Schlumberger

GEOLOGY

Company: Petroleum Development Oman LLC
Well: Bahrain-Jabal Al Ghafir 1
Field: Jabal Al Ghafir
County: Al Dhahirah
State: Sultanate of Oman

Run No.	Depth Driller	Depth Logger	Bottom Log Interval	Top Log Interval	Casing Driller	Casing Logger	Bit Size
1	1100	1100	1100	0	20	20	17.5

Type Fluid in Hole: Water
Density: 1.0 g/cm3
Viscosity: 40 s
pH: 7.5
Fluid Loss: 10 cm3
Source of Sample: Mud Pit
Rm @ Meas. Temp.: 0.5 @ 25 °C
Rmf @ Meas. Temp.: 0.4 @ 25 °C
Rmc @ Meas. Temp.: 0.3 @ 25 °C
Source: Rmf Rmc
Rm @ BHT: 0.3 @ 60 °C
Time Since Circulation: 12 hrs
Time Since Closure: 12 hrs
Max. Recorded Temp.: 60 °C
Equipment Location: Muscat
Recorded by: Ali Al Ghafri
Witnessed by: Mr. Bhandarkar

Equipment	Serial No.	Model	Hole Size	Top Log Int.	Bottom Log Int.
DSI-A	1		17.5	0	1100

REMARKS:

Logging Date	29-Dec-2010
Number	1
Truck No.	2
Logging Unit	Muscat
Operating Time	3 hrs
Logging Speed	30 m/hr
Tool Zero Check	0
Calibration Date	29-Dec-2010
Calibration Time	12:00
Calibration Unit	Muscat
Calibration Type	Full
Calibration Method	Internal
Calibration Error	0 %
Calibration Data	
Tool Serial No.	54-P
Cal. Resistor Value	0.0
Cal. Resistor Temp.	0 °C
Cal. Resistor Error	0 %
Logging Data	
Tool Serial No.	54-P
Logging Speed	30 m/hr
Logging Time	0
Logging Unit	Muscat
Logging Truck	2
Logging Date	29-Dec-2010

SPONTANEOUS POTENTIAL

10 mV/div — MILLIVOLTS

GAMMA RAY API UNITS

0 — 300

RESISTIVITY

Normal 16" Short Normal

0 Ohm.m — 50 Ohm.m

Lateral

0 Ohm.m — 50 Ohm.m

Repeat Section

1.2000		ALD (DOWN):	2000.
		ALN (DOWN):	
4.0000			2000.
		STATIONARY:	
1.2000			2000.

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE
BS:	IN	17.500	MSR:		Pulse
CALI:	MN/M	4.500	DTM:	DEG	0.000
DFD:	G/C3	1.000	FBI:	DEG	0.000
DFV:	SEC	40.00			
DFL:	CC	10.00			
RM:	OHM.M	0.500			
RMF:	OHM.M	0.400			
RMC:	OHM.M	0.300			
TEMP:	DEGC	25.00			
BHT:	DEGC	60.00			
TIME:	HR	12.00			

BEFORE SURVEY CALIBRATION SUMMARY

PERFORMED: PB/KT/VB
PROGRAM FILE: CB [illegible]VERSION 16.4 29/11/201

0170 ELECTRONICS CALIBRATION SUMMARY

	MEASURED		CALIBRATED		
	PLS	PLN	PLS	PLN	UNITS
CLR	0.0	500.0	0.0	500.0	MM/M
CLF	0.0	500.0	0.0	500.0	MM/M
CFL	0.0	500.0	0.0	500.0	MM/M

CLR SONDE CENTER CONDUCTION : 0.0 MM/M
CLF SONDE EDGE CONDUCTION : 0.0 MM/M

0170 DETECTOR CALIBRATION SUMMARY

MEASURED		CALIBRATED	UNITS
GR	PS	GR	GAPI

AFTER SURVEY TOOL CHECK SUMMARY

PERFORMED: PB/KT/VB
PROGRAM FILE: CB [illegible]VERSION 16.4 29/11/201

0170 TOOL CHECK

	ZERO		PLUS		
	BEFORE	AFTER	BEFORE	AFTER	UNITS
CLR	0.0	0.0	500.0	500.0	MM/M
CLF	0.0	0.0	500.0	500.0	MM/M
CFL	0.0	0.0	500.0	500.0	MM/M

CLR SONDE CENTER CONDUCTION : 0.0 MM/M
CLF SONDE EDGE CONDUCTION : 0.0 MM/M

SHOP SUMMARY

PERFORMED: MS/AB/VB
PROGRAM FILE: SHOP [illegible]VERSION 16.4 29/11/201

0170 ELECTRONICS CALIBRATION SUMMARY

	ELECTRONICS CALIBRATION				SONDE			
	PLS	PLN	PLS	PLN	CENTER	EDGE	TEST	UNITS
CLR	0.0	500.0	0.0	500.0	0.0	0.0	500.0	MM/M
CLF	0.0	500.0	0.0	500.0	0.0	0.0	500.0	MM/M
CFL	0.0	500.0	0.0	500.0	0.0	0.0	500.0	MM/M

[illegible]