



BNN DESIGN AND CONSULTANT CO.,LTD.

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

SUMMARY OF TEST RESULT

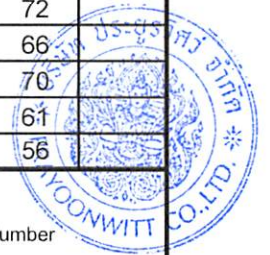
Project : ก่อสร้างถนน กาญจนภิเษก-พุทธมณฑล สาย2

Date of Boring : 20 พฤศจิกายน 2561

Location : พุทธมณฑล สาย2 เขตทวีวัฒนา กรุงเทพมหานคร

Boring : BH - 1 Page : 1

SAMPLE NUMBER	DEPTH (m.)		PHYSICAL PROPERTIES							ATTERBERG LIMITS			SOIL CLASSIFICATION	ENGINEERING PROPERTIES				
	FROM	TO	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				FILL MATERIAL												
ST-2	3.00	3.50	93.85	1.43	100.00	100.00	99.21	99.10	99.02	82.37	33.40	48.97	CH	1.10				
ST-3	4.50	5.00				NO RECOVERY												
ST-4	6.00	6.50	90.68	1.51	100.00	100.00	99.91	99.74	99.20	80.23	31.27	48.96	CH	1.23				
ST-5	7.50	8.00	70.87	1.64	100.00	100.00	99.38	99.19	99.01	67.07	32.77	34.31	CH	2.31				
ST-6	9.00	9.50				NO RECOVERY												
ST-7	10.50	11.00	64.65	1.66	100.00	100.00	99.79	99.65	99.23	72.36	31.58	40.79	CH	3.17				
ST-8	12.00	12.50	64.02	1.67	100.00	100.00	99.87	99.29	99.21	70.48	32.32	38.17	CH	4.00				
ST-9	13.50	14.00	50.61	1.73	100.00	100.00	99.12	99.11	98.10	55.42	31.44	23.98	CH	6.33				
ST-10	15.00	15.45	37.07	1.77	100.00	100.00	89.12	75.92	37.18	43.69	20.85	22.84	SC	6.78				
SS-1	16.50	16.95	25.69		100.00	100.00	99.23	88.20	79.11	33.38	17.82	15.55	CL				11	
SS-2	18.00	18.45	25.07		100.00	100.00	98.11	82.91	73.19	42.40	19.56	22.84	CL				25	
SS-3	19.50	19.95				NO RECOVERY											74	
SS-4	21.00	21.45	17.73		100.00	98.73	79.19	46.83	14.39		NP		SM				50/4"	
SS-5	22.50	22.95	18.79		100.00	94.58	46.30	7.12	2.49		NP		SP				52	
SS-6	24.00	24.45	18.18		100.00	98.27	71.84	11.87	4.42		NP		SP				72	
SS-7	25.50	25.95	26.85		100.00	99.85	93.07	10.66	4.12		NP		SP				66	
SS-8	27.00	27.45	17.48		100.00	96.88	60.28	10.23	4.33		NP		SP				70	
SS-9	28.50	28.95	25.64		100.00	99.86	90.34	8.81	3.27		NP		SP				61	
SS-10	30.00	30.45	25.99		100.00	99.87	93.08	7.83	2.90		NP		SP				56	



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 : 20 พฤศจิกายน 2561

Location : พุทธมณฑล สาย2 เขตทวีวัฒนา กรุงเทพมหานคร

Boring : BH - 1 Page : 2

SAMPLE NUMBER	DEPTH (m.)		PHYSICAL PROPERTIES						ATTERBERG LIMITS			SOIL CLASSIFICATION	ENGINEERING PROPERTIES						
	FROM	TO	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										
SS-11	31.50	31.95	23.86		100.00	99.82	59.73	5.69	1.79		NP		SP				89/4"		
SS-12	33.00	33.45	21.89		100.00	99.82	61.63	4.85	2.56		NP		SP				50/6"		
SS-13	34.50	34.95	21.77		100.00	99.87	47.03	12.97	7.42		NP		SP-SM				79		
SS-14	36.00	36.45	16.94		100.00	96.46	48.39	10.34	3.05		NP		SP				82		
SS-15	37.50	37.95	17.52		100.00	98.43	45.58	8.52	2.98		NP		SP				67		
SS-16	39.00	39.45	16.41		100.00	94.17	35.29	8.63	2.99		NP		SP				82		
SS-17	40.50	40.95	19.68		100.00	98.39	46.86	9.05	2.62		NP		SP				50/4"		
SS-18	42.00	42.45	23.47		100.00	99.14	80.13	7.07	1.56		NP		SP				50/6"		
SS-19	43.50	43.95	19.60		100.00	98.27	65.40	9.19	2.81		NP		SP				50/5"		
SS-20	45.00	45.45																88/5"	
SS-21	46.50	46.95	22.77		100.00	99.25	72.33	8.60	2.58		NP		SP				50/5"		
SS-22	48.00	48.45	15.67		91.40	82.88	35.18	6.23	1.25		NP		SP				50/6"		
SS-23	49.50	49.95	13.95		100.00	78.92	22.24	6.37	2.26		NP		SP				50/6"		
SS-24	51.00	51.45	17.50		100.00	86.18	26.57	6.92	2.21		NP		SP				50/6"		
SS-25	52.50	52.95																50/2"	
SS-26	54.00	54.45	24.36		100.00	99.84	75.78	16.95	5.08		NP		SP-SM				50/6"		
SS-27	55.50	55.95	21.14		100.00	97.13	63.71	6.87	1.52		NP		SP				50/5"		
SS-28	57.00	57.45																50/3"	
SS-29	58.50	58.95	22.70		100.00	97.18	66.35	7.98	1.96		NP		SP				50/3"		
SS-30	60.00	60.45																50/2"	

PHYSICAL PROPERTIES

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ATTERBERG LIMITS

LL = Liquid Limit

PL = Plastic Limit

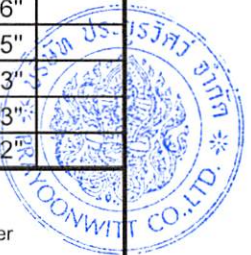
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LOG OF BORING

Project : ก่อสร้างถนน กาญจนภิเษก-พุทธมณฑล สาย2 Boring No. BH - 1 Tested by N.Winit Page 1
 Location : พุทธมณฑล สาย2 เขตทวีวัฒนา กรุงเทพมหานคร Started 20 พฤศจิกายน 2561 Checked by W.Jakrabhan
 N 1,520,921 E 651,431 Finished 21 พฤศจิกายน 2561 GWL. -1.00 m

Depth (m)	Sample No.	Type Of Sample	Sample Distance	Recovery	Soil Description	Graphic Log	Water Content (%)					SPT - N (Blows/ft)			Soil Shear Strength			Total Density (t/m ³)							
							o	x	+	20	40	60	80	100	25	50	75	o	□	FVT	x	PP	△	TV	▲
1		WO			FILL MATERIAL																				
2	1	ST																							
3		WO			Very Soft CLAY, grey (CH)																				
4	2	ST							x																
5		WO																							
6	3	ST																							
7		WO																							
8	4	ST							x																
9		WO																							
10	5	ST							x																
11		WO																							
12	6	ST		No Recovery																					
13		WO			Soft to Medium CLAY, grey (CH)																				
14	7	ST							x																
15		WO																							
16	8	ST					x																		
17		WO			Medium Dense Clayey SAND, brown (SC)																				
18	9	ST							x																
19		WO			Very Dense Poorly-graded Silty SAND, brown (SM), (SP), (SP-SM)																				
20	10	ST							x																
21		WO																							
22	1	SS							x																
23		WO																							
24	2	SS							x																
25		WO																							
26	3	SS		No Recovery																					
27		WO																							
28	4	SS																							
29		WO																							
30	5	SS																							
31		WO																							
32	6	SS																							
33		WO																							
34	7	SS																							
35		WO																							
36	8	SS																							
37		WO																							
38	9	SS																							
39		WO																							
40	10	SS																							





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LOG OF BORING

Project : ก่อสร้างถนน กาญจนาภิเษก-พุทธมณฑล สาย2 Boring No. BH - 1 Tested by N.Winit Page 2
 Location : พุทธมณฑล สาย2 เขตทวีวัฒนา กรุงเทพมหานคร Started 20 พฤศจิกายน 2561 Checked by W.Jakrabhan
 N 1,520,921 E 651,431 Finished 21 พฤศจิกายน 2561 GWL. -1.00 m

Depth (m)	Sample No.	Type Of Sample	Sample Distance	Recovery	Soil Description	Graphic Log	Water Content (%)					SPT - N (Blows/ft)			Soil Shear Strength			Total Density (t/m ³)							
							o	x	+	20	40	60	80	100	25	50	75	o	□	FVT	x	PP	△	TV	▲
10	10	SS			(Same as Above) Very Dense Poorly-graded Silty SAND, brown (SM), (SP), (SP-SM)		o	x	+						◇	56									
31		WO							o	x	+														
32	11	SS							o	x	+						◇	89/4"							
33		WO							o	x	+														
34	12	SS							o	x	+						◇	50/6"							
35		WO							o	x	+														
36	13	SS							o	x	+						◇	79							
37		WO							o	x	+														
38	14	SS							o	x	+						◇	82							
39		WO							o	x	+														
40	15	SS							o	x	+						◇	67							
41		WO							o	x	+														
42	16	SS							o	x	+						◇	82							
43		WO							o	x	+														
44	17	SS							o	x	+						◇	50/4"							
45		WO							o	x	+														
46	18	SS							o	x	+						◇	50/6"							
47		WO							o	x	+														
48	19	SS							o	x	+						◇	50/5"							
49		WO							o	x	+														
50	20	SS		No Recovery					o	x	+						◇	88/5"◇							
51		WO							o	x	+														
52	21	SS							o	x	+						◇	50/5"							
53		WO							o	x	+														
54	22	SS							o	x	+						◇	50/6"							
55		WO							o	x	+														
56	23	SS							o	x	+						◇	50/6"							
57		WO							o	x	+														
58	24	SS							o	x	+						◇	50/6"							
59		WO							o	x	+														
60	25	SS		No Recovery			o	x	+						◇	50/2"									
61		WO					o	x	+																
62	26	SS					o	x	+						◇	50/6"									
63		WO					o	x	+																
64	27	SS					o	x	+						◇	50/5"									
65		WO					o	x	+																
66	28	SS		No Recovery			o	x	+						◇	50/3"									
67		WO					o	x	+																
68	29	SS					o	x	+						◇	50/3"									
69		WO					o	x	+																
70	30	SS					o	x	+						◇	50/2"									

END OF BORING (60.45) m

