FEASIBILITY STUDY ON URBAN DRAINAGE AND SEWERAGE DEVELOPMENT FOR HOCHIMINH CITY SOLUTION PROCESSAM									BORING LOG: SP- 02 sheet 2 of 2												
SOIL INVESTIGATION PROGRAM																					
Stratum No		Depth (m)	Elevation (m)	Thickness (m)		.0G	SOIL DESCRIPTION		STAN	DA	RD F	PEN	ETR	ATIC	r N	EST					
Strat		Dep	leva	ick	1/	/100		Dept	h (m)	N	Blov	ws/15	5cm				N				
			3	=				From	To		15	15	15	0 1	0 2	20 3	0 40				
	16					<u>SP02 -8</u> 16.0 - 16.6		15.50	15.95	14	4	6	8								
3	17				SM.SC)	SP02 -8-1	Medium dense, pink SILTY		17.05	13	4	6	7								
,	18						CLAYEY SAND.		17.95	14	4	7	7								
	19							18.60	19.05	14	4	6	8								
	20	20.0	-18.75	12.5		<u>SP02 -10</u> 20.0 - 20.6		19.50	19.95	14	4	6	8								
	21					<u>SP02 -10-1</u> 21.1 - 21.5		20.60	21.05	15	4	7	8		•						
4	22				\odot		Medium dense, yellowish brown SILTY SAND.	21.50	21.95	15	4	7	8								
	23					<u>SP02 -11-1</u> 23.1 - 23.5		22.60	23.05	15	4	6	9	*							
	24	24.0	-22.75	4.0		<u>SP02 -12</u> 24.0 - 24.6	Medium dense, yellowish	23.50	23.95	15	4	7	8		1						
5	25	25.5	-24.25	1.5	SP.SM)		brown poorly graded SAND with SILTY.	24.60	25.05	18	4	7	11		<u>}</u>						
6	26				Θ	<u>SP02 -13</u> 26.0 - 26.6	Medium dense, yellowish		25.95			7	7								
	27	27.0	-25.75	1.5			brown SILTY SAND.	26.60	27.05	15	4	7	8		•						
7	28				(SW.SM)		Medium dense, reddish brown, well graded SAND	27.50	27.95	14	4	6	8								
	29	29.0	-27.75	2.0	10000000		with SILT.	28.60	29.05	13	4	5	8	•							
8	30	30.0	-28.75	1.0			Medium dense, dark yellow SILTY SAND.	28.95	29.40	14	4	6	8		•						

FEASIBILITY STUDY ON URBAN DRAINAGE AND SEWERAGE DEVELOPMENT FOR HOCHIMINH CITY									OR								> _ (03					
SOIL INVESTIGATION PROGRAM Station : Sewerage Pump Station											she	et	1	of	3								
Da	te co	mmen	ced:		10 th Ju	ly 1999		Depth (m) : 30.0															
Date completed : 10 th July 1999 Logged by : Hoang Tuan Minh									Elevation (m) : 1.43														
									Boring Type : AG - 30														
Checked by : Pham Van Manh									Underground water level (m): -1.2														
Stratum No	Stratum No Depth (m)		Elevation (m)	Thickness (m)		LOG 1/100	SOIL DESCRIPTION	STANDARD PENETRATION TEST										N					
Str	1	å	Elev	Pic.				Dept		N	_	ws/1:	_	1.									
-	٥١			_				From	То		15	15	15	0	10	20 i	30	40					
	0		1.25																				
	1	0.9	0.53	0.9		SP03 -1-0 1.1 - 1.5	Ground made: Brownish grey CLAYEY SAND.	0.50	0.95	4	1	2	2	7									
1	2				(H)	1.1 - 1.5	Very soft, high plasticity, blackish grey ORGANIC	1.50	1.95	0	0	0	0	<i>‡</i>									
	3	3.0	-1.57	2.1		<u>SP03 - 1</u> 3.0 - 3.6	CLAY.	2.50	2.95	0	0	0	0										
2	4	4.8	-3.37	1.8		·	Very loose, blackish grey CLAYEY SAND.	3.60	4.05	0	0	0	0										
	-5					<u>SP03 1 1</u> 5.1 - 5.5		4.50	4.95	3	1	1	2	1									
3	6				(0)		Medium dense, yellow	5.50	5.95	11	3	5	6										
	7			+		<u>SP03 -2</u> 7.0 - 7.6	CLAYEY SAND.	6.50	6.95	12	4	5	7		1								
	8	8.0	-6.57	3.2				7.60				7	8		1								
	9					<u>SP03 -2-1</u> 9.1 - 9.5		8.50	8.95			6	7		•								
	10							9.50	9.95	13		6	7		1								
4	11				SM.SC	<u>SP03 -3</u> 11.0 - 11.6	Medium dense, brownish	10.50	10.95	14	5	7	7		•								
	12											yellow SILTY, CLAYEY SAND.		12.05				8		•			
	13							12.50	12.95	15	4	7	8		•								
	14		-13.07	6.5		<u>SP03 -3-1</u> 14.1 - 14.5		13.50	13.95	14	4	7	7		•								
5	15							14.50	14.95	15	4	7	8		•								

FEASIBILITY STUDY ON URBAN DRAINAGE AND SEWERAGE DEVELOPMENT FOR HOCHIMINH CITY SOIL INVESTIGATION PROGRAM									BORING LOG: SP-03 sheet 2 of 3												
(m) (m)								STANDARD PENETRATION TEST													
Stratum No	-	Deptn (m)	Elevation (m)	Thickness		LOG 1/100	SOIL DESCRIPTION	Dept			Blo				,		N				
	(_	E	Thi		14	Medium dense, brownish	From To			15 15 15			0 10 20 30							
	0					SP03 -4			15.95	15		7	8								
						16.0 - 16.6	yenow one i canab.						9								
	17								17.05			7			İ						
	18	2							17.95			7	8		1						
5	19		2		\odot		Medium dense, reddish	18.50	18.95	16	4	7	9		•						
	20					<u>SP03 -5</u> 20.0 - 20.6	brown SILTY SAND.	19.50	19.95	14	4	6	8		•						
	21							20.60	21.05	15	4	7	8		•						
	22					SP03 -5-1 22.1 - 22.5	7	21.50	21.95	14	4	7	7		•						
	23					22.1 22.3	· ·	22,50	22.95	13	4	6	7		•						
	24	24.0	-22.57	9.5		SP03 -6	Medium dense, yellow	23,50	23.95	15	4	7	8		1						
6	25	25.5	24.02	1.5	SP.SM)	24.0 - 24.0	poorly graded SAND with	24.60	25.05	21	6	8	13								
	26	23.3	-24.07	1.5			OLLII,	25,50	25.95	16	5	8	8		4						
	27							26.50	26.95	17	5	8	9		•						
7	28						Medium dense, pinkish	27.50	27.95	16	6	7	9		•						
	29					<u>SP03 -7</u>	brown SILTY SAND.	28.50	28.95	15	6	7	8		•						
	30	30.0	-28.57	4.5		29.0 - 29.6		29.60	30.05	15	5	6	9			-					

Stratum No	ommer omplet d by ed by			Sewerag 7 th Jul 7 th Jul Hoang 7 Pham V	y 1999 Tuan Minh					:	30.0		_												
Date con Date con Logged Checker ON unitarity O	ommer omplet d by ed by	ed :	(m)	7 th Jul 7 th Jul Hoang 7 Pham V	y 1999 y 1999 Tuan Minh	uou				:	30.0	2													
Date co Logged Checke ON Entry O	omplet d by ed by	ed :	(m)	7 th Jul Hoang 7 Pham V	y 1999 Tuan Minh						Denth (m) 20.0														
Checker ON untraits O	Depth (B)	:	ess (m)	Hoang 7	Tuan Minh		Ele	Depth (m) : 30.0 Elevation (m) : 1.42																	
ON mutaty 0	Depth (m)	:	ess (m)	Pham V			Boring Type : AG - 30																		
Stratum No	Depth (m)		(m) ssa		an Mann									Underground water level (m): -1.5											
1 2		<u>e</u>	2		LOG 1/100	SOIL DESCRIPTION	STANDARD PENETRATION TEST Depth (m) N Blows/15cm																		
1 2	1						-		N				1.		-	20	N								
1 2		1.42					From	То		15	15	15	0	10	20	30	40								
	0.5	0.92	0.5			Ground made: Brownish grey CLAYEY SAND.	0.50	0.95	1	1	0.5	0.5	ļ												
1 3				(H)	<u>SP04 - 1</u> 2.0 - 2.6	Very soft, high plasticity, blackish grey ORGANIC	1.50 2.60		0	0	0	0													
5	5.0	-3.58	4.5		SP04 -1-1 4.1 - 4.5 SP04-2	CLAY.	3.50 4.50	3.95 4.95	0	0	0	0													
2 6	6.5	-5.08			5.0 - 5.6	Soft, low plasticity, brown, greenish grey CLAY.			3	1	1	2	1												
8					<u>SP04 -2-1</u> 7.1 - 7.5		6.507.50	6.95 7.95	15 17	5	7	9		}											
3				SM.SC)	<u>SP04 -3</u> 9.0 - 9.6	Medium dense, reddish	8.50					10	•••••	ļ	\										
10						brown SILTY, CLAYEY	9.60	10.05	24	7	11	13			1										
11					<u>SP04 -3-1</u> 11.1 - 11.5	SAND.		10.95			9	11	••••••		/										
	12.0	-10.60	5.5			:		11.95				12													
4 14						Medium dense, light		12.95 13.95		4	6	7			_										
14					<u>SP04 -4</u> 14.0 - 14.6	yellow SILTY SAND.	13.30	13.93	12	4	5	1		Ţ											