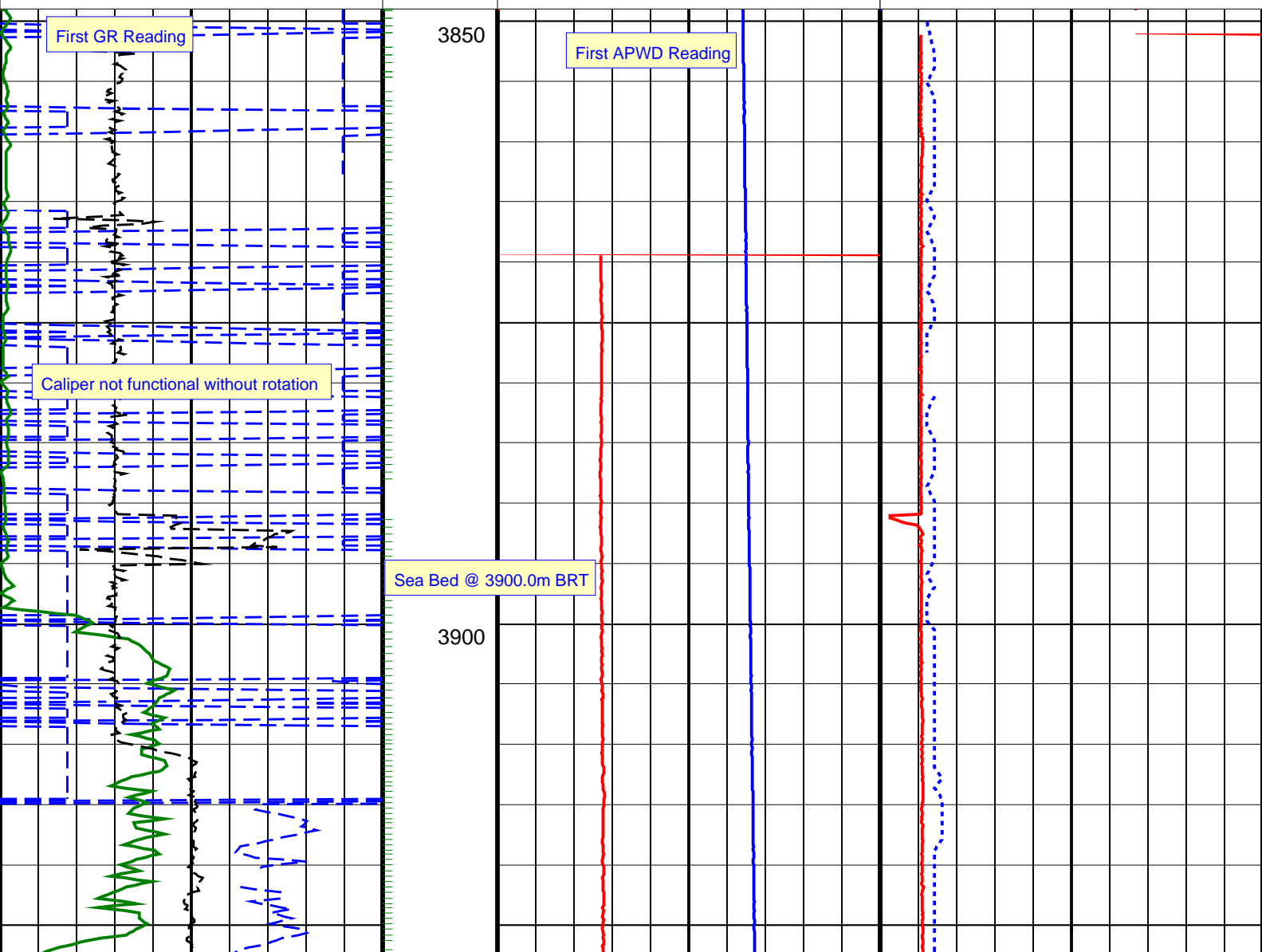
314 C0006B APWD RT MD500

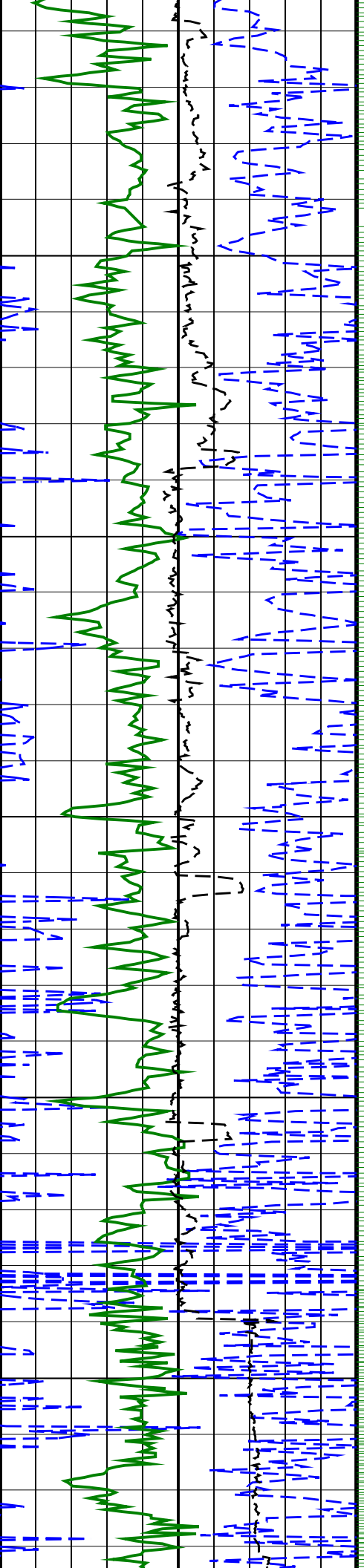
IDEAL Version: ID12_OC_12 <MD > Vertical Scale: 1:500 Graphics File Created: 14-Nov-2007 08:38

PIP SUMMARY

GRRR_R PIP

RAB Gamma Ray, Real-Time (GR_RAB_RT)				
0 (GAPI)	150			
Average Borehole Diameter, Real-Time (ADIA_ADN_RT)				
7 (IN)	12			
ROP*5 (ROP5)				
100 (M/HR)	0			
		MWD Equivalent Circulating density (ECD_MWD)		Standpipe Pressure (SPPA)
		8 (LB/G)	10	1000 (PSI) 4000
		MWD Annulus Pressure (APRS_MWD)		MWD Annular Temperature (ATMP_MWD)
		3000 (PSI)	7000	0 (DEGC) 50

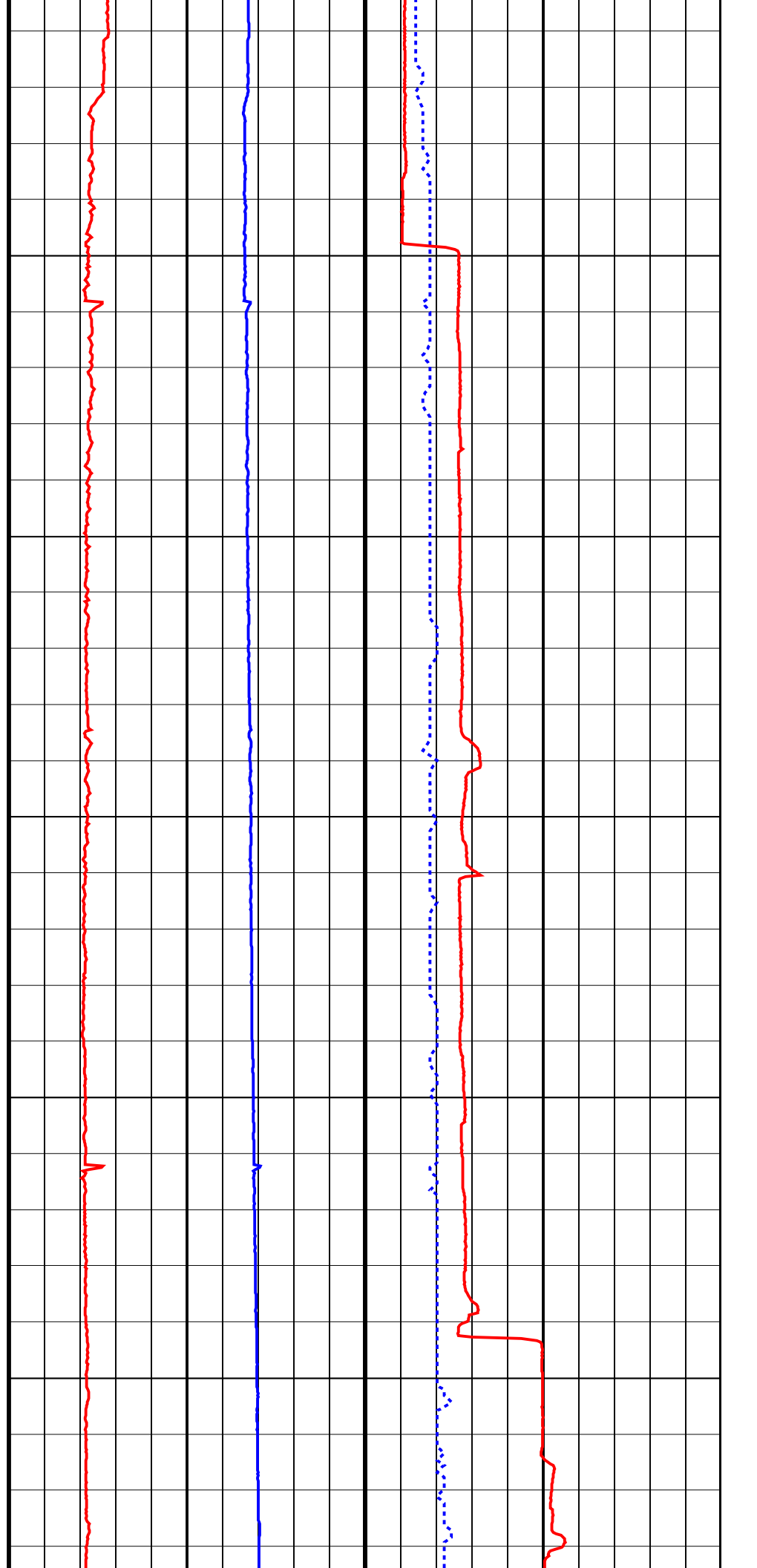


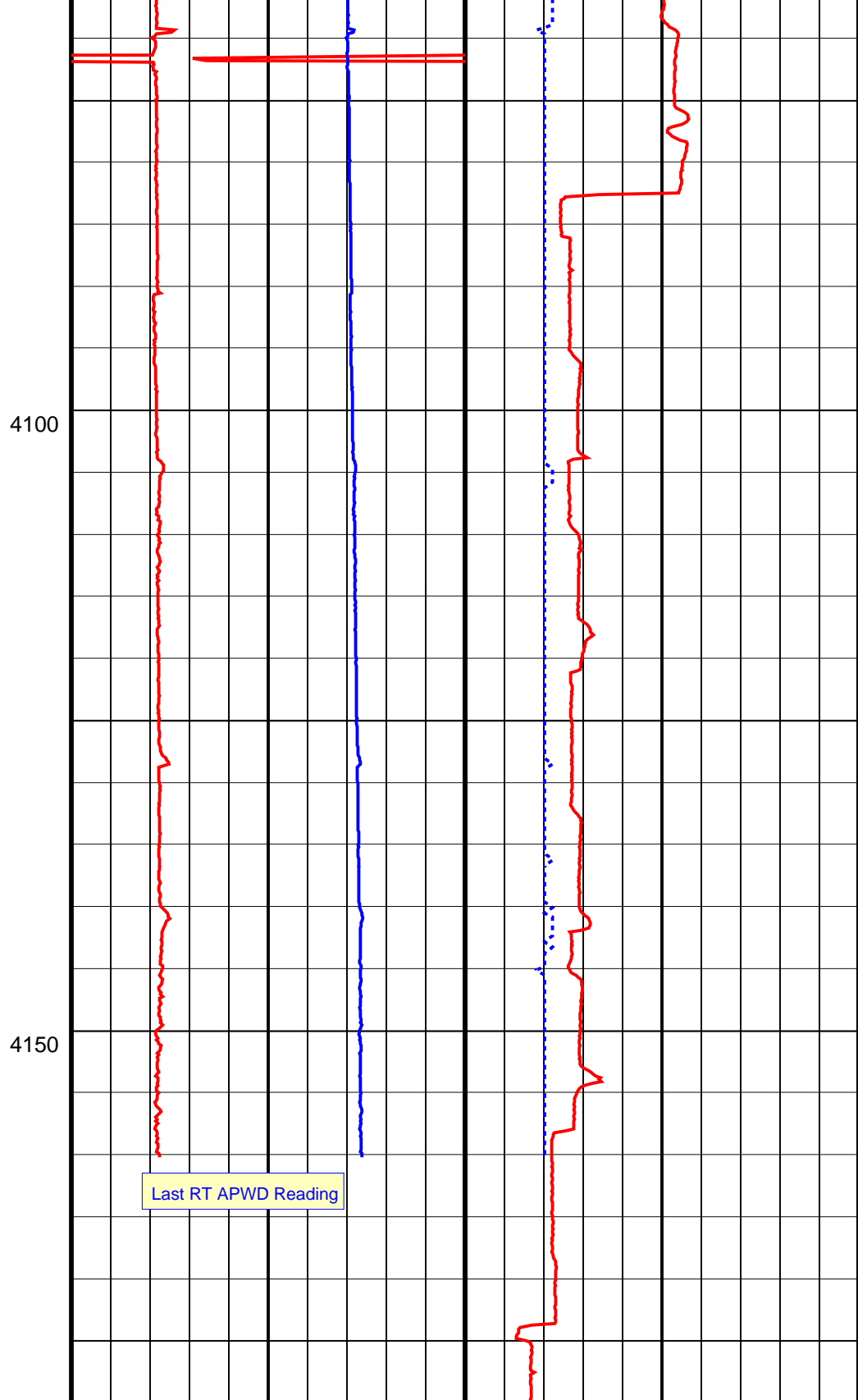
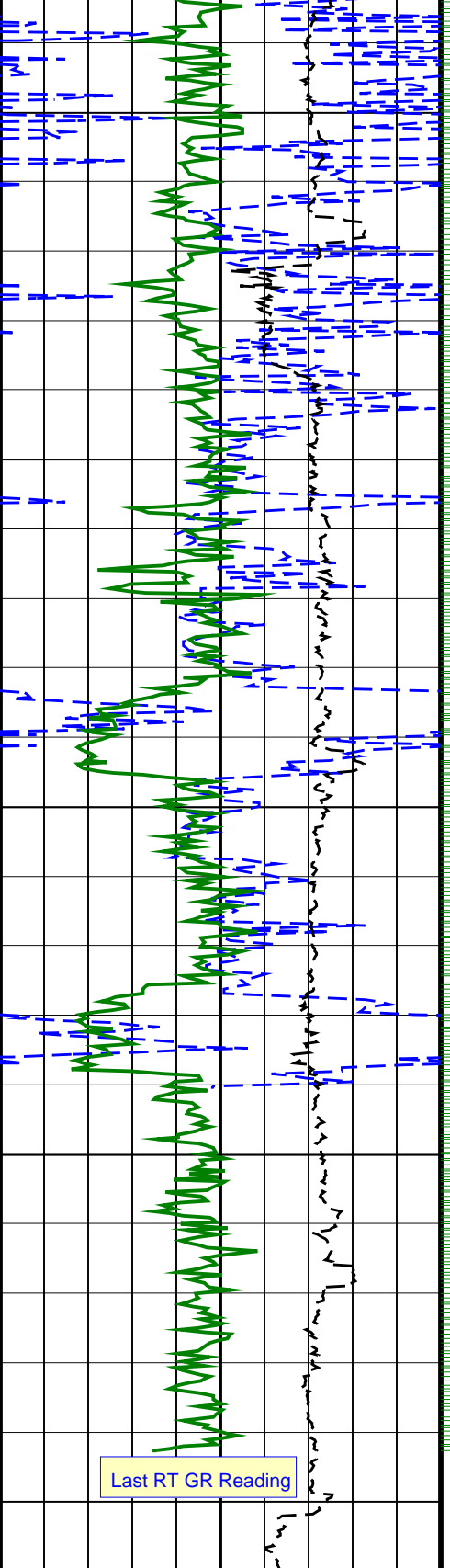


3950

4000

4050





ROP*5 (ROP5) (M/HR)	0
Average Borehole Diameter, Real-Time (ADIA_ADN_RT) (IN)	12
RAB Gamma Ray, Real-Time (GR_RAB_RT) (GAPI)	150

MWD Annulus Pressure (APRS_MWD) (PSI)	3000	7000	MWD Annular Temperature (ATMP_MWD) (DEGC)	0	50
MWD Equivalent Circulating density (ECD_MWD) (LB/G)	8	10	Standpipe Pressure (SPPA) (PSI)	1000	4000

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Survey report 14-Nov-2007 08:26:21 Page 1 of 2

Client.....: Japan Agency for Marine-Earth Science and TechnoloBLI
 Field.....: Nankai-Kumano

Well.....: C0006B Spud date.....: 13-Nov-07
 API number.....: 07CHS0064 Last survey date.....: 13-Nov-07
 Engineer.....: Mario Jakulj / Chen Xi / QG Ming Total accepted surveys...: 10
 Rig.....: Chikyu MD of first survey.....: 3900.00 m
 Country.....: Japan MD of last survey.....: 4139.11 m

----- Survey calculation methods-----
 Method for positions.....: Minimum curvature
 Method for DLS.....: Mason & Taylor

----- Depth reference -----
 Permanent datum.....: Mean Sea Level
 Depth reference.....: Driller's Depth
 GL above permanent.....: -3871.50 m
 KB above permanent.....: 28.50 m
 DF above permanent.....: 28.50 m

----- Vertical section origin-----
 Latitude (+N/S-).....: 0.00 m
 Departure (+E/W-).....: 0.00 m

----- Platform reference point-----
 Latitude (+N/S-).....: 0.00 m
 Departure (+E/W-).....: 0.00 m

Azimuth from Vsect Origin to target: 0.00 degrees

----- Geomagnetic data -----
 Magnetic model.....: BGGM version 2007
 Magnetic date.....: 12-Nov-2007
 Magnetic field strength...: 916.58 HCNT
 Magnetic dec (+E/W-).....: -6.45 degrees
 Magnetic dip.....: 46.37 degrees

----- MWD survey Reference Criteria -----
 Reference G.....: 999.57 mGal
 Reference H.....: 916.58 HCNT
 Reference Dip.....: 46.37 degrees
 Tolerance of G.....: (+/-) 2.50 mGal
 Tolerance of H.....: (+/-) 6.00 HCNT
 Tolerance of Dip.....: (+/-) 0.45 degrees

----- Corrections -----
 Magnetic dec (+E/W-).....: -6.45 degrees
 Grid convergence (+E/W-)..: 0.00 degrees
 Total az corr (+E/W-).....: -6.45 degrees
 (Total az corr = magnetic dec - grid conv)
 Survey Correction Type ...:
 I=Sag Corrected Inclination
 M=Schlumberger Magnetic Correction
 S=Shell Magnetic Correction
 F=Failed Axis Correction
 R=Magnetic Resonance Tool Correction
 D=Dmag Magnetic Correction

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 SCHLUMBERGER Survey Report

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Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/10m)	Srvy tool type	Tool Corr (deg)
1	3900.00	0.00	0.00	0.00	3900.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	None
2	3910.73	0.69	312.05	10.73	3910.73	0.04	0.04	-0.05	0.06	312.05	0.64	MWD	None
3	3945.87	2.98	265.93	35.14	3945.85	0.12	0.12	-1.12	1.12	276.14	0.73	MWD	None
4	3983.74	3.54	274.65	37.87	3983.66	0.15	0.15	-3.26	3.27	272.55	0.20	MWD	None
5	4026.61	4.27	295.73	42.87	4026.43	0.95	0.95	-6.02	6.09	278.92	0.37	MWD	None
6	4064.18	4.57	301.45	37.57	4063.89	2.33	2.33	-8.56	8.87	285.25	0.14	MWD	None
7	4085.42	4.53	301.49	21.24	4085.06	3.21	3.21	-9.99	10.50	287.82	0.02	MWD	None
8	4098.80	3.72	294.49	13.38	4098.41	3.67	3.67	-10.84	11.44	288.70	0.71	MWD	None
9	4123.44	4.79	307.38	24.64	4122.98	4.62	4.62	-12.39	13.22	290.48	0.58	MWD	None
10	4139.11	4.96	308.29	15.67	4138.59	5.44	5.44	-13.44	14.50	292.05	0.12	MWD	None

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Company:
Japan Agency for Marine-Earth Science and Technology

Well: C0006B
Field: Nankai-Kumano
Rig: Chikyu
Country: Japan

**8 1/2 in
 Drilling Parameters
 Real Time Log 1:500 Measured Depth**

Schlumberger

Data Quality

Type of Measurement

Res	GR	APWD	Neu	Den
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When data does not meet standards, put a number with a corresponding number and remark below. Use Positive remarks are welcome; do not append them

Geomarket	CHG	Location	Philippine Sea
Job Date	13-Nov-07	Customer	JAMSTEC
Rig	Chikyu	Field/Well	Nankai-Kumano/C0006B
Engineer	Mario/Cheng Xi/Q.G. Ming	Job Number	07CHS0064

Operation

Description of Well – Names, Geometry, Services, Location and References: General Content Header, user of trademarks, directional data, well plot, order of components, spelling and style, units sensor to toolface angle recorded				
Equipment and Software Description Tool sketch, equipment numbers, software versions, data rates, filtering weights				
Processing Traceability and Environment Description Acquisition environment, parameters and key constants for each run or zone, complete and relevant remarks				
Annotations, Presented Formats, QC Curves, Print Quality Documented splice points; data gap explanations, mud changes, movement indicator, color selection				

Remarks

Calibration and Verifications

Calibration / Before survey verification / After survey verifications Validity, completeness (includes equipment number), timeliness, unedited, discrepancy explained				
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Operating Procedures

Depth Control Comparison with driller's depth, other logs, other bit runs, between RT and RM. Depth summary listing				
Logging speed and sampling rates As recommended in reference manual or job planner. No loss of data or spatial resolution				
Data Comparison Between runs and passes, with data from nearby wells, other conveyance, mud log and markers				
Operating Anomalies/Failure/Missing Data/Sensor Orientation/Transmission Losses Absence of noise and spurious variations, anomaly repeated, corrected, reported or explained.				

Digital Delivery

Digital Products Labeled, verification listing with complete digital record, backup for archival; record matches hard copy.				
Job Quality Rating (JQR) Number of boxes without number X 10	100	100	100	100

Environmental effects

Irregular Operation Excessive ROP or speed, high deviation, shocks, vibrations, sticking conditions				
Borehole Geometry Shape (caves, etc), rugosity, spiralled hole, mud induced fractures. Casing, tubing conditions				
Borehole Fluid Barite, KCl, salinity, additives, gas out, unstable				
Interferences External noise, nearby casing or drillpipe, debris, unusual formation composition				
Operation Outside Tool Specifications Geomarket/Temperature, pressure, hole size, hole deviation, dog-leg severity, flow rate, ppm, solids value of parameter				
Environmental Quality Rating (EQR) Number of boxes without number X 20	100	100	100	100

Cell Manager: Mario Jakui FS

ty Report

n the column corresponding to the measurement
se additional pages for remarks
with a number.

ND Maduenzia

Revised January 2002

Schlumberger Drilling & Measurements

DQR Header Utility ver 1.1c