Schlumberger

Company: **Lamont Doherty**

Well: **KGGH02–A Site 5 Hole E**
Field: **Krishna Godavairi Basin**
Rig: **Joides Resolution** Ocean: **Indian Ocean**

Natural Gamma Ray

Rig: Joides Resolution
Field: Krishna Godavairi Basin
Location: Rig– Joides Resolution
Well: KGGH02–A Site 5 Hole E
Company: Lamont Doherty

LOCATION			
Rig– Joides Resolution		Elev.:	K.B. 11.3 m G.L. –955.1 m D.F. 11 m
Permanent Datum:	Mean Sea Level	Elev.:	0 m
Log Measured From:	Rig Floor	11.0 m	above Perm. Datum
Drilling Measured From:	Rig Floor		

API Serial No.	Max. Hole Devi.	Longitude	Latitude
		82 02.6773 E	16 01.721 N

Logging Date		15–June–2006				
Run Number		One				
Depth Driller		1155.1 m				
Schlumberger Depth		1154 m				
Bottom Log Interval		1152 m				
Top Log Interval		912 m				
Casing Driller Size @ Depth		0.000 in	@ 1013 m	@		
Casing Schlumberger		1013 m				
Bit Size		9.875 in				
Type Fluid In Hole		SepioLite/Barite				
MUD Density	Viscosity	1.26 g/cm3				
MUD Fluid Loss	PH	0 cm3				
MUD Source Of Sample		Pit				
RM @ Measured Temperature		0.177 ohm.m	@ 23 degC	@		
RMF @ Measured Temperature		0.000 ohm.m	@	@		
RMC @ Measured Temperature		0.000 ohm.m	@	@		
Source RMF	RMC					
RM @ MRT	RMF @ MRT	0.281 @ 7	@ 7	@	@	
Maximum Recorded Temperatures		7 degC				
Circulation Stopped	Time	15–Jun–2006	16:00			
Logger On Bottom	Time	15–Jun–2006	see log			
Unit Number	Location	2082	Webster, TX			
Recorded By		Steve Kittredge				
Witnessed By		Gilles Guerin				

	Run 1	Run 2

Logging Date				
Run Number				
Depth Driller				
Schlumberger Depth				
Bottom Log Interval				
Top Log Interval				
Casing Driller Size @ Depth		@		
Casing Schlumberger				
Bit Size				
Type Fluid In Hole				
MUD Density	Viscosity			
MUD Fluid Loss	PH			
MUD Source Of Sample				
RM @ Measured Temperature		@		
RMF @ Measured Temperature		@		
RMC @ Measured Temperature		@		
Source RMF	RMC			
RM @ MRT	RMF @ MRT	@	@	
Maximum Recorded Temperatures				
Circulation Stopped	Time			
Logger On Bottom	Time			
Unit Number	Location			
Recorded By				
Witnessed By				

Run 3

Run 4

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 SERVICES1	OTHER SERVICES2
OS1: VSI	OS1:
OS2: FMS	OS2:
OS3: DSI	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
All parameters and presentations as per IODP standards	
Tool ran as per tool sketch below.	
Tool sat down at bottom of drill pipe.	
All depths in Meters Below Rig Floor (MBRF)..	
Down log performed with EMS tool.	
10.5 ppg mud with Barite used to fill hole.	

RUN 1
SERVICE ORDER #:
PROGRAM VERSION: 12C0−301
FLUID LEVEL:

RUN 2
SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

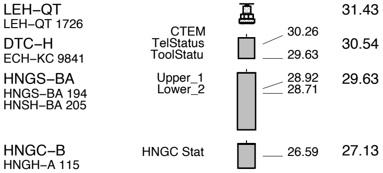
RUN 1

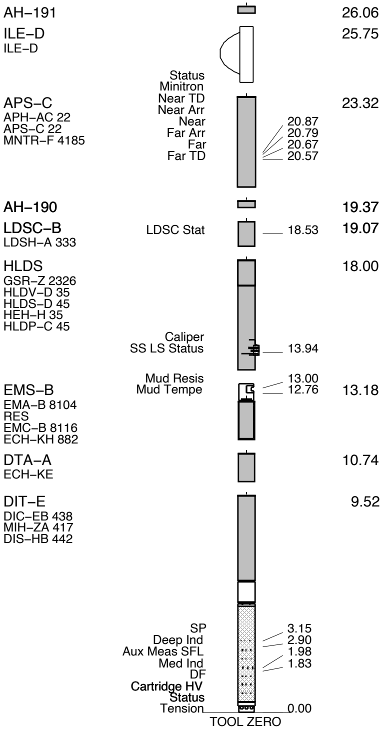
RUN 2

SURFACE EQUIPMENT

SFT−281 6250
SFT−178 6250
GSR−U 135
WITM (DTS)−A

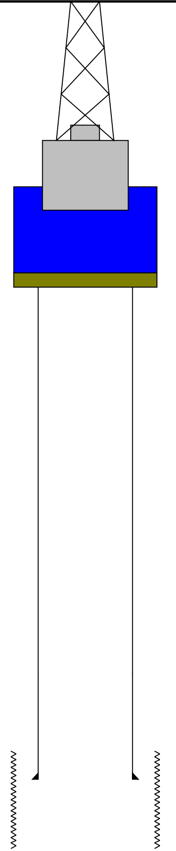
DOWNHOLE EQUIPMENT





MAXIMUM STRING DIAMETER 3.88 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Production String	(in) OD	ID	(ft) MD	Well Schematic	(ft) MD	(in) OD	ID	Casing String



Kelly Bushing Elevation	11.3			
Derrick Floor Elevation	11.0			
Mean Sea Level	0.0			
		0.0	6.500	Casing String
		955.1	9.875	Borehole Segment
		1013.0	6.500	Casing Shoe
		1155.1	9.875	Borehole Segment Bottom

Schlumberger

Main Up Log

MAXIS Field Log

Company: Lamont Doherty **Well: KGGH02–A Site 5 Hole E**

Output DLIS Files

DEFAULT PI_EMS_LDL_APS_NGS_020LUP FN:3 PRODUCER 15–Jun–2006 02:50 1154.4 M 901.9 M

OP System Version: 12C0–301

MCM

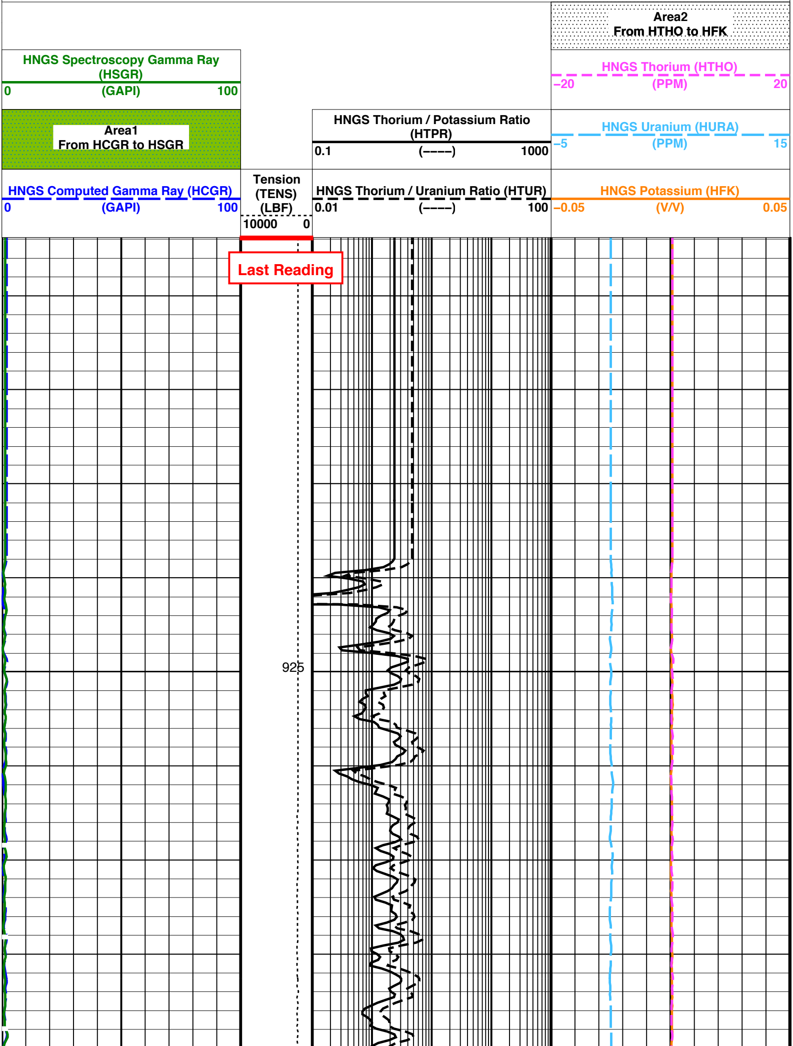
DIT–E	**12C0–301**	**DTA–A**	**12C0–301**
EMS–B	**12C0–301**	**HLDS**	**SPC–2602–NUCL**
LDSC–B	**SPC–2602–NUCL**	**APS–C**	**SPC–2602–NUCL**
HNGC–B	**SPC–2602–NUCL**	**HNGS–BA**	**SPC–2602–NUCL**
DTC–H	**12C0–301**		

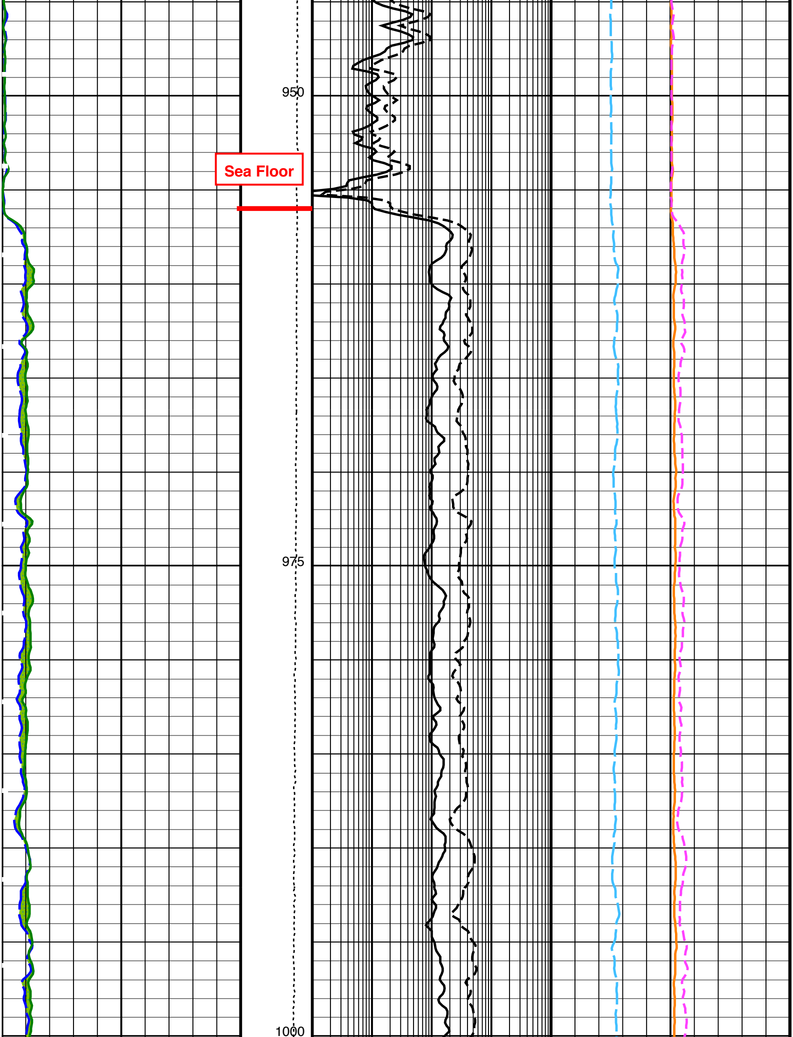
Changed Parameter Summary

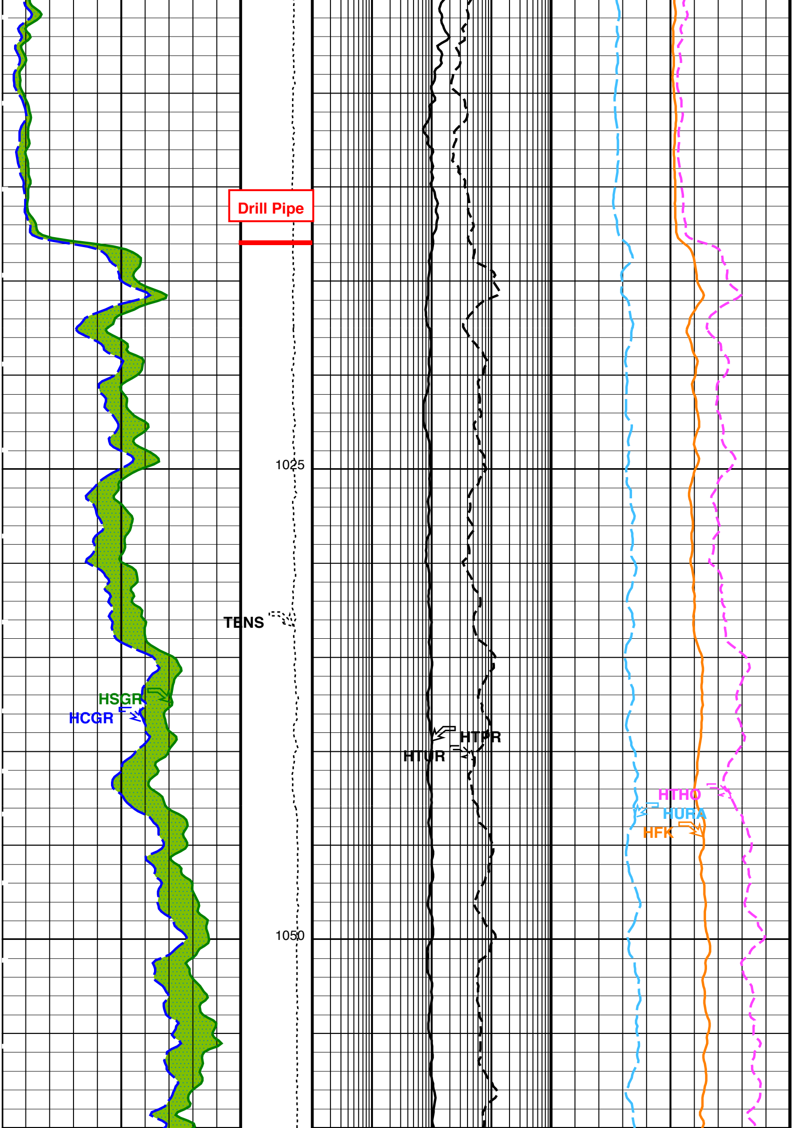
DLIS Name	New Value	Previous Value	Depth & Time
GCSE	BS	LCAL	1046.2 03:19:40

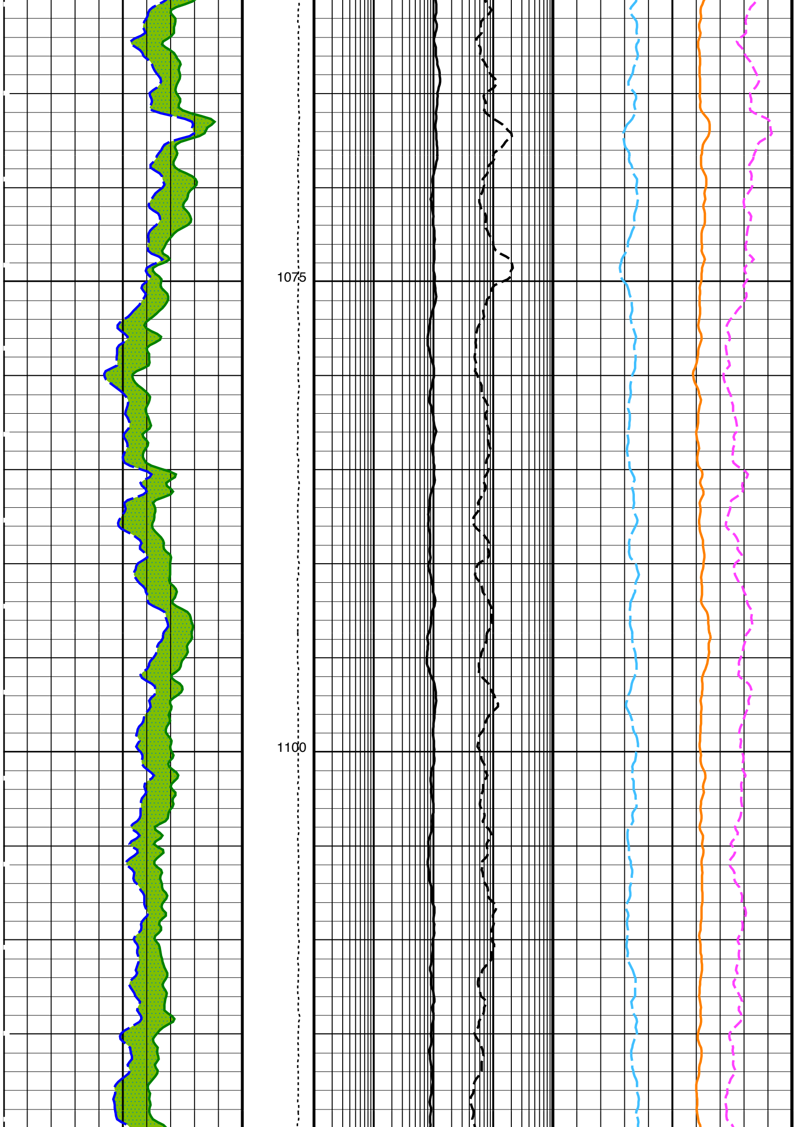
PIP SUMMARY

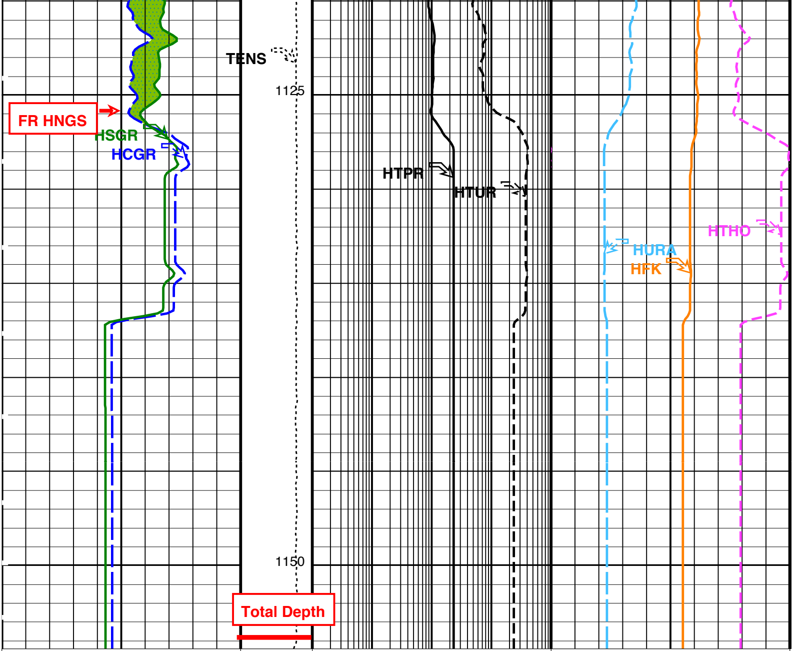
▮ Time Mark Every 60 S











HNGS Computed Gamma Ray (HCGR)
0 (GAPI) 100

Tension (TENS) (LBF)
10000 0

HNGS Thorium / Uranium Ratio (HTUR)
0.01 (----) 100

HNGS Potassium (HFK)
−0.05 (V/V) 0.05

Area1
From HCGR to HSGR

HNGS Thorium / Potassium Ratio (HTPR)
0.1 (----) 1000

HNGS Uranium (HURA)
−5 (PPM) 15

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 100

HNGS Thorium (HTHO)
−20 (PPM) 20

Area2
From HTHO to HFK

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value

DIT–E: Dual Induction – E			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
EMS–B: Environment Measurement Sonde			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
APS–C: Accelerator–Porosity Tool			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
HNGS–BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00905658	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma–Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.145	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.918862	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3

Format: HNGSRatios **Vertical Scale: 1:200** **Graphics File Created: 15–Jun–2006 02:50**

OP System Version: 12C0–301

MCM

DIT–E	12C0–301	DTA–A	12C0–301
EMS–B	12C0–301	HLDS	SPC–2602–NUCL
LDSC–B	SPC–2602–NUCL	APS–C	SPC–2602–NUCL
HNGC–B	SPC–2602–NUCL	HNGS–BA	SPC–2602–NUCL
DTC–H	12C0–301		

Output DLIS Files

DEFAULT	PI_EMS_LDL_APS_NGS_020LUP	FN:3	PRODUCER	15–Jun–2006 02:50

Company: **Lamont Doherty**

Schlumberger

Well: **KGGH02–A Site 5 Hole E**
Field: **Krishna Godavairi Basin**
Rig: **Joides Resolution**
Ocean: **Indian Ocean**

Natural Gamma Ray