



Weatherford

Induction Resistivity Log

1:200

Main Pass

COMPANY IODP Expedition 347 Baltic Sea
 WELL BSB-11/Hole 62D
 FIELD Sweden
 PROVINCE/COUNTY Sweden
 COUNTRY/STATE Sweden
 LOCATION

Latitude 62 57.343 N
 Longitude 17 47.717 E

Other Services
 Spectral Gamma Ray

Permanent Datum M.S.L., Elevation 68.1 metres
 Log Measured From GL
 Drilling Measured From GL

Elevations:
 KB metres 71.20
 DF metres 71.20
 GL metres 0.00

Date	06-OCT-2013	
Run Number	1	
Service Order	50004126	
Depth Driller	22.00	metres
Depth Logger	9.50	metres
First Reading	9.50	metres
Last Reading	2.00	metres
Casing Driller	2.00	metres
Casing Logger	2.00	metres
Bit Size	8.500	inches
Hole Fluid Type	Sea Water	
Density / Viscosity		
PH / Fluid Loss		
Sample Source		
Rm @ Measured Temp		
Rmf @ Measured Temp		
Rmc @ Measured Temp		
Source Rmf / Rmc		
Rm @ BHT		
Time Since Circulation	0.5 hrs	
Max Recorded Temp		
Equipment / Base	16104	BKH
Recorded By	C.Sedlatschek	
Witnessed By	A.Fehr	

REMARKS

1. Well Manager Version 13.07.1135.
2. All logs depth corrected to casing shoe.
3. Depth correction for Spectral Gamma Ray log DO=3.2 m.
4. Depth correction for Resistivity log DO=2.2m.

BOREHOLE RECORD

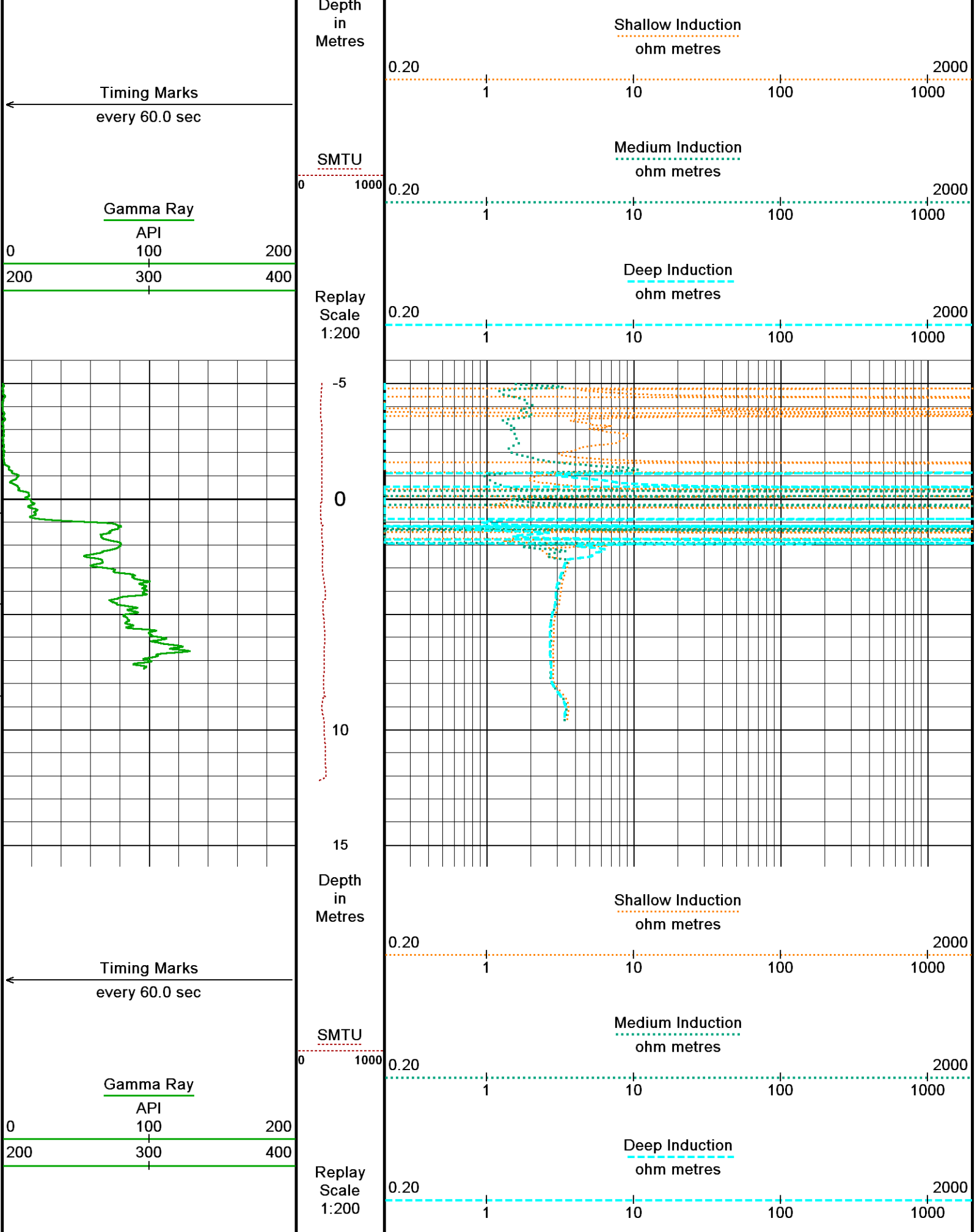
Last Edited: 07-OCT-2013 03:05

Bit Size inches	Depth From metres	Depth To metres
8.500	0.00	22.00

CASING RECORD

Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
	5.500	0.00	2.00	23.00

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions in our price schedule.





BEFORE SURVEY CALIBRATION

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General Constants All 000

Last Edited on 01-OCT-2013,00:16

General Parameters

Mud Resistivity	3.210	ohm-metres
Mud Resistivity Temperature	20.000	degrees C
Water Level	0.000	metres
Borehole Fluid Processing	Wet Hole	

Hole/Annular Volume and Differential Caliper Parameters

HVOL Method	8 Arm CMI	
HVOL Caliper 1	N/A	
HVOL Caliper 2	N/A	
Annular Volume Diameter	7.000	inches
Caliper for Differential Caliper	None	

Rwa Parameters

Porosity used	N/A
Resistivity used	N/A
RWA Constant A	N/A
RWA Constant M	N/A
SW/APOR Tool Source	0.000

Gamma Calibration MCG-D.J 387

Field Calibration on 28-AUG-2013 14:21

	Measured	Calibrated (API)
Background	176	122
Calibrator (Gross)	1239	857
Calibrator (Net)	1063	735

Gamma Constants MCG-D.J 387

Last Edited on 12-SEP-2013,01:55

Gamma Calibrator Number	097	
Mud Density	1.00	gm/cc
Caliper Source for Processing	Bit Size	
Tool Position	Eccentred	
Concentration of KCl		kppm
K Mud Type	Chloride	
K Mud Concentration	0.00	%

Induction Calibration MAI-C.A 461

Base Calibration on 28-AUG-2013 12:43

Field Check on 28-AUG-2013 12:46

Base Calibration

Test Loop Calibration

Channel	Measured		Calibrated (mmho/m)	
	Low	High	Low	High
1	16.9	458.4	9.3	967.1
2	5.9	364.5	7.6	822.1
3	3.5	248.7	5.3	566.5
4	1.8	128.8	2.6	279.5

Array Temperature	34.7	Deg C
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Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1			-3.6	2114.0
2			14.9	1979.6
3			14.7	1704.6
4			10.4	1148.6

Deep	8.0	1094.4
Medium	23.5	2267.9
Shallow	23.3	2948.6

Array Temperature	35.8	Deg C
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Induction Constants MAI-C.A 461

Last Edited on 03-OCT-2013,05:20

Induction Model	VECTAR		
Caliper for Borehole Corr.	Constant Value		
Hole Size for Borehole Correction	8.500	inches	
Tool Centred	No		
Stand-off Type	Pineapple		
Stand-off	0.49	inches	
Number of Fins on Stand-off	5.0000		
Stand-off Fin Angle	72.00	degrees	
Stand-off Fin Width	1.3878	inches	
Borehole Corr. Rm Source	Constant Value		
Temp. for Rm Corr.	N/A		
Squasher Start	0.0020	mhos/metre	
Squasher Offset	0.0000	mhos/metre	

Borehole Normalisation

DRM1	0.0000	DRC1	0.0000
DRM2	0.0000	DRC2	0.0000
MRM1	0.0000	MRC1	0.0000
MRM2	0.0000	MRC2	0.0000
SRM1	0.0000	SRC1	0.0000
SRM2	0.0000	SRC2	0.0000

Calibration Site Corrections

Channel 1	0.00	mmhos/metre
Channel 2	0.00	mmhos/metre
Channel 3	0.00	mmhos/metre
Channel 4	0.00	mmhos/metre

Apparent Porosity and Water Saturation Constants

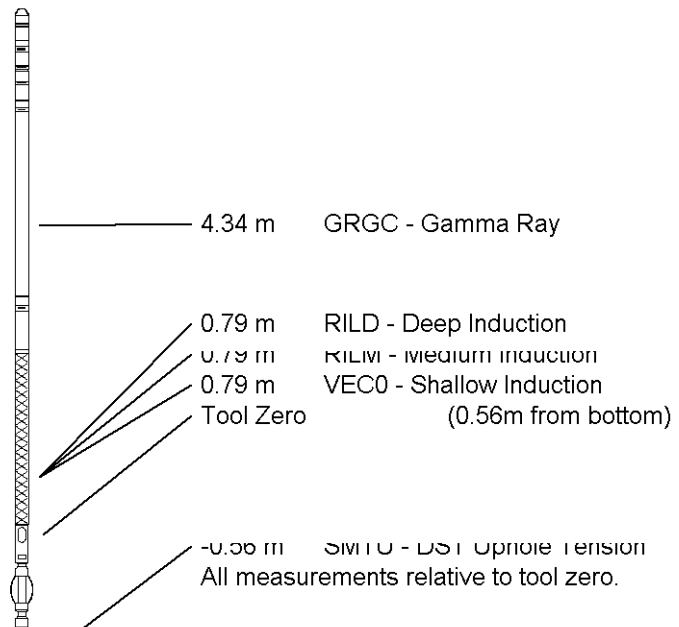
Archie Constant (A)	1.00	
Cementation Exponent (M)	2.00	
Saturation Exponent (N)	2.00	
Saturation of Water for Apor	100.00	percent
Resistivity of Water for Apor and Sw	0.05	ohm-m
Resistivity of Mud Filtrate for Sw	0.00	ohm-m
Source for Rt	0.00	
Source for Rxo	0.00	

DOWNHOLE EQUIPMENT

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- CBH-C, Cablehead, 11 pin
CBH-CA 171 LG: 0.73 m WT: 24.3 lb OD: 57 mm
- 11C-11B MTA-K.A Compact Tool Adaptor
MTA-K.A 130 LG: 0.47 m WT: 13.2 lb OD: 57 mm
- Compact Comms Gamma
MCG-D.J 387 LG: 2.65 m WT: 63.9 lb OD: 57 mm
- Compact Induction
MAI-C.A 461 LG: 3.82 m WT: 48.5 lb OD: 57 mm

Total Length: 7.66 m Weight: 149.9 lb



WELL BSB-11/Hole 62D

FIELD Sweden

PROVINCE/COUNTY Sweden

COUNTRY/STATE Sweden

Elevation Kelly Bushing	71.20	metres	First Reading	9.50	metres
Elevation Drill Floor	71.20	metres	Depth Driller	22.00	metres
Elevation Ground Level	0.00	metres	Depth Logger	9.50	metres



Induction Resistivity Log

1:200

Main Pass

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