

**SOILPRO TECHNICAL SERVICES SDN BHD**  
 Company No: 380315-T  
 Soil properties applied to geotechnical engineering

Project : 62801392  
 KUANTAN MARITIME

Checked by  
 WONG KIM YUEN  
 Technical Manager



Ref: L160282

Date: 06.10.2016

**SUMMARY OF LABORATORY TEST RESULTS**

Sample No	MC %	BULK DENSITY Mg/m <sup>3</sup>	DRY DENSITY Mg/m <sup>3</sup>	SG	UCT kN/m <sup>2</sup>	UU TRIAXIAL COMPRESSION		1-DIMENSIONAL CONSOLIDATION		CHEMICAL TESTS				ATTERBERG LIMITS				MECHANICAL AND HYDROMETER ANALYSIS			
						C kN/m <sup>2</sup>	∅ Degree	Pc kN/m <sup>2</sup>	Cc	OM %	SO <sub>3</sub> %	Cl %	pH	LL %	PL %	PI %	LS %	CLAY %	SILT %	SAND %	GRAVEL %
GS 1																		3	94	3	
GS 2																		4	96	0	
GS 3																		4	96	0	
GS 4																		9	91	0	
GS 5																		6	94	0	
GS 6																		15	76	9	
GS 7																	3	39	57	1	
GS 8																	17	83	0		
GS 9																	5	17	77	1	
GS 10																	5	21	72	2	
GS 11																	5	19	71	5	
GS 12																	4	17	78	1	
GS 13																	4	20	75	1	
GS 14																	10	89	1		
GS 15																	4	93	3		
GS 16																	7	92	1		
GS 17																	2	97	1		
GS 18																	9	91	0		
GS 19																	7	29	63	1	
GS 20																	17	73	10		

Note: NES = NOT ENOUGH SAMPLE

NP = NON PLASTIC

NA = NOT APPLICABLE

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						C kN/m <sup>2</sup>	∅ Degree	Pc kN/m <sup>2</sup>	Cc	OM %	SO <sub>3</sub> %	Cl %	pH	LL %	PL %	PI %	LS %	CLAY %	SILT %	SAND %	GRAVEL %
GS 21																		14	85	1	
GS 22																		15	63	22	
GS 23																		17	51	30	2
GS 24																		5	19	44	32
GS 25																		15	64	21	
GS 26																		29	68	3	0
GS 27																		26	61	13	0
GS 28																		18	53	29	0
GS 29																		12	82	6	
GS 30																		3	96	1	
GS 31																		4	93	3	
GS 32																		19	81	0	
GS 33																		6	30	63	1
GS 34																		19	80	1	
GS 35																		3	24	71	2
GS 36																		4	17	78	1
GS 37																		4	27	69	0
GS 38																		4	17	79	0
GS 39																		7	29	58	6
GS 40																		3	22	66	9

Note: NES = NOT ENOUGH SAMPLE

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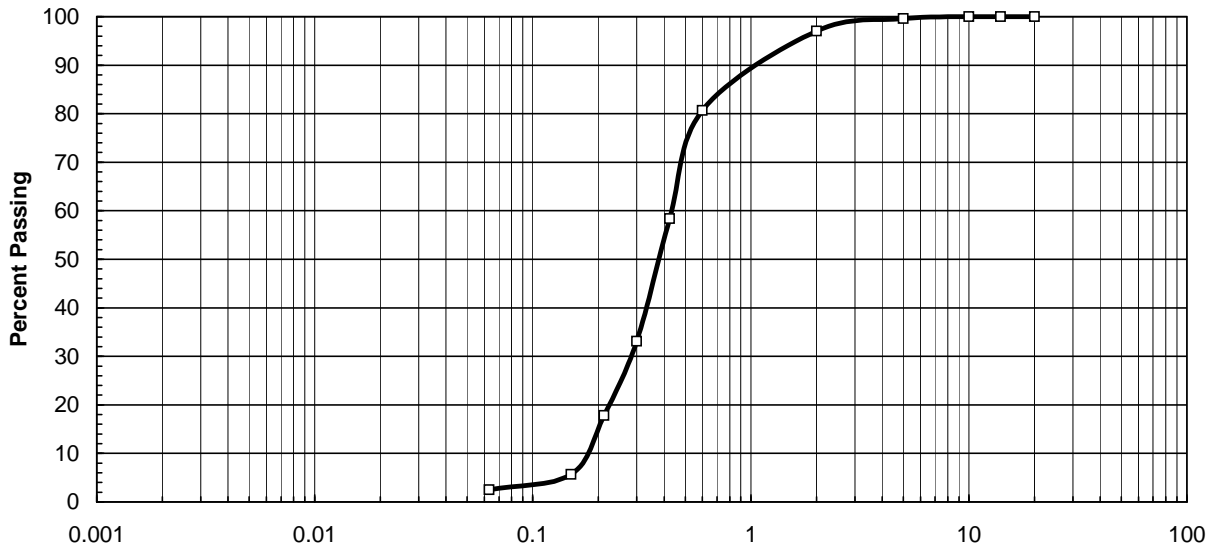
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS1**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS1**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

<b>Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3</b>			Initial soil mass, $m_1$ :		100.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.4	0.4	99.6			
2.0	2.6	2.6	97.0			
0.600	16.3	16.3	80.7			
0.425	22.3	22.3	58.4			
0.300	25.3	25.3	33.1			
0.212	15.3	15.3	17.8			
0.150	12.1	12.1	5.7			
0.063	3.2	3.2	2.5			
Pan						
Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron						
<b>Test Method: BS1377: 1990, Part 2, Clause 9.5</b>					<b>HYDROMETER</b>	
$m_1$ , gm: -			Viscosity of Water: 0.834 mPa s		Meniscus Corr.,cm: 0.50	
Particle Density: -			Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5	
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
Sample No.		Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %
GS1, - m.		o	3		94	3



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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*Wong*



WONG KIM YUEN  
Technical Manager

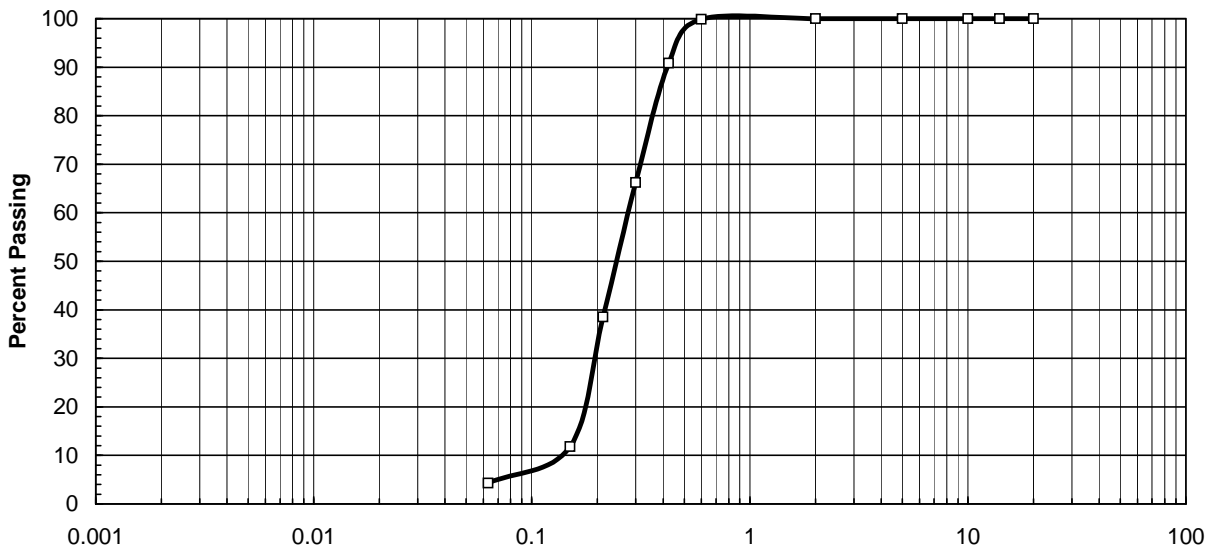
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS2**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS2**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3				Initial soil mass, $m_1$ :		
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	0.0	0.0	100.0			
0.600	0.1	0.1	99.9			
0.425	9.1	9.1	90.8			
0.300	24.6	24.6	66.2			
0.212	27.7	27.7	38.5			
0.150	26.7	26.7	11.8			
0.063	7.5	7.5	4.3			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: -		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: -		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
<b>GS2, - m.</b>	o	4	96	0		



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

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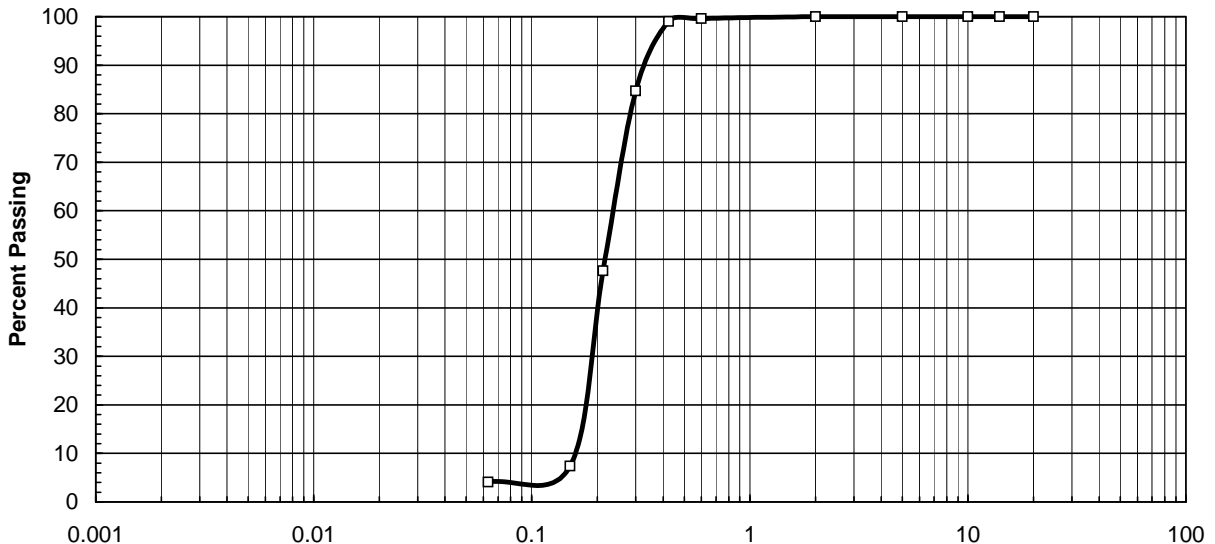
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS3**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS3**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3		Initial soil mass, $m_1$ :		100.0 gm.		
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	0.0	0.0	100.0			
0.600	0.4	0.4	99.6			
0.425	0.6	0.6	99.0			
0.300	14.3	14.3	84.7			
0.212	37.1	37.1	47.6			
0.150	40.2	40.2	7.4			
0.063	3.3	3.3	4.1			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: -		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: -		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
Sample No.		Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %
GS3, - m.		o	4		96	0



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

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Technical Manager

**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No.** L160282/PS/GS4

Project : 62801392

Lab Ref.: **L160282**

Location: KUANTAN MARITIME

Sample No. : **GS4**

Customer: DHI Water & Environment (m) Sdn Bhd

Depth, m. : -

3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,

Receive Date : 24.09.2016

No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Test Date : 28.09.2016

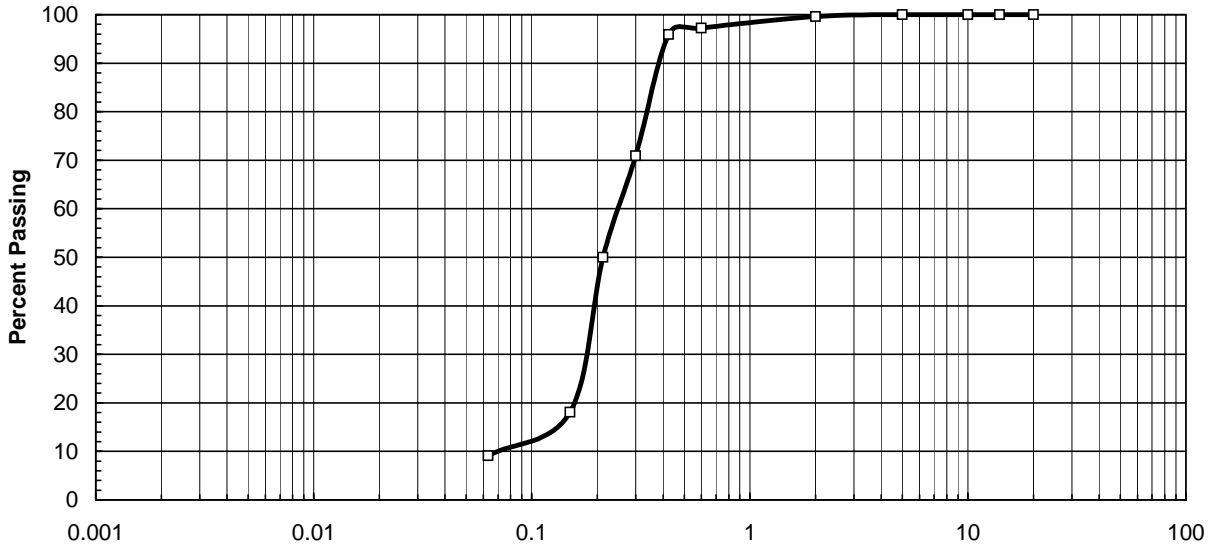
Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		100.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	0.4	0.4	99.6			
0.600	2.4	2.4	97.2			
0.425	1.3	1.3	95.9			
0.300	25.0	25.0	70.9			
0.212	20.9	20.9	50.0			
0.150	31.9	31.9	18.1			
0.063	9.0	9.0	9.1			
Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron						

Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: -		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: -		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer

Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %
<b>GS4, - m.</b>	o	9	91	0	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

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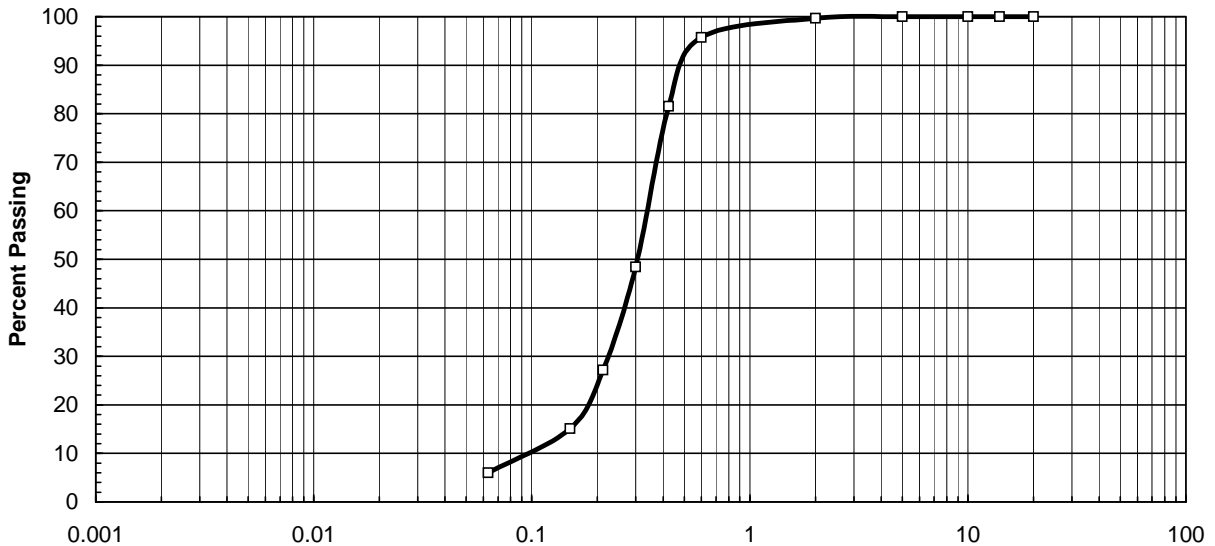
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS5**

Project : 62801392  
 Location: KUANTAN MARITIME  
 Customer: DHI Water & Environment (m) Sdn Bhd  
 3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
 No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
 Sample No. : **GS5**  
 Depth, m. : -  
 Receive Date : 24.09.2016  
 Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3				Initial soil mass, $m_1$ :		
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	0.3	0.3	99.7			
0.600	4.0	4.0	95.7			
0.425	14.2	14.2	81.5			
0.300	33.1	33.1	48.4			
0.212	21.2	21.2	27.2			
0.150	12.1	12.1	15.1			
0.063	9.1	9.1	6.0			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: -		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: -		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	
Sample No.		Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %
GS5, - m.		o	6		94	0



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

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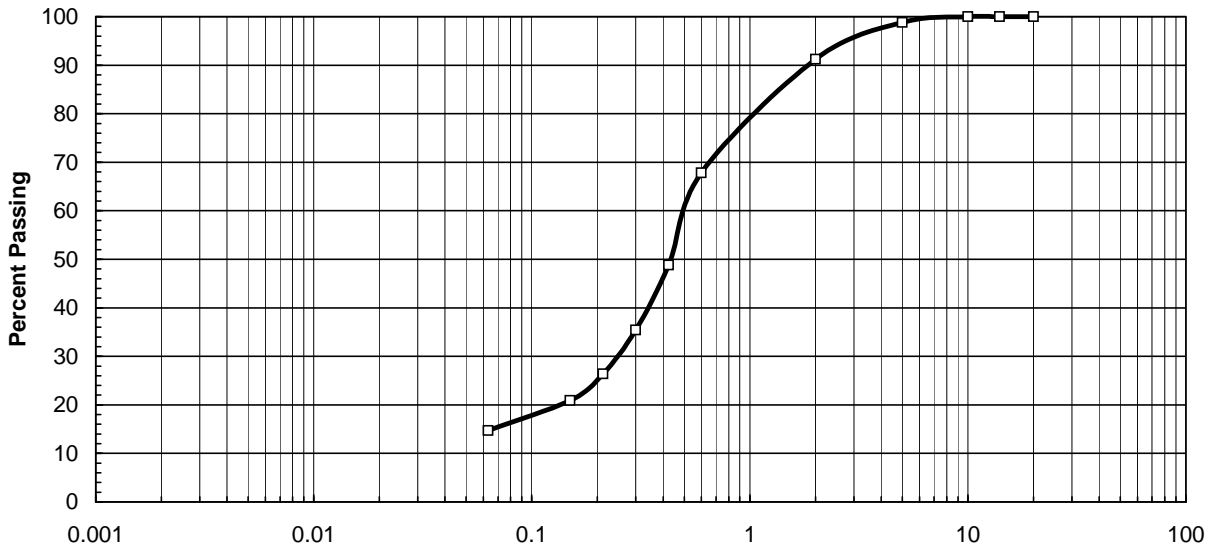
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS6**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS6**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3				Initial soil mass, $m_1$ :		
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	1.2	1.2	98.8			
2.0	7.6	7.6	91.2			
0.600	23.4	23.4	67.8			
0.425	19.0	19.0	48.8			
0.300	13.4	13.4	35.4			
0.212	9.0	9.0	26.4			
0.150	5.5	5.5	20.9			
0.063	6.2	6.2	14.7			
Pan						
Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron						
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: -		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: -		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
Sample No.		Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %
GS6, - m.		o	15	76	9	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

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Technical Manager





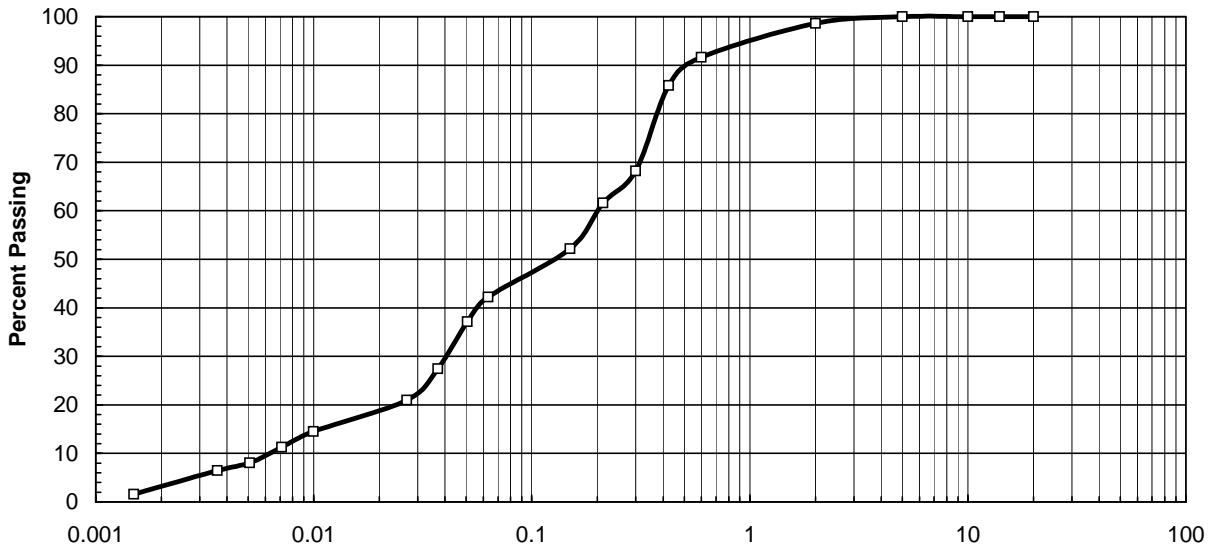
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS7**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS7**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	0.7	1.4	98.6			
0.600	3.5	7.0	91.6			
0.425	2.9	5.8	85.8			
0.300	8.8	17.6	68.2			
0.212	3.3	6.6	61.6			
0.150	4.7	9.4	52.2			
0.063	5.0	10.0	42.2			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.63		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	11.0	11.5	163.8	11.5	0.0506	37.1
2	8.0	8.5	175.2	8.5	0.0370	27.4
4	6.0	6.5	182.8	6.5	0.0267	21.0
30	4.0	4.5	190.4	4.5	0.0100	14.5
60	3.0	3.5	194.2	3.5	0.0071	11.3
120	2.0	2.5	198.0	2.5	0.0051	8.1
240	1.5	2.0	199.9	2.0	0.0036	6.5
1440	0.0	0.5	205.6	0.5	0.0015	1.6
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS7, - m.	o	3	39	57	1	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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WONG KIM YUEN  
Technical Manager



**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS9**

Project : 62801392

Location: KUANTAN MARITIME

Customer: DHI Water & Environment (m) Sdn Bhd

3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,

No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**

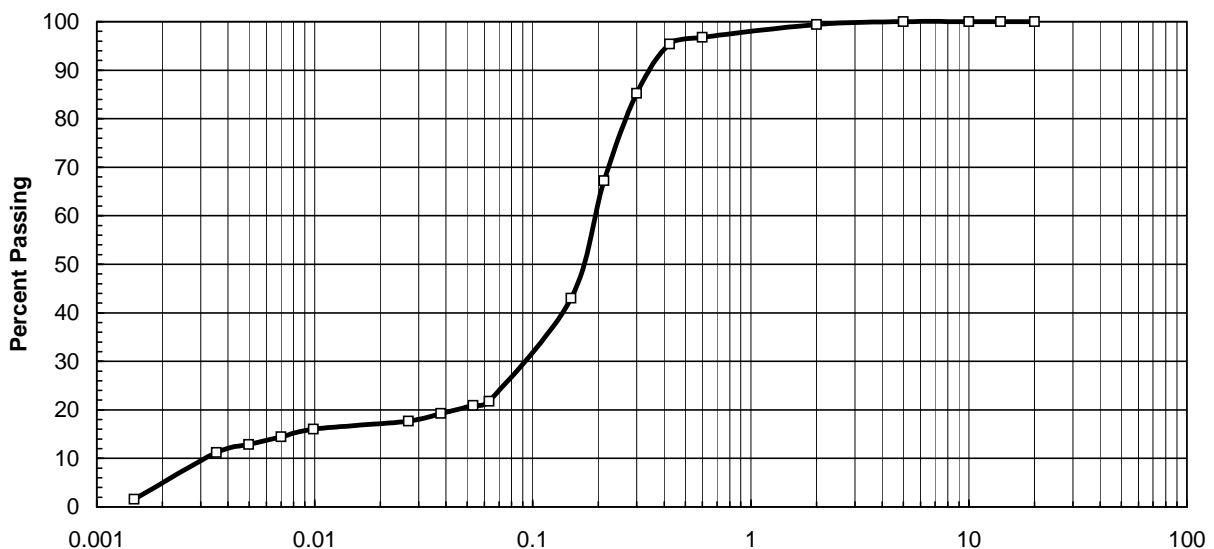
Sample No. : **GS9**

Depth, m. : -

Receive Date : 24.09.2016

Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3				Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)				
20.0	0.0	0.0	100.0				
14.0	0.0	0.0	100.0				
10.0	0.0	0.0	100.0				
5.0	0.0	0.0	100.0				
2.0	0.3	0.6	99.4				
0.600	1.3	2.6	96.8				
0.425	0.7	1.4	95.4				
0.300	5.1	10.2	85.2				
0.212	9.0	18.0	67.2				
0.150	12.1	24.2	43.0				
0.063	10.6	21.2	21.8				
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron						
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER			
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50			
Particle Density: 2.65		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5			
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer	
1	6.0	6.5	182.8	6.5	0.0532	20.9	
2	5.5	6.0	184.7	6.0	0.0378	19.3	
4	5.0	5.5	186.6	5.5	0.0269	17.7	
30	4.5	5.0	188.5	5.0	0.0099	16.1	
60	4.0	4.5	190.4	4.5	0.0070	14.5	
120	3.5	4.0	192.3	4.0	0.0050	12.8	
240	3.0	3.5	194.2	3.5	0.0035	11.2	
1440	0.0	0.5	205.6	0.5	0.0015	1.6	
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %		
GS9, - m.	o	5	17	77	1		



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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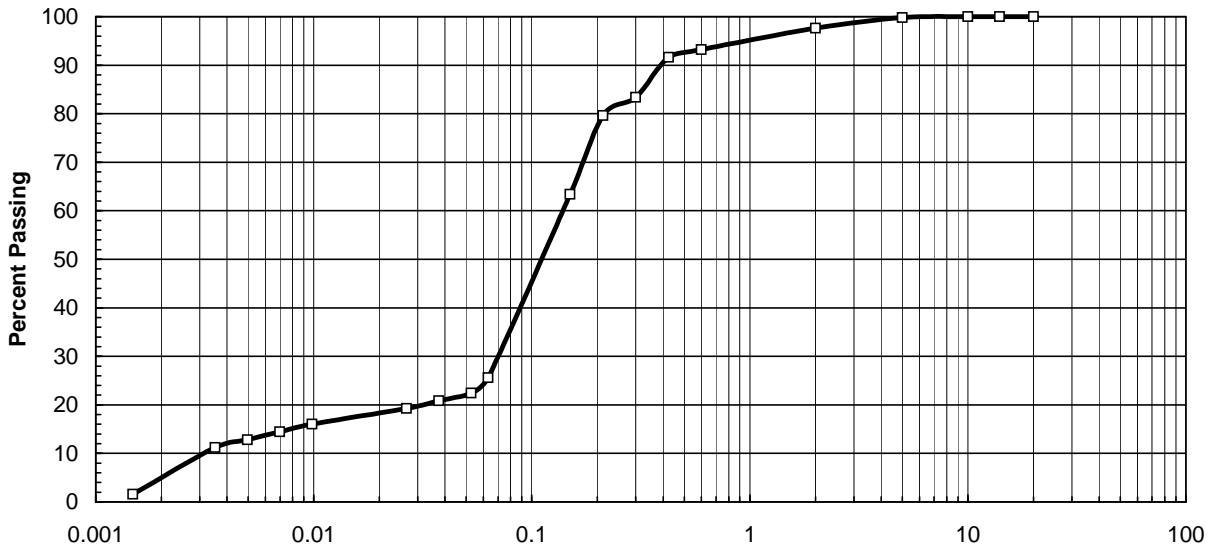
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS10**

Project : 62801392  
Location: Kuantan Maritime  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS10**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.1	0.2	99.8			
2.0	1.1	2.2	97.6			
0.600	2.2	4.4	93.2			
0.425	0.8	1.6	91.6			
0.300	4.1	8.2	83.4			
0.212	1.9	3.8	79.6			
0.150	8.1	16.2	63.4			
0.063	18.9	37.8	25.6			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.66		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	6.5	7.0	180.9	7.0	0.0527	22.4
2	6.0	6.5	182.8	6.5	0.0375	20.8
4	5.5	6.0	184.7	6.0	0.0266	19.2
30	4.5	5.0	188.5	5.0	0.0098	16.0
60	4.0	4.5	190.4	4.5	0.0070	14.4
120	3.5	4.0	192.3	4.0	0.0050	12.8
240	3.0	3.5	194.2	3.5	0.0035	11.2
1440	0.0	0.5	205.6	0.5	0.0015	1.6
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
<b>GS10, - m.</b>	o	5	21	72	2	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

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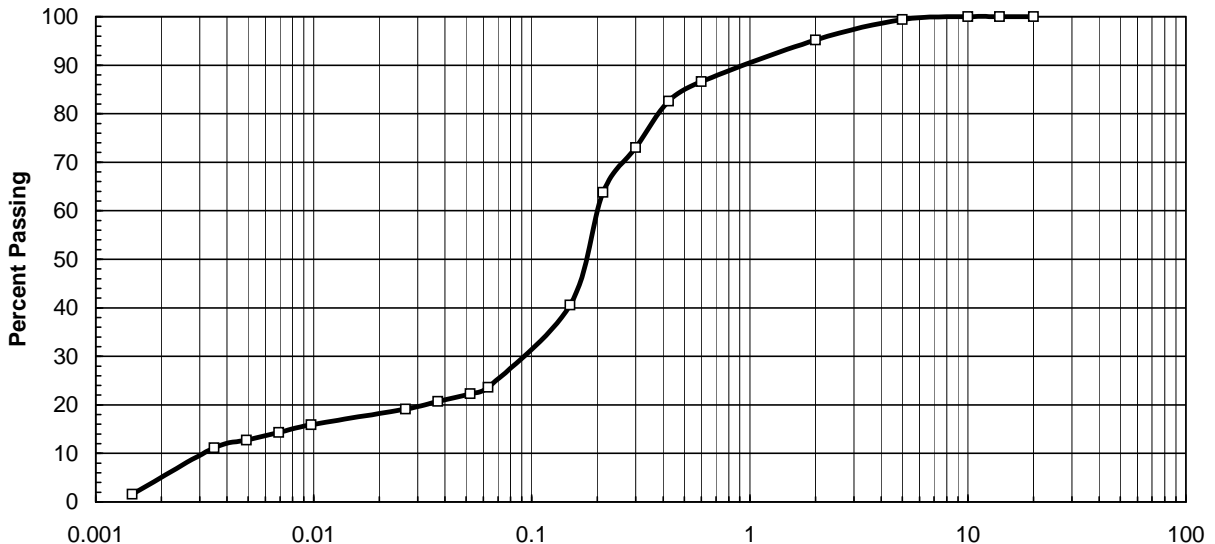
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS11**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS11**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.3	0.6	99.4			
2.0	2.1	4.2	95.2			
0.600	4.3	8.6	86.6			
0.425	2.0	4.0	82.6			
0.300	4.8	9.6	73.0			
0.212	4.6	9.2	63.8			
0.150	11.6	23.2	40.6			
0.063	8.5	17.0	23.6			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.69		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	6.5	7.0	180.9	7.0	0.0523	22.3
2	6.0	6.5	182.8	6.5	0.0372	20.7
4	5.5	6.0	184.7	6.0	0.0264	19.1
30	4.5	5.0	188.5	5.0	0.0097	15.9
60	4.0	4.5	190.4	4.5	0.0069	14.3
120	3.5	4.0	192.3	4.0	0.0049	12.7
240	3.0	3.5	194.2	3.5	0.0035	11.1
1440	0.0	0.5	205.6	0.5	0.0015	1.6
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
<b>GS11, - m.</b>	o	5	19	71	5	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

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Technical Manager



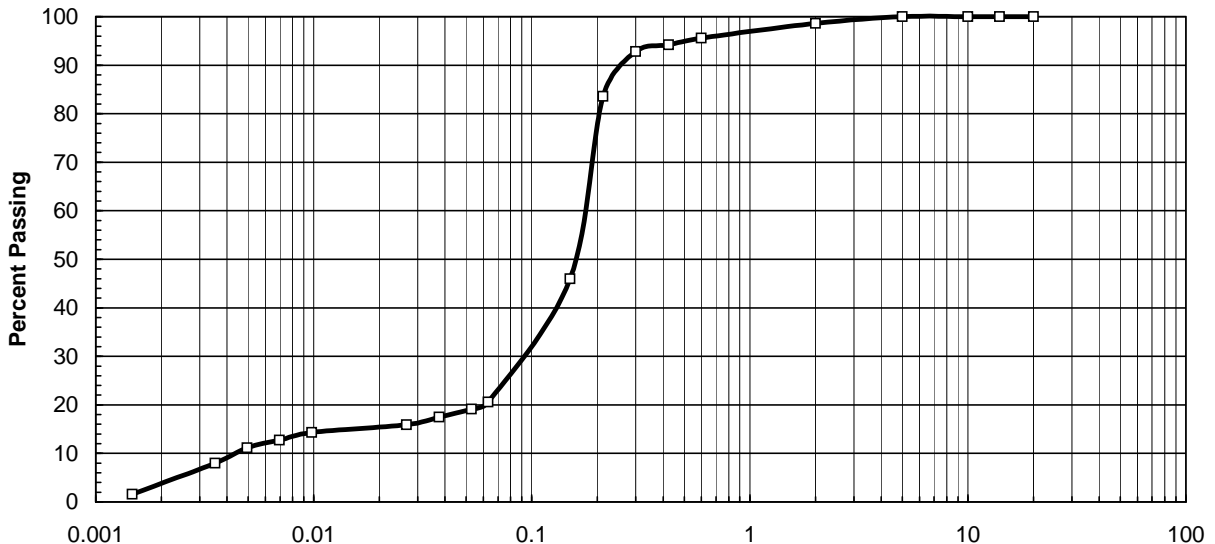
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS12**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS12**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	0.7	1.4	98.6			
0.600	1.5	3.0	95.6			
0.425	0.7	1.4	94.2			
0.300	0.7	1.4	92.8			
0.212	4.6	9.2	83.6			
0.150	18.8	37.6	46.0			
0.063	12.7	25.4	20.6			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.69		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	5.5	6.0	184.7	6.0	0.0528	19.1
2	5.0	5.5	186.6	5.5	0.0375	17.5
4	4.5	5.0	188.5	5.0	0.0267	15.9
30	4.0	4.5	190.4	4.5	0.0098	14.3
60	3.5	4.0	192.3	4.0	0.0070	12.7
120	3.0	3.5	194.2	3.5	0.0049	11.1
240	2.0	2.5	198.0	2.5	0.0035	8.0
1440	0.0	0.5	205.6	0.5	0.0015	1.6
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS12, - m.	o	4	17	78	1	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

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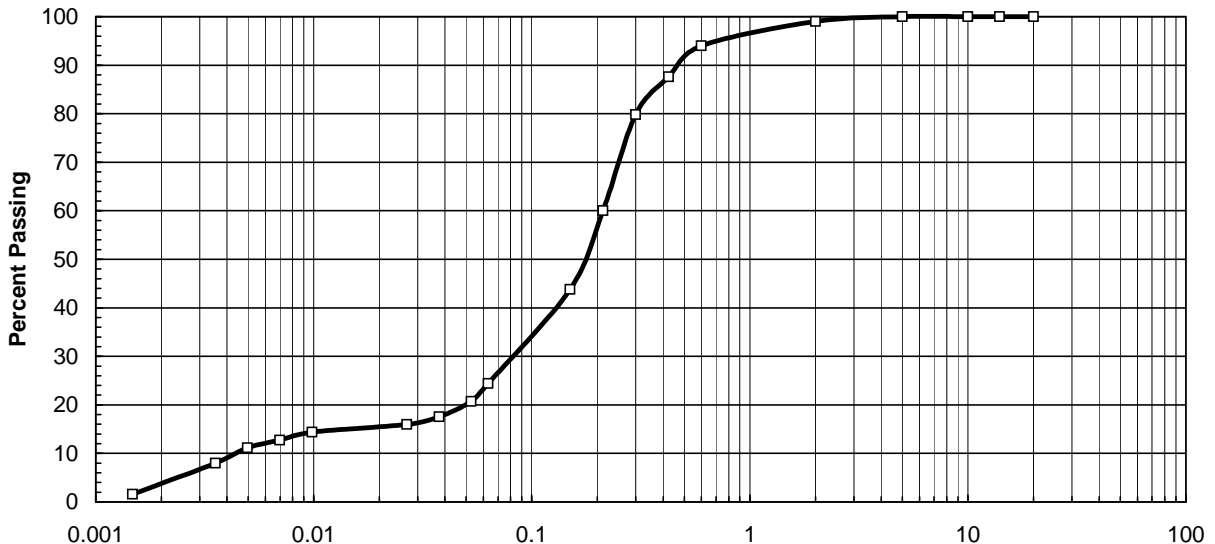
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS13**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS13**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	0.5	1.0	99.0			
0.600	2.5	5.0	94.0			
0.425	3.2	6.4	87.6			
0.300	3.9	7.8	79.8			
0.212	9.9	19.8	60.0			
0.150	8.1	16.2	43.8			
0.063	9.7	19.4	24.4			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.68		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	6.0	6.5	182.8	6.5	0.0527	20.7
2	5.0	5.5	186.6	5.5	0.0376	17.5
4	4.5	5.0	188.5	5.0	0.0268	16.0
30	4.0	4.5	190.4	4.5	0.0098	14.4
60	3.5	4.0	192.3	4.0	0.0070	12.8
120	3.0	3.5	194.2	3.5	0.0050	11.2
240	2.0	2.5	198.0	2.5	0.0035	8.0
1440	0.0	0.5	205.6	0.5	0.0015	1.6
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS13, - m.	o	4	20	75	1	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

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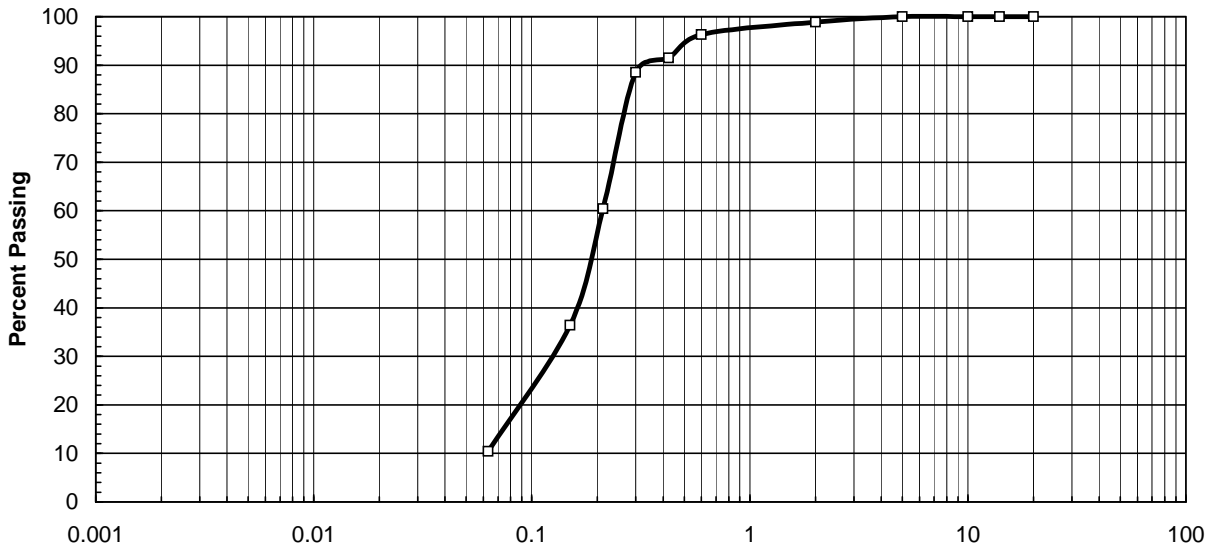
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS14**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS14**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

<b>Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3</b>			Initial soil mass, $m_1$ :		100.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	1.1	1.1	98.9			
0.600	2.6	2.6	96.3			
0.425	4.8	4.8	91.5			
0.300	3.0	3.0	88.5			
0.212	28.1	28.1	60.4			
0.150	24.0	24.0	36.4			
0.063	26.0	26.0	10.4			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
<b>Test Method: BS1377: 1990, Part 2, Clause 9.5</b>					<b>HYDROMETER</b>	
$m_1$ , gm: -			Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50	
Particle Density: -			Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0,5	
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
Sample No.		Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %
<b>GS14, - m.</b>		o	10	89	1	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

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Technical Manager





**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS15**

Project : 62801392

Location: Kuantan Maritime

Customer: DHI Water & Environment (m) Sdn Bhd

3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,

No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**

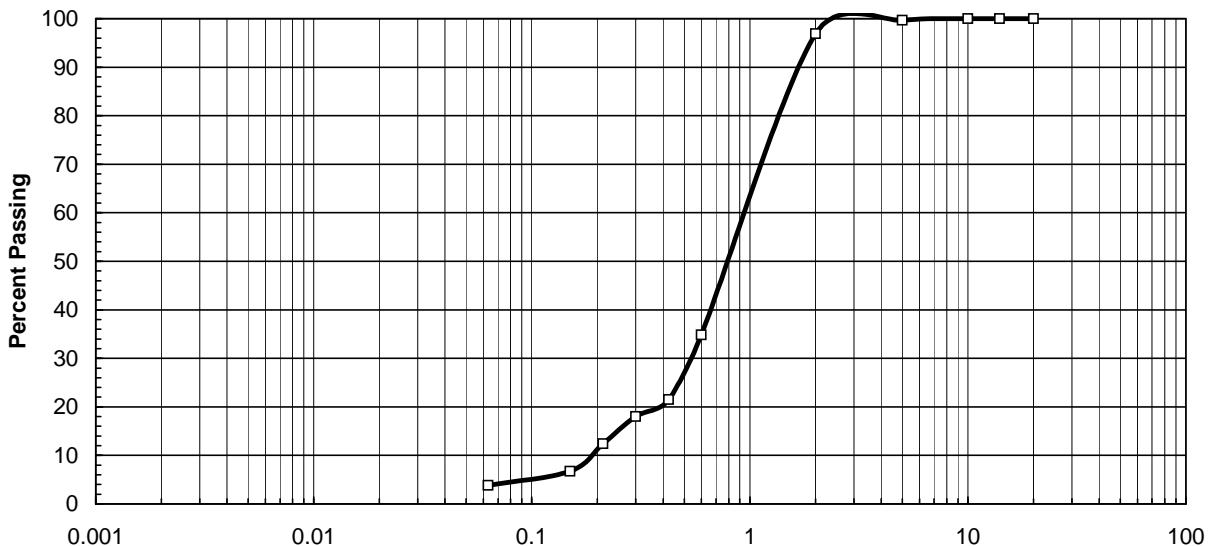
Sample No. : **GS15**

Depth, m. : -

Receive Date : 24.09.2016

Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3				Initial soil mass, $m_1$ :		100.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)				
20.0	0.0	0.0	100.0				
14.0	0.0	0.0	100.0				
10.0	0.0	0.0	100.0				
5.0	0.3	0.3	99.7				
2.0	2.8	2.8	96.9				
0.600	62.1	62.1	34.8				
0.425	13.3	13.3	21.5				
0.300	3.5	3.5	18.0				
0.212	5.6	5.6	12.4				
0.150	5.7	5.7	6.7				
0.063	2.9	2.9	3.8				
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron						
Test Method: BS1377: 1990, Part 2, Clause 9.5					HYDROMETER		
$m_1$ , gm: -			Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: -			Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer	
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %		
<b>GS15, - m.</b>	o	4	93	3			



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

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**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS16**

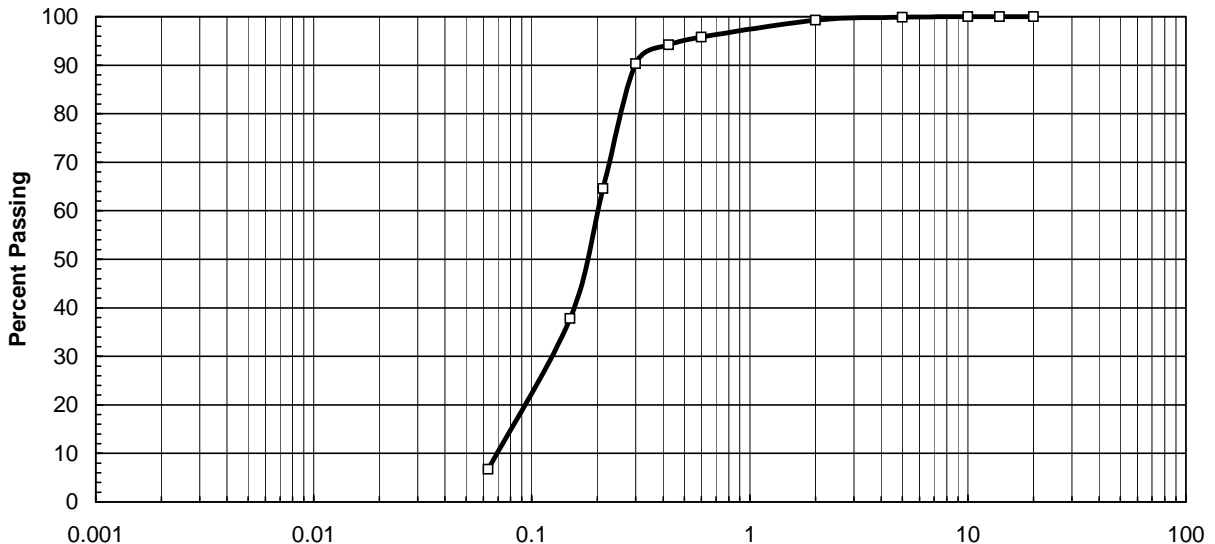
Project : 62801392	Lab Ref.: <b>L160282</b>
Location: KUANTAN MARITIME	Sample No. : <b>GS16</b>
Customer: DHI Water & Environment (m) Sdn Bhd	Depth, m. : -
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,	Receive Date : 24.09.2016
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor	Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :	100.0 gm.
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)	
20.0	0.0	0.0	100.0	
14.0	0.0	0.0	100.0	
10.0	0.0	0.0	100.0	
5.0	0.1	0.1	99.9	
2.0	0.6	0.6	99.3	
0.600	3.5	3.5	95.8	
0.425	1.6	1.6	94.2	
0.300	3.9	3.9	90.3	
0.212	25.7	25.7	64.6	
0.150	26.8	26.8	37.8	
0.063	31.1	31.1	6.7	
Pan				

Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron

Test Method: BS1377: 1990, Part 2, Clause 9.5					HYDROMETER	
$m_1$ , gm: -		Viscosity of Water: 0.834 mPa s		Meniscus Corr.,cm: 0.50		
Particle Density: -		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0,5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer

Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %
<b>GS16, - m.</b>	o	7	92	1	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

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Technical Manager

**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No.** L160282/PS/GS17

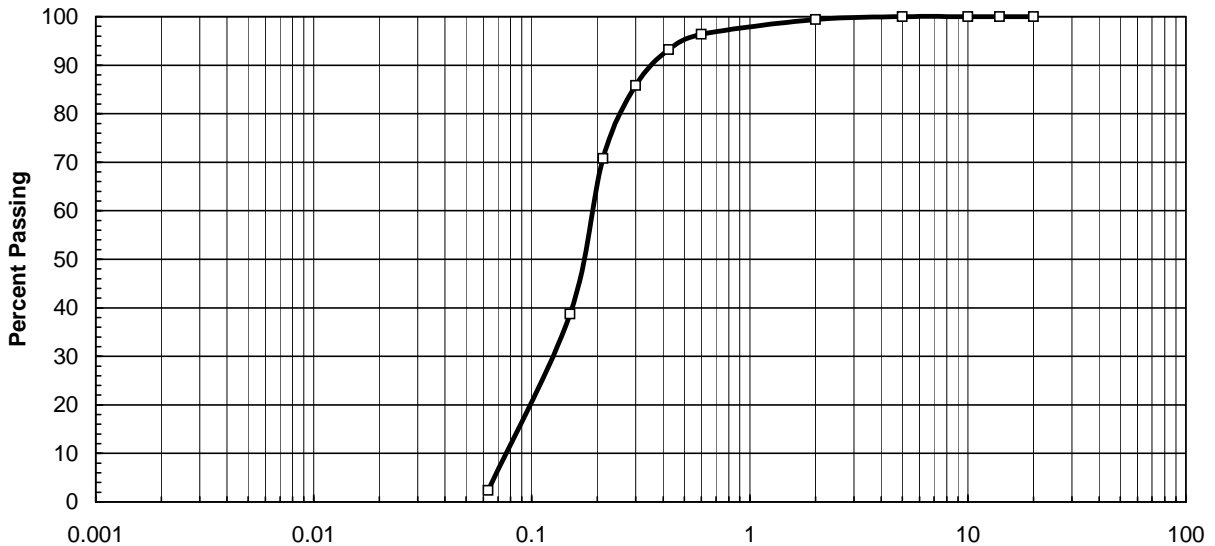
Project : 62801392  
 Location: KUANTAN MARITIME  
 Customer: DHI Water & Environment (m) Sdn Bhd  
 3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
 No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
 Sample No. : **GS17**  
 Depth, m. : -  
 Receive Date : 24.09.2016  
 Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3		Initial soil mass, $m_1$ :	100.0 gm.
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)
20.0	0.0	0.0	100.0
14.0	0.0	0.0	100.0
10.0	0.0	0.0	100.0
5.0	0.0	0.0	100.0
2.0	0.6	0.6	99.4
0.600	3.0	3.0	96.4
0.425	3.2	3.2	93.2
0.300	7.4	7.4	85.8
0.212	15.0	15.0	70.8
0.150	32.1	32.1	38.7
0.063	36.3	36.3	2.4
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron		

Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: -		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: -		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer

Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %
GS17, - m.	o	2	97	1	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

The results relate only to the sample received. This document shall not be reproduced except in full, without the written approval of the laboratory.

  
 WONG KIM YUEN  
 Technical Manager  


**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS18**

Project : 62801392  
 Location: KUANTAN MARITIME  
 Customer: DHI Water & Environment (m) Sdn Bhd  
 3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
 No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
 Sample No. : **GS18**  
 Depth, m. : -  
 Receive Date : 24.09.2016  
 Test Date : 28.09.2016

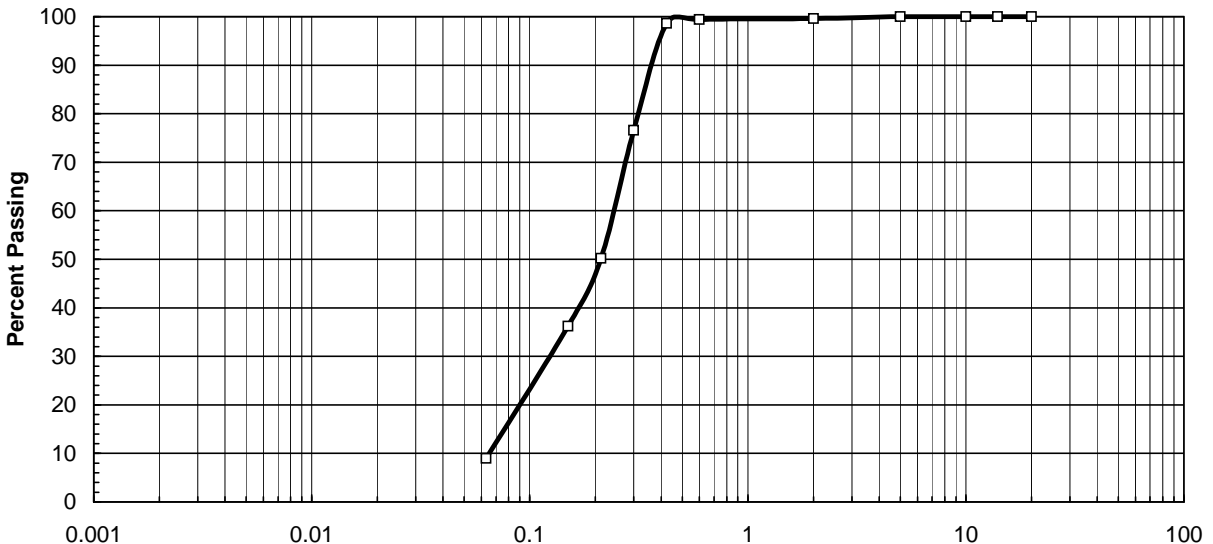
Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3				Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)		PERCENT RETAINED, (%)		SIEVE PERCENT PASSING, (%)		
20.0	0.0		0.0		100.0		
14.0	0.0		0.0		100.0		
10.0	0.0		0.0		100.0		
5.0	0.0		0.0		100.0		
2.0	0.2		0.4		99.6		
0.600	0.1		0.2		99.4		
0.425	0.4		0.8		98.6		
0.300	11.0		22.0		76.6		
0.212	13.2		26.4		50.2		
0.150	7.0		14.0		36.2		
0.063	13.6		27.2		9.0		
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron						

Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER			
$m_1$ , gm: -		Particle Density: -		Viscosity of Water: 0.834 mPa s		Meniscus Corr.,cm: 0.50	
				Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5	
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer	

Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %
GS18, - m.	o	9	91	0	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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 Technical Manager

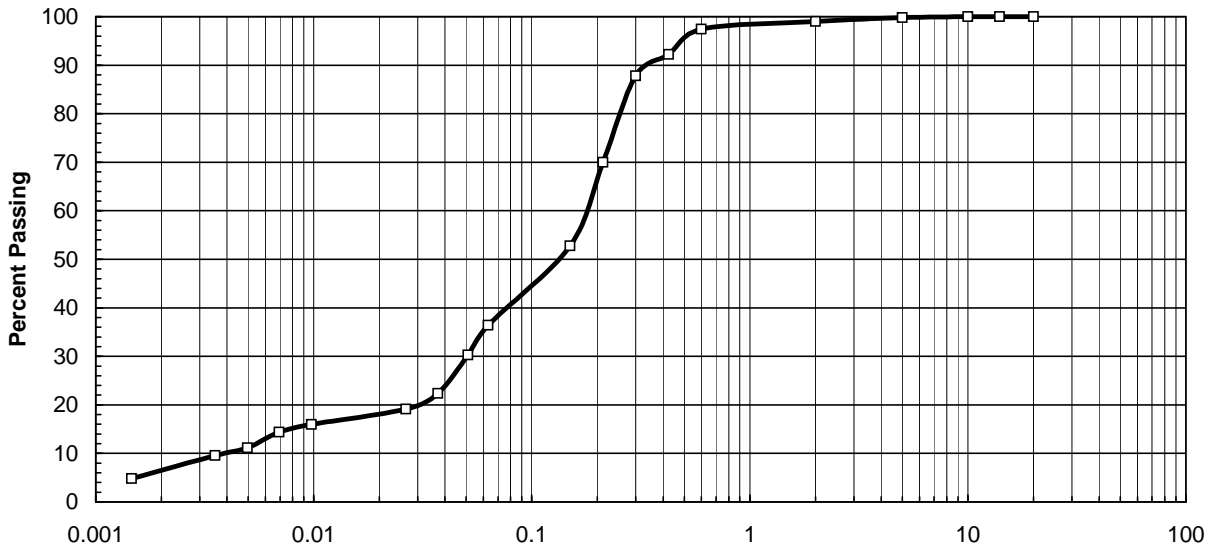
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS19**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS19**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3				Initial soil mass, $m_1$ :		
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.1	0.2	99.8			
2.0	0.4	0.8	99.0			
0.600	0.8	1.6	97.4			
0.425	2.6	5.2	92.2			
0.300	2.2	4.4	87.8			
0.212	8.9	17.8	70.0			
0.150	8.6	17.2	52.8			
0.063	8.2	16.4	36.4			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.68		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	9.0	9.5	171.4	9.5	0.0510	30.3
2	6.5	7.0	180.9	7.0	0.0371	22.3
4	5.5	6.0	184.7	6.0	0.0265	19.1
30	4.5	5.0	188.5	5.0	0.0098	16.0
60	4.0	4.5	190.4	4.5	0.0069	14.4
120	3.0	3.5	194.2	3.5	0.0050	11.2
240	2.5	3.0	196.1	3.0	0.0035	9.6
1440	1.0	1.5	201.8	1.5	0.0015	4.8
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS19, - m.	o	7	29	63	1	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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WONG KIM YUEN  
Technical Manager



**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS20**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS20**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

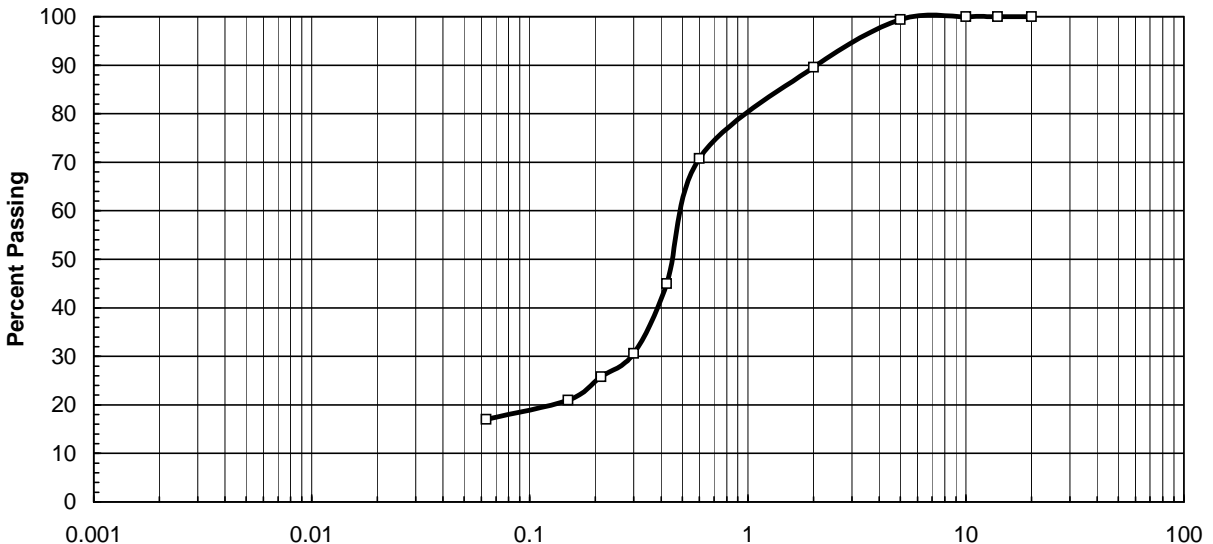
Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3		Initial soil mass, $m_1$ :	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)
20.0	0.0	0.0	100.0
14.0	0.0	0.0	100.0
10.0	0.0	0.0	100.0
5.0	0.3	0.6	99.4
2.0	4.9	9.8	89.6
0.600	9.4	18.8	70.8
0.425	12.9	25.8	45.0
0.300	7.2	14.4	30.6
0.212	2.4	4.8	25.8
0.150	2.4	4.8	21.0
0.063	2.0	4.0	17.0
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron		

Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: -		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: -		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer

Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %
<b>GS20, - m.</b>	o	17	73	10	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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Technical Manager

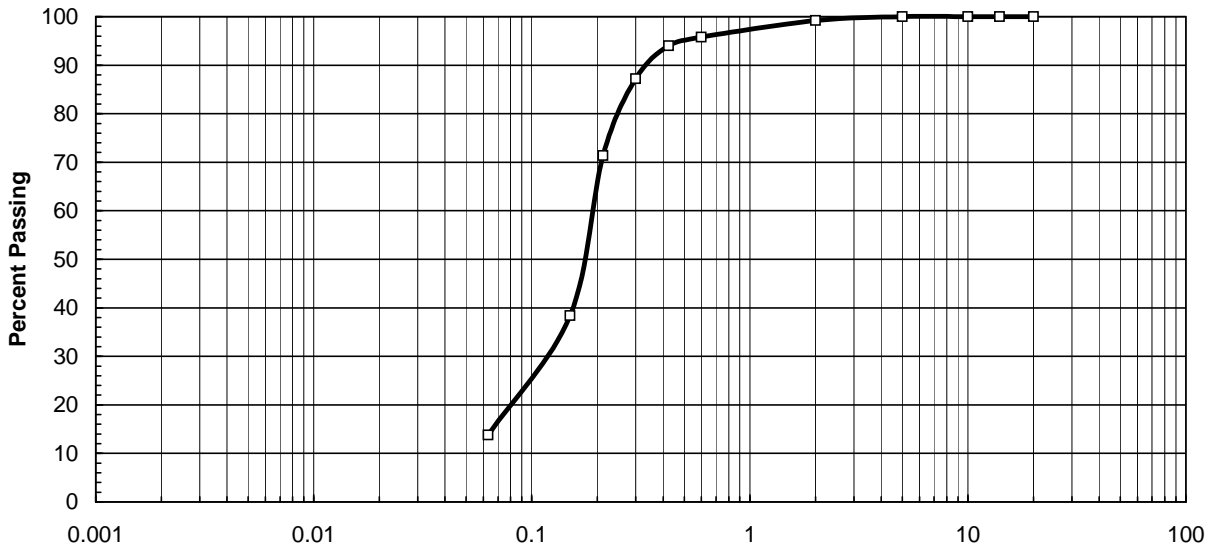
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS21**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS21**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3				Initial soil mass, $m_1$ :		
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	0.4	0.8	99.2			
0.600	1.7	3.4	95.8			
0.425	0.9	1.8	94.0			
0.300	3.4	6.8	87.2			
0.212	7.9	15.8	71.4			
0.150	16.5	33.0	38.4			
0.063	12.3	24.6	13.8			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: -		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: -		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS21, - m.	o	14	85	1		



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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Technical Manager

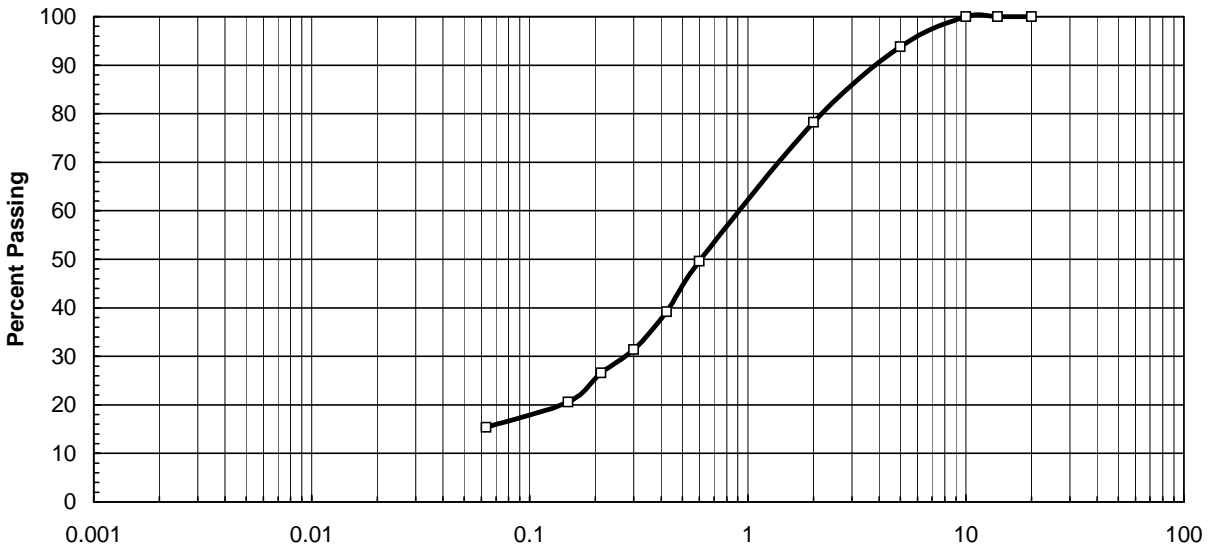
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS22**

Project : 62801392  
 Location: KUANTAN MARITIME  
 Customer: DHI Water & Environment (m) Sdn Bhd  
 3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
 No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
 Sample No. : **GS22**  
 Depth, m. : -  
 Receive Date : 24.09.2016  
 Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3				Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)				
20.0	0.0	0.0	100.0				
14.0	0.0	0.0	100.0				
10.0	0.0	0.0	100.0				
5.0	3.1	6.2	93.8				
2.0	7.8	15.6	78.2				
0.600	14.3	28.6	49.6				
0.425	5.2	10.4	39.2				
0.300	3.9	7.8	31.4				
0.212	2.4	4.8	26.6				
0.150	3.0	6.0	20.6				
0.063	2.6	5.2	15.4				
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron						
Test Method: BS1377: 1990, Part 2, Clause 9.5					HYDROMETER		
$m_1$ , gm: -			Viscosity of Water: 0.834 mPa s		Meniscus Corr.,cm: 0.50		
Particle Density: -			Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer	
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %		
<b>GS22, - m.</b>	o	15		63	22		



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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 Technical Manager



**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS23**

Project : 62801392

Location: KUANTAN MARITIME

Customer: DHI Water & Environment (m) Sdn Bhd

3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,

No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**

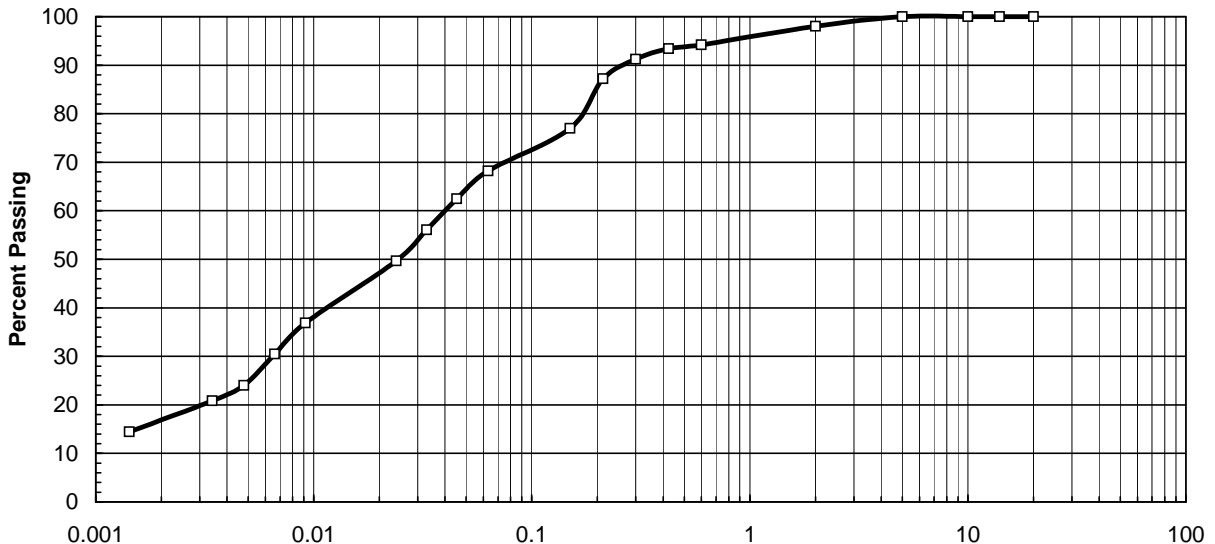
Sample No. : **GS23**

Depth, m. : -

Receive Date : 24.09.2016

Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	1.0	2.0	98.0			
0.600	1.9	3.8	94.2			
0.425	0.4	0.8	93.4			
0.300	1.1	2.2	91.2			
0.212	2.0	4.0	87.2			
0.150	5.1	10.2	77.0			
0.063	4.4	8.8	68.2			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.66		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	19.0	19.5	133.4	19.5	0.0453	62.5
2	17.0	17.5	141.0	17.5	0.0329	56.1
4	15.0	15.5	148.6	15.5	0.0239	49.7
30	11.0	11.5	163.8	11.5	0.0092	36.9
60	9.0	9.5	171.4	9.5	0.0066	30.4
120	7.0	7.5	179.0	7.5	0.0048	24.0
240	6.0	6.5	182.8	6.5	0.0034	20.8
1440	4.0	4.5	190.4	4.5	0.0014	14.4
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
<b>GS23, - m.</b>	o	17	51	30	2	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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Technical Manager

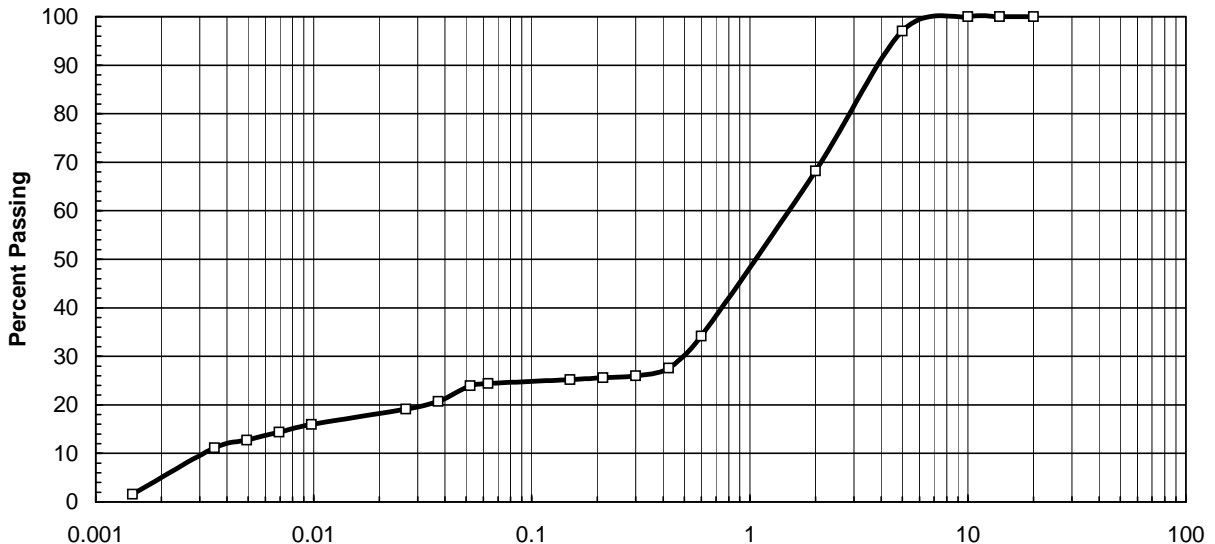
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS24**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS24**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	1.5	3.0	97.0			
2.0	14.4	28.8	68.2			
0.600	17.0	34.0	34.2			
0.425	3.3	6.6	27.6			
0.300	0.8	1.6	26.0			
0.212	0.2	0.4	25.6			
0.150	0.2	0.4	25.2			
0.063	0.4	0.8	24.4			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.68		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	7.0	7.5	179.0	7.5	0.0521	23.9
2	6.0	6.5	182.8	6.5	0.0373	20.7
4	5.5	6.0	184.7	6.0	0.0265	19.1
30	4.5	5.0	188.5	5.0	0.0098	16.0
60	4.0	4.5	190.4	4.5	0.0069	14.4
120	3.5	4.0	192.3	4.0	0.0049	12.8
240	3.0	3.5	194.2	3.5	0.0035	11.2
1440	0.0	0.5	205.6	0.5	0.0015	1.6
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS24, - m.	o	5	19	44	32	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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Technical Manager

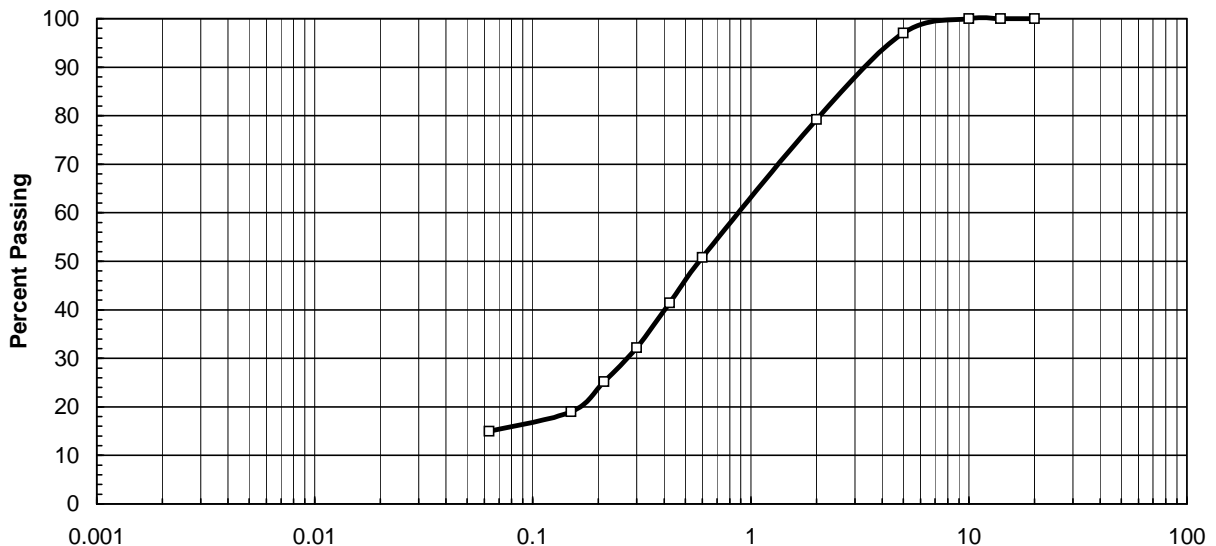
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS25**

Project : 62801392  
 Location: KUANTAN MARITIME  
 Customer: DHI Water & Environment (m) Sdn Bhd  
 3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
 No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
 Sample No. : **GS25**  
 Depth, m. : -  
 Receive Date : 24.09.2016  
 Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	1.5	3.0	97.0			
2.0	8.9	17.8	79.2			
0.600	14.2	28.4	50.8			
0.425	4.7	9.4	41.4			
0.300	4.6	9.2	32.2			
0.212	3.5	7.0	25.2			
0.150	3.1	6.2	19.0			
0.063	2.0	4.0	15.0			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: -		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: -		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS25, - m.	o	15	64	21		



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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 Technical Manager

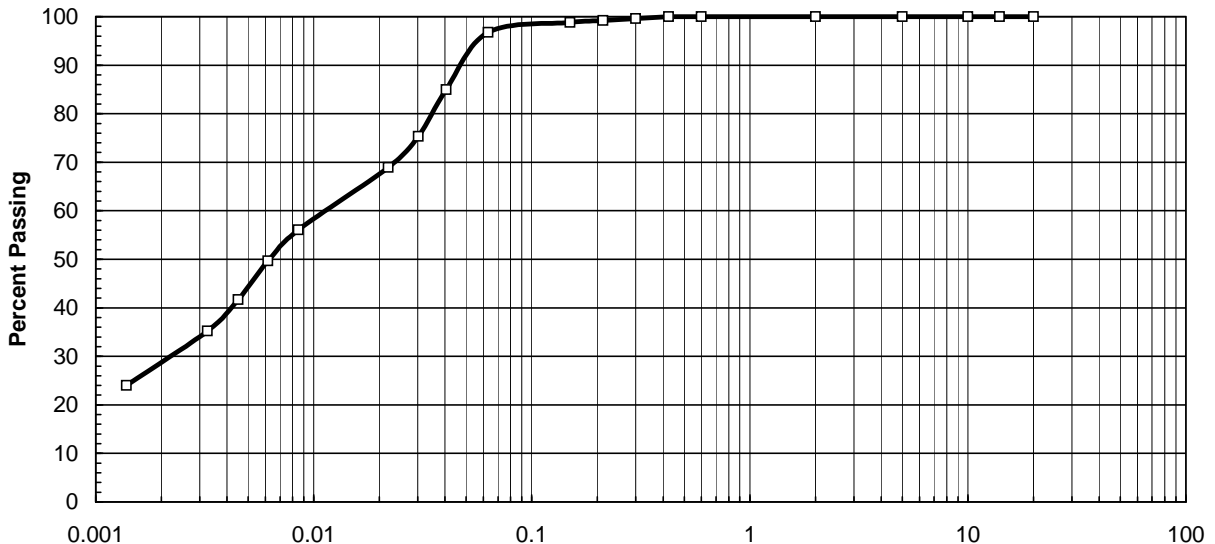
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS26**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS26**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	0.0	0.0	100.0			
0.600	0.0	0.0	100.0			
0.425	0.0	0.0	100.0			
0.300	0.2	0.4	99.6			
0.212	0.2	0.4	99.2			
0.150	0.2	0.4	98.8			
0.063	1.0	2.0	96.8			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.66		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	26.0	26.5	106.8	26.5	0.0405	84.9
2	23.0	23.5	118.2	23.5	0.0301	75.3
4	21.0	21.5	125.8	21.5	0.0220	68.9
30	17.0	17.5	141.0	17.5	0.0085	56.1
60	15.0	15.5	148.6	15.5	0.0062	49.7
120	12.5	13.0	158.1	13.0	0.0045	41.7
240	10.5	11.0	165.7	11.0	0.0033	35.3
1440	7.0	7.5	179.0	7.5	0.0014	24.0
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS26, - m.	o	29	68	3	0	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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Technical Manager



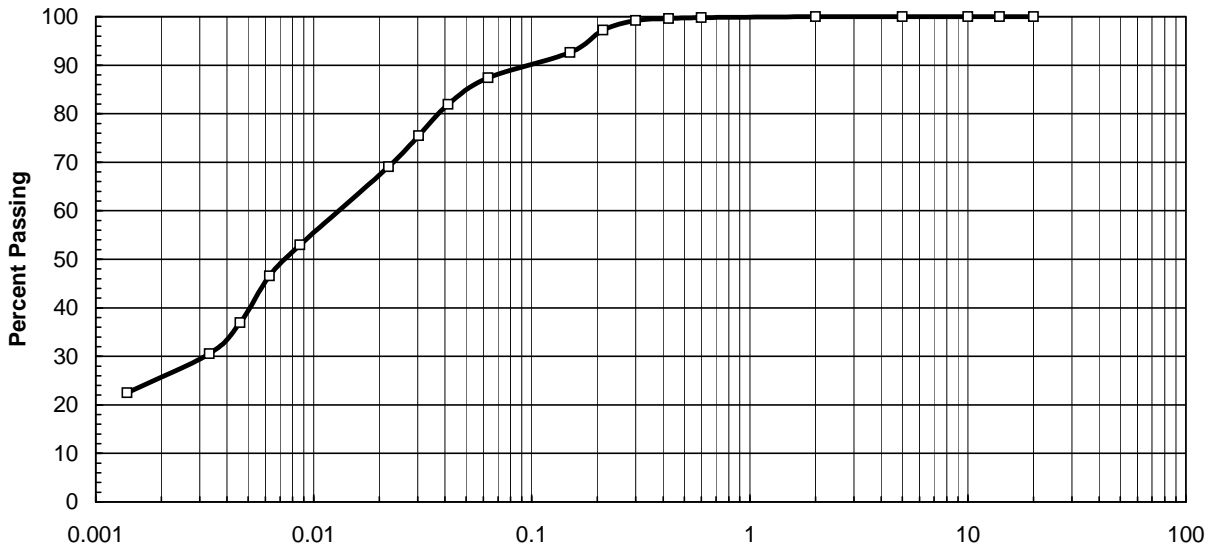
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS27**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS27**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	0.0	0.0	100.0			
0.600	0.1	0.2	99.8			
0.425	0.1	0.2	99.6			
0.300	0.2	0.4	99.2			
0.212	1.0	2.0	97.2			
0.150	2.3	4.6	92.6			
0.063	2.6	5.2	87.4			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.65		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	25.0	25.5	110.6	25.5	0.0414	81.9
2	23.0	23.5	118.2	23.5	0.0302	75.5
4	21.0	21.5	125.8	21.5	0.0221	69.1
30	16.0	16.5	144.8	16.5	0.0086	53.0
60	14.0	14.5	152.4	14.5	0.0063	46.6
120	11.0	11.5	163.8	11.5	0.0046	36.9
240	9.0	9.5	171.4	9.5	0.0033	30.5
1440	6.5	7.0	180.9	7.0	0.0014	22.5
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS27, - m.	o	26	61	13	0	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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WONG KIM YUEN  
Technical Manager



**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS28**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS28**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

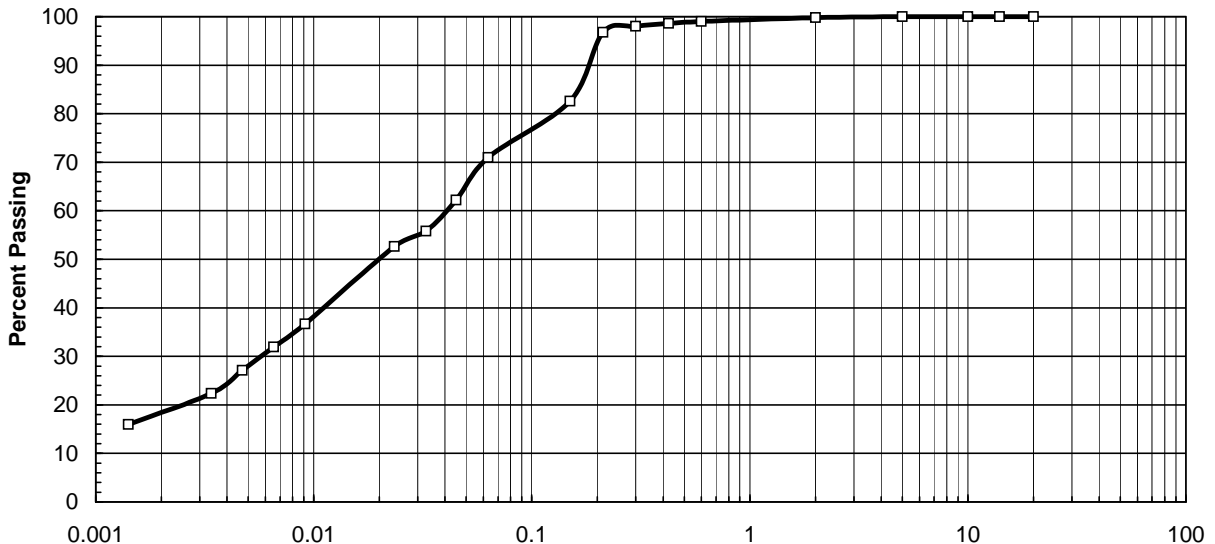
Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3		Initial soil mass, $m_1$ :	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)
20.0	0.0	0.0	100.0
14.0	0.0	0.0	100.0
10.0	0.0	0.0	100.0
5.0	0.0	0.0	100.0
2.0	0.1	0.2	99.8
0.600	0.4	0.8	99.0
0.425	0.2	0.4	98.6
0.300	0.3	0.6	98.0
0.212	0.6	1.2	96.8
0.150	7.1	14.2	82.6
0.063	5.8	11.6	71.0
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron		

Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.68		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	19.0	19.5	133.4	19.5	0.0450	62.2
2	17.0	17.5	141.0	17.5	0.0327	55.8
4	16.0	16.5	144.8	16.5	0.0235	52.6
30	11.0	11.5	163.8	11.5	0.0091	36.7
60	9.5	10.0	169.5	10.0	0.0066	31.9
120	8.0	8.5	175.2	8.5	0.0047	27.1
240	6.5	7.0	180.9	7.0	0.0034	22.3
1440	4.5	5.0	188.5	5.0	0.0014	16.0

Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %
<b>GS28, - m.</b>	o	18	53	29	0



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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Technical Manager

**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No.** L160282/PS/GS29

Project : 62801392

Location: KUANTAN MARITIME

Customer: DHI Water & Environment (m) Sdn Bhd

3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,

No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**

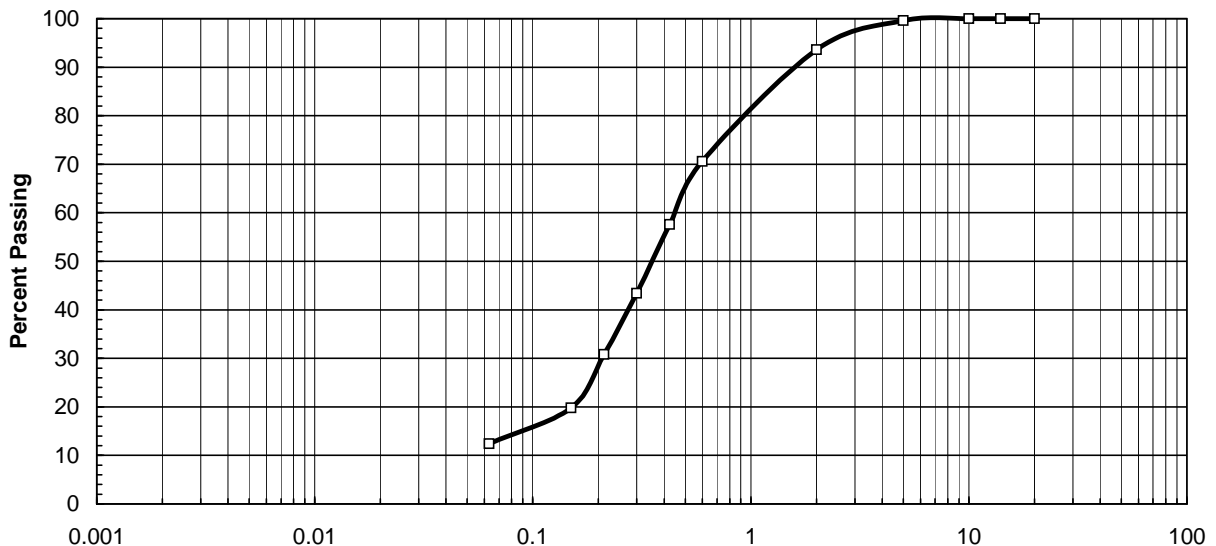
Sample No. : **GS29**

Depth, m. : -

Receive Date : 24.09.2016

Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.2	0.4	99.6			
2.0	3.0	6.0	93.6			
0.600	11.5	23.0	70.6			
0.425	6.5	13.0	57.6			
0.300	7.1	14.2	43.4			
0.212	6.3	12.6	30.8			
0.150	5.5	11.0	19.8			
0.063	3.7	7.4	12.4			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5					HYDROMETER	
$m_1$ , gm: -			Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50	
Particle Density: -			Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5	
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
<b>GS29, - m.</b>	o	12	82	6		



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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 Technical Manager

**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No.** L160282/PS/GS30

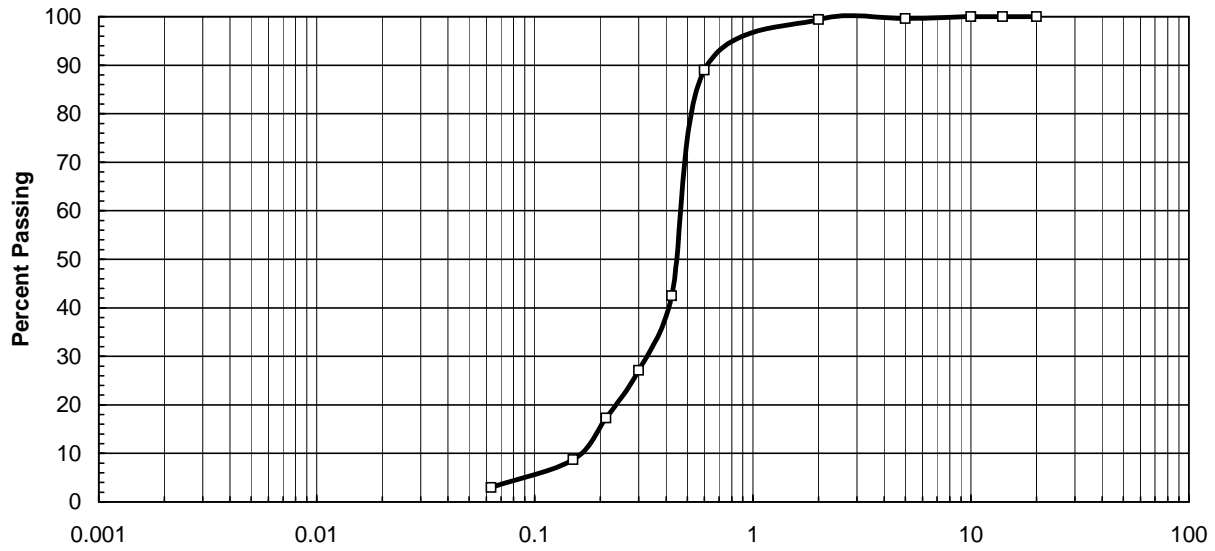
Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS30**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :	100.0 gm.
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)	
20.0	0.0	0.0	100.0	
14.0	0.0	0.0	100.0	
10.0	0.0	0.0	100.0	
5.0	0.4	0.4	99.6	
2.0	0.2	0.2	99.4	
0.600	10.4	10.4	89.0	
0.425	46.5	46.5	42.5	
0.300	15.4	15.4	27.1	
0.212	9.8	9.8	17.3	
0.150	8.6	8.6	8.7	
0.063	5.7	5.7	3.0	
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron			

Test Method: BS1377: 1990, Part 2, Clause 9.5					HYDROMETER	
$m_1$ , gm: -		Viscosity of Water: 0.834 mPa s			Meniscus Corr.,cm: 0.50	
Particle Density: -		Temperature: 28 °C			Disper.Sol, 0.9995,Rd: -0.5	
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer

Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %
<b>GS30, - m.</b>	o	3		96	1



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor Approved Signatory

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Technical Manager





**TEST REPORT No.** L160282/PS/GS16

Project : 62801392

Location: KUANTAN MARITIME

Customer: DHI Water & Environment (m) Sdn Bhd

3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,

No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**

Sample No. : **GS16**

Depth, m. : -

Receive Date : 24.09.2016

Test Date : 28.09.2016

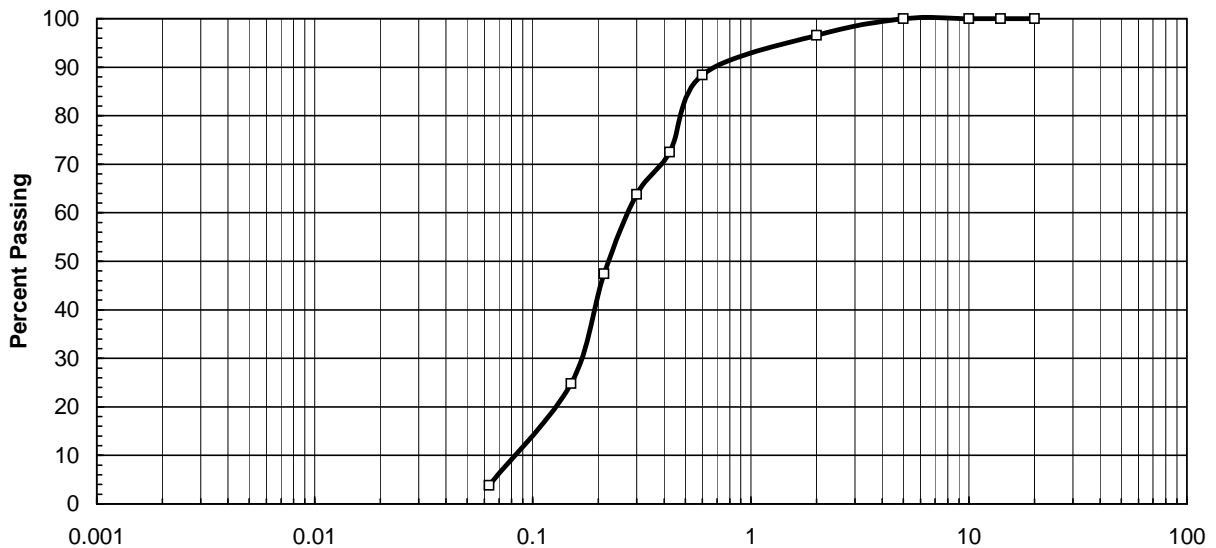
Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3				Initial soil mass, $m_1$ :		
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	3.4	3.4	96.6			
0.600	8.2	8.2	88.4			
0.425	15.9	15.9	72.5			
0.300	8.7	8.7	63.8			
0.212	16.4	16.4	47.4			
0.150	22.6	22.6	24.8			
0.063	21.0	21.0	3.8			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					

Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: -		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: -		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer

Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %
<b>GS16, - m.</b>	o	4	93	3	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

The results relate only to the sample received. This document shall not be reproduced except in full, without the written approval of the laboratory.

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Technical Manager

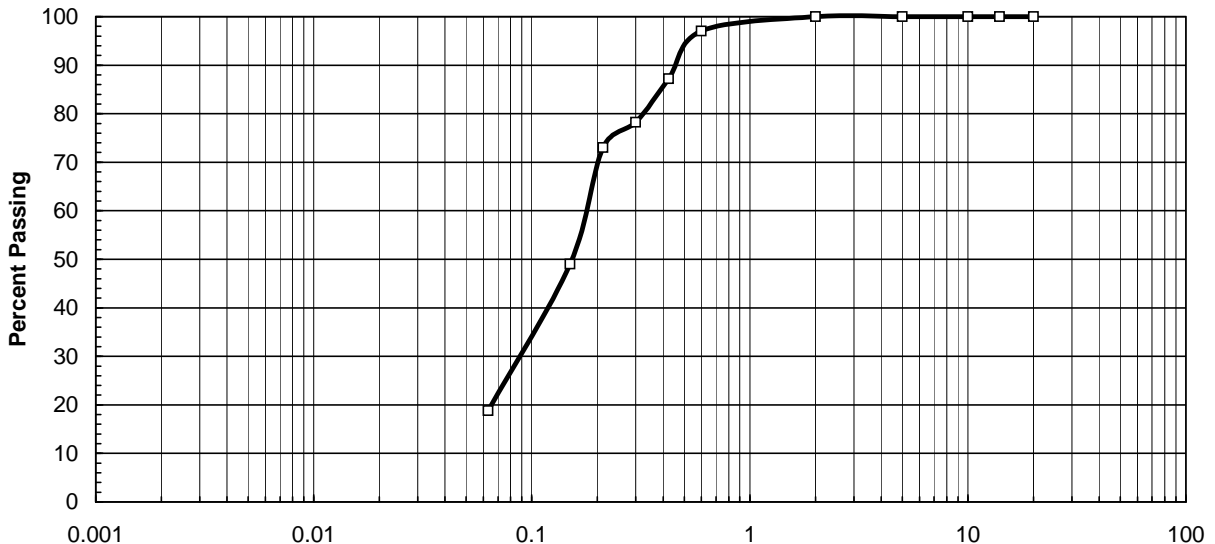
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS32**

Project : 62801392  
 Location: KUANTAN MARITIME  
 Customer: DHI Water & Environment (m) Sdn Bhd  
 3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
 No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
 Sample No. : **GS32**  
 Depth, m. : -  
 Receive Date : 24.09.2016  
 Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3				Initial soil mass, $m_1$ :		
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	0.0	0.0	100.0			
0.600	1.5	3.0	97.0			
0.425	4.9	9.8	87.2			
0.300	4.5	9.0	78.2			
0.212	2.6	5.2	73.0			
0.150	12.0	24.0	49.0			
0.063	15.1	30.2	18.8			
Pan						
Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron						
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: -		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: -		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
Sample No.		Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %
GS32, - m.		o	19	81	0	0



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

The results relate only to the sample received. This document shall not be reproduced except in full, without the written approval of the laboratory.

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 Technical Manager

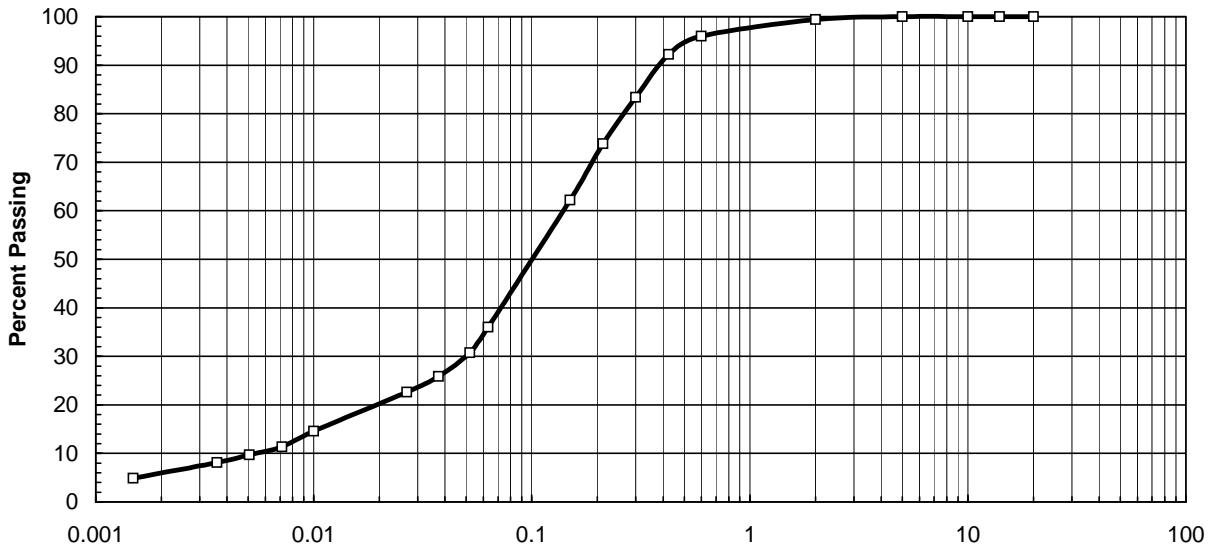
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS33**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS33**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	0.3	0.6	99.4			
0.600	1.7	3.4	96.0			
0.425	1.9	3.8	92.2			
0.300	4.4	8.8	83.4			
0.212	4.8	9.6	73.8			
0.150	5.8	11.6	62.2			
0.063	13.1	26.2	36.0			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.62		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	9.0	9.5	171.4	9.5	0.0520	30.7
2	7.5	8.0	177.1	8.0	0.0373	25.9
4	6.5	7.0	180.9	7.0	0.0267	22.6
30	4.0	4.5	190.4	4.5	0.0100	14.6
60	3.0	3.5	194.2	3.5	0.0071	11.3
120	2.5	3.0	196.1	3.0	0.0051	9.7
240	2.0	2.5	198.0	2.5	0.0036	8.1
1440	1.0	1.5	201.8	1.5	0.0015	4.9
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS33, - m.	o	6	30	63	1	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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*Wong*



WONG KIM YUEN  
Technical Manager

**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS28**

Project : 62801392

Location: KUANTAN MARITIME

Customer: DHI Water & Environment (m) Sdn Bhd

3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,

No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**

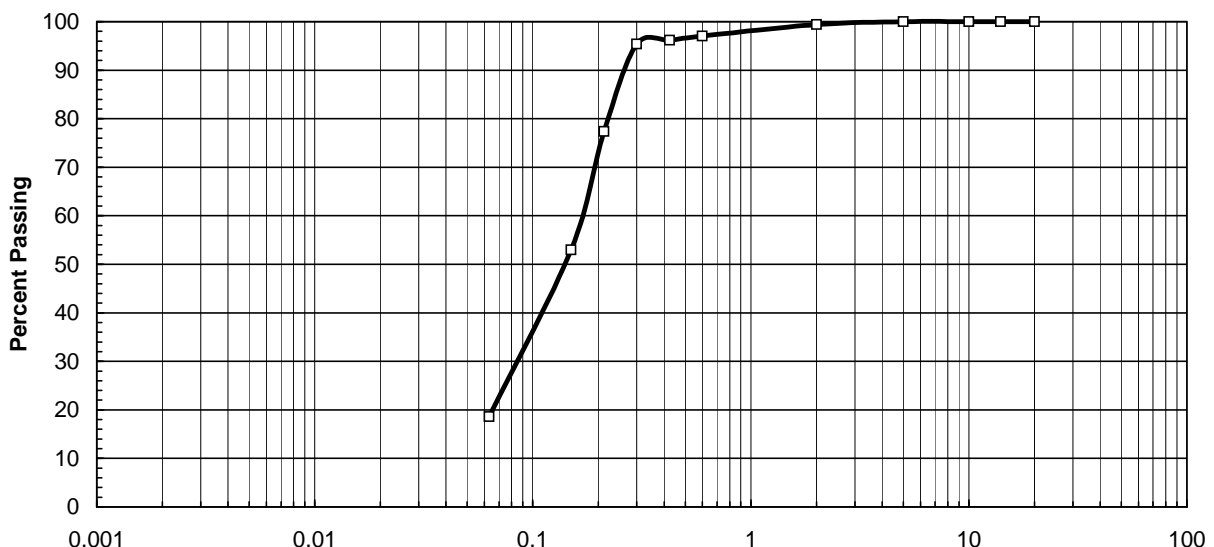
Sample No. : **GS28**

Depth, m. : -

Receive Date : 24.09.2016

Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	0.3	0.6	99.4			
0.600	1.2	2.4	97.0			
0.425	0.4	0.8	96.2			
0.300	0.4	0.8	95.4			
0.212	9.0	18.0	77.4			
0.150	12.2	24.4	53.0			
0.063	17.2	34.4	18.6			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: -		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: -		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS28, - m.	o	19	80	1		



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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WONG KIM YUEN  
 Technical Manager

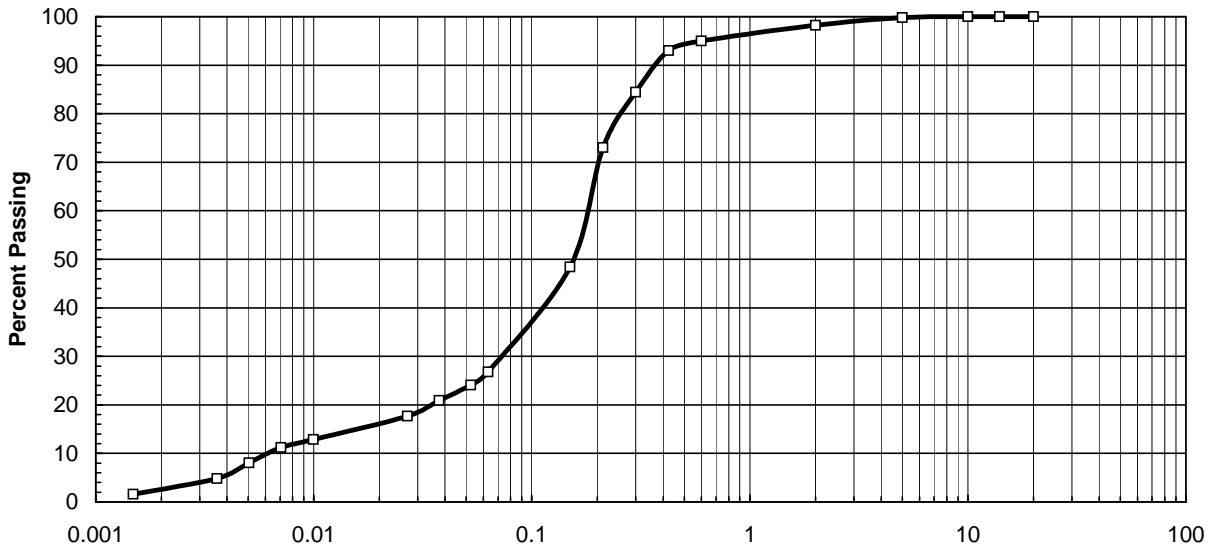
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS35**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS35**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.1	0.2	99.8			
2.0	0.8	1.6	98.2			
0.600	1.6	3.2	95.0			
0.425	1.0	2.0	93.0			
0.300	4.3	8.6	84.4			
0.212	5.7	11.4	73.0			
0.150	12.3	24.6	48.4			
0.063	10.8	21.6	26.8			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.65		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	7.0	7.5	179.0	7.5	0.0526	24.1
2	6.0	6.5	182.8	6.5	0.0376	20.9
4	5.0	5.5	186.6	5.5	0.0269	17.7
30	3.5	4.0	192.3	4.0	0.0100	12.8
60	3.0	3.5	194.2	3.5	0.0071	11.2
120	2.0	2.5	198.0	2.5	0.0051	8.0
240	1.0	1.5	201.8	1.5	0.0036	4.8
1440	0.0	0.5	205.6	0.5	0.0015	1.6
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS35, - m.	o	3	24	71	2	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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WONG KIM YUEN  
Technical Manager



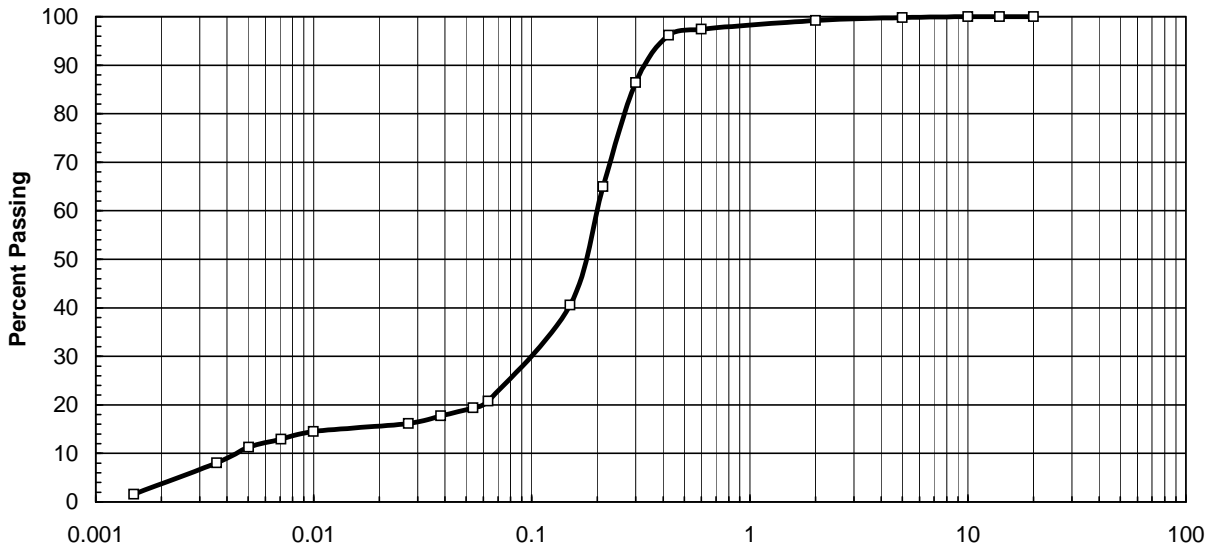
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS36**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS36**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.1	0.2	99.8			
2.0	0.3	0.6	99.2			
0.600	0.9	1.8	97.4			
0.425	0.6	1.2	96.2			
0.300	4.9	9.8	86.4			
0.212	10.7	21.4	65.0			
0.150	12.2	24.4	40.6			
0.063	9.9	19.8	20.8			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.63		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	5.5	6.0	184.7	6.0	0.0538	19.4
2	5.0	5.5	186.6	5.5	0.0382	17.7
4	4.5	5.0	188.5	5.0	0.0272	16.1
30	4.0	4.5	190.4	4.5	0.0100	14.5
60	3.5	4.0	192.3	4.0	0.0071	12.9
120	3.0	3.5	194.2	3.5	0.0050	11.3
240	2.0	2.5	198.0	2.5	0.0036	8.1
1440	0.0	0.5	205.6	0.5	0.0015	1.6
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS36, - m.	o	4	17	78	1	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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WONG KIM YUEN  
Technical Manager



**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS36**

Project : 62801392

Location: Kuantan Maritime

Customer: DHI Water & Environment (m) Sdn Bhd

3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,

No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**

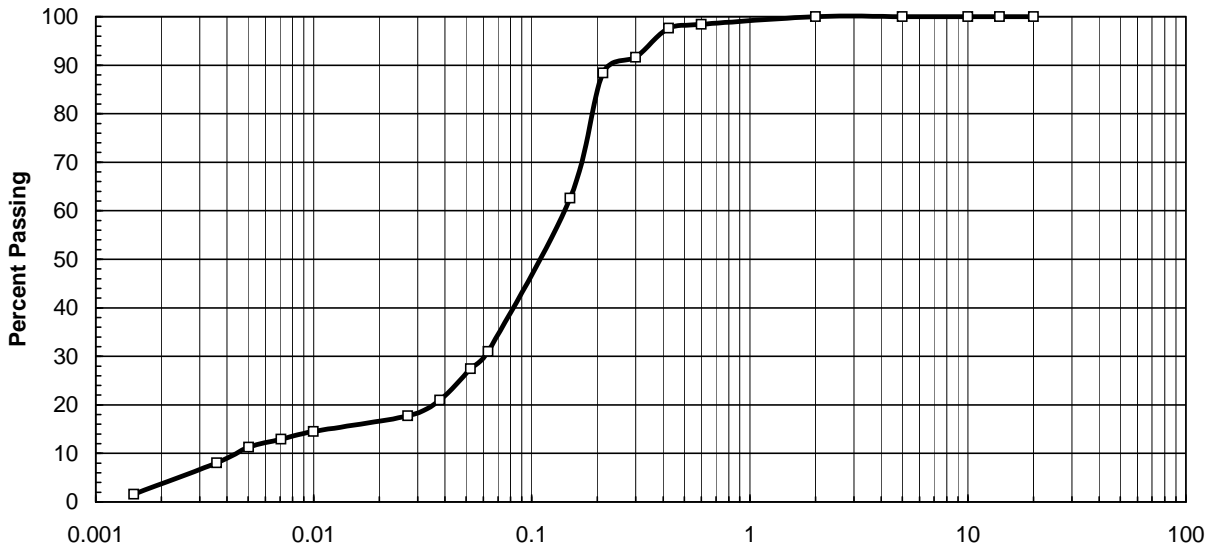
Sample No. : **GS36**

Depth, m. : -

Receive Date : 24.09.2016

Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3				Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)				
20.0	0.0	0.0	100.0				
14.0	0.0	0.0	100.0				
10.0	0.0	0.0	100.0				
5.0	0.0	0.0	100.0				
2.0	0.0	0.0	100.0				
0.600	0.8	1.6	98.4				
0.425	0.4	0.8	97.6				
0.300	3.0	6.0	91.6				
0.212	1.6	3.2	88.4				
0.150	12.9	25.8	62.6				
0.063	15.8	31.6	31.0				
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron						
Test Method: BS1377: 1990, Part 2, Clause 9.5					HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50			
Particle Density: 2.63		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5			
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer	
1	8.0	8.5	175.2	8.5	0.0524	27.4	
2	6.0	6.5	182.8	6.5	0.0378	21.0	
4	5.0	5.5	186.6	5.5	0.0270	17.7	
30	4.0	4.5	190.4	4.5	0.0100	14.5	
60	3.5	4.0	192.3	4.0	0.0071	12.9	
120	3.0	3.5	194.2	3.5	0.0050	11.3	
240	2.0	2.5	198.0	2.5	0.0036	8.1	
1440	0.0	0.5	205.6	0.5	0.0015	1.6	
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %		
GS36, - m.	o	4	27	69	0		



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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Technical Manager

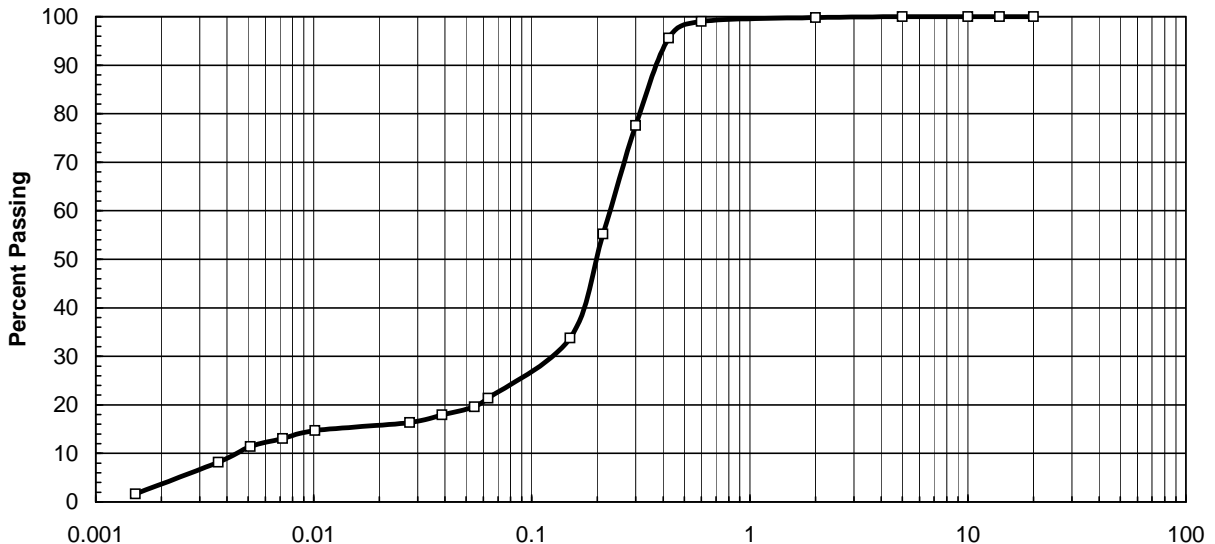
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS38**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS38**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	0.1	0.2	99.8			
0.600	0.4	0.8	99.0			
0.425	1.7	3.4	95.6			
0.300	9.0	18.0	77.6			
0.212	11.2	22.4	55.2			
0.150	10.7	21.4	33.8			
0.063	6.2	12.4	21.4			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.58		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	5.5	6.0	184.7	6.0	0.0546	19.6
2	5.0	5.5	186.6	5.5	0.0388	18.0
4	4.5	5.0	188.5	5.0	0.0276	16.3
30	4.0	4.5	190.4	4.5	0.0101	14.7
60	3.5	4.0	192.3	4.0	0.0072	13.1
120	3.0	3.5	194.2	3.5	0.0051	11.4
240	2.0	2.5	198.0	2.5	0.0037	8.2
1440	0.0	0.5	205.6	0.5	0.0015	1.6
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS38, - m.	o	4	17	79	0	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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Technical Manager



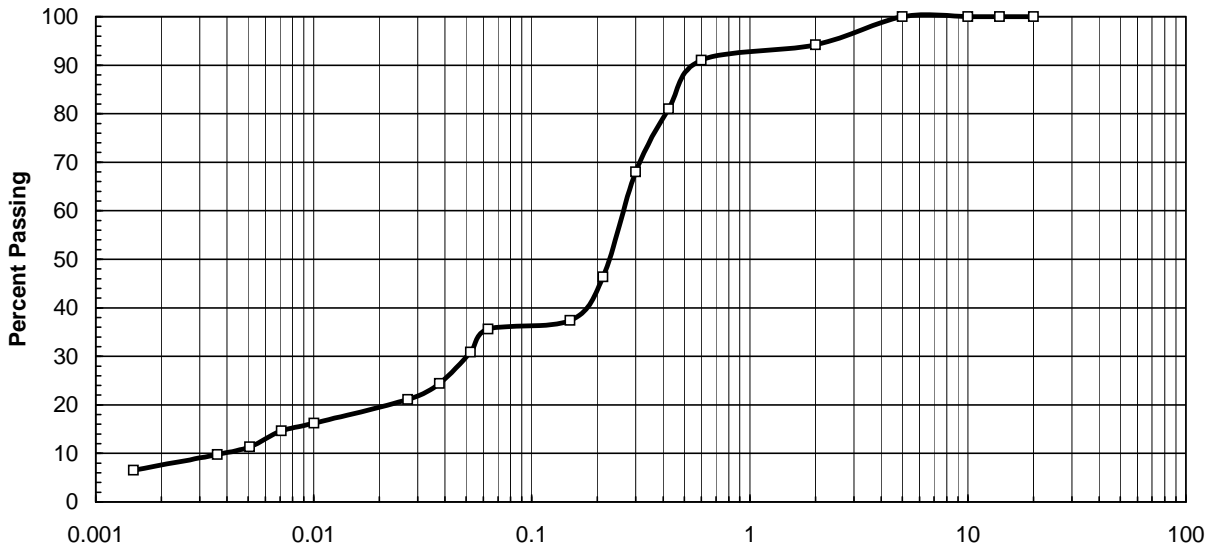
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS39**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS39**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3			Initial soil mass, $m_1$ :		50.0 gm.	
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.0	0.0	100.0			
2.0	2.9	5.8	94.2			
0.600	1.6	3.2	91.0			
0.425	5.0	10.0	81.0			
0.300	6.5	13.0	68.0			
0.212	10.8	21.6	46.4			
0.150	4.5	9.0	37.4			
0.063	0.9	1.8	35.6			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.60		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	9.0	9.5	171.4	9.5	0.0523	30.9
2	7.0	7.5	179.0	7.5	0.0378	24.4
4	6.0	6.5	182.8	6.5	0.0270	21.1
30	4.5	5.0	188.5	5.0	0.0100	16.2
60	4.0	4.5	190.4	4.5	0.0071	14.6
120	3.0	3.5	194.2	3.5	0.0051	11.4
240	2.5	3.0	196.1	3.0	0.0036	9.7
1440	1.5	2.0	199.9	2.0	0.0015	6.5
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS39, - m.	o	7	29	58	6	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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Technical Manager

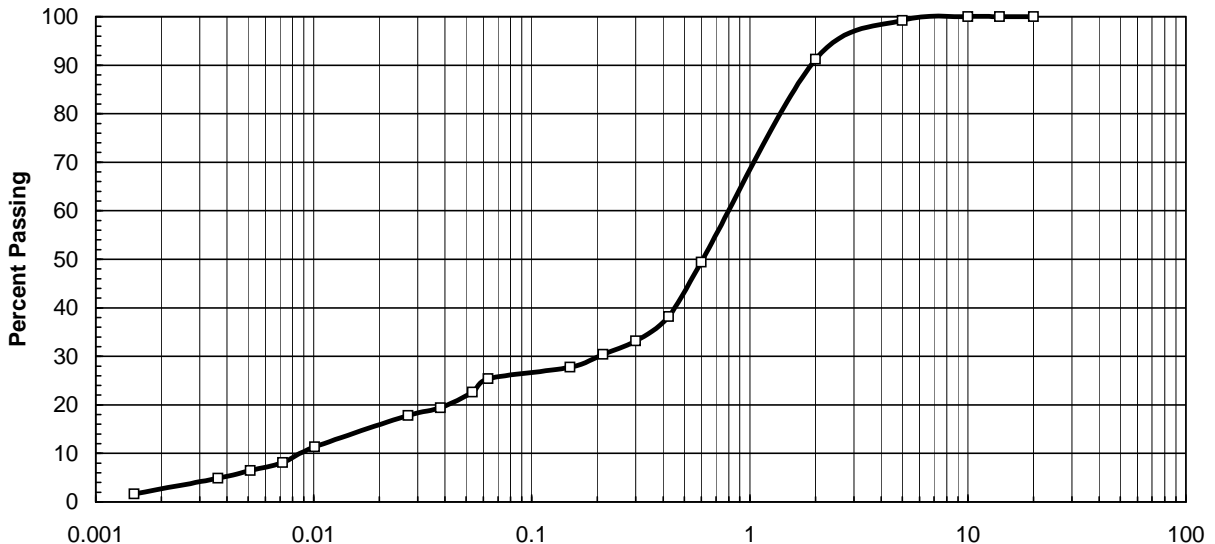
**PARTICLE SIZE DISTRIBUTION**

**TEST REPORT No. L160282/PS/GS40**

Project : 62801392  
Location: KUANTAN MARITIME  
Customer: DHI Water & Environment (m) Sdn Bhd  
3A01 & 02, Block G, Pusat Dagangan Phileo Damansara 1,  
No.9, Jln 16/11, Off Jln Damansara, 46350 Petaling Jaya, Selangor

Lab Ref.: **L160282**  
Sample No. : **GS40**  
Depth, m. : -  
Receive Date : 24.09.2016  
Test Date : 28.09.2016

Test Method: BS1377: 1990, Part 2, Clause 9.2 and 9.3				Initial soil mass, $m_1$ :		
SIZE (mm)	WT.OF SOIL RETAINED, (gm)	PERCENT RETAINED, (%)	SIEVE PERCENT PASSING, (%)			
20.0	0.0	0.0	100.0			
14.0	0.0	0.0	100.0			
10.0	0.0	0.0	100.0			
5.0	0.4	0.8	99.2			
2.0	4.0	8.0	91.2			
0.600	20.9	41.8	49.4			
0.425	5.6	11.2	38.2			
0.300	2.5	5.0	33.2			
0.212	1.4	2.8	30.4			
0.150	1.3	2.6	27.8			
0.063	1.2	2.4	25.4			
Pan	Note: Wt.Retained during DRY sieving do not include WET sieving portion passing 63 micron					
Test Method: BS1377: 1990, Part 2, Clause 9.5				HYDROMETER		
$m_1$ , gm: 50.0		Viscosity of Water: 0.834 mPa s		Menicus Corr.,cm: 0.50		
Particle Density: 2.62		Temperature: 28 °C		Disper.Sol, 0.9995,Rd: -0.5		
Elapsed Time t (min)	Hydrometer Reading Rh'	True Reading Rh	Effective Depth Hr (mm)	Modified Reading R	Particle Diameter D (mm)	% Finer
1	6.5	7.0	180.9	7.0	0.0534	22.6
2	5.5	6.0	184.7	6.0	0.0381	19.4
4	5.0	5.5	186.6	5.5	0.0271	17.8
30	3.0	3.5	194.2	3.5	0.0101	11.3
60	2.0	2.5	198.0	2.5	0.0072	8.1
120	1.5	2.0	199.9	2.0	0.0051	6.5
240	1.0	1.5	201.8	1.5	0.0036	4.9
1440	0.0	0.5	205.6	0.5	0.0015	1.6
Sample No.	Symbol	CLAY, %	SILT, %	SAND, %	GRAVEL, %	
GS40, - m.	o	3	22	66	9	



CLAY	SILT			SAND			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE

Tested by: Hasnah/Nor

Approved Signatory

**NOTES:**

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WONG KIM YUEN  
Technical Manager

