

Table 2.3 (1/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 5	RB - 5	RB - 6	RB - 6
	DEPTH (m)			7.00 - 7.50	13.00 - 13.50	7.00 - 7.70	13.00 - 13.70
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity	G	-	2.706	2.733	2.603	2.650
2	Natural Water Content	Wn	%	77.15	71.57	71.08	69.00
3	Unit Weight, Natural State	γ_m	t/m^3	1.545	1.583	1.538	1.575
4	Dry Unit Weight	γ_d	t/m^3	0.872	0.923	0.899	0.932
5	Natural Void Ratio	e	-	2.103	1.962	1.895	1.843
6	Natural Porosity	n	%	67.770	66.240	65.463	64.832
7	Degree of Saturation	Sr	%	99.285	99.689	97.613	99.187
8	Saturation of Water Content	Wsat	%	77.705	71.793	72.818	69.566
9	Saturation Unit Weight	γ_{sat}	t/m^3	1.550	1.585	1.554	1.580
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	112.84	94.23	101.65	105.88
13	Plastic Limit	PL	%	34.38	28.10	36.36	36.24
14	Plasticity Index	PI	%	78.47	66.12	65.29	69.64
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	95.50	94.70	92.70	93.80
17	U.U.	Triaxial Compression Test		ϕ	deg	1.279	
				c	kg/cm ²	0.025	
	C.U.	Triaxial Compression Test	Total	ϕ	deg		9.990
				c	kg/cm ²		0.231
		Effective	ϕ	deg		12.290	
		c	kg/cm ²		0.241		
18	Consolidation Test			Cc		0.706	0.661
				Pc	kg/cm ²	0.4189	0.3195
19	N Value				blow		

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Table 2.3 (2/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 7	RB - 8	RB - 9	RB - 9
	DEPTH (m)			10.00 - 10.70	10.00 - 10.70	7.00 - 7.70	13.00 - 13.50
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity	G	-	2.681	2.722	2.639	2.723
2	Natural Water Content	Wn	%	88.83	72.66	81.57	73.00
3	Unit Weight, Natural State	γ_m	t/m ³	1.469	1.543	1.673	1.561
4	Dry Unit Weight	γ_d	t/m ³	0.778	0.894	0.921	0.902
5	Natural Void Ratio	e	-	2.446	2.046	1.864	2.018
6	Natural Porosity	n	%	70.983	67.169	65.085	66.863
7	Degree of Saturation	Sr	%	97.355	96.672	100.000	98.513
8	Saturation of Water Content	Wsat	%	91.244	75.161	81.570	74.102
9	Saturation Unit Weight	γ_{sat}	t/m ³	1.488	1.565	1.673	1.571
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	120.94	111.12	80.37	96.83
13	Plastic Limit	PL	%	38.81	35.93	27.22	32.74
14	Plasticity Index	PI	%	82.13	75.19	53.15	64.09
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	99.40	96.40	94.30	96.10
17	U.U.	Triaxial Compression Test		ϕ	deg	4.710	1.668
		C.U.	Triaxial Compression Test	Total	ϕ	deg	
	Effective			c	kg/cm ²	0.047	0.019
				ϕ	deg		
		c	kg/cm ²				
18	Consolidation Test			Cc		0.574	
				Pc	kg/cm ²		0.4238
19	N Value				blow		

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Table 2.3 (3/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 1	RB - 2	RB - 3	RB - 4
	DEPTH (m)			10.00 - 10.70	9.00 - 9.70	10.00 - 10.50	10.00 - 10.70
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity	G	-	2.662	2.633	2.763	2.776
2	Natural Water Content	Wn	%	74.56	70.31	61.65	80.01
3	Unit Weight, Natural State	γ_m	t/m ³	1.563	1.570	1.495	1.531
4	Dry Unit Weight	γ_d	t/m ³	0.895	0.922	0.925	0.851
5	Natural Void Ratio	e	-	1.973	1.856	1.988	2.264
6	Natural Porosity	n	%	66.364	64.989	66.528	69.362
7	Degree of Saturation	Sr	%	100.000	99.733	85.703	98.107
8	Saturation of Water Content	Wsat	%	74.560	70.498	71.935	81.554
9	Saturation Unit Weight	γ_{sat}	t/m ³	1.563	1.572	1.590	1.544
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	Sl	-				
12	Liquid Limit	LL	%	93.54	104.33	114.53	110.18
13	Plastic Limit	PL	%	35.80	30.38	36.08	26.80
14	Plasticity Index	PI	%	57.74	73.95	78.45	83.37
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	98.30	93.60	88.30	98.00
17	U.U.	Triaxial Compression Test		ϕ		1.213	1.610
		C.U.	Triaxial Compression Test	Total	ϕ	2.000	
	Effective			c	kg/cm ²	0.191	
		ϕ	deg	3.470			
18	Consolidation Test			Cc		0.617	
				Pc	kg/cm ²		0.3529
19	N Value						
			blow	3.00	6.00	3.00	0.00

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Table 2.3 (4/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 10	RB - 11	RB - 11	RB - 12		
	DEPTH (m)			10.00 - 10.70	7.00 - 7.70	13.00 - 13.30	10.00 - 10.70		
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH		
1	Specific Gravity	G	-	2.764	2.547	2.746	2.661		
2	Natural Water Content	Wn	%	78.05	88.68	57.82	97.12		
3	Unit Weight, Natural State	γ_m	t/m^3	1.531	1.511	1.616	1.473		
4	Dry Unit Weight	γ_d	t/m^3	0.860	0.801	1.024	0.747		
5	Natural Void Ratio	e	-	2.214	2.180	1.682	2.561		
6	Natural Porosity	n	%	68.890	68.558	62.711	71.918		
7	Degree of Saturation	Sr	%	97.420	100.000	94.409	100.000		
8	Saturation of Water Content	Wsat	%	80.117	88.680	61.244	97.120		
9	Saturation Unit Weight	γ_{sat}	t/m^3	1.549	1.511	1.651	1.473		
10	Unconfined Compr. Strength	qu	kg/cm ²						
11	Sensitivity	St	-						
12	Liquid Limit	LL	%	119.84	106.91	95.70	105.49		
13	Plastic Limit	PL	%	36.00	36.26	31.43	32.35		
14	Plasticity Index	PI	%	83.84	70.65	64.27	73.14		
15	Shrinkage Limit	SL	%						
16	% Passing 200 US Stand Sieve	-	%	90.60	97.30	86.30	97.90		
17	U.U.	Triaxial Compression Test		ϕ	deg	1.168	-	2.470	1.425
				c	kg/cm ²	0.020	-	0.036	0.005
	C.U.	Triaxial Compression Test	Total	ϕ	deg				
			Effective	c	kg/cm ²				
18	Consolidation Test		Cc	-		0.692			
			Pc	kg/cm ²		0.3011			
19	N Value			blow					

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SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 13	RB - 14	RB - 15	RB - 16		
	DEPTH (m)			10.00 - 10.45	10.00 - 10.70	10.00 - 10.70	10.00 - 10.70		
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH		
1	Specific Gravity	G	-	2.670	2.560	2.644	2.743		
2	Natural Water Content	Wn	%	77.74	65.10	69.20	78.54		
3	Unit Weight, Natural State	γ_m	t/m^3	1.560	1.572	1.585	1.577		
4	Dry Unit Weight	γ_d	t/m^3	0.878	0.952	0.937	0.883		
5	Natural Void Ratio	e	-	2.042	1.689	1.822	2.105		
6	Natural Porosity	n	%	67.128	62.807	64.570	67.799		
7	Degree of Saturation	Sr	%	100.000	98.692	100.000	100.000		
8	Saturation of Water Content	Wsat	%	77.740	65.963	69.200	78.540		
9	Saturation Unit Weight	γ_{sat}	t/m^3	1.560	1.580	1.585	1.577		
10	Unconfined Compr. Strength	qu	kg/cm ²						
11	Sensilivity	St	-						
12	Liquid Limit	LL	%	114.79	102.66	107.78	102.48		
13	Plastic Limit	PL	%	33.83	32.47	27.34	28.21		
14	Plasticity Index	PI	%	80.96	70.20	80.44	74.28		
15	Shrinkage Limit	SL	%						
16	% Passing 200 US Stand Sieve	-	%	96.40	95.70	96.80	96.20		
17	U.U.	Triaxial Compression Test		ϕ	deg	5.841	-	6.815	2.192
				c	kg/cm ²	0.119	-	0.097	0.042
	C.U.	Triaxial Compression Test	Total	ϕ	deg				
			Effective	c	kg/cm ²				
18	Consolidation Test			Cc		0.714			
				Pc	kg/cm ²	0.8404			
19	N Value		blow						

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Table 2.3 (6/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 17	RB - 17	RB - 18	RB - 18	
	DEPTH (m)			7.60 - 8.10	10.60 - 11.10	7.00 - 7.60	10.00 - 10.60	
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH	
1	Specific Gravity	G	-	2.704	2.720	2.604	2.544	
2	Natural Water Content	Wn	%	52.64	80.25	63.68	67.43	
3	Unit Weight, Natural State	γ_m	t/m ³	1.700	1.583	1.605	1.576	
4	Dry Unit Weight	γ_d	t/m ³	1.114	0.878	0.981	0.941	
5	Natural Void Ratio	e	-	1.428	2.097	1.656	1.703	
6	Natural Porosity	n	%	58.812	67.712	62.344	63.000	
7	Degree of Saturation	Sr	%	99.686	100.000	100.000	100.000	
8	Saturation of Water Content	Wsat	%	52.806	80.250	63.680	67.430	
9	Saturation Unit Weight	γ_{sat}	t/m ³	1.702	1.583	1.605	1.576	
10	Unconfined Compr. Strength	qu	kg/cm ²					
11	Sensivity	St	-					
12	Liquid Limit	LL	%	67.99	96.21	85.77	96.90	
13	Plastic Limit	PL	%	26.77	34.00	32.57	35.75	
14	Plasticity Index	PI	%	41.22	62.21	53.19	61.15	
15	Shrinkage Limit	SL	%					
16	% Passing 200 US Stand Sieve	-	%	86.30	95.30	92.50	94.70	
17	U.U.	Triaxial Compression Test		ϕ	deg			
		C.U.	Triaxial Compression Test	Total	ϕ	deg	7.210	13.510
	Effective			c	kg/cm ²		0.195	0.048
		c	kg/cm ²		8.240	25.080	22.920	
18	Consolidation Test	Cc		0.434		0.201	0.056	0.216
		Pc	kg/cm ²	0.7561				
19	N Value		blow					

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Table 2.3 (7/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : U D W R D (U . D . S .)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 19	RB - 20	RB - 21	RB - 22		
	DEPTH (m)			10.00 - 10.55	10.00 - 10.60	9.00 - 9.55	9.00 - 9.55		
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH		
1	Specific Gravity	G	-	2.666	2.742	2.730	2.770		
2	Natural Water Content	W _n	%	58.48	60.54	66.85	53.85		
3	Unit Weight, Natural State	γ _m	Um ³	1.636	1.612	1.606	1.680		
4	Dry Unit Weight	γ _d	Um ³	1.032	1.004	0.963	1.092		
5	Natural Void Ratio	e	-	1.583	1.731	1.836	1.537		
6	Natural Porosity	n	%	61.279	63.380	64.742	60.579		
7	Degree of Saturation	S _r	%	98.516	95.911	99.388	97.068		
8	Saturation of Water Content	W _{sat}	%	59.361	63.121	67.262	55.476		
9	Saturation Unit Weight	γ _{sat}	Um ³	1.645	1.638	1.610	1.698		
10	Unconfined Compr. Strength	q _u	kg/cm ²						
11	Sensitivity	S _t	-						
12	Liquid Limit	LL	%	95.49	84.88	75.17	84.87		
13	Plastic Limit	PL	%	36.42	34.81	31.94	36.42		
14	Plasticity Index	PI	%	59.07	50.07	43.23	48.45		
15	Shrinkage Limit	SL	%						
16	% Passing 200 US Stand Sieve	-	%	85.40	92.60	85.80	72.30		
17	U.U.	Triaxial Compression Test		φ	deg				
		C.U.	Triaxial Compression Test	Total	φ	deg	12.420	6.020	7.850
	Effective			c	kg/cm ²	0.064	0.127	0.055	0.187
		c	kg/cm ²	17.300	9.020	10.270	17.620		
18	Consolidation Test		C _c						
			P _c	kg/cm ²					
19	N Value								

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Table 2.3 (8/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 24	RB - 25	RB - 28	RB - 28	
	DEPTH (m)			6.00 - 6.70	9.00 - 9.60	5.00 - 5.60	8.00 - 8.60	
	GROUP SYMBOL	SYM BOL	UNIT	CL	CH	CL	OL	
1	Specific Gravity			2.632	2.756	2.637	2.665	
2	Natural Water Content			39.59	36.38	42.72	37.98	
3	Unit Weight, Natural State			1.735	1.811	1.765	1.812	
4	Dry Unit Weight			1.243	1.328	1.237	1.313	
5	Natural Void Ratio			1.118	1.075	1.132	1.029	
6	Natural Porosity			52.776	51.818	53.102	50.723	
7	Degree of Saturation			93.238	93.229	99.489	98.331	
8	Saturation of Water Content			42.461	39.022	42.939	38.624	
9	Saturation Unit Weight			1.771	1.846	1.768	1.820	
10	Unconfined Compr. Strength							
11	Sensitivity							
12	Liquid Limit			49.64	68.18	48.43	40.68	
13	Plastic Limit			25.93	28.65	26.67	23.21	
14	Plasticity Index			23.71	39.53	21.76	17.47	
15	Shrinkage Limit							
16	% Passing 200 US Stand Sieve			45.50	81.50	79.40	67.80	
17	U.U.	Triaxial Compression Test		ϕ			7.427	12.885
				c			0.077	0.183
	C.U.	Triaxial Compression Test	Total	ϕ	6.330	21.540		
				c	0.453	0.170		
		Effective		ϕ	9.830	30.780		
				c	0.428	0.146		
18	Consolidation Test			Cc			0.172	
				Pc			1.2017	
19	N Value					50	42	

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SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 29	RB - 30	RB - 51	RB - 51	
	DEPTH (m)			4.00 - 4.50	4.50 - 4.90	4.00 - 4.70	7.00 - 7.65	
	GROUP SYMBOL	SYM BOL	UNIT	OH	CH	CH	CH	
1	Specific Gravity	G	-	2.620	2.756	2.576	2.533	
2	Natural Water Content	Wn	%	36.86	45.75	64.39	88.97	
3	Unit Weight, Natural State	γ_m	t/m^3	1.809	1.819	1.567	1.581	
4	Dry Unit Weight	γ_d	t/m^3	1.322	1.248	0.953	0.837	
5	Natural Void Ratio	e	-	0.982	1.208	1.702	2.028	
6	Natural Porosity	n	%	49.550	54.716	62.996	66.970	
7	Degree of Saturation	Sr	%	98.327	100.000	97.431	100.000	
8	Saturation of Water Content	Wsat	%	37.487	45.750	66.088	88.970	
9	Saturation Unit Weight	γ_{sat}	t/m^3	1.817	1.819	1.583	1.581	
10	Unconfined Compr. Strength	qu	kg/cm ²					
11	Sensitivity	St	-					
12	Liquid Limit	LL	%	88.45	83.97	90.29	99.16	
13	Plastic Limit	PL	%	25.00	26.09	26.34	29.89	
14	Plasticity Index	PI	%	63.45	57.88	63.95	69.27	
15	Shrinkage Limit	SL	%					
16	% Passing 200 US Stand Sieve	-	%	96.10	93.30	84.60	95.42	
17	U.U.	Triaxial Compression Test		ϕ	deg	15.728	23.132	1.156
				c	kg/cm ²	0.437	0.153	0.010
	C.U.	Triaxial Compression Test		ϕ	deg			
		Effective		c	kg/cm ²			
18	Consolidation Test			Cc	-		0.593	
				Pc	kg/cm ²		0.6069	
19	N Value				blow			

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Table 2.3 (10/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 52	RB - 52	RB - 52		
	DEPTH (m)			3.00 - 3.60	7.00 - 7.60	11.00 - 11.60		
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH		
1	Specific Gravity	G	-	2.655	2.659	2.753		
2	Natural Water Content	Wn	%	56.24	89.26	64.54		
3	Unit Weight, Natural State	γ_m	U/m^3	1.742	1.490	1.605		
4	Dry Unit Weight	γ_d	U/m^3	1.115	0.787	0.975		
5	Natural Void Ratio	e	-	1.381	2.377	1.822		
6	Natural Porosity	n	%	58.006	70.392	64.568		
7	Degree of Saturation	Sr	%	100.000	99.830	97.503		
8	Saturation of Water Content	Wsat	%	56.240	89.412	66.193		
9	Saturation Unit Weight	γ_{sat}	U/m^3	1.742	1.491	1.621		
10	Unconfined Compr. Strength	qu	kg/cm ²					
11	Sensitivity	St	-					
12	Liquid Limit	LL	%	67.22	85.44	92.72		
13	Plastic Limit	PL	%	26.44	38.27	28.81		
14	Plasticity Index	PI	%	40.78	47.17	63.91		
15	Shrinkage Limit	SL	%					
16	% Passing 200 US Stand Sieve	-	%	80.80	82.10	92.60		
17	U.U.	Triaxial Compression Test		ϕ	deg	2.837	1.515	2.700
				c	kg/cm ²	0.055	0.011	0.009
	C.U.	Triaxial Compression Test	Total	ϕ	deg			
				c	kg/cm ²			
		Effective	ϕ	deg				
		c	kg/cm ²					
18	Consolidation Test			Cc	-			
				Pc	kg/cm ²			
19	N Value				blow			

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Table 2.3 (11/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 1	RB - 1	RB - 2	RB - 2
	DEPTH (m)			7.55 - 8.00	12.55 - 13.00	3.55 - 4.00	12.55 - 13.00
	GROUP SYMBOL	SYM BOL	UNIT	OH	CH	Loammy Sand	CH
1	Specific Gravity	G	-	2.703	2.640	2.788	2.769
2	Natural Water Content	Wn	%	40.36	59.39	37.52	95.42
3	Unit Weight, Natural State	γ_m	t/m^3	1.852	1.677		
4	Dry Unit Weight	γ_d	t/m^3	1.319	1.052		
5	Natural Void Ratio	e	-	1.049	1.509		
6	Natural Porosity	n	%	51.185	60.146		
7	Degree of Saturation	Sr	%	100.000	100.000		
8	Saturation of Water Content	Wsat	%	40.360	59.390		
9	Saturation Unit Weight	γ_{sat}	t/m^3	1.852	1.677		
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	51.02	124.92	-	124.04
13	Plastic Limit	PL	%	26.24	39.44	-	37.04
14	Plasticity Index	PI	%	24.78	85.48	-	87.00
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	64.00	86.70	22.00	97.80
17	U.U.	Triaxial Compression Test		ϕ	deg		
				c	kg/cm ²		
	C.U.	Triaxial Compression Test	Total	ϕ	deg		
			Effective	c	kg/cm ²		
18	Consolidation Test		Cc				
			Pc	kg/cm ²			
19	N Value		blow	3.00	6.00	3.00	0.00

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Table 2.3 (12/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 3	RB - 3	RB - 4	RB - 4
	DEPTH (m)			4.55 - 5.00	14.55 - 15.00	3.50 - 4.00	6.55 - 7.00
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity	G	-	2.783	2.713	2.677	2.680
2	Natural Water Content	Wn	%	75.81	83.32	48.13	60.08
3	Unit Weight, Natural State	γ_m	t/m^3				
4	Dry Unit Weight	γ_d	t/m^3				
5	Natural Void Ratio	e	-				
6	Natural Porosity	n	%				
7	Degree of Saturation	Sr	%				
8	Saturation of Water Content	Wsat	%				
9	Saturation Unit Weight	γ_{sat}	t/m^3				
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	101.60	109.37	66.44	85.52
13	Plastic Limit	PL	%	34.94	31.96	30.46	29.03
14	Plasticity Index	PI	%	66.66	77.41	35.98	56.49
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	98.60	97.60	66.30	93.20
17	U.U.	Triaxial Compression Test		ϕ	deg		
		C.U.	Triaxial Compression Test	Total	ϕ	deg	
	Effective			c	kg/cm ²		
		ϕ	deg				
18	Consolidation Test			Cc			
				Pc	kg/cm ²		
19	N Value				blow	0.00	6.00
						0.00	3.00

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Table 2.3 (13/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 5	RB - 5	RB - 5	RB - 6
	DEPTH (m)			4.55 - 5.00	18.55 - 19.00	22.55 - 23.00	3.55 - 4.00
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity	G	-	2.553	2.750	2.546	2.655
2	Natural Water Content	W _n	%	49.11	88.00	38.88	47.82
3	Unit Weight, Natural State	γ_m	t/m ³				
4	Dry Unit Weight	γ_d	t/m ³				
5	Natural Void Ratio	e	-				
6	Natural Porosity	n	%				
7	Degree of Saturation	S _r	%				
8	Saturation of Water Content	W _{sal}	%				
9	Saturation Unit Weight	γ_{sat}	t/m ³				
10	Unconfined Compr. Strength	q _u	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	70.31	113.16	90.99	57.58
13	Plastic Limit	PL	%	26.21	32.02	27.59	23.56
14	Plasticity Index	PI	%	44.10	81.14	63.40	34.02
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	86.90	93.40	98.10	69.80
17	U.U.	Triaxial Compression Test		ϕ	deg		
		C.U.	Triaxial Compression Test	Total	ϕ	deg	
	Effective			c	kg/cm ²		
			ϕ	deg			
	18	Consolidation Test	C _c				
P _c			kg/cm ²				
19	N Value		blow	0.00	7.00	29.00	8.00

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Table 2.3 (14/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 6	RB - 6	RB - 7	RB - 7	
	DEPTH (m)			9.55 - 10.00	16.55 - 17.00	3.55 - 4.00	14.55 - 15.00	
	GROUP SYMBOL	SYM BÖL	UNIT	CH	CH	CH	CH	
1	Specific Gravity	G	-	2.619	2.663	2.657	2.636	
2	Natural Water Content	W _n	%	90.47	43.59	67.24	69.35	
3	Unit Weight, Natural State	γ _m	t/m ³					
4	Dry Unit Weight	γ _d	t/m ³					
5	Natural Void Ratio	e	-					
6	Natural Porosity	n	%					
7	Degree of Saturation	S _r	%					
8	Saturation of Water Content	W _{sat}	%					
9	Saturation Unit Weight	γ _{sat}	t/m ³					
10	Unconfined Compr. Strength	q _u	kg/cm ²					
11	Sensivity	St	-					
12	Liquid Limit	LL	%	130.28	117.97	82.35	104.33	
13	Plastic Limit	PL	%	35.15	27.38	25.52	24.75	
14	Plasticity Index	PI	%	95.13	90.59	56.83	79.58	
15	Shrinkage Limit	SL	%					
16	% Passing 200 US Stand Sieve	-	%	99.20	96.60	82.20	97.90	
17	U.U.	Triaxial Compression Test		φ	deg			
				c	kg/cm ²			
	C.U.	Triaxial Compression Test	Total	φ	deg			
			Effective	c	kg/cm ²			
18	Consolidation Test		C _c					
			P _c	kg/cm ²				
19	N Value			blow	3.00	6.00	3.00	4.00

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Table 2.3 (15/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 8	RB - 8	RB - 9	RB - 9		
	DEPTH (m)			2.55 - 3.00	5.55 - 6.00	4.55 - 5.00	19.55 - 20.00		
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH		
1	Specific Gravity	G	-	2.750	2.704	2.779	2.656		
2	Natural Water Content	W _n	%	56.52	59.29	71.58	46.48		
3	Unit Weight, Natural State	γ _m	t/m ³						
4	Dry Unit Weight	γ _d	t/m ³						
5	Natural Void Ratio	e	-						
6	Natural Porosity	n	%						
7	Degree of Saturation	S _r	%						
8	Saturation of Water Content	W _{sat}	%						
9	Saturation Unit Weight	γ _{sat}	t/m ³						
10	Unconfined Compr. Strength	q _u	kg/cm ²						
11	Sensitivity	S _t	-						
12	Liquid Limit	LL	%	68.01	70.74	102.93	89.74		
13	Plastic Limit	PL	%	22.17	21.13	21.53	21.15		
14	Plasticity Index	PI	%	45.84	49.61	81.40	68.59		
15	Shrinkage Limit	SL	%						
16	% Passing 200 US Stand Sieve	-	%	93.50	81.70	94.80	98.40		
17	U.U.	Triaxial Compression Test		φ	deg				
		C.U.	Triaxial Compression Test	Total	φ	deg			
	Effective			c	kg/cm ²				
		c	kg/cm ²						
18	Consolidation Test			C _c	.				
				P _c	kg/cm ²				
19	N Value				blow	4.00	3.00	1.00	13.00

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Table 2.3 (16/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 9	RB - 10	RB - 11	RB - 11
	DEPTH (m)			23.55 - 24.00	3.55 - 4.00	4.55 - 5.00	17.55 - 18.00
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity	G	-	2.762	2.776	2.666	2.646
2	Natural Water Content	Wn	%	42.28	52.65	82.45	54.98
3	Unit Weight, Natural State	γ_m	t/m ³				
4	Dry Unit Weight	γ_d	t/m ³				
5	Natural Void Ratio	e	-				
6	Natural Porosity	n	%				
7	Degree of Saturation	Sr	%				
8	Saturation of Water Content	Wsat	%				
9	Saturation Unit Weight	γ_{sat}	t/m ³				
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	80.91	96.91	96.82	73.79
13	Plastic Limit	PL	%	21.05	19.89	29.63	22.99
14	Plasticity Index	PI	%	59.86	77.01	67.19	50.80
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	88.60	96.80	95.70	87.90
17	U.U.	Triaxial Compression Test		ϕ	deg		
		C.U.	Triaxial Compression Test	Total	ϕ	deg	
	Effective			c	kg/cm ²		
			ϕ	deg			
	18	Consolidation Test	c	kg/cm ²			
Pc			kg/cm ²				
19	N Value		blow	23.00	26.00	1.00	16.00

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Table 2.3 (17/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 11	RB - 12	RB - 12	RB - 13
	DEPTH (m)			20.55 - 21.00	5.55 - 6.00	14.55 - 15.00	4.55 - 5.00
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity	G	-	2.650	2.792	2.658	2.657
2	Natural Water Content	Wn	%	36.89	67.27	74.65	75.97
3	Unit Weight, Natural State	γ_m	t/m ³				
4	Dry Unit Weight	γ_d	t/m ³				
5	Natural Void Ratio	e	-				
6	Natural Porosity	n	%				
7	Degree of Saturation	Sr	%				
8	Saturation of Water Content	Wsat	%				
9	Saturation Unit Weight	γ_{sat}	t/m ³				
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivty	St	-				
12	Liquid Limit	LL	%	86.49	74.00	101.11	120.71
13	Plastic Limit	PL	%	25.53	25.86	28.66	28.98
14	Plasticity Index	PI	%	60.96	48.14	72.46	91.73
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	86.70	85.50	93.40	92.40
17	U.U.	Triaxial Compression Test		ϕ	deg		
				c	kg/cm ²		
	C.U.	Triaxial Compression Test	Total	ϕ	deg		
				c	kg/cm ²		
		Effective	ϕ	deg			
			c	kg/cm ²			
18	Consolidation Test		Cc				
			Pc	kg/cm ²			
19	N Value			blow	> 50.00	3.00	3.00

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Table 2.3 (18/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 13	RB - 14	RB - 14	RB - 15		
	DEPTH (m)			6.55 - 7.00	2.55 - 3.00	14.55 - 15.00	3.55 - 4.00		
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH		
1	Specific Gravity	G	-	2.672	2.619	2.750	2.671		
2	Natural Water Content	Wn	%	74.93	51.80	63.57	49.66		
3	Unit Weight, Natural State	γ_m	t/m ³						
4	Dry Unit Weight	γ_d	t/m ³						
5	Natural Void Ratio	e	-						
6	Natural Porosity	n	%						
7	Degree of Saturation	Sr	%						
8	Saturation of Water Content	Wsat	%						
9	Saturation Unit Weight	γ_{sat}	t/m ³						
10	Unconfined Compr. Strength	qu	kg/cm ²						
11	Sensitivity	St	-						
12	Liquid Limit	LL	%	116.15	122.91	104.25	116.91		
13	Plastic Limit	PL	%	32.70	25.45	25.00	33.52		
14	Plasticity Index	PI	%	83.44	97.46	79.25	83.39		
15	Shrinkage Limit	SL	%						
16	% Passing 200 US Stand Sieve	-	%	97.00	96.10	96.70	66.50		
17	U.U.	Triaxial Compression Test		ϕ	deg				
		C.U.	Triaxial Compression Test	Total	ϕ	deg			
	Effective			c	kg/cm ²				
		ϕ	deg						
18	Consolidation Test			Cc					
				Pc	kg/cm ²				
19	N Value				blow	3.00	7.00	6.00	3.00

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Table 2.3 (19/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 15	RB - 16	RB - 16	RB - 17	
	DEPTH (m)			14.55 - 15.00	4.55 - 5.00	14.55 - 15.00	3.55 - 4.00	
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH	
1	Specific Gravity	G	-	2.686	2.751	2.635	2.537	
2	Natural Water Content	Wn	%	49.46	82.83	59.85	79.60	
3	Unit Weight, Natural State	ym	t/m ³				1.648	
4	Dry Unit Weight	yd	t/m ³				0.918	
5	Natural Void Ratio	e	-				1.765	
6	Natural Porosity	n	%				63.832	
7	Degree of Saturation	Sr	%				100.000	
8	Saturation of Water Content	Wsat	%				79.600	
9	Saturation Unit Weight	ysat	t/m ³				1.648	
10	Unconfined Compr. Strength	qu	kg/cm ²					
11	Sensitivity	St	-					
12	Liquid Limit	LL	%	82.13	96.23	81.97	100.85	
13	Plastic Limit	PL	%	25.00	32.93	25.50	38.69	
14	Plasticity Index	PI	%	57.13	63.30	56.47	62.16	
15	Shrinkage Limit	SL	%					
16	% Passing 200 US Stand Sieve	-	%	87.40	92.90	92.60	85.70	
17	U.U.	Triaxial Compression Test		φ	deg			
		C.U.	Triaxial Compression Test	Total	φ	deg		
	Effective			c	kg/cm ²			
		c	kg/cm ²					
18	Consolidation Test		Cc					
			Pc	kg/cm ²				
19	N Value			blow	24.00	3.00	18.00	>50.00

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Table 2.3 (20/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 17	RB - 17	RB - 17	RB - 18		
	DEPTH (m)			5.55 - 6.00	16.55 - 17.00	27.55 - 28.00	3.55 - 4.00		
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH		
1	Specific Gravity	G	-	2.661	2.584	2.554	2.555		
2	Natural Water Content	Wn	%	52.77	35.56	42.46	50.96		
3	Unit Weight, Natural State	γ_m	t/m ³	1.760	1.856	1.784	1.733		
4	Dry Unit Weight	γ_d	t/m ³	1.152	1.369	1.252	1.148		
5	Natural Void Ratio	e	-	1.310	0.887	1.039	1.226		
6	Natural Porosity	n	%	56.706	47.015	50.968	55.069		
7	Degree of Saturation	Sr	%	100.000	100.000	100.000	100.000		
8	Saturation of Water Content	Wsat	%	52.770	35.560	42.460	50.960		
9	Saturation Unit Weight	γ_{sat}	t/m ³	1.760	1.856	1.784	1.733		
10	Unconfined Compr. Strength	qu	kg/cm ²						
11	Sensitivity	St	-						
12	Liquid Limit	LL	%	69.71	54.98	74.80	74.49		
13	Plastic Limit	PL	%	28.49	28.07	31.33	23.43		
14	Plasticity Index	PI	%	41.22	26.91	43.48	51.06		
15	Shrinkage Limit	SL	%						
16	% Passing 200 US Stand Sieve	-	%	76.80	66.50	93.10	66.00		
17	U.U.	Triaxial Compression Test		ϕ	deg				
				c	kg/cm ²				
	C.U.	Triaxial Compression Test	Total	ϕ	deg				
			Effective	ϕ	deg				
			c	kg/cm ²					
18	Consolidation Test			Cc					
				Pc	kg/cm ²				
19	N Value				blow	42.00	0.00	6.00	3.00

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Table 2.3 (21/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 18	RB - 18	RB - 19	RB - 19		
	DEPTH (m)			5.55 - 6.00	17.55 - 18.00	4.55 - 5.00	8.55 - 9.00		
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	OH		
1	Specific Gravity	G	-	2.595	2.617	2.730	2.707		
2	Natural Water Content	W _n	%	60.92	40.67	46.65	46.64		
3	Unit Weight, Natural State	γ_m	t/m^3	1.743	1.768	1.703	1.760		
4	Dry Unit Weight	γ_d	t/m^3	1.083	1.257	1.161	1.200		
5	Natural Void Ratio	e	-	1.396	1.082	1.351	1.255		
6	Natural Porosity	n	%	58.260	51.974	57.463	55.662		
7	Degree of Saturation	S _r	%	100.000	98.349	94.275	100.000		
8	Saturation of Water Content	W _{sat}	%	60.920	41.353	49.483	46.640		
9	Saturation Unit Weight	γ_{sat}	t/m^3	1.743	1.777	1.736	1.760		
10	Unconfined Compr. Strength	q _u	kg/cm ²						
11	Sensitivity	St	-						
12	Liquid Limit	LL	%	57.19	123.62	83.42	54.39		
13	Plastic Limit	PL	%	23.98	40.85	27.47	42.03		
14	Plasticity Index	PI	%	33.21	82.76	55.94	12.36		
15	Shrinkage Limit	SL	%						
16	% Passing 200 US Stand Sieve	-	%	91.50	93.90	87.10	53.60		
17	U.U.	Triaxial Compression Test		ϕ	deg				
				c	kg/cm ²				
	C.U.	Triaxial Compression Test	Total	ϕ	deg				
				c	kg/cm ²				
		Effective	ϕ	deg					
			c	kg/cm ²					
18	Consolidation Test			C _c					
				P _c	kg/cm ²				
19	N Value				blow	3.00	>50.00	7.00	13.00

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Table 2.3 (22/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 19	RB - 20	RB - 20	RB - 20
	DEPTH (m)			14.55 - 15.00	2.55 - 3.00	6.55 - 7.00	12.55 - 13.00
	GROUP SYMBOL	SYM BOL	UNIT	OH	CH	CL	CH
1	Specific Gravity	G	-	2.623	2.629	2.679	2.602
2	Natural Water Content	Wn	%	58.26	48.24	46.77	57.41
3	Unit Weight, Natural State	γ_m	t/m^3	1.725	1.795	1.721	1.662
4	Dry Unit Weight	γ_d	t/m^3	1.090	1.211	1.173	1.056
5	Natural Void Ratio	e	-	1.406	1.171	1.285	1.464
6	Natural Porosity	n	%	58.445	53.942	56.231	59.422
7	Degree of Saturation	Sr	%	100.000	100.000	97.530	100.000
8	Saturation of Water Content	Wsat	%	58.260	48.240	47.954	57.410
9	Saturation Unit Weight	γ_{sat}	t/m^3	1.725	1.795	1.735	1.662
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	80.54	76.07	37.02	73.79
13	Plastic Limit	PL	%	42.58	22.99	23.04	30.52
14	Plasticity Index	PI	%	37.96	53.08	13.99	43.27
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	90.70	83.00	71.50	87.90
17	U.U.	Triaxial Compression Test		ϕ	deg		
				c	kg/cm ²		
	C.U.	Triaxial Compression Test	Total	ϕ	deg		
			Effective	ϕ	deg		
18	Consolidation Test	Cc					
		Pc	kg/cm ²				
19	N Value		blow	19.00	6.00	3.00	3.00

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Table 2.3 (23/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 21	RB - 21	RB - 21	RB - 21
	DEPTH (m)			4.55 - 5.00	6.55 - 7.00	13.55 - 14.00	18.55 - 19.00
	GROUP SYMBOL	SYM BOL	UNIT	CL	CH	CH	CH
1	Specific Gravity	G	-	2.637	2.577	2.706	2.624
2	Natural Water Content	Wn	%	41.28	52.70	60.30	40.59
3	Unit Weight, Natural State	γ_m	t/m^3	1.891	1.733	1.668	1.655
4	Dry Unit Weight	γ_d	t/m^3	1.338	1.135	1.041	1.177
5	Natural Void Ratio	e	-	0.970	1.271	1.601	1.229
6	Natural Porosity	n	%	49.242	55.960	61.547	55.138
7	Degree of Saturation	Sr	%	100.000	100.000	100.000	86.659
8	Saturation of Water Content	Wsat	%	41.280	52.700	60.300	46.839
9	Saturation Unit Weight	γ_{sat}	t/m^3	1.891	1.733	1.668	1.729
10	Unconfined Compr. Strength	qu	kg/cm^2				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	45.19	71.42	83.69	76.53
13	Plastic Limit	PL	%	21.13	31.40	34.36	30.12
14	Plasticity Index	PI	%	24.07	40.02	49.33	46.41
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	46.80	78.50	79.30	93.30
17	U.U.	Triaxial Compression Test		ϕ	deg		
				c	kg/cm^2		
	C.U.	Triaxial Compression Test	Total	ϕ	deg		
			Effective	ϕ	deg		
			c	kg/cm^2			
18	Consolidation Test			Cc			
				Pc	kg/cm^2		
19	N Value		blow	3.00	6.00	7.00	30.00

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Table 2.3 (24/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 22	RB - 22	RB - 22	RB - 22
	DEPTH (m)			2.55 - 3.00	6.55 - 7.00	12.55 - 13.00	16.55 - 17.00
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity	G	-	2.583	2.736	2.559	2.652
2	Natural Water Content	Wn	%	52.44	59.20	51.23	43.70
3	Unit Weight, Natural State	γ_m	t/m ³	1.704	1.689	1.757	1.553
4	Dry Unit Weight	γ_d	t/m ³	1.118	1.061	1.162	1.081
5	Natural Void Ratio	e	-	1.311	1.579	1.203	1.454
6	Natural Porosity	n	%	56.724	61.223	54.599	59.249
7	Degree of Saturation	Sr	%	100.000	100.000	100.000	79.711
8	Saturation of Water Content	Wsat	%	52.440	59.200	51.230	54.823
9	Saturation Unit Weight	γ_{sat}	t/m ³	1.704	1.689	1.757	1.673
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	71.89	86.36	79.59	98.94
13	Plastic Limit	PL	%	27.85	27.68	32.34	30.67
14	Plasticity Index	PI	%	44.05	58.69	47.25	68.27
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	83.10	88.90	90.90	97.10
17	U.U.	Triaxial Compression Test		ϕ	deg		
				c	kg/cm ²		
	C.U.	Triaxial Compression Test	Total	ϕ	deg		
				c	kg/cm ²		
		Effective	ϕ	deg			
		c	kg/cm ²				
18	Consolidation Test			Cc			
				Pc	kg/cm ²		
19	N Value				blow	3.00	3.00
						3.00	29.00

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Table 2.3 (25/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : U D W R D (S.P.T)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 23	RB - 23	RB - 23	RB - 24
	DEPTH (m)			6.55 - 7.00	9.60 - 10.00	11.55 - 12.00	2.55 - 3.00
	GROUP SYMBOL	SYM BOL	UNIT	CL	CH	CH	CH
1	Specific Gravity	G	-	2.684	2.610	2.635	2.639
2	Natural Water Content	W _n	%	41.81	43.89	35.70	44.61
3	Unit Weight, Natural State	γ_m	t/m ³	1.774	1.782	1.874	
4	Dry Unit Weight	γ_d	t/m ³	1.251	1.238	1.381	
5	Natural Void Ratio	e	-	1.146	1.107	0.908	
6	Natural Porosity	n	%	53.392	52.550	47.591	
7	Degree of Saturation	S _r	%	97.961	100.000	100.000	
8	Saturation of Water Content	W _{sat}	%	42.680	43.890	35.700	
9	Saturation Unit Weight	γ_{sat}	t/m ³	1.785	1.782	1.874	
10	Unconfined Compr. Strength	q _u	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	46.78	50.51	67.50	73.53
13	Plastic Limit	PL	%	22.80	22.86	28.05	25.00
14	Plasticity Index	PI	%	23.98	27.65	39.45	48.53
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	50.70	52.40	87.10	90.50
17	U.U.	Triaxial Compression Test		ϕ	deg		
				c	kg/cm ²		
	C.U.	Triaxial Compression Test	Total	ϕ	deg		
				c	kg/cm ²		
			Effective	ϕ	deg		
			c	kg/cm ²			
18	Consolidation Test		C _c				
			P _c	kg/cm ²			
19	N Value		blow	11.00	8.00	> 50.00	

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Table 2.3 (26/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 24	RB - 25	RB - 25	RB - 26
	DEPTH (m)			12.55 - 13.00	2.55 - 3.00	12.55 - 13.00	4.55 - 5.00
	GROUP SYMBOL	SYM BOL	UNIT	Loamy Sand	CH	CH	CH
1	Specific Gravity	G	-	2.750	2.574	2.572	2.645
2	Natural Water Content	Wn	%	35.61	44.06	44.46	68.17
3	Unit Weight, Natural State	γ_m	t/m^3		1.791	1.788	
4	Dry Unit Weight	γ_d	t/m^3		1.243	1.238	
5	Natural Void Ratio	e	-		1.070	1.078	
6	Natural Porosity	n	%		51.700	51.877	
7	Degree of Saturation	Sr	%		100.000	100.000	
8	Saturation of Water Content	Wsat	%		44.060	44.460	
9	Saturation Unit Weight	γ_{sat}	t/m^3		1.791	1.788	
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	-	102.05	76.89	112.64
13	Plastic Limit	PL	%	-	25.71	26.76	27.50
14	Plasticity Index	PI	%	-	76.34	50.13	85.14
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	27.20	92.30	95.60	98.20
17	U.U.	Triaxial Compression Test		ϕ	deg		
		C.U.	Triaxial Compression Test	Total	ϕ	deg	
	Effective			c	kg/cm ²		
			ϕ	deg			
	18	Consolidation Test	c	kg/cm ²			
P_c			kg/cm ²				
19	N Value		blow	34.00	10.00	16.00	13.00

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Table 2.3 (27/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 26	RB - 27	RB - 27	RB - 28
	DEPTH (m)			14.55 - 15.00	7.55 - 8.00	11.55 - 12.00	4.55 - 5.00
	GROUP SYMBOL	SYM BOL	UNIT	CH	Loamy Sand	Loamy Sand	CH
1	Specific Gravity	G	-	2.500	2.782	2.736	2.636
2	Natural Water Content	Wn	%	55.58	36.72	46.47	26.81
3	Unit Weight, Natural State	γ_m	t/m ³		1.656	1.661	
4	Dry Unit Weight	γ_d	t/m ³		1.211	1.134	
5	Natural Void Ratio	e	-		1.297	1.413	
6	Natural Porosity	n	%		56.462	58.552	
7	Degree of Saturation	Sr	%		78.773	90.002	
8	Saturation of Water Content	Wsat	%		46.615	51.632	
9	Saturation Unit Weight	γ_{sat}	t/m ³		1.776	1.720	
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	81.57	-	-	50.87
13	Plastic Limit	PL	%	29.41	-	-	22.36
14	Plasticity Index	PI	%	52.16	-	-	28.51
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	97.50	15.70	25.80	62.60
17	U.U.	Triaxial Compression Test		ϕ	deg		
				c	kg/cm ²		
	C.U.	Triaxial Compression Test	Total	ϕ	deg		
			Effective	c	kg/cm ²		
18	Consolidation Test		Cc				
			Pc	kg/cm ²			
19	N Value		blow	44.00	50.00	50.00	7.00

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Table 2.3 (28/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 29	RB - 29	RB - 30	RB - 30
	DEPTH (m)			2.55 - 3.00	9.55 - 10.00	3.55 - 4.00	9.55 - 10.00
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity	G	-	2.538	2.552	2.620	2.519
2	Natural Water Content	Wn	%	42.21	52.97	36.91	55.11
3	Unit Weight, Natural State	γ_m	U/m^3				
4	Dry Unit Weight	γ_d	U/m^3				
5	Natural Void Ratio	e	-				
6	Natural Porosity	n	%				
7	Degree of Saturation	Sr	%				
8	Saturation of Water Content	Wsat	%				
9	Saturation Unit Weight	γ_{sat}	U/m^3				
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensivity	St	-				
12	Liquid Limit	LL	%	64.83	80.66	84.49	82.04
13	Plastic Limit	PL	%	23.74	22.94	24.73	26.52
14	Plasticity Index	PI	%	41.08	57.72	59.77	55.52
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	79.10	90.30	88.70	91.20
17	U.U.	Triaxial Compression Test		ϕ	deg		
		C.U.	Triaxial Compression Test	Total	ϕ	deg	
	Effective			c	kg/cm ²		
		ϕ	deg				
18	Consolidation Test			Cc			
				Pc	kg/cm ²		
19	N Value						
			blow	6.00	7.00	23.00	8.00

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Table 2.3 (29/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 31	RB - 31	RB - 31	RB - 32
	DEPTH (m)			2.55 - 3.00	8.55 - 9.00	11.55 - 12.00	10.55 - 11.00
	GROUP SYMBOL	SYM BOL	UNIT	CH	Loamy Sand	Loamy Sand	Loamy Sand
1	Specific Gravity	G	-	2.526	2.887	2.850	2.779
2	Natural Water Content	Wn	%	36.56	13.18	8.17	26.57
3	Unit Weight, Natural State	γ_m	t/m^3				
4	Dry Unit Weight	γ_d	t/m^3				
5	Natural Void Ratio	e	-				
6	Natural Porosity	n	%				
7	Degree of Saturation	Sr	%				
8	Saturation of Water Content	Wsat	%				
9	Saturation Unit Weight	γ_{sat}	t/m^3				
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	78.91	-	-	-
13	Plastic Limit	PL	%	26.63	-	-	-
14	Plasticity Index	PI	%	52.28	-	-	-
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	77.00	11.90	23.31	17.80
17	U.U.	Triaxial Compression Test		ϕ	deg		
				c	kg/cm ²		
	C.U.	Triaxial Compression Test	Total	ϕ	deg		
			Effective	ϕ	deg		
18	Consolidation Test		Cc				
			Pc	kg/cm ²			
19	N Value		blow	10.00	46.00	50.00	24.00

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Table 2.3 (30/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 32	RB - 33	RB - 33	RB - 33
	DEPTH (m)			12.55 - 13.00	3.55 - 4.00	6.55 - 7.00	12.55 - 13.00
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	Loamy Sand	CH
1	Specific Gravity	G	-	2.725	2.625	2.855	2.765
2	Natural Water Content	Wn	%	38.17	51.58	14.12	43.21
3	Unit Weight, Natural State	γ_m	t/m ³				
4	Dry Unit Weight	γ_d	t/m ³				
5	Natural Void Ratio	e	-				
6	Natural Porosity	n	%				
7	Degree of Saturation	Sr	%				
8	Saturation of Water Content	Wsat	%				
9	Saturation Unit Weight	γ_{sat}	t/m ³				
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	62.66	72.83	-	61.01
13	Plastic Limit	PL	%	21.18	25.79	-	26.49
14	Plasticity Index	PI	%	41.48	47.04	-	34.52
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	57.90	85.10	17.70	90.60
17	U.U.	Triaxial Compression Test		ϕ	deg		
		C.U.	Triaxial Compression Test	Total	ϕ	deg	
	Effective			c	kg/cm ²		
			c	kg/cm ²			
	18	Consolidation Test	Cc				
Pc			kg/cm ²				
19	N Value		blow	> 50.00	3.00	20.00	13.00

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Table 2.3 (31/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 34	RB - 34	RB - 35	RB - 35
	DEPTH (m)			3.55 - 4.00	7.55 - 8.00	3.55 - 4.00	8.55 - 9.00
	GROUP SYMBOL	SYM BOL	UNIT	CL	CH	CH	Sand
1	Specific Gravity	G	-	2.785	2.685	2.738	2.747
2	Natural Water Content	W _n	%	34.49	39.28	42.96	17.22
3	Unit Weight, Natural State	γ _m	t/m ³			1.665	1.884
4	Dry Unit Weight	γ _d	t/m ³			1.165	1.607
5	Natural Void Ratio	e	-			1.351	0.709
6	Natural Porosity	n	%			57.463	41.491
7	Degree of Saturation	S _r	%			87.071	66.705
8	Saturation of Water Content	W _{sat}	%			49.339	25.815
9	Saturation Unit Weight	γ _{sat}	t/m ³			1.739	2.022
10	Unconfined Compr. Strength	q _u	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	37.65	88.06	74.74	-
13	Plastic Limit	PL	%	21.70	25.75	30.43	-
14	Plasticity Index	PI	%	15.95	62.31	44.31	-
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	34.80	91.20	77.40	5.50
17	U.U.	Triaxial Compression Test		φ	deg		
		C.U.	Triaxial Compression Test	Total	φ	deg	
	Effective			c	kg/cm ²		
		c	kg/cm ²				
18	Consolidation Test	C _c					
		P _c	kg/cm ²				
19	N Value		blow	7.00	15.00	8.00	> 50.00

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Table 2.3 (32/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 36	RB - 36	RB - 37	RB - 37
	DEPTH (m)			3.55 - 4.00	8.55 - 9.00	3.55 - 4.00	9.55 - 10.00
	GROUP SYMBOL	SYM BOL	UNIT	Loamy Sand	Loamy Sand	CH	CL
1	Specific Gravity	G	-	2.833	2.857	2.754	2.531
2	Natural Water Content	Wn	%	19.46	9.06	40.33	29.49
3	Unit Weight, Natural State	γ_m	t/m ³			1.820	1.848
4	Dry Unit Weight	γ_d	t/m ³			1.297	1.427
5	Natural Void Ratio	e	-			1.123	0.773
6	Natural Porosity	n	%			52.907	43.614
7	Degree of Saturation	Sr	%			98.864	96.498
8	Saturation of Water Content	Wsat	%			40.794	30.560
9	Saturation Unit Weight	γ_{sat}	t/m ³			1.826	1.863
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	-	-	80.59	38.33
13	Plastic Limit	PL	%	-	-	26.58	19.41
14	Plasticity Index	PI	%	-	-	54.01	18.92
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	24.40	14.70	87.90	32.20
17	U.U.	Triaxial Compression Test		ϕ	deg		
		C.U.	Triaxial Compression Test	Total	ϕ	deg	
	Effective			ϕ	deg		
		Consolidation Test			c	kg/cm ²	
			Cc	kg/cm ²			
18				Pc	kg/cm ²		
19	N Value			blow		5.00	48.00
						10.00	24.00

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Table 2.3 (33/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 38	RB - 38	RB - 39	RB - 40
	DEPTH (m)			4.55 - 5.00	8.55 - 9.00	9.55 - 10.00	2.55 - 3.00
	GROUP SYMBOL	SYMBOL	UNIT	CH	CL	CH	CH
1	Specific Gravity	G	-	2.654	2.782	2.675	2.790
2	Natural Water Content	Wn	%	62.91	49.51	30.21	20.61
3	Unit Weight, Natural State	γ_m	t/m ³				
4	Dry Unit Weight	γ_d	t/m ³				
5	Natural Void Ratio	e	-				
6	Natural Porosity	n	%				
7	Degree of Saturation	Sr	%				
8	Saturation of Water Content	Wsat	%				
9	Saturation Unit Weight	γ_{sat}	t/m ³				
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	99.98	41.14	33.86	63.46
13	Plastic Limit	PL	%	29.69	21.99	22.39	21.21
14	Plasticity Index	PI	%	70.29	19.15	11.47	42.25
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	97.20	77.20	49.70	58.00
17	U.U.	Triaxial Compression Test		ϕ	deg		
				c	kg/cm ²		
	C.U.	Triaxial Compression Test	Total	ϕ	deg		
			Effective	ϕ	deg		
18	Consolidation Test			c	kg/cm ²		
				Pc	kg/cm ²		
19	N Value		blow	6.00	5.00	43.00	11.00

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Table 2.3 (34/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 40	RB - 41	RB - 41	RB - 42
	DEPTH (m)			9.55 - 10.00	4.55 - 5.00	5.55 - 5.85	3.50 - 4.00
	GROUP SYMBOL	SYM BOL	UNIT	Loamy Sand	CH	CH	CH
1	Specific Gravity	G	-	2.866	2.752	2.555	2.547
2	Natural Water Content	Wn	%	5.03	36.54	28.90	28.42
3	Unit Weight, Natural State	γ_m	t/m ³				
4	Dry Unit Weight	γ_d	t/m ³				
5	Natural Void Ratio	e	-				
6	Natural Porosity	n	%				
7	Degree of Saturation	Sr	%				
8	Saturation of Water Content	Wsat	%				
9	Saturation Unit Weight	γ_{sat}	t/m ³				
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	Sl	-				
12	Liquid Limit	LL	%	-	64.66	58.40	61.94
13	Plastic Limit	PL	%	-	30.00	28.57	23.67
14	Plasticity Index	PI	%	-	34.66	29.82	38.27
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	12.73	79.90	74.10	80.80
17	U.U.	Triaxial Compression Test		ϕ	deg		
		C.U.	Triaxial Compression Test	Total	ϕ	deg	
	Effective			c	kg/cm ²		
		ϕ	deg				
18	Consolidation Test	c_c	kg/cm ²				
		P_c	kg/cm ²				
19	N Value		blow	> 50.00	> 50.00	> 50.00	24.00

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Table 2.3 (35/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 43	RB - 43	RB - 43	RB - 44	
	DEPTH (m)			2.55 - 3.00	4.55 - 5.00	5.55 - 5.78	4.55 - 5.00	
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	OL	CH	
1	Specific Gravity	G	-	2.746	2.779	2.644	2.584	
2	Natural Water Content	Wn	%	29.48	34.18	34.85	32.87	
3	Unit Weight, Natural State	γ_m	t/m^3	1.642	1.694	1.624		
4	Dry Unit Weight	γ_d	t/m^3	1.268	1.262	1.204		
5	Natural Void Ratio	e	-	1.165	1.201	1.195		
6	Natural Porosity	n	%	53.818	54.571	54.452		
7	Degree of Saturation	Sr	%	69.465	79.075	77.078		
8	Saturation of Water Content	Wsat	%	42.438	43.225	45.214		
9	Saturation Unit Weight	γ_{sat}	t/m^3	1.806	1.808	1.749		
10	Unconfined Compr. Strength	qu	kg/cm ²					
11	Sensitivity	St	-					
12	Liquid Limit	LL	%	64.33	61.38	44.19	55.77	
13	Plastic Limit	PL	%	20.81	31.15	28.37	25.26	
14	Plasticity Index	PI	%	43.52	30.24	15.82	30.51	
15	Shrinkage Limit	SL	%					
16	% Passing 200 US Stand Sieve	-	%	80.80	86.20	46.80	56.30	
17	U.U.	Triaxial Compression Test		ϕ	deg			
				c	kg/cm ²			
	C.U.	Triaxial Compression Test	Total	ϕ	deg			
				c	kg/cm ²			
		Effective		ϕ	deg			
				c	kg/cm ²			
18	Consolidation Test		Cc					
			Pc	kg/cm ²				
19	N Value			blow	18.00	>50.00	>50.00	>50.00

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Table 2.3 (36/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 44	RB - 45	RB - 45	RB - 45
	DEPTH (m)			7.55 - 8.00	2.55 - 3.00	4.55 - 5.00	5.55 - 5.65
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	Sand	GP
1	Specific Gravity	G	-	2.544	2.604	2.745	2.713
2	Natural Water Content	Wn	%	28.50	42.50	15.50	13.81
3	Unit Weight, Natural State	γ_m	t/m ³		1.863	1.866	1.873
4	Dry Unit Weight	γ_d	t/m ³		1.307	1.616	1.646
5	Natural Void Ratio	e	-		0.992	0.699	0.649
6	Natural Porosity	n	%		49.794	41.144	39.339
7	Degree of Saturation	Sr	%		100.000	60.863	57.773
8	Saturation of Water Content	Wsat	%		42.500	25.467	23.904
9	Saturation Unit Weight	γ_{sat}	t/m ³		1.863	2.027	2.039
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	77.93	52.23	-	-
13	Plastic Limit	PL	%	27.64	15.34	-	-
14	Plasticity Index	PI	%	50.29	36.89	-	-
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	66.70	71.80	12.74	0.68
17	U.U.	Triaxial Compression Test		ϕ	deg		
		C.U.	Triaxial Compression Test	Total	ϕ	deg	
	Effective			ϕ	deg		
				c	kg/cm ²		
18	Consolidation Test	Cc	kg/cm ²				
		Pc	kg/cm ²				
19	N Value		blow		13.00	> 50.00	> 50.00

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Table 2.3 (37/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 46	RB - 46	RB - 47	RB - 47
	DEPTH (m)			1.55 - 2.00	2.50 - 3.00	1.55 - 2.00	2.55 - 3.00
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity			2.556	2.663	2.662	2.565
2	Natural Water Content			40.60	40.29	37.14	39.67
3	Unit Weight, Natural State			1.663	1.778	1.797	1.764
4	Dry Unit Weight			1.183	1.267	1.310	1.263
5	Natural Void Ratio			1.161	1.101	1.032	1.031
6	Natural Porosity			53.725	52.408	50.776	50.761
7	Degree of Saturation			89.383	97.433	95.844	98.702
8	Saturation of Water Content			45.422	41.352	38.750	40.192
9	Saturation Unit Weight			1.720	1.791	1.818	1.771
10	Unconfined Compr. Strength						
11	Sensitivity						
12	Liquid Limit			66.35	60.23	56.87	61.30
13	Plastic Limit			21.43	21.95	24.54	30.18
14	Plasticity Index			44.92	38.28	32.33	31.12
15	Shrinkage Limit						
16	% Passing 200 US Stand Sieve			88.40	83.50	58.30	69.70
17	U.U.	Triaxial Compression Test		ϕ	deg		
				c	kg/cm ²		
	C.U.	Triaxial Compression Test	Total	ϕ	deg		
				c	kg/cm ²		
		Effective	ϕ	deg			
18	Consolidation Test		Cc	kg/cm ²			
			Pc	kg/cm ²			
19	N Value			8.00	15.00	24.00	15.00

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Table 2.3 (38/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 48	RB - 48	RB - 49	RB - 49
	DEPTH (m)			2.55 - 3.00	8.55 - 9.00	3.55 - 4.00	5.55 - 6.00
	GROUP SYMBOL	SYM BOL	UNIT	Sand	CL	GP	CL
1	Specific Gravity	G	-	2.672	2.751	2.723	2.627
2	Natural Water Content	Wn	%	24.36	33.35	14.06	27.84
3	Unit Weight, Natural State	γ_m	t/m ³	1.898	1.851	1.898	1.852
4	Dry Unit Weight	γ_d	t/m ³	1.526	1.388	1.664	1.449
5	Natural Void Ratio	e	-	0.751	0.982	0.636	0.813
6	Natural Porosity	n	%	42.881	49.543	38.890	44.854
7	Degree of Saturation	Sr	%	86.701	93.439	60.161	89.917
8	Saturation of Water Content	Wsat	%	28.096	35.692	23.371	30.962
9	Saturation Unit Weight	γ_{sat}	t/m ³	1.955	1.884	2.053	1.897
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	-	48.75	-	37.48
13	Plastic Limit	PL	%	-	22.34	-	21.88
14	Plasticity Index	PI	%	-	26.41	-	15.61
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	4.20	54.80	5.13	47.90
17	U.U.	Triaxial Compression Test		ϕ	deg		
				c	kg/cm ²		
	C.U.	Triaxial Compression Test	Total	ϕ	deg		
				c	kg/cm ²		
		Effective	ϕ	deg			
		c	kg/cm ²				
18	Consolidation Test			Cc			
				Pc	kg/cm ²		
19	N Value				blow	> 50.00	29.000
						> 50.00	39.000

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Table 2.3 (39/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 50	RB - 50	RB - 51	RB - 51		
	DEPTH (m)			1.50 - 2.00	2.55 - 3.00	13.55 - 14.00	16.55 - 17.00		
	GROUP SYMBOL	SYM BOL	UNIT	CH	GP	CH	CH		
1	Specific Gravity	G	-	2.672	2.657	2.664	2.644		
2	Natural Water Content	Wn	%	43.80	37.14	41.55	51.23		
3	Unit Weight, Natural State	γ_m	Um^3	1.866	1.813				
4	Dry Unit Weight	γ_d	Um^3	1.298	1.322				
5	Natural Void Ratio	e	-	1.059	1.010				
6	Natural Porosity	n	%	51.436	50.244				
7	Degree of Saturation	Sr	%	100.000	37.721				
8	Saturation of Water Content	Wsat	%	43.800	38.006				
9	Saturation Unit Weight	γ_{sat}	Um^3	1.866	1.824				
10	Unconfined Compr. Strength	qu	kg/cm ²						
11	Sensitivity	St	-						
12	Liquid Limit	LL	%	58.73	-	80.85	99.15		
13	Plastic Limit	PL	%	22.58	-	25.39	27.60		
14	Plasticity Index	PI	%	36.15	-	55.46	71.55		
15	Shrinkage Limit	SL	%						
16	% Passing 200 US Stand Sieve	-	%	58.30	9.56	89.80	93.50		
17	U.U.	Triaxial Compression Test		ϕ	deg				
		C.U.	Triaxial Compression Test	Total	ϕ	deg			
	Effective			c	kg/cm ²				
		ϕ	deg						
18	Consolidation Test			Cc					
				Pc	kg/cm ²				
19	N Value				blow	3.00	> 50.00	45.00	26.00

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Table 2.3 (40/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (SPT)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			RB - 51	RB - 52		
	DEPTH (m)			24.55 - 25.00	28.55 - 29.00		
	GROUP SYMBOL	SYM BOL	UNIT	CL	CH		
1	Specific Gravity	G	-	2.684	2.691		
2	Natural Water Content	W _n	%	29.05	47.68		
3	Unit Weight, Natural State	γ_m	t/m ³				
4	Dry Unit Weight	γ_d	t/m ³				
5	Natural Void Ratio	e	-				
6	Natural Porosity	n	%				
7	Degree of Saturation	S _r	%				
8	Saturation of Water Content	W _{sat}	%				
9	Saturation Unit Weight	γ_{sat}	t/m ³				
10	Unconfined Compr. Strength	q _u	kg/cm ²				
11	Sensitivity	S _t	-				
12	Liquid Limit	LL	%	101.13	74.43		
13	Plastic Limit	PL	%	19.17	31.52		
14	Plasticity Index	PI	%	81.96	42.91		
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	85.70	91.40		
17	U.U.	Triaxial Compression Test		ϕ	deg		
		C.U.	Triaxial Compression Test	Total	ϕ	deg	
	Effective			c	kg/cm ²		
			ϕ	deg			
	18	Consolidation Test		C _c			
P _c				kg/cm ²			
19	N Value		blow	43.00	40.00		

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Table 2.3 (41/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : U D W R D (U . D . S .)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			SB - 1	SB - 1	SB - 1	SB - 2
	DEPTH (m)			14.55 - 15.15	16.15 - 16.75	17.70 - 18.30	8.55 - 9.00
	GROUP SYMBOL	SYM BOL	UNIT	CL	CH	CH	CH
1	Specific Gravity	G	-	2.736	2.556	2.663	2.684
2	Natural Water Content	Wn	%	36.04	49.64	45.32	42.88
3	Unit Weight, Natural State	γ_m	t/m ³	1.861	1.722	1.774	1.830
4	Dry Unit Weight	γ_d	t/m ³	1.368	1.151	1.221	1.281
5	Natural Void Ratio	e	-	1.000	1.221	1.181	1.096
6	Natural Porosity	n	%	50.001	54.978	54.159	52.280
7	Degree of Saturation	Sr	%	98.603	100.000	100.000	100.000
8	Saturation of Water Content	Wsat	%	36.551	49.640	45.320	42.880
9	Saturation Unit Weight	γ_{sat}	t/m ³	1.868	1.722	1.774	1.830
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	49.78	61.65	58.44	54.96
13	Plastic Limit	PL	%	22.17	25.36	26.29	25.14
14	Plasticity Index	PI	%	27.61	36.30	32.15	29.82
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	42.20	76.40	61.80	52.40
17	U.U.	Triaxial Compression Test		ϕ	deg		
		Total		ϕ	deg	17.010	17.830
	C.U.	Triaxial Compression Test		c	kg/cm ²	0.208	0.310
		Effective		ϕ	deg	28.860	31.140
18	Consolidation Test			c	kg/cm ²	0.203	0.240
				Cc	-	0.379	-
19	N Value			Pc	kg/cm ²	-	0.5815
					blow		

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Table 2.3 (42/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			SB - 2	SB - 2	SB - 3	SB - 3
	DEPTH (m)			11.40 - 12.00	13.60 - 14.20	11.00 - 11.55	13.00 - 13.55
	GROUP SYMBOL	SYM BOL	UNIT	CH	OH	CH	CH
1	Specific Gravity	G	-	2.603	2.526	2.712	2.783
2	Natural Water Content	Wn	%	48.24	49.00	46.60	42.76
3	Unit Weight, Natural State	γ_m	t/m^3	1.756	1.722	1.778	1.846
4	Dry Unit Weight	γ_d	t/m^3	1.185	1.156	1.213	1.293
5	Natural Void Ratio	e	-	1.197	1.186	1.236	1.152
6	Natural Porosity	n	%	54.492	54.248	55.279	53.536
7	Degree of Saturation	Sr	%	100.000	100.000	100.000	100.000
8	Saturation of Water Content	Wsat	%	48.240	49.000	46.600	42.760
9	Saturation Unit Weight	γ_{sat}	t/m^3	1.756	1.722	1.778	1.846
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	62.95	82.86	68.70	58.48
13	Plastic Limit	PL	%	26.29	40.83	29.07	28.09
14	Plasticity Index	PI	%	36.66	42.04	39.62	30.37
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	86.70	97.60	84.90	56.90
17	U.U.	Triaxial Compression Test		ϕ	deg		
				c	kg/cm ²		
	C.U.	Triaxial Compression Test	Total	ϕ	deg	20.990	15.740
			Effective	c	kg/cm ²	0.285	0.297
				ϕ	deg	30.340	21.450
				c	kg/cm ²	0.207	0.257
18	Consolidation Test		Cc		0.437		0.310
			Pc	kg/cm ²	1.2295		1.4016
19	N Value						

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Table 2.3 (43/43)

SUMMARY OF LABORATORY TEST RESULTS
FOUNDATION INVESTIGATION

PROJECT : U D W R D (U . D . S .)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			SB - 3	SB - 5
	DEPTH (m)			17.00 - 17.55	4.50 - 5.10
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH
1	Specific Gravity	G	-	2.729	2.527
2	Natural Water Content	Wn	%	37.69	69.43
3	Unit Weight, Natural State	γ_m	U/m^3	1.768	1.652
4	Dry Unit Weight	γ_d	U/m^3	1.284	0.975
5	Natural Void Ratio	e	-	1.125	1.592
6	Natural Porosity	n	%	52.948	61.415
7	Degree of Saturation	Sr	%	91.402	91.402
8	Saturation of Water Content	Wsat	%	41.236	41.236
9	Saturation Unit Weight	γ_{sat}	U/m^3	1.814	1.814
10	Unconfined Compr. Strength	qu	kg/cm ²		
11	Sensitivity	St	-		
12	Liquid Limit	LL	%	76.91	63.60
13	Plastic Limit	PL	%	30.36	27.67
14	Plasticity Index	PI	%	46.55	35.92
15	Shrinkage Limit	SL	%		
16	% Passing 200 US Stand Sieve	-	%	96.80	95.40
17	U.U.	Triaxial Compression Test		ϕ	deg
		C.U.	Triaxial Compression Test	Total	ϕ
	Effective			c	kg/cm ²
		c	kg/cm ²		
18	Consolidation Test		Cc	0.256	0.401
			Pc	kg/cm ²	0.9302
19	N Value				

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