

Appendix 5-1-2 Boring Logs

DRILLING LOG

Tanjung Medang (Conducted in the BD Study)

**THE BASIC STUDY ON THE PROJECT FOR DEVELOPMENT VESSEL TRAFFIC SERVICE
IN MALACCA AND SINGAPORE STRAITS IN THE REPUBLIC OF INDONESIA**










Project : PCI		Coordinate x : 795.379,0340		Drilling Machine : YSO 1											
Location : Tanjung Medang		y : 235.051,3820		Bor Master : Dadang Somantri											
Number of bor hole : BH. 1		Sheet Number : 1		Description by : Dadang Somantri											
GWL elevation : + 1.558 m		Day/Date : (20/08-24/08) 2007		Check by : Irawan											
Elevation from MSL (m)	Depth from ground level (m)	Bor Profile	Description of Strata	Number of Blow			Sum of Blow	SPT - N Graphic						Remarks	
				N1	N2	N3		0	10	20	30	40	50		60
+ 3.558	0.00														
+ 2.558	- 1.00		Clay, Silt, fine sand, grey.	2 / 15	8 / 15	13 / 15	21 / 30								SPT-1 : (1.00-1.45)
+ 1.558	- 2.00			3 / 15	5 / 15	5 / 15	10 / 30								SPT-2 : (2.00-2.45)
+ 0.558	- 3.00			4 / 15	6 / 15	7 / 15	13 / 30								SPT-3 : (3.00-3.45)
- 0.442	- 4.00			3 / 15	3 / 15	4 / 15	7 / 30								SPT-4 : (4.00-4.45)
- 1.442	- 5.00			5 / 15	5 / 15	8 / 15	13 / 15								SPT-5 : (5.00-5.45)
- 2.442	- 6.00			1 / 15	2 / 15	2 / 15	4 / 30								SPT-6 : (6.00-6.45)
- 3.442	- 7.00			5 / 15	7 / 15	7 / 15	14 / 30								SPT-7 : (7.00-7.45)
- 4.442	- 8.00			4 / 15	5 / 15	7 / 15	12 / 30								SPT-8 : (8.00-8.45)
- 5.442	- 9.00			2 / 15	6 / 15	9 / 15	15 / 30								SPT-9 : (9.00-9.45)
- 6.442	- 10.00			3 / 15	6 / 15	12 / 15	18 / 30								SPT-10 : (10.00-10.45)
- 7.442	- 11.00		5 / 15	8 / 15	11 / 15	19 / 30								SPT-11 : (11.00-11.45)	
- 8.442	- 12.00		6 / 15	12 / 15	17 / 15	29 / 30								SPT-12 : (12.00-12.45)	
- 9.442	- 13.00		4 / 15	9 / 15	13 / 15	22 / 30								SPT-13 : (13.00-13.45)	
- 10.442	- 14.00		7 / 15	11 / 15	18 / 15	29 / 30								SPT-14 : (14.00-14.45)	
- 11.442	- 15.00		9 / 15	12 / 15	19 / 15	31 / 30								SPT-15 : (15.00-15.45)	
- 12.442	- 16.00		4 / 15	6 / 15	9 / 15	15 / 30								SPT-16 : (16.00-16.45)	
- 13.442	- 17.00		6 / 15	7 / 15	12 / 15	19 / 30								SPT-17 : (17.00-17.45)	
- 14.442	- 18.00		7 / 15	9 / 15	14 / 15	23 / 30								SPT-18 : (18.00-18.45)	
- 15.442	- 19.00		5 / 15	8 / 15	13 / 15	21 / 30								SPT-19 : (19.00-19.45)	
- 16.442	- 20.00		7 / 15	12 / 15	19 / 15	31 / 30								SPT-20 : (20.00-20.45)	
- 17.442	- 21.00		4 / 15	6 / 15	9 / 15	15 / 30								SPT-21 : (21.00-21.45)	
- 18.442	- 22.00		5 / 15	9 / 15	12 / 15	21 / 30								SPT-22 : (22.00-22.45)	
- 19.442	- 23.00		Clay, silt, grey.												
- 20.442	- 24.00		Undisturbed sample (24.00-24.60 m.)	6 / 15	17 / 15	35 / 15	52 / 30							SPT-23 : (24.60-25.05)	
- 21.442	- 25.00		Clay, Silt, fine sand, grey.	9 / 15	28 / 15	47 / 15	>60 / 30							SPT-24 : (25.50-25.95)	
- 22.442	- 26.00			18 / 15	34 / 15	57 / 15	>60 / 30							SPT-25 : (26.50-26.95)	
- 23.442	- 27.00			14 / 15	25 / 15	45 / 15	>60 / 30							SPT-26 : (27.50-27.95)	
- 24.442	- 28.00			5 / 15	15 / 15	32 / 15	47 / 30							SPT-27 : (28.50-28.95)	
- 25.442	- 29.00		Undisturbed sample (30.00-30.50 m.)	8 / 15	17 / 15	35 / 15	52 / 30							SPT-28 : (29.50-29.95)	
- 26.442	- 30.00			7 / 15	15 / 15	34 / 15	49 / 30							SPT-29 : (30.50-30.95)	
- 27.442	- 31.00		Clay, grey.	9 / 15	21 / 15	42 / 15	>60 / 30							SPT-30 : (31.50-31.95)	
- 28.442	- 32.00			11 / 15	25 / 15	45 / 15	>60 / 30							SPT-31 : (32.50-32.95)	
- 29.442	- 33.00			12 / 15	27 / 15	43 / 15	>60 / 30							SPT-32 : (33.00-33.45)	
- 30.442	- 34.00			9 / 15	20 / 15	35 / 15	55 / 30							SPT-33 : (34.00-34.45)	
- 31.442	- 35.00			11 / 15	23 / 15	44 / 15	>60 / 30							SPT-34 : (35.00-35.45)	
- 32.442	- 36.00			7 / 15	19 / 15	30 / 15	49 / 30							SPT-35 : (36.00-36.45)	
- 33.442	- 37.00			8 / 15	21 / 15	34 / 15	55 / 30							SPT-36 : (37.00-37.45)	
- 34.442	- 38.00			10 / 15	35 / 15	43 / 15	>60 / 30							SPT-37 : (38.00-38.45)	
- 35.442	- 39.00		10 / 15	22 / 15	40 / 15	>60 / 30							SPT-38 : (39.00-39.45)		
- 36.442	- 40.00														



DRILLING LOG

THE IMPLEMENTATION REVIEW STUDY ON THE PROJECT FOR ENHANCEMENT OF VESSEL TRAFFIC SYSTEM
IN MALACCA AND SINGAPORE STRAITS IN THE REPUBLIC OF INDONESIA

Project : ORI CONSUL		Coordinate x : 765.498.260		Drilling Machine : YSO 1					
Location : TG. SAIR		Coordinate y : 9.788.604.500		Bor Master : Samsuhadi					
Number of bor hole : B. 1		Sheet Number : 1/2		Description by : Samsuhadi					
GWL elevation : 3.50 m		Day/Date : (29/12-1/1) 2009		Check by : Irawan					
Elevation from LWS (m)	Depth from ground level (m)	Bor Profile	Description of Strata	Number of Blow			Sum of Blow	SPT - N Graphic	Remarks
				N1	N2	N3			
+ 2.371	0.00								
+ 1.371	- 1.00		Clay, brown	2 / 15	4 / 15	4 / 15	8 / 30	0	SPT-1 : (1.00-1.45) m
+ 0.371	- 2.00			2 / 15	2 / 15	2 / 15	4 / 30	3	SPT-2 : (2.00-2.45) m
- 0.629	- 3.00		Undisturbed sample (3.45-4.00 m.)	1 / 15	2 / 15	1 / 15	3 / 30	3	SPT-3 : (3.00-3.45) m
- 1.629	- 4.00		Clay, silt, grey	2 / 15	2 / 15	2 / 15	4 / 30	4	SPT-4 : (4.00-4.45) m
- 2.629	- 5.00		Undisturbed sample (5.45-6.00 m.)	1 / 15	2 / 15	1 / 15	3 / 15	3	SPT-5 : (5.00-5.45) m
- 3.629	- 6.00			1 / 15	2 / 15	1 / 15	3 / 30	3	SPT-6 : (6.00-6.45) m
- 4.629	- 7.00			1 / 15	1 / 15	1 / 15	2 / 30	2	SPT-7 : (7.00-7.45) m
- 5.629	- 8.00		Undisturbed sample (8.45-9.00 m.)	1 / 15	1 / 15	1 / 15	2 / 30	2	SPT-8 : (8.00-8.45) m
- 6.629	- 9.00			1 / 15	1 / 15	1 / 15	2 / 30	2	SPT-9 : (9.00-9.45) m
- 7.629	- 10.00		Clay, silt, organic matter, dark grey	1 / 15	2 / 15	1 / 15	3 / 30	3	SPT-10 : (10.00-10.45) m
- 8.629	- 11.00		Undisturbed sample (11.45-12.00 m.)	1 / 15	2 / 15	1 / 15	3 / 30	3	SPT-11 : (11.00-11.45) m
- 9.629	- 12.00			1 / 15	2 / 15	2 / 15	4 / 30	4	SPT-12 : (12.00-12.45) m
- 10.629	- 13.00			2 / 15	2 / 15	2 / 15	4 / 30	4	SPT-13 : (13.00-13.45) m
- 11.629	- 14.00		Clay, silt, grey	2 / 15	2 / 15	2 / 15	4 / 30	4	SPT-14 : (14.00-14.45) m
- 12.629	- 15.00		Undisturbed sample (14.45-15.00 m.)	6 / 15	9 / 15	11 / 15	20 / 30	20	SPT-15 : (15.00-15.45) m
- 13.629	- 16.00			7 / 15	10 / 15	12 / 15	22 / 30	22	SPT-16 : (16.00-16.45) m
- 14.629	- 17.00		Fine sand, grey	8 / 15	10 / 15	13 / 15	23 / 30	23	SPT-17 : (17.00-17.45) m
- 15.629	- 18.00			8 / 15	11 / 15	12 / 15	23 / 30	23	SPT-18 : (18.00-18.45) m
- 16.629	- 19.00			10 / 15	12 / 15	17 / 15	29 / 30	29	SPT-19 : (19.00-19.45) m
- 17.629	- 20.00			10 / 15	12 / 15	16 / 15	28 / 30	28	SPT-20 : (20.00-20.45) m

 UDS Sample	 SPT Test	 Clay	 Sand	 Shell fragment/Organic matter.
 DS Sample	 Silt	 Gravel	 Andesit rock	

DRILLING LOG

THE IMPLEMENTATION REVIEW STUDY ON THE PROJECT FOR ENHANCEMENT OF VESSEL TRAFFIC SYSTEM
IN MALACCA AND SINGAPORE STRAITS IN THE REPUBLIC OF INDONESIA

Project : ORI CONSUL		Coordinate x : 765.498.260		Drilling Machine : YSO 1	
Location : TG. SAIR		Coordinate y : 9.788.604.500		Bor Master : Samsuhadi	
Number of bor hole : B. 1		Sheet Number : 2/2		Description by : Samsuhadi	
GWL elevation : 3.50 m		Day/Date : (29/12-1/1) 2009		Check by : Irawan	

Elevation from LWS (m)	Depth from ground level (m)	Bor Profile	Description of Strata	Number of Blow			Sum of Blow	SPT - N Graphic	Remarks
				N1	N2	N3			
-18.629	-21.00		<i>Fine sand, grey</i>	12/ 15	16/ 15	19/ 15	35/ 30	35	SPT-21 : (21.00-21.45) m
-19.629	-22.00			13/ 15	14/ 15	17/ 15	31/ 30	31	SPT-22 : (22.00-22.45) m
-20.629	-23.00			12/ 15	15/ 15	23/ 15	38/ 30	38	SPT-23 : (23.00-23.45) m
-21.629	-24.00			15/ 15	19/ 15	24/ 15	43/ 30	43	SPT-24 : (24.00-24.45) m
-22.629	-25.00			12/ 15	16/ 15	21/ 15	37/ 30	37	SPT-25 : (25.00-25.45) m
-23.629	-26.00			13/ 15	17/ 15	23/ 15	40/ 30	40	SPT-26 : (26.00-26.45) m
-24.629	-27.00			12/ 15	18/ 15	22/ 15	40/ 30	40	SPT-27 : (27.00-27.45) m
-25.629	-28.00			13/ 15	16/ 15	19/ 15	35/ 30	35	SPT-28 : (28.00-28.45) m
-26.629	-29.00			12/ 15	17/ 15	20/ 15	37/ 30	37	SPT-29 : (29.00-29.45) m
-27.629	-30.00			<i>Clay, grey</i>	11/ 15	14/ 15	16/ 15	30/ 30	30
-28.629	-31.00		13/ 15		15/ 15	16/ 15	31/ 30	31	SPT-31 : (31.00-31.45) m
-29.629	-32.00		<i>Fine sand, light grey</i>	18/ 15	20/ 15	22/ 15	42/ 30	42	SPT-32 : (32.00-32.45) m
-30.629	-33.00			18/ 15	20/ 15	22/ 15	42/ 30	42	SPT-33 : (33.00-33.45) m
-31.629	-34.00			19/ 15	23/ 15	24/ 15	47/ 30	47	SPT-34 : (34.00-34.45) m
-32.629	-35.00			19/ 15	23/ 15	24/ 15	47/ 30	47	SPT-35 : (35.00-35.45) m
-33.629	-36.00			20/ 15	40/ 10	- -	>50	50	SPT-36 : (36.00-36.45) m
-34.629	-37.00			21/ 15	24/ 15	27/ 15	53/ 30	53	SPT-37 : (37.00-37.45) m
-35.629	-38.00			22/ 15	23/ 15	30/ 15	53/ 30	53	SPT-38 : (38.00-38.45) m
-36.629	-39.00			23/ 15	27/ 15	31/ 15	58/ 30	58	SPT-39 : (39.00-39.45) m
-37.629	-40.00			20/ 15	25/ 15	30/ 15	55/ 30	55	SPT-40 : (40.00-40.45) m

UDS Sample	SPT Test	Clay	Sand	Shell fragment/Organic matter.
DS Sample	Silt	Gravel	Andesit rock	

DRILLING LOG

Dumai (Conducted in the BD Study)

THE BASIC STUDY ON THE PROJECT FOR DEVELOPMENT VESSEL TRAFFIC SERVICE IN MALACCA AND SINGAPORE STRAITS IN THE REPUBLIC OF INDONESIA

Project : PCI		Coordinate x : 771.164,970		Drilling Machine : YSO 1	
Location : Dumai Coastal Radio Station		Coordinate y : 183.612,820		Bor Master : Dadang Somantri	
Number of bor hole : BH. 1		Sheet Number : 1		Description by : Dadang Somantri	
GWL elevation : + 2.340 m		Day/Date : (09/08-15/08) 2007		Check by : Irawan	

Elevation from MSL (m)	Depth from ground level (m)	Bor Profile	Description of Strata	Number of Blow			Sum of Blow	S P T - N Graphic						Remarks	
				N1	N2	N3		0	10	20	30	40	50		60
+ 3.840	0.00							0							
+ 2.840	- 1.00		Organic matter, black-brown.	1 / 15	1 / 15	1 / 15	2 / 30	2							SPT-1 : (1.00-1.45)
+ 1.840	- 2.00		Undisturbed sample (3.00-3.50 m.)	1 / 15	1 / 15	2 / 15	3 / 30	3							SPT-2 : (2.00-2.45)
+ 0.840	- 3.00														
- 0.160	- 4.00		Clay, dark grey, very soft.	1 / 15	1 / 15	1 / 15	2 / 30	2							SPT-3 : (3.50-3.95)
- 1.160	- 5.00														SPT-4 : (4.50-4.95)
- 2.160	- 6.00														SPT-5 : (5.50-5.95)
- 3.160	- 7.00														SPT-6 : (6.50-6.95)
- 4.160	- 8.00		Undisturbed sample (8.00-8.50 m.)	1 / 15	1 / 15	2 / 15	3 / 30	3							SPT-7 : (7.50-7.95)
- 5.160	- 9.00		Clay, organic matter, brownish black.	2 / 15	2 / 15	3 / 15	5 / 30	5							SPT-8 : (9.00-9.45)
- 6.160	- 10.00														
- 7.160	- 11.00		Silt, fine sand, grey.	1 / 15	18 / 15	45 / 15	>60 / 30	14							SPT-9 : (10.00-10.45)
- 8.160	- 12.00														SPT-10 : (11.00-11.45)
- 9.160	- 13.00		Fine sand, light grey.	6 / 15	35 / 15	51 / 15	>60 / 30	6							SPT-11 : (12.00-12.45)
- 10.160	- 14.00														
- 11.160	- 15.00		Fine sand, organic matter, grey-black.	5 / 15	24 / 15	41 / 15	>60 / 30	5							SPT-12 : (13.00-13.45)
- 12.160	- 16.00														
- 13.160	- 17.00		Fine sand, dark grey.	7 / 15	32 / 15	45 / 15	>60 / 30	7							SPT-13 : (14.00-14.45)
- 14.160	- 18.00														
- 15.160	- 19.00		Clay, grey.	6 / 15	11 / 15	14 / 15	25 / 30	6							SPT-14 : (15.00-15.45)
- 16.160	- 20.00		Undisturbed sample (19.00-19.50 m.)	8 / 15	17 / 15	22 / 15	39 / 30	8							SPT-15 : (16.00-16.45)
- 17.160	- 21.00														
- 18.160	- 22.00		Fine sand, silt, grey.	7 / 15	11 / 15	14 / 15	25 / 30	7							SPT-16 : (17.00-17.45)
- 19.160	- 23.00														
- 20.160	- 24.00		Clay, grey.	5 / 15	11 / 15	14 / 15	25 / 30	5							SPT-17 : (18.00-18.45)
- 21.160	- 25.00		Undisturbed sample (19.00-19.50 m.)	5 / 15	7 / 15	9 / 15	16 / 30	5							SPT-18 : (19.50-19.95)
- 22.160	- 26.00														
- 23.160	- 27.00		Fine sand, silt, grey.	6 / 15	8 / 15	10 / 15	18 / 30	6							SPT-19 : (20.50-20.95)
- 24.160	- 28.00														
- 25.160	- 29.00		Clay, fine sand, grey.	5 / 15	6 / 15	9 / 15	15 / 30	5							SPT-20 : (21.55-22.00)
- 26.160	- 30.00														SPT-21 : (22.00-22.45)
- 27.160	- 31.00		Clay, grey, stiff.	8 / 15	11 / 15	19 / 15	30 / 30	8							SPT-22 : (23.00-23.45)
- 28.160	- 32.00														
- 29.160	- 33.00		Silt, fine sand, grey, dense.	6 / 15	7 / 15	9 / 15	16 / 30	6							SPT-23 : (24.00-24.45)
- 30.160	- 34.00														
- 31.160	- 35.00		Clay, grey, stiff.	9 / 15	11 / 15	12 / 15	23 / 30	9							SPT-24 : (25.00-25.45)
- 32.160	- 36.00														
- 33.160	- 37.00														
- 34.160	- 38.00														
- 35.160	- 39.00														
- 36.160	- 40.00														
				14 / 15	42 / 15	58 / 15	>60 / 30	14							SPT-39 : (40.00-40.45)










UDS Sample	SPT Test	Clay	Sand	Shell fragment/Organic matter
DS Sample	Silt	Gravel	Andesit rock	

DRILLING LOG

THE IMPLEMENTATION REVIEW STUDY ON THE PROJECT FOR ENHANCEMENT OF VESSEL TRAFFIC SYSTEM
IN MALACCA AND SINGAPORE STRAITS IN THE REPUBLIC OF INDONESIA

Project : ORI CONSUL		Coordinate x : 798.940,970		Drilling Machine : YSO 1	
Location : SELINCING		Coordinate y : 9.816.098,934		Bor Master : Samsuhadi	
Number of bor hole : BH. 1		Sheet Number : 1/3		Description by : Samsuhadi	
GWL elevation : -		Day/Date : (19/11-25/11) 2008		Check by : Irawan	

Elevation from LWS (m)	Depth from ground level (m)	Bor Profile	Description of Strata	Number of Blow			Sum of Blow	SPT - N Graphic	Remarks
				N1	N2	N3			
+ 1.984	0.00								
+ 0.984	-1.00								
-0.016	-2.00		Undisturbed sample 1.45 - 2.00 m	1 / 15	1 / 30	- -	1 / 30		SPT-1 : (1.00-1.45) m
-1.016	-3.00		Clay, silt, organic matter, black	1 / 45	- -	- -	1 / 30		SPT-2 : (2.00-2.45) m
-2.016	-4.00			1 / 45	- -	- -	1 / 30		SPT-3 : (3.00-3.45) m
-3.016	-5.00			1 / 45	- -	- -	1 / 30		SPT-4 : (4.00-4.45) m
-4.016	-6.00			1 / 15	1 / 15	1 / 15	2 / 30		SPT-5 : (5.00-5.45) m
-5.016	-7.00		Undisturbed sample 5.45 - 6.00 m	1 / 15	1 / 15	2 / 15	3 / 30		SPT-6 : (6.00-6.45) m
-6.016	-8.00		Undisturbed sample 8.45 - 9.00 m	1 / 15	1 / 15	1 / 15	2 / 30		SPT-7 : (7.00-7.45) m
-7.016	-9.00			1 / 45	- -	- -	1 / 30		SPT-8 : (8.00-8.45) m
-8.016	-10.00		Undisturbed sample 9.45 - 10.00 m	1 / 45	- -	- -	1 / 30		SPT-9 : (9.00-9.45) m
-9.016	-11.00		Undisturbed sample 11.45 - 12.00 m	1 / 45	- -	- -	1 / 30		SPT-10 : (10.00-10.45) m
-10.016	-12.00			1 / 15	1 / 15	1 / 15	2 / 30		SPT-12 : (12.00-12.45) m
-11.016	-13.00		Undisturbed sample 13.45 - 14.00 m	1 / 15	1 / 15	2 / 15	3 / 30		SPT-13 : (13.00-13.45) m
-12.016	-14.00		Clay, silt, grey	1 / 15	1 / 15	2 / 15	3 / 30		SPT-14 : (14.00-14.45) m
-13.016	-15.00			1 / 15	1 / 15	2 / 15	3 / 30		SPT-15 : (15.00-15.45) m
-14.016	-16.00			1 / 15	1 / 15	1 / 15	2 / 30		SPT-16 : (16.00-16.45) m
-15.016	-17.00			1 / 15	1 / 15	2 / 15	3 / 30		SPT-17 : (17.00-17.45) m
-16.016	-18.00			1 / 15	1 / 15	1 / 15	2 / 30		SPT-18 : (18.00-18.45) m
-17.016	-19.00			1 / 15	2 / 15	1 / 15	3 / 30		SPT-19 : (19.00-19.45) m
-18.016	-20.00			1 / 15	2 / 15	2 / 15	4 / 30		SPT-20 : (20.00-20.45) m
-19.016	-21.00			1 / 15	1 / 15	2 / 15	3 / 30		SPT-21 : (21.00-21.45) m
-20.016	-22.00			1 / 15	1 / 15	1 / 15	2 / 30		SPT-22 : (22.00-22.45) m
-21.016	-23.00			1 / 15	1 / 15	2 / 15	3 / 30		SPT-23 : (23.00-23.45) m
-22.016	-24.00		Peat, organic matter, black	1 / 15	1 / 15	2 / 15	3 / 30		SPT-24 : (24.00-24.45) m
-23.016	-25.00			3 / 15	5 / 15	7 / 15	12 / 30		SPT-25 : (25.00-25.45) m
-24.016	-26.00		Clay, silt, grey	3 / 15	6 / 15	7 / 15	13 / 30		SPT-26 : (26.00-26.45) m
-25.016	-27.00			4 / 15	5 / 15	6 / 15	11 / 30		SPT-27 : (27.00-27.45) m
-26.016	-28.00			2 / 15	3 / 15	4 / 15	7 / 30		SPT-28 : (28.00-28.45) m
-27.016	-29.00			3 / 15	4 / 15	4 / 15	8 / 30		SPT-29 : (29.00-29.45) m
-28.016	-30.00			3 / 15	4 / 15	3 / 15	7 / 30		SPT-30 : (30.00-30.45) m

 UDS Sample	 SPT Test	 Clay	 Sand	 Shell fragment/Organic matter.
 DS Sample	 Silt	 Gravel	 Andesit rock	

DRILLING LOG

THE IMPLEMENTATION REVIEW STUDY ON THE PROJECT FOR ENHANCEMENT OF VESSEL TRAFFIC SYSTEM
IN MALACCA AND SINGAPORE STRAITS IN THE REPUBLIC OF INDONESIA

Project : ORI CONSUL	Coordinate x : 798.940,970	Drilling Machine : YSO 1
Location : SELINCING	Coordinate y : 9.816.098,934	Bor Master : Samsuhadi
Number of bor hole : BH. 1	Sheet Number : 2/3	Description by : Samsuhadi
GWL elevation : -	Day/Date : (19/11-9/12) 2008	Check by : Irawan

Elevation from LWS (m)	Depth from ground level (m)	Bor Profile	Description of Strata	Number of Blow			Sum of Blow	SPT - N Graphic	Remarks
				N1	N2	N3			
-29.016	-31.00	31	Clay, silt, grey	3 / 15	4 / 15	7 / 15	11 / 30	11	SPT-31 : (31.00-31.45) m
-30.016	-32.00	32		4 / 15	5 / 15	6 / 15	11 / 30	11	SPT-32 : (32.00-32.45) m
-31.016	-33.00	33		4 / 15	7 / 15	7 / 15	14 / 30	14	SPT-33 : (33.00-33.45) m
-32.016	-34.00	34		4 / 15	6 / 15	8 / 15	14 / 30	14	SPT-34 : (34.00-34.45) m
-33.016	-35.00	35	Peat, organic matter, black	6 / 15	7 / 15	7 / 15	14 / 30	14	SPT-35 : (35.00-35.45) m
-34.016	-36.00	36		3 / 15	4 / 15	3 / 15	7 / 30	6	SPT-36 : (36.00-36.45) m
-35.016	-37.00	37	Clay, silt, fine sand, grey	3 / 15	3 / 15	3 / 15	6 / 30	6	SPT-37 : (37.00-37.45) m
-36.016	-38.00	38		2 / 15	4 / 15	6 / 15	10 / 30	10	SPT-38 : (38.00-38.45) m
-37.016	-39.00	39		4 / 15	6 / 15	9 / 15	15 / 30	15	SPT-39 : (39.00-39.45) m
-38.016	-40.00	40		2 / 15	3 / 15	5 / 15	8 / 30	6	SPT-40 : (40.00-40.45) m
-39.016	-41.00	41		4 / 15	6 / 15	7 / 15	13 / 30	13	SPT-41 : (41.00-41.45) m
-40.016	-42.00	42		5 / 15	6 / 15	8 / 15	14 / 30	14	SPT-42 : (42.00-42.45) m
-41.016	-43.00	43		4 / 15	5 / 15	7 / 15	12 / 30	12	SPT-43 : (43.00-43.45) m
-42.016	-44.00	44		4 / 15	8 / 15	10 / 15	18 / 30	18	SPT-44 : (44.00-44.45) m
-43.016	-45.00	45		9 / 15	10 / 15	12 / 15	22 / 30	22	SPT-45 : (45.00-45.45) m
-44.016	-46.00	46		9 / 15	11 / 15	13 / 15	24 / 30	24	SPT-46 : (46.00-46.45) m
-45.016	-47.00	47	Fine sand, grey	10 / 15	13 / 15	15 / 15	28 / 30	28	SPT-47 : (47.00-47.45) m
-46.016	-48.00	48		11 / 15	14 / 15	16 / 15	30 / 30	30	SPT-48 : (48.00-48.45) m
-47.016	-49.00	49		12 / 15	13 / 15	14 / 15	27 / 30	27	SPT-49 : (49.00-49.45) m
-48.016	-50.00	50		13 / 15	15 / 15	16 / 15	31 / 30	31	SPT-50 : (50.00-50.45) m

UDS Sample	SPT Test	Clay	Sand	Shell fragment/Organic matter.
DS Sample	Silt	Gravel	Andesit rock	

DRILLING LOG

THE IMPLEMENTATION REVIEW STUDY ON THE PROJECT FOR ENHANCEMENT OF VESSEL TRAFFIC SYSTEM
IN MALACCA AND SINGAPORE STRAITS IN THE REPUBLIC OF INDONESIA

Project : ORI CONSUL		Coordinate x : 798.940,970		Drilling Machine : YSO 1	
Location : SELINCING		Coordinate y : 9.816.098,934		Bor Master : Samsuhadi	
Number of bor hole : BH. 1		Sheet Number : 3/3		Description by : Samsuhadi	
GWL elevation : -		Day/Date : (19/11-9/12) 2008		Check by : Irawan	

Elevation from LWS (m)	Depth from ground level (m)	Bor Profile	Description of Strata	Number of Blow			Sum of Blow	SPT - N Graphic	Remarks
				N1	N2	N3			
-49.016	-51.00	34	Fine sand, grey	12/ 15	17/ 15	14/ 15	31/ 30	34	SPT-51 : (51.00-51.45) m
-50.016	-52.00	32		13/ 15	16/ 15	20/ 15	36/ 30	36	SPT-52 : (52.00-52.45) m
-51.016	-53.00	32		14/ 15	15/ 15	18/ 15	33/ 30	33	SPT-53 : (53.00-53.45) m
-52.016	-54.00	34		13/ 15	15/ 15	17/ 15	32/ 30	32	SPT-54 : (54.00-54.45) m
-53.016	-55.00	36		14/ 15	16/ 15	18/ 15	34/ 30	34	SPT-55 : (55.00-55.45) m
-54.016	-56.00	36		18/ 15	19/ 15	22/ 15	41/ 30	41	SPT-56 : (56.00-56.45) m
-55.016	-57.00	37		17/ 15	20/ 15	23/ 15	43/ 30	43	SPT-57 : (57.00-57.45) m
-56.016	-58.00	36		16/ 15	20/ 15	22/ 15	42/ 30	42	SPT-58 : (58.00-58.45) m
-57.016	-59.00	30		18/ 15	25/ 15	27/ 15	52/ 30	52	SPT-59 : (59.00-59.45) m
-58.016	-60.00	30		16/ 15	20/ 15	23/ 15	43/ 30	43	SPT-60 : (60.00-60.45) m
-59.016	-61.00	34		17/ 15	23/ 15	27/ 15	50/ 30	50	SPT-61 : (61.00-61.45) m
-60.016	-62.00	32		13/ 15	19/ 15	25/ 15	44/ 30	44	SPT-62 : (62.00-62.45) m
-61.016	-63.00	32		16/ 15	21/ 15	24/ 15	45/ 30	45	SPT-63 : (63.00-63.45) m
-62.016	-64.00	34		17/ 15	23/ 15	26/ 15	49/ 30	49	SPT-64 : (64.00-64.45) m
-63.016	-65.00	36		14/ 15	24/ 15	27/ 15	51/ 30	51	SPT-65 : (65.00-65.45) m

UDS Sample	SPT Test	Clay	Sand	Shell fragment/Organic matter.
DS Sample		Silt	Gravel	Andesit rock

BORING LOG

P.T. SOILENS

PROJECT : SOIL INVESTIGATION FOR ADDITIONAL WATER TABLE (M) : - 1.30 m
 - : REPEATER STATION IN BENGKALIS ISLAND DATE : April 03 to 06,2009
 CLIENT : JV.ORICONSUL & JANA BORING METHOD : Coring, Sampling
 LOCATION : SIMPANG AYAM-BENGKALIS SAMPLING METHOD : Thin Walled Shelby Tube
 BORE HOLE NO. : BH-1 SPT : Automatic Hammer (AH)
 ELEVATION (M) : +3.172 m DRILLER : A.Zubaedi
 COORDINATES : E=171527.302; N=175284.710 LOGGER : Y.Sumaryono
 DEPTH (M) : 51.45 m REVIEWED BY : Djhn Page : 1 of 2

SAMPLE DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	γ _m (kg/cm ³)	SPT - N value		RECOVERY (%)
						Depth (M)	BLOWS PER CM	
							40 80	
0.00	CH		CLAY, slightly silt, brown coloured, high plasticity, soft.	0.50	0.25			
1.00	CH		CLAY, light gray coloured, high plasticity, slightly silt, very soft.	1.00	<0.25	1.00	1/125	
2.50	CH			2.25	<0.25			
3.20				<0.25	3.20	1/80		
4.00	ML		SILT, gray coloured, low plasticity, trace fine grained sands, trace organic matter, very soft.	4.00	<0.25			
4.50				<0.25	4.50	1/75		
6.00	SC		CLAYEY SAND, gray coloured, low plasticity, fine grained sands, slightly silt, loose.	5.25	<0.25			
6.00				<0.25	5.70	2/30		
7.50	CL		CLAY with SAND, gray coloured, some silt, low plasticity, fine grained sands, soft to medium stiff.	6.50	-	6.65	6/30	
8.20				0.75	8.50	3/30		
12.00	CL			8.80	0.50	9.25	2/30	
12.70				0.50	9.25	2/30		
				9.65	0.25	10.20	2/30	
				10.00	0.25	11.20	2/30	
				10.50	0.25			
				11.00	0.25			
				11.50	0.25			
				12.00	0.25			
				12.70	0.25	12.95	3/30	
				13.25	0.25	13.65	3/30	
	13.50	0.25						
	13.95	0.25	14.70	3/30				
	15.00	0.25	15.65	4/30				
	15.50	0.25						
	15.95	0.25	16.65	5/30				
	16.50	0.25						
	16.95	0.25						
	17.50	0.50						
18.20	SM		SILTY SAND, gray coloured, slightly clay, fine grained sands, uncemented, loose.	18.20	1.00	18.35	11/30	
18.40					18.65			
19.00					19.15	10/30		
19.45								
20.00	CH		CLAY, light gray coloured, high plasticity, soft.	20.00	-	20.15	3/30	
20.45				0.25				
21.00				0.50				
21.70				0.50	21.85	3/30		
22.15				0.50				
22.50				0.50	22.65	4/30		
22.95	0.50							
23.50	0.50	23.65	4/30					
23.95	0.50							
24.50	0.50	24.65	4/30					
24.95	0.50							
25.00			END OF THIS PAGE CONTINUED TO THE NEXT PAGE					

BH-1 BOR - AvantGarde-Dent

Plate

BORING LOG

P.T. SOILENS

PROJECT : SOIL INVESTIGATION FOR ADDITIONAL REPEATER STATION IN BENGKALIS ISLAND CLIENT : JV.ORICONSUL & JANA LOCATION : SIMPANG AYAM-BENGKALIS BORE HOLE NO. : BH-1 ELEVATION (M) : +3.172 m COORDINATES : E=171527.302; N=175284.710 DEPTH (M) : 51.45 m	WATER TABLE (M) : - 1.30 m DATE : April 03 to 06,2009 BORING METHOD : Coring, Sampling SAMPLING METHOD : Thin Walled Shelby Tube SPT : Automatic Hammer (AH) DRILLER : A.Zubaedi LOGGER : Y.Sumaryono REVIEWED BY : Djhn
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SAMPLE	DEPTH (meter)	USCS	CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value		RECOVERY (%)	
								BLOWS PER CM	N PER FOOT		
								40	80	100	
	25.00				CLAY, light gray coloured, high plasticity, soft to stiff.	25.50	0.50	25.70	5/40		
						26.00	0.50				
						26.50	0.50	26.65	4/30		
						26.95	0.50				
	27.50					27.50	0.50				
	28.20					28.20	0.75	28.35	5/30		
						28.66	0.75				
						29.00	0.50	29.15	4/30		
						29.45	0.50				
						30.00	0.50	30.15	3/30		
						30.45	0.25				
						31.00	-0.25	31.15	2/30		
						31.50	-0.25				
	32.00					32.00	-0.25				
	32.70					32.70	0.25	32.85	5/30		
						33.15	0.25				
						33.50	0.25	33.65	5/30		
						33.95	0.50				
						34.50	0.50	34.70	4/30		
						35.00	0.50				
						35.50	0.50	35.65	4/30		
						35.95	0.50				
						36.50	0.50	36.65	5/30		
						36.95	0.50				
						37.50	0.50				
	37.50					38.20	1.00	38.36	7/30		
						38.65	1.00				
						39.00	1.00	39.15	8/30		
						39.45	1.00				
						40.00	1.00	40.15	9/30		
						40.45	1.25				
						41.00	1.50	41.15	10/30		
						41.45	1.50				
						42.00	1.50	42.15	10/30		
						42.45	1.50				
						43.00	1.25				
						43.70	1.50	43.85	10/30		
						44.15	1.50				
	44.30				SILTY SAND, gray coloured, fine grained sands, few organic matter, uncemented, medium dense to very dense.	44.50		44.65	13/30		
						44.95					
						45.50		45.65	15/30		
						45.95					
						46.50		46.65	16/30		
						46.95					
						47.50		47.65	48/30		
						47.95					
						48.50		48.65	63/30		
						48.95					
						50.00		50.15	75/30		
						50.45					
						51.00		51.15	80/30		
	51.45				END OF THIS BORING CASING DOWN TO -50.00 METERS IN DEPTH	51.45					

BH-1A BOR - AvaniGarde-Demi

Plate