Schlumberger

Company: **LAMONT – DOHERTY**

9.875in Section

Well: **KGGH04– Site 6 Hole A**
Field: **Krishna Godavari Basin**
Rig: **JOIDES Resolution** Country: **India**

GeoVISION
1:200 Measured Depth
Recorded Mode Log

Rig:	JOIDES Resolution
Field:	Krishna Godavari Basin
Location:	Offshore Tamil Nadu
Well:	KGGH04– Site 6 Hole A
Company:	LAMONT – DOHERTY

Location

Total depth:	1521.0 m	Elevation	
Spud date:	25–May–06	K.B.	Top Drive
Runs:	1 To 1	G.L.	–1160.5 m
		D.F.	10.5 m
Permanent datum:	Mean Sea Level	Elev.:	0.0 m
Log measured from:	Rotary Table	10.5 m	above Perm. datum
Depth reference:	Driller's Depth		

Service Order no. 06INM0043	X = 621756.4m Y = 1769439.9m	Longitude E 82° 08.2767'	Latitude N 16° 0.0928'
Depth logged: 1168 m To 1518 m	Mag decl: –1.30 deg.	Other services: SonicVISION	
Date logged: 25–May–06To 26–May–06	Mag dip: 19.22 deg.		

Bore hole record			Casing record		
Hole size	from	to	Size	Density	from	to
9.875 in.	1171 m	1518 m				

Mud record			Borehole deviation record			
Type	from	to	Min	Max	from	to
Sea Water	1168 m	1518 m				

Surface equipment		Software record
Unit	OLU–J–N844–1/02 IDEAL Wis	ID10_2C_01
Depth system	PDA SPM	hspm10_1c_05
	LWD	GVR V6.2B Sonic V6.4_B10 DVD V11.0
	MWD	PUP V90C00

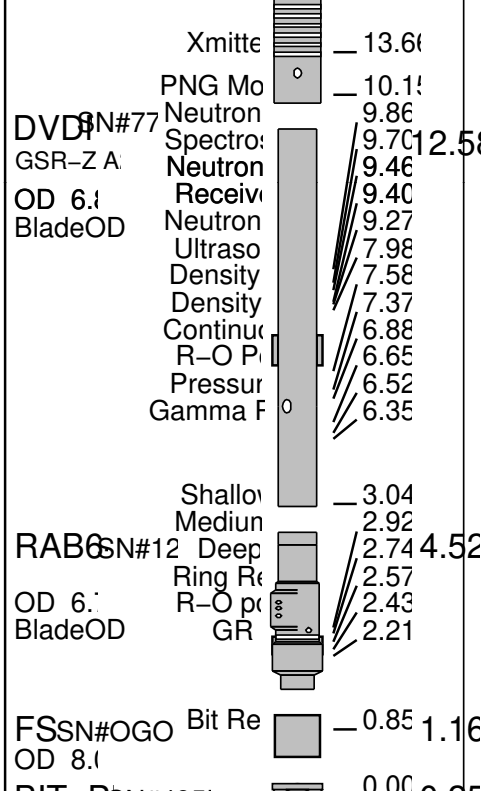
DISCLAIMER
THE USE OF AND RELIANCE UPON THIS RECORDED–DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE 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 RUN1	OTHER SERVICES FOR RUN	OTHER SERVICES FOR RUN
Real time APWD Monitoring. SonicVISION		

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER	REMARKS: RUN NUMBER
Depth reference is Driller's depth All Data acquired from tool memory while drilling GR is corrected for bit size, tool size and mud weight. GVR resistivity is environmentally corrected for mud resistivity and bit size. EcoSCOPE resistivity is borehole compensated and environmentally corrected. Density is corrected for standoff by Spin and Ribs plot Neutron Porosity is corrected for bit size, tool size, mud hydrogen index, temperature, pressure and mud salinity Maximum Circulating Temperature = 11 degC Objective: Drill and log 9.875in section from sea floor to TD@1521m Results: Drilled and logged to section TD. All calibration parameters within tolerance.		

EQUIPMENT DESCRIPTION

RUN1 RUN RUN



Bit Run Summary

Run number		1			
Bit size	in	9.875			
Bit start depth	m	1171			
Bit end depth	m	1521			
Top interval logged	m	1171			
Bottom interval logged	m	1518			
Begin log: time		23:48			
Begin log: date		25–May–06			
End log: time		23:05			
End log: date		26–May–06			
Mud data					
Depth	m	1171			
Type		Sea Water			
Mud weight	ppg	8.665			
Solids	%	0			
Chlorides	ppm	26000			
Rm	ohmm@degC	0.214@27.9			
Rmf	ohmm@degC	0.214@27.9			
Rmc	ohmm@degC	N/A			
Potassium	%	0			
Environmental data					
GR					
Mud weight	ppg	8.665			
Bit size	in	9.875			
Resistivity					
Neutron porosity					
Hole Size	in	9.875			
Mud weight	ppg	8.665			
Temperature	degC	10			
Mud salinity	ppk	26			
Formation salinity	ppk	N/A			
Recording rate 1	SEC	2			
Recording rate 2	SEC	5			
Filtering GR		3 pts			
Filtering density		3 pts			
Filtering Neutron		3 pts			
Company representative		Stefan M.	Alberto	Ann	
Schlumberger D&M Personnel		Inetimi I.	Abhijeet N.	Ritesh S.	Shivek R.

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Variable   Variable                                         Run Name          English Units
 Name      Description                                       & Value

   Run Number                                                   1

   General Information
BHT_RM       Bottom Hole Temperature (RM)                         51.799999
BSAL_RM      Mud Salinity (RM)                                26.000000
BS_RM        Bit Size (RM)                                  9.875000
COEF_M       User Defined FEXP in Clean Sand                      1.650000
C_WS         Overpressure correction to Sw and M                  1.000000
FEXP         Formation Factor Exponent(RM)                       2.000000
FNUM         Formation Factor Enumerator(RM)                     1.000000
FPHI_RM      Formation Factor Porosity Source (RM)                  XPLOT
MST_RM       Mud Sample temperature (RM)                          82.399971
MW_RM        Mud Weight (RM)                                   8.660000
OBMF_RM      Oil Based Mud (RM)                                    NO
RHOF_RM      Mud Filtrate Density (RM)                         1.000000
RHOM_RM      Matrix density (RM)                              2.710000
RMS_RM       Resistivity of Mud Sample (RM)                      0.214000
RWA_COMP_M   Rwa computation model                                  BASIC
RWA_DEN_AD   Rwa Density Input ADN                                  RHOB
RWA_DEN_CD   Rwa Density Input CDN                                  RHOB
RWA_DEN_IN   Rwa Density Input                                   RHOB
RWA_FORM_M   Rwa computation formation model                          CLASTIC
RWA_RES_IN   Rwa computation resistivity input                      RT
RWS_RM       Resistivity of Connate Water (RM)                   1.000000
SHT_RM       Surface Hole Temperature (RM)                      10.400031
TD_RM        Total Measured Depth (RM)                        4990.157227
TWS_RM       Temperature of Connate Water (RM)                    75.000000
VF_ILLI      Fraction of illite in shales                   0.500000
VF_KAOL      Fraction of kaolinite in shales                   0.500000
VF_MONT      Fraction of montmorillonite in shales               0.000000
XPDM_RM      Cross plot density porosity multiplier              0.675000
XPNM_RM      Cross plot neutron porosity multiplier              0.325000

   RAB
LWD_RM/STATION_FILE/PARAMETERStation Time–frame file name                  Station
RAB/BTN_SLV_SIZE/PARAMETERRAB: Button Sleeve Diameter                9.125 inch
RAB/STAB_SIZE/PARAMETERRAB: Stabilizer Diameter                    9.375 inch
BDBHCA       RAB: Button Deep Borehole A Factor                  –0.025010
BDBHCB       RAB: Button Deep Borehole B Factor                   0.000000
BHA_COEF_V   RAB: BHA Coef Generator Version                      62011.000000
BITBHCA      RAB: Bit A Borehole Factor                      0.085619
BITBHCB      RAB: Bit B Borehole Factor                      0.000000
BIT_K_FACT   RAB: Bit K Factor                             3.651910
BMBHCA       RAB: Button Medium Borehole A Factor                   0.041085
BMBHCB       RAB: Button Medium Borehole B Factor                   0.000000
BSBHCA       RAB: Button Shallow Borehole A Factor                  0.073936
BSBHCB       RAB: Button Shallow Borehole B Factor                  0.000000
BUT_KIMP_A   RAB: Button Impedance Coeff A                          0.000000
BUT_KIMP_B   RAB: Button Impedance Coeff B                          0.000000
DBUTTON_K_   RAB: Button Deep K factor                           0.004549
DHS_VERSIO   RAB: DownHole Software Version                         6.200100
GR_BHC_TOO   RAB: Gamma–Ray Borehole Coeff 1                          6.750000
HI_CSDEPTH   RAB: Allow Hi–Resolution CS_DEPTH Image Data Output              NO
HI_DLIS_OU   RAB: Allow Hi–Resolution DLIS Image Data Output           NO
HI_RIVER_O   RAB: Allow Hi–Resolution River for Image Data Output      NO
IMAGE_MAX_   RAB: GR Image Maximum Scale Value                       120.000000
IMAGE_MAX_   RAB: Image Maximum Resistivity Value                   100.000000
IMAGE_MIN_   RAB: GR Image Minimum Scale Value                       20.000000
IMAGE_MIN_   RAB: Image Minimum Resistivity Value                    1.000000
JSD_RAB      RAB Acquisition start date                      1.000000
MAG_DECL_R   RAB: Magnetic Declination                         –1.299984
MAG_INCL_R   RAB: Magnetic Dip                              19.219984
MBUTTON_K_   RAB: Button Medium K Factor                          0.004817
OBM          RAB: Oil base Mud                               NO
ORIENTATIO   Rab Image Orientation                               NORTH
RABBDA0      RAB: Button Deep A0 Coeff                         –0.040578
RABBDA1      RAB: Button Deep A1 Coeff                          0.023611
RABBDA2      RAB: Button Deep A2 Coeff                         –0.006379
RABBDA3      RAB: Button Deep A3 Coeff                          0.000733
RABBDA4      RAB: Button Deep A4 Coeff                         –0.000029
RABBDA5      RAB: Button Deep A5 Coeff                          0.000000
RABBDMIN     RAB: Button Deep Minimum Value                        0.050526
RABBITA0     RAB: Bit A0 Coeff                             0.500230
RABBITA1     RAB: Bit A1 Coeff                            –0.368524
RABBITA2     RAB: Bit A2 Coeff                             0.168660
RABBITA3     RAB: Bit A3 Coeff                            –0.034414
RABBITA4     RAB: Bit A4 Coeff                             0.002550
RABBITA5     RAB: Bit A5 Coeff                             0.000000
RABBITMIN    RAB: Bit Minimum Value                          19.196400
RABBMA0      RAB: Button Medium A0 Coeff                         –0.054082
RABBMA1      RAB: Button Medium A1 Coeff                          0.031168
RABBMA2      RAB: Button Medium A2 Coeff                         –0.008354
RABBMA3      RAB: Button Medium A3 Coeff                          0.000950
RABBMA4      RAB: Button Medium A4 Coeff                         –0.000038
RABBMA5      RAB: Button Medium A5 Coeff                          0.000000
RABBMMIN     RAB: Button Medium Minimum Value                       0.056537
RABBSA0      RAB: Button Shallow A0 Coeff                      –0.069850
RABBSA1      RAB: Button Shallow A1 Coeff                       0.037221
RABBSA2      RAB: Button Shallow A2 Coeff                      –0.009448
RABBSA3      RAB: Button Shallow A3 Coeff                       0.001028
RABBSA4      RAB: Button Shallow A4 Coeff                      –0.000039
RABBSA5      RAB: Button Shallow A5 Coeff                       0.000000
RABBSMIN     RAB: Button Shallow Minimum Value                      0.078603
RABDHS       RAB Down Hole Software                        4.000000
RABEC        RAB: Resistivity Env–Cor                        YES
RABRNGA0     RAB: RING A0 Coeff                            –0.035222
RABRNGA1     RAB: RING A1 Coeff                             0.021599
RABRNGA2     RAB: RING A2 Coeff                            –0.005992
RABRNGA3     RAB: RING A3 Coeff                             0.000701
RABRNGA4     RAB: RING A4 Coeff                            –0.000029
RABRNGA5     RAB: RING A5 Coeff                             0.000000
RABRNGMIN    RAB: Ring Minimum Value                          1.598150
RAB_BIT_EC   Bit Resistivity for ECAL_RAB?                     YES
RAB_BIT_IN   Input Bit Resistivity for Inversion? (Recommended at the bit)       YES
RAB_CALIPE   Compute ECAL_RAB?                              NO
RAB_DEEPBT   Deep Button Resistivity for ECAL_RAB?                    YES
RAB_DEEPBT   Input Deep Button Resistivity for Inversion?              YES
RAB_INVERS   Perform Rt Inversion?                          NO
RAB_INVERS   RAB Bit Sensor Weight for Inversion[0,1]             1.000000
RAB_INVERS   Ending Depth for GR Cutoff in Zone1 (default through the whole well) 100000.000000
RAB_INVERS   Continuity Multiplier[0,1]                     0.500000
RAB_INVERS   RAB Deep Button Sensor Weight for Inversion[0,1]           1.000000
RAB_INVERS   RAB inversion for Dh?                          YES
RAB_INVERS   RAB inversion for Di?                          YES
RAB_INVERS   GR Cutoff for Shale Formation                    75.000000
RAB_INVERS   GR Cutoff for Shale Formation in Zone1(default through the whole well)    75.000000
RAB_INVERS   GR Cutoff in Zone10                          75.000000
RAB_INVERS   GR Cutoff in Zone2                          75.000000
RAB_INVERS   GR Cutoff in Zone3                          75.000000
RAB_INVERS   GR Cutoff in Zone4                          75.000000
RAB_INVERS   GR Cutoff in Zone5                          75.000000
RAB_INVERS   GR Cutoff in Zone6                          75.000000
RAB_INVERS   GR Cutoff in Zone7                          75.000000
RAB_INVERS   GR Cutoff in Zone8                          75.000000
RAB_INVERS   GR Cutoff in Zone9                          75.000000
RAB_INVERS   RAB Medium Button Sensor Weight for Inversion[0,1]          1.000000
RAB_INVERS   Resistivity Cutoff for Shale Formation               2.000000
RAB_INVERS   Resistive Invasion Allowed                       NO
RAB_INVERS   RAB Ring Sensor Weight for Inversion[0,1]              1.000000
RAB_INVERS   RAB inversion for Rmud?                          NO
RAB_INVERS   RAB inversion for Rt?                          YES
RAB_INVERS   Rt to R–deepest separation penalty multiplier[0,1]        0.500000
RAB_INVERS   RAB inversion for Rxo?                          YES
RAB_INVERS   RAB Shallow Button Sensor Weight for Inversion[0,1]         1.000000
RAB_INVERS   Inversion Threshold[0, 0.3]                     0.010000
RAB_INVERS   Formation Water Resistivity                      0.100000
RAB_INVERS   Formation Water Temperature                      150.000000
RAB_MEDIUM   Medium Button Resistivity for ECAL_RAB?                  YES
RAB_MEDIUM   Input Medium Button Resistivity for Inversion?             YES
RAB_QUAD     RAB: Process Quadrant data ?                       YES
RAB_RIGMOD   Bit on Bottom?                              YES
RAB_RING_E   Ring Resistivity for ECAL_RAB?                      YES
RAB_RING_I   Imput RING Resistivity for Inversion?                 YES
RAB_SHALLO   Shallow Button Resistivity for ECAL_RAB?                 YES
RAB_SHALLO   Input Shallow Button Resistivity for Inversion?            YES
RAB_TAB      RAB: Compute TAB ?                             YES
RAB_TECHLO   RAB: Generate Techlog ?                          YES
RAB_TEMP_S   RAB Temperature Selection                         MEASURED
RAB_TICKS    RAB: Generate Ticks ?                           YES
READOUT_PO   RAB: ROP to Bit Face Distance                      7.972441
RINGBHCA     RAB: Ring Borehole A Factor                     0.298889
RINGBHCB     RAB: Ring Borehole B Factor                     0.000000
RING_KIMP_   RAB: Ring Impedance Coeff A                       0.000000
RING_KIMP_   RAB: Ring Impedance Coeff B                       0.000000
RING_K_FAC   RAB: Ring K Factor                          0.151723
SBUTTON_K_   RAB: Button Shallow K Factor                      0.006545
SCALE_IMAG   RAB: Process Image Data                          YES
STAB         RAB: Run with Stabilizer                       YES
TFF_OFFSET   RAB Time–Frame File Time Offset                      0.000000
TIMEFRAME_   RAB: Time Frame File Name                        0.000000
TOOLTYPE     RAB: Azimuthal Tool                            YES
TS_VERSION   RAB: ToolScope Software Version                      0.000000
VRAB6        Rab Tool type (ENP/PILOT)                     RAB6_C_SERIES
WIN_SIZE_D   RAB: Window Size for Scaling Dynamic Image                3.000000

   DVD
––––––––––   ––––––––––––Density Parameter–––––––––––––––         ––––––––––––Density
––––––––––   ––––––––––––Neutron Parameter–––––––––––––––         ––––––––––––Neutron
––––––––––   –––––––––Interpretation Parameter–––––––––––        –––––––––Interpretation
––––––––––   –––––––––Sigma Parameter–––––––––––               –––––––––Sigma
A12A         ARC Air Cal Attenuation From T1 at 2 MHz              8.231560
A14A         ARC Air Cal Attenuation From T1 at 400 KHz            8.289690
A22A         ARC Air Cal Attenuation From T2 at 2 MHz              6.180950
A24A         ARC Air Cal Attenuation From T2 at 400 KHz            6.148650
A32A         ARC Air Cal Attenuation From T3 at 2 MHz              4.832750
A34A         ARC Air Cal Attenuation From T3 at 400 KHz            4.884170
A42A         ARC Air Cal Attenuation From T4 at 2 MHz              4.587220
A44A         ARC Air Cal Attenuation From T4 at 400 KHz            4.539020
A52A         ARC Air Cal Attenuation From T5 at 2 MHz              3.392490
A54A         ARC Air Cal Attenuation From T5 at 400 KHz            3.445380
ABNT         Abnormal Transmitter Indicator                   No_Tx_Failed
ALPHA_DEN_   Density Enhanced Vertical Resolution Processing Switch         NO
ANISO_COMP   Anisotropy Computation Option                        YES
ATMP_ARC     ARC Select Temperature Channel                     Annulus_Temp
AZMF         Formation DIP Azimuth                         0.000000
BH_COMPUTE   Borehole Inversion Computation Option                  YES
CALG         DVDM Gamma Ray Cal Gain Factor                      –1.000000
CDPTH_ARC    Process Start Depth                           100.000000
DEVI         Well Section Deviation                       0.100000
DIELEC_COM   Dielectric Computation Option                        YES
DIPF         Formation DIP Angle                          0.000000
DVDMDHS      DVDM Down Hole Software Version                      0.000000
DYN_IMAGE_   Generate Dynamic Normalized Image?                    NO
EDPTH        Wizard Process Stop Depth                       50000
EN_WIZARD    Enable ARC Wizard Processing                       NO
ERRCT        Percentage Error Cutoff                      4.500000
EVRL         EVR Process averaging number of samples (RM)              49
FWVN         Firmware Version Number                       1.100000
GCSE         Generalized Caliper Selection                     BS
GRBC         RM: DVDM Gamma Ray Blanket (CPS)                      75.000000
GRSH         GR Shale (Invasion Computation Cutoff)               1000.000000
GR_CF        Gamma Ray Correction Factor                    2.250000
HIGH_BLEND   High Resistivity Threshold for Blending               2.000000
IDQT         Image Derived Quality Threshold                 1.000000
IMAGE_MAX_   Image Density Caliper Right Scale                    8.000000
IMAGE_MAX_   Image Density Quality Right Scale                    1.000000
IMAGE_MAX_   Image PEF(Segment) Right Scale                       6.000000
IMAGE_MAX_   Image RHOB(Segment) Right Scale                       2.650000
IMAGE_MIN_   Image Density Caliper Left Scale                   2.000000
IMAGE_MIN_   Image Density Quality Left Scale                   0.000000
IMAGE_MIN_   Image PEF(Segment) Left Scale                       2.000000
IMAGE_MIN_   Image RHOB(Segment) Left Scale                      2.050000
IMAGE_ORIE   Image Orientation Options, e.g. Top of Hole or True North        TOH
INCLIN_B0    ARC Bias Constant (mg)                       0.000000
INCLIN_B1    ARC Bias First–order Coefficient (mg/degC)              0.000000
INCLIN_B2    ARC Bias Secod–order Coeeficient (mg/degC)               0.000000
INCLIN_B3    ARC Bias Third–order Coeeficient (mg/degC)              0.000000
INCLIN_C0    ARC Current Scale Factor Constant (mA/g)              1.000000
INCLIN_C1    ARC Scale First–order Coeeficient (mA/g/degC)            0.000000
INCLIN_C2    ARC Scale Second–order Coeeficient (mA/g/degC)            0.000000
INCLIN_C3    ARC Scale Third–order Coeeficient (mA/g/degC)            0.000000
INVAS_COMP   Invasion Computation Option                        YES
JSD          Acquisition start date                      YES
JSD_ARC      ARC Acquisition start date                        YES
LOW_BLEND    Low Resistivity Threshold for Blending                1.000000
MATR         Rock Matrix for Neutron Porosity Corrections            LIMESTONE
MSWS         ARC Wizard Model Switch Window                      5.000000
MULTIEFFEC   Multi Effect Option                           YES
NEU_DCOR_O   Density Correction Source for Neutron Processing           Bottom
NEU_FTUBE_   Far Thermal Tube Selection                        Both
NTIK_SEL     Neutron Tick Channel Name                         FAZ1
OACF         O2 Activation Correction Factor (RM)              0.000000
P12A         ARC Air Cal Phase–Shift From T1 at 2 MHz              2.472670
P14A         ARC Air Cal Phase–Shift From T1 at 400 KHz           –0.535700
P22A         ARC Air Cal Phase–Shift From T2 at 2 MHz             –2.538020
P24A         ARC Air Cal Phase–Shift From T2 at 400 KHz            0.538316
P32A         ARC Air Cal Phase–Shift From T3 at 2 MHz              2.412610
P34A         ARC Air Cal Phase–Shift From T3 at 400 KHz           –0.538400
P42A         ARC Air Cal Phase–Shift From T4 at 2 MHz             –2.561370
P44A         ARC Air Cal Phase–Shift From T4 at 400 KHz            0.492402
P52A         ARC Air Cal Phase–Shift From T5 at 2 MHz              2.441200
P54A         ARC Air Cal Phase–Shift From T5 at 400 KHz           –0.509005
PMUD         Potassium Concentration in Mud                   0.000000
POFFSET      Pressure Offset                          0.000000
PRTD         Preferred Resistivity Log for Rt Display while Multi–Effects     P34B
PSOF_ADJ_T   ARC: User Input Phase offset                      0.000000
RESTIK       ARC resistivity tick source                     Phase
SDPTH        Wizard Process Start Depth                      100
SIG_PCOR_O   Porosity Correction Source for Sigma Processing              Best
SPEC_CSG_D   Casing Depth for Spectroscopy Processing              100.000000
SPL_CLAY_M   SpectroLith Clay Model                       ARENITE
SPL_COAL_O   SpectroLith Coal Processing Option                  NONE
SPL_SULFUR   SpectroLith Sulfur Mineral Option                  ANHYDRITE
STAB_SIZE    Stabilizer Size                          9.125000
STOH         Density Top of Hole Sector (Left Boundary)              SECTOR_0
TRNO         Tool Run Number                         4990.157227
TSIZ_ARC     ARC Tool Size                           6.900000
TSNO         Tool Serial Number                       6.900000
UNIFORM_CO   Uniform Rock Option                           YES
VERS_ARC     ARC Down hole software version Number                1.100000
WRK          Way to Report Potassium Concentration              K_by_Wgt_%
WSDI         Window Size of Dynamic Normalization Image              15.000000

Schlumberger Drilling & Measurements                   Parameter Insert Header Software version 2.0c
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IDEAL Version: ID10_2C_01.1SV

IDF

RAB	id10_2c_01	ECO6	id10_2c_01
SON675	id10_2c_01	MWD_10	id10_2c_01

Format: LDEO_RABDepthLogImage Vertical Scale: 1:200 Graphics File Created: 27–May–2006 04:52

PIP SUMMARY
⊣ Ring Samples
⊢ Gamma Ray Samples

ROP: 5 Feet Average (ROP5_RM) 100 (M/HR) 0
RAB Gamma Ray (GR_RAB) 0 (GAPI) 150
RAB Rotational Speed (RPM_RAB) (RPM) 0 200
Conductive Resistive (R3IM_DYN) (––––)
Ring Resistivity (RES_RING) 0.2 (OHMM) 20
Deep Button Resistivity (RES_BD) 0.2 (OHMM) 20
Medium Button Resistivity (RES_BM) 0.2 (OHMM) 20
Shallow Button Resistivity (RES_BS) 0.2 (OHMM) 20

RAB Gamma Ray (GR_RAB) 0 (GAPI) 150
RAB Rotational Speed (RPM_RAB) (RPM) 0 200
Conductive Resistive (R3IM_DYN) (––––)
Shallow Button Resistivity (RES_BS) 0.2 (OHMM) 20
ROP: 5 Feet Average (ROP5_RM) 100 (M/HR) 0
Medium Button Resistivity (RES_BM) 0.2 (OHMM) 20
Deep Button Resistivity (RES_BD) 0.2 (OHMM) 20
Ring Resistivity (RES_RING) 0.2 (OHMM) 20

PIP SUMMARY
⊣ Ring Samples
⊢ Gamma Ray Samples

IDEAL Version: ID10_2C_01.1SV

IDF

RAB	id10_2c_01	ECO6	id10_2c_01
SON675	id10_2c_01	MWD_10	id10_2c_01

EcoScope Integrated Logging–While–Drilling Tool – 6.75 inch / Equipment Identification

Primary Equipment:
Tool Name and Serial Number ECO – 675 778
Calibration Status –
Collar Type and Serial Number ADDC – AA
Chassis Type and Serial Number ARSE – EA
Stabilizer Type and Serial Number ADCS – CA
Neutron Logging Source NSR – M
Density Logging Source GSR – J/Z
Stabilizer Size 9.13 – in.

Master: 12–May–2006 20:19
EcoScope Integrated Logging–While–Drilling Tool – 6.75 inch Calibration
SSn LSn : Water Tank

Phase	SSn Gain ––––	Value	Phase	SSn Offset ––––	Value
Master	0.6000 (Minimum) 1.000 (Nominal) 1.400 (Maximum)	1.151	Master	–3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)	0
Phase	LSn Gain ––––	Value	Phase	LSn Offset ––––	Value
Master	0.6000 (Minimum) 1.000 (Nominal) 1.400 (Maximum)	1.166	Master	–3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)	0

Master: 12–May–2006 20:19
EcoScope Integrated Logging–While–Drilling Tool – 6.75 inch Calibration
Neutron: Water Tank

Phase	Far 2 Gain ––––	Value	Phase	Far 2 Offset ––––	Value
Master	0.7000 (Minimum) 1.000 (Nominal) 1.300 (Maximum)	1.044	Master	–3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)	1.004
Phase	Far 1 Gain ––––	Value	Phase	Far 1 Offset ––––	Value
Master	0.7000 (Minimum) 1.000 (Nominal) 1.300 (Maximum)	1.076	Master	–3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)	0.6590
Phase	Thermal Near gain ––––	Value	Phase	Thermal Near offset ––––	Value
Master	0.7000 (Minimum) 1.000 (Nominal) 1.300 (Maximum)	1.140	Master	–500.0 (Minimum) 0 (Nominal) 500.0 (Maximum)	–15.25
Phase	Epithermal Near gain ––––	Value	Phase	Epithermal Near offset ––––	Value
Master	0.7000 (Minimum) 1.000 (Nominal) 1.300 (Maximum)	1.124	Master	–300.0 (Minimum) 0 (Nominal) 300.0 (Maximum)	17.94

Master: 12–May–2006 15:19
EcoScope Integrated Logging–While–Drilling Tool – 6.75 inch Calibration
Gamma Density: Magnesium Block

Phase	LS window 3 – Mg CPS	Value	Phase	SS window 1 – Mg CPS	Value	Phase	SS window 3 – Mg CPS	Value
Master	1000 (Minimum) 2000 (Nominal) 3000 (Maximum)	2013	Master	2500 (Minimum) 5250 (Nominal) 8000 (Maximum)	4858	Master	6000 (Minimum) 12000 (Nominal) 18000 (Maximum)	11410

Master: 12–May–2006 15:19
EcoScope Integrated Logging–While–Drilling Tool – 6.75 inch Calibration
Gamma Density: Aluminum Block

Phase	LS window 3 – Al CPS	Value	Phase	SS window 1 – Al CPS	Value	Phase	SS window 3 – Al CPS	Value
Master	200.0 (Minimum) 400.0 (Nominal) 600.0 (Maximum)	372.1	Master	1500 (Minimum) 3000 (Nominal) 4500 (Maximum)	2545	Master	4000 (Minimum) 8500 (Nominal) 13000 (Maximum)	8395

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EcoScope Integrated Logging–While–Drilling Tool – 6.75 inch Calibration
Gamma Density: Background

Phase	LS window 3 – Background CPS	Value	Phase	SS window 1 – Background CPS	Value	Phase	SS window 3 – Background CPS	Value
Master	50.00 (Minimum) 70.00 (Nominal) 90.00 (Maximum)	66.31	Master	50.00 (Minimum) 75.00 (Nominal) 100.0 (Maximum)	74.12	Master	270.0 (Minimum) 370.0 (Nominal) 470.0 (Maximum)	355.2

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EcoScope Integrated Logging–While–Drilling Tool – 6.75 inch Calibration
Gamma Density: Water Block Check

Phase	Long spacing water density G/C3	Value	Phase	Short spacing water density G/C3	Value
Master	0.9000 (Minimum) 1.150 (Nominal) 1.400 (Maximum)	1.030	Master	0.9000 (Minimum) 1.150 (Nominal) 1.400 (Maximum)	1.263

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EcoScope Integrated Logging–While–Drilling Tool – 6.75 inch Calibration
Resistivity: Air

Phase	Phase–Shift T1	Value	Phase	Phase–Shift T2	Value	Phase	Phase–Shift T3	Value
Master	–4.000 (Minimum) 0 (Nominal) 4.000 (Maximum)	2.473	Master	–4.000 (Minimum) 0 (Nominal) 4.000 (Maximum)	–2.538	Master	–4.000 (Minimum) 0 (Nominal) 4.000 (Maximum)	2.413
Phase	Phase–Shift T4	Value	Phase	Phase–Shift T5	Value	Phase	Phase–Shift T1 at 400KHz	Value
Master	–4.000 (Minimum) 0 (Nominal) 4.000 (Maximum)	–2.561	Master	–4.000 (Minimum) 0 (Nominal) 4.000 (Maximum)	2.441	Master	–4.000 (Minimum) 0 (Nominal) 4.000 (Maximum)	–0.5357
Phase	Phase–Shift T2 at 400KHz	Value	Phase	Phase–Shift T3 at 400KHz	Value	Phase	Phase–Shift T4 at 400KHz	Value
Master	–4.000 (Minimum) 0 (Nominal) 4.000 (Maximum)	0.5383	Master	–4.000 (Minimum) 0 (Nominal) 4.000 (Maximum)	–0.5384	Master	–4.000 (Minimum) 0 (Nominal) 4.000 (Maximum)	0.4924
Phase	Phase–Shift T5 at 400KHz	Value						
Master	–4.000 (Minimum) 0 (Nominal) 4.000 (Maximum)	–0.5090						

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EcoScope Integrated Logging–While–Drilling Tool – 6.75 inch Calibration
Resistivity: Air

Phase	Attenuation T1	Value	Phase	Attenuation T2	Value	Phase	Attenuation T3	Value
Master	7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)	8.232	Master	4.000 (Minimum) 6.000 (Nominal) 8.000 (Maximum)	6.181	Master	3.500 (Minimum) 5.500 (Nominal) 7.500 (Maximum)	4.833
Phase	Attenuation T4	Value	Phase	Attenuation T5	Value	Phase	Attenuation T1 at 400KHz	Value
Master	2.500 (Minimum) 4.500 (Nominal) 6.500 (Maximum)	4.587	Master	2.000 (Minimum) 4.000 (Nominal) 6.000 (Maximum)	3.392	Master	7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)	8.290
Phase	Attenuation T2 at 400KHz	Value	Phase	Attenuation T3 at 400KHz	Value	Phase	Attenuation T4 at 400KHz	Value
Master	4.000 (Minimum) 6.000 (Nominal) 8.000 (Maximum)	6.149	Master	3.500 (Minimum) 5.500 (Nominal) 7.500 (Maximum)	4.884	Master	2.500 (Minimum) 4.500 (Nominal) 6.500 (Maximum)	4.539
Phase	Attenuation T5 at 400KHz	Value						
Master	2.000 (Minimum) 4.000 (Nominal) 6.000 (Maximum)	3.445						

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EcoScope Integrated Logging–While–Drilling Tool – 6.75 inch
Calibration
Gamma Ray: Blanket

Phase	Gamma ray factor	Value
Master	2.000 (Minimum) 2.500 (Nominal) 3.000 (Maximum)	2.250

6.75–in. Resistivity At–the–Bit / Equipment Identification

Primary Equipment:
Tool Name and Serial Number RAB6 – CA 127
Calibration Status –

Master: 13–May–2006 8:37
6.75–in. Resistivity At–the–Bit Calibration
Resistivity: Fixture

Phase	Ring/T1 factor ––––	Value	Phase	Ring/T2 factor ––––	Value	Phase	M0/T1 factor ––––	Value
Master	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	1.006	Master	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	1.010	Master	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	0.9952
Phase	M0/T2 factor ––––	Value	Phase	M2/T1 factor ––––	Value	Phase	M2/T2 factor ––––	Value
Master	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	0.9989	Master	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	1.006	Master	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	1.010
Phase	BTN shallow/T1 factor ––––	Value	Phase	BTN shallow/T2 factor ––––	Value	Phase	BTN medium/T1 factor ––––	Value
Master	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	1.005	Master	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	1.008	Master	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	1.001
Phase	BTN medium/T2 factor ––––	Value	Phase	BTN deep/T1 factor ––––	Value	Phase	BTN deep/T2 factor ––––	Value
Master	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	1.004	Master	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	1.004	Master	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	1.008

Master: 13–May–2006 8:37
6.75–in. Resistivity At–the–Bit Calibration
Gamma Ray: Blanket

Phase	Gamma ray factor ––––	Value
Master	0.7500 (Minimum) 1.000 (Nominal) 1.250 (Maximum)	0.9227

Company: **LAMONT – DOHERTY**

Schlumberger

Well: **KGGH04– Site 6 Hole A**
Field: **Krishna Godavari Basin**
Rig: **JOIDES Resolution** **9.875in Section**
Country: **India**

GeoVISION
1:200 Measured Depth
Recorded Mode Log