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TRIAL PIT TEST

FOR

LAND PARCEL NO. 2

AT

ENG NEO AVENUE

Client/Owner : Singapore Land Authority
Conducted by : Hock Lian Building Co. Pte Ltd
Inspected & Certified : Millenniums Consultants
Date : 21 September 2007

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REPORT:

TRIAL PIT TEST FOR LAND PARCEL NO. 2 AT ENG NEO AVENUE

Client : Singapore Land Authority
Location : Eng Neo Avenue
Land Parcel : 02
Prepared by : Millenniums Consultants (PE)

1 INTRODUCTION

Trial pit excavations were carried out for Land Parcel No. 2 at Eng Neo Avenue for the purpose of visual inspection for soil condition and possibility of illegal dumping.

A total of 2 trial pits were excavated for approx. 1550.50 m² of land at locations shown in the Trial Pits Location Plan (as attached). Prior to the excavation, cable detection has been carried out to confirm location of the services as this is a built up area.

The work was carried out according to the instructions given by Singapore Land Authority.

2 SCOPE OF WORK

2.1 The purposes of this Report were:

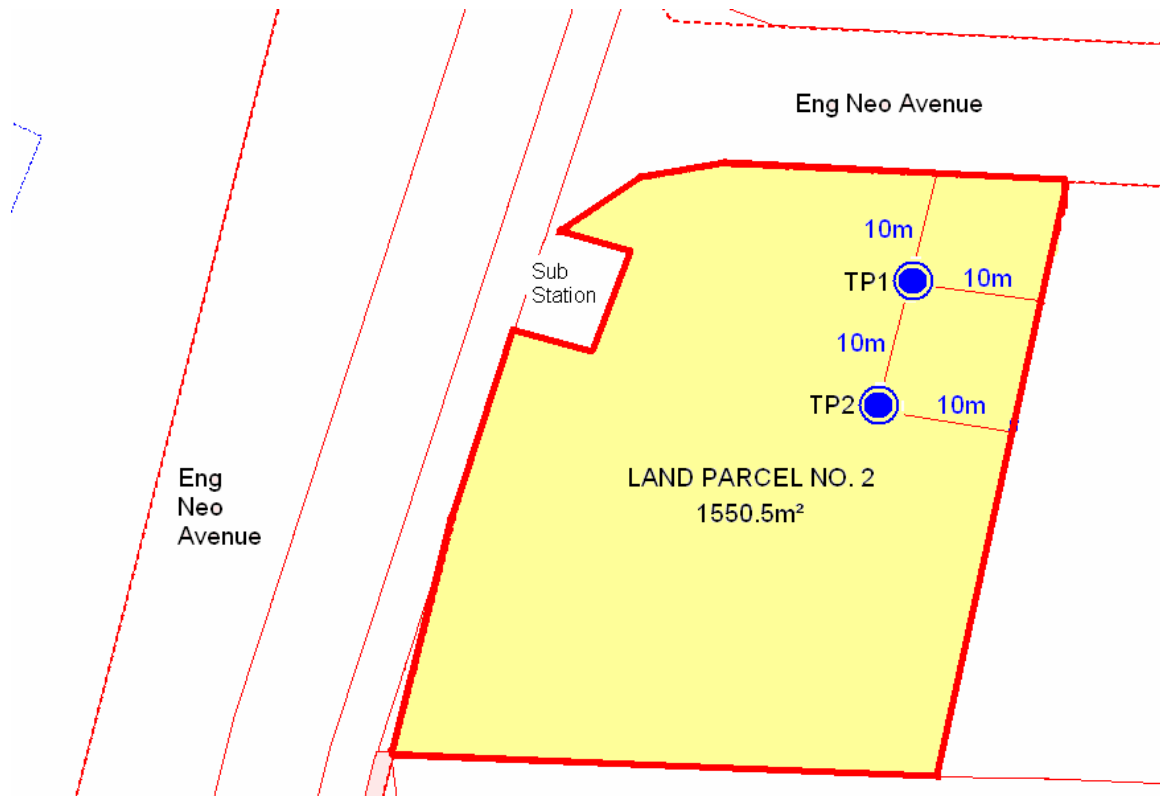
- a. To explore the sub-surface conditions of the Proposed Development area and to provide general soil data relating to the Project.
- b. To determine the existence of any illegal dumping found on site.
- c. To observe the water table level.

2.2 Description of Trial Pit Excavation

The sequence of works was as follows:

- Site Clearance carried out by excavator.
- Trial Pit locations were determined by pegging on site.
- The trial pits in the size of 1.5m x 1.5m x 3m depth were excavated using hydraulic excavator Kobelco 03 series SK60 and Mini excavator.
- Timber barriers with red and white safety tape were putted up around the pits for safety reason.
- Photographs and visual inspections were carried out by PE.

3 TRIAL PITS LOCATION PLAN



4 CABLE DETECTION REPORT

FORM NCD

Deputy Director
Earthworks Monitoring &
Cable Protection Section
Network Management Division
SP PowerGrid Ltd
25 Pasir Panjang Road
Singapore 117536

(This form is to be submitted with site plans indicating the detection zone clearly before the commencement of cable detection work.)

FAX NO: 64759400
DID NO: 64700904/5

NOTIFICATION OF COMMENCEMENT OF CABLE DETECTION WORK

I, the undersigned, intend to carry out cable detection work. The particulars are as follows:-

- 1 Location of cable detection work : ENG NEO AVG
- 2 Particulars of contractor/client : HOCK LIAN BUILDING CO
Company / Person-in-charge : MR GUEK KAI YONG
Address : BLK 721 CLEMENTI WEST ST 2
Tel No: 63161609 FAX 6771181 Pager No. : _____
- 3 Principal : SLA Dept/Section : _____
- 4 Date cable route drawings obtained (LCDW to note mandatory requirement) : 26/9/09
- 5 Date of cable detection to be carried out : 26/9/09
- 6 Voltage Level of the cable in the vicinity? No SPPA's cable / HT/HTT*
- 7 Proposed dates for earthworks :
Start : 26/9/09 Finish : 30/9/09
- 8 Purpose of earthworks : TRIAL PITS (2 NOS).

I shall prepare and issue to my client a set of cable detection records and keep EMCP informed of any changes in the above particulars by fax. I will also remind my client to submit the Notice for Commencement of Earthworks (NCE) if there are High Voltage cables within the vicinity.


Signature



SIM YONG KWEE
Name of Licensed Cable Detection Worker

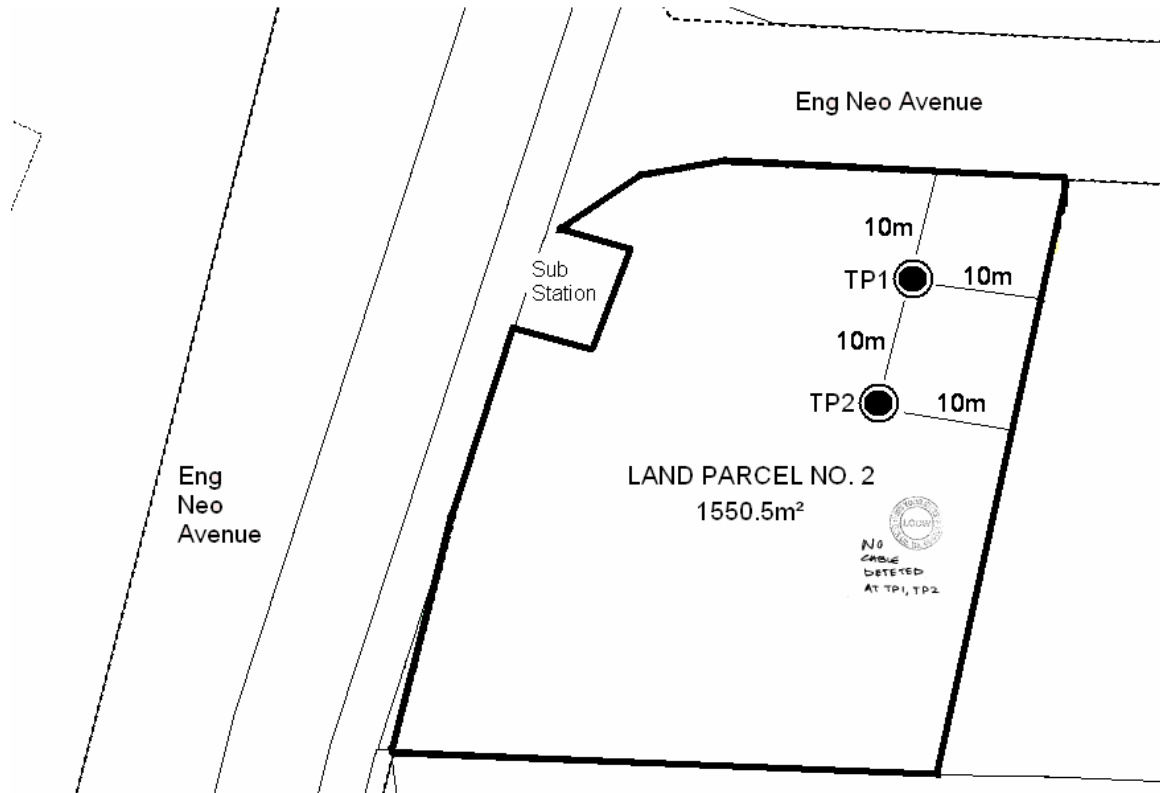
Date : 26/9/09

Licence No. : 89-0108

Tel No. : _____

Mobile No. : 98184225

*Delete where applicable.
(Revision Feb 2006)



5 FINDINGS

TRIAL PIT 001



- Location: Land Parcel No. 2 at Eng Neo Avenue
- Trial Pit No: 001
- Size: 1.5m length x 1.5m width x 3m depth
- Original State: Land with maintained cow grass turfing
- Soil Condition up to 3 metres: The following materials were not found:
- material from sump
 - large timber pieces
 - tree trunks
 - rubber tyres
 - materials susceptible to spontaneous combustion
 - organic municipal waste
 - other industrial and domestic refuse
 - soil of liquid limit exceeding 70 and/or plasticity index exceeding 35
 - materials having moisture content greater than the maximum permitted for such materials in the Contract, unless otherwise permitted by the Superintending Officer
 - rock, which are hard material whose geological nature is to be regarded as such and individual boulders exceeding 0.20m³ or other masses of hard natural material which necessitates the use of blasting or approved pneumatic tools for their removal.
- Water Table: No sign of high water table, ground water found at approx 3m before ground level

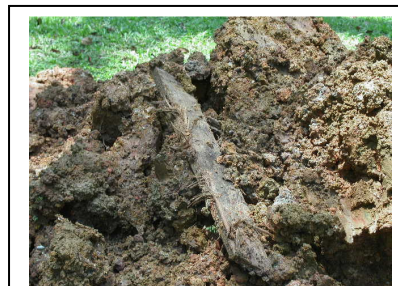
TRIAL PIT 002



Foreign objects found in this pit



Trace of broken tarmac found in this trial pit



Trace of large wood plank found in this trial pit

- Location: Land Parcel No. 2 at Eng Neo Avenue
- Trial Pit No: 002
- Size: 1.5m length x 1.5m width x 3m depth
- Original State: Land with maintained cow grass turfing
- Soil Condition up to 3 metres: The following materials were not found:
- material from sump
 - tree trunks
 - rubber tyres
 - materials susceptible to spontaneous combustion
 - organic municipal waste
 - other industrial and domestic refuse
 - soil of liquid limit exceeding 70 and/or plasticity index exceeding 35

- materials having moisture content greater than the maximum permitted for such materials in the Contract, unless otherwise permitted by the Superintending Officer
- rock, which are hard material whose geological nature is to be regarded as such and individual boulders exceeding 0.20m³ or other masses of hard natural material which necessitates the use of blasting or approved pneumatic tools for their removal.

Water Table: No sign of high water table

6 CONCLUSION

At all 2 trial pits that we have inspected, we found traces of foreign material (i.e. timber pieces and broken tarmac etc). Soil composition 2 metres below ground show traces of clay deposits.

To ascertain if the clay deposits are a result of dumping, more tests have to be carried at closer distances.

Should there be any question regarding our work, we would be pleased to discuss them with you.

The Contents as described in this report for Trial Pit Test for Land Parcel No. 2 at Eng Neo Avenue are hereby certified to be correct.



Endorse by Professional Engineer