



BNN DESIGN AND CONSULTANT CO.,LTD.

Soil Boring and Testing , Surveying , Geotechnical Structure and Slope Protection Design

SUMMARY OF TEST RESULT

Project : ก่อสร้างถนน กาญจนภิเษก-พุทธมณฑล สาย2

Date of Boring : 16 พฤศจิกายน 2561

Location : พุทธมณฑล สาย2 เขตทวีวัฒนา กรุงเทพมหานคร

Boring : BH - 5 Page : 1

SAMPLE NUMBER	DEPTH (m.)		PHYSICAL PROPERTIES							ATTERBERG LIMITS			SOIL CLASSIFICATION	ENGINEERING PROPERTIES				
			Wn (%)	γ (t/m ³)	% Passing					LL (%)	PL (%)	PI (%)		UCS (tsm.)	Qur (tsm.)	Qp (tsm.)	N (blows/ft)	Vs (tsm.)
	#4	#10			#40	#100	#200											
ST-1	1.50	2.00	24.96	1.70	97.54	71.92	49.48	31.66	25.93	18.73	14.49	4.25	SC-SM	4.21				
ST-2	3.00	3.50	56.45	1.66	100.00	100.00	99.38	98.61	98.43	53.31	27.54	25.77	CH	2.59				
ST-3	4.50	5.00	77.81	1.69	100.00	100.00	99.88	99.72	99.63	87.17	36.11	51.06	CH	2.67				
ST-4	6.00	6.50	73.79	1.70	100.00	100.00	99.63	99.25	98.10	82.13	34.70	47.43	CH	2.83				
ST-5	7.50	8.00				NO RECOVERY												
ST-6	9.00	9.50	66.34	1.71	100.00	99.32	97.20	95.07	92.13	68.02	32.23	35.78	CH	5.11				
ST-7	10.50	11.00	63.00	1.71	100.00	100.00	99.74	98.20	98.02	66.61	32.95	33.67	CH	4.90				
ST-8	12.00	12.50	59.70	1.73	100.00	100.00	99.82	99.59	99.41	67.69	34.21	33.48	CH	5.92				
ST-9	13.50	14.00	35.96	1.72	100.00	100.00	99.69	89.59	79.20	38.47	21.46	17.01	CL	5.69				
ST-10	15.00	15.45	31.81	1.80	100.00	100.00	87.21	53.79	35.86	35.14	18.85	16.29	SC	5.96				
SS-1	16.50	16.95	32.36		100.00	100.00	98.50	87.00	67.27	47.74	25.89	21.86	CL				11	
SS-2	18.00	18.45	24.70		100.00	100.00	96.73	83.26	63.63	34.45	15.96	18.49	CL				23	
SS-3	19.50	19.95	22.79		100.00	99.34	82.69	12.22	3.74		NP		SP				56	
SS-4	21.00	21.45	21.85		100.00	99.21	87.90	15.96	4.74		NP		SP				67	
SS-5	22.50	22.95	24.84		100.00	99.30	97.24	11.96	4.44		NP		SP				67	
SS-6	24.00	24.45	18.52		100.00	98.12	98.00	25.74	9.93		NP		SP-SM				83	
SS-7	25.50	25.95				NO RECOVERY											77	
SS-8	27.00	27.45	19.11		100.00	99.30	78.12	16.36	6.38		NP		SP-SM				50/6"	
SS-9	28.50	28.95	23.26		100.00	99.51	92.89	15.79	5.13		NP		SP-SM				50/6"	
SS-10	30.00	30.45	22.99		100.00	98.43	91.09	18.35	6.29		NP		SP-SM				91/5"	

PHYSICAL PROPERTIES

Wn = Natural Water Content

γ = Bulk Unit Weight

ATTERBERG LIMITS

LL = Liquid Limit

PL = Plastic Limit

PI = Plasticity Index

ENGINEERING PROPERTIES

UCS = Unconfined Compressive Strength N = Standard Penetration Number

Qur = Remolded Shear Strength Vs = Vane Shear Strength

Qp = Pocket Penetrometer





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SUMMARY OF TEST RESULT

Project : ก่อสร้างถนน กาญจนภิเษก-พุทธมณฑล สาย2

Date of Boring : 16 พฤศจิกายน 2561

Location : พุทธมณฑล สาย2 เขตทวีวัฒนา กรุงเทพมหานคร

Boring : BH - 5 Page : 2

SAMPLE NUMBER	DEPTH		PHYSICAL PROPERTIES							ATTERBERG LIMITS			SOIL	ENGINEERING PROPERTIES				
	(m.)		Wn (%)	γ (t/m ³)	% Passing					LL (%)	PL (%)	PI (%)	CLASSIFICATION	UCS (tsm.)	Qur (tsm.)	Qp (tsm.)	N (blows/ft)	Vs (tsm.)
	FROM	TO			#4	#10	#40	#100	#200									
SS-11	31.50	31.95	23.18		100.00	98.23	81.50	13.82	4.00		NP		SP				47	
SS-12	33.00	33.45	22.74		100.00	98.39	94.42	21.61	6.33		NP		SP-SM				62	
SS-13	34.50	34.95				NO RECOVERY											50/3"	
SS-14	36.00	36.45				NO RECOVERY											50/2"	
SS-15	37.50	37.95	19.37		100.00	99.35	60.97	14.66	7.10		NP		SP-SM				81	
SS-16	39.00	39.45	17.99		100.00	93.56	50.84	14.04	5.75		NP		SP-SM				89/6"	
SS-17	40.50	40.95	21.62		96.78	96.60	72.09	15.29	4.74		NP		SP				48	
SS-18	42.00	42.45	22.52		100.00	97.32	57.23	12.14	3.92		NP		SP				64	
SS-19	43.50	43.95	16.12		100.00	92.92	49.77	12.37	4.79		NP		SP				50/6"	
SS-20	45.00	45.45	14.05		100.00	92.81	49.77	16.46	7.20		NP		SP-SM				50/5"	
SS-21	46.50	46.95	22.15		100.00	99.83	83.63	13.20	6.00		NP		SP-SM				72	
SS-22	48.00	48.45	24.74		100.00	98.32	86.78	8.06	3.07		NP		SP				78	
SS-23	49.50	49.95				NO RECOVERY											50/4"	
SS-24	51.00	51.45	13.04		74.87	51.86	17.40	7.48	3.52		NP		SP				50/6"	
SS-25	52.50	52.95	22.97		100.00	100.00	99.21	82.38	64.20	44.37	23.84	20.53	CL				49	
SS-26	54.00	54.45	21.31		100.00	100.00	99.30	84.86	63.57	37.86	22.04	15.82	CL				53	
SS-27	55.50	55.95				NO RECOVERY											50/2"	
SS-28	57.00	57.45	17.10		100.00	92.03	44.91	14.43	6.68		NP		SP-SM				50/4"	
SS-29	58.50	58.95				NO RECOVERY											50/2"	
SS-30	60.00	60.45				NO RECOVERY											50/2"	

PHYSICAL PROPERTIES

Wn = Natural Water Content

γ = Bulk Unit Weight

ATTERBERG LIMITS

LL = Liquid Limit

PL = Plastic Limit

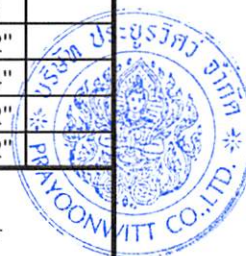
PI = Plasticity Index

ENGINEERING PROPERTIES

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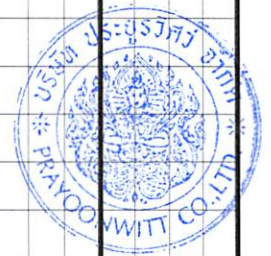
LOG OF BORING

Project : ก่อสร้างถนน กาญจนนาภิเษก-พุทธมณฑล สาย2 Boring No. BH - 5 Tested by N.Winit Page 1

Location : พุทธมณฑล สาย2 เขตทวีวัฒนา กรุงเทพมหานคร Started 16 พฤศจิกายน 2561 Checked by W.Jakrabhan

N 1,520,874 E 650,801 Finished 17 พฤศจิกายน 2561 GWL. -1.00 m

Depth (m)	Sample No.	Type Of Sample	Sample Distance	Recovery	Soil Description	Graphic Log	o Water Content (%)					◇ SPT - N (Blows/ft)			Soil Shear Strength o UCS □ FVT x PP △ TV (t/m ²)			Total Density (t/m ³) ▲																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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1	1	WO			Loose Clayey Silty SAND, brown (SC-SM)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</



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LOG OF BORING

Project : ก่อสร้างถนน กาญจนนาภิเษก-พุทธมณฑล สาย2

Boring No. BH - 5

Tested by N.Winit

Page 2

Location : พุทธมณฑล สาย2 เขตทวีวัฒนา กรุงเทพมหานคร

Started 16 พฤศจิกายน 2561

Checked by W.Jakrabhan

N 1,520,874 E 650,801

Finished 17 พฤศจิกายน 2561

GWL. -1.00 m

Depth (m)	Sample No.	Type Of Sample	Sample Distance	Recovery	Soil Description	Graphic Log	o Water Content (%)					◇ SPT - N (Blows/ft)			Soil Shear Strength o UCS □ FVT x PP △ TV (t/m ²)			Total Density (t/m ³) ▲		
							20	40	60	80	100	25	50	75	3	6	9	1.4	1.8	2.2
31	10	SS			(Same as Above) Dense to Very Dense Poorly-graded Silty SAND, brown (SP), (SP-SM)									91/5"						
		WO																		
32	11	SS												47						
		WO																		
33																				
34	12	SS												62						
		WO																		
35	13	SS		No Recovery										50/3"						
		WO																		
36																				
37	14	SS		No Recovery										50/2"						
		WO																		
38	15	SS												81						
		WO																		
39																				
40	16	SS												89/6"						
		WO																		
41	17	SS												48						
		WO																		
42	18	SS												64						
		WO																		
43																				
44	19	SS												50/6"						
		WO																		
45																				
46	20	SS												50/5"						
		WO																		
47	21	SS												72						
		WO																		
48																				
49	22	SS												78						
		WO																		
50	23	SS		No Recovery										50/4"						
		WO																		
51																				
52	24	SS												50/6"						
		WO																		
53	25	SS			Hard Sandy CLAY, brown (CL)									49						
		WO																		
54	26	SS												53						
		WO																		
55																				
56	27	SS		No Recovery	Very Dense Poorly-graded Silty SAND, brown (SP-SM)									50/2"						
		WO																		
57																				
58	28	SS												50/4"						
		WO																		
59	29	SS		No Recovery										50/2"						
		WO																		
60																				
	30	SS		No Recovery										50/2"						

END OF BORING (60.45) m

