

PROJECT :

**CADANGAN PEMASANGAN SEBATANG STRUKTUR
TELEKOMUNIKASI JENIS LAMPOLE SETINGGI 24M
DAN PERALATAN TELEKOMUNIKASI DI PT 80171,
MASJID AL-ISTIQAMAH, JALAN ISTIQAMAH, MUKIM
PEKAN PUCHONG PERDANA, DAERAH PETALING,
SELANGOR DARUL EHSAN UNTUK TETUAN
EDOTCO MALAYSIA SDN. BHD.**

SUBJECT : 1 NUMBER OF DEEP BORING
(SOIL INVESTIGATION)

DATED : 18th OCTOBER 2014

CLIENT :

**NICKMAN CONSULT
LOT 16, JALAN ANGGERIK 2D/2,
48300 RAWANG, SELANGOR.**

ASSOCIATED TESTING LABORATORY SDN. BHD. (39844-V)

No. 152 & 152A, Jalan Selingsing 5,

Taman City, Off Jalan Kuching,

51200 Kuala Lumpur.

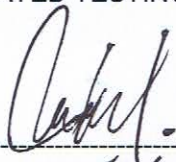

Tel: 03-6258 6183 Fax: 03-6258 4474

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 - 3.1 Boring
 - 3.2 Standard Penetration Test (S.P.T.)
 - 3.3 Sampling
 - 3.4 Groundwater Level Observation
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- APPENDIX B : Location Plan

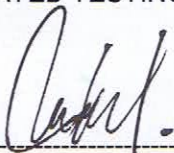

	For ASSOCIATED TESTING LABORATORY SDN. BHD.  TAY CHUAN SENG (Director)	
	Official Signature and Stamp	

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	For ASSOCIATED TESTING LABORATORY SDN. BHD.  TAY CHUAN SENG (Director)	
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REPORTS

SOIL INVESTIGATION WORK
FOR
**CADANGAN PEMASANGAN SEBATANG STRUKTUR TELEKOMUNIKASI
JENIS LAMPOLE SETINGGI 24M & PERALATAN TELEKOMUNIKASI DI PT
80171, MASJID AL-ISTIQAMAH, JALAN ISTIQAMAH, MUKIM PEKAN
PUCHONG PERDANA, DAERAH PETALING, SELANGOR DARUL EHSAN
UNTUK TETUAN EDOTCO MALAYSIA SDN. BHD.**

1. INTRODUCTION

- 1.1 This report presents the result of the soil investigation for the above mentioned project for Messr. Nickman Consult
- 1.2 The purpose of the soil investigation is to obtain geological and geotechnical information overlying the site, in order to assess the general suitability of the site and the environs, to assist in the design and construction of the proposed structure.
- 1.3 The soil investigation works comprised drilling of one (1) borehole, carried out in-situ Standard Penetration Test (SPT) and collecting disturbed soil samples.
- 1.4 The field works were carried out on instruction received from Messr. Nickman Consult.
- 1.5 The field works were commenced on 16th October 2014 and completed on the same day.

2. SCOPE OF WORK

This report presents the geological and geotechnical informations gathered from fieldwork by means of drilling 1 number of borehole by using multi-speed rotary boring machine and also by conducting in-situ Standard Penetration Test.

Disturbed soil samples collected were visually described at site. All the samples were properly stored and brought back to our laboratory for further inspection and testing.

3. SITE WORK**3.1 BORING**

A YWE boring plant was used for drilling work. The borehole with nominal diameter of 100 mm was drilled and lined with NW casings where required to prevent caving-in of the unconsolidation overburden materials. Disturbed samples were collected from split-barrel sampler at every 1.50 m intervals.

The borehole was washed by circulation water to wash out the cuttings to ground surface.

3.2 STANDARD PENETRATION TEST (S.P.T)

Standard Penetration Test covers the determination of the resistance to soils at the base of a borehole and to obtain disturbed sample. It can be performed on both cohesive and non-cohesive materials.

The number of blows to drive a 51 mm ϕ split-barrel sampler with a 63.5 kg self-tripping hammer having a free fall of 760 mm height are then recorded. The number of blows for the beginning 150 mm was recorded for reference and the following 300 mm penetration was recorded as the N - value (blow counts) of the soil strata encountered which indicate the relative density of non - cohesive soil as well as the consistency of the cohesive soil.

Standard Penetration Test is carried out in accordance with BS 1377 : Part 9 : 1990 (clause 3.3).

<u>COHESIVE SOIL</u>	<u>N (Blows)</u>	<u>Consistency</u>
	0 – 2	Very Soft
	2 – 4	Soft
	4 – 8	Firm
	8 – 15	Stiff
	15 – 30	Very Stiff
	Over 30	Hard
<u>NON COHESIVE SOIL</u>	<u>N (Blows)</u>	<u>Relative Density</u>
	0 – 4	Very Loose
	4 – 10	Loose
	10 – 30	Medium Dense
	30 – 50	Dense
	Over 50	Very Dense

Lab Ref. : SL141506

3.3 **SAMPLING**

During boring, disturbed samples were collected from split-barrel sampler at every 1.50 m intervals. These samples were sealed in double-layer polythene bag and labelled indicating sample and depth taken.

3.4 **GROUNDWATER LEVEL OBSERVATION**















The groundwater level was recorded after commencing work at the end of the day.

4. LABORATORY TESTS

None of the classification tests were carried out as instructed by the Client.

APPENDIX A

BOREHOLE LOG

CLIENT : Nickman Consult PROJECT : SI Work For Cadangan Pemasangan Sebatang Struktur Telekomunikasi Jenis Lampole Setinggi 24m & Peralatan Telekomunikasi Di PT 80171, Masjid Al-Istiqamah, Jalan Istiqamah, Mukim Pekan Puchong Perdana,										BOREHOLE NO. : BH 1 TYPE OF BORING : Rotary WB DIAMETER OF BORING : 100.0 mm DIAMETER OF CORING : 52.0 mm FINAL WATER LEVEL : 1.8m				DATE STARTED : 16-10-2014 COMPLETED : 16-10-2014												
DEPTH OF SAMPLE	SAMPLE NUMBER	Standard Penetration Test, SPT						SPT BLOWS (N)	RECOVERY	LEGEND	DESCRIPTION	GRAVEL	SAND	SILT	CLAY	SPT (N) VALUE vs DEPTH (m)										
		SD		Test Drive																						
		75 mm	75 mm	75 mm	75 mm	75 mm	75 mm																			
Metre									mm			%	%	%	%	SPT blows (N)										
0.0 m	D 1									x - x - x	Top Soil : Dark brown SAND occasional rootlets.					0										
1.50 m	S 1 / D 2 1.50 - 1.95	1	0	2	1	1	1	N = 5	120/450	x - x - x	Loose brown slightly gravelly SAND					1.5										
3.00 m	S 2 / D 3 3.00 - 3.45	1	2	1	2	2	2	N = 7	150/450	x - x - x	- Ditto -	2	18	45	35	3										
4.50 m	S 3 / D 4 4.50 - 4.95	1	1	2	1	2	1	N = 6	200/450	x - x - x	Loose dark grey slightly silty SAND					4.5										
6.00 m	S 4 / D 5 6.00 - 6.45	2	2	2	3	4	3	N = 12	160/450	x - x - x	Medium dense dark grey slightly silty SAND					6										
7.50 m										x - x - x						7.5										
Consistency / Relative Density		Legend										Notes														
Cohesive Soil (SPT N-values)		 D - DISTURBED SAMPLE  S - STANDARD PENETRATION TEST  UD - UNDISTURBED SAMPLE / MAZIER  C - ROCK CORING										 CLAY  SILT  SAND  GRAVEL  PEAT					 SANDSTONE  LIMESTONE  SILTSTONE  Coarse Grained GRANITE  Fine Grained GRANITE					SD = Seating Drive S = Standard Penetration Test D = Disturbed Sample UD = Undisturbed Sample MZ = Mazier Sample CL = Core Length CR = Core Recovery CRR = Core Recovery Ratio RQD = Rock Quality Designation Operator : Sombu Supervisor : Azlan Checked By : Nabil				
Non-Cohesive Soil (SPT N-values)																										
0 - 4 VERY LOOSE																										
4 - 10 LOOSE																										
10 - 30 MEDIUM DENSE																										
30 - 50 DENSE																										
> 50 VERY DENSE																										

CLIENT : Nickman Consult		BOREHOLE NO. : BH 1		DATE																	
PROJECT : SI Work For Cadangan Pemasangan Sebatang Struktur Telekomunikasi		TYPE OF BORING : Rotary WB		STARTED : 16-10-2014																	
Jenis Lampole Setinggi 24m & Peralatan Telekomunikasi Di PT 80171,		DIAMETER OF BORING : 100.0 mm		COMPLETED : 16-10-2014																	
Masjid Al-Istiqamah, Jalan Istiqamah, Mukim Pekan Puchong Perdana,		DIAMETER OF CORING : 52.0 mm																			
		FINAL WATER LEVEL : 1.8m																			
DEPTH OF SAMPLE	SAMPLE NUMBER	Standard Penetration Test, SPT						SPT BLOWS (N)	RECOVERY	LEGEND	DESCRIPTION	GRAVEL	SAND	SILT	CLAY	SPT (N) VALUE vs DEPTH (m)					
		SD		Test Drive																	
		75 mm	75 mm	75 mm	75 mm	75 mm	75 mm														
Metre								mm				%	%	%	%	SPT blows (N)					
7.50 m	S 5 / D 6 7.50 - 7.95	2	3	3	2	4	4	N = 13	120/450	x - x - x - x - x - x - x - x - x - x - x - x - x	Medium dense dark grey slightly silty SAND					7.5					
9.00 m	S 6 / D 7 9.00 - 9.45	3	4	4	4	3	5	N = 16	140/450	x - x - x - x - x - x - x - x - x - x - x - x - x	- Ditto -					9					
10.50 m	S 7 / D 8 10.50 - 10.95	5	5	7	6	7	7	N = 27 / 190mm	130/450	x - x - x - x - x - x - x - x - x - x - x - x - x	Medium dense brown slightly silty SAND					10.5					
12.00 m	S 8 / D 9 12.00 - 12.415	8	10	10	13	15	12	N = 50 / 40mm / 265mm	100/415	x - x - x - x - x - x - x - x - x - x - x - x - x	Very dense light grey slightly clayey SAND					12					
13.50 m	S 9 / D 10 13.50 - 13.85	7	10	15	15	20		N = 50 / 50mm / 200mm	90/350	x - x - x - x - x - x - x - x - x - x - x - x - x	Very dense grey slightly clayey slightly gravelly SAND					13.5					
15.00 m																15					
Consistency / Relative Density		Legend										Notes									
Cohesive Soil (SPT N-values)												SD = Seating Drive S = Standard Penetration Test D = Disturbed Sample UD = Undisturbed Sample MZ = Mazier Sample CL = Core Length CR = Core Recovery CRR = Core Recovery Ratio RQD = Rock Quality Designation Operator : Sombu Supervisor : Azlan Checked By : Nabil									
0 - 2 VERY SOFT		D - DISTURBED SAMPLE																			
2 - 4 SOFT		S - STANDARD PENETRATION TEST																			
4 - 8 FIRM		UD - UNDISTURBED SAMPLE / MAZIER																			
8 - 15 STIFF		C - ROCK CORING																			
15 - 30 VERY STIFF																					
> 30 HARD																					
Non-Cohesive Soil (SPT N-values)																					
0 - 4 VERY LOOSE																					
4 - 10 LOOSE																					
10 - 30 MEDIUM DENSE																					
30 - 50 DENSE																					
> 50 VERY DENSE																					

CLIENT : Nickman Consult		BOREHOLE NO. : BH 1		DATE																	
PROJECT : SI Work For Cadangan Pemasangan Sebatang Struktur Telekomunikasi		TYPE OF BORING : Rotary WB		STARTED : 16-10-2014																	
Jenis Lampole Setinggi 24m & Peralatan Telekomunikasi Di PT 80171,		DIAMETER OF BORING : 100.0 mm		COMPLETED : 16-10-2014																	
Masjid Al-Istiqamah, Jalan Istiqamah, Mukim Pekan Puchong Perdana,		DIAMETER OF CORING : 52.0 mm																			
		FINAL WATER LEVEL : 1.8m																			
DEPTH OF SAMPLE	SAMPLE NUMBER	Standard Penetration Test, SPT						SPT BLOWS (N)	RECOVERY	LEGEND	DESCRIPTION	GRAVEL	SAND	SILT	CLAY	SPT (N) VALUE vs DEPTH (m)					
		SD		Test Drive																	
		75 mm	75 mm	75 mm	75 mm	75 mm	75 mm														
Metre								mm				%	%	%	%	SPT blows (N)					
15.00 m	S 10 / D 11 15.00 - 15.385	8	8	12	15	14	9	N = 50 / 235mm	120/385	x - x - x - x - x - x - x - x - x - x - x - x - x	Very dense light brown slightly silty SAND					15					
16.50 m	S 11 / D 12 16.50 - 16.86	12	18	14	17	19		N = 50 / 210mm	100/360	x - x - x - x - x - x - x - x - x - x - x - x - x	Very dense light brown SAND					16.5					
18.00 m	S 12 / D 13 18.00 - 16.255	15	16	24	26			N = 50 / 105mm	80/255	x - x - x - x - x - x - x - x	- Ditto -					18					
											End of Borehole at 18.255 m					18.255					
19.50 m																19.5					
21.00 m																21					
22.50 m																22.5					
Consistency / Relative Density		Legend										Notes									
Cohesive Soil (SPT N-values)												SD = Seating Drive S = Standard Penetration Test D = Disturbed Sample UD = Undisturbed Sample MZ = Mazier Sample CL = Core Length CR = Core Recovery CRR = Core Recovery Ratio RQD = Rock Quality Designation Operator : Sombu Supervisor : Azlan Checked By : Nabil									
0 - 2	VERY SOFT																				
2 - 4	SOFT																				
4 - 8	FIRM																				
8 - 15	STIFF																				
15 - 30	VERY STIFF																				
> 30	HARD																				
Non-Cohesive Soil (SPT N-values)																					
0 - 4	VERY LOOSE																				
4 - 10	LOOSE																				
10 - 30	MEDIUM DENSE																				
30 - 50	DENSE																				
> 50	VERY DENSE																				

APPENDIX B

LOCATION PLAN

NOTA :

TAJUK

**CADANGAN PEMASANGAN SEBATANG
STRUKTUR TELEKOMUNIKASI JENIS
LAMPOLPE SETINGGI 24m DAN
PERALATAN TELEKOMUNIKASI DI
PT 80171, MASJID AL-ISTIQAMAH,
BUCHANAN ISTIQAMAH, MUKIM PEKAN
PUCHONG PERDANA, DAERAH
PETALING, SELANGOR DARUL EHSAN.
UNTUK TETUAN EDOTCO MALAYSIA
SDN BHD**

MAJLIS TAPAK: MASJID AL-ISTIQOMAH PUCHONG



Journal of Management Education 32(1)

(Formerly known as Calcom Services Sdn Bhd) (148800-82)
10th FLOOR, QUILL 7, 9 JALAN STESEN SENTRAL 5,
KUALA LUMPUR SENTRAL 50470 KUALA LUMPUR.

NO TEL.: 01-2262 1322
NO FAX: 01-2262 1309

For more information: www.irs.gov

PEMILIK TANAH/KEPENTINGAN !

PERAKUAN JURUTERA :

[illegible]

P. AZMI DIN ABUL RAHMAN 1870102-11-58-691

■ NORMAN CONSTITUTION

MR. KATHAN CONSULT
CHARTERS WITH THE BOARD OF DIRECTORS AND THE
COUNCIL OF THE BOARD OF DIRECTORS AND THE
COUNCIL OF THE BOARD OF DIRECTORS AND THE

CIVIL & STRUCTURAL ENGINEERING CONSULTANT
LOT 18, JALAN ANSONIAK 20/2,

POLICE REPRESENTATIVE
#6300
#71 - 4-208 AM
#72 - 4-208 AM
#73 - 4-208 AM
#74 - 4-208 AM
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#99 - 4-208 AM
#100 - 4-208 AM

TOLL : +003 80 2121 88
FAX : +003 80 2161 88

UNTUK KEGIATAN BELAKANG :

ТАИШЕ ИИКСАН :

THE ANNUAL REPORT OF THE BOARD OF DIRECTORS

DI 111019 - FA/7A1

DI LUNGS : PALLAL

DI SEMAK : SAIS

TARIKH : JULY 2014

SKALA : SEPERTI YANG DITUNJUK

Abstracts sent free to all authors.

