

CEDD CONTRACT NO.: GE/2014/07
GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

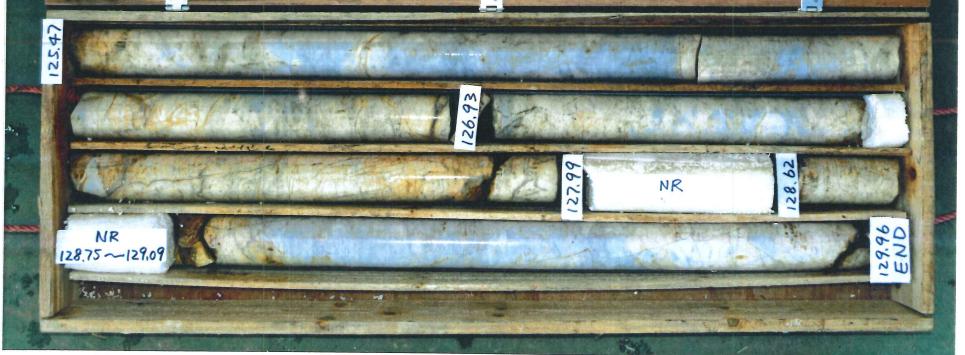
HOLE NO. : \$1-DH14

BOX NO.: 18 OF 18

DEPTH: 125.47 mTO 129.96 m

DATE OF PHOTOGRAPH: 21/12/2015







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction



HOLE NO.: \$1-DH 15

BOX NO.: 1 OF 10

DEPTH: 0.00 mTO 10.50 m







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction



HOLE NO.: \$1-DH 15

BOX NO.: 2 OF 10

DEPTH: 10.50 mTO 20.50 m







CEDD CONTRACT NO.: GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station Investigation, Design and
Construction



HOLE NO.: \$1-DH 15

BOX NO.: 3 OF 10

DEPTH: 20.50 mTO 25.30 m







CEDD CONTRACT NO.: GE/2014/07 **GROUND INVESTIGATION - NEW** TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07,34

JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

with Long Ping Station -Investigation, Design and

Construction

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO.: \$1-DH 15

4 OF 10 BOX NO.:

DEPTH: 25.30 mTO (28.07) m









CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor

in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction



HOLE NO. : \$1-DH 15

BOX NO.: 5 OF 10

DEPTH: (28.07) mTO (30.78) m

DATE OF PHOTOGRAPH: 11/3/2016











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CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW TERRITORIES WEST (TERM CONTRACT) WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
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Construction



HOLE NO.: \$1-DH 15

BOX NO.: 9 OF 10

DEPTH: (38.82) mTO (41.63) m









CEDD CONTRACT NO.: GE/2014/07
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TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor

in Yuen Long Town connecting

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Investigation, Design and

Construction

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH11

BOX NO.: 1 OF 16

DEPTH: 0.00 mTO 10.95 m







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW TERRITORIES WEST (TERM CONTRACT) WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station Investigation, Design and
Construction



HOLE NO.: \$2-DH11

BOX NO.: 2 OF 16

DEPTH: 10.95 mTO 25.10 m

DATE OF PHOTOGRAPH: 11/3/2016



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CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor

in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction



HOLE NO. : \$2-DH11

BOX NO.: 3 OF 16

DEPTH: 25.10 mTO 41.10 m

DATE OF PHOTOGRAPH: 11/3/2016







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction



CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO.: \$2-DH11

BOX NO.: 4 OF 16

DEPTH: 41.10 mTO 57.10 m

DATE OF PHOTOGRAPH: 11/3/2016



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CEDD CONTRACT NO.: GE/2014/07 **GROUND INVESTIGATION - NEW**

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY) Elevated Pedestrian Corridor in Yuen Long Town connecting

with Long Ping Station -Investigation, Design and

Construction



HOLE NO. : \$2-DH11

BOX NO.: 5 OF 16

DEPTH: 57.10 mTO 72.60 m







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW TERRITORIES WEST (TERM CONTRACT) WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station Investigation, Design and
Construction

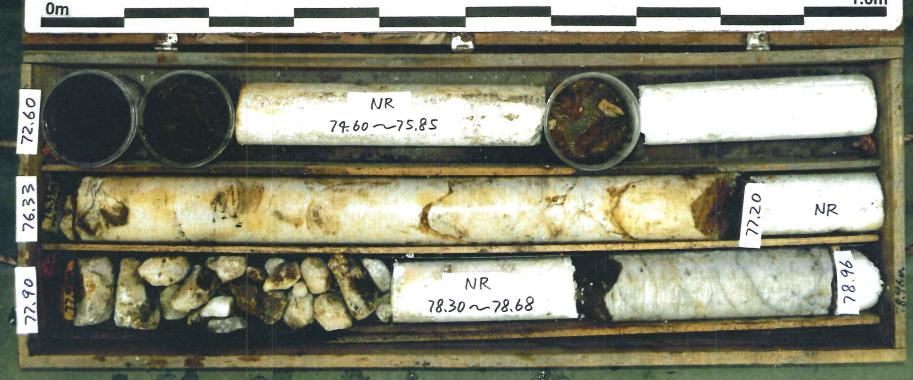
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH11

BOX NO.: 6 OF 16

DEPTH: 72.60 mTO 78.96 m







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction



HOLE NO. : \$2-DH 11

BOX NO.: 7 OF 16

DEPTH: 78.96 mTO (82.64) m

DATE OF PHOTOGRAPH: 11/3/2016







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

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JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

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HOLE NO. : \$2-DH11

BOX NO.: 8 OF 16

DEPTH: (82.64) mTO (85.60) m







CEDD CONTRACT NO.: GE/2014/07
GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

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Elevated Pedestrian Corridor in Yuen Long Town connecting

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Construction



CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH11

BOX NO.: 9 OF 16

DEPTH: (85.60) mTO (88.76) m

DATE OF PHOTOGRAPH: 11/3/2016







CEDD CONTRACT NO.: GE/2014/07
GROUND INVESTIGATION - NEW

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Elevated Pedestrian Corridor in Yuen Long Town connecting

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HOLE NO. : \$2-DH11

BOX NO.: 10 OF 16

DEPTH: (88.76) mTO 92.16 m

DATE OF PHOTOGRAPH: 11/3/2016



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CEDD CONTRACT NO.: GE/2014/07
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WORKS ORDER NO.: GE/2014/07.34

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Elevated Pedestrian Corridor
in Yuen Long Town connecting
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Construction

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH11

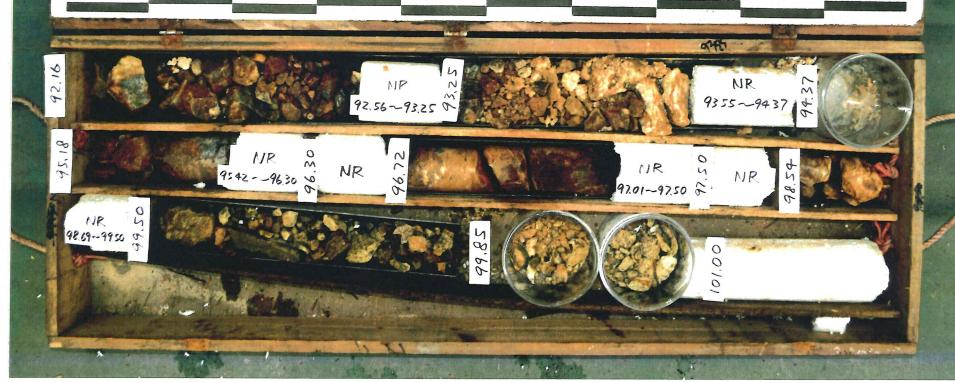
BOX NO.: 11 OF 16

DEPTH: 92.16 mTO 101.00 m

DATE OF PHOTOGRAPH: 11/3/2016

Kodak

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CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO. : GE/2014/07.34

JOB TITLE: Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
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HOLE NO. : \$2-DH11

BOX NO.: 13 OF 16

DEPTH: 106-55 mTO (110.46) m

DATE OF PHOTOGRAPH: 11/3/2016

Rodak

Blux Cyan Orean Yellow Red Magenty White Model

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CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

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Elevated Pedestrian Corridor in Yuen Long Town connecting

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Construction



HOLE NO. : \$2-DH11

BOX NO.: 14 OF 16

DEPTH:(110.46)mTO 114.90 m



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CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

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WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor

in Yuen Long Town connecting

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Construction



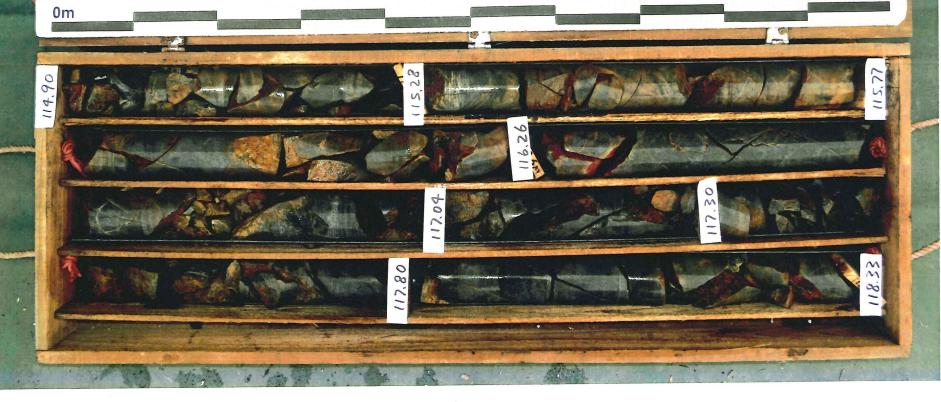
HOLE NO. : \$2-DH11

BOX NO.: 15 OF 16

DEPTH: 114.90 mTO 118.33 m

DATE OF PHOTOGRAPH: 11/3/2016









CEDD CONTRACT NO.: GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO.: GE/2014/07.34
JOB TITLE: Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
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Construction



CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH15

BOX NO.: 1 OF 12

DEPTH: 0.00 mTO 9.95 m







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction



HOLE NO. : \$2-DH15

BOX NO.: 2 OF 12

DEPTH: 9.95 mTO 22.10 m









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CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction



CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH15

BOX NO.: 3 OF 12

DEPTH: 22.10 mTO (24.75) m









CEDD CONTRACT NO.: GE/2014/07 **GROUND INVESTIGATION - NEW** TERRITORIES WEST (TERM CONTRACT) WORKS ORDER NO.: GE/2014/07.34

> **Elevated Pedestrian Corridor** in Yuen Long Town connecting with Long Ping Station -Investigation, Design and Construction

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH15

BOX NO.: 5 OF 12

DEPTH: (29.40) mTO 32.09 m

DATE OF PHOTOGRAPH: 29/1/2016



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CEDD CONTRACT NO.: GE/2014/07

GROUND INVESTIGATION - NEW TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH15

BOX NO.: 6 OF 12

DEPTH: 32.09 mTO 34.92 m







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW TERRITORIES WEST (TERM CONTRACT) WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station Investigation, Design and
Construction



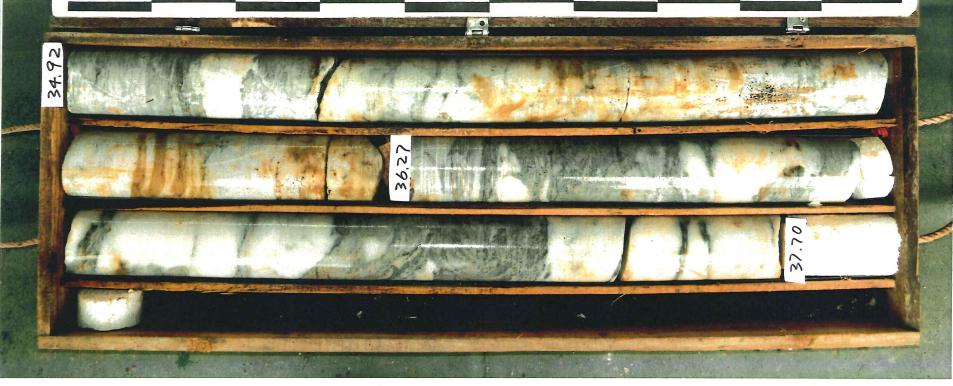
HOLE NO. : \$2 - DH 15

BOX NO.: 7 OF 12

DEPTH: 34.92 mTO 37.70 m

DATE OF PHOTOGRAPH: 29/1/2016







CEDD CONTRACT NO.: GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor

in Yuen Long Town connecting with Long Ping Station -

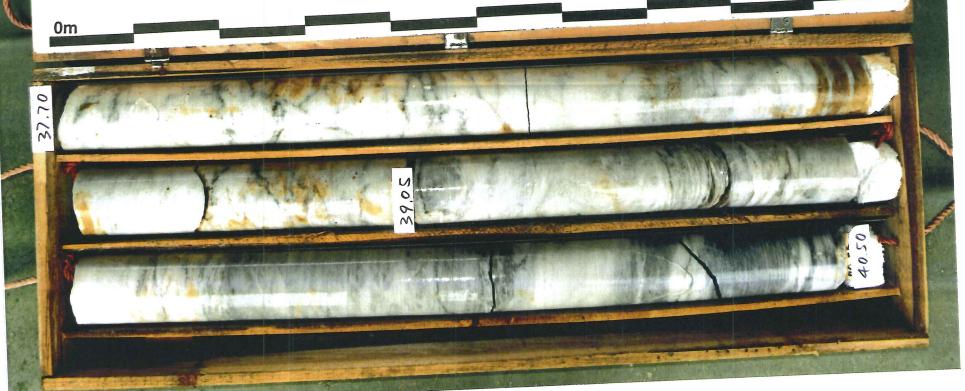
with Long Ping Station -Investigation, Design and Construction CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2 - DH 15

BOX NO.: 8 OF 12

DEPTH: 37.70 mTO 40.50 m







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction

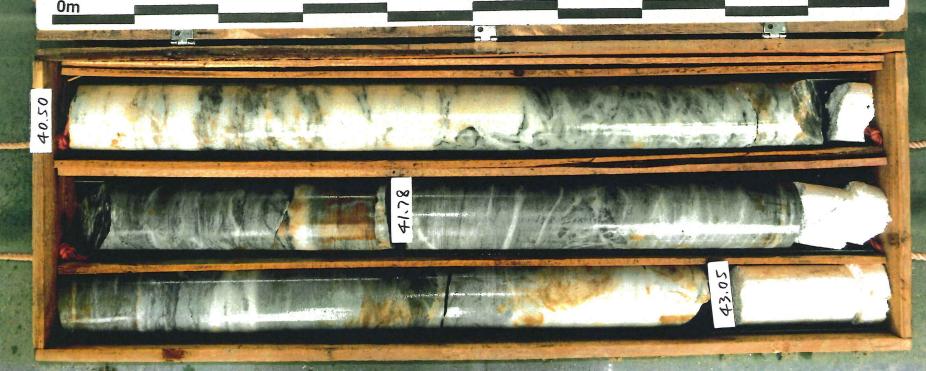


HOLE NO. : \$2 - DH 15

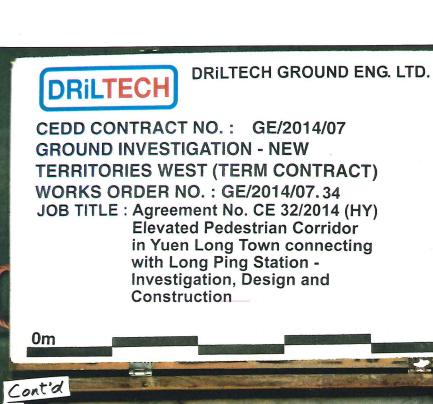
BOX NO.: 9 OF 12

DEPTH: 40.50 mTO 43.05 m











HOLE NO. : \$2 - DH 15

BOX NO.: 11 OF 12

DEPTH: (45.61) mTO 48.17 m







CEDD CONTRACT NO.: GE/2014/07

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

with Long Ping Station -Investigation, Design and

Construction



HOLE NO. : \$2 - DH 15

BOX NO.: 12 OF 12

DEPTH: 48.17 mTO 49.67 m







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW TERRITORIES WEST (TERM CONTRACT) WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station Investigation, Design and
Construction



HOLE NO.: \$2-DH16

BOX NO.: 1 OF 17

DEPTH: 0.00 mTO 11.05 m







DRILTECH GROUND ENG. LTD.

CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

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Construction

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO.: \$2-DH16

BOX NO.: 2 OF 17

DEPTH: 11.05 mTO (18.13) m







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction



HOLE NO. : \$2-DH16

BOX NO.: 3 OF 17

DEPTH: (18.13) mTO 20.97 m







DRILTECH GROUND ENG. LTD.

CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY) Elevated Pedestrian Corridor

in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction



HOLE NO.: \$2-DH16

BOX NO.: 4 OF 17

DEPTH: 20.97 mTO 23.76 m







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CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction



HOLE NO.: \$2-DH16

BOX NO.: 5 OF 17

DEPTH: 23.76 mTO 26.56 m







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW TERRITORIES WEST (TERM CONTRACT) WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station Investigation, Design and
Construction

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH16

BOX NO.: 6 OF 17

DEPTH: 26.56 mTO 29.41 m









CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting

with Long Ping Station - Investigation, Design and

Construction

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO.: \$2-DH16

BOX NO.: 7 OF 17

DEPTH: 29.41 mTO (32.23) m









DRILTECH GROUND ENG. LTD.

CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 17/2012 (DS)

Outlying Islands Sewerage Stage 2 - South Lantau

Sewerage Works and Other

Works - Design and

Construction

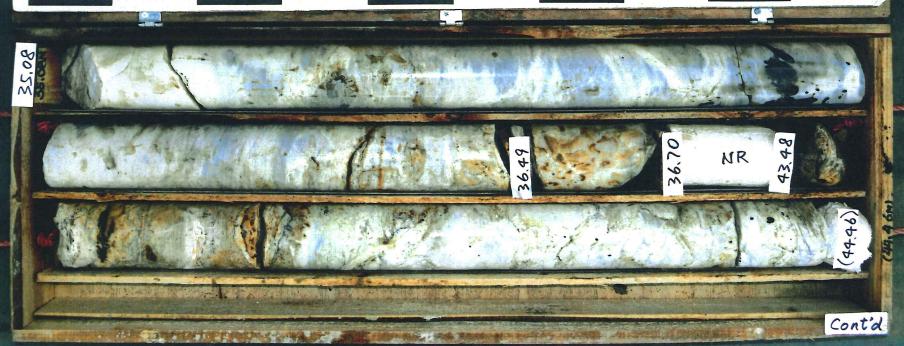
CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH16

BOX NO.: 9 OF 17

DEPTH: 35.08 mTO (44.46) m







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 17/2012 (DS)

Outlying Islands Sewerage Stage 2 - South Lantau Sewerage Works and Other

Works - Design and

Construction

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH16

BOX NO.: 10 OF 17

DEPTH: (44.46) mTO 48.20 m







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 17/2012 (DS)

Outlying Islands Sewerage Stage 2 - South Lantau

Sewerage Works and Other

Works - Design and

Construction

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH16

BOX NO.: 11 OF 17

DEPTH: 48.20 mTO 50.90 m









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CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 17/2012 (DS)

Outlying Islands Sewerage Stage 2 - South Lantau

Sewerage Works and Other

Works - Design and

Construction



HOLE NO. : \$2-DH16

BOX NO.: 12 OF 17

DEPTH: 50.90 mTO 53.74 m







CEDD CONTRACT NO.: GE/2014/07
GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE: Agreement No. CE 17/2012 (DS)

Outlying Islands Sewerage

Stage 2 - South Lantau Sewerage Works and Other

Works - Design and

Construction



HOLE NO. : \$2-DH16

BOX NO.: 13 OF 17

DEPTH: 53.74 mTO 56.53 m







CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW TERRITORIES WEST (TERM CONTRACT) WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 17/2012 (DS)

Outlying Islands Sewerage Stage 2 - South Lantau Sewerage Works and Other

Works - Design and

Construction

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH16

BOX NO.: 14 OF 17

DEPTH: 56.53 mTO 59.32 m











CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 17/2012 (DS)

Outlying Islands Sewerage

Stage 2 - South Lantau Sewerage Works and Other

Works - Design and

Construction

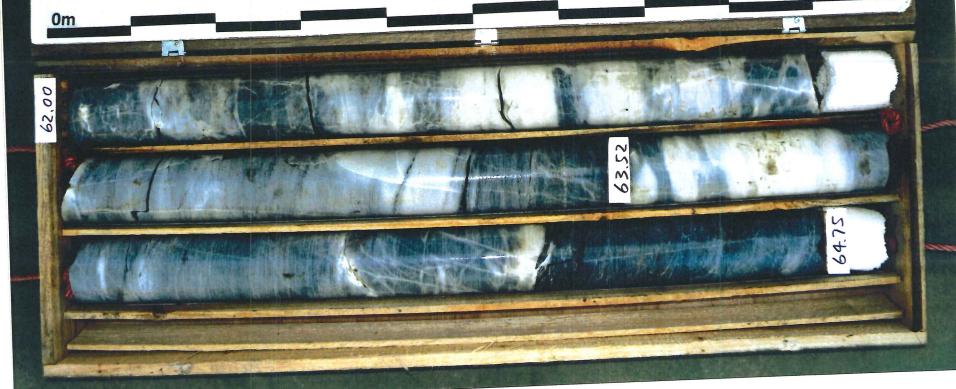
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH16

BOX NO.: 16 OF 17

DEPTH: 62.00 mTO 64.75 m







DRILTECH GROUND ENG. LTD.

CEDD CONTRACT NO.: GE/2014/07 GROUND INVESTIGATION - NEW

TERRITORIES WEST (TERM CONTRACT)

WORKS ORDER NO.: GE/2014/07.34

JOB TITLE : Agreement No. CE 17/2012 (DS)

Outlying Islands Sewerage Stage 2 - South Lantau Sewerage Works and Other

Works - Design and

Construction

CEDD

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

HOLE NO. : \$2-DH16

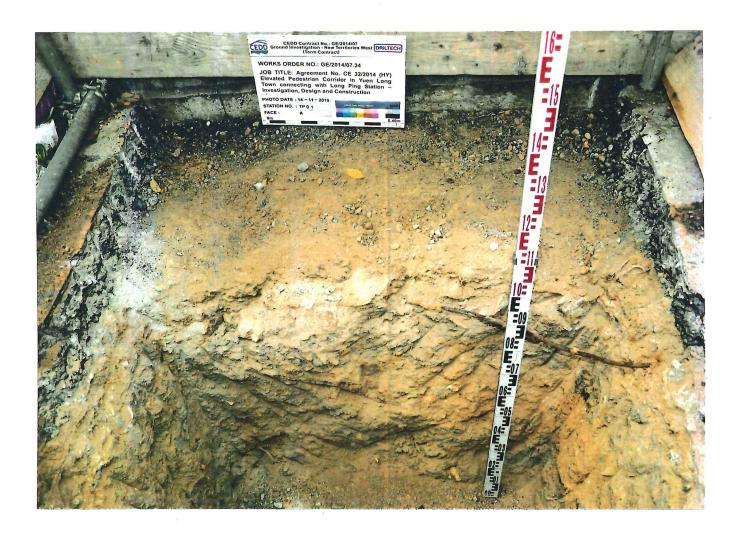
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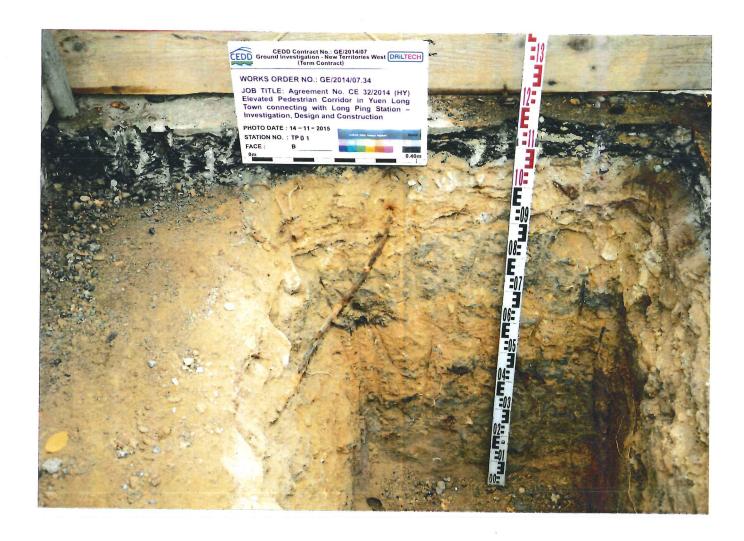
DEPTH: 64.75 mTO 66.40 m

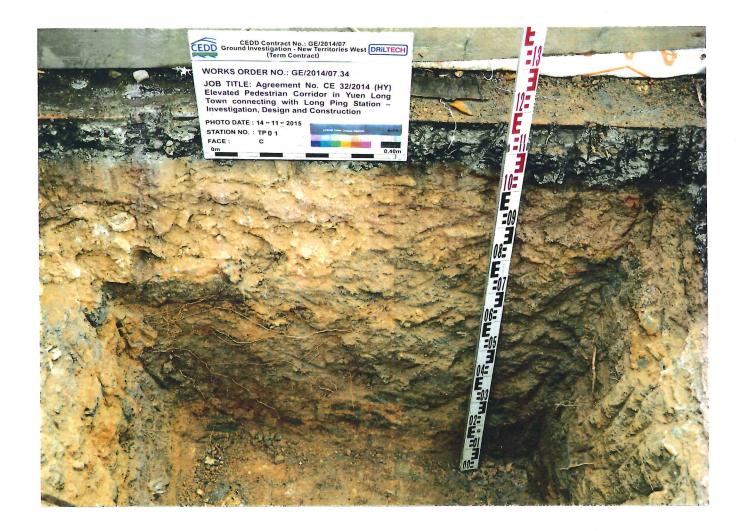


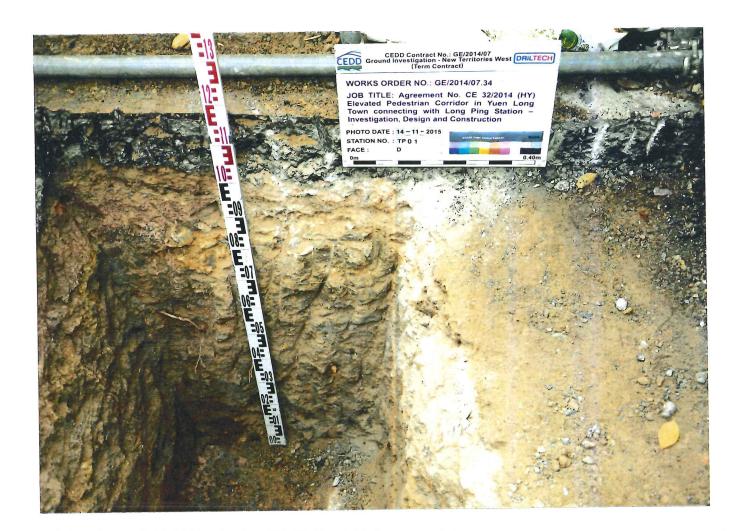


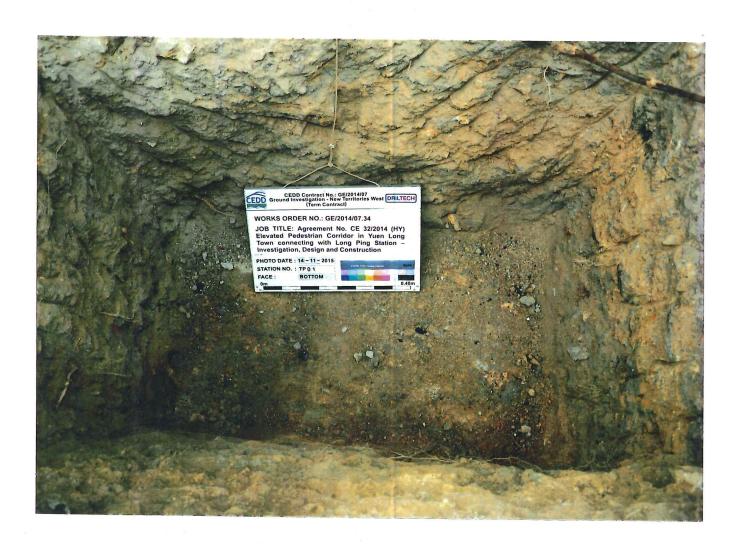




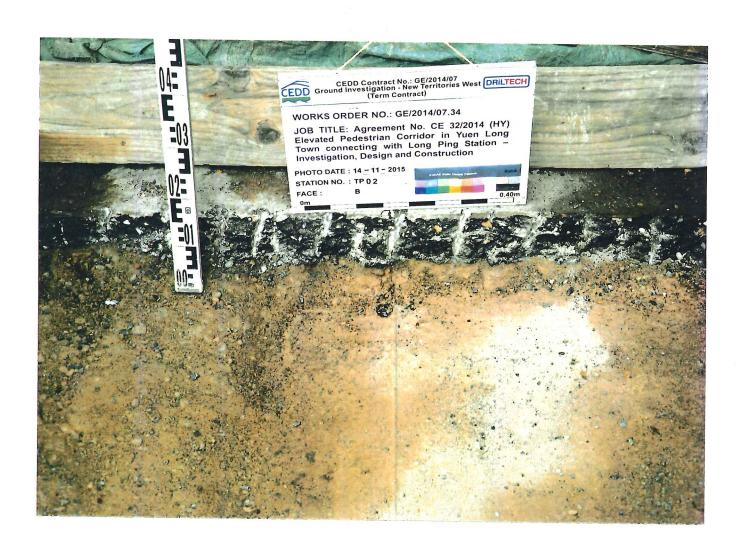


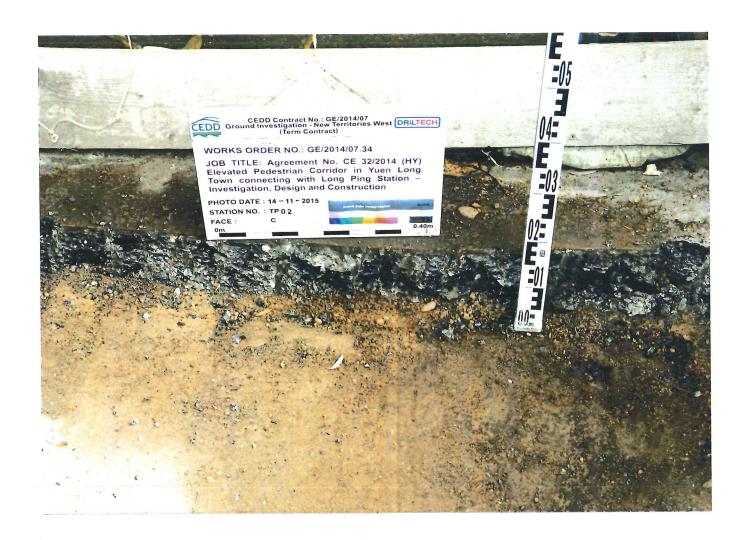


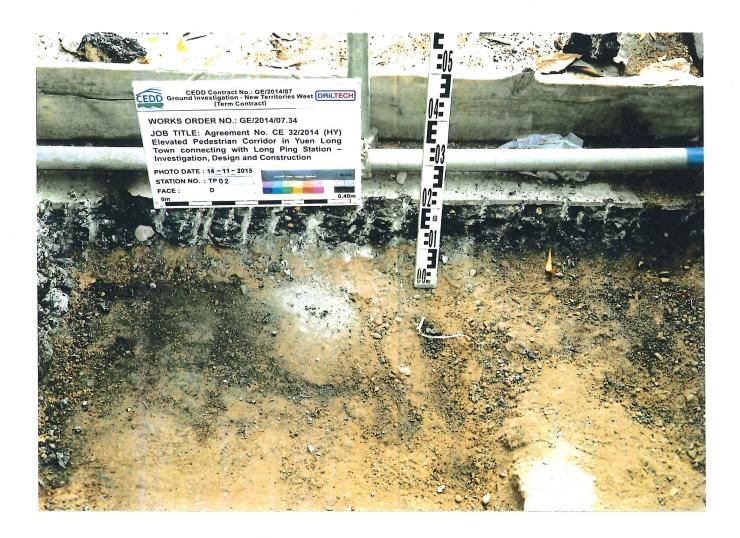




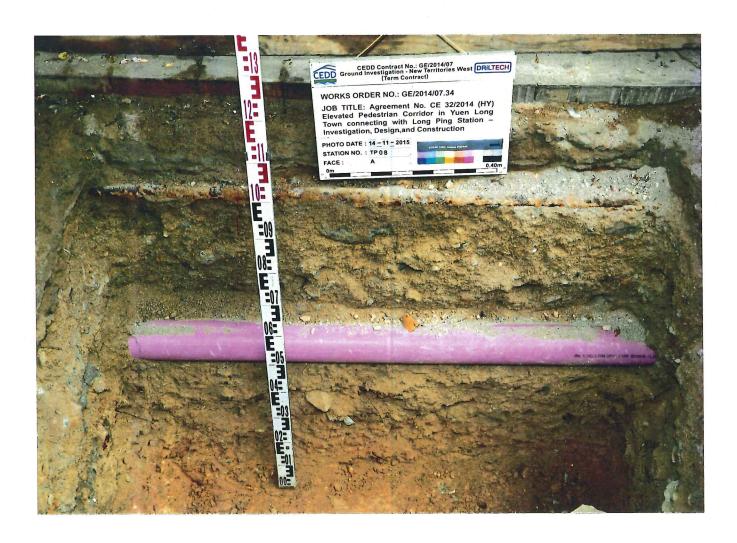


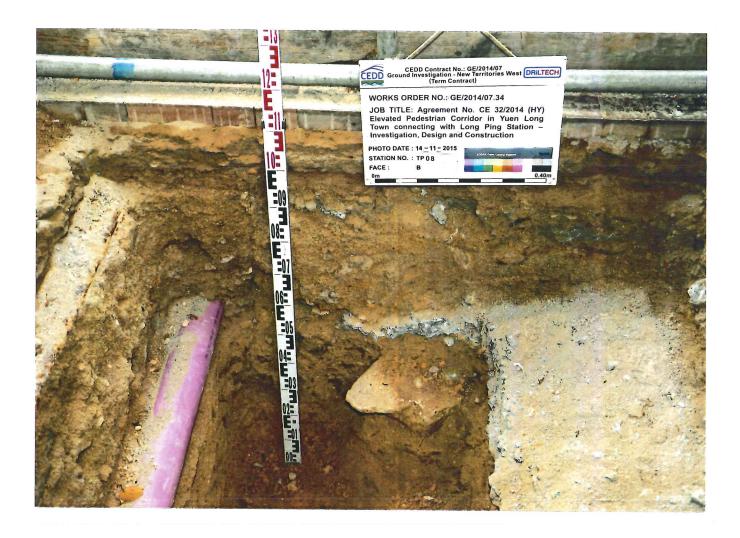


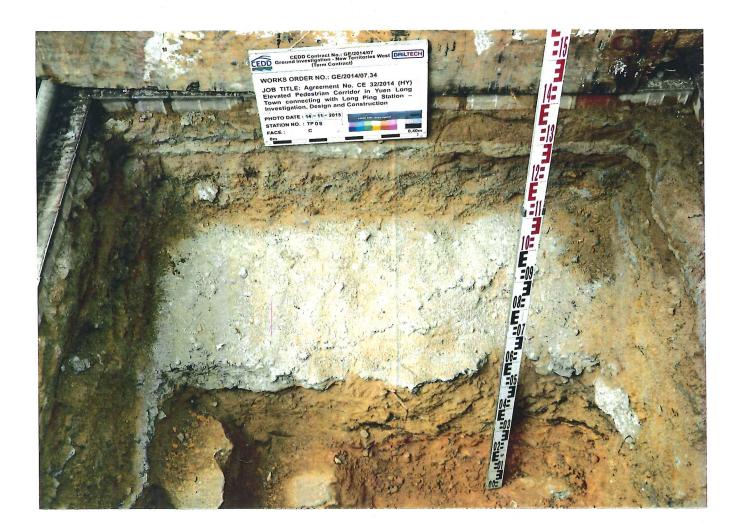




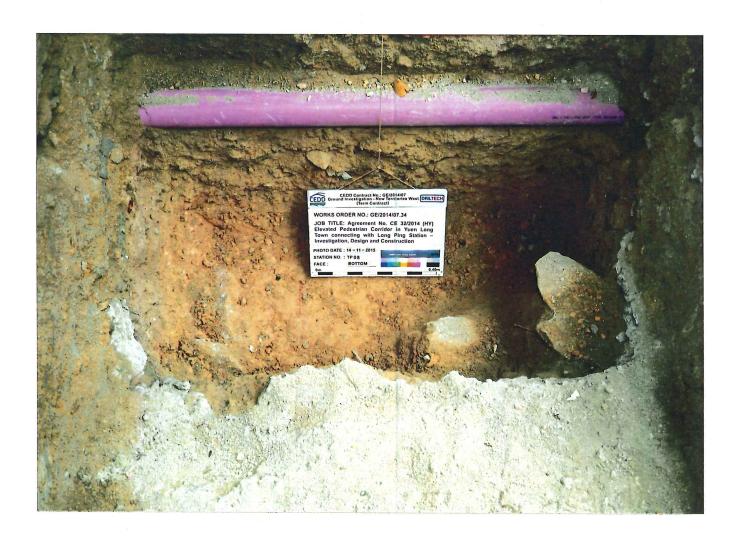


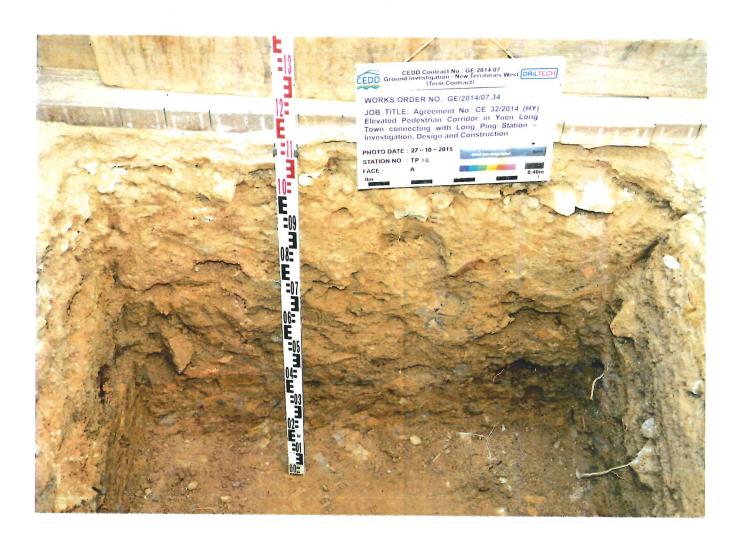






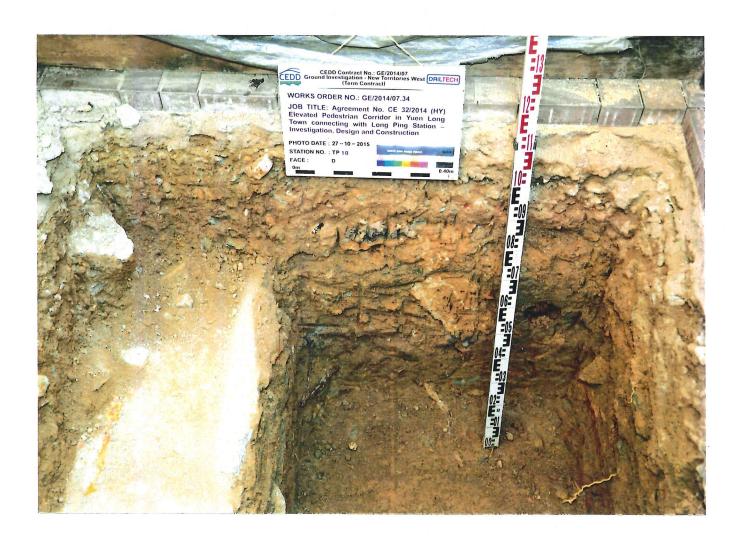


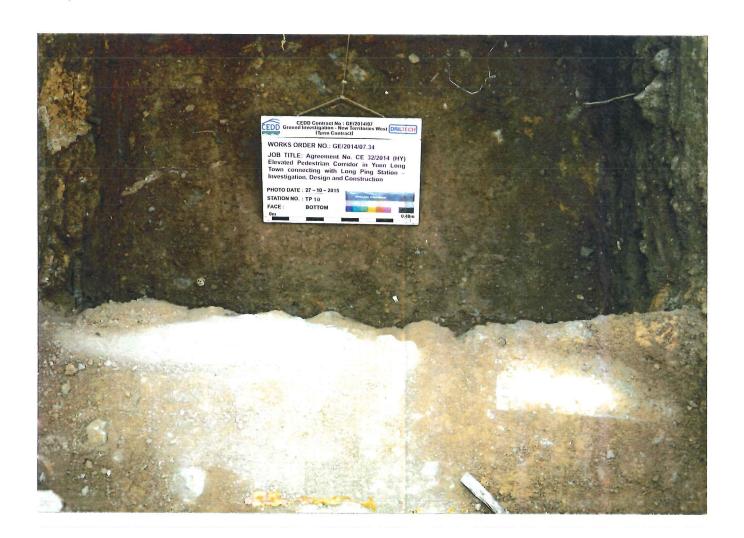


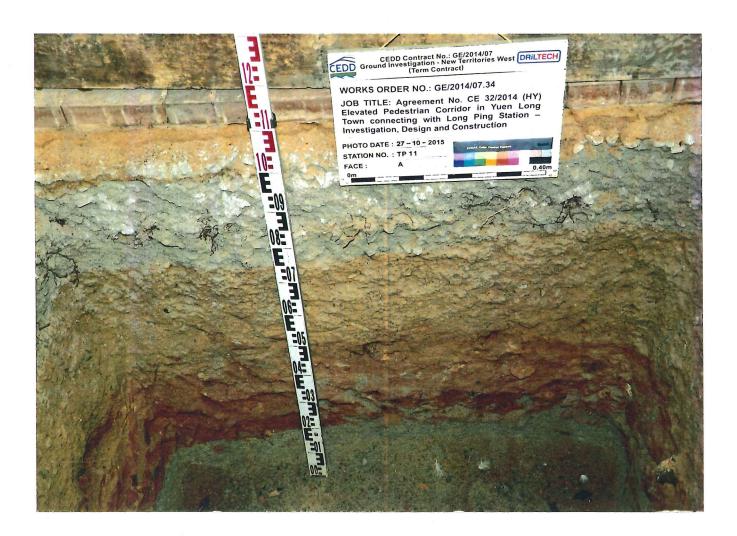


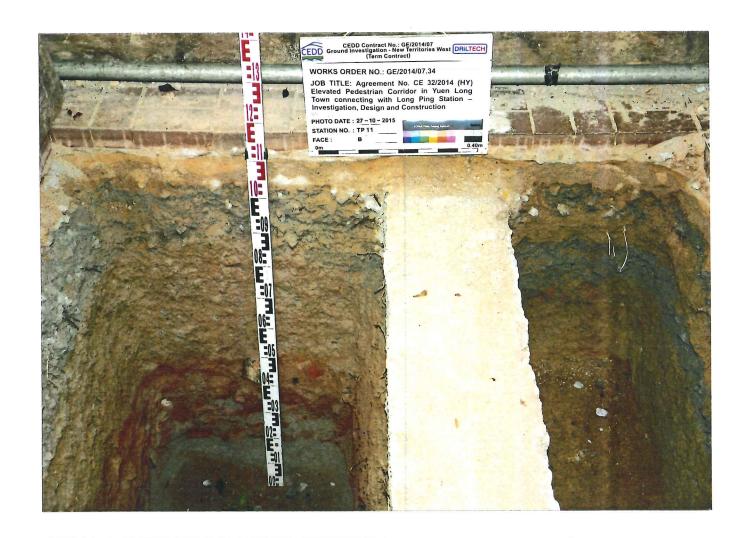


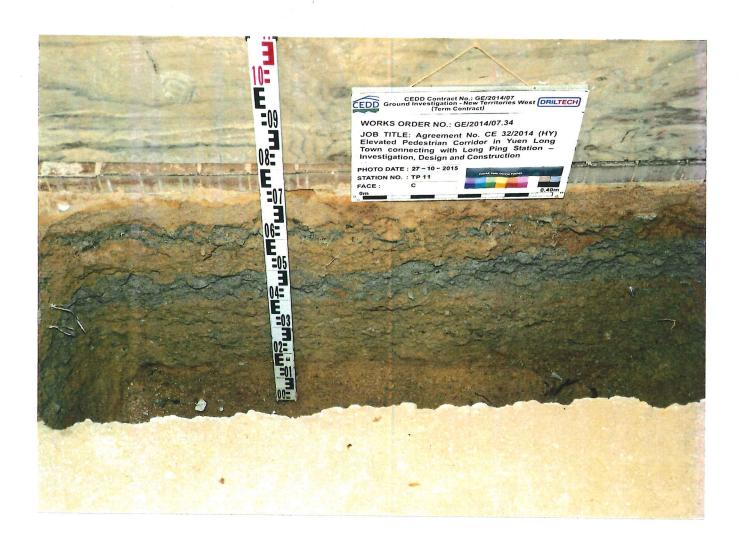


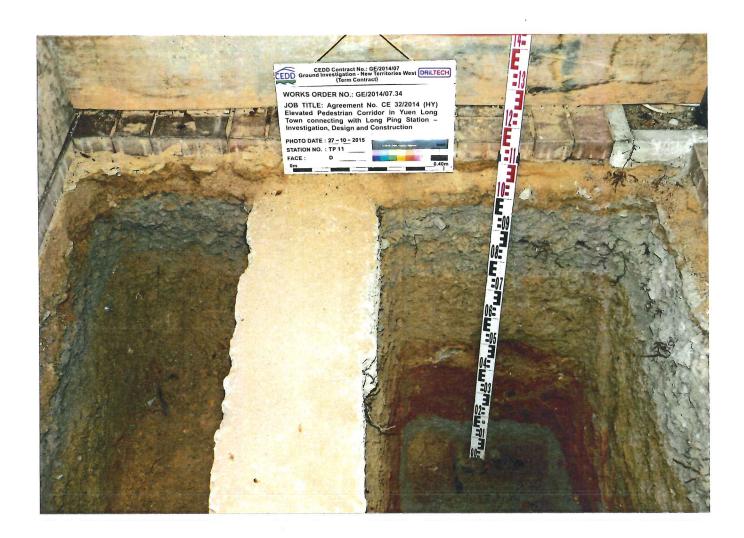




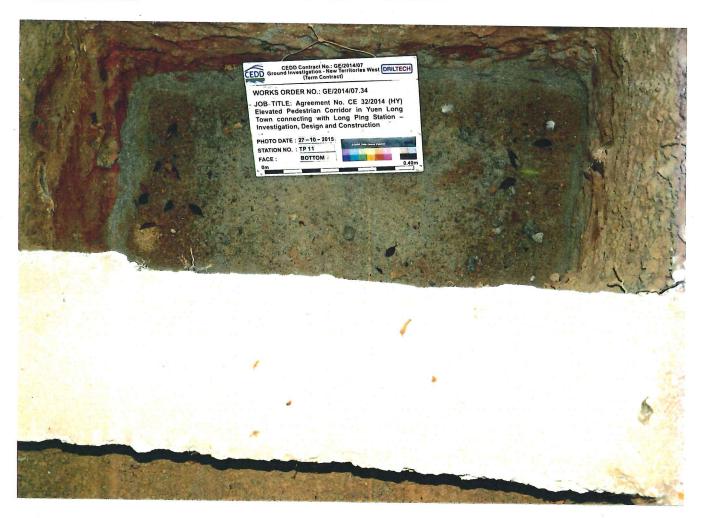


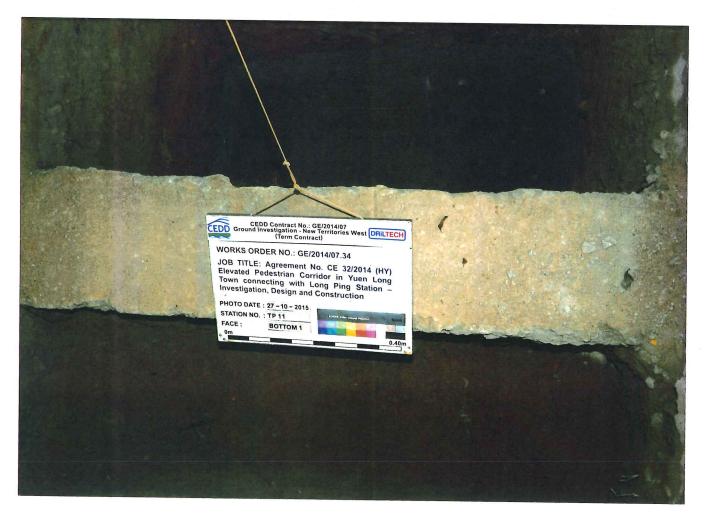




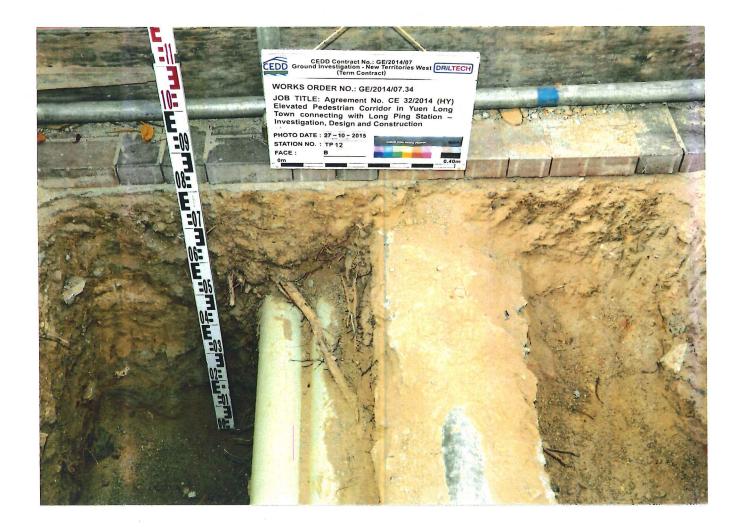


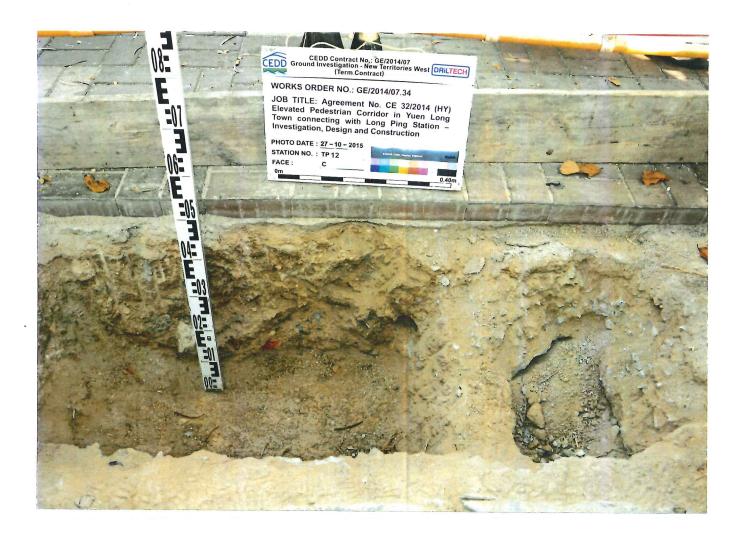






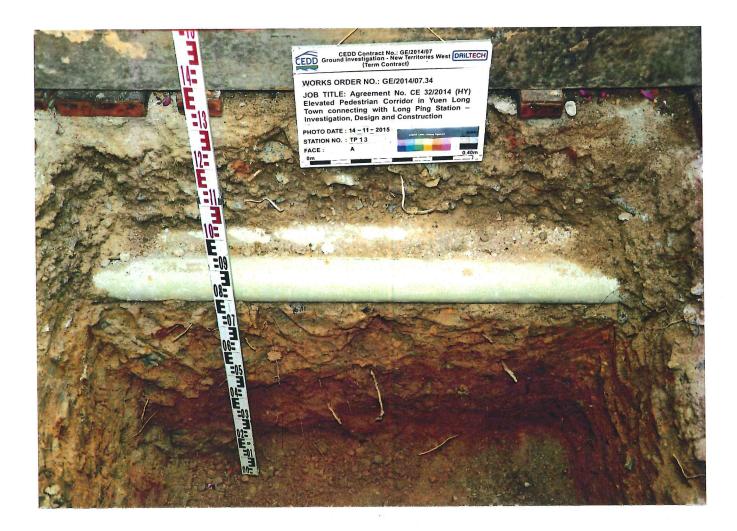


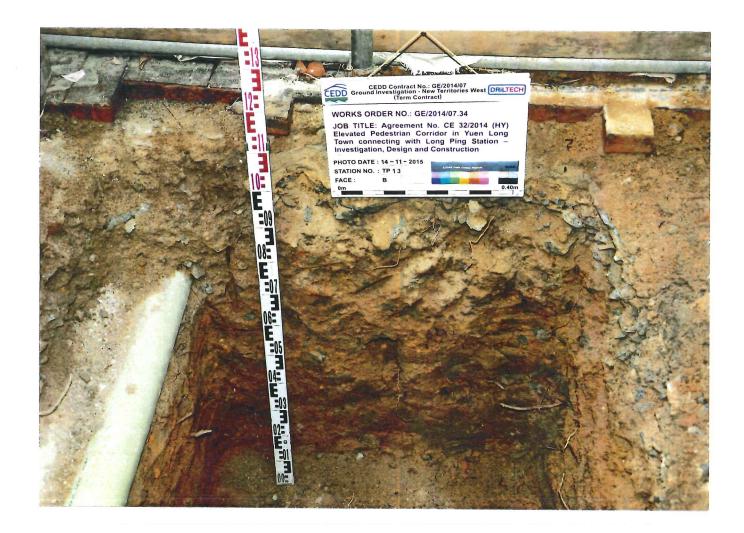


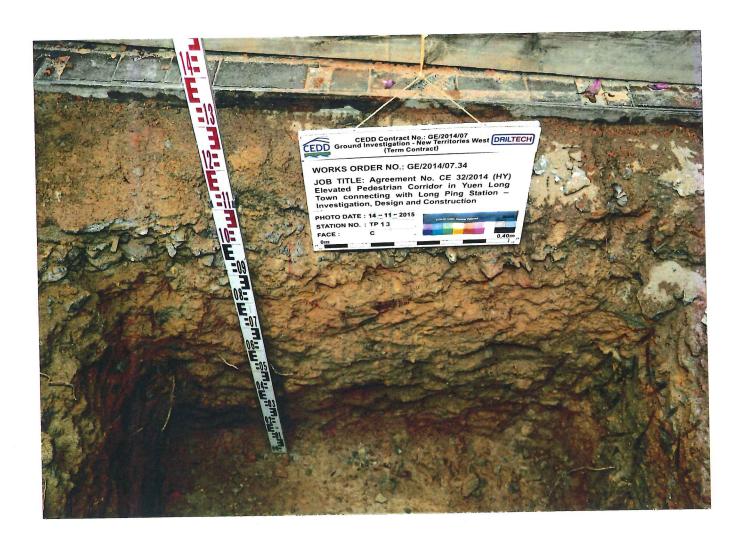




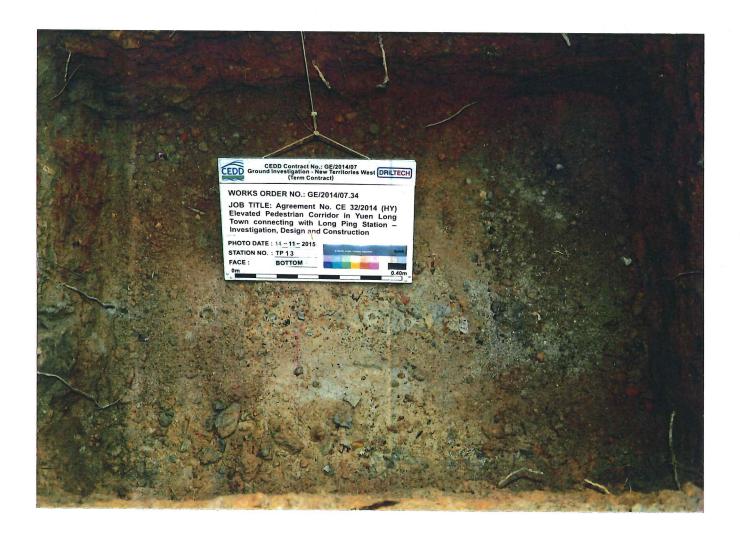




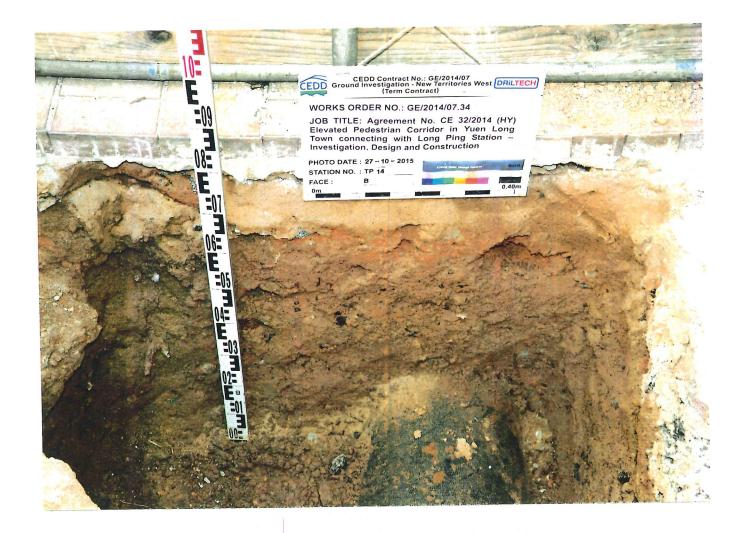












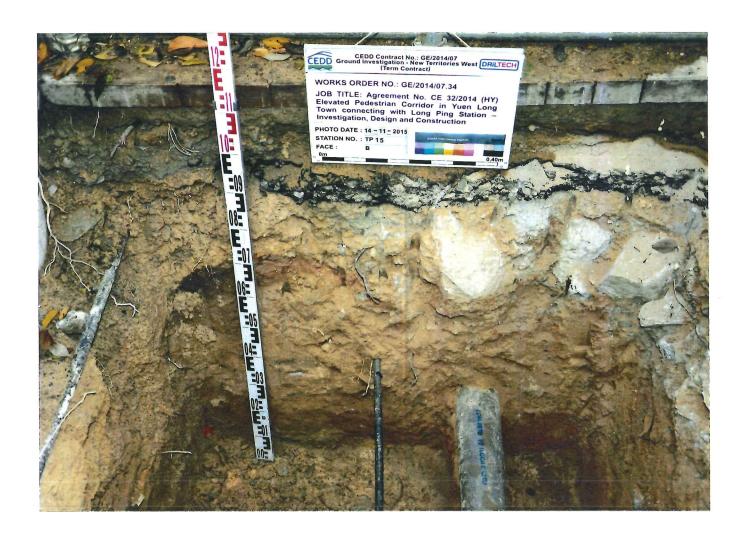








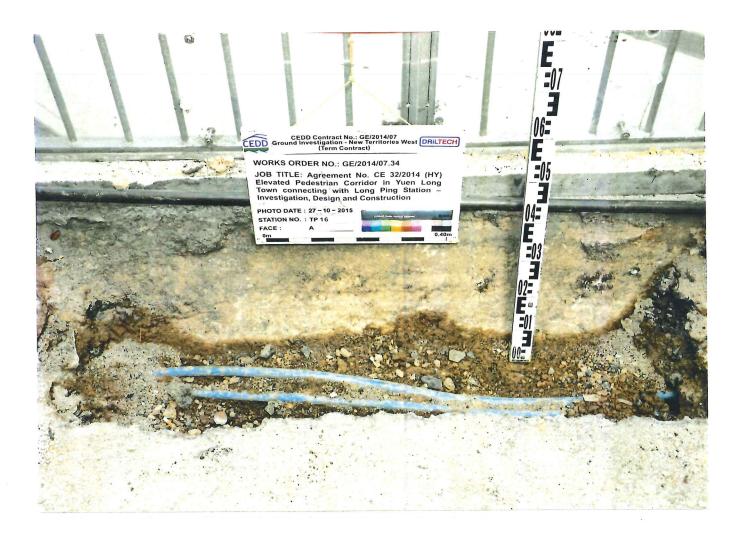












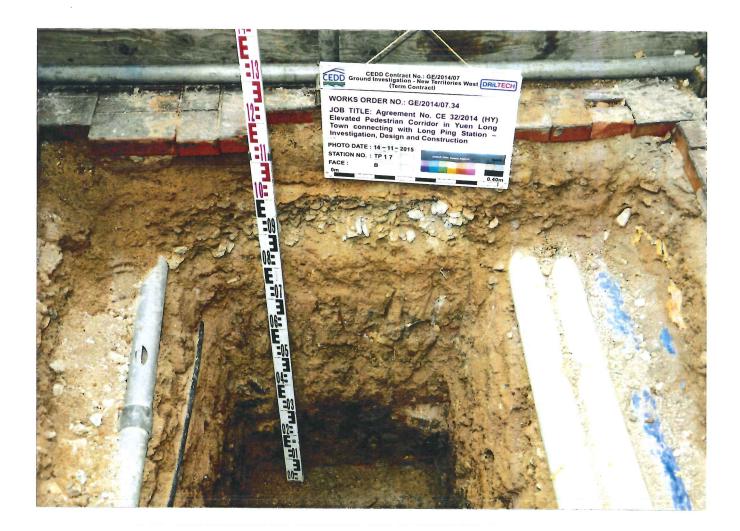






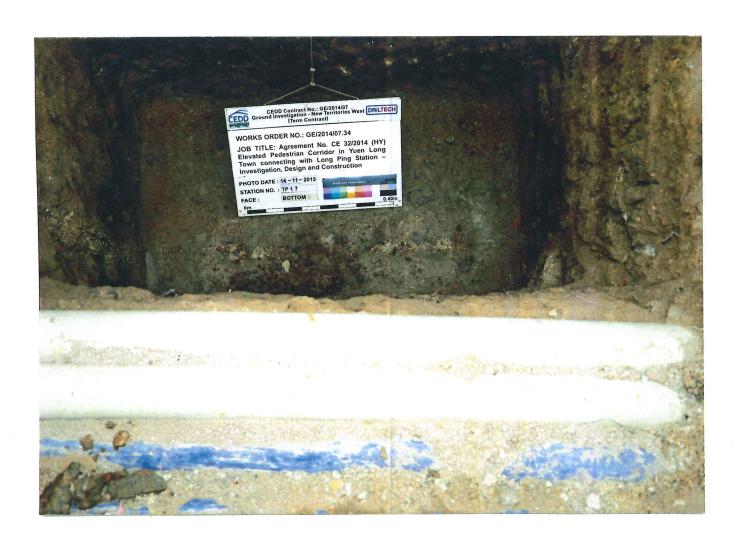












Appendix E

Constant Head Permeability Test Results



Drillhole No.

S1-DH02

m

above G.L

2r = 0.040 m

D = 0.165 m

L = 1.50 m

 $hp = 0.90 \cdot m$

Hc = 0.48

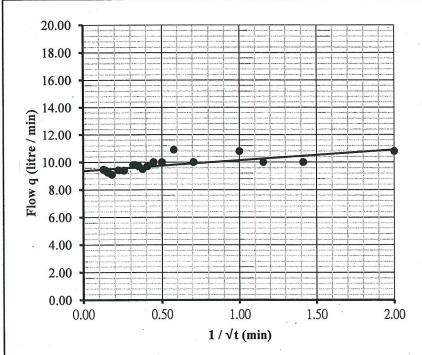
25/Feb/16 Date of Test: Contract No.: GE/2014/07 Works Order No.: GE/2014/07.34 Co-ordinates:

820718.39 Project: E: 833994.72 Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in N:

Yuen Long Town connecting with Long Ping Station -

Investigation, Design and Construction Ground Level :. +0.98 mPD C.K. Chiu Test Supervised By: Test Zone: 6.50 to 8.00 m m

I cat aup	ci viscu D	y •	C.IX. CII	14			I CSt ZIO	uc.	0.50	TIL	to	
Flowmet	er I.D. :		DT-018-	027			Initial V	Vater	Level:		0.52	2
Elap	osed		1_	Intak	e Flow	Flo	w q	Interna	al diameter	of the p	oipe	
Ti	me	✓	⁻ t		Q	dQ	2/dt	Interna	al diameter	of the	drillho	ole
t (n	nin)	(m	in)	(lit	tre)	(litre	/ min)	Length	of test zon	ie		
0	15	0.00	0.26	217.0	363.8	0.00	9.40	Length	of stick ou	it of the	e pipe	;
0.25	20	2.00	0.22	219.7	410.9	10.80	9.42	Consta	ant water he	ead		
0.50	25	1.41	0.20	222.2	457.5	10.00	9.32					
0.75	30	1.15	0.18	224.7	503.0	10.00	9.10	1			≥ 2r	
1	40	1.00	0.16	227.4	. 595.4	10.80	9.24	1 7	hp		П	
-2	50	0.71	0.14	237.4	689.5	10.00	9.41	1	↓ 🛭			
3	60	0.58	0.13	248.3	784.2	10.90	9.47	1				
4		0.50		258.3		10.00		H H	∷≋			
5		0.45		268.3		10.00] =	8			
6	180	0.41		278.0		9.70		1				
7		0.38	720	287.5		9.50						
8		0.35		297.2	(46)	9.70		1 ,	↓ 🛭			
9		0.33	kanagaan n	307.0		9.80		1 -			777	
10		0.22		216.9		0.80		1	- 181		1 1	

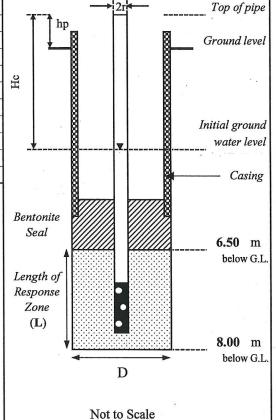


Marble Stone Filter Material:

Material Surrounding Response Zone:

From 6.50m to 8.00m: ALLUVIUM (Clayey silty fine to coarse SAND / Slightly clayey silty sandy fine to coarse GRAVEL)

Remarks:



 $2.4\pi L$

 $Ln[1.2L/D+\sqrt{(1+(1.2L/D)^2)}]$

3.67 m

From the graph, when t tends to infinity

q / (F Hc)

8.87E-05 m/s

R. Chu

25/Feb/16

1/min

 m^3 / sec

(i.e. When $1/\sqrt{t}$ tends to zero)

k =

9.37

1.56E-04

Intake Factor

q =

Permeability

which q =

Checked by: Date:



3.20

Drillhole No.

S1-DH03

m

above G.L

2r = 0.040

22/Jan/16 Date of Test: Contract No.: GE/2014/07

Co-ordinates: GE/2014/07.34 Works Order No.:

Project: Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in

Yuen Long Town connecting with Long Ping Station -

0.32

Investigation, Design and Construction

Test Supervised By:

10

Ground Level: C.K. Chiu

820730.40 E:

N: 834196.99

Internal diameter of the pipe

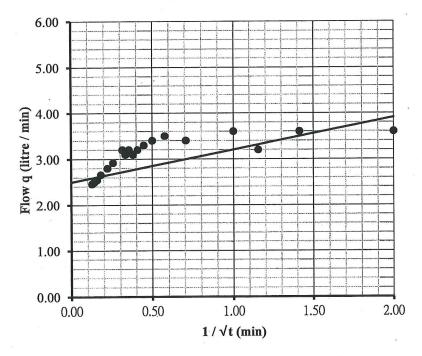
mPD 13.10 Test Zone: 11.60 to

+0.92

0.25

Flowmet	er I.D. :		DT-018-	028		25	Initial V	Water	Level:
Elap	sed		1_	Intak	Intake Flow			Interna	l diameter
1	me	√	_t	, (Q .	dQ	2/dt	Interna	ıl diameter
t (n	nin)	(m	in)	(lit	tre)	(litre	/ min)	Length	of test zo
0	15	0.00	0.26	703.0	750.5	0.00	2.92	Length	of stick o
0.25	20	2.00	0.22	703.9	764.5	3.60	2.80	Consta	ınt water h
0.50	25	1.41	0.20	704.8	778.7	3.60	2.84		
0.75	30	1.15	0.18	705.6	792.0	3.20	2.66		
1.	40	1.00	0.16	706.5	817.5	3.60	2.55] ~	hp_
2.	50	0.71	0.14	709.9	842.5	3.40	2.50		<u> </u>
3	60	0.58	0.13	713.4	867.1	3.50	2.46		
4		.0.50		716.8		3.40		Hc	
5		0.45		720.1		3.30] 🖺	8
6		0.41		723.3		3.20			8
7		0.38		726.4		3.10			8
8		0.35		729.6		3.20] ,	ļ
9		0.33		732.7		3.10			

735.9

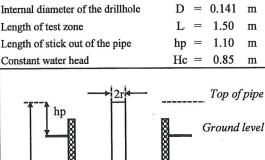


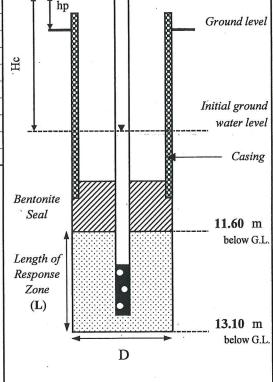


Material Surrounding Response Zone:

From 11.60m to 13.10m: ALLUVIUM (Slightly silty clayey fine to coarse SAND)

Remarks:





Not to Scale

Intake Factor

$$F = \frac{1.2L/D + \sqrt{(1 + (1.2L/D)^2)}}{Ln[1.2L/D + \sqrt{(1 + (1.2L/D)^2)}]}$$

From the graph, when t tends to infinity (i.e. When $1/\sqrt{t}$ tends to zero)

$$q = 2.50 1/min$$

which $q = 4.17E-05 m^3/sec$

Permeability

$$k = q/(F Hc)$$

1.40E-05 m/s

Checked by: Date:

R. Chu 22/Jan/16



Drillhole No.

S1-DH07

GE/2014/07 Contract No.:

Works Order No.:

Test Supervised By:

50

60

3

4

GE/2014/07.34

Project:

Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in

Yuen Long Town connecting with Long Ping Station -

0.71

0.58

0.50

0.45

Investigation, Design and Construction

C.K. Chiu

Date of Test:

Co-ordinates:

820697.12

E: N:

834114.81

27/Nov/15

Ground Level:

+4.35

mPD

6.50

Test Zone: 5.00 to m

Constant water head

3.75

below G.L m

2r = 0.040 m

D = 0.165 mL = 1.50 m

hp = 0.81

Hc = 4.56

Flowmet	er I.D. :		DT-018-	028			Initial V	Vater Level:	3.75
Elapsed		1		Intake Flow		Flow q		Internal diameter of the pipe	
Time		√t		Q ,		dQ/dt		Internal diameter of the	ne drillhole
t (min)		(min)		(litre)		(litre / min)		Length of test zone	
0	15	0.00	0.26	680.0	717.7	0.00	2.74	Length of stick out of	the pipe

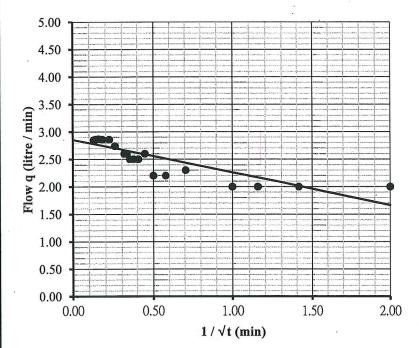
Time t (min)		$\frac{1}{\sqrt{t}}$ (min)		(Q tre)	dQ/dt (litre / min)		
0	15	0.00	0.26	680.0	717.7	0.00	2.74	
0.25	20	2.00	0.22	680.5	732.0	2.00	2.86	
0.50	25	1.41	0.20	681.0	745.6	2.00	2.72	
0.75	30	1.15	0.18	681.5	759.9	2.00	2.86	
. 1	40	1.00	0.16	682.0	788.6	2.00	2.87	

691.3

0.26	680.0	717.7	0.00	2.74
0.22	680.5	732.0	2.00	2.86
0.20	681.0	745.6	2.00	2.72
0.18	681.5	759.9	2.00	2.86
0.16	682.0	788.6	2.00	2.87
0.14	684.3	817.2	2.30	2.86
0.13	686.5	845.7	2.20	2.85
	688.7		2.20	

2.60

6	0.41		693.8	2.50	
7	0.38	0	696.3	2.50	
8	0.35		698.8	2.50	
9	0.33		701.4	 2.60	
10	0.32		704.0	2.60	Γ



Filter Material:

Marble Stone

Material Surrounding Response Zone:

From 5.00m to 6.50m: ALLUVIUM (Slightly silty very clayey fine to coarse SAND / Slightly sandy silty CLAY)

Remarks:

		→ 2r	<u> </u>	Top of pip	ре
			8-	Ground lev	el
	Hc		8		
	平				
				Initial groun	
-				water lev	el
			8	Casin	g
	Bentonite			*	
	Seal			5.00 m	ı
	1			below G	.L.
	Length of Response	_			
	Zone	•			
	(L)	•			
	♦ [6.50 m	
	•			below G	.L.
1		D			

Intake Factor

$$F = \frac{2.4\pi L}{\text{Ln}[1.2L/D + \sqrt{(1+(1.2L/D)^2)}]}$$

$$F = \frac{3.67}{m}$$

Not to Scale

From the graph, when t tends to infinity (i.e. When $1/\sqrt{t}$ tends to zero)

q = 2.86 1/min **4.77E-05** m^3 / sec which q =

Permeability

k =q/(FHc)

2.85E-06 m/s

Checked by: Date:

R. Chu 27/Nov/15

DGEL\Site-F6C 11/02 STD



7.60

7.60

Drillhole No.

S1-DH08

mPD

m

above G.L

2r = 0.040 m

D = 0.165 m

hp = 0.80 mHc = 0.80

L = 1.50

29/Feb/16 Date of Test: GE/2014/07 Contract No.:

Works Order No.: GE/2014/07.34 Co-ordinates:

Project: Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in

Yuen Long Town connecting with Long Ping Station -

0.33

0.32

Investigation, Design and Construction

Test Supervised By:

10

Ground Level: C.K. Chiu

820706.33 E:

834047.85 N:

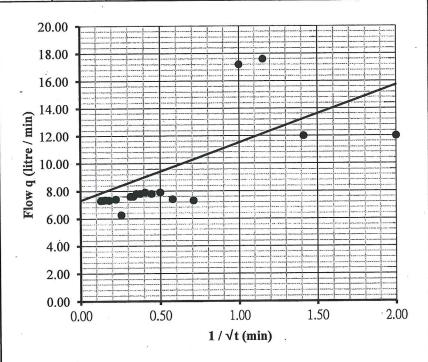
6.00 Test Zone: 4.50 to m m

+0.78

Flowmet	er I.D. :		DT-018-	028			Initial V	Vater L	evel:	0.00	
Elar			1	Intak	e Flow	Flo	w q	Internal	diameter of th	ie pipe	
Ti	me	√	⁻ t		Q	dQ	Q/dt.	Internal	diameter of th	ıe drillhole	;
t (n	nin)	(m	in)	(lit	tre)	(litre	/ min)	Length o	of test zone		
0	15	0.00	0.26	4005.0	4120.1	0.00	6.26	Length o	of stick out of	the pipe	
0.25	20	2.00	0.22	4008.0	4157.1	12.00	7.40	Constan	t water head		
0.50	25	1.41	0.20	4011.0	4193.9	12.00	7.36				•
0.75	30	1.15	0.18	4015.4	4230.5	17.60	7.32			→ 2r ←	_
1	40	1.00	0.16	4019.7	4303.9	17.20	7.34		hp_		
2	50	0.71	0.14	4027.0	4376.9	7.30	7.30		↓_ ₿	11	
3	. 60	0.58	0.13	4034.4	4449.8	7.40	7.29		- 8		
4	* .	0.50		4042.3		7.90		윒	8		
5		0.45		4050.1		7.80] =	8		
6		0.41		4058.0		7.90			×		
7		0.38		4065.8		7.80					
8		0.35		4073.6		7.80] <u>↓</u>			
						17071 00000			104		

4081.2

4088.8

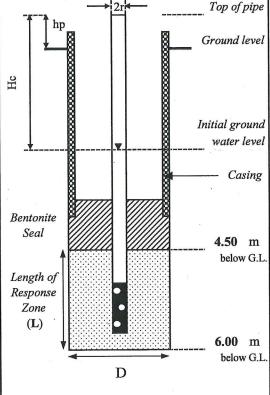


Marble Stone Filter Material:

Material Surrounding Response Zone:

From 4.50m to 6.00m: ALLUVIUM (Slightly clayey silty fine to coarse SAND)

Remarks:



 $2.4\pi L$ $Ln[1.2L/D+\sqrt{(1+(1.2L/D)^2)}]$ 3.67 m F =

Not to Scale

From the graph, when t tends to infinity (i.e. When $1/\sqrt{t}$ tends to zero)

7.31 1/min q =1.22E-04 m^3 / sec which q =

Permeability

Intake Factor

q / (F Hc) k =

4.15E-05 k =m/s

Checked by: Date:

R. Chu 29/Feb/16



11.30

11.20

10.30

10.40

Drillhole No.

S1-DH10

Contract No.: GE/2014/07

Works Order No.:

Test Supervised By:

Flowmeter I.D.:

GE/2014/07.34

Project:

7

8

9

10

Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in

Yuen Long Town connecting with Long Ping Station -

0.38

0.35

0.33

0.32

Investigation, Design and Construction

C.K. Chiu

DT-018-028

Date of Test: Co-ordinates:

E:

820715.53

17/Feb/16

N:

833820.85

Ground Level:

+1.11

mPD

9.00

Test Zone: 7.50

m to

-141-1	WW7-4	T I	
nfial	Water	eve	•
MACAGGA	A A ST COL	LOVE	•

m 0.49 m

nitial	Water	Level:	
	1	10 100	

above G.L Internal diameter of the pipe 2r = 0.040 mInternal diameter of the drillhole D = 0.165 mLength of test zone L = 1.50

Length of stick out of the pipe

hp = 1.20 mHc = 0.71m

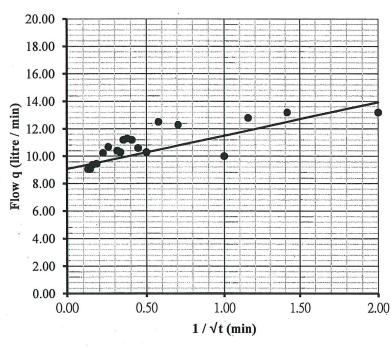
Elap	osed		1_	Intak	e Flow	Flo	w q	Internal diameter of th
Ti	me	√	⁻ t	(Q	dQ	2/dt	Internal diameter of th
t (n	nin)	(m	in)	(lit	tre)	(litre	/ min)	Length of test zone
0	15	0.00	0.26	58.0	223.8	0.00	10.68	Length of stick out of
0.25	20	2.00	0.22	61.3	275.0	13.20	10.24	Constant water head
0.50	25	1.41	0.20	64.6	324.7	13.20	9.94	
0.75	30	1.15	0.18	67.8	371.9	12.80	9.44	_
1	40	1.00	0.16	70.3	465.6	10.00	9.37	hp_
2	50	0.71	0.14	82.6	556.1	12.30	9.05	↓
3	60	0.58	0.13	95.1	646.7	12.50	9.06	
4		0.50		105.4		10.30		울 🕷
5		0.45		116.0		10.60		Н
6		0.41		127.2		11.20		1 1 🛭

138.5

149.7

160.0

170.4



Filter Material:

Marble Stone

Material Surrounding Response Zone:

From 7.50m to 9.00m: FILL (Slightly silty clayey sandy fine GRAVEL)

Remarks:

	→ 2r	Top of pipe
	8 II	Ground level
Нс		Initial ground
_±	₩	water level
		Casing
Bentonite Seal		7.50 m
Length of		below G.L.
Response	•	
Zone (L)	•	
Bentonite Seal		9.00 m below G.L.
	D	-
	Not to Scale	

Intake Factor

$$F = \frac{2.4\pi L}{\text{Ln}[1.2L/D + \sqrt{(1+(1.2L/D)^2)}]}$$

$$F = \frac{3.67}{m}$$

From the graph, when t tends to infinity (i.e. When $1/\sqrt{t}$ tends to zero)

9.06

which q =

1.51E-04

 m^3 / sec

Permeability

k =q / (F Hc)

k =**5.80E-05** m/s

Checked by:

Date:

R. Chu 17/Feb/16



Project:

CONSTANT HEAD PERMEABILITY TEST RECORD

Drillhole No.

S1-DH11

mPD

D = 0.141

L = 1.50

hp = 1.50Hc = 3.65 m

01/Dec/15 Date of Test: Contract No.: GE/2014/07

Co-ordinates: Works Order No.: GE/2014/07.34

Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in

Yuen Long Town connecting with Long Ping Station -

Investigation, Design and Construction

Ground Level: C.K. Chiu

820728.54 E:

833792.53 N:

Internal diameter of the drillhole

Length of stick out of the pipe

Length of test zone

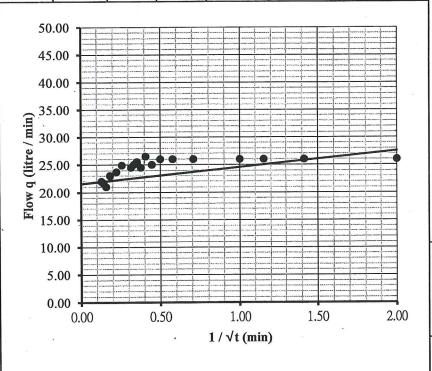
Constant water head

Test Zone: 7.00 8.50 m to m

+4.73

Test Supervised By: Initial Water Level: 2.15 below G.L Flowmeter I.D.: DT-018-028 m Internal diameter of the pipe = 0.040

Tiowineter i.b			DI VIO	020	IIII I				
Elaj	Elapsed		_	Intak	e Flow	Flo	w q		
Time		√	⁻ t		Q	dQ/dt			
t (r	nin)	(m	in)	(lit	(litre) (litr		/ min)		
0	15	0.00	0.26	100.0	479.5	0.00	24.90		
0.25	20	2.00	0.22	106.5	598.0	26.00	23.70		
0.50	25	1.41	0.20	113.0	716.8	26.00	23.76		
0.75	30	1.15	0.18	119.5	832.0	26.00	23.04		
1	40	1.00	0.16	126.0	1042.0	26.00	21.00		
2	50	0.71	0.14	152.0	1259.0	26.00	21.70		
3	60	0.58	0.13	178.0	1479.0	26.00	22.00		
4		0.50		204.0		26.00			
5		0.45		229.0		25.00			
6		0.41		255.5		26.50			
7		0.38		280.0		24.50			
8		0.35	120 1	305.5		25.50			
9		0.33		330.5		25.00			
10		0.32		355.0		24.50			



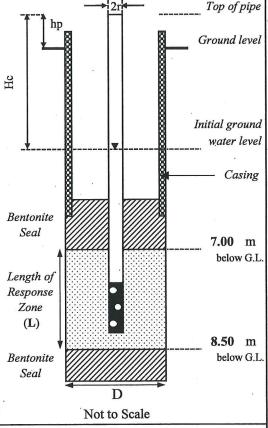
Filter Material:

Material Surrounding Response Zone:

From 7.00m to 8.50m: ALLUVIUM (Slightly clayey silty fine to coarse SAND)

Marble Stone

Remarks:



Intake Factor $2.4\pi L$ $Ln[1.2L/D+\sqrt{(1+(1.2L/D)^2)}]$ 3.49 m

From the graph, when t tends to infinity (i.e. When $1/\sqrt{t}$ tends to zero)

q =21.57 1/min 3.60E-04 m^3 / sec which q =

Permeability

q / (F Hc)

k =2.82E-05 m/s

Checked by: Date:

R. Chu 01/Dec/15



Ground Level:

Drillhole No.

S1-DH12A

mPD

20/Nov/15 Contract No.: GE/2014/07 Date of Test: Works Order No.: GE/2014/07.34 Co-ordinates: 820693.55 Project: E: Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in 833760.48 N: Yuen Long Town connecting with Long Ping Station -

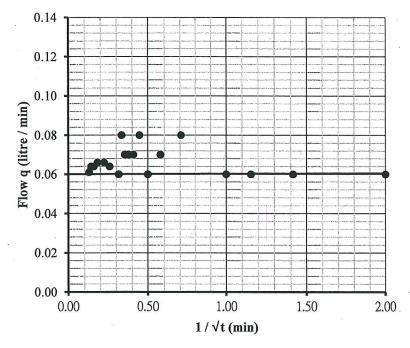
Investigation, Design and Construction

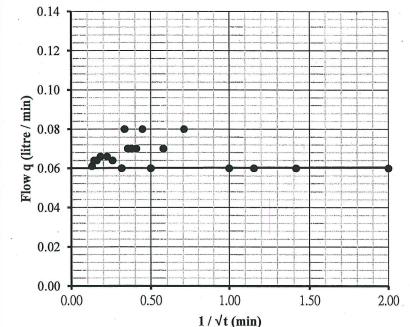
Test Supervised By:	C.K. Chiu
Flowmeter I D ·	DT-033-052

	Test Zor	ie:	5.05	m	to	6.55	m		
	Initial V	Vater	Level:		3.64	m		below	G.L
)	w q	Interna	diameter	of the	pipe	2r	=	0.040	m
	2/dt	Interna	al diameter	of the	drillhole	D	=	0.165	m
	/ min)	Length	of test zon	ie		L	=	1.50	m
	0.06	Length	of stick ou	it of th	e pipe	hp	=	0.43	m
	0.07	Consta	int water he	ead		Hc	=	4.07	m

+5.38

Flowmet	er I.D.:		DT-033-	-052			Initial '	W
Elaj	osed		_	Intak	e Flow	Flo	w q	Ţ
Ti	me	√t					Q/dt]
t (n	nin)	(m	in)	(li	tre)	(litre / min)		þ
0	15	0.00	0.26	0.000	1.020	0.00	0.06	Ţ)
0.25	20	2.00	0.22	0.015	1.350	0.06	0.07	7
0.50	25	1.41	0.20	0.030	1.680	0.06	0.07	T
0.75	30	1.15	0.18	0.045	2.010	0.06	0.07	
1	40	1.00	0.16	0.060	2.650	0.06	0.06	7
2	50	0.71	0.14	0.140	3.290	0.08	. 0.06	1
3	60	0.58	0.13	0.210	3.900	0.07	0.06	
4		0.50		0.270	* *	0.06		1
5		0.45		0.350		0.08		1
6		0.41		0.420	l2	0.07		٦
7		0.38		0.490	,	0.07		
. 8		0.35		0.560		0.07		7
9		0.33		0.640		0.08		
. 10		0.32		0.700		0.06		

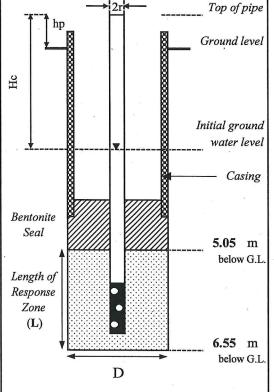




Marble Stone Filter Material: Material Surrounding Response Zone:

From 5.05m to 6.55m: ALLUVIUM (Slightly sandy silty CLAY)

Remarks:



Intak	e Factor	5)
E	2.4π L	
r	$Ln[1.2L/D+\sqrt{(1+(1.2L/D)^2)}]$	
F =	m	

Not to Scale

From the graph, when t tends to infinity (i.e. When $1/\sqrt{t}$ tends to zero)

q =0.06 1.00E-06 m^3 / sec which q =

Permeability

k =q / (F Hc)

6.70E-08 m/s

Checked by: Date:

R. Chu 20/Nov/15



CONSTANT HEAD

Drillhole No.

PERMEABILITY TEST RECORD S1-DH13 04/Dec/15 Date of Test: GE/2014/07 Contract No.: GE/2014/07.34 Co-ordinates: Works Order No.: 820696.35 E: Project: 833945.40 N: Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station -Investigation, Design and Construction +4.55 mPD Ground Level: C.K. Chiu Test Zone: 5.60 7.10 m Test Supervised By: m to Initial Water Level: 3.62 below G.L Flowmeter I.D.: DT-018-028 m **Intake Flow** Flow q Internal diameter of the pipe 2r = 0.040 m**Elapsed** \sqrt{t} dO/dt Internal diameter of the drillhole D = 0.165Time O (litre / min) Length of test zone L = 1.50m (litre) t (min) (min) 508.0 560.2 0.00 4.12 Length of stick out of the pipe hp = 0.370.00 0.26 0 15 Constant water head Hc = 3.992.00 0.22 508.7 580.9 2.60 4.14 0.25 20 0.50 25 1.41 0.20 509.3 601.2 2.60 4.06 3.98 510.1 621.1 3.00 0.75 30 1.15 0.18 Top of pipe 40 1.00 0.16 510.7 657.7 2.60 3.66 1 3.48 0.14 513.5 692.5 2.80 Ground level 50 0.71 2 727.6 2.90 3.51 3 60 0.58 0.13 516.4 3.00 0.50 519.4 4 Hc 3.00 5 0.45 522.4 3.20 0.41 525.6 6 528.8 3.20 Initial ground 7 0.38 3.50 water level 532.3 0.35 8 9 0.33 535.8 3.50 Casing 3.80 539.6 10 0.32 7.00 Bentonite Seal 5.60 m below G.L Length of Response Zone (L) 7.10 m below G.L. Bentonite Seal D Not to Scale

Intake Factor

 $2.4\pi L$ $Ln[1.2L/D+\sqrt{(1+(1.2L/D)^2)}]$ **3.67** m

From the graph, when t tends to infinity (i.e. When $1/\sqrt{t}$ tends to zero)

3.55 5.92E-05 which q = m^3 / sec

Permeability

k =q / (F Hc)

k =4.04E-06 m/s

Checked by: Date:

R. Chu 04/Dec/15

	0.00	00	1-		0	50		<u></u>	1	00			1.	50		2.0	00
	1.00 -																58
E	2.00 -														 	 	
ow q (I	3.00 -				0	70)				•		•				
itre / mi	4.00 -		, CO	0											 	 	
n)	5.00 -																
	6.00 -		+														
			1	1													

Filter Material:

Marble Stone

Material Surrounding Response Zone:

From 5.60m to 6.10m: FILL (Slightly clayey silty fine to coarse SAND) From 6.10m to 7.10m: ALLUVIUM (Slightly clayey silty fine to coarse SAND / Silty sandy CLAY)

Remarks:



Drillhole No.

S1-DH14

GE/2014/07 Contract No.:

Works Order No.:

GE/2014/07.34

Project:

Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in

Yuen Long Town connecting with Long Ping Station -

Investigation, Design and Construction

Test Supervised By: DT 010 020

C.K. Chiu

Date of Test:

Co-ordinates:

E:

820695.13

N:

833868.26

16/Nov/15

Ground Level:

Internal diameter of the pipe

Length of test zone

Constant water head

Internal diameter of the drillhole

Length of stick out of the pipe

+4.41

mPD

Test Zone:

6.60

to

8.10

2r = 0.040

L = 1.50

hp = 1.00

Hc = 3.95

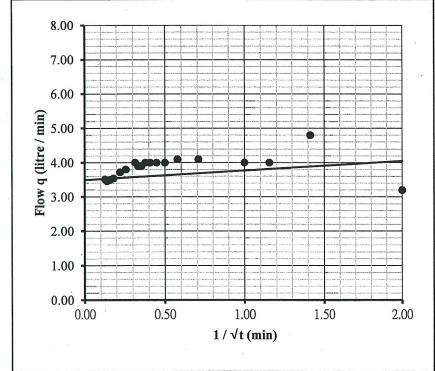
D = 0.141 m

m

m

m Initial Water Level: 2.95 below G.L

Flowmet	er L.D. :		DT-018-	028		Initial W		
Elap	osed		1_	Intak	e Flow	Flow q		
Ti	me	√t l		y (Q	dQ/dt		
t (n	nin)	(min)		(lit	re)	(litre / min)		
0	15	0.00	0.26	439.0	498.0	0.00	3.80	
0.25	20	2.00	0.22	439.8	516.6	3.20	3.72	
0.50	25	1.41	0.20	441.0	534.8	4.80	3.64	
0.75	30	1.15	0.18	442.0	552.5	4.00	3.54	
1	40	1.00	0.16	443.0	587.4	4.00	3.49	
2	50	0.71	0.14	447.1	622.0	4.10	3.46	
3	60	0.58	0.13	451.2	657.1	4.10	3.51	
4		0.50		455.2		4.00		
5	2 222000	0.45		459.2	,	4.00		
6		0.41		463.2		4.00		
7		0.38		467.2		4.00	A.	
8		0.35		471.1		3.90		
9		0.33		475.0		3.90	18	
10	111	0.32		479.0	7	4.00		



Filter Material:

Marble Stone

Material Surrounding Response Zone:

From 6.60m to 8.10m: ALLUVIUM (Slightly silty clayey fine to coarse SAND / Sligthly sandy silty CLAY)

Remarks:

hp	\rightarrow 2r	-	Top of pipe
			Ground level
Hc			
			Initial ground
-±			water level
			Casing
Bentonite Seal			a a
			6.60 m
LTM			below G.L.
Length of			
Response			
Zone (L)			
			9 10 ···
▼			8.10 m
	ח		below G.L.
	ע		1

Intake Factor

$$F = \frac{2.4\pi L}{\text{Ln}[1.2L/D + \sqrt{(1+(1.2L/D)^2)}]}$$

$$F = \frac{3.49}{\text{m}}$$

Not to Scale

From the graph, when t tends to infinity (i.e. When $1/\sqrt{t}$ tends to zero)

q =3.49

5.82E-05 which q =

 m^3 / sec

Permeability

$$k = q/(F Hc)$$

4.22E-06 k =m/s

Checked by: Date:

R. Chu 16/Nov/15



Drillhole No.

S1-DH15

2r = 0.040 m

D = 0.165 mL = 1.50

m

hp = 0.88

Hc = 0.80

833724.20

Internal diameter of the pipe

Length of test zone

Constant water head

Internal diameter of the drillhole

Length of stick out of the pipe

19/Feb/16 Contract No.: GE/2014/07 Date of Test: Co-ordinates: GE/2014/07.34 Works Order No.: 820697.56 E:

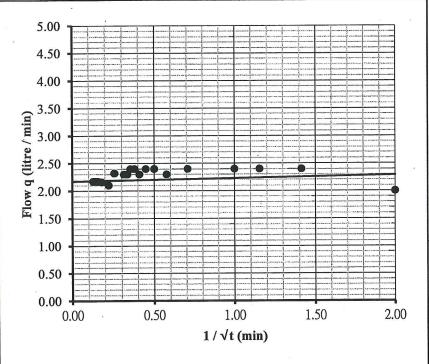
Project: N:Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in

Yuen Long Town connecting with Long Ping Station -

Investigation, Design and Construction

Ground Level: +1.49mPD 6.00 7.50 C.K. Chiu Test Zone: m to Test Supervised By: Initial Water Level: DT 019 029 0.08 above G.L. m

Flowmet	er I.D.:		D.L-018-	Jinitiai W				
Elapsed		_	1_	Intak	e Flow	Flow q dQ/dt (litre / min)		
Ti	me	√t (min)		(Q			
t (n	nin)			(lit	re)			
0	15	0.00	0.26	519.6	554.7	0.00	2.32	
0.25	20	2.00	0.22	520.1	565.2	2.00	2.10	
0.50	25	1.41	0.20	520.7	577.0	2.40	2.36	
0.75	30	1.15	0.18	521.3	587.8	2.40	2.16	
1	40	1.00	0.16	521.9	609.5	2.40	2.17	
2	50	0.71	0.14	524.3	631.2	2.40	2.17	
3	60	0.58	0.13	526.6	652.9	2.30	2.17	
4		0.50		529.0		2.40		
5		0.45		531.4		2.40		
6		0.41		533.7		2.30		
7		0.38		536.1		2.40		
. 8		0.35		538.5		2.40		
9.		0.33		540.8		2.30		
10		0.32		543.1	7	2.30		

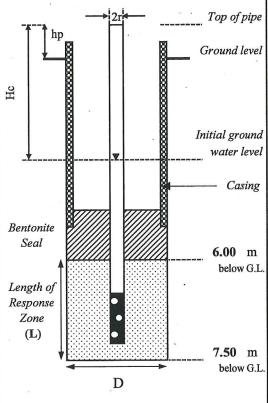


Marble Stone Filter Material:

Material Surrounding Response Zone:

From 6.00m to 7.50m: ALLUVIUM (Clayey silty fine to coarse SAND)

Remarks:



Intake Factor

$$F = \frac{2.4\pi L}{\text{Ln}[1.2L/D + \sqrt{(1+(1.2L/D)^2)}]}$$

$$F = \frac{3.67}{m}$$

Not to Scale

From the graph, when t tends to infinity (i.e. When $1/\sqrt{t}$ tends to zero)

2.17 1/min q =3.62E-05 m^3 / sec which q =

Permeability

$$k = q/(F Hc)$$

1.23E-05 m/s k =

Checked by: Date:

R. Chu 19/Feb/16



Drillhole No.

S2-DH11

D = 0.165 m

hp = 1.30 m

m

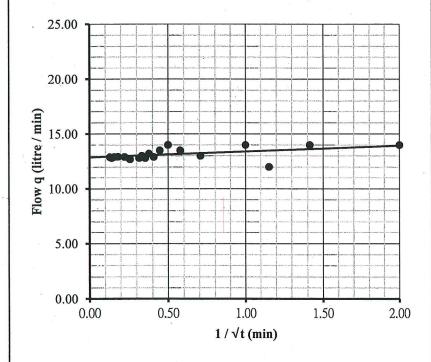
m

L = 1.50

Hc = 0.79

11/Jan/16 Contract No.: GE/2014/07 Date of Test: Works Order No.: GE/2014/07.34 Co-ordinates: 820723.07 Project: E: Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in 833882.60 N: Yuen Long Town connecting with Long Ping Station -Investigation, Design and Construction +1.29 Ground Level: mPD Test Supervised By: C.K. Chiu Test Zone: 9.50 8.00 to m 0.51 Vater Level: above G.L m Internal diameter of the pipe 2r = 0.040 m

Flowmet	er I.D. :		DT-018-	Initial V				
Elapsed			1_	Intak	e Flow	Flow q		
Time		√	ct ·	(Q .	dQ/dt		
t (n	nin)	(m	in)	(lit	tre)	(litre	/ min)	
0 .	15	0.00	0.26	750.0	945.6	0.00	12.68	
0.25	20	2.00	0.22	753.5	1010.1	14.00	12.90	
0.50	25	1.41	0.20	757.0	1074.2	14.00	12.82	Ī
0.75	30	1.15	0.18	760.0	1138.8	12.00	12.92	1
1	40	1.00	0.16	763.5	1267.8	14.00	12.90	1
2	50	0.71	0.14	776.5	1395.8	13.00	12.80	1
3	60	0.58	0.13	790.0	1524.6	13.50	12.88	1
4		0.50		804.0		14.00		1
5		0.45	,	817.5		13.50		1
6		0.41		830.4		12.90		1
7		0.38		843.6		13.20		1
8		0.35		856.4		12.80		1
9		0.33	01 2	869.4	1 25	13.00		1
10	× 1	0.32		882.2		12.80		



Filter Material: Marble Stone

Material Surrounding Response Zone:

From 8.00m to 9.50m: ALLUVIUM (Slightly clayey silty fine to coarse SAND)

Remarks:

	→ 2r	Top of pipe
hp		Ground level
Hc		
		Initial ground water level
		Casing
Bentonite		
Seal		8.00 m
· 1		below G.L.
Length of		
Response Zone		
(L)		
		9.50 m
\ \		below G.L.
	D	
ž		a

Internal diameter of the drillhole

Length of stick out of the pipe

Length of test zone

Constant water head

Intake Factor $F = \frac{2.4\pi L}{Ln[1.2L/D + \sqrt{(1+(1.2L/D)^2)}]}$ $F = \frac{3.67}{m}$

Not to Scale

From the graph, when t tends to infinity (i.e. When $1/\sqrt{t}$ tends to zero)

q = 12.86 1/min which q = 2.14E-04 m³/sec

Permeability

k = q/(F Hc)

k = 7.40E-05 m/s

Checked by : Date : R. Chu *U* 11/Jan/16



Drillhole No.

S2-DH15

2r = 0.040

hp = 1.02

Hc = 0.72

= 0.165L = 1.50

m

21/Jan/16 Date of Test: Contract No.: GE/2014/07

Works Order No.: GE/2014/07.34

Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in

Yuen Long Town connecting with Long Ping Station -

Investigation, Design and Construction

Test Supervised By:

Project:

C.K. Chiu

Co-ordinates:

E: N: 820718.61 833754.06

+1.39 Ground Level: mPD

Internal diameter of the pipe

Length of test zone

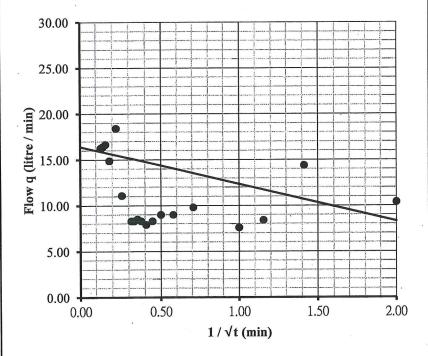
Constant water head

Internal diameter of the drillhole

Length of stick out of the pipe

4.00 m to 5.50 Test Zone: 0.33 Water Level: m above G.L

Flowmet	er I.D. :		DT-018-	028			Initial V	
Elaj	osed		1_	Intak	e Flow	Flow q dQ/dt		
Ti	me	√	⁻ t		Q			
t (n	nin)	(min)		(li	tre)	(litre / min)		
0	15	0.00	0.26	670.0	813.0	0.00	11.08	
0.25	20	2.00	0.22	672.6	905.0	10.40	18.40	
0.50	25	1.41	0.20	676.2	973.0	14.40	13.60	
0.75	30	1.15	0.18	678.3	1047.4	8.40	14.88	
1	40	. 1.00	0.16	680.2	1214.0	7.60	16.66	
. 2	50	0.71	0.14	690.0	1378.0	9.80	16.40	
3	60	0.58	0.13	699.0	1540.5	9.00	16.25	
4		0.50	-	708.0		9.00		
5		0.45		716.3		8.30		
6		0.41		724.2		7.90		
7		0.38		732.5		8.30		
8		0.35		741.0		8.50		
9		0.33		749.3		8.30		
10		0.32		757.6		8.30		

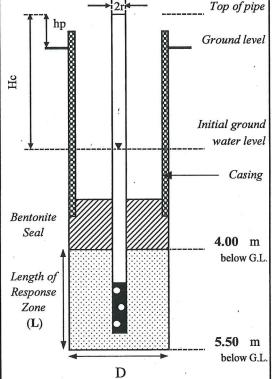




Material Surrounding Response Zone:

From 4.00m to 5.50m: ALLUVIUM (Sandy fine GRAVEL)

Remarks:



Intake Factor

$$F = \frac{2.4\pi L}{Ln[1.2L/D + \sqrt{(1+(1.2L/D)^2)}]}$$

$$F = \frac{3.67}{m}$$

Not to Scale

From the graph, when t tends to infinity (i.e. When $1/\sqrt{t}$ tends to zero)

16.44 1/min q =2.74E-04 m^3 / sec which q =

Permeability

$$k = q/(FHc)$$

1.04E-04 m/s

Checked by: Date:

R. Chu 21/Jan/16



Ground Level:

Drillhole No.

S2-DH16

mPD

D = 0.165

L = 1.50

hp = 1.60

Hc = 1.42

m

m

m

Contract No.: GE/2014/07 Date of Test: 05/Feb/16
Works Order No.: GE/2014/07.34 Co-ordinates:

Project: E: 820722.84
Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in N: 833725.85

Yuen Long Town connecting with Long Ping Station -

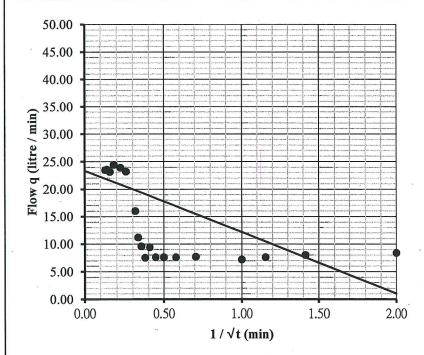
Investigation, Design and Construction

Test Supervised By: C.K. Chiu Test Zone: 4.00 m to 5.50 m

Flowmeter I.D.: DT-018-028 Initial Water Level: 0.18 m above G.L

Elapsed 1 Intake Flow Flow q Internal diameter of the pipe 2r = 0.040 m

Flowmet	er I.D. :		DT-018-	Initial W				
Elaj	psed	1		Intak	e Flow	Flo	w q	
Time		√t		(Q	dQ/dt		
t (min) (m		in)	(lit	tre)	e) (litre /			
0	15	0.00	0.26	940.0	1148.0	0.00	23.20	
0.25	20	2.00	0.22	942.1	1267.5	8.40	23.90	
0.50	25	1.41	0.20	944.1	1389.0	8.00	24.30	
0.75	30	1.15	0.18	946.0	1511.1	7.60	24.42	
1	40	1.00	0.16	947.8	1742.5	7.20	23.14	
2	. 50	0.71	0.14	955.5	1978.0	7.70	23.55	
3	60	0.58	0.13	963.1	2212.5	7.60	23.45	
4		0.50		970.7		7.60		
5		0.45	. 6	978.3		7.60		
6		0.41		987.7		9.40		
7		0.38		995.2		7.50		
8		0.35		1004.8		9.60		
9		0.33		1016.0		11.20		
10		0.32		1032.0		16.00		

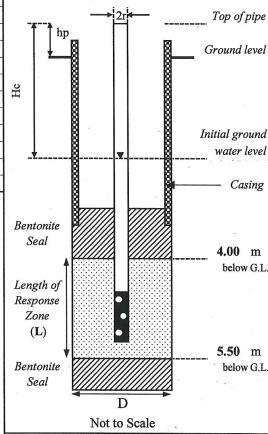


Filter Material: Marble Stone

Material Surrounding Response Zone:

From 4.00m to 5.50m: ALLUVIUM (Slightly clayey silty fine to coarse SAND)

Remarks:



+1.52

Internal diameter of the drillhole

Length of stick out of the pipe

Length of test zone

Constant water head

Intake Factor

$$F = \frac{2.4\pi L}{\text{Ln}[1.2L/D + \sqrt{(1+(1.2L/D)^2)}]}$$

$$F = \frac{3.67}{\text{m}}$$

From the graph, when t tends to infinity (i.e. When $1/\sqrt{t}$ tends to zero)

q = 23.38 1/minwhich $q = 3.90E-04 m^3/sec$

Permeability

k = q/(F Hc)

k = 7.48E-05 m/s

Checked by : Date : R. Chu 6/ 05/Feb/16

Appendix F

In-situ Density Test Results



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15FS111009

12/11/2015

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Test Report

On Field Density Determination

Tested in Accordance Wi	th: GEOSPEC 3, 2001	, Clause 11	.1	i.						
Our job no.:	15FS111009 W.O.no.: GE/2014/07.34							34		
Contract no.:	GE/2014/07									
Project title:	Ground Investigation - Ne	w Territories V	Vest (Term	Contract))					
Project location:	Agreement No. CE 32/2014(HY) Ele	evated Pedestrian C	Corridor in Yuer	Long Town	connecting with L	ong Ping Station	- Investigation, Design an	d Construction Ground Investigation		
Customer:	Civil Engineering and Dev	elopment Dep	artment							
Contractor:	DrilTech Ground Engineer	ring Limited								
Test location:	0.5m						alesta e e e e e e e e e e e e e e e e e e e			
Drillhole/Trial pit no.:	TP01	TP01 Sample depth (m): 0.5 TO -								
Sample Type:	Refer to G.I. Record				e origin:	æ.	Refer to G.I. Re	cord		
Groundwater level:	Groundwater not encounted	Groundwater not encountered Name and affiliation of the person who located the test location:								
Date sample received:	10/11/2015	10/11/2015 Date test(s) commenced: 10/11/2015								
Weather and environmental c	onditions of time of test:	Cloudy		-	est(s) com		12/11/2015			
Customer sample description	: -			=0	,		1	F - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		
Lab sample description:	Greyish brown, silty,	clayey, grav	elly SAN	D .						
Assumed density of concre	ete Mg/m³	-		Assum	ned density	of rock	Mg/m³	-		
Assumed density of brick	Mg/m³	_		-	ensity of s		Mg/m³	1.260		
Test data				- 501111	onony or o	ana acca	g			
In-situ wet density of s	oil									
Customer sample no.			·TP01(0.5m)	Τ .	. 1		_		
Lab sample no.			1		 		-			
Mass of wet soil from hole		g	192		 		-			
Mass of sand before pouring	na	g	360		<u> </u>		-			
Mass of sand after pouring	~	g	193				=1			
Mass of sand in cone		g	35		 					
Mass of concrete from hole					 		-			
Mass of rock from hole					-			-		
Mass of brick from hole		g g								
Excess Mass of sand ma'(\	/'n \	g			 					
Mass of sand in hole	/ Pa)	g	1309		 					
Wet density of soil		Mg/m³	1.85 -							
Percentage of concrete retained	on 37 5 mm 20 mm sieve	wg/m	- 1		 					
Percentage of rock retained on 3		%	-		+			-+		
Percentage of brick retained on 3		%	_		 					
					<u></u>		OFOODE	0.0.0004.015.0		
Moisture content deter	,							C 3, 2001, Clause 5.2		
	/2015 Dat	e of test:			/11/2015	Grouping	g of soils:	Medium-grained soils		
Oven drying at		°C	10							
The duration of oven drying	3	hours	24				_	-		
Mass of wet soil + tin		9	675		ļ		-	-		
Mass of dry soil + tin		9	624				-	-		
Mass of tin	***************************************	g	184	.7			3 = "	-		
Mass of water		g	51.	10			<u> </u>	-		
Mass of dry soil		g	440.	.10	<u> </u>		-	-		
Moisture content		%	12	2			-	-		
In-situ dry density of so	il ,									
Dry density of soil		Mg/m³	1.6	66	Τ					
					1					
Remarks: -		*								
				1						
		Observed	L.	4	\	2				
		Checked I			/	Approve	ed signatory:	7 1		
			Lam	Lam			H	luang Jian Min/Yeung Chi Sa		
Form No.:SRRP 009-1/Issue 1/Rev.	B/01/11/2007							•		

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Test Report

On Field Density Determination

Tested in Accordance VVI		11, Clause 11	.1		05/0044/05 04		
Our job no.:	15FS111009		W.O	.no.:	GE/2014/07.3	34	
Contract no.:	GE/2014/07						
Project title:	Ground Investigation - N						
Project location:				own connecting with Long Ping Station	Investigation, Design an	d Construction	Ground Investigation
Customer:	Civil Engineering and De		artment				-
Contractor:	DrilTech Ground Engine	ering Limited					
Test location: Drillhole/Trial pit no.:	0.5m TP08		San	nple depth (m):	0.5	TO	-
Sample Type:	Refer to G.I. Record			nple origin:	Refer to G.I. Record		
Groundwater level:	Groundwater not encoun	ntered		and affiliation of the person who			
Date sample received:	10/11/2015			e test(s) commenced:	10/11/2015		
Weather and environmental c	onditions of time of test:	Cloudy		e test(s) completed:	12/11/2015		
Customer sample description:	* e						
Lab sample description:	Greyish brown, silty,	, clayey, grav	elly SAND				
Assumed density of concre	ete Mg/m³	. 	Ass	umed density of rock	Mg/m³	-	
Assumed density of brick	Mg/m³			density of sand used	Mg/m³	1.260	
Test data	0				Ü	3	
In-situ wet density of s	oil		8				
Customer sample no.		———Т	TP08(0.5m)		· -		
Lab sample no.			2		-		
Mass of wet soil from hole		g	1846	_	-		
Mass of sand before pourir	na .	g	3600			į.	-
Mass of sand after pouring		g	2010				
Mass of sand in cone		g	358	-	-		
Mass of concrete from hole)	g					-
Mass of rock from hole		g	•	-			-
Mass of brick from hole		g		-	-		-
Excess Mass of sand ma'(\	/'pa)	g	-	-	-		•
Mass of sand in hole		g	1232.00	- 1	=		-
Wet density of soil		Mg/m³	1.89	-	-		-
Percentage of concrete retained	on 37.5 mm 20 mm sieve	e %				-	-
Percentage of rock retained on 3	7.5 mm 20 mm sieve	%	2 2			_	-
Percentage of brick retained on 3	37.5 mm 20 mm sieve	%;				-	-
Moisture content deter	mined by OVEN				GEOSPE	C 3, 200	1,Clause 5.2
Date received: 10/11	/2015 Da	ate of test:	11/11/2015-	12/11/2015 Grouping	of soils:	Medium-g	grained soils
Oven drying at		°C	105	•	-		•
The duration of oven drying]	hours	24	- 1	-		- 0
Mass of wet soil + tin		g	642.6	-	=:	0	-
Mass of dry soil + tin		g	600.3	-	-		-
Mass of tin		g	188.3	-	-,		-
Mass of water		g	42.30	-	-		
Mass of dry soil		g	412.00		-		-
Moisture content		%	10	- 1	-		-
In-situ dry density of so	il						
Dry density of soil		Mg/m³	1.71	-	-		-
Remarks: -	-						
Form No.:SRRP 009-1/Issue 1/Rev.	B/01/11/2007	Checked b	oy:	Approve	ed signatory:	Huang Han N	Jin/Yelung Chi Sa

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Test Report

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Tested in Accordance Wi	th: GEOSPEC 3, 2001	, Clause 11	.1				8		
Our job no.:	15FS102414			W.O.no	· ·		GE/2014/0	7.34	
Contract no.:	GE/2014/07			_ **.0	···				
Project title:	Ground Investigation - Nev	w Territories V	Vest (Term	Contract))				
Project location:	Agreement No. CE 32/2014(HY) Ele	-				ong Ping Station	- Investigation, Design	and Construction	n Ground Investigation
Customer:	Civil Engineering and Dev	elopment Depa	artment						
Contractor:	DrilTech Ground Engineer								
Test location:	0.5m								
Drillhole/Trial pit no.:	TP10		Sampl	e depth (n	1):	0.5 TO -			
Sample Type:	Refer to G.I. Record		Sample origin:				Refer to G.I. I	Record	
Groundwater level:	Groundwater not encounted	ered		-	•	ne person who	located the test loc	cation: -	
Date sample received:	24/10/2015			Date t	est(s) com	menced:	24/10/2015		
Weather and environmental of	conditions of time of test:	Sunny	Date test(s) completed:				27/10/2015		
Customer sample description						,	(
Lab sample description:	Greyish brown, silty, o	clayey, grav	elly SAN	D					
Assumed density of concre	ete Mg/m³	-		Assum	ned densit	y of rock	Mg/m ²	3 _	
Assumed density of brick	Mg/m³	-		-	ensity of s		Mg/m ²		
Test data	wg/m		-	- 2411, 4	oo.k, 0. 0				
	oil								
In-situ wet density of s Customer sample no.			TP10(0.5m)		- 1	-		-
Lab sample no.			17 10(+				
Mass of wet soil from hole		~	. 20		1	_			-
	~~	g			-	_			
Mass of sand before pouri		g	36		+	-	-		-
Mass of sand after pouring Mass of sand in cone		9	19		1	_			
Mass of concrete from hole	`	g	- 30						
Mass of rock from hole		g			-				
Mass of brick from hole		9			-				
Excess Mass of sand ma'(\	/'n \	g				+			
Mass of sand in hole	v Pa)	g g	1335		+				
Wet density of soil		Mg/m³	1.9		-				
Percentage of concrete retained	on 37.5 mm 20 mm sieve	%	- 1		+				
Percentage of rock retained on 3		%	-		 				
Percentage of brick retained on		%	-		-				
Moisture content deter			1				GEOSE	PEC 3, 200	01,Clause 5.2
		a of took	26/10/	2015 27	/10/2015	Crouning			
	J/2015 Date	e of test:			110/2015	Grouping	g of soils:	wedium-	-grained soils
Oven drying at		°C	10		 	<u> </u>	-		
The duration of oven drying	9	hours	24		+	-	-		
Mass of wet soil + tin		g	596		-	- i	-		-
Mass of dry soil + tin		9	558		1	-			·-
Mass of tin		9	187			-	-		-
Mass of water		g	38.						-
Mass of dry soil		g %	371			_			
Moisture content		70	11	<i>-</i>					
In-situ dry density of so	oil								
Dry density of soil		Mg/m³	1.7	72	T	-	-		-
						L			
Remarks: -									
		(S)							
				1					
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		OHOUNGU I		ر ۱ Lam		Approve	ed signatory		Min/Y ung Chi Sa
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On Field Density Determination

Tested in Accordance Wi	th: GEOSPEC 3, 200	1, Clause 11	.1			
Our job no.:	15FS102414		W.O.	no.:	GE/2014/07.3	34
Contract no.:	GE/2014/07					Portra della
Project title:	Ground Investigation - Ne	ew Territories V	Vest (Term Contra	ct)	XI	A.
Project location:	Agreement No. CE 32/2014(HY) E	levated Pedestrian C	Corridor in Yuen Long Tow	vn connecting with Long Ping Station	- Investigation, Design and	I Construction Ground Investigation
Customer:	Civil Engineering and De	velopment Dep	artment			777
Contractor:	DrilTech Ground Enginee	ering Limited				
Test location:	0.5m					
Drillhole/Trial pit no.:	TP11			ple depth (m): ple origin:	0.5	TO -
Sample Type:	Refer to G.I. Record	Refer to G.I. Red				
Groundwater level:	Groundwater not encoun	tered		and affiliation of the person who		on: -
Date sample received:	24/10/2015			e test(s) commenced:	24/10/2015	
Weather and environmental co	onditions of time of test:	Sunny	Date	e test(s) completed:	27/10/2015	
Customer sample description:	_				1.0	
Lab sample description:	Greyish brown, silty,	clayey, grav	elly SAND			
Assumed density of concre	ete Mg/m³	-	Assu	ımed density of rock	Mg/m³	-
Assumed density of brick	Mg/m³	-	Bulk	density of sand used	Mg/m³	1.257
Test data			8			
In-situ wet density of s	oil					
Customer sample no.	, , , , , , , , , , , , , , , , , , ,		TP11(0.5m)	- 1	=	-
Lab sample no.			2	-	= ×	-
Mass of wet soil from hole		g	1927	- 1		-
Mass of sand before pourir	ng	g	3600	- 1	=	-
Mass of sand after pouring		g	1984	-	-	-
Mass of sand in cone		g	360	_	= "	. E
Mass of concrete from hole g			-	- !	-	_
Mass of rock from hole g			-	-		
Mass of brick from hole		g	-		-	-
Excess Mass of sand ma'(V	('p _a)	g	-			
Mass of sand in hole		g	1256.00			
Wet density of soil		Mg/m³	1.93		-	-
Percentage of concrete retained					,	
Percentage of rock retained on 3		%				
Percentage of brick retained on 3	7.5 mm 20 mm sieve	%				- , -
Moisture content deter	mined by OVEN				GEOSPE	C 3, 2001, Clause 5.2
Date received: 24/10	/2015 Da	te of test:	26/10/2015-2	27/10/2015 Grouping	g of soils:	Medium-grained soils
Oven drying at		°C	105		-	-
The duration of oven drying		hours	24		=1	-
Mass of wet soil + tin		g	523.3	-	-	i -
Mass of dry soil + tin		g	494.0	-		
Mass of tin		g	184.2	-	-	-
Mass of water		g	29.30	-		-
Mass of dry soil		g	309.80	-	-	-
Moisture content		%	9.5			
n-situ dry density of so	il					
Dry density of soil		Mg/m³	1.76	- 1		
Dry density of son		wig/iii				
Remarks: -					5.	
			J			
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	,	OHECKEU I	Total (40.800) (8.000 at	Approve	ed signatory:	Min A Chi C
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On Field Density Determination

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Tested in Accordance Wi	th: GEOSPEC 3,	2001, Clause 11	.1		3				
Our job no.:	15FS102414		W.O.n	o.:	GE/2014/07.3	4			
Contract no.:	GE/2014/07								
Project title:	Ground Investigatio	n - New Territories V	Vest (Term Contract)	:				
Project location:	Agreement No. CE 32/2014	(HY) Elevated Pedestrian C	orridor in Yuen Long Town	connecting with Long Ping S	Station - Investigation, Design and	Construction Ground Investigation			
Customer:	Civil Engineering an	d Development Dep	artment						
Contractor:	DrilTech Ground En	gineering Limited							
Test location:	0.5m								
Drillhole/Trial pit no.:	TP12		0.5	TO -					
Sample Type:	Refer to G.I. Record Sample origin: Refer to G.I. Record								
Groundwater level:	Groundwater not en	n who located the test location	on:						
Date sample received:	24/10/2015	Y	Date t	est(s) commence	ed: 24/10/2015				
Weather and environmental of	onditions of time of	test: Sunny	Date	est(s) completed	1: 27/10/2015				
Customer sample description	. =	00							
Lab sample description:	Greyish brown,	silty, clayey, grav	elly SAND						
Assumed density of concre	ete Mg/m³	-	Assun	ned density of ro	ck Mg/m³	-			
Assumed density of brick	Mg/m³	.	Bulk c	ensity of sand us	sed Mg/m³	1.257			
Test data	3	Manual of Supra, of the Suprassian Actions							
In-situ wet density of s	oil								
Customer sample no.			TP12(0.5m)	T		T -			
Lab sample no.			3	_					
Mass of wet soil from hole			. 1958						
Mass of sand before pourir	20	9	3600	-					
Mass of sand after pouring		g	1955						
Mass of sand in cone		g	360	<u> </u>					
Mass of concrete from hole		g	-	-	-	-			
		9	-	-					
Mass of brick from hole Excess Mass of sand m _a '(\	/'n \	9							
Mass of sand in hole	/ þa)	<u>g</u>	1285.00	-					
		g Ma/m³		-					
Wet density of soil	27 5 100	Mg/m³	1.92	ļ ī					
Percentage of concrete retained				- -					
Percentage of rock retained on 3									
Percentage of brick retained on 3									
Moisture content deter						C 3, 2001, Clause 5.2			
	0/2015	Date of test:	26/10/2015-27	/10/2015 Grou	ping of soils: N	Medium-grained soils			
Oven drying at			105	-	-				
The duration of oven drying	3	hours	24	•		-			
Mass of wet soil + tin		g	642.9	-	-	-			
Mass of dry soil + tin		9	598.3	-	-	-			
Mass of tin	*	9	186.7	-	-	-			
Mass of water		g	44.60	-	-	-			
Mass of dry soil		g	411.60	-	-				
Moisture content	¥	%	11		-	-			
n-situ dry density of so	il								
Dry density of soil		Mg/m³	1.73	T -					
		9/111		L		1			
Remarks: -				(e)					
		(4)	END						
			7						
		Checked b	by:	Ann	roved signatory:	7			
			Lam Lam		CS00 US	uang dan Min/Yeung Chi Sar			
Form No.:SRRP 009-1/Issue 1/Rev.	B/01/11/2007					/			

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On Field Density Determination

On Field Density Det	ermination			Date of Issue:	12/11/2015						
Tested in Accordance W	ith: GEOSPEC 3, 2001, Claus	se 11.	.1								
Our job no.:	15FS111009		W.O.no.		GE/2014/07.34						
Contract no.:	GE/2014/07			••							
Project title:	Ground Investigation - New Territo	ories W	Vest (Term Contract)		V						
Project location:	Agreement No. CE 32/2014(HY) Elevated Ped			onnecting with Long Ping Station -	- Investigation, Design and Co	nstruction Ground Investigation					
Customer:	Civil Engineering and Developmer	nt Depa	artment								
Contractor:	DrilTech Ground Engineering Limi										
Test location:	0.5m	0.5m									
Drillhole/Trial pit no.:	TP13		Sample	e depth (m):	0.5 TC) -					
Sample Type:	Refer to G.I. Record		Sample	e origin:	Refer to G.I. Record	i					
Groundwater level:	Groundwater not encountered		Name and	affiliation of the person who	located the test location:	-					
Date sample received:	10/11/2015		Date te	est(s) commenced:	10/11/2015	3					
Weather and environmental of	conditions of time of test: Cloud	у	Date te	est(s) completed:	12/11/2015						
Customer sample description	:										
Lab sample description:	Greyish brown, silty, clayey,	grav	elly SAND			e e					
Assumed density of concr	ete Mg/m³ -		Assum	ed density of rock	Mg/m³ -						
Assumed density of brick	Mg/m³ -		Bulk de	ensity of sand used	Mg/m³	1.260					
Test data					0 -	e e					
In-situ wet density of s	soil										
Customer sample no.			TP13(0.5m)	-	=	. 4					
Lab sample no.			3	-	-	-					
Mass of wet soil from hole		g	1953	-		-					
Mass of sand before pouri	ng	g	3600	-	=	-					
Mass of sand after pouring		g	1925	-	-	-					
Mass of sand in cone		g	358	-	-	-					
Mass of concrete from hole	9	g	-	-	-	-					
Mass of rock from hole		g	-	-		-					
Mass of brick from hole		g	-	1-	-	-					
Excess Mass of sand ma'(√'p _a)	g	-	-	-	-					
Mass of sand in hole		g.	1317.00	-	-	-					
Wet density of soil	Mg/		1.87	-	<u> </u>	-					
Percentage of concrete retained		%		- -	-						
Percentage of rock retained on 3	7.5 mm 20 mm sieve	%									
Percentage of brick retained on	37.5 mm 20 mm sieve	%.									
Moisture content dete	rmined by OVEN 1/2015 Date of te	st·	11/11/2015-12/	11/2015 Grouping		3, 2001,Clause 5.2					
Oven drying at	50,000	°C	105	-	-	-					
The duration of oven dryin	a ho	urs	24		_	_					
Mass of wet soil + tin	9	g	617.2	-	-	-					
Mass of dry soil + tin		g	574.7	-	-	-					
Mass of tin		g	182.3	-	-	-					
Mass of water		g.	42.50	-	-	-					
Mass of dry soil		g	392.40	-	-	-					
Moisture content		%	11	-	-	-					
In-situ dry density of so	pil										
Dry density of soil	Mg/	m³	1.69	-		-					
Remarks: -											
			7								
3	Chec	ked b	y: 4	Annrove	ed signatory:	7					
	2.100		Lam Lam			ig dan Min/Yeving Chi Sa					
Form No.:SRRP 009-1/Issue 1/Rev.	B/01/11/2007				. 1	V. 3 2.11 05					

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Tel: (852) 2873 6860 Fax: (852) 2555 7533





Test Report					Report No	.: 15FS110205 e: 1 of 1				
On Field Density Det	ermination				Page Date of Issue					
Tested in Accordance W	ith: GEOSPEC 3, 200°	1, Clause 11	.1							
Our job no.:	15FS110205		W.O.no		GE/2014/07.3	44				
Contract no.:	GE/2014/07		VV.O.110	·.·	OL/2014/01.0	T				
Project title:	Ground Investigation - Ne	w Territories V	Vest (Term Contract)							
Project location:	Agreement No. CE 32/2014(HY) Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction Ground Investig									
Customer:	Civil Engineering and Dev									
Contractor:	DrilTech Ground Enginee		artifiont							
Test location:	0.5m	ig Ellintou				*				
Drillhole/Trial pit no.:	TP15		Sample	e depth (m):	0.5	TO -				
Sample Type:	Refer to G.I. Record		and the second s	e origin:	Refer to G.I. Rec					
Groundwater level:	Groundwater not encount	ered		I affiliation of the person who	located the test location	on: -				
Date sample received:	02/11/2015		Date to	est(s) commenced:	02/11/2015	-				
Weather and environmental of	conditions of time of test:	Sunny		est(s) completed:	04/11/2015					
Customer sample description	: -	-	A	. ,	-					
Lab sample description:	Yellowish brown, slig	htly silty & c	lavey gravelly SA	ZND						
		intry Sinty & C		ed density of rock	NA / 2					
	ssumed density of concrete Mg/m³ -				Mg/m³	-				
Assumed density of brick	Mg/m³	_	Bulk de	ensity of sand used	Mg/m³	1.259				
Test data										
In-situ wet density of s	oil									
Customer sample no.			TP15(0.5m)	-	=	-				
Lab sample no.	and the second s		11		-	-				
Mass of wet soil from hole		g	1924	-	-	-				
Mass of sand before pouri		g	3600	- 1	-	-				
Mass of sand after pouring		g	1881	-	-	-				
Mass of sand in cone		g	357	-	-					
Mass of concrete from hole	9	9				-				
Mass of rock from hole		<u>g</u>	-		.					
Mass of brick from hole	n \	g		-						
Excess Mass of sand ma'(\) Mass of sand in hole	/ p _a)	g	- 4262.00							
		Ma/m ³	1362.00							
Wet density of soil Percentage of concrete retained	on 27 5 mm 20 mm siovo	Mg/m³ %	1.78		<u> </u>					
Percentage of rock retained on 3		% %								
Percentage of brick retained on 3										
Moisture content deter	mined by OVEN				GEOSPEC	C 3, 2001, Clause 5.				
Date received: 02/11	1/2015 Dat	e of test:	03/11/2015-04/	11/2015 Grouping	g of soils: N	Medium-grained soil				
Oven drying at	- may be compared to the second control of t	°C	105	_	-	-				
The duration of oven drying	g	hours	24	-	-	-				
Mass of wet soil + tin		g :	583.9	-	-	-				
Mass of dry soil + tin		g	533.4	-	-					
Mass of tin		g	188.2	-	-	-				
Mass of water		g	50.50	-	-	-				
Mass of dry soil		9	· 345.20	-	-	-				
Moisture content		%	15	- '	-	-				
n-situ dry density of so	oil									
Dry density of soil	F)	Mg/m³	1.55	_	· /2	-				
,	1	J				1.				
Remarks: -										
			END							
			u Tido	_						
		Checked b	v.	^	ad algost	>				
		OHEUNEU L		Approve	ed signatory:	- / / O M - O / O / O / O / O / O / O / O / O / O				
Form No - CDDD 000 4/1 4/0	D/01/11/2007		Lam Lam		Hu	uang dan Min/Yaung Chi S				
Form No.:SRRP 009-1/Issue 1/Rev.	DIO 1/ 1 1/200/									

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Report No .:

Date of Issue:

Page:



15FS111009

12/11/2015

4 of 4

Test Report

On Field Density Determination

Tested in Accordance Wi	th: GEOSPEC 3, 200	1, Clause 11	1.1							
Our job no.:	15FS111009		\	V.O.no	V.O.no.: GE/2014/07.34					
Contract no.:	GE/2014/07					u u				
Project title:	Ground Investigation - N	ew Territories \	West (Term C	contract)			X			
Project location:	Agreement No. CE 32/2014(HY) 8	Elevated Pedestrian (Corridor in Yuen L	ong Town c	onnecting with Long Ping Station	- Investigation, Design and	Construction Ground Investigation			
Customer:	Civil Engineering and De	velopment Dep	partment		,		1			
Contractor:	DrilTech Ground Engine	ering Limited								
Test location:	0.5m									
Drillhole/Trial pit no.:	TP17 Sample depth (m): 0.5 TO -									
Sample Type:	Refer to G.I. Record				e origin:	Refer to G.I. Rec				
Groundwater level:	Groundwater not encour	tered			affiliation of the person who					
Date sample received:	10/11/2015	itered			est(s) commenced:	10/11/2015				
Weather and environmental c		Claudy				12/11/2015				
		Cloudy		Date te	est(s) completed:	12/11/2015				
Customer sample description:	Greyish brown, silty	clavov grav	rolly SAND							
Lab sample description:		, clayey, grav		- AC	ad danaity of reals	N/1 cr / mm 3				
Assumed density of concre					ed density of rock	Mg/m³	-			
Assumed density of brick	Mg/m³	-		Bulk de	ensity of sand used	Mg/m³	1.260			
Test data										
In-situ wet density of s	oil					Y				
Customer sample no.			TP17(0.	ōm)	-	=	-			
Lab sample no.			4		-	-	_			
Mass of wet soil from hole		g	1814		-	-	-			
Mass of sand before pourir	na	g	3600		-	-				
Mass of sand after pouring	<u> </u>	g	2007		-	-	-			
Mass of sand in cone		g	358	į.	-	-				
Mass of concrete from hole	<u> </u>	g	-		-	_				
Mass of rock from hole		g	_		-	-	<u> </u>			
Mass of brick from hole					-		<u> </u>			
Excess Mass of sand ma'(\	/'n \	g								
Mass of sand in hole	, μa)	g	1235.0							
		9 Ma/m³			-					
Wet density of soil	07.5	Mg/m³	1.85		-					
Percentage of concrete retained				-						
Percentage of rock retained on 3		%								
Percentage of brick retained on 3	7.5 mm 20 mm sieve	%								
Moisture content deter	mined by OVEN					GEOSPE	3, 2001, Clause 5.2			
Date received: 10/11	/2015 Da	ite of test:	11/11/20	15-12/	11/2015 Grouping	of soils: N	Medium-grained soils			
Oven drying at		°C	105		-	-				
The duration of oven drying	1	hours	24		-	-	-			
Mass of wet soil + tin		g	563.4		-		-			
Mass of dry soil + tin		g	522.4		-		-			
Mass of tin		g	185.8			~ .	_			
Mass of water		g	41.00		_		_			
Mass of dry soil	7		336.60							
Moisture content		g %	12	•	_	_				
Wostule Content		70	12							
In-situ dry density of so	il									
Dry density of soil		Mg/m³	1.65		-	-	-			
D							79			
Remarks: -										
	4	*	END	·						
				7						
		Checked I	by:	7	Annrove	ed signatory:	7			
			Lam l	_am	, ippi000		lang lian Min/Ye ng Chi Sai			
Form No.:SRRP 009-1/Issue 1/Rev.	B/01/11/2007						4			

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Appendix G

Digital Acoustic Borehole Televiewer Survey Records
(Travel Time and Amplitude, Joints Interpretation and
Stereographic Plots Records)



Company : DrilTech Ground Engineering Ltd

Borehole No. : S1-DH02

Contract : Ground Investigation - New Territories West (Term Contract)

Contract No. : GE/2014/07.34

Location ; Yuen Long

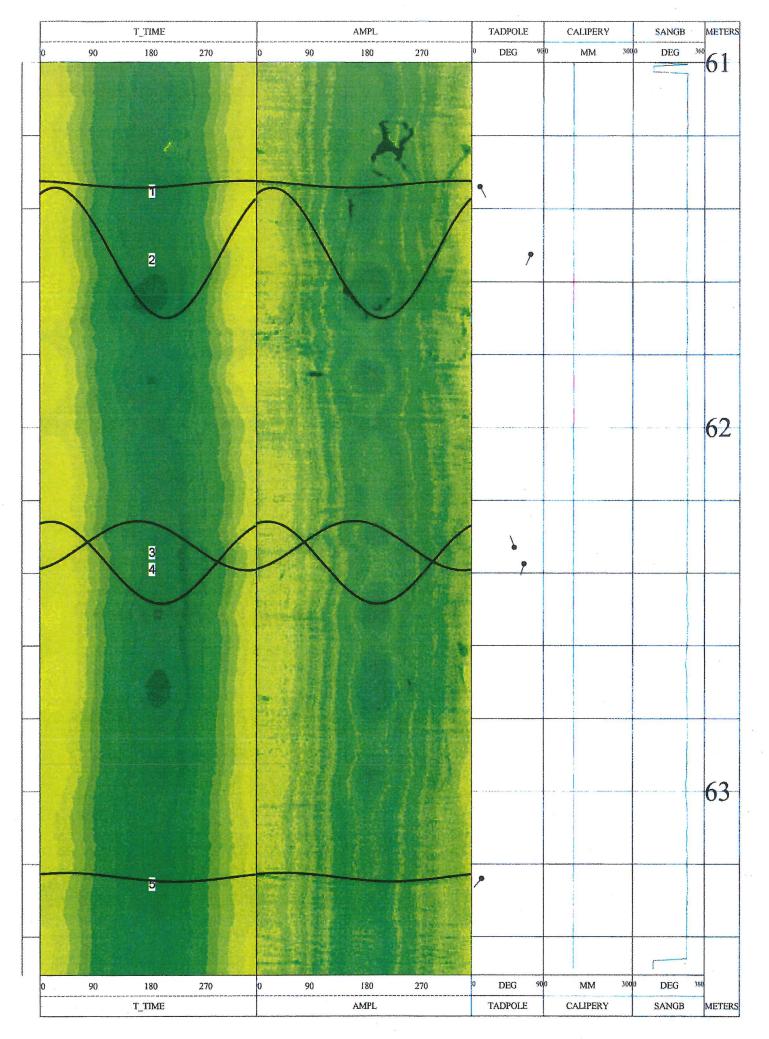
Test Date : 03-03-2016 Permanent Datum : None Depth Driller : 72.1m Elev.Perm.Datum : None Log Bottom : 71m Log Measured From : GL Log Top : 61m **Drl Measured From** : GL

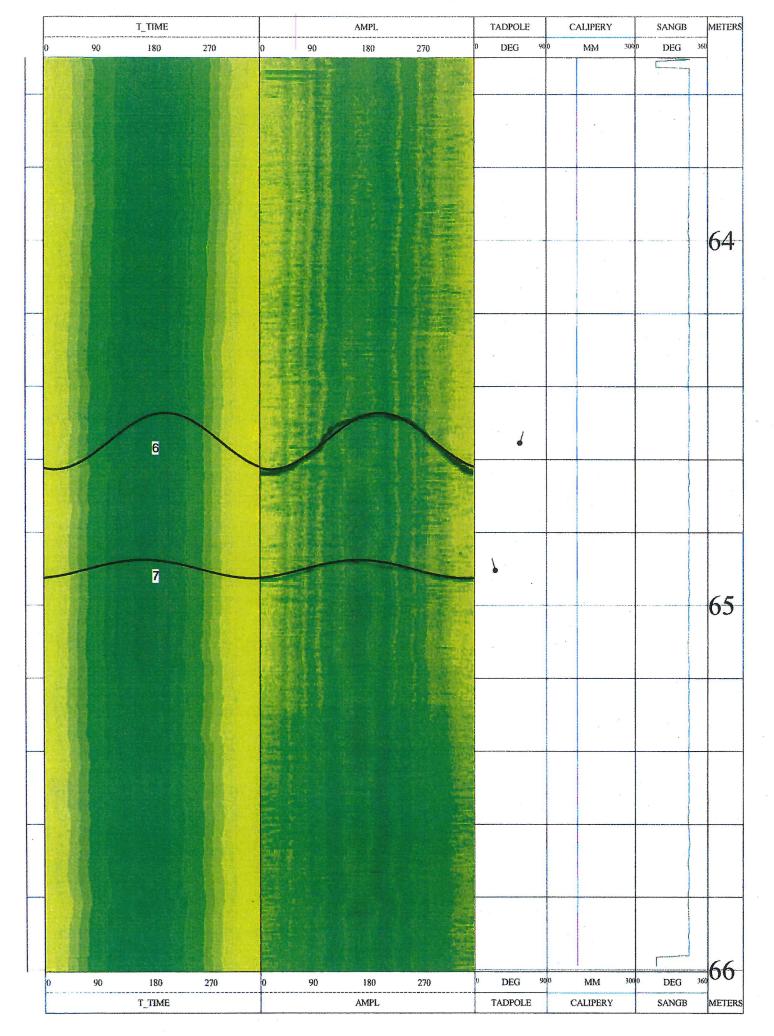
Casing Driller : S/N 1123 : 52.02m Logging Unit Casing Type Field Office : N/A : F.G.S Casing Thickness: N/A Recorded by : MC Bit Size : 10.1cm Borehole Fluid : Water Magnetic Decl. : -2 Sonde Type : 8804A

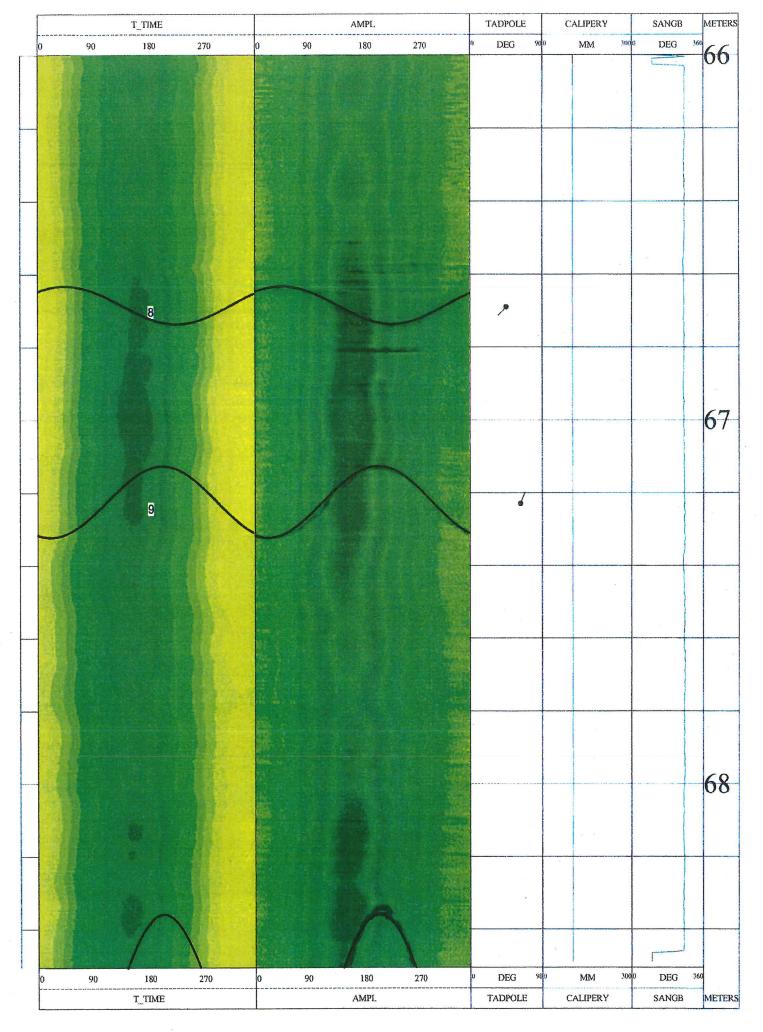
Remark : All directions are relative to magnetic north from Hong Kong Metric Grid System North

		8					Dir. of	
Fracture	Dip	Azimuth	To	From	Diameter	Deviation	Deviation	Category
Number	(deg)	(deg)	(m)	(m)	(cm)	(deg)	(deg)	
1	11	153	61.32	61.34	10.31	0.6	265.1	Joint
2	74	205	61.34	61.70	10.27	0.5	275.3	Joint
3	53	340	62.26	62.39	10.27	0.7	274.1	Joint
4	66	198	62.26	62.48	10.27	0.5	263.2	Joint
5	13	221	63.22	63.25	10.27	0.4	264.6	Joint
6	57	017	64.47	64.63	10.23	0.5	263.2	Joint
7	26	343	64.88	64.93	10.27	0.5	273.9	Joint
8	45	224	66.63	66.74	10.27	0.5	254.9	Joint
9	63	021	67.13	67.32	10.23	0.5	265.0	Joint
10	81	023	68.36	68.96	10.27	0.4	264.5	Joint
11	44	033	68.61	68.71	10.27	0.4	264.5	Joint
12	41	171	69.30	69.39	10.23	0.4	254.9	Joint

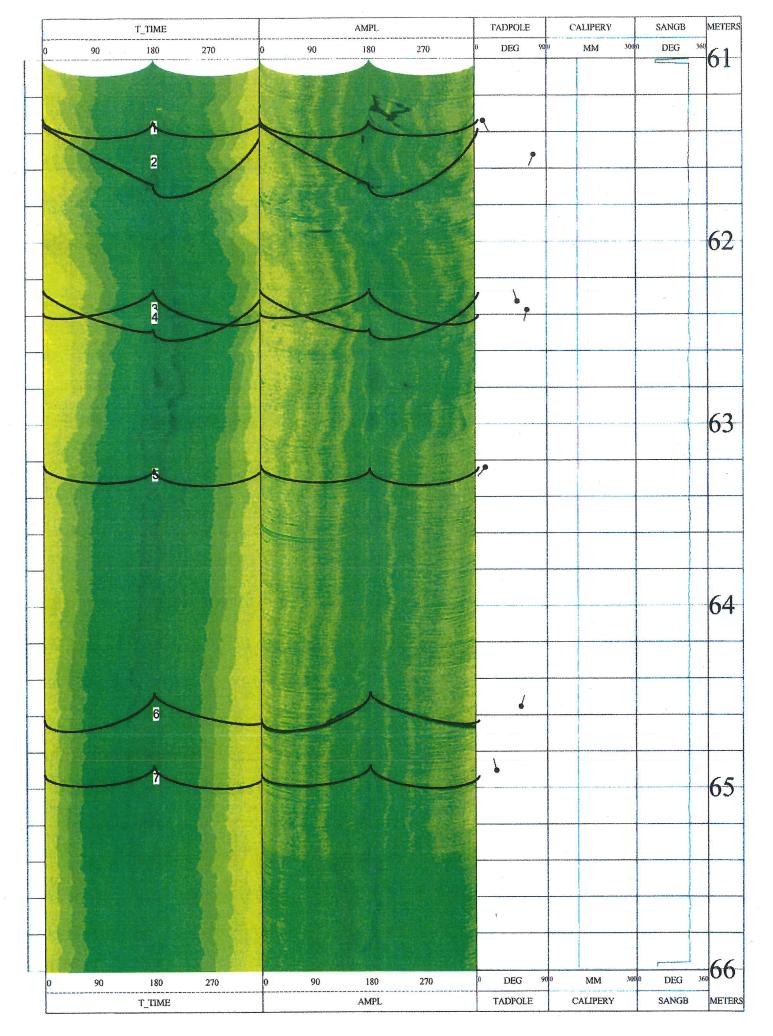
Checked by: 12 thread talling

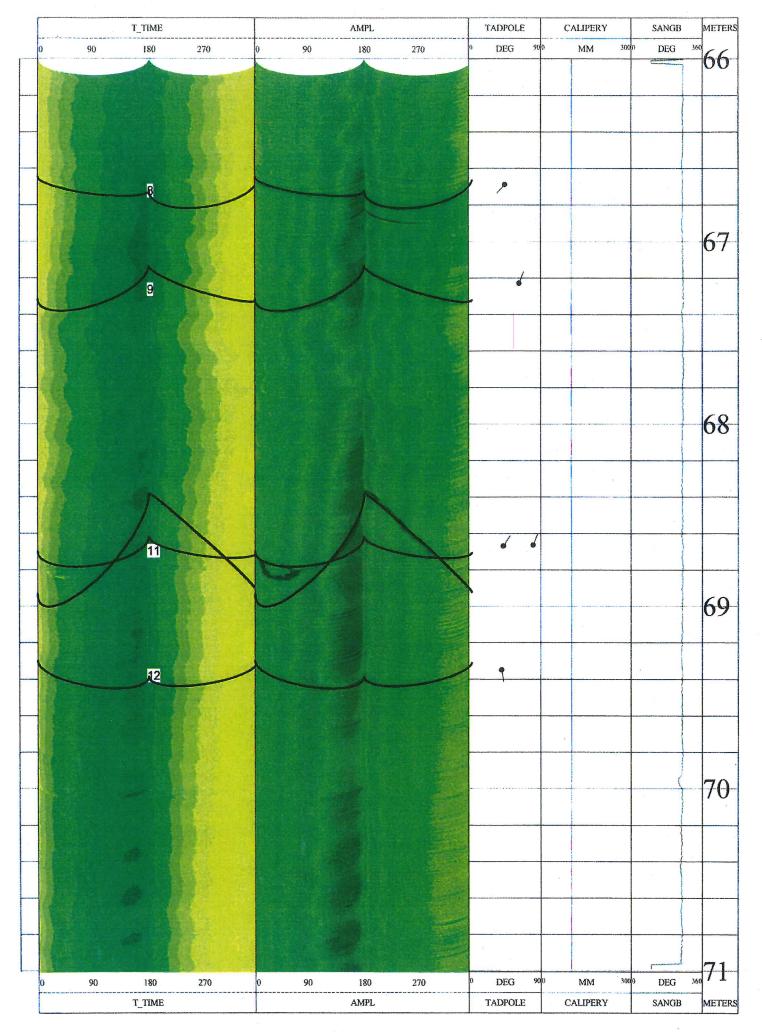




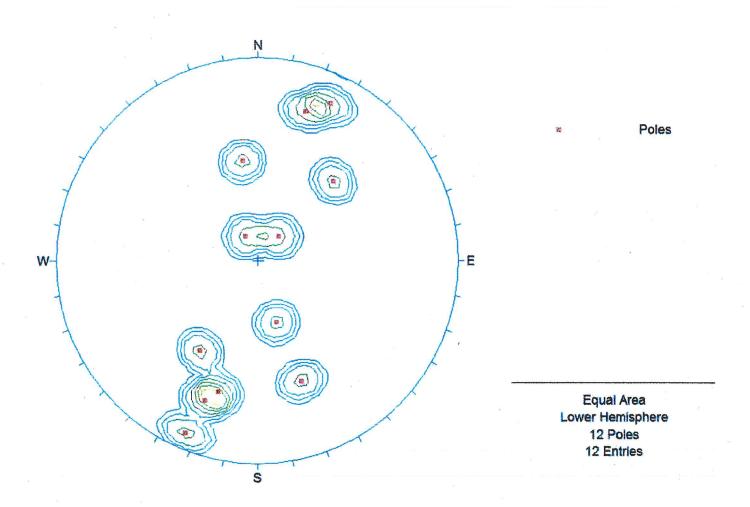












Contract

: Ground Investigation - New Territories West (Term Contract)

Contract No. Location : GE/2014/07.34 : Yuen Long

Borehole No.

: S1-DH02



Company : DrilTech Ground Engineering Ltd

Borehole No. : S1-DH07

Contract : Ground Investigation - New Territories West (Term Contract)

Contract No. : GE/2014/07.34 Location : Yuen Long

Test Date : 03-12-2015 Permanent Datum : None Depth Driller : 59.99m Elev.Perm.Datum : None Log Bottom : 59.89m Log Measured From : GL Log Top : 39.75m Drl Measured From : GL

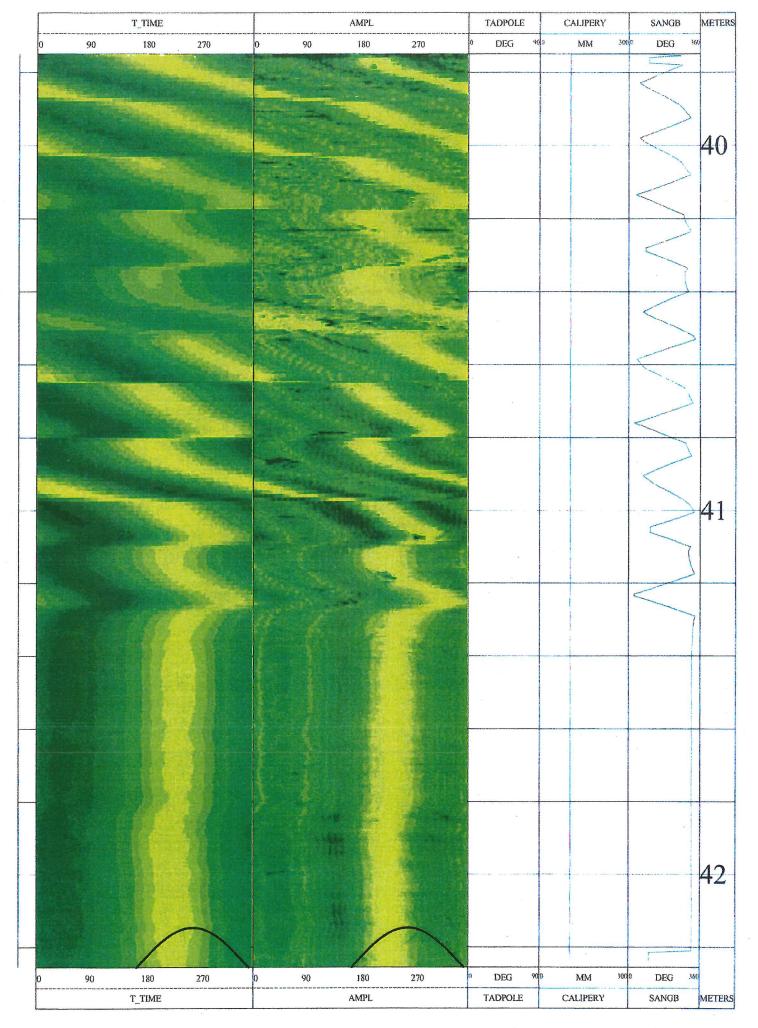
: 39.75m **Casing Driller** Logging Unit : S/N 1123 Casing Type : N/A Field Office : F.G.S Casing Thickness: N/A Recorded by : GC/MC Bit Size : 10.1cm Borehole Fluid : Water Magnetic Decl. : -2 Sonde Type : 8804A

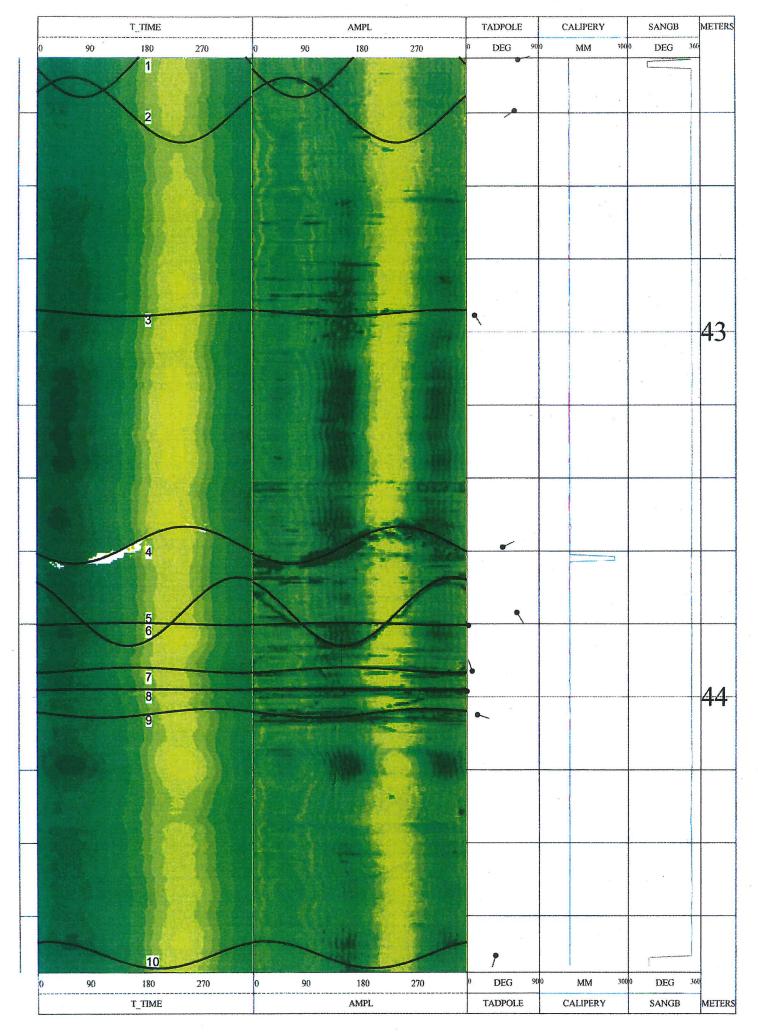
Remark : All directions are relative to magnetic north from Hong Kong Metric Grid System North

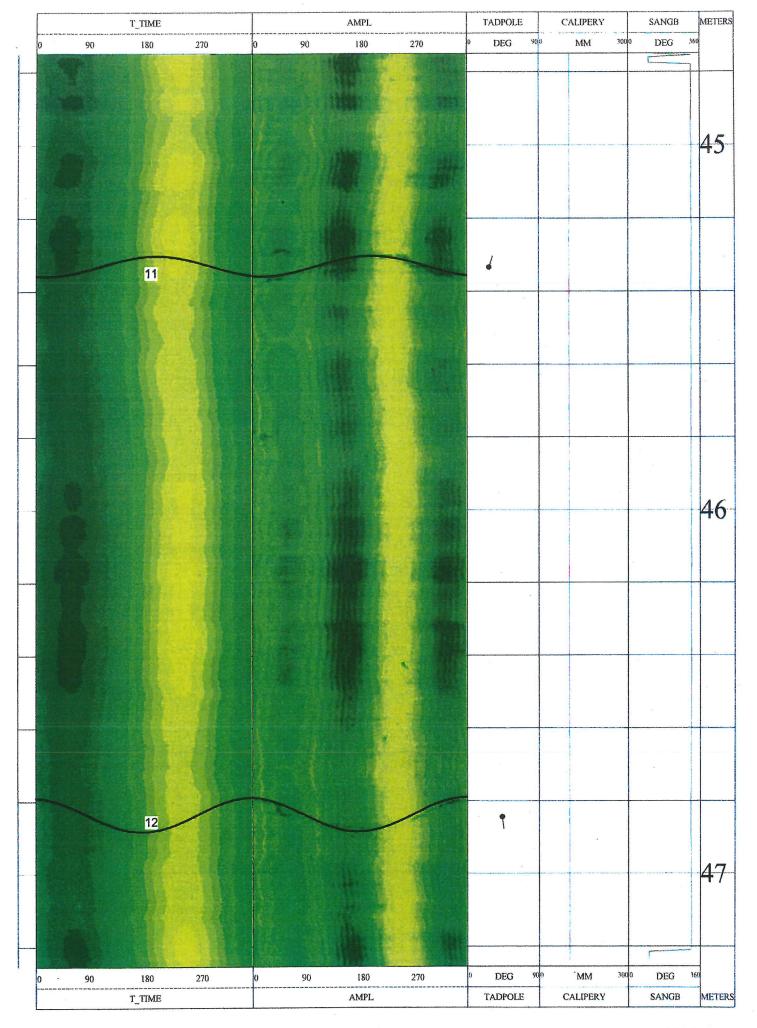
							Dir. of	
Fracture	Dip	Azimuth	To	From	Diameter	Deviation	Deviation	Category
Number	(deg)	(deg)	(m)	(m)	(cm)	(deg)	(deg)	
1	65	075	42.15	42.36	10.23	1.1	317.7	Joint
2	60	236	42.30	42.48	10.23	1.1	319.6	Joint
3	11	146	42.94	42.96	10.23	1.1	315.1	Joint
4	45	063	43.53	43.63	10.35	1.1	312.5	Joint
5	63	148	43.67	43.86	10.20	1.1	311.3	Joint
6	03	323	43.80	43.80	10.23	1.1	311.2	Joint
7	07	338	43.92	43.93	10.27	1.2	312.8	Joint
8	00	238	43.98	43.98	10.31	1.0	311.6	Joint
9	14	108	44.03	44.06	10.39	1.0	309.1	Joint
10	37	197	44.67	44.74	10.20	1.1	308.7	Joint
11	28	017	45.30	45.36	10.20	1.1	316.3	Joint
12	44	173	46.79	46.88	10.13	1.1	311.1	Joint
13	76	153	47.96	48.33	10.20	1.0	309.5	Joint
14	73	158	48.15	48.46	10.23	1.0	307.2	Joint
15	82	167	48.64	49.29	10.16	1.0	308.0	Joint
16	31	163	50.00	50.06	10.16	1.1	303.2	Incipient Joint
17	37	343	50.23	50.31	10.16	8.0	305.9	Incipient Joint
18	11	213	51.80	51.82	10.20	8.0	305.0	Joint
19	13	236	51.84	51.86	10.20	8.0	303.8	Joint
20	58	121	51.92	52.07	10.16	8.0	303.4	Incipient Joint
21	73	145	52.06	52.37	10.16	8.0	296.7	Joint
22	67	339	56.69	56.93	10.20	8.0	282.6	Joint
23	55	335	56.79	56.94	10.16	8.0	279.4	Joint
24	40	008	57.12	57.20	10.23	8.0	279.5	Joint
25	44	800	57.15	57.25	14.08	0.7	280.1	Joint
26	53	001	57.17	57.31	15.28	0.7	278.1	Weather Zone Top
27	37	351	57.27	57.35	10.20	0.7	276.8	Weather Zone Bottom
28	40	357	57.29	57.38	10.31	8.0	281.6	Joint
29	41	349	57.34	57.43	10.16	8.0	281.7	Joint
30	45	352	57.44	57.55	10.20	0.7	283.2	Joint
31	44	006	57.51	57.61	10.20	8.0	283.8	Joint
32	46	354	57.85	57.95	10.13	0.7	280.9	Joint
33	24	344	58.00	58.05	10.20	8.0	277.4	Joint
34	56	342	58.29	58.44	10.23	0.9	277.4	Joint
35	34	318	58.33	58.41	10.16	0.9	277.4	Joint
36	- 30	350	58.40	58.46	10.20	0.9	276.7	Joint
37	22	017	58.53	58.57	10.20	8.0	275.8	Joint

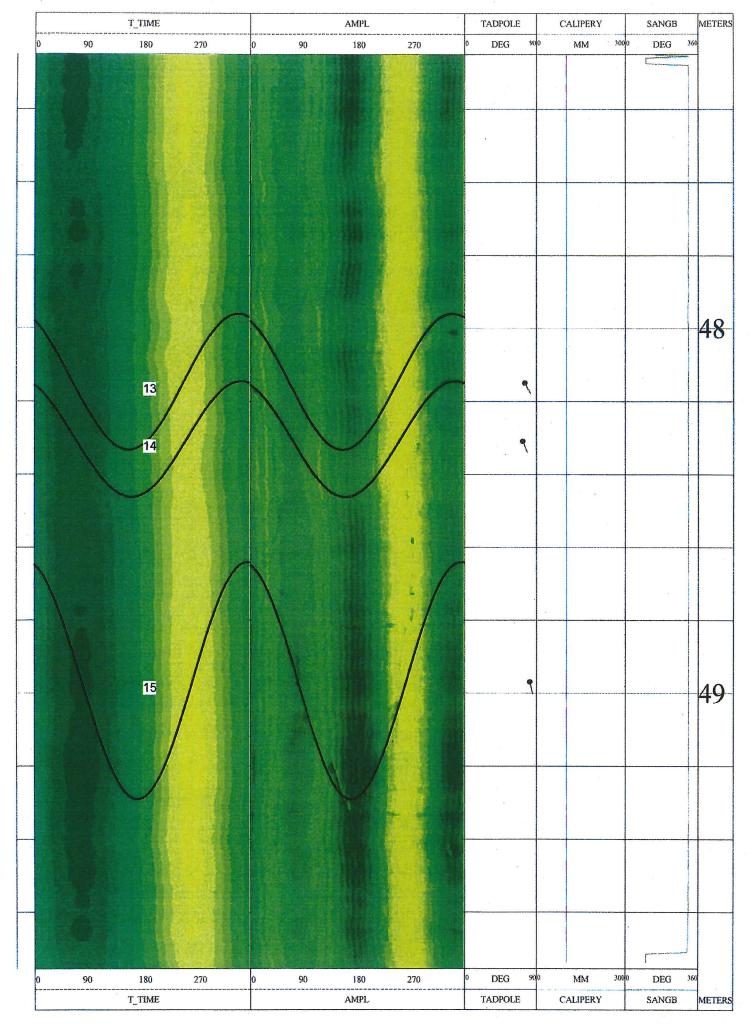
Checked by:

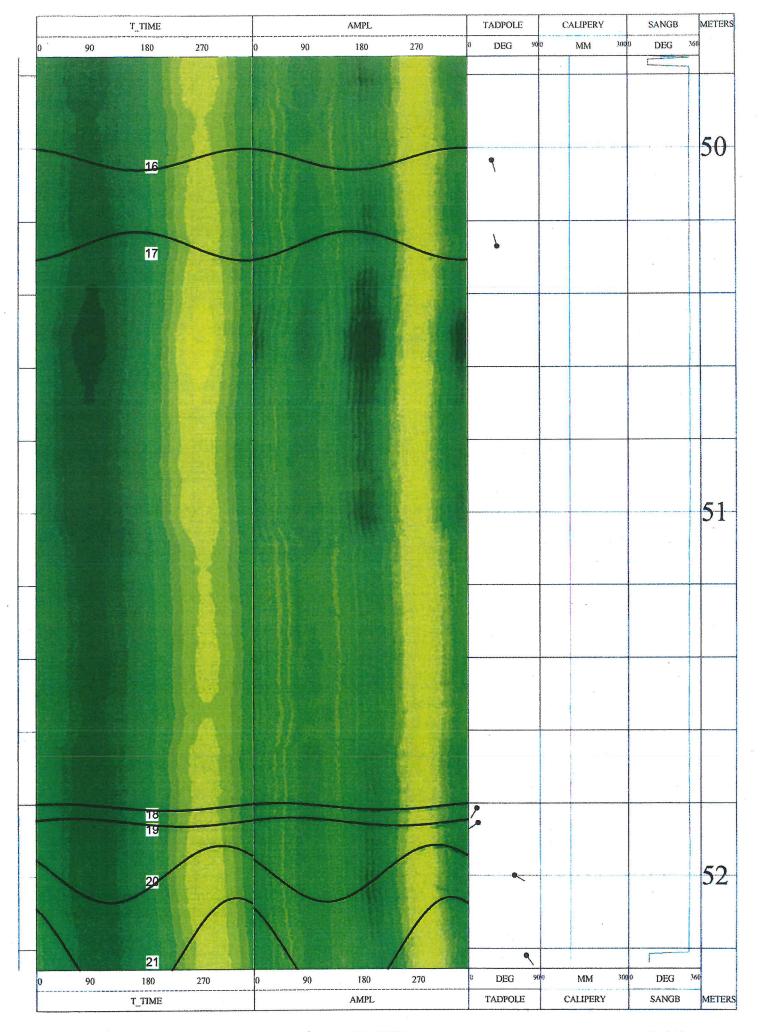


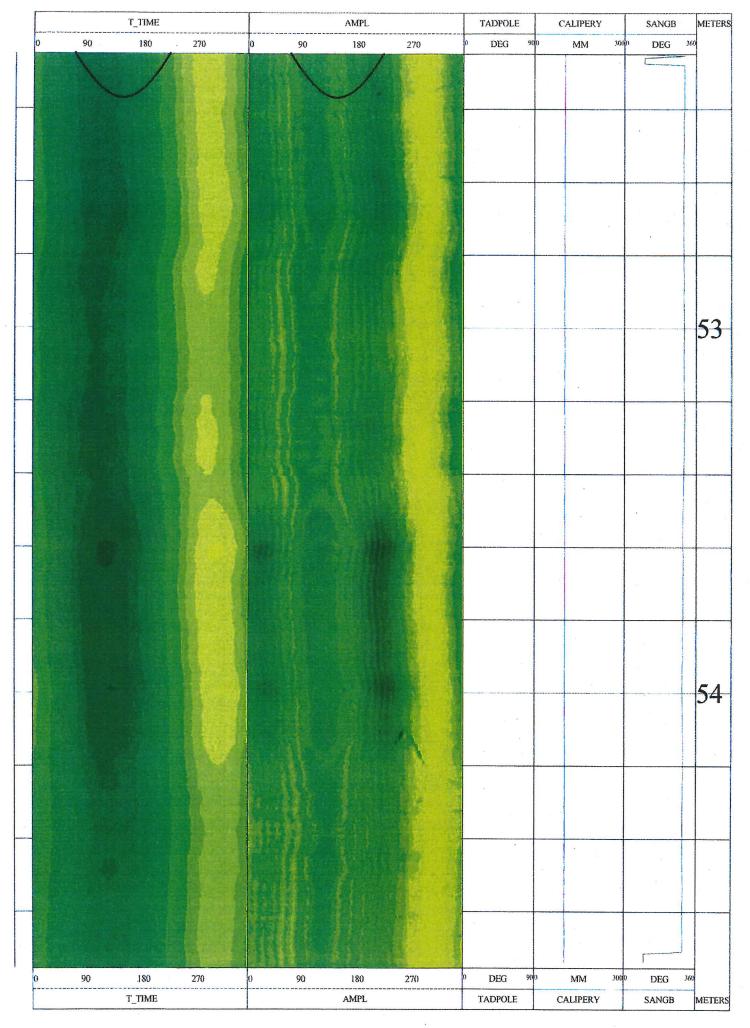


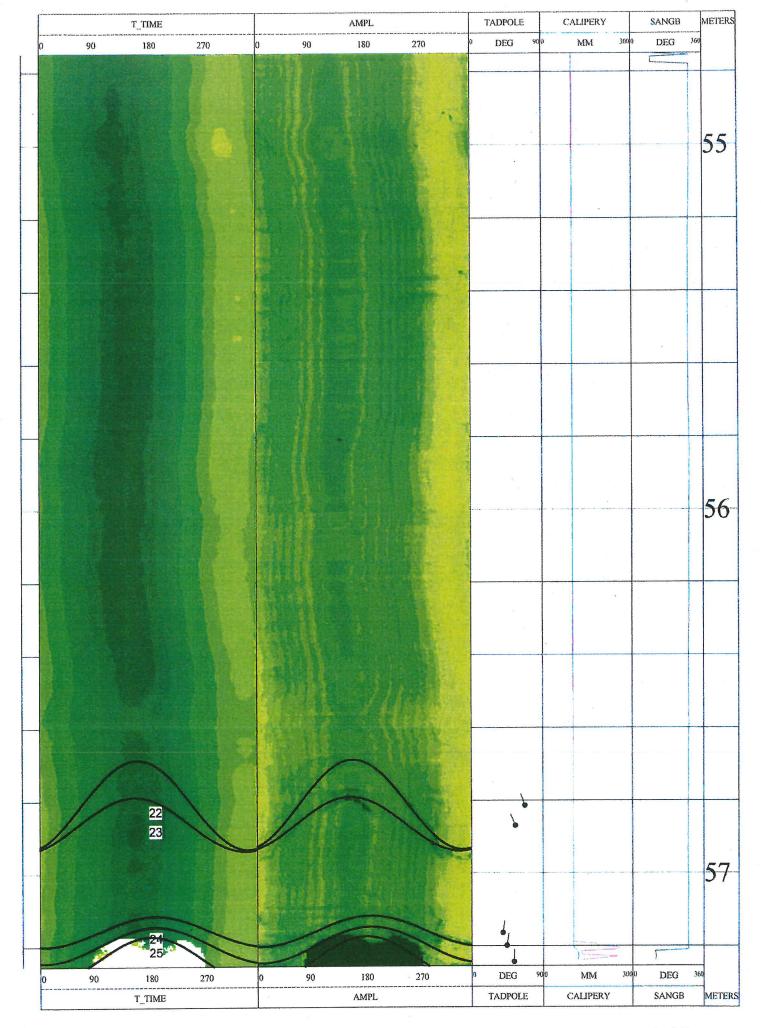


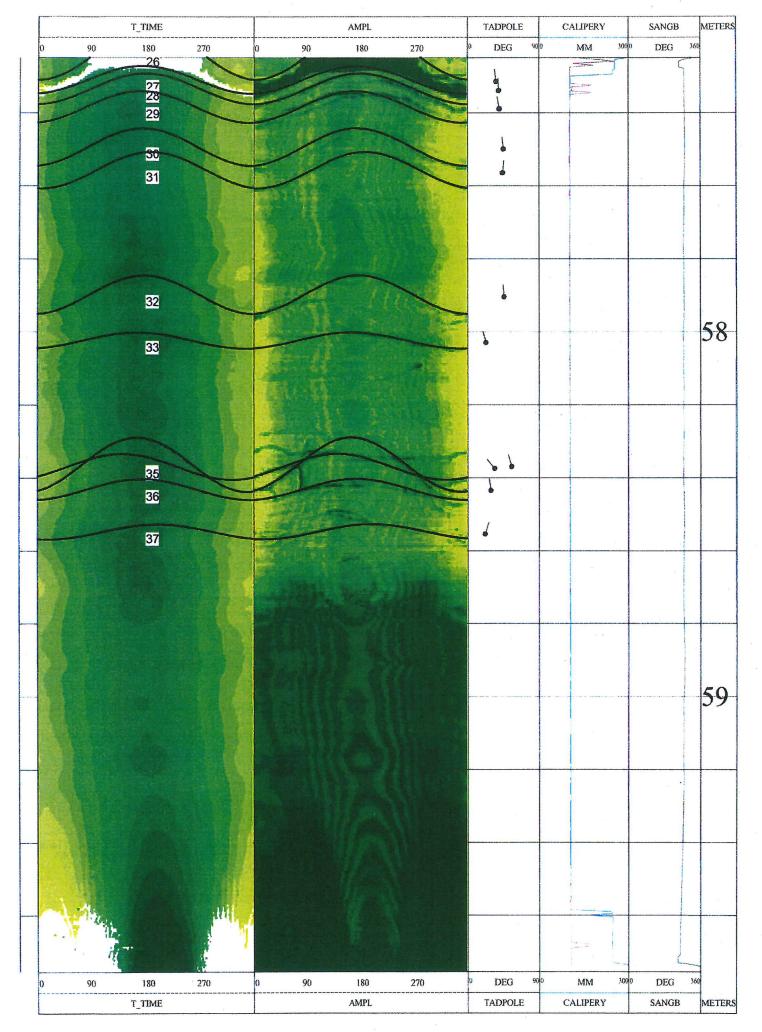




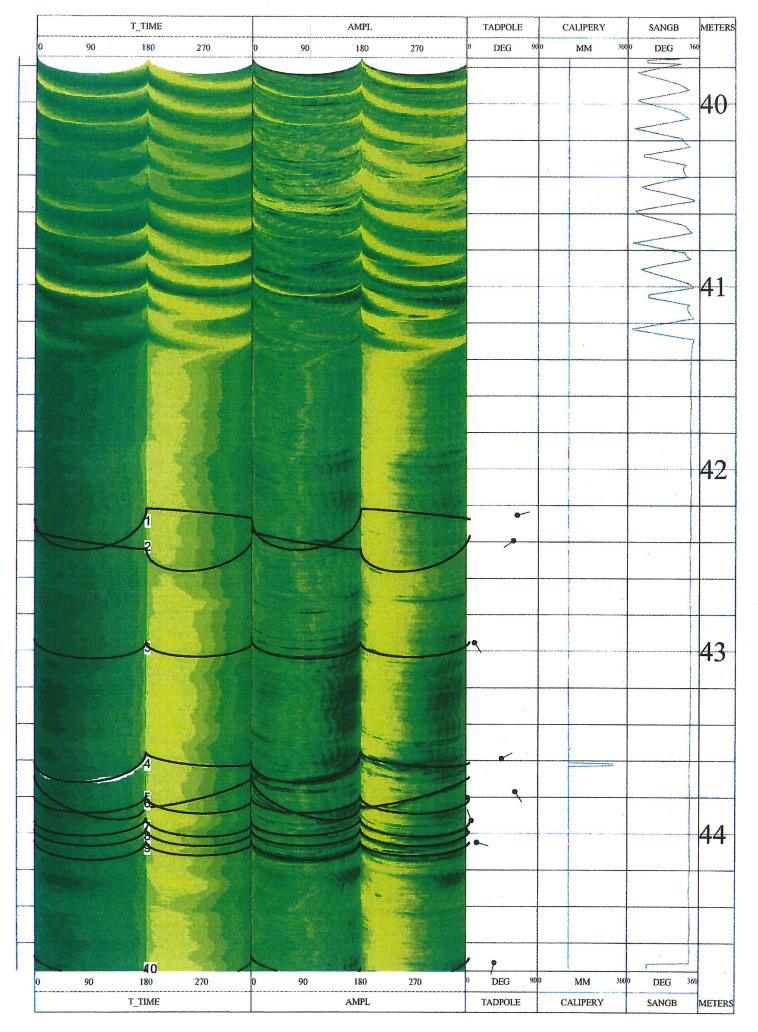


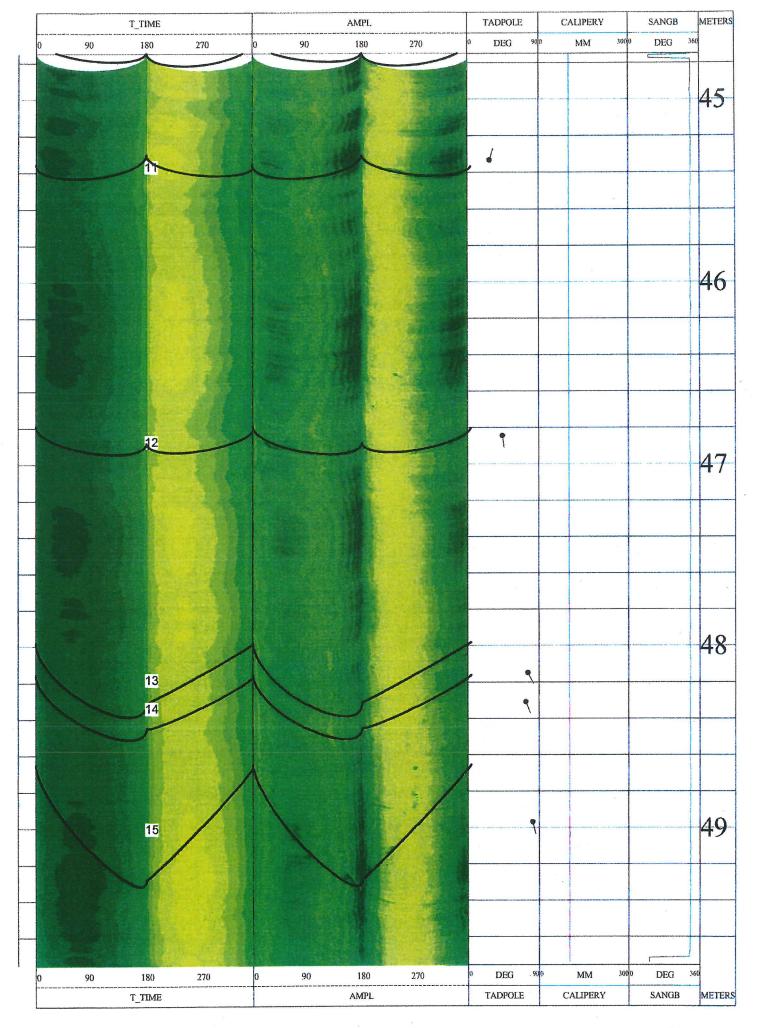


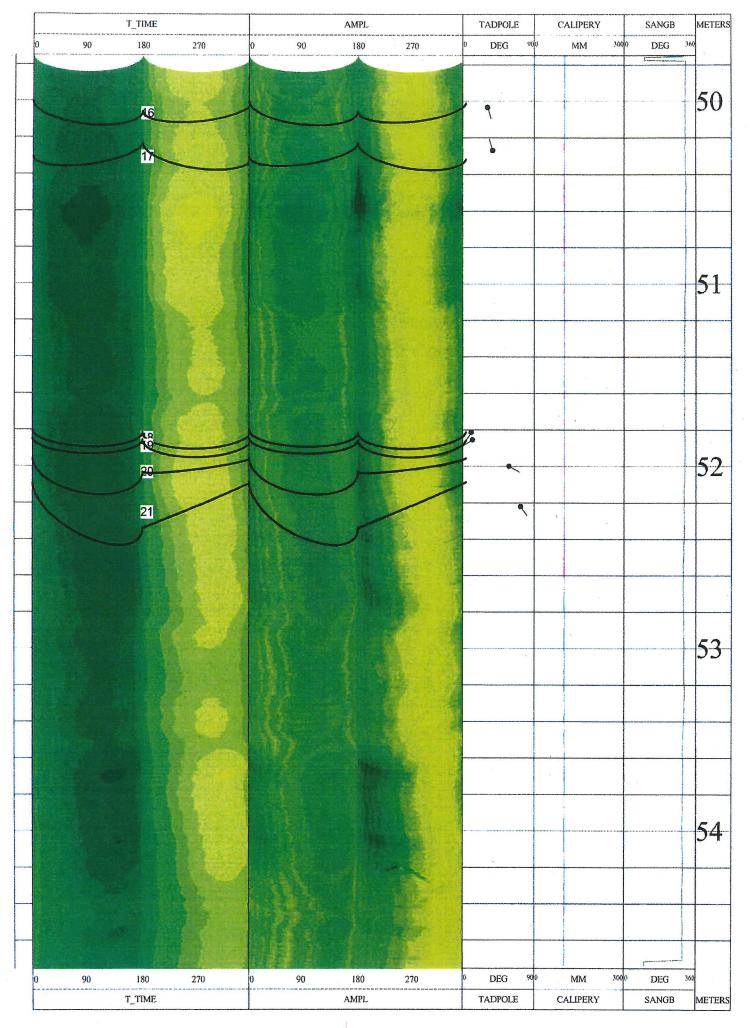


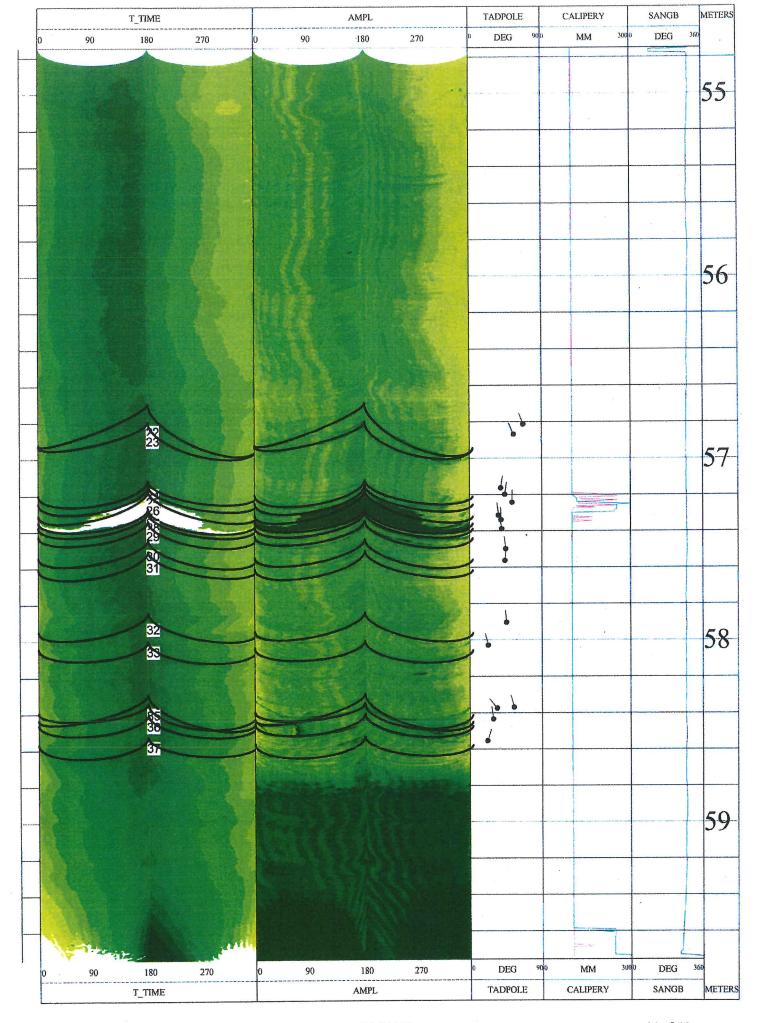


T_TIME					AMPL						CALIPERY		SANGB		METERS
)	90	180	270	0	90	180	270	0	DEG	9030	MM	3000	DEG	360	
	,								2	The same of the sa	egeleg mengene				
)	90	180	270	0	90	180	270	0	DEG	900	MM	3000	DEG	360	
		T_TIME				AMPL		-	TADPOLE		CALIPERY		SANGB		METERS



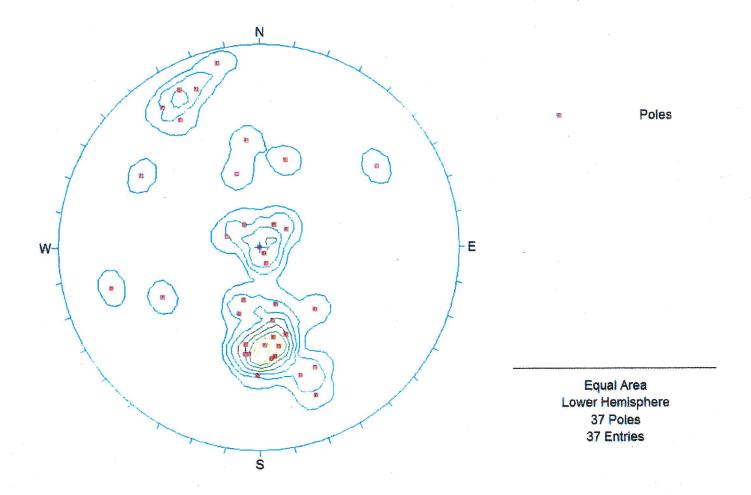






	T_TIME				AMPL				TADPOLE		CALIPERY		SANGB	
0	90	180	270	0	90	180	270	0 DEG	900	MM	3000	DEG	360	
\dashv			J.				Service and the service of the servi					I		
0	90	180	270	0	90	180	270	0 DEG	900	MM	3000	DEG	360	1
		T_TIME				AMPL.		TADPOLE		CALIPERY		SANGB		METERS





Contract No

: Ground Investigation - New Territories West (Term Contract)

Contract No. Location

: GE/2014/07.34 : Yuen Long

Borehole No.

: S1-DH07



Company : DrilTech Ground Engineering Ltd

Borehole No. : S1-DH10

Contract : Ground Investigation - New Territories West (Term Contract)

Contract No. : GE/2014/07.34 Location : Yuen Long

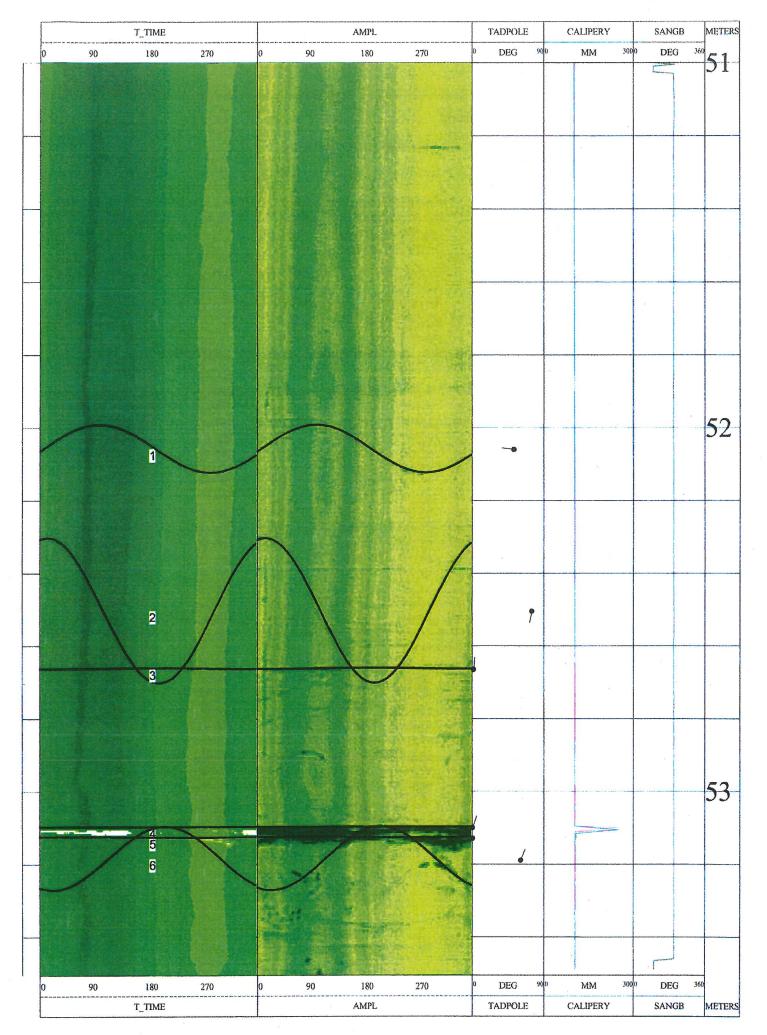
Permanent Datum **Test Date** : 27-02-2016 : None Elev.Perm.Datum : None Depth Driller : 65.56m Log Measured From : GL Log Bottom : 60m **Drl Measured From** : GL : 51m Log Top

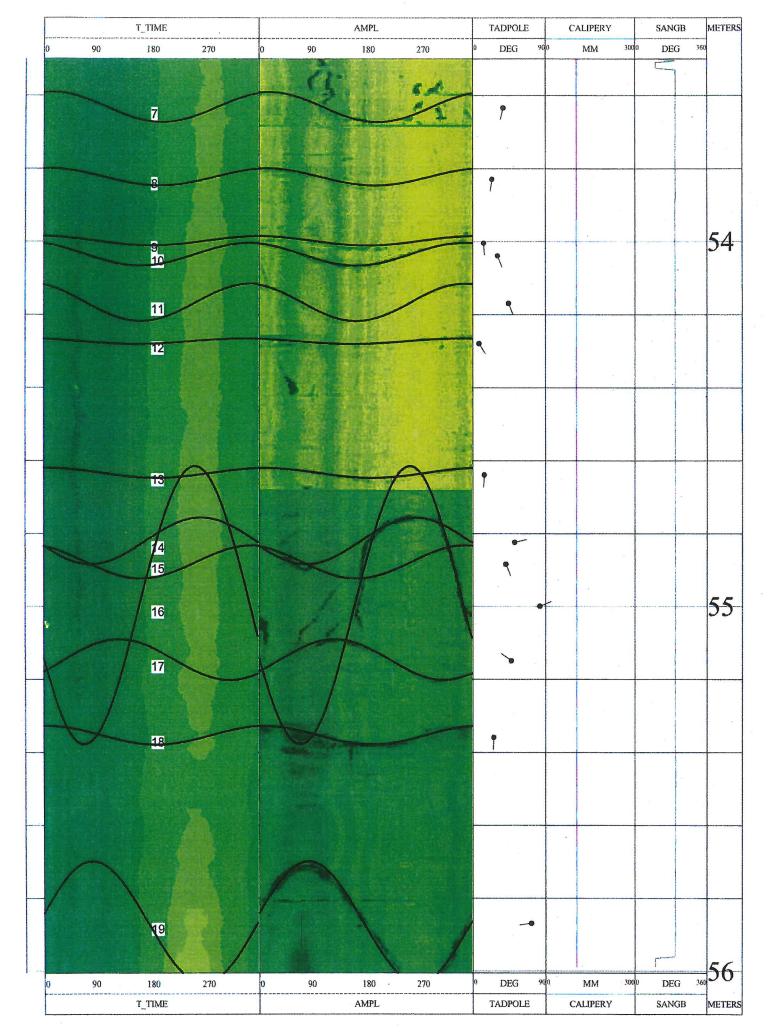
Casing Driller Logging Unit : S/N 1123 : 45.64m Field Office : F.G.S Casing Type : N/A Recorded by : MC/HT Casing Thickness: N/A Bit Size ; 10.1cm Borehole Fluid : Water Sonde Type : 8804A Magnetic Decl. : -2

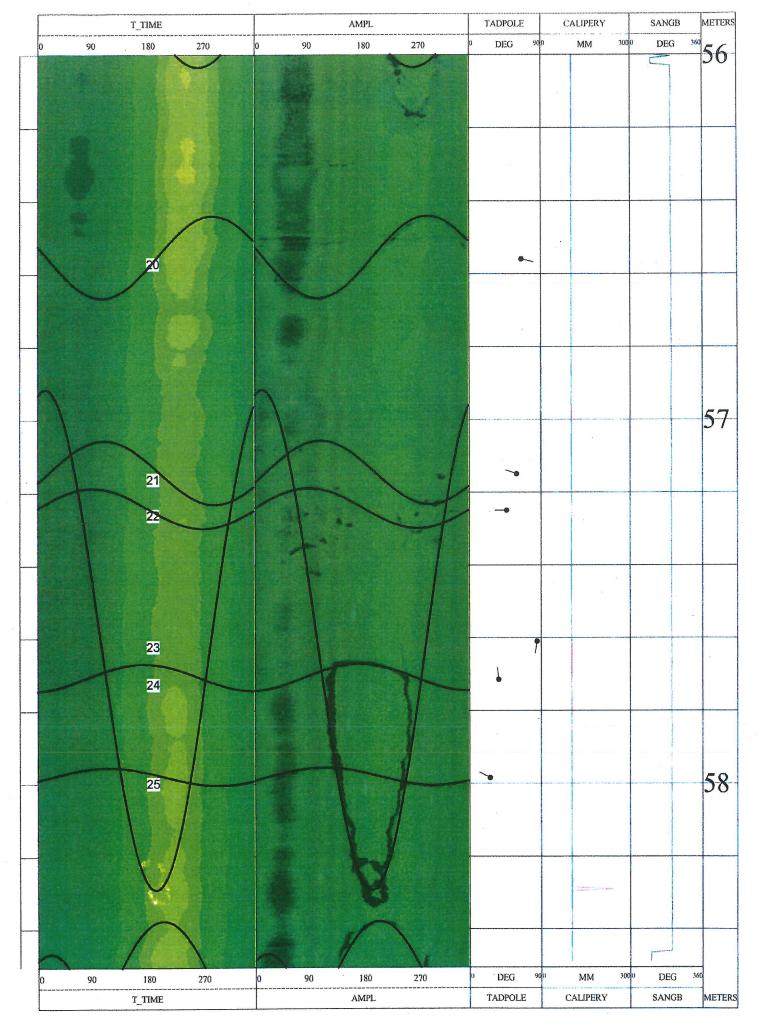
Remark : All directions are relative to magnetic north from Hong Kong Metric Grid System North

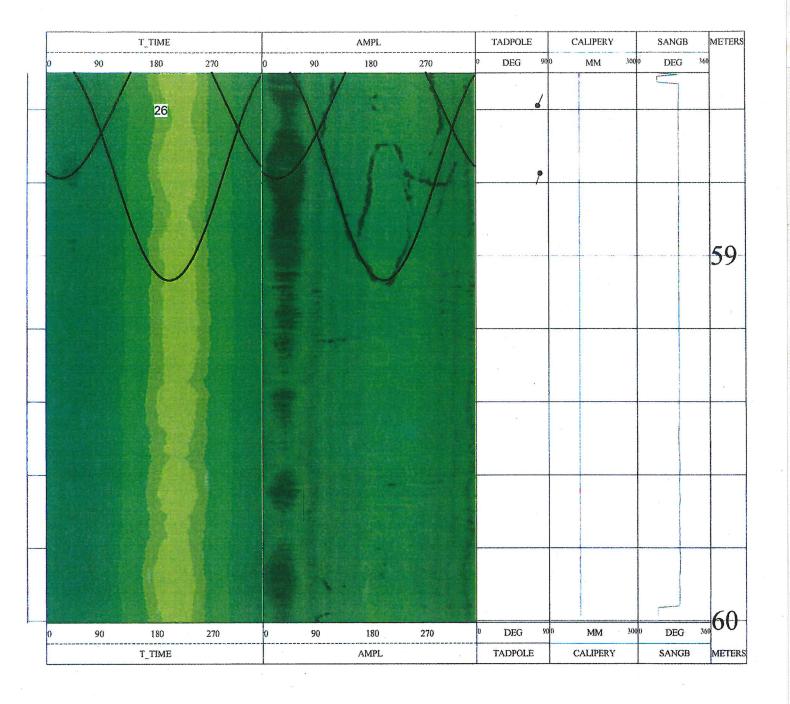
					×		Dir. of	
Fracture	Dip	Azimuth	To	From	Diameter	Deviation	Deviation	Category
Number	(deg)	(deg)	(m)	(m)	(cm)	(deg)	(deg)	
1	52	277	51.99	52.12	10.27	0.9	197.5	Joint
2	75	193	52.30	52.70	10.31	0.9	201.8	Joint
3	02	005	52.66	52.66	10.27	0.8	199.0	Joint
4	01	021	53.10	53.10	10.31	0.9	200.6	Joint
5	01	302	53.12	53.13	10.42	0.9	202.2	Joint
6	61	022	53.10	53.27	10.27	0.9	203.7	Incipient Joint
7 .	38	195	53.59	53.67	10.27	8.0	198.5	Joint
8	24	190	53.80	53.85	10.27	0.9	201.1	Joint
9	14	175	53.98	54.01	10.23	0.8	199.1	Joint
10	31	158	54.00	54.07	10.31	0.7	201.7	Joint
11	45	159	54.12	54.22	10.27	8.0	197.4	Incipient Joint
12	08	148	54.27	54.28	10.27	8.0	199.2	Joint
13	14	184	54.62	54.65	10.27	8.0	199.2	Joint
14	52	077	54.76	54.88	10.31	0.9	199.6	Joint
15	41	159	54.83	54.92	10.27	8.0	201.5	Joint
16	83	067	54.62	55.38	10.27	0.9	199.7	Joint
17	48	305	55.09	55.20	10.31	0.7	198.7	Joint
18	26	185	55.33	55.38	10.31	8.0	199.3	Joint
19	73	261	55.70	56.03	10.31	8.0	202.4	Joint
20	66	104	56.44	56.67	10.31	0.8	201.9	Joint
21	60	288	57.06	57.23	10.31	0.9	205.4	Joint
22	47	269	57.19	57.30	10.31	8.0	205.6	Joint
23	85	192	56.92	58.29	10.27	8.0	203.3	Joint
24	37	352	57.67	57.74	10.27	8.0	204.2	Joint
25	26	296	57.96	58.00	10.23	0.8	203.5	Joint
26	77	024	58.38	58.79	10.27	8.0	206.6	Joint
27	80	201	58.47	59.07	10.23	8.0	202.1	Joint

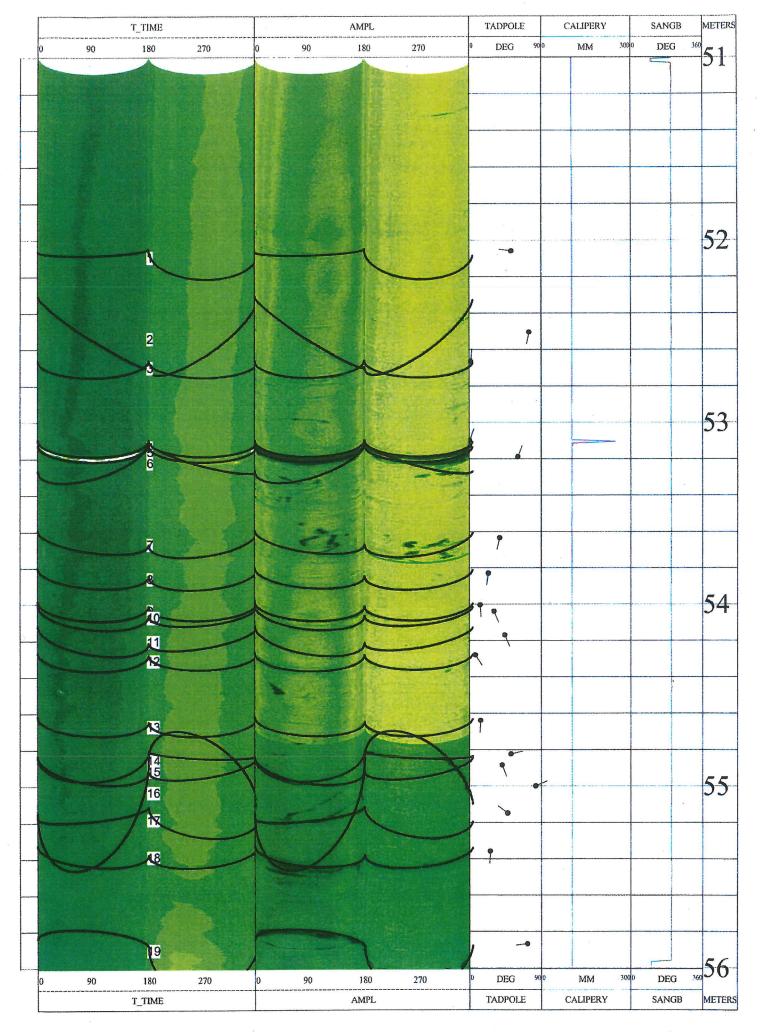
Checked by: A brack Whi

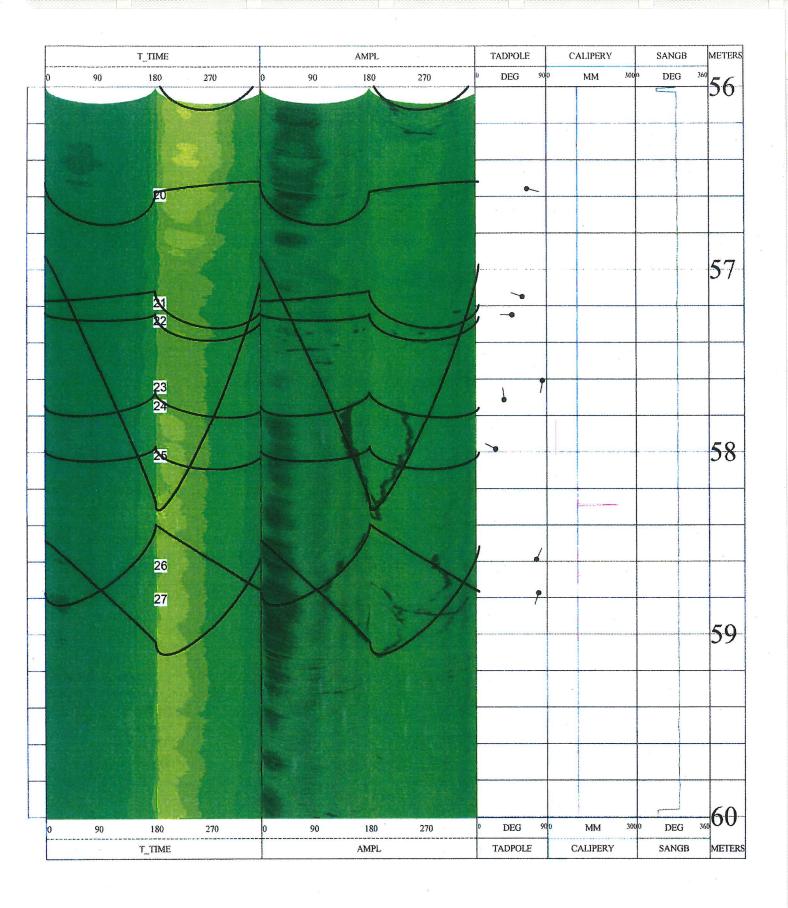




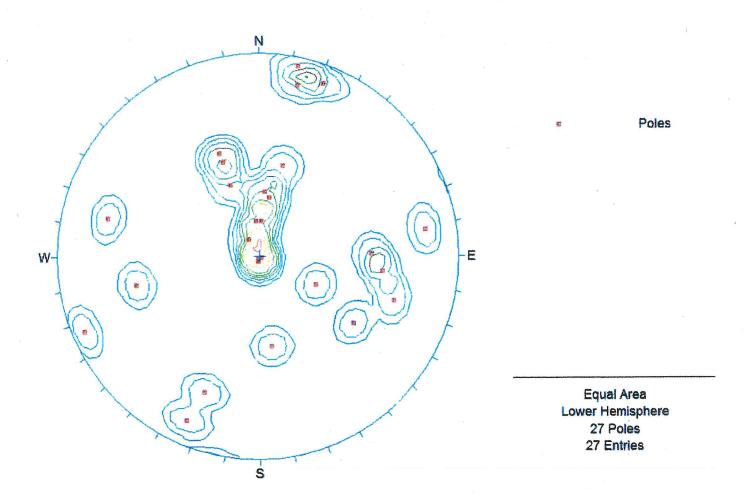












Contract No.

: Ground Investigation - New Territories West (Term Contract)

Contract No. Location : GE/2014/07.34 : Yuen Long

Borehole No.

: \$1-DH10



Company : DrilTech Ground Engineering Ltd

Borehole No. : S1-DH11

Contract : Ground Investigation - New Territories West (Term Contract)

Contract No. : GE/2014/07.34

Location : Yuen Long

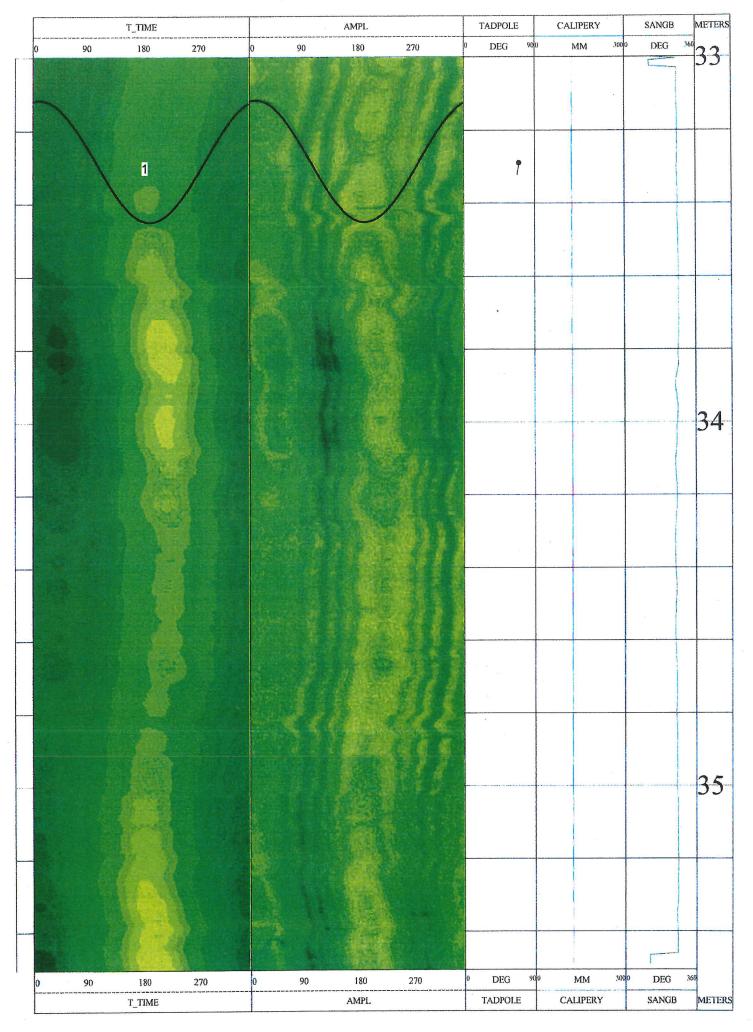
Test Date : 08-12-2015 Permanent Datum : None Depth Driller : 50.33m Elev.Perm.Datum : None Log Bottom : 35.78m Log Measured From : GL Log Top : 33m Drl Measured From : GL

Casing Driller : 30m Logging Unit : S/N 1123 Casing Type : N/A Field Office : F.G.S Casing Thickness: N/A Recorded by : MC Bit Size : 12cm Borehole Fluid : Water : -2 Magnetic Decl. Sonde Type : 8804A

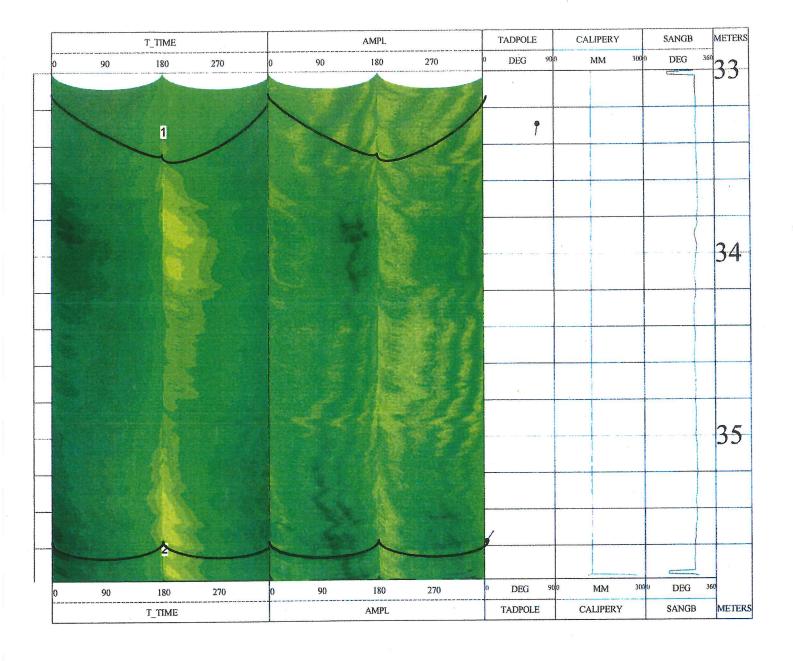
Remark : All directions are relative to magnetic north from Hong Kong Metric Grid System North

							DIr. of	
Fracture	Dip	Azimuth	To	From	Diameter	Deviation	Deviation	Category
Number	(deg)	(deg)	(m)	(m)	(cm)	(deg)	(deg)	
1 .	70	190	33.12	33.45	12.33	0.3	261.0	Joint
2	03	035	35.57	35.57	12.40	0.3	242.7	Joint
							1 1/	

Checked by:



	T_TIME				AMPL				TADPOLE		CALIPERY		SANGB	METERS
0	90	180	270	0	90	180	270	0	DEG	900	ММ	3000	DEG	360
		400					april 10 de		/					
-		2								-		_		
										The second contracts				
0	90		270		00	100	250		DEG	900		3000	P	260
	70 	180	270	0	90	180	270		DEG	7,10	MM	.,000	DEG	360
		T_TIME				AMPL	7		TADPOLE	3	CALIPERY		SANGB	METERS





Company

: DrilTech Ground Engineering Ltd

Borehole No.

: S1-DH11

Contract

: Ground Investigation - New Territories West (Term Contract)

Contract No.

: GE/2014/07.34

Location

: Yuen Long

Test Date Depth Driller : 08-12-2015 : 50.33m

Permanent Datum

: None

: 48.1m

Elev.Perm.Datum

: None : GL

Log Bottom Log Top

: 35.78m

Log Measured From **Drl Measured From**

: GL

Casing Driller Casing Type

: 35.78m : N/A

Logging Unit Field Office

: S/N 1123 : F.G.S

Casing Thickness: N/A

Recorded by

: MC

Bit Size

: 10.1cm

Borehole Fluid

: Water

Magnetic Decl.

: -2

Sonde Type

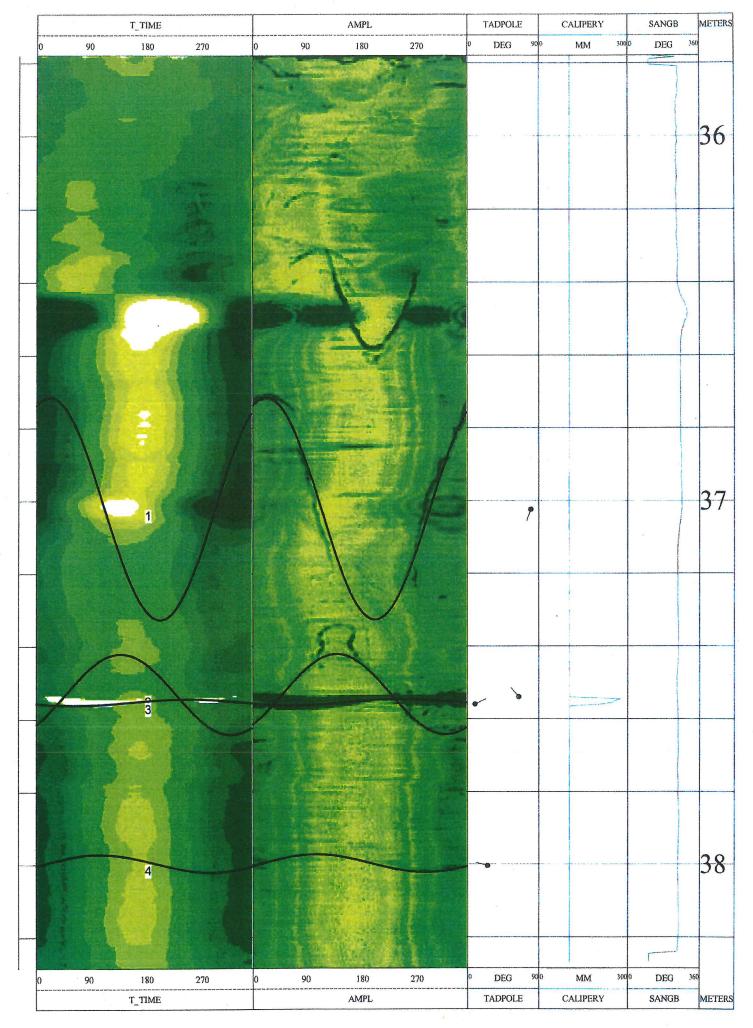
: 8804A

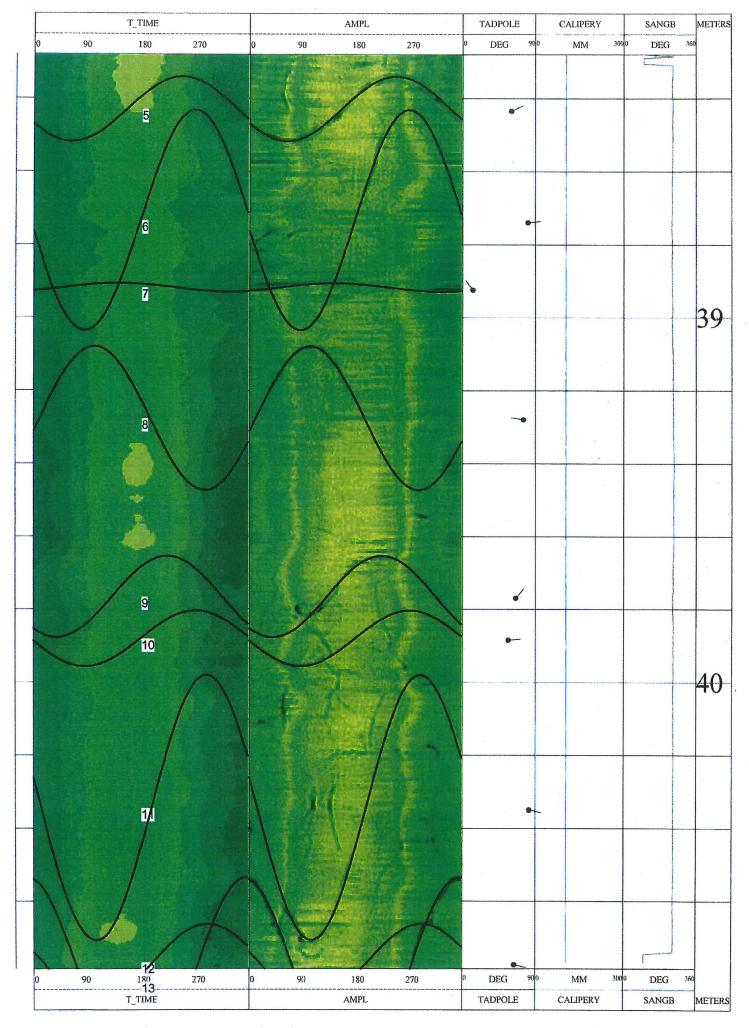
Remark

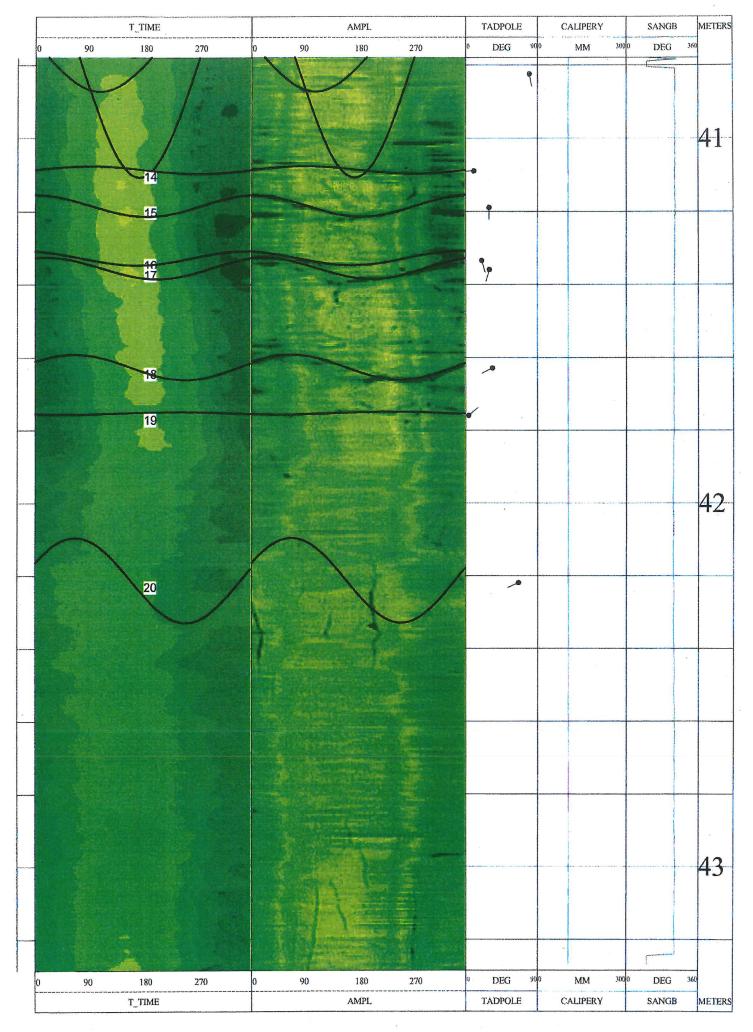
: All directions are relative to magnetic north from Hong Kong Metric Grid System North

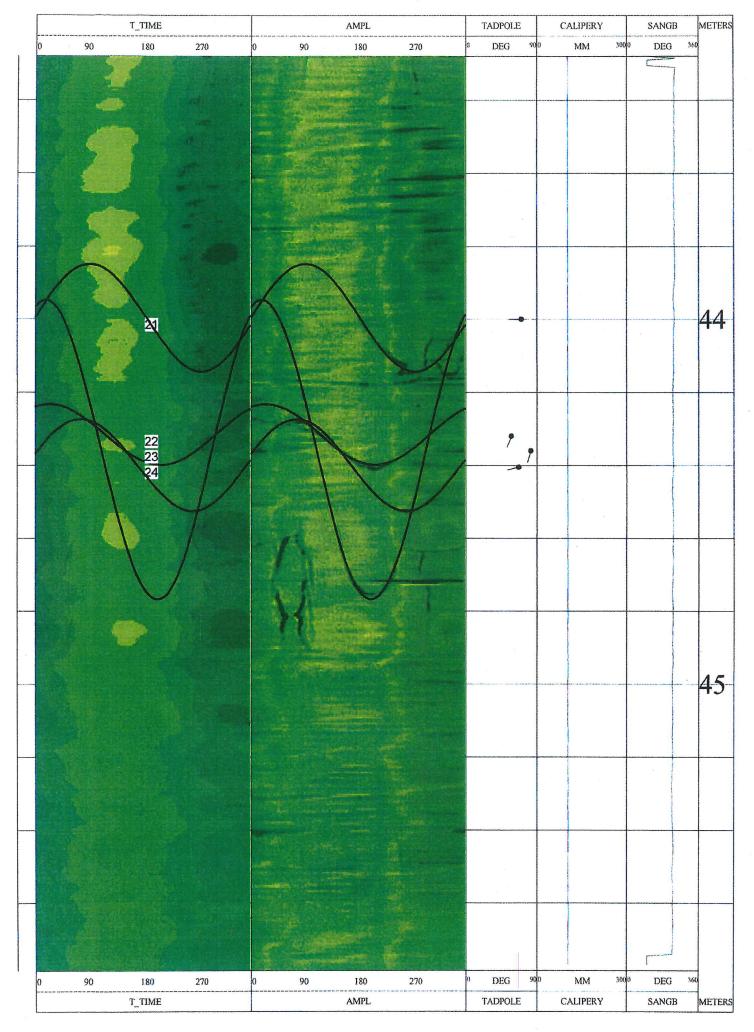
							Dir. of				
Fracture	Dip	Azimuth	To	From	Diameter	Deviation	Deviation	Category			
Number	(deg)	(deg)	(m)	(m)	(cm)	(deg)	(deg)				
1	80	202	36.72	37.33	10.31	0.5	268.0	Joint			
2	65	318	37.42	37.64	10.31	0.5	249.7	Joint			
3	10	065	37.55	37.56	18.00	0.4	245.0	Joint			
4	26	285	37.97	38.02	10.31	0.4	240.6	Joint			
5	61	063	38.34	38.52	10.27	0.4	238.7	Joint			
6	81	084	38.43	39.04	10.31	0.5	237.3	Joint			
7	13	322	38.91	38.93	10.27	0.5	237.0	Joint			
8	75	280	39.08	39.47	10.27	0.4	236.8	Joint			
9	66	039	39.65	39.88	10.31	0.5	255.2	Joint			
10	57	085	39.80	39.96	10.27	0.4	244.3	Joint			
11	82	103	39.98	40.71	10.27	0.4	251.9	Joint			
12	64	105	40.66	40.87	10.31	0.5	242.1	Joint			
13	80	169	40.53	41.11	10.31	0.4	247.2	Joint			
14	11	267	41.08	41.10	10.31	0.5	250.0	Joint			
15	30	180	41.15	41.21	10.31	0.5	244.2	Joint			
16	21	164	41.31	41.35	10.27	0.4	238.0	Joint			
17	30	197	41.33	41.39	10.27	0.3	233.3	Joint			
18	34	244	41.59	41.66	10.27	0.4	246.9	Joint			
19	04	050	41.75	41.76	10.31	0.4	245.0	Joint			
20	66	245	42.10	42.33	10.27	0.5	235.5	Joint			
21	71	269	43.85	44.14	10.31	0.6	235.1	Joint			
22	58	204	44.23	44.40	10.31	0.5	227.2	Joint			
23	83	197	43.95	44.77	10.27	0.5	219.0	Joint			
24	68	255	44.27	44.53	10.27	0.5	242.1	Joint			
25	35	281	46.39	46.47	10.27	0.6	227.6	Joint			
26	82	311	46.35	47.11	10.23	0.5	221.9	Joint			
27	34	179	47.06	47.13	10.31	0.6	227.4	Joint			
28	28	173	47.21	47.26	10.31	0.5	228.6	Joint			
29	40	148	47.36	47.44	10.31	0.5	226.1	Joint			
30	69	357	47.50	47.77	24.80	0.5	225.7	Weather Zone Top			

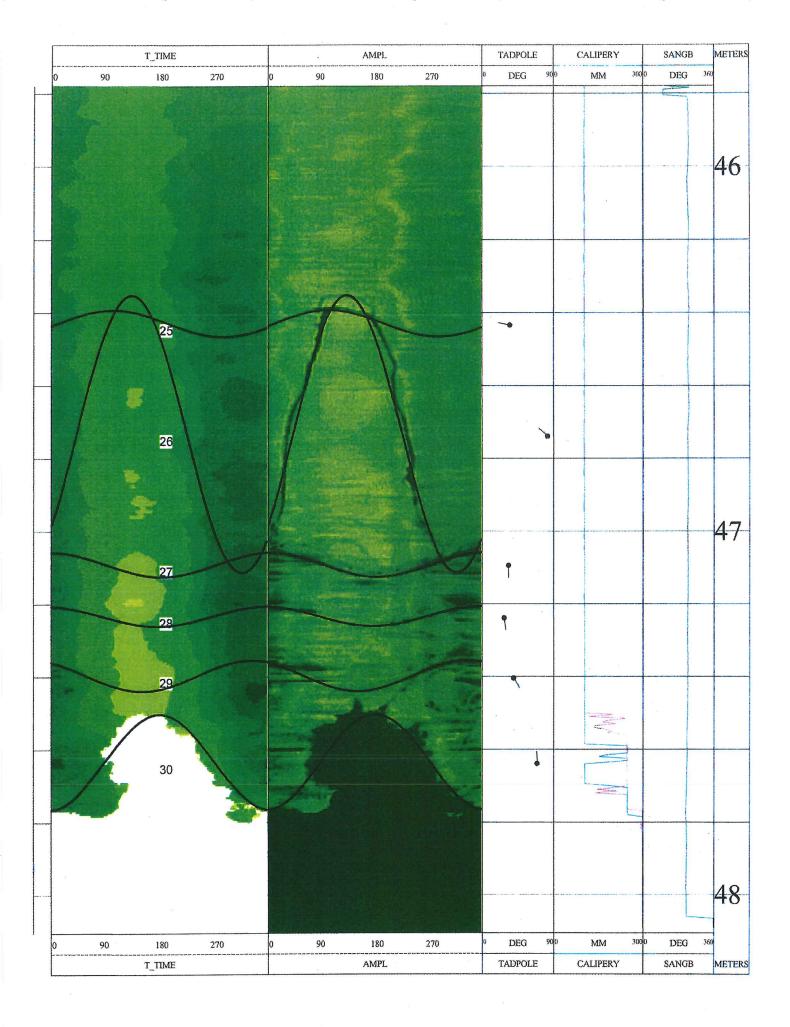
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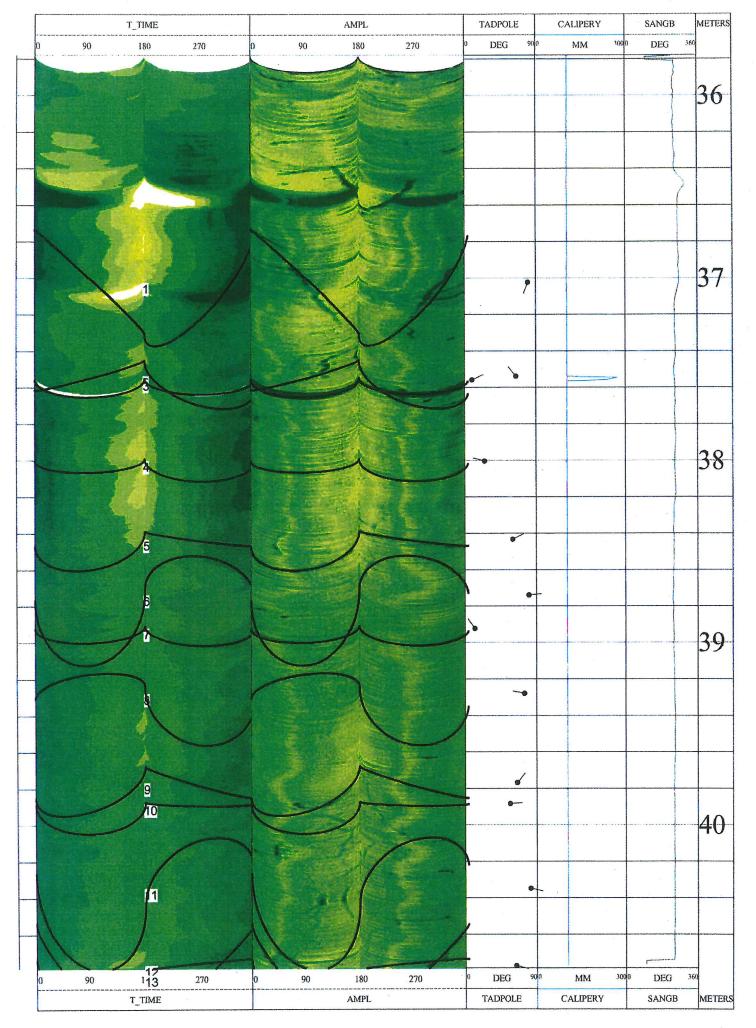


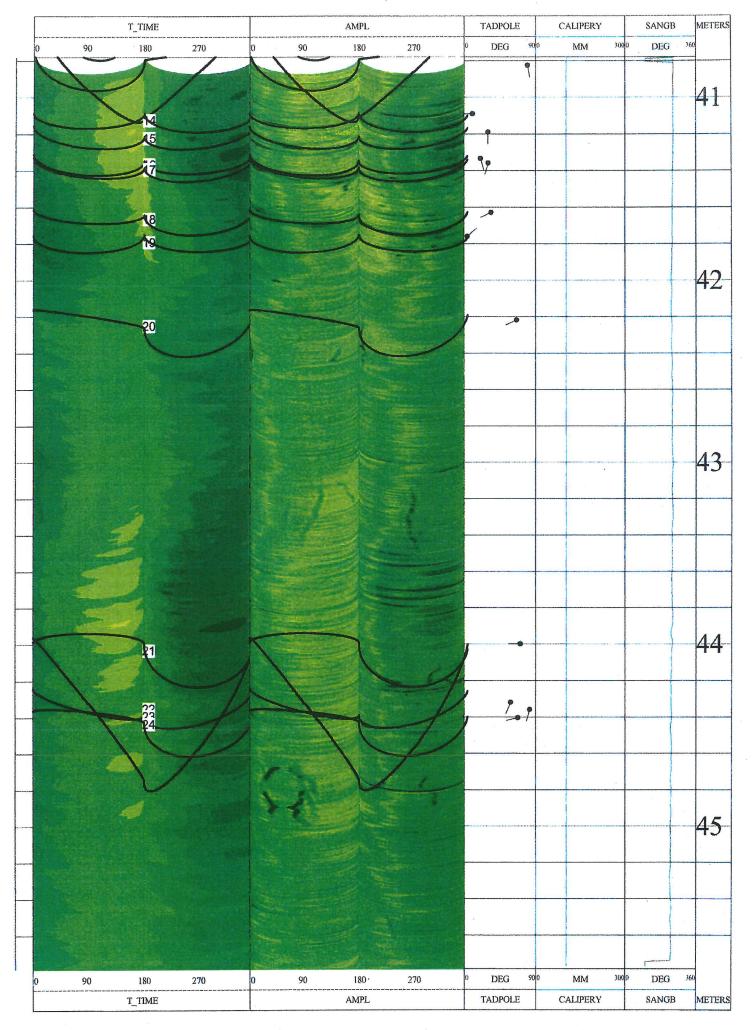


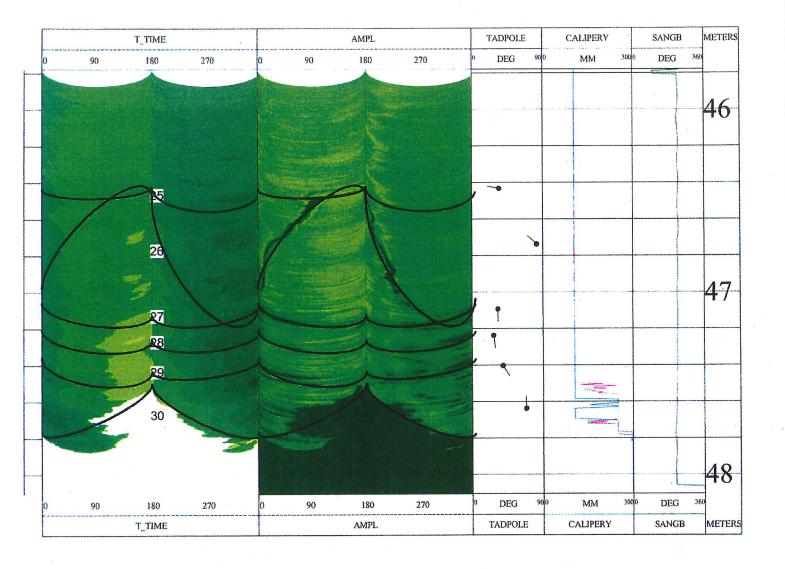




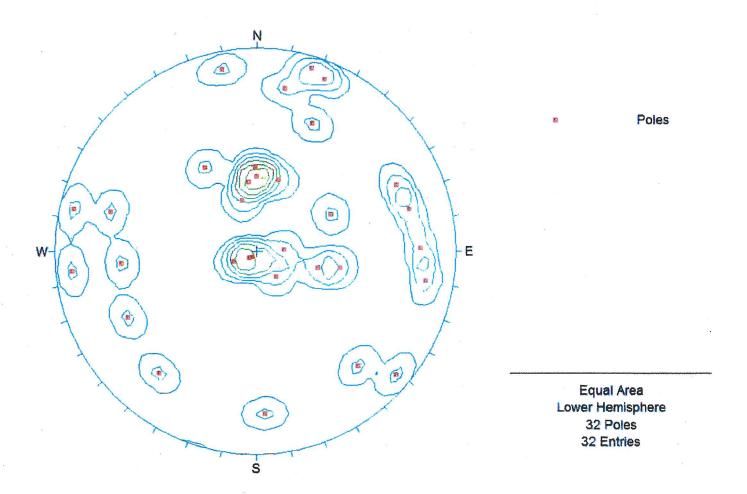












Contract

: Ground Investigation - New Territories West (Term Contract)

Contract No. Location

: GE/2014/07.31

Borehole No.

: Yuen Long

: S1-DH11



Company : DrilTech Ground Engineering Ltd

Borehole No. : S1-DH11

Contract : Ground Investigation - New Territories West (Term Contract)

Contract No. : GE/2014/07.34 Location : Yuen Long

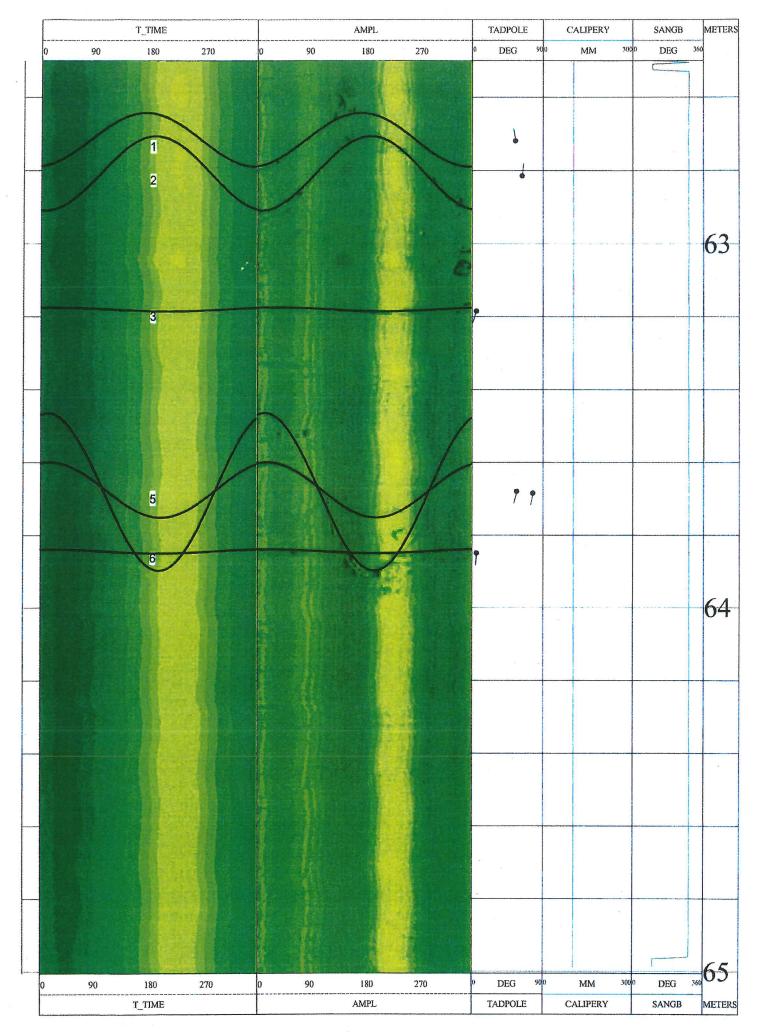
Test Date : 14-12-2015 Permanent Datum : None Depth Driller : 80.99m Elev.Perm.Datum : None Log Bottom : 78m Log Measured From : GL **Drl Measured From** Log Top : 62.5m : GL

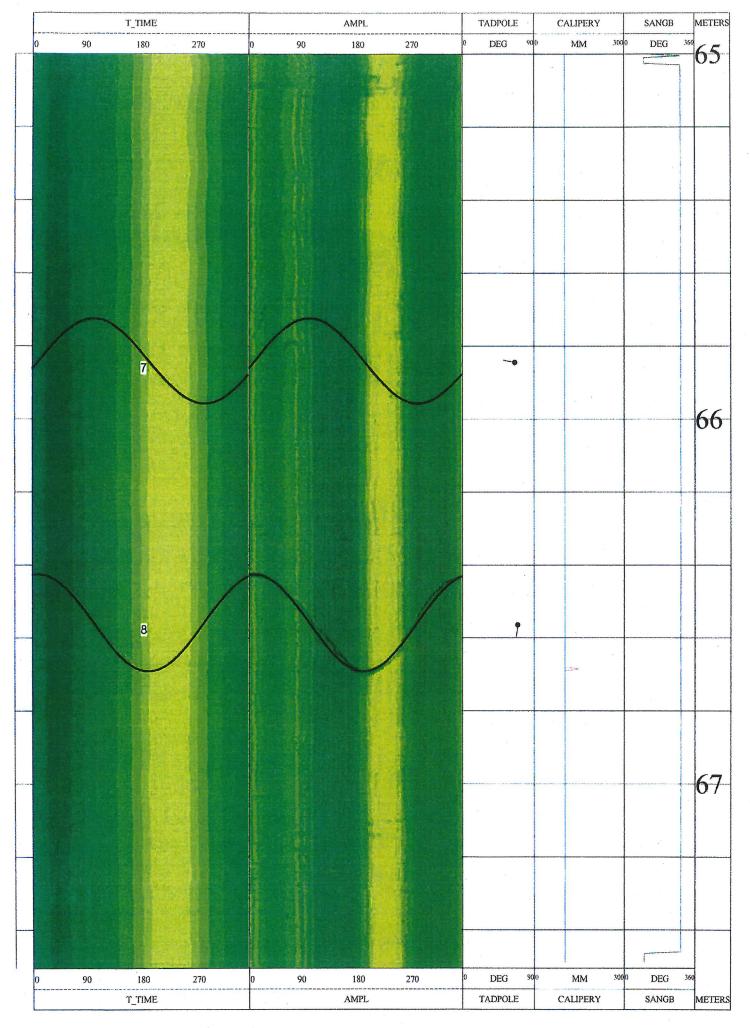
Casing Driller ; 52.7m Logging Unit : S/N 1123 Casing Type Field Office : F.G.S : N/A Casing Thickness: N/A Recorded by : MC : 10.1cm : Water Bit Size Borehole Fluid : -2 Magnetic Decl. Sonde Type : 8804A

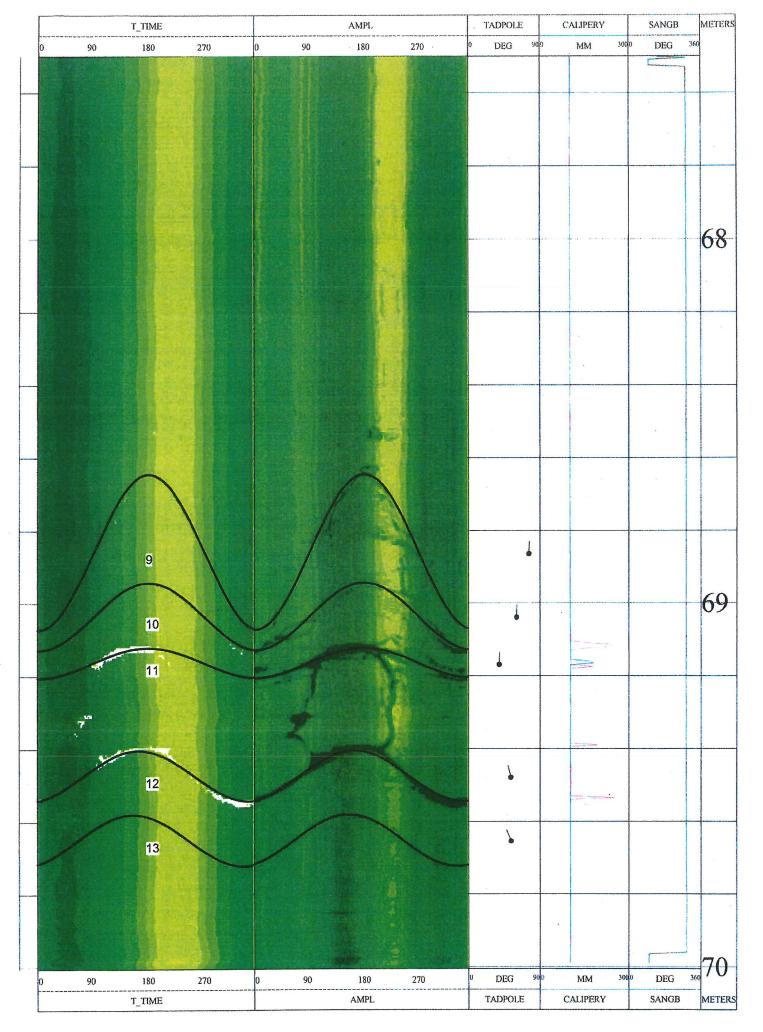
Remark : All directions are relative to magnetic north from Hong Kong Metric Grid System North

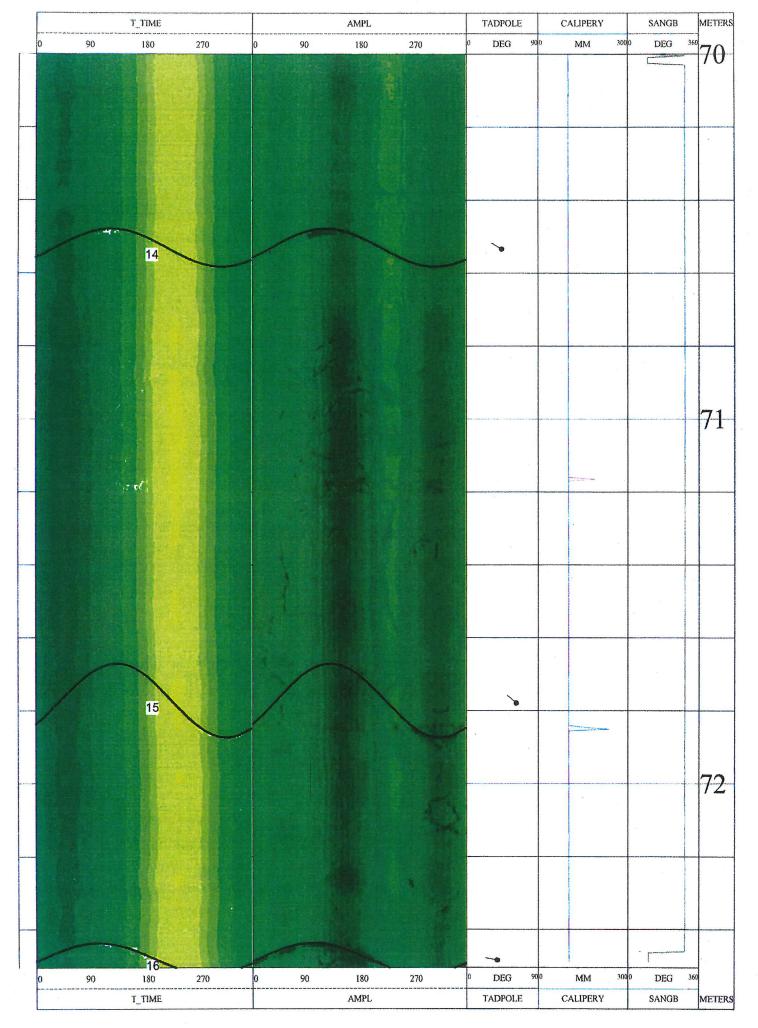
							Dir. of	
Fracture	Dip	Azimuth	To	From	Diameter	Deviation	Deviation	Category
Number	(deg)	(deg)	(m)	(m)	(cm)	(deg)	(deg)	
1	55	350	62.64	62.79	10.20	0.9	291.9	Joint
2	63	007	62.71	62.91	10.23	1.0	283.5	Joint
3	06	200	63.17	63.19	10.20	1.0	284.4	Joint
4	57	194	63.60	63,75	10.20	1.0	287.3	Joint
5	77	192	63.46	63,90	10.20	1.0	287.3	Joint
6	06	185	63.84	63.85	10.20	1.0	284.0	Joint
7	66	280	65.72	65.96	10.23	8.0	288.2	Joint
8	69	189	66.43	66.69	10.23	1.0	287.6	Joint
9	77	001	68.65	69.07	10.20	1.0	282.8	Joint
10	61	001	68.94	69.13	10.23	0.9	290.1	Joint
11	39	001	69.12	69.21	10.34	0.9	287.2	Joint
12	54	345	69.40	69.54	10.27	0.9	284.0	Joint
13	54	336	69.58	69.72	10.23	0.9	287.6	Joint
14	45	302	70.48	70.58	10.27	1.0	288.2	Joint
15	63	310	71.67	71.87	10.23	1.0	287.0	Joint
16	39	280	72.44	72.52	10.39	1.0	284.5	Joint
17	45	203	72.63	72.73	10.31	1.0	290.4	Joint
18	67	880	72.79	73.02	10.23	1.0	285.6	Joint
19	57	176	72.89	73.04	10.23	1.0	289.2	Joint
20	09	0.38	74.25	74.27	10.52	0.9	285.8	Joint
21	45	336	74.29	74.39	10.35	1.0	286.0	Joint
22	15	341	75.87	75.90	10.29	1.0	288.7	Joint
23	66	093	75.93	76.14	10.27	1.0	284.5	Joint
24	68	352	75.99	76.24	10.27	1.0	284.8	Joint
25	56	294	76.23	76.39	10.27	1.0	286.1	Joint
26	02	160	77.72	77.72	10.27	1.0	288,8	Joint

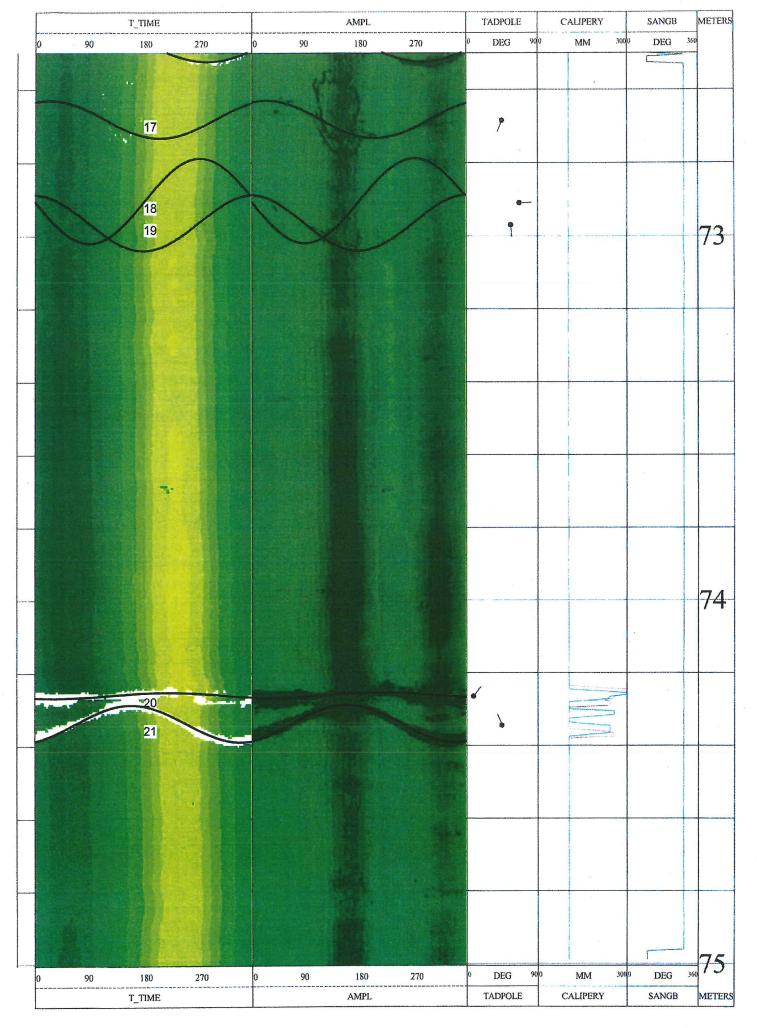
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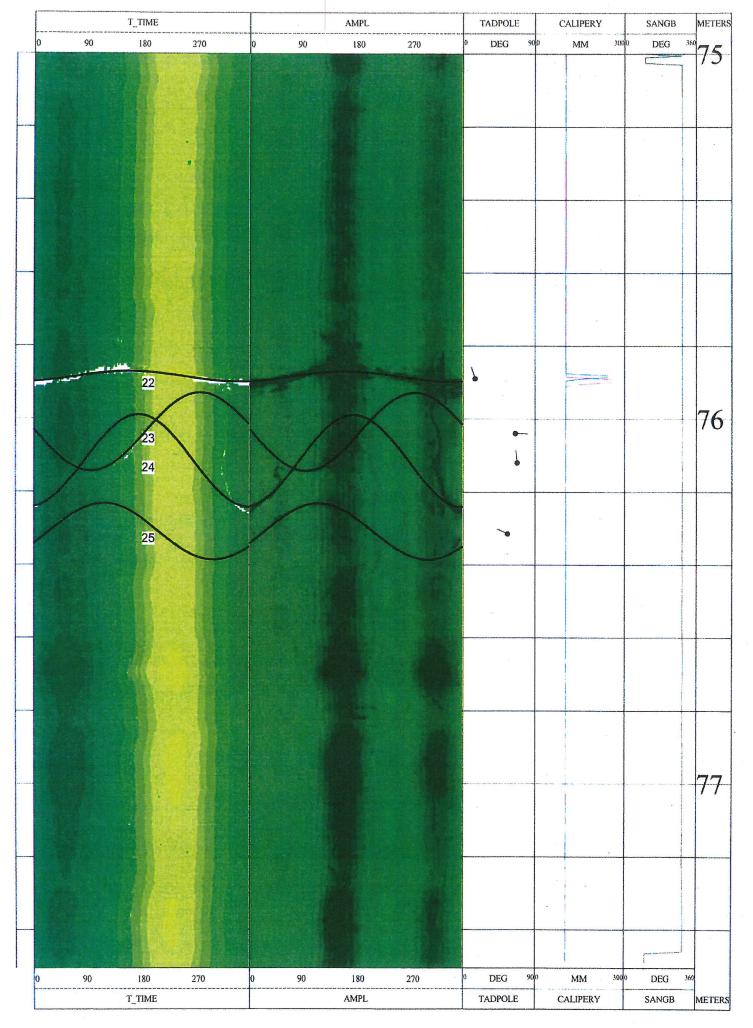


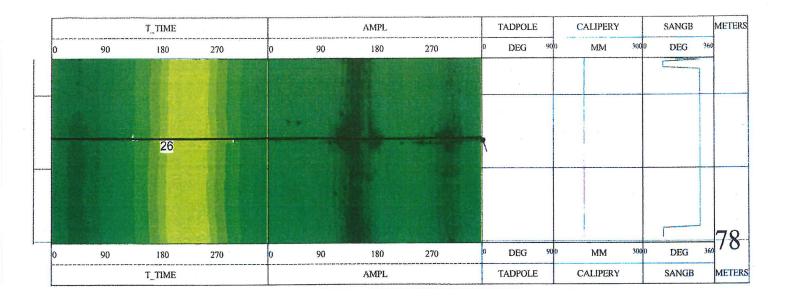


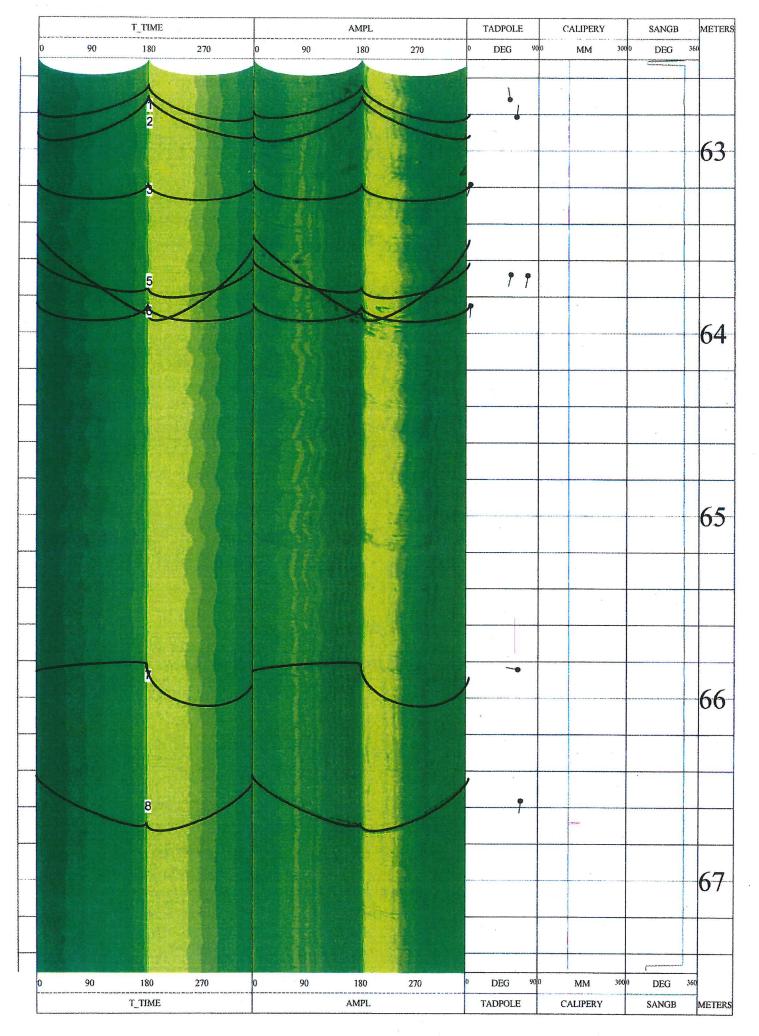


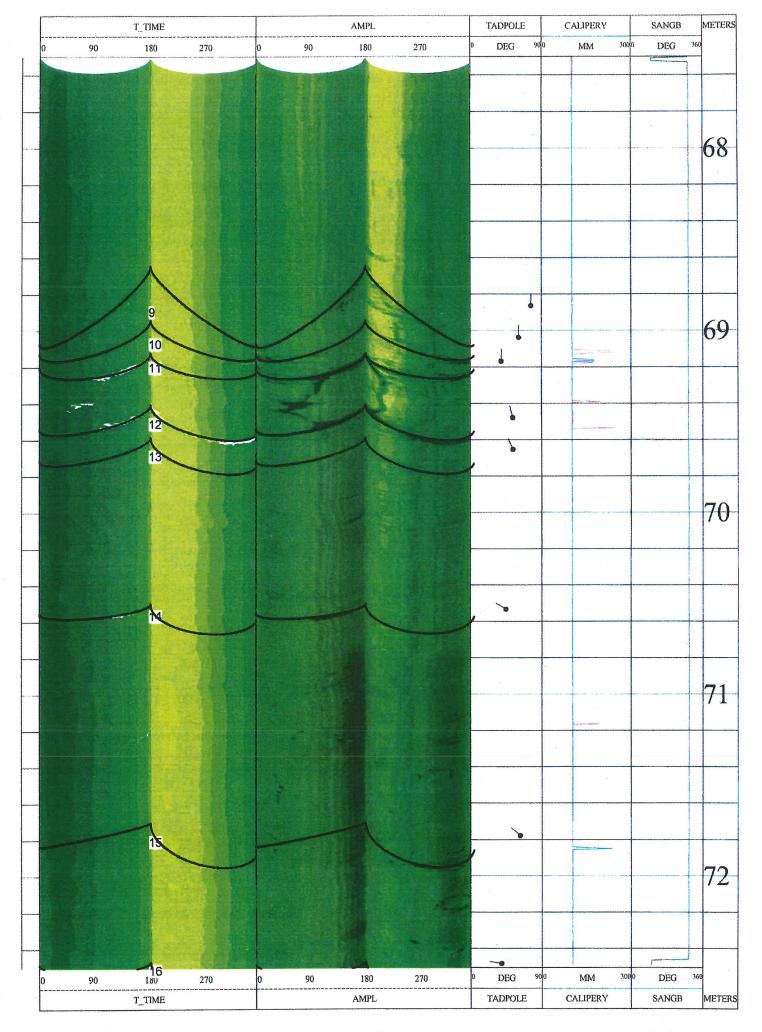


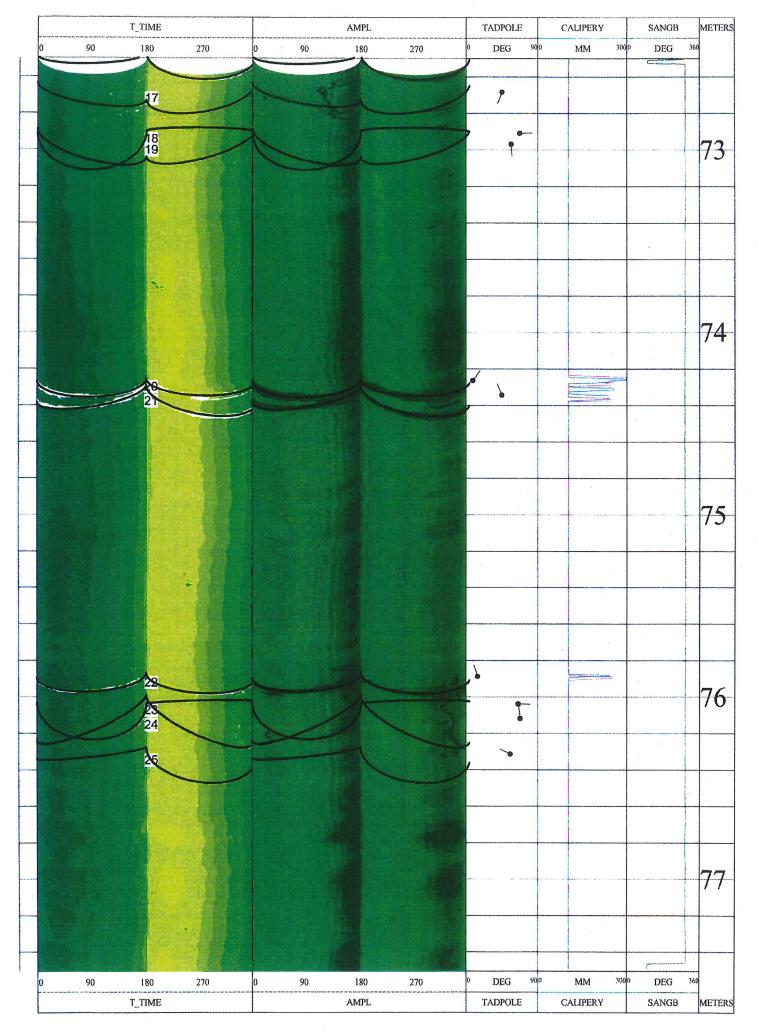


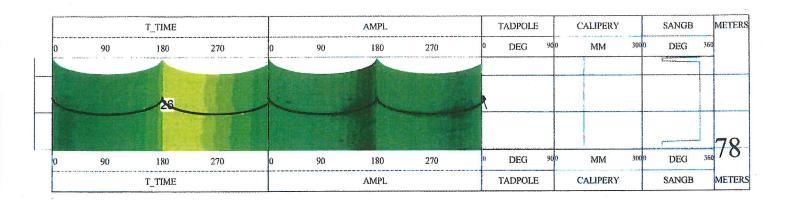




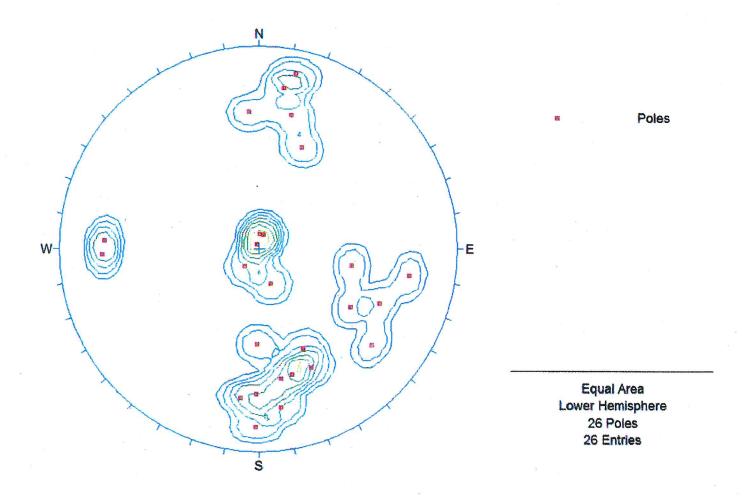












Contract

: Ground Investigation - New Territories West (Term Contract)

Contract No. Location

: GE/2014/07.34

Borehole No.

: Yuen Long

: S1-DH11



Company : DrilTech Ground Engineering Ltd

Borehole No. : S1-DH11

Contract : Ground Investigation - New Territories West (Term Contract)

Contract No. : GE/2014/07.34 Location : Yuen Long

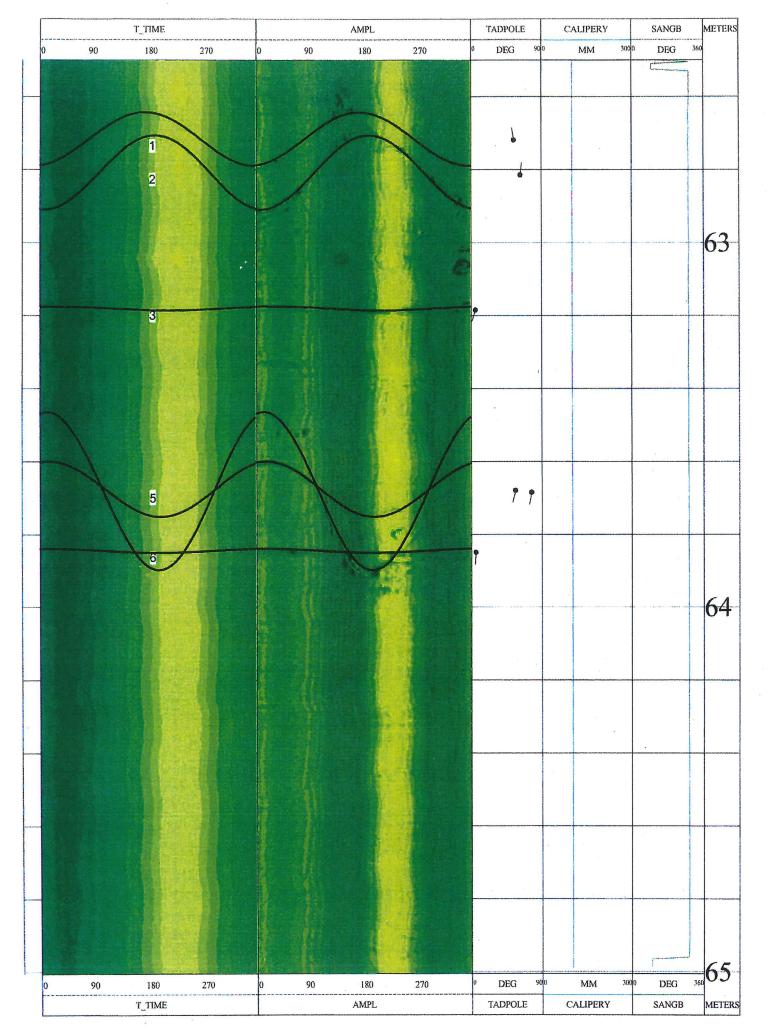
Permanent Datum **Test Date** : 14-12-2015 : None Depth Driller : 80.99m Elev.Perm.Datum : None : GL Log Bottom : 78m Log Measured From Log Top : 62.5m **Drl Measured From** : GL

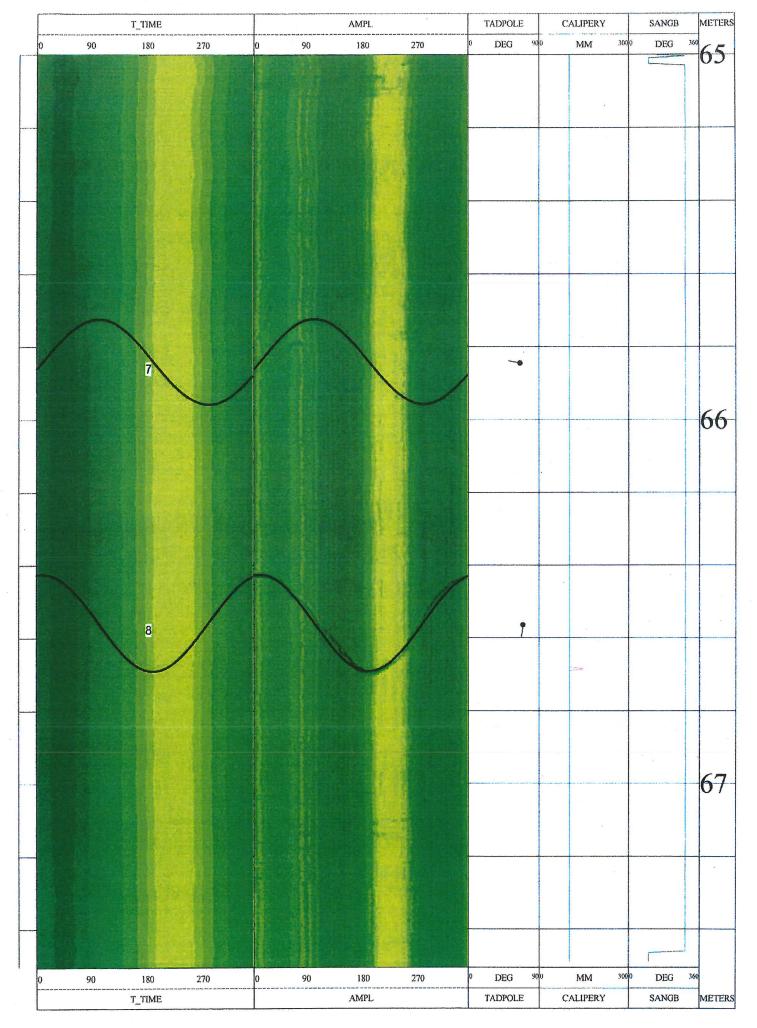
Casing Driller Logging Unit : S/N 1123 : 52.7m Field Office : F.G.S Casing Type : N/A Recorded by Casing Thickness: N/A : MC : Water Borehole Fluid Bit Size : 10.1cm : 8804A Magnetic Decl. : -2 Sonde Type

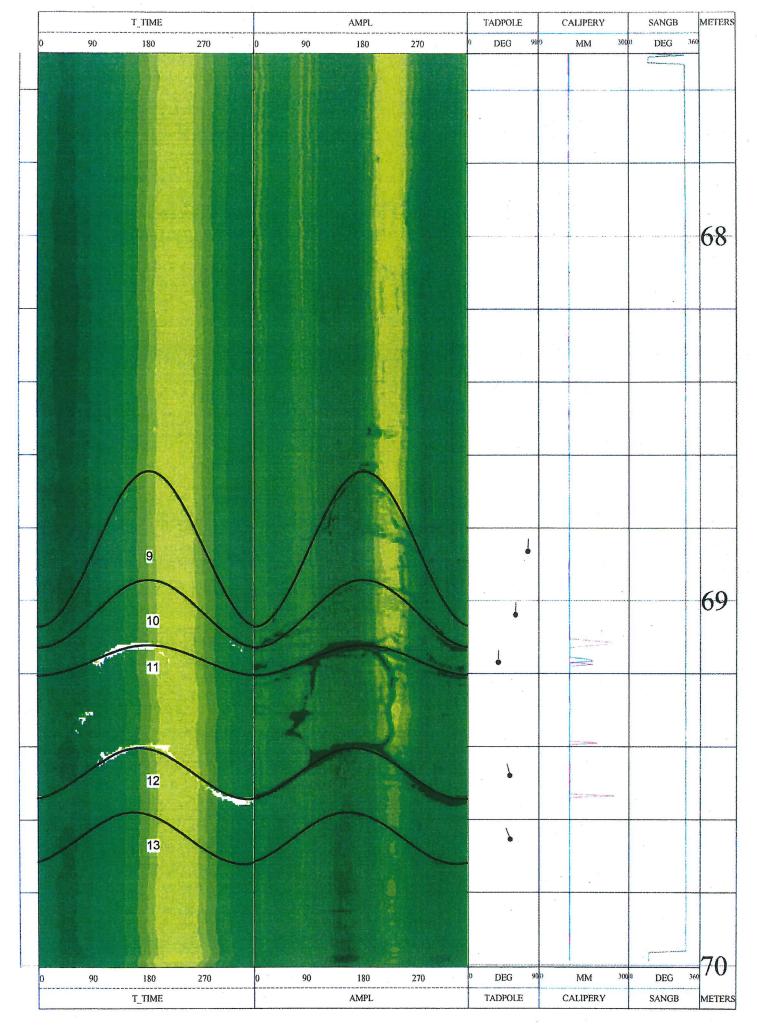
Remark : All directions are relative to magnetic north from Hong Kong Metric Grid System North

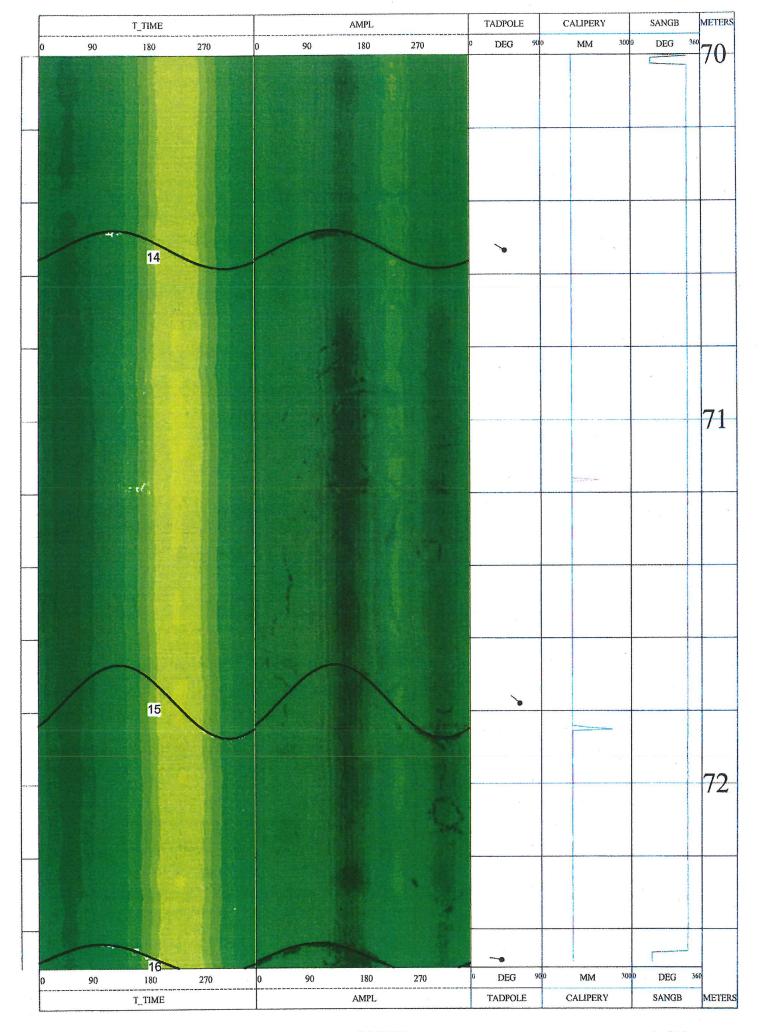
							Dir. of	
Fracture	Dip	Azimuth	To	From	Diameter	Deviation	Deviation	Category
Number	(deg)	(deg)	(m)	(m)	(cm)	(deg)	(deg)	
1	55	350	62.64	62.79	10.20	0.9	291.9	Joint
2	63	007	62.71	62.91	10.23	1.0	283.5	Joint
3	06	200	63.17	63.19	10.20	1.0	284.4	Joint
4	57	194	63.60	63.75	10.20	1.0	287.3	Joint
5	77	192	63.46	63.90	10.20	1.0.	287.3	Joint
6	06	185	63.84	63.85	10.20	1.0	284.0	Joint
7	66	280	65.72	65.96	10.23	8.0	288.2	Joint
8	69	189	66.43	66.69	10.23	1.0	287.6	Joint
9	77	001	68.65	69.07	10.20	1.0	282.8	Joint
10	61	001	68.94	69.13	10.23	0.9	290.1	Joint
11	39	001	69.12	69.21	10.34	0.9	287.2	Joint
12	54	345	69.40	69.54	10.27	0.9	284.0	Joint
13	54	336	69.58	69.72	10.23	0.9	287.6	Joint
14	45	302	70.48	70.58	10.27	1.0	288.2	Joint
15	63	310	71.67	71.87	10.23	1.0	287.0	Joint
. 16	39	280	72.44	72.52	10.39	1.0	284.5	Joint
17	45	203	72.63	72.73	10.31	1.0	290.4	Joint
18	67	088	72.79	73.02	10.23	1.0	285.6	Joint
19	57	176	72.89	73.04	10.23	1.0	289.2	Joint
20	09	038	74.25	74.27	10.52	0.9	285.8	Joint
21	45	336	74.29	74.39	10.35	1.0	286.0	Joint
22	15	341	75.87	75.90	10.29	1.0	288.7	Joint
23	66	093	75.93	76.14	10.27	1.0	284.5	Joint
24	68	352	75.99	76.24	10.27	1.0	284.8	Joint
25	56	294	76.23	76.39	10.27	1.0	286.1	Joint
. 26	02	160	77.72	77.72	10.27	1.0	288,8	Joint

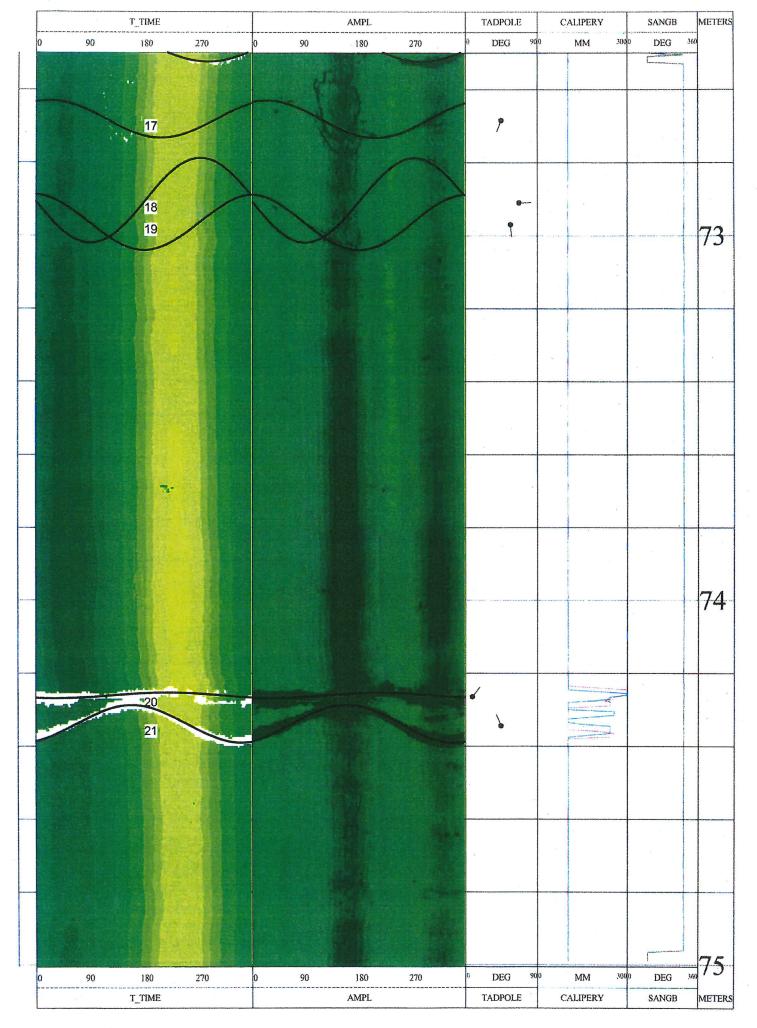
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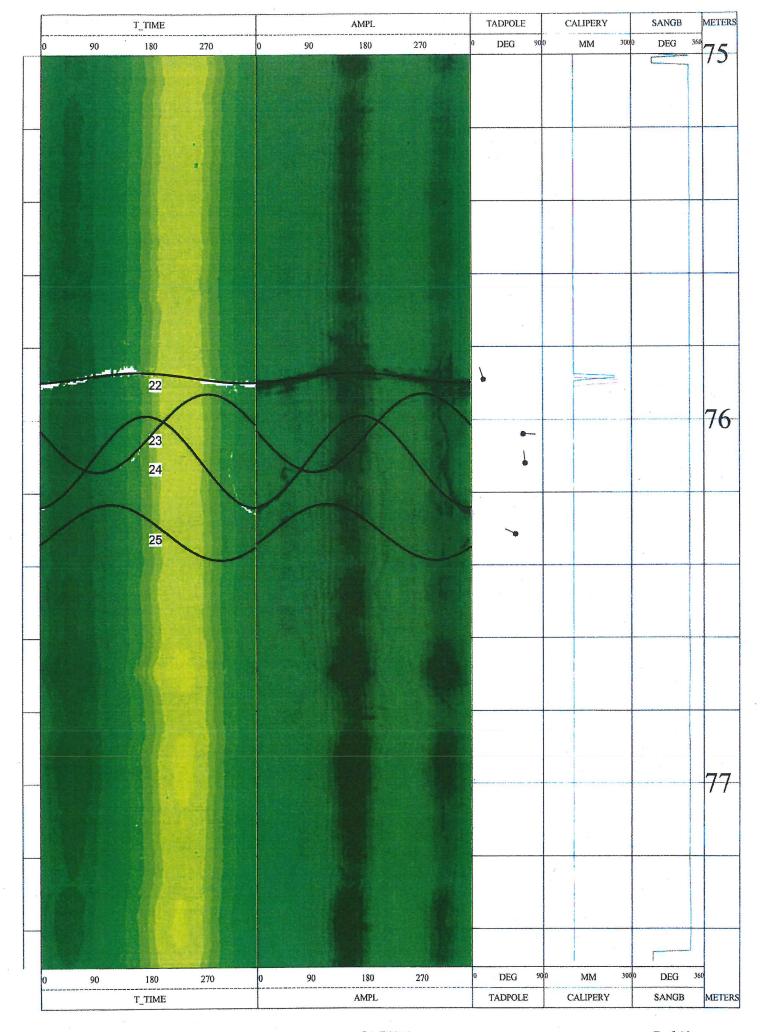


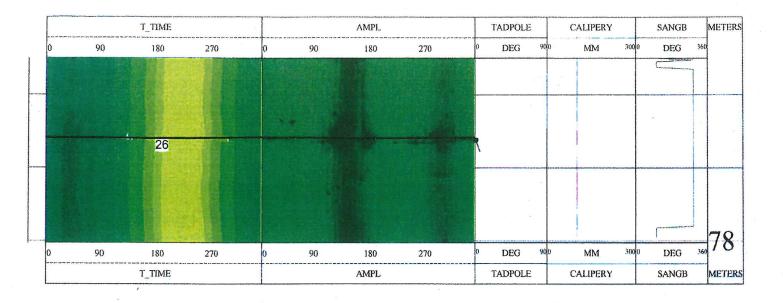


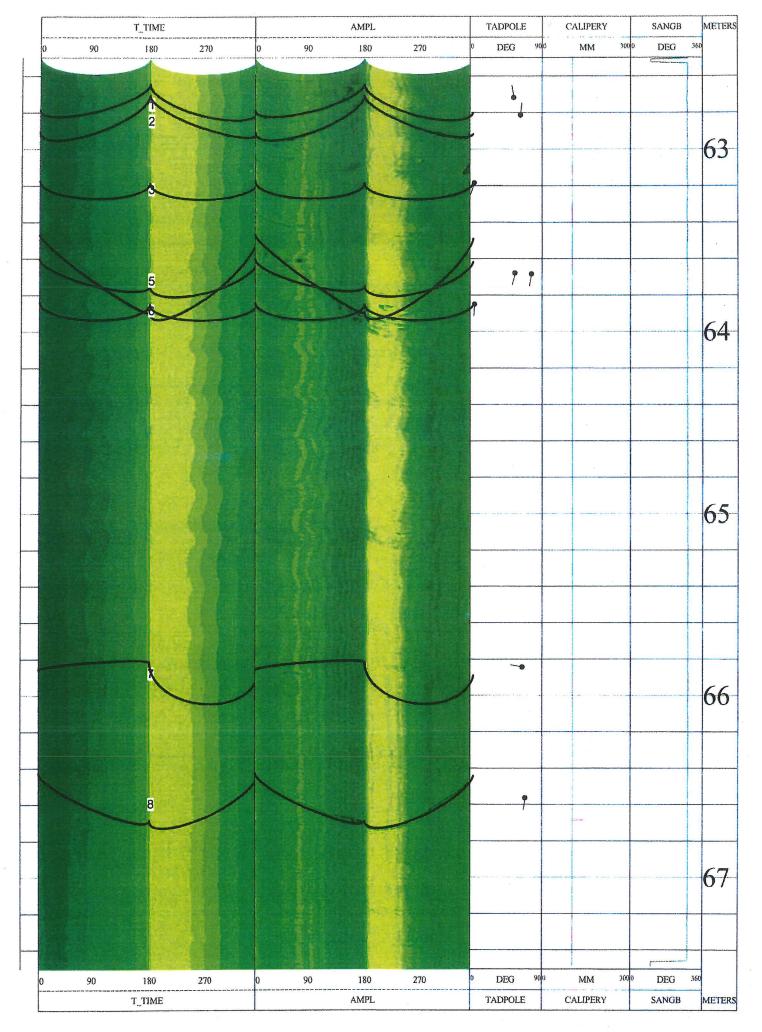


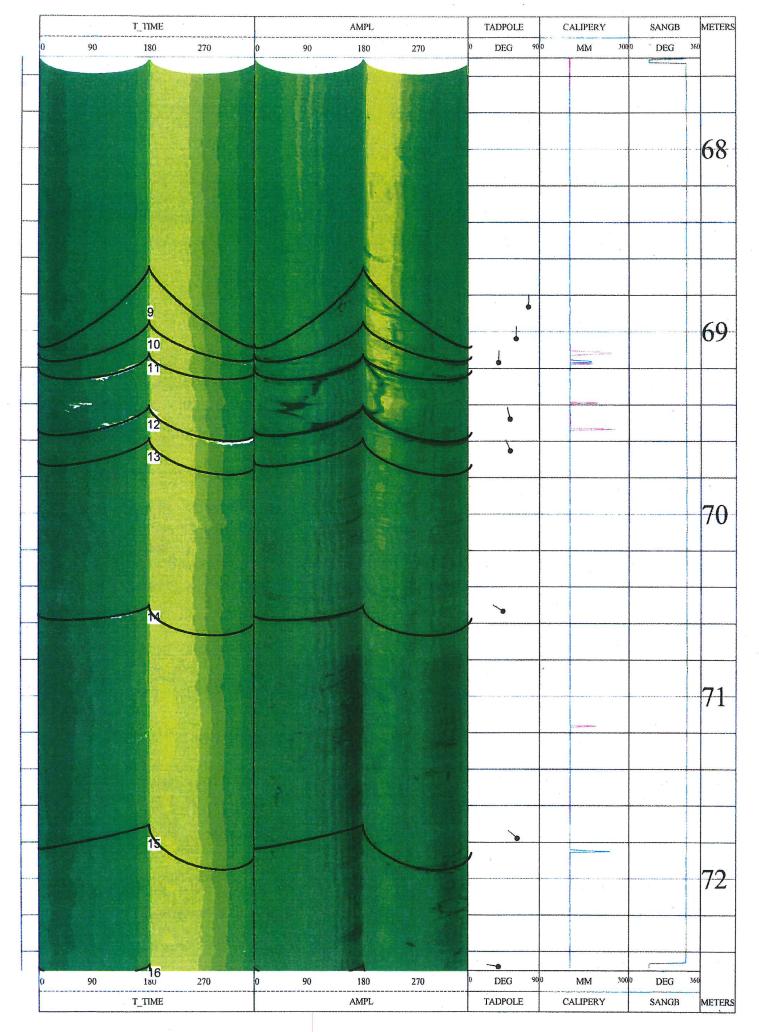


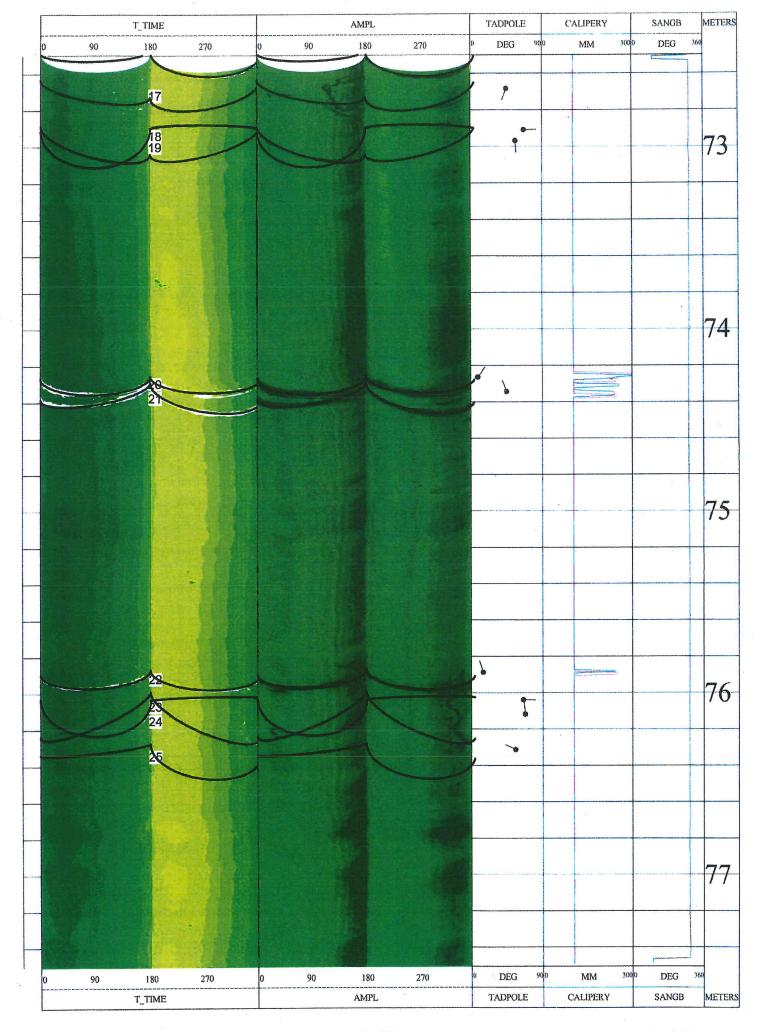


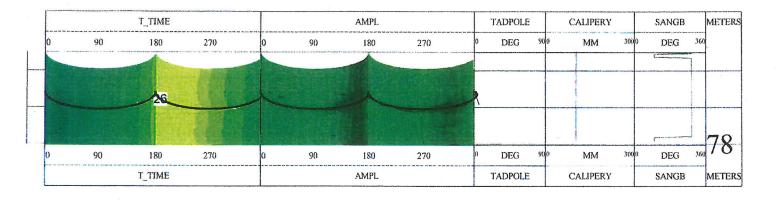




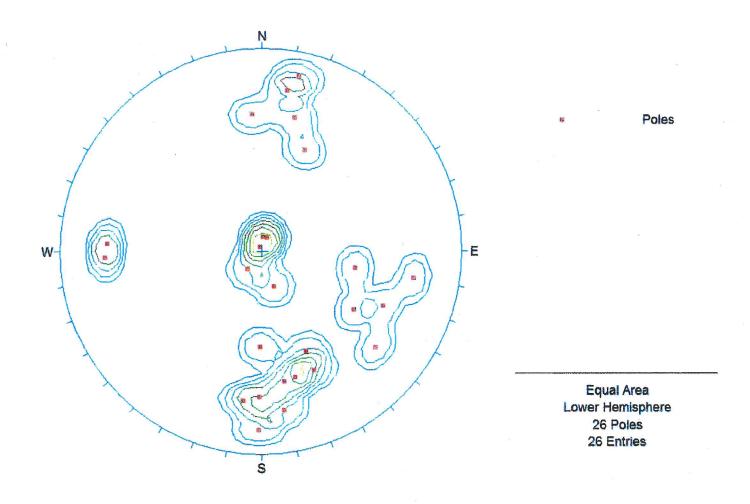












Contract No

: Ground Investigation - New Territories West (Term Contract)

Contract No. Location Borehole No. : GE/2014/07.34 : Yuen Long

: S1-DH11



Company : DrilTech Ground Engineering Ltd

Borehole No. : S1-DH15

Contract : Ground Investigation - New Territories West (Term Contract)

Contract No. : GE/2014/07.34 Location : Yuen Long

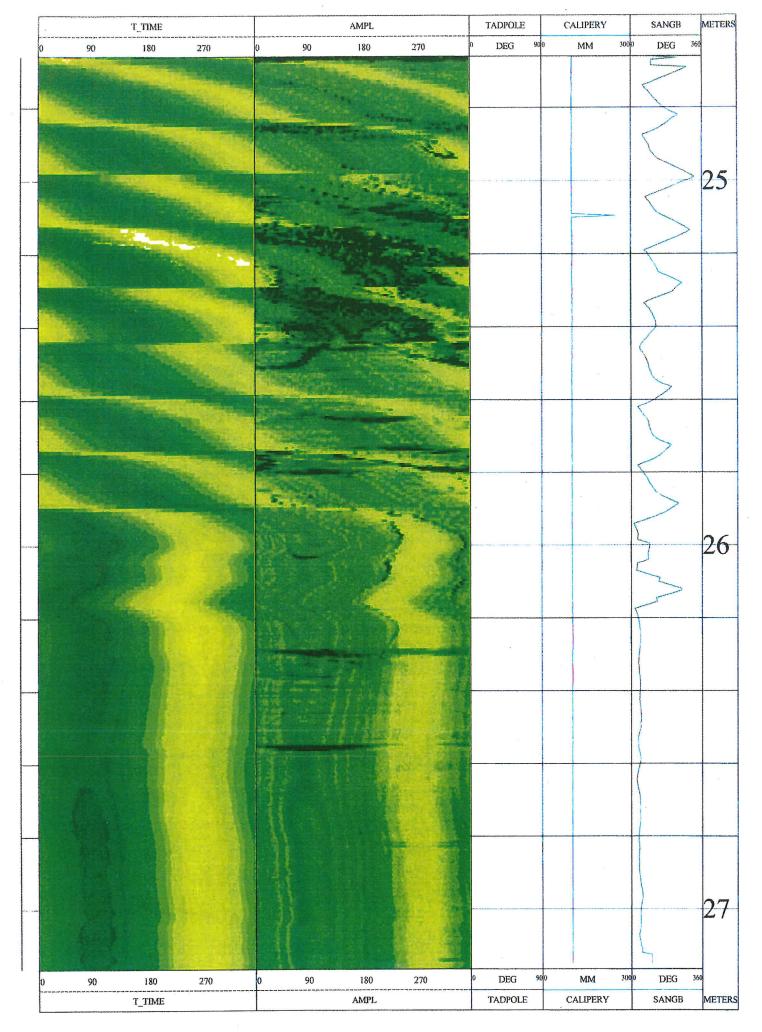
Test Date : 03-03-2016 Permanent Datum : None Depth Driller : 43.42m Elev.Perm.Datum : None Log Bottom : 41.5m Log Measured From : GL Log Top : 24.66m **Drl Measured From** : GL

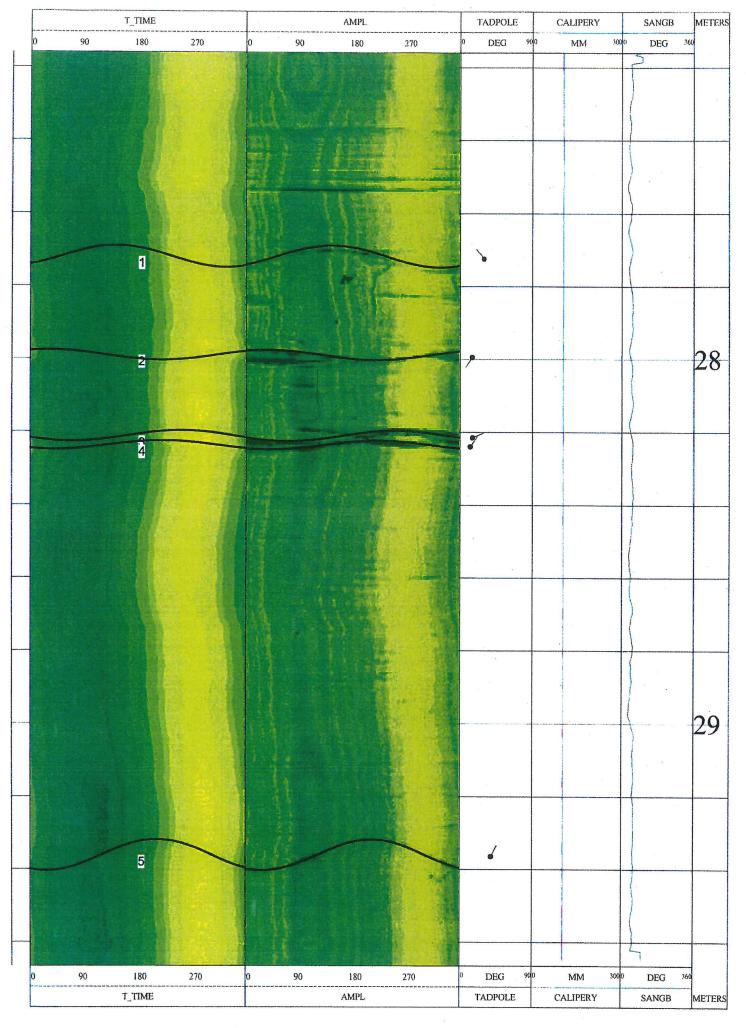
Casing Driller : S/N 1123 : 24.66m Logging Unit Casing Type : N/A Field Office : F.G.S Casing Thickness: N/A Recorded by : MC Bit Size : 10.1cm Borehole Fluid : Water Magnetic Decl. : -2 Sonde Type : 8804A

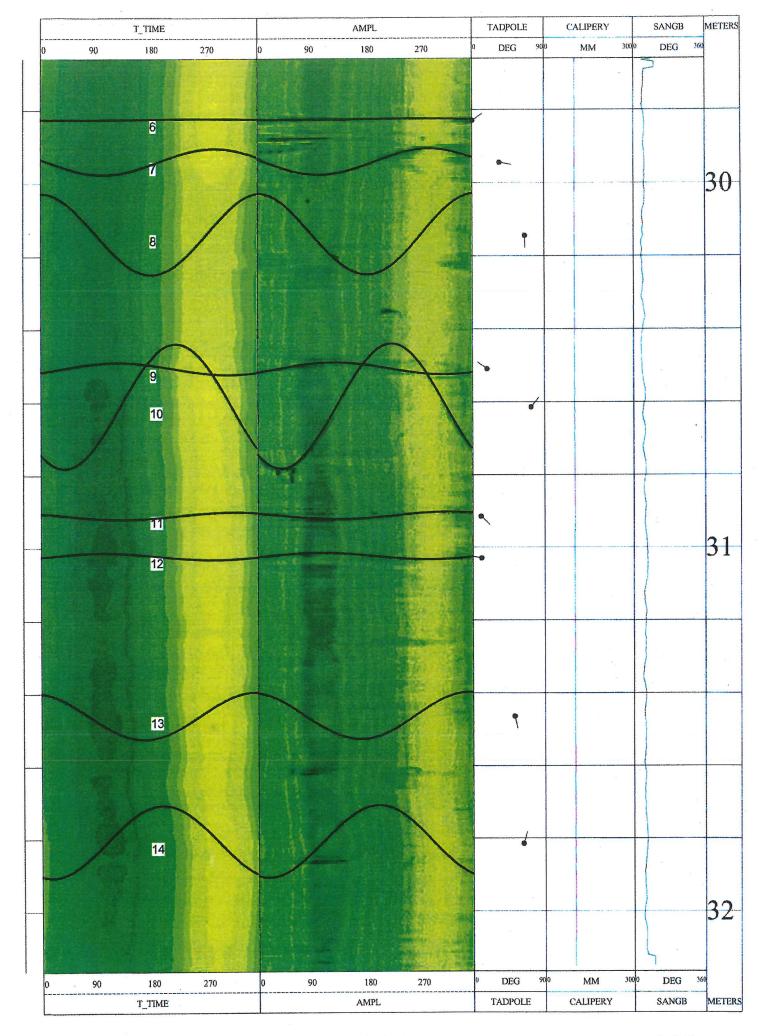
Remark : All directions are relative to magnetic north from Hong Kong Metric Grid System North

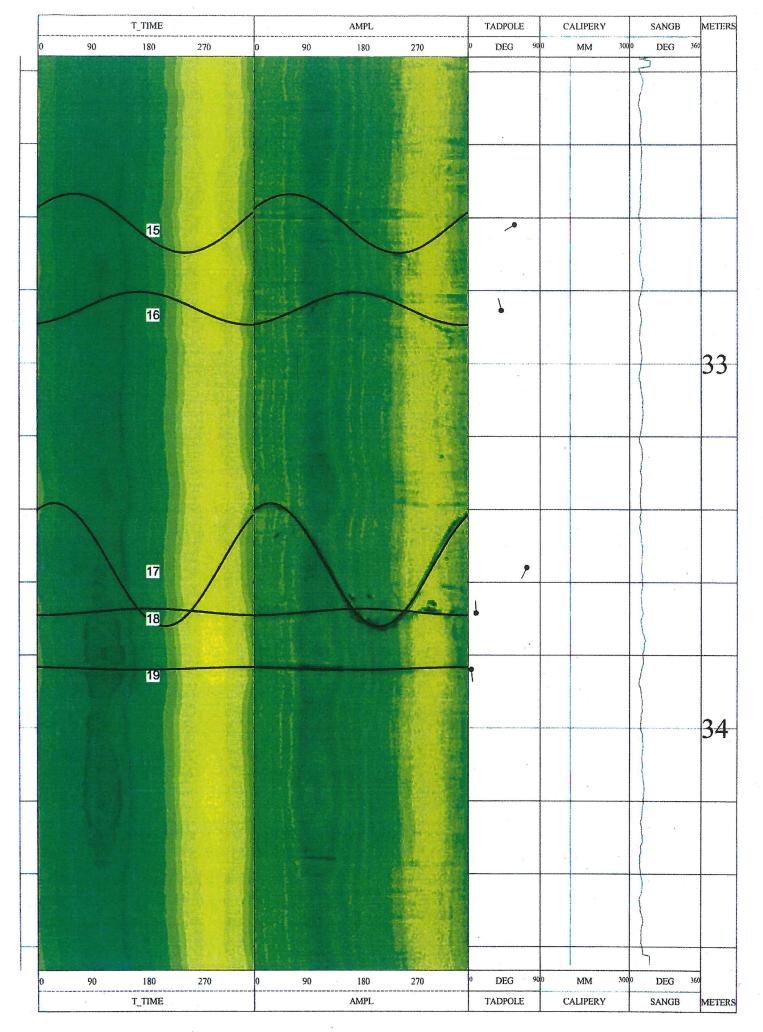
Fracture Number Objection (deg) Azimuth (deg) To (m) From (m) Deviation (deg) Category Number (deg) (de								Dir. of	
1 30 320 27.69 27.75 10.35 0.5 047.7 Joint 2 16 214 27.98 28.00 10.38 0.3 050.0 Joint 3 16 067 28.20 28.23 10.35 0.5 046.0 Joint 4 13 035 28.22 28.25 10.35 0.5 046.0 Joint 5 40 026 29.32 29.40 10.27 0.3 063.9 Joint 6 01 056 29.82 29.83 10.35 0.4 064.6 Joint 7 35 102 29.91 29.98 10.31 0.5 063.0 Incipient Joint 8 66 179 30.03 30.25 10.23 0.5 063.0 Incipient Joint 9 19 303 30.49 30.52 10.27 0.4 045.3 Joint 10 73 039 30.44 </td <td>Fracture</td> <td>Dip</td> <td>Azimuth</td> <td>To</td> <td>From</td> <td>Diameter</td> <td>Deviation</td> <td>Deviation</td> <td>Category</td>	Fracture	Dip	Azimuth	To	From	Diameter	Deviation	Deviation	Category
1 30 320 27.69 27.75 10.35 0.5 047.7 Joint 2 16 214 27.98 28.00 10.38 0.3 050.0 Joint 3 16 067 28.20 28.23 10.35 0.5 046.0 Joint 4 13 035 28.22 28.25 10.35 0.5 046.0 Joint 5 40 026 29.82 29.40 10.27 0.3 063.9 Joint 6 01 056 29.82 29.83 10.35 0.4 064.6 Joint 7 35 102 29.91 29.98 10.31 0.5 063.0 Incipient Joint 9 19 303 30.49 30.52 10.27 0.4 045.3 Joint 10 73 039 30.44 30.78 10.23 0.5 053.1 Joint 11 11 185 30.90		(deg)	(deg)	(m)	(m)	(cm)	(deg)	(deg)	
3 16 067 28.20 28.23 10.35 0.3 056.4 Joint 4 13 035 28.22 28.25 10.35 0.5 046.0 Joint 5 40 026 29.82 29.83 10.35 0.4 064.6 Joint 6 01 056 29.82 29.83 10.35 0.4 064.6 Joint 7 35 102 29.91 29.98 10.31 0.5 070.5 Joint 8 66 179 30.03 30.25 10.23 0.5 063.0 Incipient Joint 9 19 303 30.49 30.52 10.27 0.4 045.3 Joint 10 73 039 30.44 30.78 10.23 0.5 053.1 Joint 11 11 135 30.90 30.92 10.31 0.5 071.7 Joint 12 11 280 31.01		30	320	27.69	27.75	10.35	0.5		Joint
4 13 035 28.22 28.25 10.35 0.5 046.0 Joint 5 40 026 29.32 29.40 10.27 0.3 063.9 Joint 6 01 056 29.82 29.83 10.35 0.4 064.6 Joint 7 35 102 29.91 29.98 10.31 0.5 070.5 Joint 8 66 179 30.03 30.25 10.23 0.5 063.0 Incipient Joint 9 19 303 30.49 30.52 10.27 0.4 045.3 Joint 10 73 039 30.44 30.78 10.23 0.5 053.1 Joint 11 11 136 30.90 30.92 10.31 0.5 071.7 Joint 12 11 280 31.01 31.03 10.27 0.5 082.2 Joint 13 52 168 31.40		16	214	27.98	28.00	10.38	0.3	050.0	Joint
5 40 026 29.32 29.40 10.27 0.3 063.9 Joint 6 01 056 29.82 29.83 10.35 0.4 064.6 Joint 7 35 102 29.91 29.98 10.31 0.5 070.5 Joint 8 66 179 30.03 30.25 10.23 0.5 063.0 Incipient Joint 9 19 303 30.49 30.52 10.27 0.4 045.3 Joint 10 73 039 30.92 10.31 0.5 053.1 Joint 11 11 135 30.90 30.92 10.31 0.5 053.1 Joint 12 11 280 31.01 31.03 10.27 0.5 082.2 Joint 13 52 168 31.40 31.53 10.23 0.5 053.0 Incipient Joint 14 63 016 31.71 31.	3	16	067	28.20	28.23	10.35	0.3	056.4	Joint
6 01 056 29.82 29.83 10.35 0.4 064.6 Joint 7 35 102 29.91 29.98 10.31 0.5 070.5 Joint 8 66 179 30.03 30.25 10.23 0.5 063.0 Incipient Joint 9 19 303 30.49 30.52 10.27 0.4 045.3 Joint 10 73 039 30.44 30.78 10.23 0.5 053.1 Joint 11 11 135 30.90 30.92 10.31 0.5 071.7 Joint 12 11 280 31.01 31.03 10.27 0.5 082.2 Joint 13 52 168 31.40 31.53 10.23 0.5 053.0 Incipient Joint 14 63 016 31.71 31.91 10.20 0.4 056.4 Joint 15 58 239 32	4	13	035	28.22	28.25	10.35	0.5	046.0	Joint
7 35 102 29.91 29.98 10.31 0.5 070.5 Joint 8 66 179 30.03 30.25 10.23 0.5 063.0 Incipient Joint 9 19 303 30.49 30.52 10.27 0.4 045.3 Joint 10 73 039 30.44 30.78 10.23 0.5 053.1 Joint 11 11 135 30.90 30.92 10.31 0.5 071.7 Joint 12 11 280 31.01 31.03 10.27 0.5 082.2 Joint 13 52 168 31.40 31.53 10.23 0.5 053.0 Incipient Joint 14 63 016 31.71 31.91 10.20 0.4 056.4 Joint 15 58 239 32.54 32.70 10.27 0.4 054.6 Incipient Joint 16 41 344	5	40	026	29.32	29.40	10.27	0.3	063.9	Joint
8 66 179 30.03 30.25 10.23 0.5 063.0 Inciplent Joint 9 19 303 30.49 30.52 10.27 0.4 045.3 Joint 10 73 039 30.44 30.78 10.23 0.5 053.1 Joint 11 11 136 30.90 30.92 10.31 0.5 071.7 Joint 12 11 280 31.01 31.03 10.27 0.5 082.2 Joint 13 52 168 31.40 31.53 10.23 0.5 053.0 Inciplent Joint 14 63 016 31.71 31.91 10.20 0.4 056.4 Joint 15 58 239 32.54 32.70 10.27 0.4 054.6 Inciplent Joint 16 41 344 32.80 32.89 10.27 0.3 045.3 Joint 17 74 208	6	01	056	29.82	29.83	10.35	0.4	064.6	Joint
9 19 303 30.49 30.52 10.27 0.4 045.3 Joint 10 73 039 30.44 30.78 10.23 0.5 053.1 Joint 11 11 135 30.90 30.92 10.31 0.5 071.7 Joint 11 11 135 30.90 30.92 10.31 0.5 071.7 Joint 11 2 11 280 31.01 31.03 10.27 0.5 082.2 Joint 13 52 168 31.40 31.53 10.23 0.5 053.0 Incipient Joint 14 63 016 31.71 31.91 10.20 0.4 056.4 Joint 15 58 239 32.54 32.70 10.27 0.4 054.6 Incipient Joint 16 41 344 32.80 32.89 10.27 0.3 045.3 Joint 17 74 208 33.38 33.72 10.27 0.4 070.1 Joint 18 10 356 33.67 33.69 10.27 0.4 070.1 Joint 18 10 356 33.67 33.69 10.27 0.4 078.7 Joint 19 04 174 33.83 33.84 10.31 0.4 083.3 Joint 20 12 007 35.45 35.47 10.20 0.5 048.3 Joint 21 73 169 35.78 36.11 10.23 0.4 050.1 Joint 22 18 008 36.97 37.00 10.27 0.3 061.6 Joint 23 30 269 37.14 37.20 10.35 0.4 054.3 Joint 24 21 346 37.32 37.36 10.27 0.5 054.9 Joint 25 56 318 37.44 37.59 10.31 0.4 057.7 Joint 26 03 10.5 38.22 38.22 10.23 0.3 075.6 Joint 27 15 221 38.71 38.74 10.27 0.5 054.9 Joint 28 68 336 38.98 39.23 10.23 0.4 066.0 Joint 29 66 343 39.12 39.35 10.23 0.4 066.0 Joint 29 66 343 39.12 39.35 10.20 0.4 066.0 Joint 30 63 340 39.68 39.88 10.16 0.3 064.7 Joint 30 63 340 39.68 39.88 10.16 0.3 064.7 Joint 31 0.4 228 39.95 39.96 10.31 0.5 058.5 Joint	7	35	102	29.91	29.98	10.31	0.5	070.5	Joint
9 19 303 30.49 30.52 10.27 0.4 045.3 Joint 10 73 039 30.44 30.78 10.23 0.5 053.1 Joint 11 11 135 30.90 30.92 10.31 0.5 071.7 Joint 11 11 136 30.90 30.92 10.31 0.5 071.7 Joint 12 11 280 31.01 31.03 10.27 0.5 082.2 Joint 13 52 168 31.40 31.53 10.23 0.5 053.0 Incipient Joint 14 63 016 31.71 31.91 10.20 0.4 056.4 Joint 15 58 239 32.54 32.70 10.27 0.4 054.6 Incipient Joint 16 41 344 32.80 32.89 10.27 0.3 045.3 Joint 17 74 208 33.38 33.72 10.27 0.4 070.1 Joint 18 10 356 33.67 33.69 10.27 0.4 070.1 Joint 18 10 356 33.67 33.69 10.27 0.4 078.7 Joint 19 04 174 33.83 33.84 10.31 0.4 083.3 Joint 20 12 007 35.45 35.47 10.20 0.5 048.3 Joint 21 73 169 35.78 36.11 10.23 0.4 050.1 Joint 22 18 008 36.97 37.00 10.27 0.3 061.6 Joint 23 30 269 37.14 37.20 10.35 0.4 054.3 Joint 24 21 346 37.32 37.36 10.27 0.5 054.9 Joint 25 56 318 37.44 37.59 10.31 0.4 057.7 Joint 26 03 105 38.22 38.22 10.23 0.3 075.6 Joint 27 15 221 38.71 38.74 10.27 0.3 056.3 Joint 28 68 336 38.98 39.23 10.23 0.4 066.0 Joint 29 66 343 39.12 39.35 10.23 0.4 066.0 Joint 30 63 340 39.68 39.88 10.16 0.3 064.7 Joint 31 04 228 39.95 39.96 10.31 0.5 058.5 Joint	8	6 6	179	30.03	30.25	10.23	0.5	063.0	Incipient Joint
11 11 135 30.90 30.92 10.31 0.5 071.7 Joint 12 11 280 31.01 31.03 10.27 0.5 082.2 Joint 13 52 168 31.40 31.53 10.23 0.5 053.0 Incipient Joint 14 63 016 31.71 31.91 10.20 0.4 056.4 Joint 15 58 239 32.54 32.70 10.27 0.4 054.6 Incipient Joint 16 41 344 32.80 32.89 10.27 0.3 045.3 Joint 17 74 208 33.38 33.72 10.27 0.4 070.1 Joint 18 10 356 33.67 33.69 10.27 0.4 078.7 Joint 18 10 356 33.83 33.84 10.31 0.4 083.3 Joint 20 12 007 <t< td=""><td>9</td><td>19</td><td>303</td><td>30.49</td><td>30.52</td><td>10.27</td><td>0.4</td><td>045.3</td><td></td></t<>	9	19	303	30.49	30.52	10.27	0.4	045.3	
12 11 280 31.01 31.03 10.27 0.5 082.2 Joint 13 52 168 31.40 31.53 10.23 0.5 053.0 Incipient Joint 14 63 016 31.71 31.91 10.20 0.4 056.4 Joint 15 58 239 32.54 32.70 10.27 0.4 054.6 Incipient Joint 16 41 344 32.80 32.89 10.27 0.3 045.3 Joint 17 74 208 33.38 33.72 10.27 0.4 070.1 Joint 18 10 356 33.67 33.69 10.27 0.4 078.7 Joint 19 04 174 33.83 33.84 10.31 0.4 083.3 Joint 20 12 007 35.45 35.47 10.20 0.5 048.3 Joint 21 73 169 <t< td=""><td>10</td><td>73</td><td>039</td><td>30.44</td><td>30.78</td><td>10.23</td><td>0.5</td><td>053.1</td><td>Joint</td></t<>	10	73	039	30.44	30.78	10.23	0.5	053.1	Joint
13 52 168 31.40 31.53 10.23 0.5 053.0 Inciplent Joint 14 63 016 31.71 31.91 10.20 0.4 056.4 Joint 15 58 239 32.54 32.70 10.27 0.4 054.6 Inciplent Joint 16 41 344 32.80 32.89 10.27 0.3 045.3 Joint 17 74 208 33.38 33.72 10.27 0.4 070.1 Joint 18 10 356 33.67 33.69 10.27 0.4 078.7 Joint 19 04 174 33.83 33.84 10.31 0.4 083.3 Joint 20 12 007 35.45 35.47 10.20 0.5 048.3 Joint 21 73 169 35.78 36.11 10.23 0.4 050.1 Joint 22 18 008 <t< td=""><td>11</td><td>11</td><td>135</td><td>30.90</td><td>30.92</td><td>10.31</td><td>0.5</td><td>071.7</td><td>Joint</td></t<>	11	11	135	30.90	30.92	10.31	0.5	071.7	Joint
14 63 016 31.71 31.91 10.20 0.4 056.4 Joint 15 58 239 32.54 32.70 10.27 0.4 054.6 Inciplent Joint 16 41 344 32.80 32.89 10.27 0.3 045.3 Joint 17 74 208 33.38 33.72 10.27 0.4 070.1 Joint 18 10 356 33.67 33.69 10.27 0.4 078.7 Joint 19 04 174 33.83 33.84 10.31 0.4 083.3 Joint 20 12 007 35.45 35.47 10.20 0.5 048.3 Joint 21 73 169 35.78 36.11 10.23 0.4 050.1 Joint 22 18 008 36.97 37.00 10.27 0.3 061.6 Joint 23 30 269 37.14 <td>12</td> <td>11</td> <td>280</td> <td>31.01</td> <td>31.03</td> <td>10.27</td> <td>0.5</td> <td>082.2</td> <td>Joint</td>	12	11	280	31.01	31.03	10.27	0.5	082.2	Joint
14 63 016 31.71 31.91 10.20 0.4 056.4 Joint 15 58 239 32.54 32.70 10.27 0.4 054.6 Inciplent Joint 16 41 344 32.80 32.89 10.27 0.3 045.3 Joint 17 74 208 33.38 33.72 10.27 0.4 070.1 Joint 18 10 356 33.67 33.69 10.27 0.4 078.7 Joint 19 04 174 33.83 33.84 10.31 0.4 083.3 Joint 20 12 007 35.45 35.47 10.20 0.5 048.3 Joint 21 73 169 35.78 36.11 10.23 0.4 050.1 Joint 22 18 008 36.97 37.00 10.27 0.3 061.6 Joint 23 30 269 37.14 <td>13</td> <td>52</td> <td>168</td> <td>31.40</td> <td>31.53</td> <td>10.23</td> <td>0.5</td> <td>053.0</td> <td>Incipient Joint</td>	13	52	168	31.40	31.53	10.23	0.5	053.0	Incipient Joint
16 41 344 32.80 32.89 10.27 0.3 045.3 Joint 17 74 208 33.38 33.72 10.27 0.4 070.1 Joint 18 10 356 33.67 33.69 10.27 0.4 078.7 Joint 19 04 174 33.83 33.84 10.31 0.4 083.3 Joint 20 12 007 35.45 35.47 10.20 0.5 048.3 Joint 21 73 169 35.78 36.11 10.23 0.4 050.1 Joint 22 18 008 36.97 37.00 10.27 0.3 061.6 Joint 23 30 269 37.14 37.20 10.35 0.4 054.3 Joint 24 21 346 37.32 37.36 10.27 0.5 054.9 Joint 25 56 318 37.44	14	63	016	31.71	31.91	10.20	0.4	056.4	
16 41 344 32.80 32.89 10.27 0.3 045.3 Joint 17 74 208 33.38 33.72 10.27 0.4 070.1 Joint 18 10 356 33.67 33.69 10.27 0.4 078.7 Joint 19 04 174 33.83 33.84 10.31 0.4 083.3 Joint 20 12 007 35.45 35.47 10.20 0.5 048.3 Joint 21 73 169 35.78 36.11 10.23 0.4 050.1 Joint 22 18 008 36.97 37.00 10.27 0.3 061.6 Joint 23 30 269 37.14 37.20 10.35 0.4 054.3 Joint 24 21 346 37.32 37.36 10.27 0.5 054.9 Joint 25 56 318 37.44	15	58	239	32.54	32.70	10.27	0.4	054.6	Incipient Joint
17 74 208 33.38 33.72 10.27 0.4 070.1 Joint 18 10 356 33.67 33.69 10.27 0.4 078.7 Joint 19 04 174 33.83 33.84 10.31 0.4 083.3 Joint 20 12 007 35.45 35.47 10.20 0.5 048.3 Joint 21 73 169 35.78 36.11 10.23 0.4 050.1 Joint 22 18 008 36.97 37.00 10.27 0.3 061.6 Joint 23 30 269 37.14 37.20 10.35 0.4 054.3 Joint 24 21 346 37.32 37.36 10.27 0.5 054.9 Joint 25 56 318 37.44 37.59 10.31 0.4 057.7 Joint 26 03 105 38.22	16	41	344	32.80	32.89	10.27	0.3	045.3	
18 10 356 33.67 33.69 10.27 0.4 078.7 Joint 19 04 174 33.83 33.84 10.31 0.4 083.3 Joint 20 12 007 35.45 35.47 10.20 0.5 048.3 Joint 21 73 169 35.78 36.11 10.23 0.4 050.1 Joint 22 18 008 36.97 37.00 10.27 0.3 061.6 Joint 23 30 269 37.14 37.20 10.35 0.4 054.3 Joint 24 21 346 37.32 37.36 10.27 0.5 054.9 Joint 25 56 318 37.44 37.59 10.31 0.4 057.7 Joint 26 03 105 38.22 38.22 10.23 0.3 075.6 Joint 27 15 221 38.71 38.74 10.27 0.3 056.3 Joint 28 68 <td< td=""><td>17</td><td>74</td><td>208</td><td>33.38</td><td>33.72</td><td>10.27</td><td>0.4</td><td>070.1</td><td>Joint</td></td<>	17	74	208	33.38	33.72	10.27	0.4	070.1	Joint
20 12 007 35.45 35.47 10.20 0.5 048.3 Joint 21 73 169 35.78 36.11 10.23 0.4 050.1 Joint 22 18 008 36.97 37.00 10.27 0.3 061.6 Joint 23 30 269 37.14 37.20 10.35 0.4 054.3 Joint 24 21 346 37.32 37.36 10.27 0.5 054.9 Joint 25 56 318 37.44 37.59 10.31 0.4 057.7 Joint 26 03 105 38.22 38.22 10.23 0.3 075.6 Joint 27 15 221 38.71 38.74 10.27 0.3 056.3 Joint 28 68 336 38.98 39.23 10.23 0.4 086.6 Joint 29 66 343 39.12 39.35 10.20 0.4 065.0 Joint 30 63 <td< td=""><td>18</td><td>10</td><td>356</td><td>33.67</td><td>33.69</td><td>10.27</td><td>0.4</td><td>078.7</td><td></td></td<>	18	10	356	33.67	33.69	10.27	0.4	078.7	
20 12 007 35.45 35.47 10.20 0.5 048.3 Joint 21 73 169 35.78 36.11 10.23 0.4 050.1 Joint 22 18 008 36.97 37.00 10.27 0.3 061.6 Joint 23 30 269 37.14 37.20 10.35 0.4 054.3 Joint 24 21 346 37.32 37.36 10.27 0.5 054.9 Joint 25 56 318 37.44 37.59 10.31 0.4 057.7 Joint 26 03 105 38.22 38.22 10.23 0.3 075.6 Joint 27 15 221 38.71 38.74 10.27 0.3 056.3 Joint 28 68 336 38.98 39.23 10.23 0.4 086.6 Joint 29 66 343 39.12 39.35 10.20 0.4 065.0 Joint 30 63 <td< td=""><td>19</td><td>04</td><td>174</td><td>33.83</td><td>33.84</td><td>10.31</td><td>0.4</td><td>083.3</td><td>Joint</td></td<>	19	04	174	33.83	33.84	10.31	0.4	083.3	Joint
21 73 169 35.78 36.11 10.23 0.4 050.1 Joint 22 18 008 36.97 37.00 10.27 0.3 061.6 Joint 23 30 269 37.14 37.20 10.35 0.4 054.3 Joint 24 21 346 37.32 37.36 10.27 0.5 054.9 Joint 25 56 318 37.44 37.59 10.31 0.4 057.7 Joint 26 03 105 38.22 38.22 10.23 0.3 075.6 Joint 27 15 221 38.71 38.74 10.27 0.3 056.3 Joint 28 68 336 38.98 39.23 10.23 0.4 086.6 Joint 29 66 343 39.12 39.35 10.20 0.4 065.0 Joint 30 63 340 39.68 39.88 10.16 0.3 064.7 Joint 31 04 <td< td=""><td>20</td><td>12</td><td>007</td><td>35.45</td><td>35.47</td><td>10.20</td><td>0.5</td><td>048.3</td><td></td></td<>	20	12	007	35.45	35.47	10.20	0.5	048.3	
22 18 008 36.97 37.00 10.27 0.3 061.6 Joint 23 30 269 37.14 37.20 10.35 0.4 054.3 Joint 24 21 346 37.32 37.36 10.27 0.5 054.9 Joint 25 56 318 37.44 37.59 10.31 0.4 057.7 Joint 26 03 105 38.22 38.22 10.23 0.3 075.6 Joint 27 15 221 38.71 38.74 10.27 0.3 056.3 Joint 28 68 336 38.98 39.23 10.23 0.4 086.6 Joint 29 66 343 39.12 39.35 10.20 0.4 065.0 Joint 30 63 340 39.68 39.88 10.16 0.3 064.7 Joint 31 04 228 39.95 39.96 10.31 0.5 058.5 Joint	21	73	169	35.78	36.11	10.23	0.4	050.1	
23 30 269 37.14 37.20 10.35 0.4 054.3 Joint 24 21 346 37.32 37.36 10.27 0.5 054.9 Joint 25 56 318 37.44 37.59 10.31 0.4 057.7 Joint 26 03 105 38.22 38.22 10.23 0.3 075.6 Joint 27 15 221 38.71 38.74 10.27 0.3 056.3 Joint 28 68 336 38.98 39.23 10.23 0.4 086.6 Joint 29 66 343 39.12 39.35 10.20 0.4 065.0 Joint 30 63 340 39.68 39.88 10.16 0.3 064.7 Joint 31 04 228 39.95 39.96 10.31 0.5 058.5 Joint	22	18	800	36.97	37.00	10.27	0.3	061.6	
24 21 346 37.32 37.36 10.27 0.5 054.9 Joint 25 56 318 37.44 37.59 10.31 0.4 057.7 Joint 26 03 105 38.22 38.22 10.23 0.3 075.6 Joint 27 15 221 38.71 38.74 10.27 0.3 056.3 Joint 28 68 336 38.98 39.23 10.23 0.4 086.6 Joint 29 66 343 39.12 39.35 10.20 0.4 065.0 Joint 30 63 340 39.68 39.88 10.16 0.3 064.7 Joint 31 04 228 39.95 39.96 10.31 0.5 058.5 Joint	23	30	269	37.14	37.20	10.35	0.4	054.3	
26 03 105 38.22 38.22 10.23 0.3 075.6 Joint 27 15 221 38.71 38.74 10.27 0.3 056.3 Joint 28 68 336 38.98 39.23 10.23 0.4 086.6 Joint 29 66 343 39.12 39.35 10.20 0.4 065.0 Joint 30 63 340 39.68 39.88 10.16 0.3 064.7 Joint 31 04 228 39.95 39.96 10.31 0.5 058.5 Joint	24	21	346	37.32	37.36	10.27	0.5	054.9	
26 03 105 38.22 38.22 10.23 0.3 075.6 Joint 27 15 221 38.71 38.74 10.27 0.3 056.3 Joint 28 68 336 38.98 39.23 10.23 0.4 086.6 Joint 29 66 343 39.12 39.35 10.20 0.4 065.0 Joint 30 63 340 39.68 39.88 10.16 0.3 064.7 Joint 31 04 228 39.95 39.96 10.31 0.5 058.5 Joint	25	56	318	37.44	37.59	10.31	0.4	057.7	Joint
27 15 221 38.71 38.74 10.27 0.3 056.3 Joint 28 68 336 38.98 39.23 10.23 0.4 086.6 Joint 29 66 343 39.12 39.35 10.20 0.4 065.0 Joint 30 63 340 39.68 39.88 10.16 0.3 064.7 Joint 31 04 228 39.95 39.96 10.31 0.5 058.5 Joint	26	03	105	38.22	38.22	10.23	0.3	075.6	
28 68 336 38.98 39.23 10.23 0.4 086.6 Joint 29 66 343 39.12 39.35 10.20 0.4 065.0 Joint 30 63 340 39.68 39.88 10.16 0.3 064.7 Joint 31 04 228 39.95 39.96 10.31 0.5 058.5 Joint	27	15	221	38.71	38.74	10.27	0.3	056.3	
29 66 343 39.12 39.35 10.20 0.4 065,0 Joint 30 63 340 39.68 39.88 10.16 0.3 064.7 Joint 31 04 228 39.95 39.96 10.31 0.5 058.5 Joint	28	68	336	38.98	39.23	10.23	0.4	086.6	
30 63 340 39.68 39.88 10.16 0.3 064.7 Joint 31 04 228 39.95 39.96 10.31 0.5 058.5 Joint	29	66	343	39.12					
31 04 228 39.95 39.96 10.31 0.5 058.5 Joint	30	63	340						
	31	04							
	32	69	002	40.26	40.52	10.23			

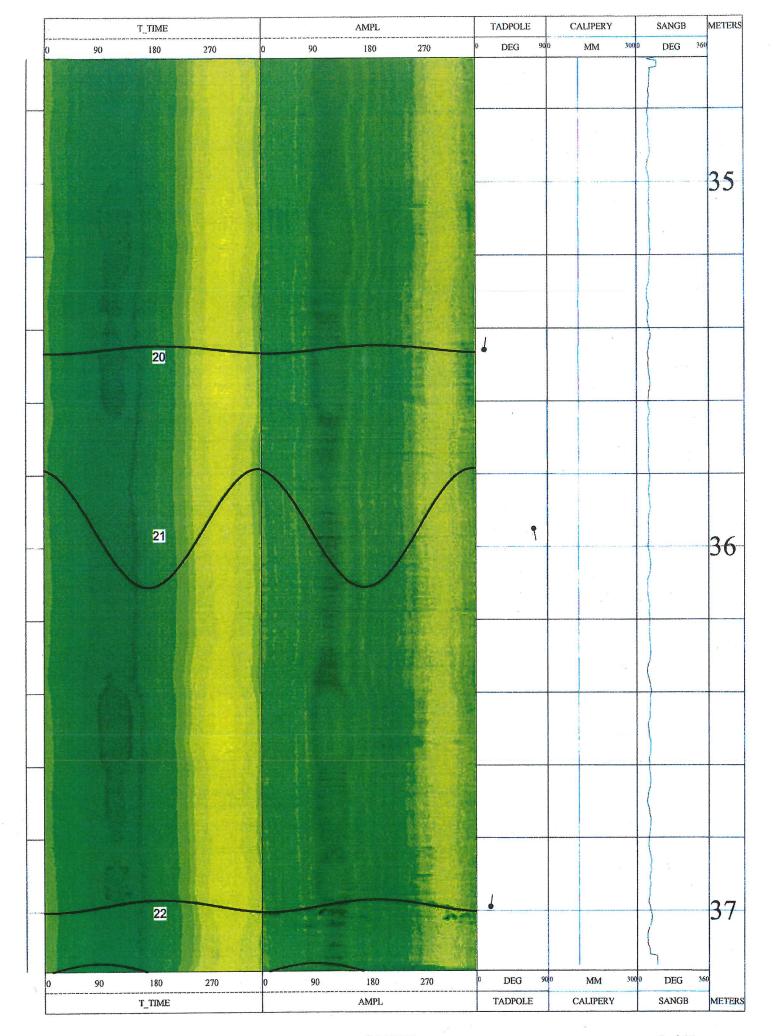
Checked by: A brack White

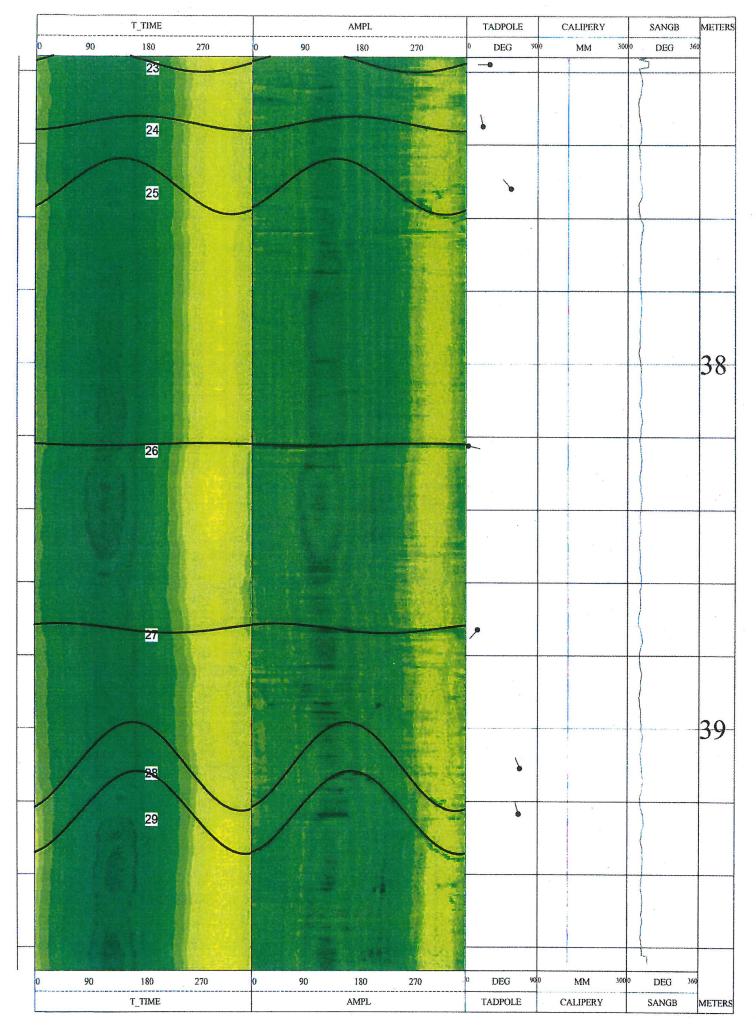


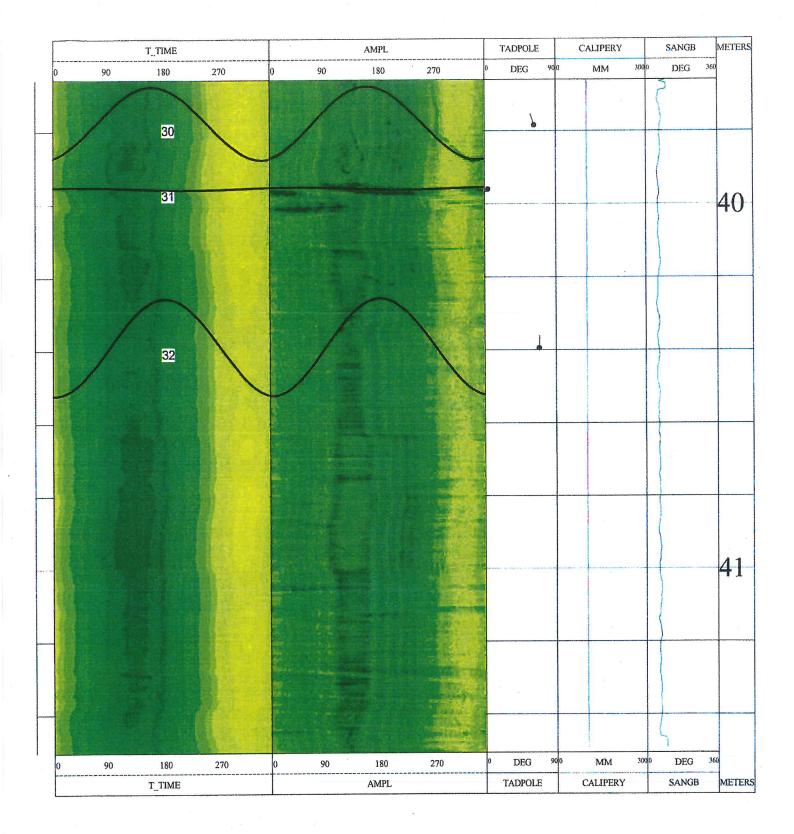


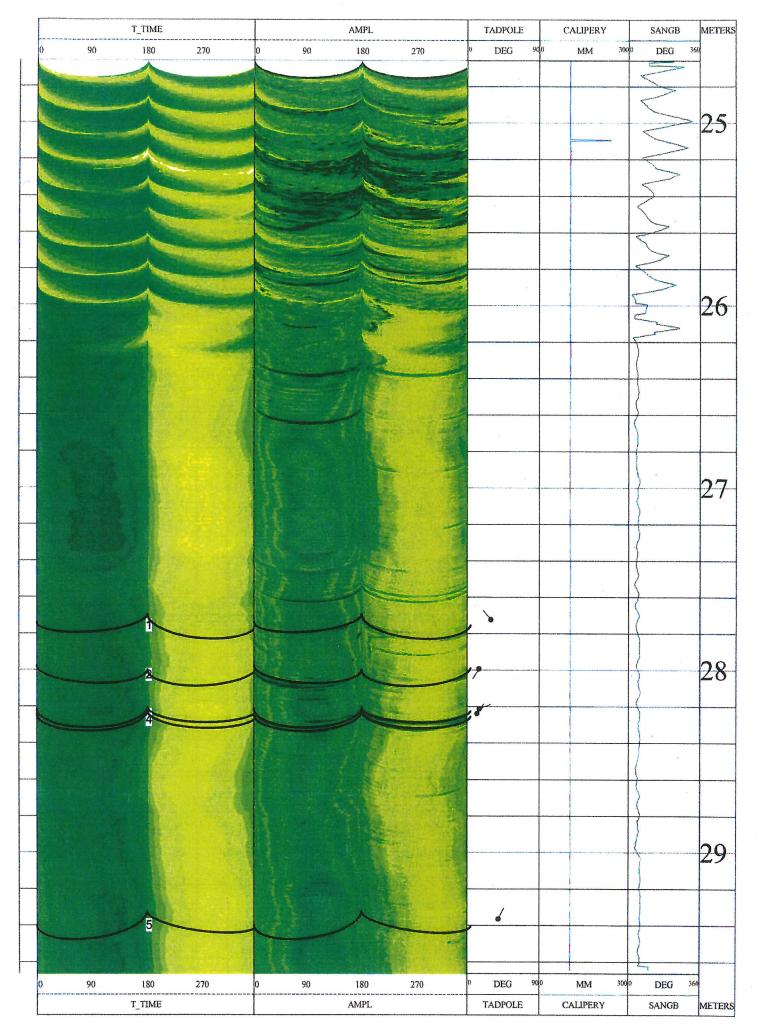


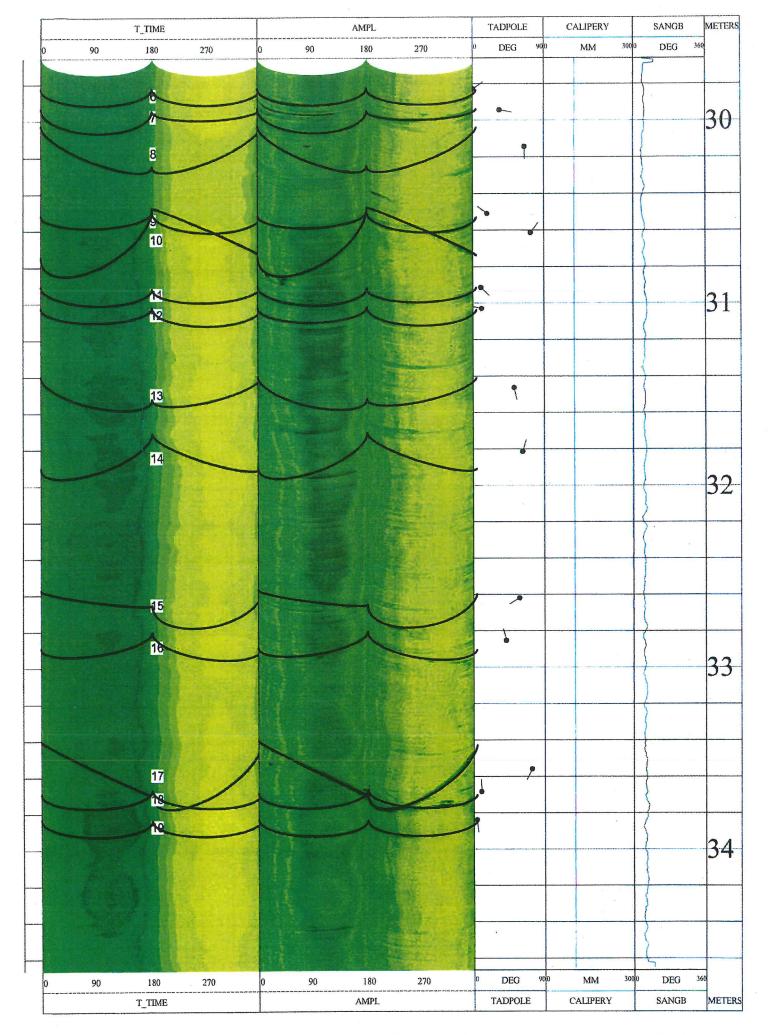


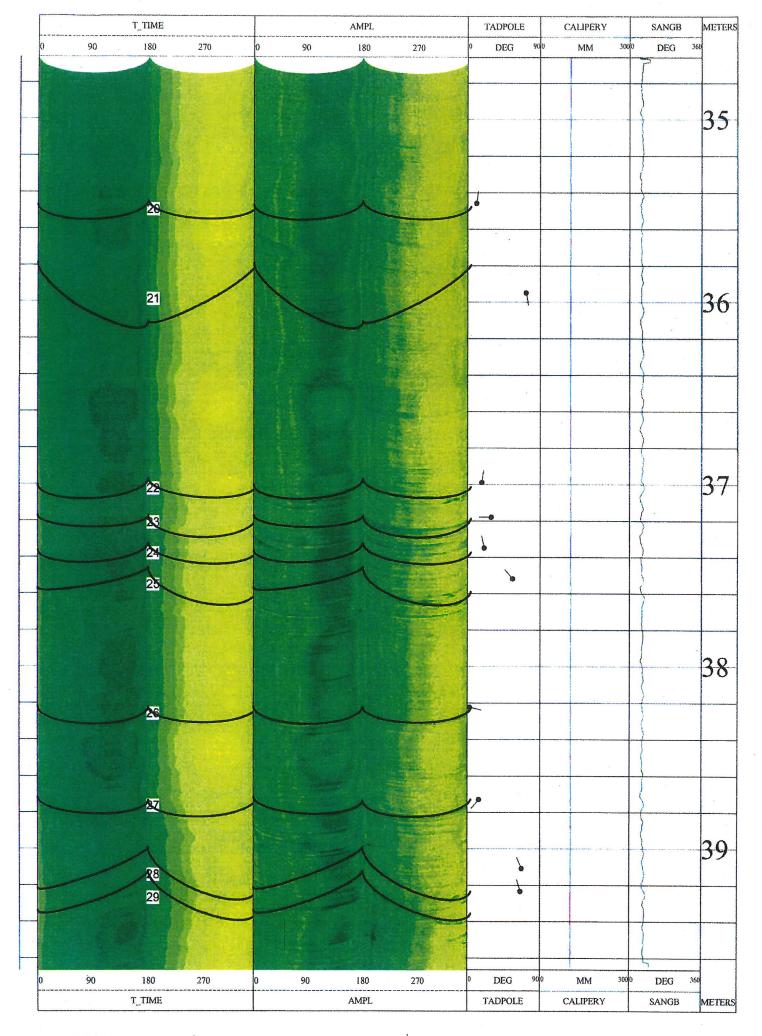


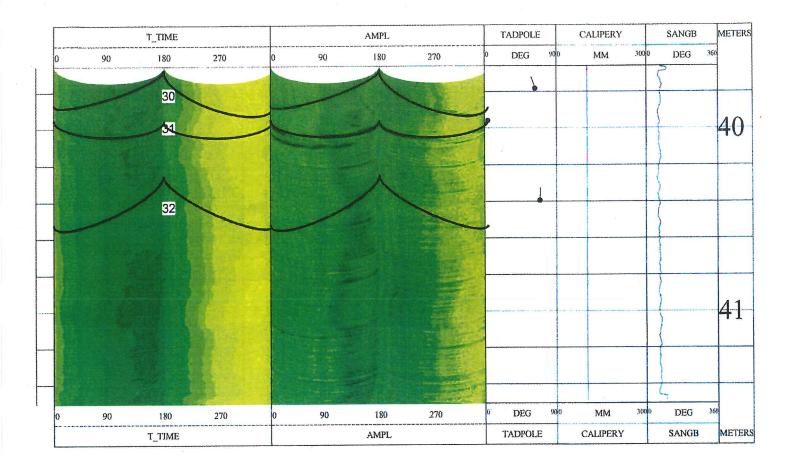




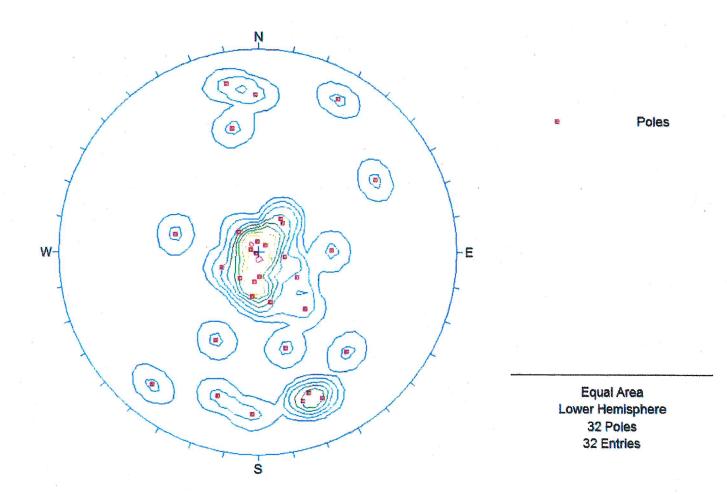












Contract

: Ground Investigation - New Territories West (Term Contract)

Contract No.

: GE/2014/07.34

Location Borehole No. : Yuen Long

: S1-DH15



Company : DrilTech Ground Engineering Ltd

Borehole No. : S2-DH15

Contract : Ground Investigation - New Territories West (Term Contract)

Contract No. : GE/2014/07.34 Location : Yuen Long

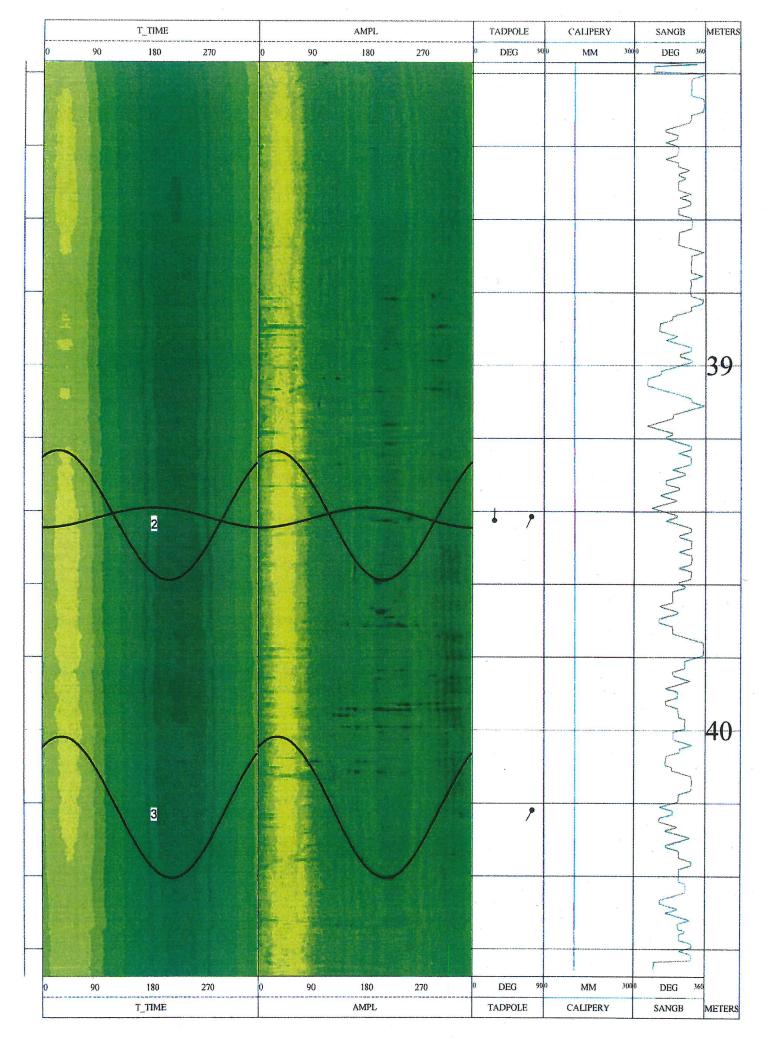
Test Date : 02-02-2016 Permanent Datum : None Depth Driller Elev.Perm.Datum : None : 49.67m Log Bottom Log Measured From : GL : 48.17m Log Top Drl Measured From : GL : 38.17m

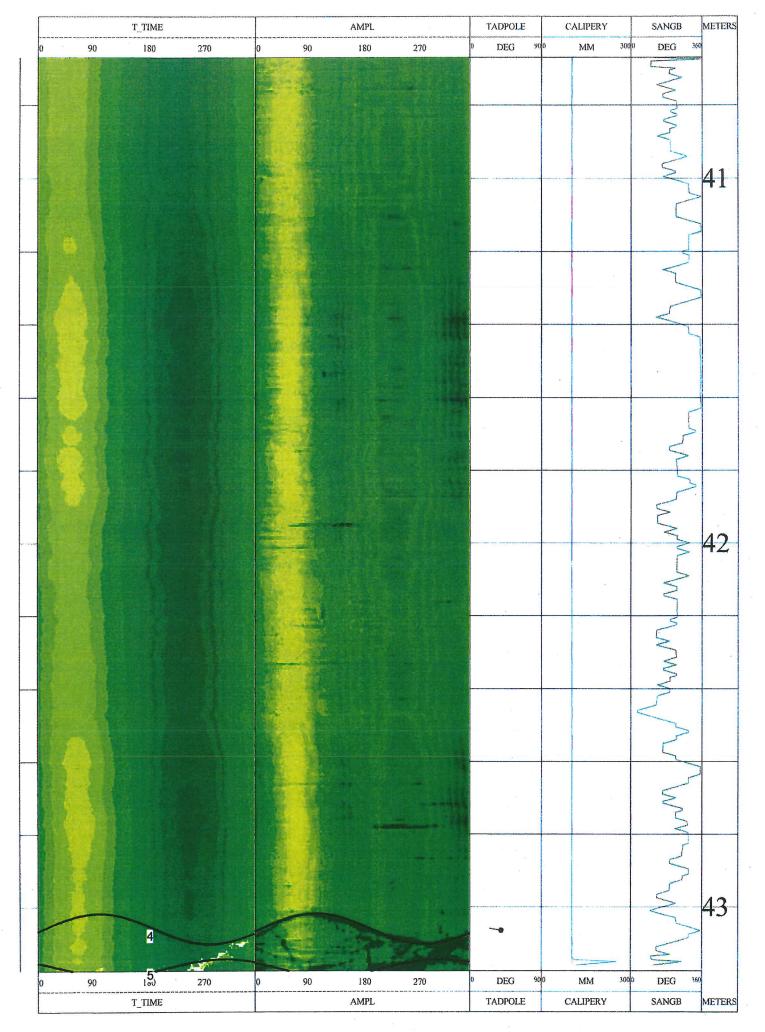
: S/N 1123 Casing Driller : 29.68m Logging Unit Field Office Casing Type : N/A : F.G.S Casing Thickness: N/A Recorded by : MC : Water Borehole Fluid Bit Size : 10.1cm Magnetic Decl. Sonde Type : 8804A : -2

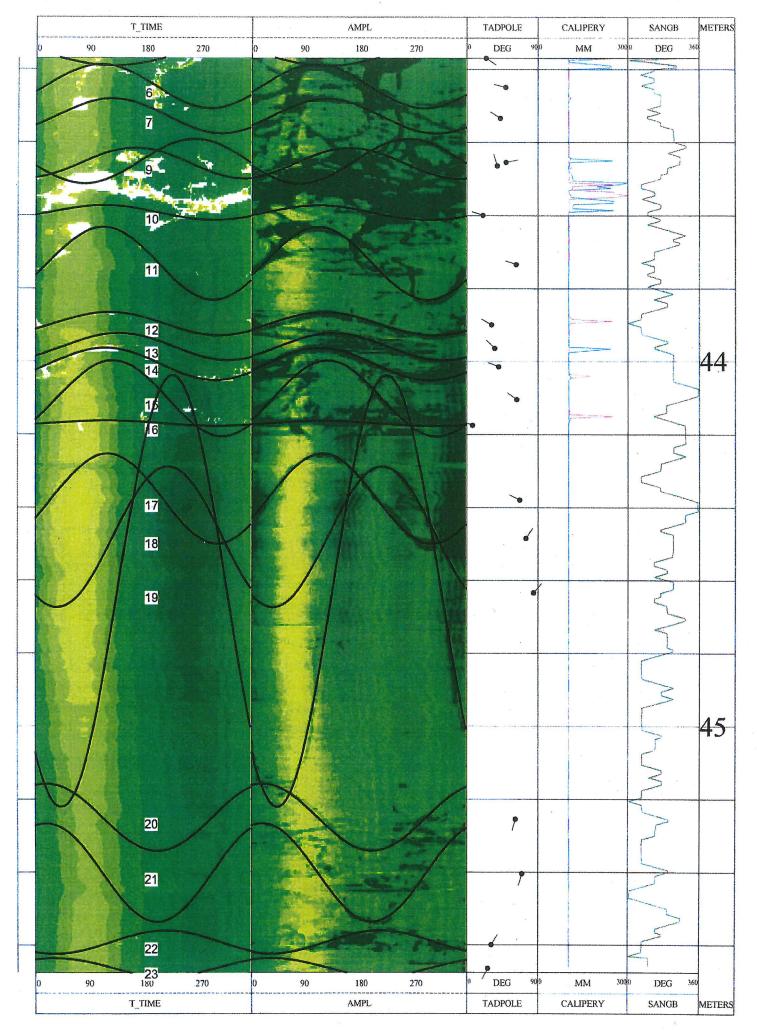
Remark : All directions are relative to magnetic north from Hong Kong Metric Grid System North

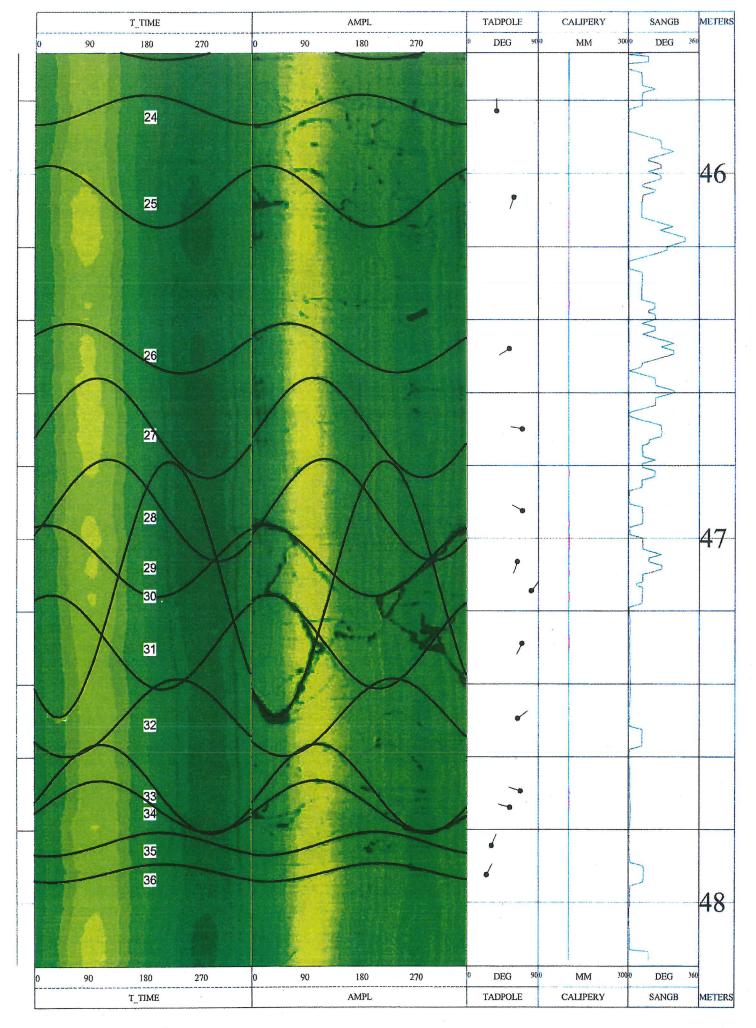
							Dir. of	
Fracture	Dip	Azimuth	To	From	Diameter	Deviation	Deviation	Category
Number	(deg)	(deg)	(m)	(m)	(cm)	(deg)	(deg)	
1	75	206	39.24	39.59	10.27	0.5	002.5	Joint
2	28	001	39.39	39.45	10.27	0.5	010.8	Joint
3	76	211	40.02	40.41	10.23	0.4	350.2	Joint
4	40	279	43.02	43.10	10.20	0.6	359.8	Joint
5	25	124	43.14	43.19	10.98	0.6	354.4	Joint
6	50	284	43.19	43.31	10.27	0.6	000.4	Joint
7	43	302	43.28	43.38	10.20	0.6	003.4	Joint
8	50	078	43.39	43.51	11.14	0.6	357.7	Joint
9	39	341	43.42	43.50	10.31	0.5	011.9	Weather Zone Top
10	21	289	43.57	43.61	17.86	0.5	019.8	Weather Zone Bottom
11	63	288	43.63	43.83	10.27	0.6	008.6	Joint
12	32	298	43.87	43.93	10.57	0.5	005.4	Joint
13	36	313	43.92	44.00	10.42	0.6	016.7	Joint
14	41	291	43.96	44.05	10.31	0.6	355.6	Joint
15	64	304	44.00	44.21	10.35	0.6	353.8	Joint
16	- 08	290	44.16	44.18	10.42	0.6	358.6	Joint
. 17	67	295	44.25	44.50	10.24	0.6	352.0	Joint
18	75	034	44.29	44.67	10.27	0.6	003.3	Joint
19	85	042	44.04	45.22	10.23	0.6	357.6	Joint
20	62	197	45.16	45.34	10.23	0.7	357.2	Joint
21	70	197	45.27	45.54	10.20	0.7	007.7	Joint
22	31	032	45.56	45.62	10.20	0.8	019.2	Joint
23	27	210	45.64	45.69	10.24	0.8	005.5	Joint
24	38	360	45.78	45.87	10.20	0.7	002.1	Joint
25	60	202	45.98	46.15	10.20	0.7	003.2	Joint
26	53	238	46.41	46.54	10.20	0.7	012.0	Joint
27	70	280	46.56	46.83	10.20	0.7	015.3	Incipient Joint
28	70	298	46.78	47.06	10.20	0.7	011.8	Incipient Joint
29	64	200	46.96	47.16	10.20	0.7	009.8	Joint
30	81	039	46.79	47.49	10.20	0.8	001.9	Joint
31	69	207	47.16	47.41	10.24	0.7	013.8	Joint
32	64	052	47.39	47.60	10.20	0.7	005.0	Joint
33	67	287	47.57	47.81	10.23	0.8	005.3	Joint
34	54	284	47.67	47.81	10.24	8.0	010.7	Joint
35	31	023	47.81	47.87	10.23	8.0	005.8	Incipient Joint
36	25	028	47.89	47.94	10.16	0.7	006.6	Incipient Joint

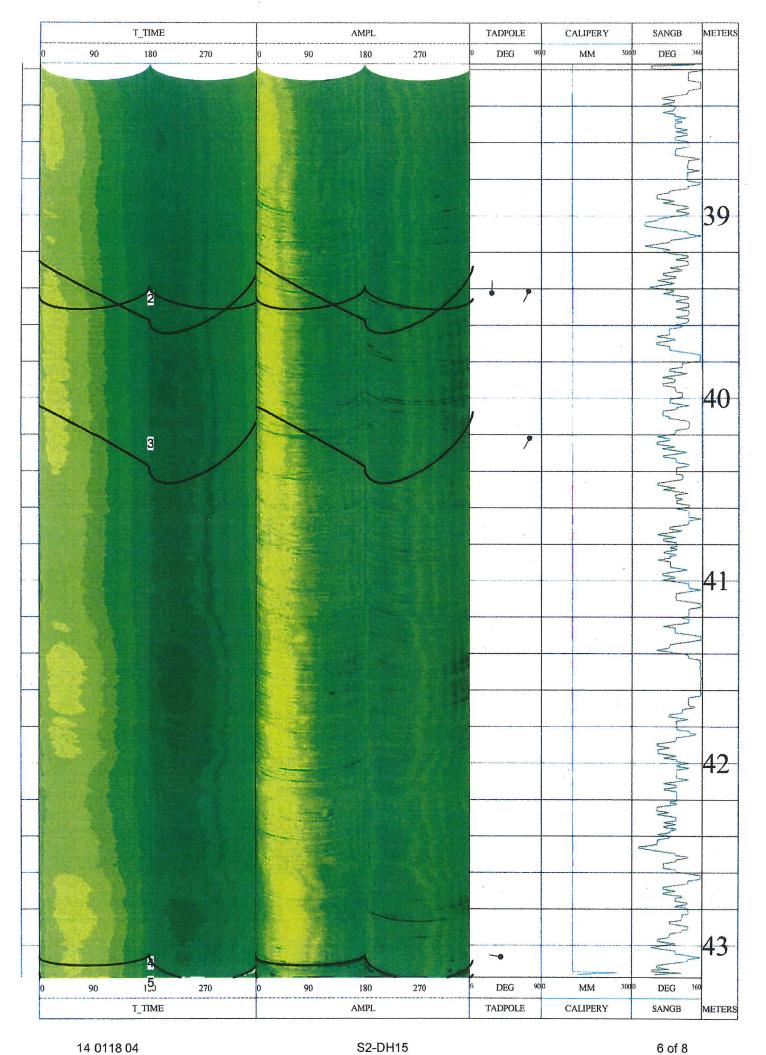
Checked by: Amuch William

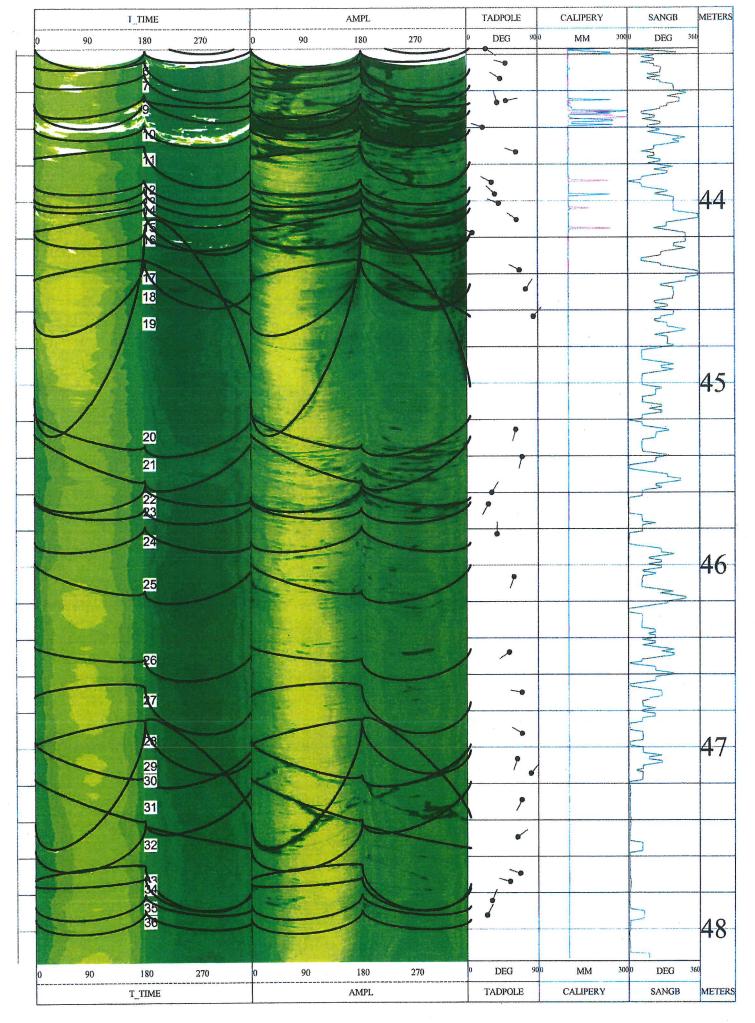




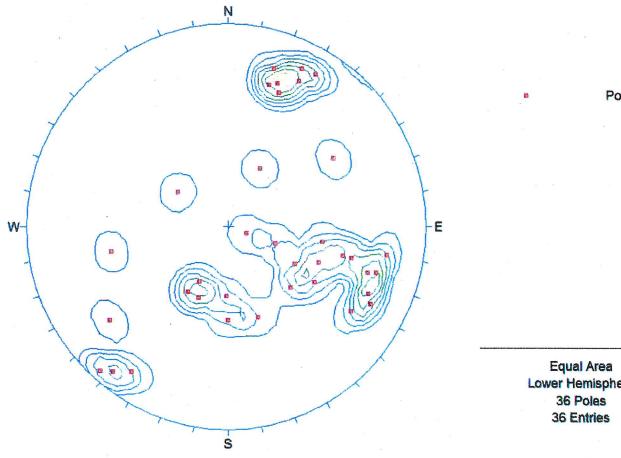












Poles

Lower Hemisphere

Contract

: Ground Investigation - New Territories West (Term Contract)

Contract No. Location Borehole No. : GE/2014/07.34 : Yuen Long

: S2-DH15



Company : DrilTech Ground Engineering Ltd

Borehole No. ; S2-DH16

Contract : Ground Investigation - New Territories West (Term Contract)

Contract No. : GE/2014/07.34

: Yuen Long Location

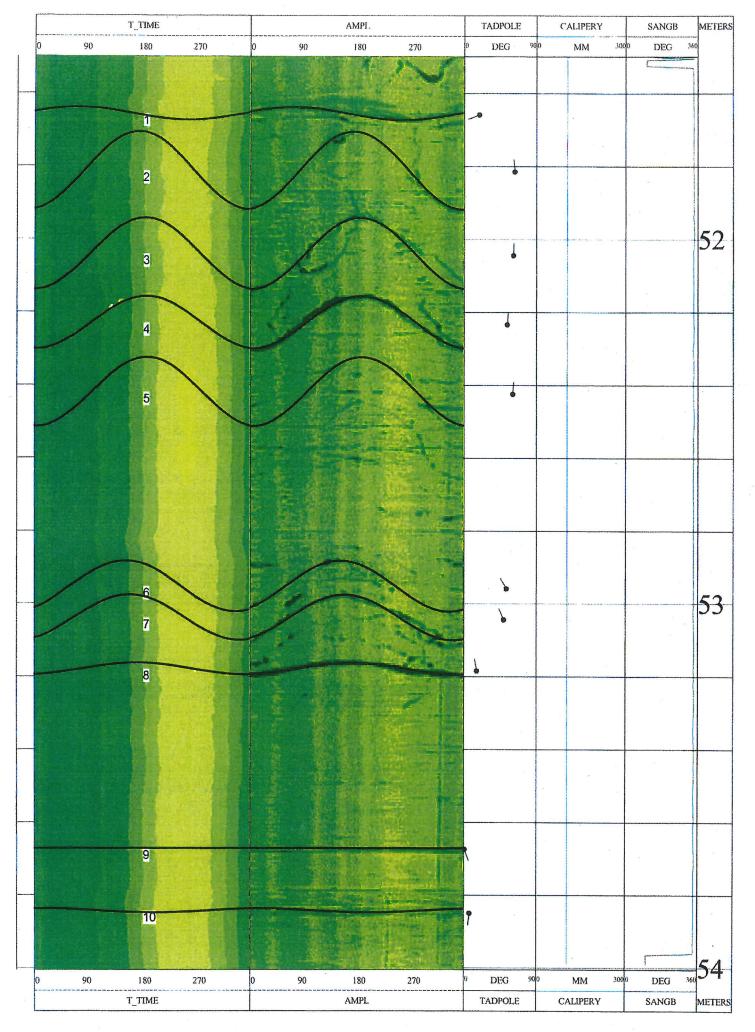
Test Date : 26-02-2016 Permanent Datum : None Depth Driller : 66.4m Elev.Perm.Datum : None Log Bottom : 61.5m Log Measured From : GL Log Top : 51.5m Drl Measured From : GL

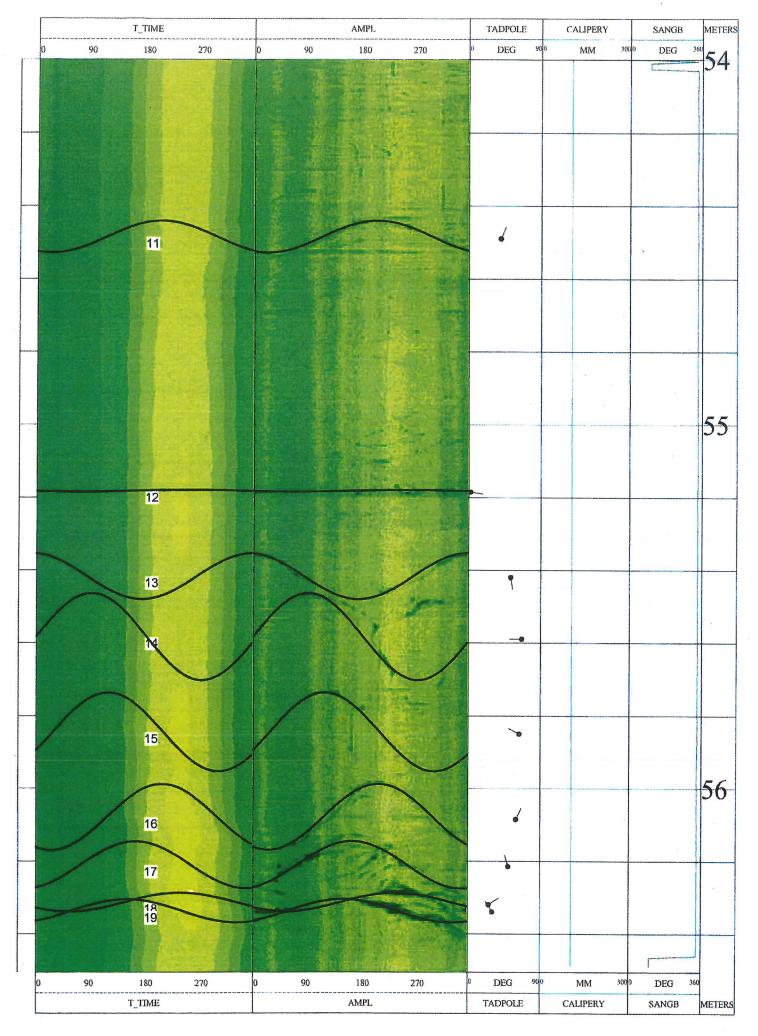
Casing Driller : 44m Logging Unit : S/N 1123 Casing Type : N/A Field Office : F.G.S Casing Thickness: N/A Recorded by : MC/HT Borehole Fluid : Water Bit Size : 10.1cm Magnetic Decl. : -2 Sonde Type : 8804A

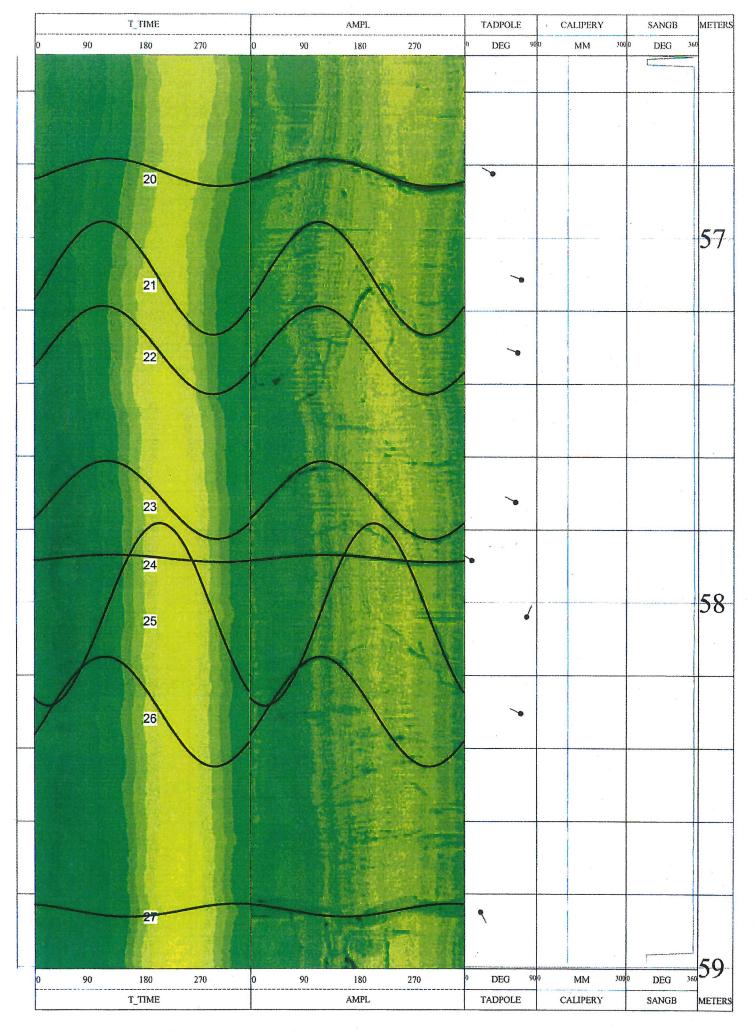
Remark : All directions are relative to magnetic north from Hong Kong Metric Grid System North

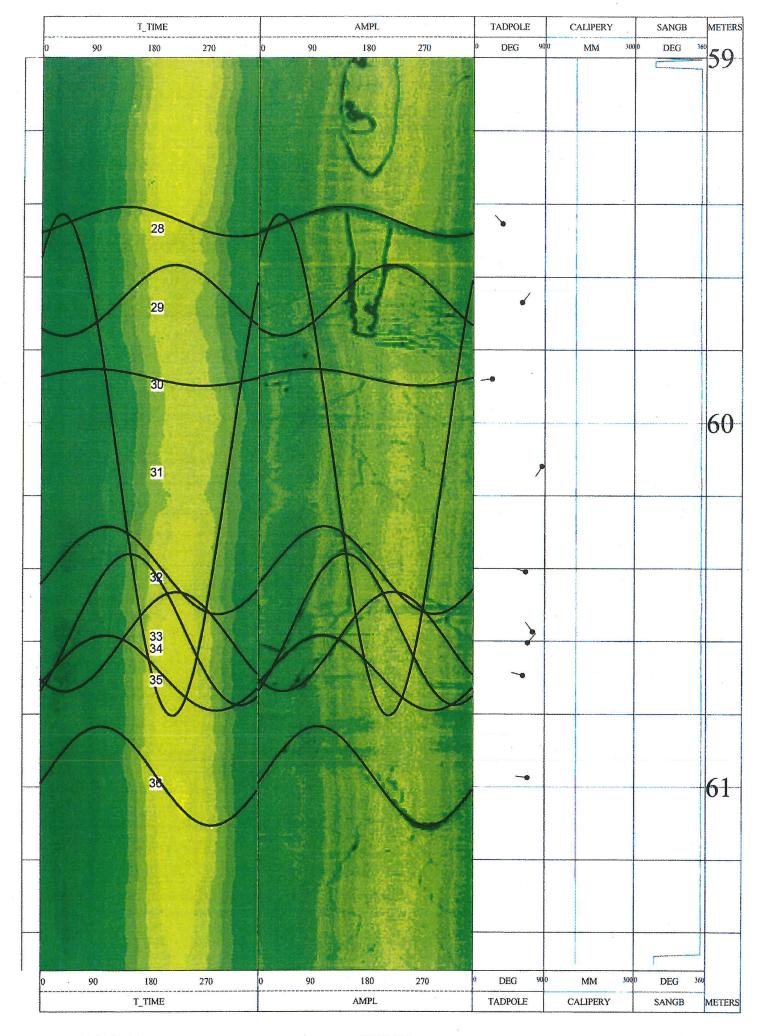
							Dir. of	
Fracture	Dip	Azimuth	To	From	Diameter	Deviation	Deviation	Category
Number	(deg)	(deg)	(m)	(m)	(cm)	(deg)	(deg)	
1	19	248	51.64	51.67	10.35	1.2	340.2	Joint
2	63	351	51.71	51.92	10.31	1.3	336.5	Joint
3	62	002	51.94	52.14	10.31	1.3	334.1	Joint
4	54	003	52.16	52.30	10.31	1.3	338.5	Joint
5	61	004	52.32	52.51	10.35	1.5	334.9	Joint
6	53	329	52.88	53.02	10.35	1.4	334.2	Incipient Joint
7	50	335	52.98	53.10	10.35	1.3	336.4	Joint
8	16	348	53.16	53.20	10.35	1.4	337.2	Joint
9	01	160	53.67	53.67	10.31	1.3	340.2	Joint
10	07	189	53.84	53.85	10.31	1.3	341.3	Joint
11	40	023	54.44	54.53	10.31	1.4	338.1	Joint
12	03	100	55.18	55.18	10.31	1.4	335.6	Joint
13	53	171	55.35	55.48	10.31	1.3	338.0	Joint
14	67	269	55.46	55.70	10.31	1.4	339.2	Joint
15	64	296	55.74	55.95	10.31	1.5	335.7	Incipient Joint
16	60	026	55.99	56.17	10.31	1.4	333.3	Joint
17	51	342	56.15	56.28	10.31	1.3	341.1	Joint
18	27	057	56.29	56.34	10.35	1.3	336.5	Joint
19	31	327	56.31	56.37	10.35	1.3	336.9	Joint
20	35	300	56.78	56.86	10.31	1.4	337.7	Joint
21	71	291	56.96	57.27	10.31	1.4	332.6	Joint
22	66	291	57.19	57.43	10.31	1.5	337.0	Incipient Joint
23	64	297	57.61	57.83	10.31	1.3	341.5	Joint
24	10	301	57.87	57.89	10.27	1.4	338.3	Joint
25	78	023	57.78	58.28	10.31	1.5	337.3	Incipient Joint
26	70	294	58.15	58.45	10.31	1.6	331.7	Joint
27	21	153	58.83	58.86	10.31	1.3	336.3	Joint
28	37	316	59.41	59.49	10.31	1.4	334.6	Joint
29	62	037	59.57	59.76	10.24	1.4	331.3	Joint
30	24	262	59.85	59.90	10.31	1.4	332.5	Joint
31	87	214	59.43	60.81	10.31	1.4	335.9	Joint
32	66	287	60.28	60.53	10.31	1.4	330.4	Joint
33	75	323	60.36	60.78	10.31	1.4	336.5	Joint
34	69	040	60.47	60.74	10.31	1.4	334.2	Joint
35	63	285	60.58	60.79	10.31	1.4	338.9	Joint
36	69	277	60.83	61.11	10.23	1.5	334.3	Joint

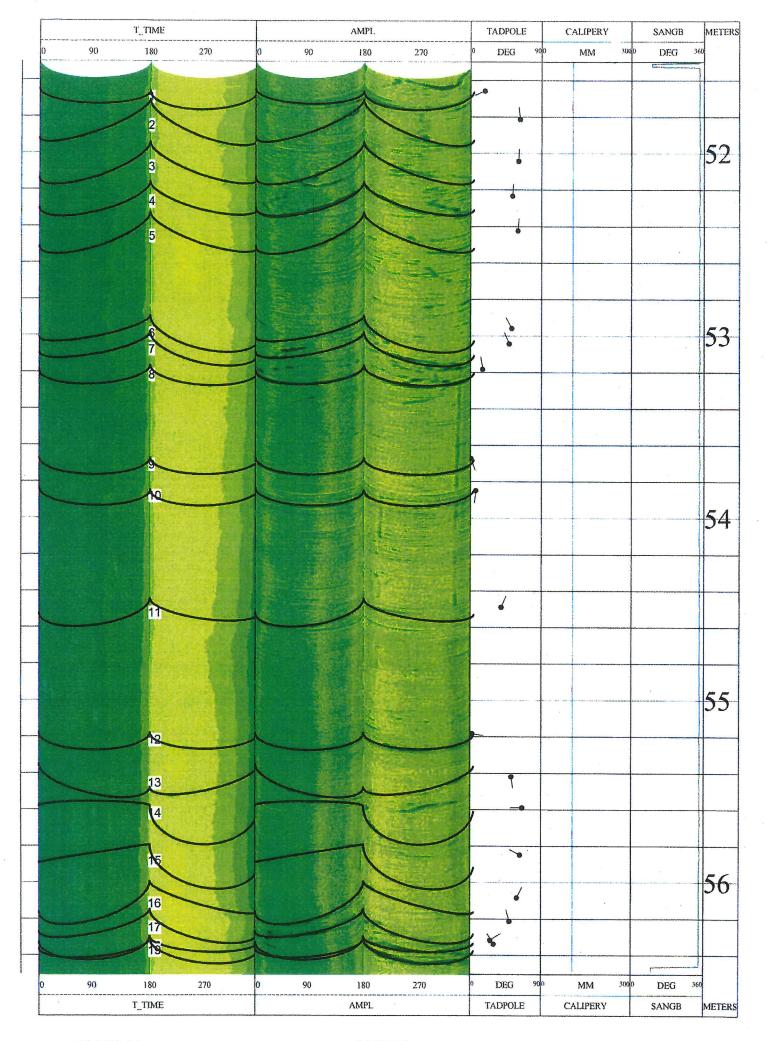
Checked by: M proche William

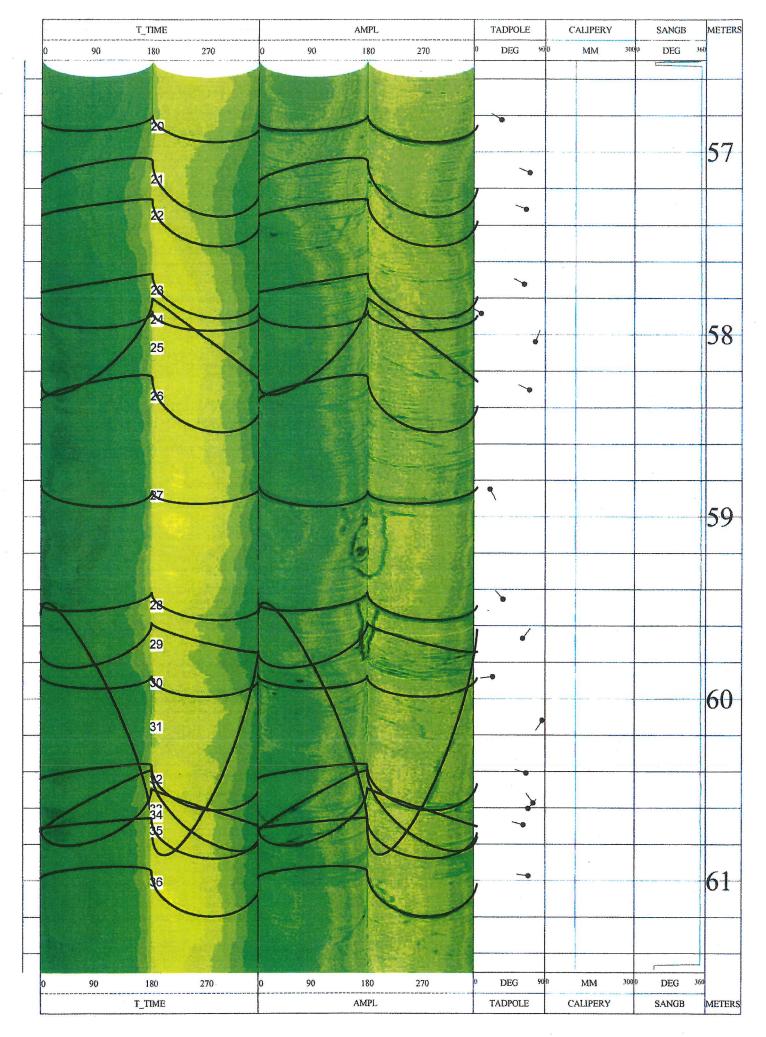




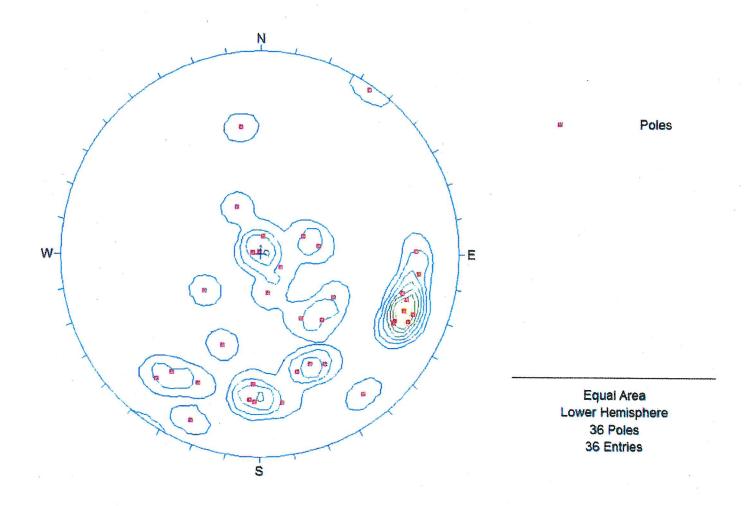












Borehole No.

Contract No.

Contract

Location

: Ground Investigation - New Territories West (Term Contract)

: GE/2014/07.34 : Yuen Long

: S2-DH16

Appendix H

Standpipe and Piezometer Detail and Response Test Record Sheets

DRILLHOLE STANDPIPE DETAIL

Drillhole No.:

AND RESPONSE TEST RECORD SHEET S1-DH07 (Upper) 4-Dec-15 Contract No.: GE/2014/07 Date of Installation: Works Order No. : GE/2014/07.34 Date of Test: 7-Dec-15 Ground Level: Project: +4.35 mPD Ground Investigation - New Territories West (Term Contract) Co-ordinates: Agreement No. CE 32/2014 (HY) Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction E 820697.12 N 834114.81 Initial Water Level: -5.65 m below G.L. 1.93 Standpipe Tip Level: mPD C.K. Chiu Tested / Supervised By: Checked By: R. Chu Dip meter I.D.: DT-010-008 **Checked Date:** 7-Dec-15 Time Depth of Water **Depth below Ground Level** Lockable cover from top of pipe Elapsed Concrete surface box Ground Level (minutes) (m) 0 0.00 0.06 PVC cap with vent hole 0.25 1.32 Drain pipe 0.50 1.58 0.75 1.65 1.00 1.68 Bentonite seal 1.50 1.73 3.00 m 1.77 Pipe dia.: 25mm 2.00 3.50 1.79 3.00 4.00 1.81 Response Zone 5.00 1.83 (Filter Aggregates) 6.00 1.85 7.00 1.86 10.00 m 8.00 1.87 10.50 m Bentonite seal 11.50 m Cement Bentonite Grout (1:3)37.20 Bentonite seal 38.20 m Filter Material: Aggregates Material Surrounding Response Zone: Response Zone From 3.00m to 5.00m: FILL (Slightly clayey (Filter Sand) silty fine to coarse SAND) 39.20 m 39.70 From 5.00m to 10.50m: ALLUVIUM (Slightly sandy silty CLAY / Slightly silty Bentonite seal clayey fine to coarse SAND / Slightly silty 40.70 clayey sandy fine to coarse GRAVEL) Cement Bentonite Grout 59.99 (1:3)Remarks :

Base of drillhole

(N.T.S.)

DGFI \Site-F11ai 03/02 STD

DRILLHOLE PIEZOMETER DETAIL

Drillhole No. :

DAIL	IECH	AND RESPONSI	E TEST RECORD SH	EET	S1-DH07 (Lower)
Contract No. :	GE/2014/07		Date of Installation :		ec-15
Works Order No. :	GE/2014/07.34		Date of Test :	7-Dec	-15
Project:		Y .	Ground Level:	+4.35	mPD
Ground Investigation Agreement No. CE	on - New Territories We	est (Term Contract)	Co-ordinates:		
	32/2014 (HY) n Corridor in Yuen Long	Town connecting with			
ong Ping Station -	· Investigation, Design a	nd Construction	T 000 (07 10		024114 01
			E 820697.12	-34.85	834114.81 mPD
nitial Water Level		2.77 m below G.L.	Piezometer Tip Level:		Chu
Cested / Supervised Dip meter I.D. :	1 By :	C.K. Chiu DT-010-008	Checked By : Checked Date :	7-Dec	
Time	Depth of Water	Depth below Ground Level	Checked Date .	, 200	Lockable cover
Elapsed	from top of pipe	Depth below Ground Level			Concrete surface box
Zimpseu .	22 000 000 00 6-4-5	Ground	d Level	<u> </u>	
(minutes)	(m)	^			
0	0.00	m		- I	PVC cap with
0.25	1.71				vent hole
0.50	2.20			7777	Drain pipe
0.75	2.53				
1.00	2.62				Bentonite seal
1.50	2.66	3.00 m			
2.00	2.67	3.50 m		4	Pipe dia.: 25mm
3.00	2.68	1	0 0		
4.00	2.69	1 .	0 0		Response Zone
5.00	2.69	1	0 0		(Filter Aggregates)
6.00	2.70		0 0		
7.00	2.70	10.00 m	0 0		
8.00	2.71	10.50 m			
					Bentonite seal
-		11.50 m			W.
					, .
2		1		C	ement Bentonite Grout
		1			(1:3)
		37.20 m			
					Bentonite seal
	· · · · · · · · · · · · · · · · · · ·	38.20 m		. ////	
Filter Material:	Sand			1	
Material Surroundin		1	0	1	Response Zone
		a 1	.	,	(Filter Sand)
	70m: CAVITY-FILL y clayey silty sandy fine	39.20 m	•	,	(
o coarse GRAVEL		39.70 m			
	*	III			Bentonite seal
		40.70		/////	Dentonite sear
		m	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		
				. (/////	. D
					ement Bentonite Grout
		m			(1:3)
Remarks :	je		(4) E		
3s ,		2	Base of drill	lhole.	a.

DGFL\Site-F11ai_03/02_STD

DRILLHOLE STANDPIPE DETAIL

AND RESPONSE TEST RECORD SHEET

Drillhole No.:

S1-DH11 (Upper)

Contract No. : GE/2014/07 Date of Installation : 16-Dec-15 Works Order No. : GE/2014/07.34 Date of Test: 17-Dec-15 Project: Ground Level: +4.73 mPD Ground Investigation - New Territories West (Term Contract) Co-ordinates: Agreement No. CE 32/2014 (HY) Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction E 820728.54 N 833792.53 Initial Water Level: 3.29 m below G.L. Standpipe Tip Level: -12.77mPD Tested / Supervised By: C.K. Chiu Checked By: R. Chu DT-010-008 Dip meter I.D. : Checked Date: 17-Dec-15

Time	Depth of Water	Depth below Ground Level		Lockable cover
Elapsed	from top of pipe	**		Concrete surface box
(()	Ground Le	evel	pri net standing
(minutes)	(m) 0.00	0.04		DVG :d
0 ,	-	m		PVC cap with vent hole
0,25	3.07	. 1		
0.50	3.13			Drain pipe
0.75	3.17	0 018		
1.00	3.20			Bentonite seal
1.50	3.22	3.00 m		
2.00	3.23			Pipe dia.: 25mm
3.00	3.24		0 0	
4.00	3.25		0 0	Response Zone
		* ,	0 0	(Filter Aggregates)
	1		0 0	
		17.50 m	0 0	
		18.00 m		
		,		Bentonite seal
		19.00 m		
		,		Cement Bentonite Grout
				(1:3)
		26.50 m		
	743			Bentonite seal
		27.50 m		
Filter Material:	Aggregates			~~ 1 †
Material Surroundi		*	11	Response Zone
	0m: FILL / CONCRETE	,	11	(Filter Sand)
(Silty sandy CLAY		28.30 m	1.0	,
GRAVEL)		28.80 m		1 1
From 5.20m to 18.	00m· ALLUVIIIM			Bentonite seal
	ty fine to coarse SAND /	29.80 m	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	Bentome scar
	y sandy fine GRAVEL)	III		
				Cement Bentonite Grout
		80.99 m		
Remarks :	***************************************	m	VIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	(1:3)
Kemarks :			Desc of duitte-1.	
al.	9 8	%	Base of drillhole	
				(N.T.S.)

DRILLHOLE PIEZOMETER DETAIL

AND RESPONSE TEST RECORD SHEET

Drillhole No.:

S1-DH11 (Lower)

16-Dec-15 Date of Installation: Contract No. : GE/2014/07 17-Dec-15 Works Order No. : GE/2014/07.34 Date of Test: mPD Ground Level: +4.73 Project: Ground Investigation - New Territories West (Term Contract) Co-ordinates: Agreement No. CE 32/2014 (HY) Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction E 820728.54 N 833792.53 Piezometer Tip Level: -23.57 mPD m below G.L. Initial Water Level: 3.05

Initial Water Level:

Tested / Supervised By:

C.K. Chiu

Checked By:

Checked By:

Time

Depth of Water

Elapsed

Frezometer Tip Level:

Checked By:

Checked By:

Checked Date:

17-Dec-15

Lockable cover

Concrete surface box

Time	Depth of Water	Depth	below Grou	ınd Level				Lockable cover
Elapsed	from top of pipe			_				Concrete surface box
	2005			Groun	d Level		<u> </u>	
(minutes)	(m)		0.04					PVC cap with
0	0.00		0.04	_ ^m			1	vent hole
0.25	0.46			197			17 43	Drain pipe
0.50	1.02					<i>1111</i> 111	/////	Diam pipe
0.75	1.40							
· 1.00	1.70							Bentonite seal
1.50	2.07		3.00	m				
2.00	2.26		3.50	m				Pipe dia.: 25mm
3.00	2.48				٠	0 0		
4.00	2.60					0 0		Response Zone
5.00	2.68					0 0		(Filter Aggregates)
6.00	2.73		÷			0 0	1. 1	
7.00	2.78		17.50	m	e.	0 0	1,	
8.00	2.83		18.00	m				
9.00	2.87							Bentonite seal
10.00	2.90		19.00	m				
15.00	2.97	,		_				
20.00	2.99							Cement Bentonite Grout
25.00	3.01							(1:3)
			26.50	m				
			(*)					Bentonite seal
			27.50	m				8
Filter Material:	Sand	1						1
Material Surroundi			51			0		Response Zone
I .	3.80m: KARST DEPOSITS					1		(Filter Sand)
	y CLAY / Slightly sandy		28.30	m		1		
clayey silty fine to			28.80	— m			-	
			20.00					Bentonite seal
	3	4	29.80	m				
			M7.00	- ***				
								Cement Bentonite Grout
æ			80.99	m				(1:3)
D		1	00.77	m			<i></i>	(1.3)
Remarks :						Base of drill	hole	
						Dase of alli	HOIC	(N.T.S.)
								(14.1.5.)

DRILLHOLE STANDPIPE DETAIL

AND RESPONSE TEST RECORD SHEET

Drillhole No.:

S1-DH12A (Upper)

Bentonite seal

Cement Bentonite Grout

Base of drillhole

(1:3)

(N.T.S.

Date of Installation : 26-Nov-15 Contract No. : GE/2014/07 Date of Test: 27-Nov-15 Works Order No. : GE/2014/07.34 Ground Level: +5.38 mPD Project: Ground Investigation - New Territories West (Term Contract) Co-ordinates: Agreement No. CE 32/2014 (HY) Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction E 820693.55 N 833760.48 mPD m below G.L. Standpipe Tip Level: -12.72 Initial Water Level: 3.81 Checked By: Tested / Supervised By: C.K. Chiu R. Chu DT-010-008 Checked Date: 27-Nov-15 Dip meter I.D.: Time Depth of Water Depth below Ground Level Lockable cover Concrete surface box Elapsed from top of pipe Ground Level (minutes) (m) 0 0.00 0.08 PVC cap with m vent hole 0.25 3.33 Drain pipe 0.50 3.60 0.75 3.65 1.00 3.69 Bentonite seal 1.50 3.71 1.50 m 2.00 Pipe dia.: 25mm 2.00 3.72 m 3.00 3.73 Response Zone (Filter Aggregates) 18.10 18.60 m Bentonite seal 19.40 Filter Material: Aggregates Material Surrounding Response Zone: Response Zone (Filter Sand) From 1.50m to 4.10m: FILL (Silty sandy CLAY / Slightly silty clayey fine to coarse 20.20 m SAND) 20.70 m

21.70

41.30

Remarks :

DGFL\Site-F11ai 03/02 STD

From 4.10m to 18.60m: ALLUVIUM (Slightly sandy silty CLAY / Slightly clayey

silty fine to coarse SAND)



DRILLHOLE PIEZOMETER DETAIL AND RESPONSE TEST RECORD SHEET

Drillhole No.:

S1-DH12A (Lower)

Bentonite seal

(N.T.S.)

GE/2014/07 Date of Installation: 26-Nov-15 Contract No.: Works Order No. : GE/2014/07.34 Date of Test: 27-Nov-15 Ground Level: mPD +5.38 **Ground Investigation - New Territories West (Term Contract)** Co-ordinates: Agreement No. CE 32/2014 (HY) Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction N 833760.48 E 820693.55 Initial Water Level: 3.73 m below G.L. Piezometer Tip Level: -14.82 mPD Tested / Supervised By: C.K. Chiu Checked By: R. Chu DT-010-008 Checked Date: Dip meter I.D. : 27-Nov-15 Depth of Water Time **Depth below Ground Level** Lockable cover Elapsed from top of pipe Concrete surface box Ground Level (minutes) (m) 0 0.00 0.08 PVC cap with m vent hole 0.25 2.70 Drain pipe 0.50 3.42 0.75 3.50 1.00 3.55 Bentonite seal

1.50 3.58 1.50 Pipe dia.: 25mm 2.00 3.60 2.00 m 3.00 3.62 0 0 3.63 Response Zone 4.00 0 0 5.00 3.64 (Filter Aggregates) 6.00 3.65 18.10 m 18.60 m 19.40 Filter Material: Sand Material Surrounding Response Zone: From 19.40m to 20.70m: KARST DEPOSITS

41.30 m

(Slightly sandy clayey SILT) 20.20 m 20.70 21.70

Response Zone (Filter Sand) Bentonite seal Cement Bentonite Grout (1:3)

Remarks:

Base of drillhole

DRILLHOLE STANDPIPE DETAIL

AND RESPONSE TEST RECORD SHEET

Drillhole No.:

		AND RESPONSI	E TEST RECC	ORD SHEE	Г	S1-DH13 (Upper)
Contract No. :	GE/2014/07		Date of Installation	on :	10-De	ec-15
Works Order No. :	: GE/2014/07.34		Date of Test :		12-Dec-	-15
Project:	4		Ground Level:		+4.55	mPD
	ion - New Territories Wes	st (Term Contract)	Co-ordinates:	V #		
Agreement No. CE		m				
	n Corridor in Yuen Long - Investigation, Design an					
Long I mg Station	- Investigation, Design an		E	820696.35	N	833945.40
Initial Water Leve	d:	3.37 m below G.L.	Standpipe Tip Le	evel:	-2.05	mPD
Tested / Supervise		C.K. Chiu	Checked By:	· .		Chu /
Dip meter I.D. :		DT-010-008	Checked Date:		12-Dec	
Time	Depth of Water	Depth below Ground Level	2 *			Lockable cover
Elapsed	from top of pipe	Chorn	d Level	1		Concrete surface box
(minutes)	(m)	Oround	Level		District State	TAR START
0	0.00	0.05 m				PVC cap with
0.25	0.40			711		vent hole
		a a			E LATE	Drain pipe
0.50	0.62		V///)			, p.p.
0.75	0.80	2:				
1.00	0.99	r.			//	Bentonite seal
1.50	1.28	m			4	
2.00	1.51	m				Pipe dia. : 25mm
3.00	1.93			0 0		
4.00	2.30		1 1	0 0		Response Zone
5.00	2.57		9) 12	0 0		(Filter Aggregates)
6.00	2.79			0 0		
7.00	2.96	6.60 m		0 0		
8.00	3.07	7.10 m	1 '		1 1	
9.00	3.14				"	Bentonite seal
10.00	3.20	8.10 m				
15.00	3.32					
15.00	3.32	i i))) Co	ment Bentonite Grout
					<u> </u>	
		40.70				(1:3)
		48.70 m			\gg	
		8 may 1999			//	Bentonite seal
*		m			2 4 .	
Filter Material:	Aggregates	e e e e e e e e e e e e e e e e e e e				
Material Surroundi	ng Response Zone:	s 7			,	Response Zone
	0m: FILL (Clayey silty fine	•		UU		(Filter Sand)
to coarse SAND / S	Silty sandy CLAY)			0.0		
From 6.10m to 7.10	0m: ALLUVIUM (Slightly	51.00 m			↓	
clayey silty fine to	coarse SAND / Silty sandy					Bentonite seal
CLAY)		52.00 m				^
0.0					Ce	ment Bentonite Grout
		71.56 m				(1:3)
D					777	(1.3)
Remarks :	**	,	70	C J .:111. 1		
			Ва	ase of drillhole	•	~·
200						(N.T.S

DRILLHOLE PIEZOMETER DETAIL

Drillhole No.:

AND RESPONSE TEST RECORD SHEET

S1-DH13 (Lower)

Bentonite seal

(N.T.S.)

Cement Bentonite Grout
(1:3)

Base of drillhole

			7	SI-DIII3	LUWE
Contract No.:	GE/2014/07		Date of Installation :	10-Dec-15	
Works Order No. :	GE/2014/07.34		Date of Test :	12-Dec-15	
Project:			Ground Level:	+4.55	mPD
Agreement No. CE		est (Term Contract) ng Town connecting with	Co-ordinates:		
Long Ping Station -	Investigation, Design	and Construction	E 820696.35		
Initial Water Level	:	2.72 m below G.L.	Piezometer Tip Level :		mPD
Tested / Supervised	By:	C.K. Chiu	Checked By:	R. Chu	
Dip meter I.D. :	The Cart	DT-010-008	Checked Date:	12-Dec-15	7-15-10-10-10-10-10-10-10-10-10-10-10-10-10-
Time	Depth of Water	Depth below Ground Level	ž	Lockable Concrete surface	
Elapsed	from top of pipe	Ground	d Level	Concrete surface	~ DUA
(minutes)	(m)				
0	0.00	0.05 m		PVC cap	with
0.25	0.13			ven	t hole
0.50	0.24	1		Drain	n pipe
0.75	0.37	1 .			
1.00	0.47	1		Bentonit	e seal
1.50	0.66	1.50 m			
2.00	0.86	2.00 m		Pipe dia. : 2	25mm
3.00	1.17	, , , , , , , , , , , , , , , , , , , ,	0 0		
4.00	1.39		0 0	Response Zone	•
5.00	1.60		. 00	(Filter Aggrega	ates)
6.00	1.76	7	0 0		,
7.00	1.90	6.60m	0 0		
8.00	2.02	7.10 m			
9.00	2.12	<u> </u>		Bentonit	te seal
10.00	2.20	8.10 m			
15.00	2.46				
20.00	2.57			Cement Bentonite	Grout
25.00	2.63			(1:3)	
30.00	2.65	48.70 m			
45.00	2.67			Bentonii	te seal
	0 1	m		////	٠
Filter Material:	Sand				
Material Surroundin		,	N	Response Zone	•
From 49.70m to 51.0 (Slightly sandy claye	00m: KARST DEPOSIT ey SILT)	50.50 m		(Filter Sand)	
		m	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
4		W		//////	70

52.00 m

71.56 m

Remarks:

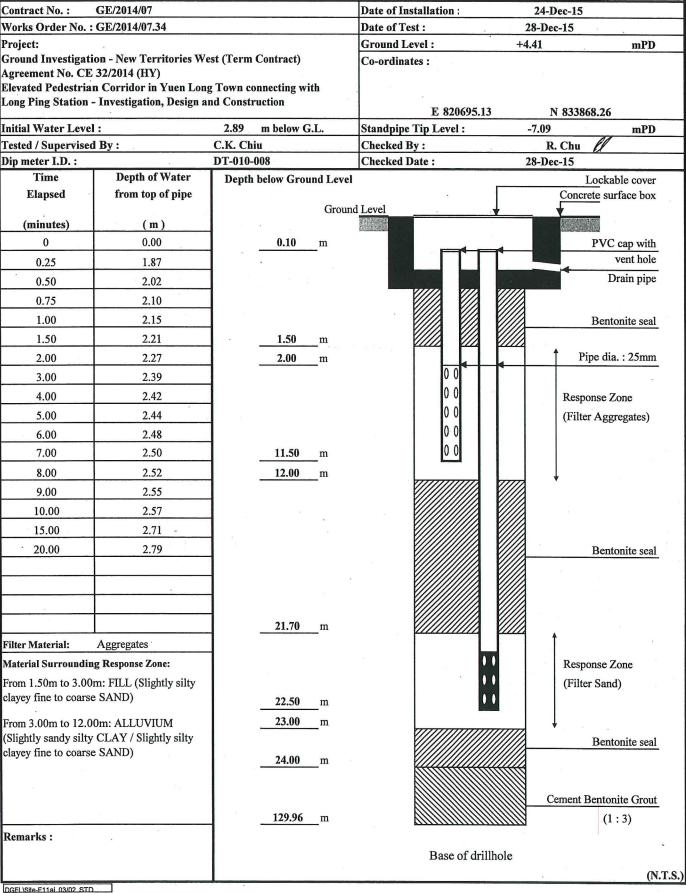


DRILLHOLE STANDPIPE DETAIL

AND RESPONSE TEST RECORD SHEET

Drillhole No.:

S1-DH14 (Upper)



DRILLHOLE PIEZOMETER DETAIL

Drillhole No.:

S1-DH14 (Lower)

mPD

AND RESPONSE TEST RECORD SHEET

Ground Level:

Co-ordinates:

Contract No.: GE/2014/07 Date of Installation: 24-Dec-15
Works Order No.: GE/2014/07.34 Date of Test: 28-Dec-15

Project:

Ground Investigation - New Territories West (Term Contract)

Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting with

Long Ping Station - Investigation, Design and Construction

E 820695.13 N 833868.26

+4.41

Initial Water Level:

3.00 m below G.L. Piezometer Tip Level:
-18.09 mPD

Cested / Supervised By:
C.K. Chiu
Checked By:
R. Chu
Dip meter I.D.:
DT-010-008
Checked Date:
28-Dec-15

Dip meter 1.D.:		D1-010-000		Спескей			
Time	Depth of Water	Depth below Gro	und Lev	el			Lockable cover
Elapsed	from top of pipe		_				Concrete surface box
()	()		Grou	and Level		*	
(minutes)	(m)	0.10	m	河流			PVC cap with
0	0.00		— ^m			7	vent hole
0.25	0.30	-					Drain pipe
0.50	0.67	-				////	. **
0.75	0.86	-{					Bentonite seal
1.00	1.11	-					Bentomte sear
1.50	1.40	1.50	m				Pipe dia.: 25mm
2.00	1.66		m		0 0	-	r ipe dia 25mm
3.00	1.91	-			0 0		
4.00	2.11	4			0 0		Response Zone
5.00	2.24	4					(Filter Aggregates)
6.00	2.35	4			0 0		p.
7.00	2.42	11.50	m		0 0		
8.00	2.48	12.00	m		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		↓
9.00	2.53	_					
10.00	2.57	_					
15.00	2.69	_					
20.00	2.76						Bentonite seal
25.00	2.80	_					
30.00	2.81						ad
45.00	2.82						
60.00	2.83	21.70	m				· 👗
Filter Material:	Aggregates						2
Material Surroundi	ng Response Zone:	1			•	•	Response Zone
	.60m: ALLUVIUM				•	•	(Filter Sand)
(Slightly clayey silt	ty fine to coarse SAND)	22.50	m		•	0	l a
From 22.60m to 23		23.00	m				1
SILTSTONE (Sligh	htly sandy silty CLAY)						Bentonite seal
		24.00	m				
		4					Cement Bentonite Grout
		129.96	m				(1:3)
Remarks :		,					
					Base of dril	lhole	
×							(N.T.S.)

Appendix I

Water Level Monitoring Records



WATER LEVEL MONITORING RECORD

Drillhole No.

S1-DH07 (Upper)

Contract No.:

GE/2014/07

Works Order No.:

GE/2014/07.34

Standpipe

Co-ordinates:

Project:

Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town

connecting with Long Ping Station -

Investigation, Design and Construction

E 820697.12

N 834114.81

Ground Level:

+4.35mPD

Depth:

10.00m

Date of Installation:

4-Dec-15

Tip Level:

-5.65mPD

Measured By:

C.K. Chiu D.D.

Dip Meter I.D.:

DT-010-008

181		Ground Wat			
Date	Time	Depth below Ground Level (m)	Reduced Level (mPD)	Weather	
8-Dec-15	13:00	1.93	+2.42	Cloudy	
9-Dec-15	14:00	1.95	+2.40	Rain	
10-Dec-15	9:00	2.20	+2.15	Cloudy	
11-Dec-15	9:30	2.23	+2.12	Cloudy	
12-Dec-15	10:00	3.02	+1.33	Cloudy	
14-Dec-15	9:00	3.10	+1.25	Fine	
15-Dec-15	13:00	3.11	+1.24	Fine	
	-				
				·	
				0 5	
	Ÿ.	4	0	81.	
0			5		

Remarks:



WATER LEVEL **MONITORING RECORD**

Drillhole No.

S1-DH07 (Lower)

Contract No.:

GE/2014/07

Works Order No.:

GE/2014/07.34

Piezometer Co-ordinates:

Project:

Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town

connecting with Long Ping Station -

Investigation, Design and Construction

E 820697.12

N 834114.81

Ground Level:

+4.35mPD

Depth:

39.20m

Date of Installation:

4-Dec-15

Tip Level:

-34.85mPD

Measured By:

C.K. Chiu

DT-010-008 Dip Meter I.D.:

		Ground Wat		
Date	Time	Depth below Ground Level (m)	Reduced Level (mPD)	Weather
8-Dec-15	13:02	2.77	+1.58	Cloudy
9-Dec-15	14:02	2.76	+1.59	Rain
10-Dec-15	9:02	2.78	+1.57	Cloudy
11-Dec-15	9:32	2.76	+1.59	Cloudy
12-Dec-15	10:02	2.74	+1.61	Cloudy
14-Dec-15	9:02	2.73	+1.62	Fine
15-Dec-15	13:02	2.73	+1.62	Fine
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	· · · · · · · · · · · · · · · · · · ·	***		
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WATER LEVEL **MONITORING RECORD**

Drillhole No.

S1-DH11 (Upper)

Contract No.:

Works Order No.:

GE/2014/07

GE/2014/07.34

Standpipe

Co-ordinates:

Project:

Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town

connecting with Long Ping Station -Investigation, Design and Construction E 820728.54

N 833792.53

Ground Level:

+4.73mPD

Depth:

17.50m

Date of Installation:

16-Dec-15

Tip Level:

-12.77mPD

Measured By:

C.K. Chiu

Dip Meter I.D.: DT-010-008

-		Ground Wat	ter Level		
Date	Time	Depth below Ground Level (m)	Reduced Level (mPD)	Weather	
18-Dec-15	13:15	3.29	+1.44	Fine	
19-Dec-15	14:10	3.28	+1.45	Fine	
21-Dec-15	8:45	3.33	+1.40	Cloudy	
22-Dec-15	9:00	3.31	+1.42	Cloudy	
23-Dec-15	9:00	3.32	+1.41	Cloudy	
24-Dec-15	9:10	3.32	+1.41	Cloudy	
28-Dec-15	9:10	3.32	+1.41	Cloudy	
	* * o		é		
			<u>.</u>	.81	
- 1965 - 1					
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	*				
	¥				
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		9	*	•	

DGEL\Site-F12 03/02 STD



Drillhole No.

S1-DH11 (Lower)

Contract No.:

GE/2014/07

Piezometer

Works Order No.:

GE/2014/07.34

Co-ordinates:

Project:

Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town

connecting with Long Ping Station -Investigation, Design and Construction E 820728.54

N 833792.53

Ground Level:

+4.73mPD

Depth:

28.30m

Date of Installation:

16-Dec-15

Tip Level:

-23.57mPD

Measured By:

C.K. Chiu

1x 11

Dip Meter I.D. : DT-010-008

		//	T 1	
		Ground Water		
Date	Time	Depth below Ground Level (m)	Reduced Level (mPD)	Weather
18-Dec-15	13:17	3.10	+1.63	Fine
19-Dec-15	14:12	3.15	+1.58	Cloudy
21-Dec-15	8:47	3.13	+1.60	Cloudy
22-Dec-15	9:02	3.18	+1.55	Cloudy
23-Dec-15	9:02	3.17	+1.56	Cloudy
24-Dec-15	9:12	3.15	+1.58	Cloudy
28-Dec-15	9:12	3.16	+1.57	Cloudy
				20
5				
				-
1				
			*	
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	,			



Drillhole No.

S1-DH12A (Upper)

Contract No.:

Works Order No.:

GE/2014/07

GE/2014/07.34

Standpipe
Co-ordinates:

Project:

Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town

connecting with Long Ping Station -Investigation, Design and Construction

Ground Level:

E 820693.55

N 833760.48

Ground Level:

+5.38mPD

Depth:

18.10m

Date of Installation:

26-Nov-15

Tip Level:

-12.72mPD

Measured By:

C.K. Chiu مرار الله

Dip Meter I.D.:

DT-010-008

		Ground Wa	ter Level	
Date	Time	Depth below Ground Level (m)	Reduced Level (mPD)	Weather
28-Nov-15	13:30	3.57	+1.81	Fine
30-Nov-15	13:00	3.57	+1.81	
1-Dec-15	9:30 3.58	+1.80	Cloudy	
2-Dec-15	9:30	3.55	+1.83	Cloudy
3-Dec-15	9:00	3.56	+1.82	Cloudy
4-Dec-15	11:20	3.56	+1.82	Fine
5-Dec-15	11:00	3.59	+1.79	Rain
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				124

Remarks:



Drillhole No.

S1-DH12A (Lower)

Contract No.:

Works Order No.:

GE/2014/07

GE/2014/07.34

Piezometer
Co-ordinates:

Project:

Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town

connecting with Long Ping Station Investigation, Design and Construction

E 820693.55

N 833760.48

Ground Level:

+5.38mPD

Depth:

20.20m

Date of Installation:

26-Nov-15

Tip Level:

-14.82mPD

Measured By:

C.K. Chiu

Dip Meter I.D. :

DT-010-008

		Ground Wa	ter Level	
Date	Time	Depth below Ground Level (m)	Reduced Level (mPD)	Weather
28-Nov-15	13:32	3.57	+1.81	Fine
30-Nov-15	13:02	3.58	+1.80	Fine
1-Dec-15	9:32	3.59	+1.79	Cloudy
2-Dec-15	9:32	3.57	+1.81	Cloudy
3-Dec-15	9:02	3.57	+1.81	Cloudy
4-Dec-15	11:22	3.57	+1.81	Fine
5-Dec-15	11:02	3.59	+1.79	Rain
	9			
		v		
			Table 1	*
		9		
	×			
9				×
	*	2		
		,		



Drillhole No.

S1-DH13 (Upper)

Contract No.:

GE/2014/07

Works Order No. : GE/2014/07.34

Standpipe

Co-ordinates:

Project:

Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town

connecting with Long Ping Station -

Investigation, Design and Construction

E 820696.35

N 833945.40

Ground Level:

+4.55mPD

Depth:

6.60m

Date of Installation:

10-Dec-15

Tip Level:

-2.05mPD

Measured By:

C.K. Chiu

Dip Meter I.D.:

DT-010-008

20		Ground Wate	r Level	0
Date	Time	Depth below Ground Level (m)	Reduced Level (mPD)	Weather
14-Dec-15	9:15	3.32	+1.23	Cloudy
15-Dec-15	13:15	3.30	+1.25	Cloudy
16-Dec-15	9:00	3.25	+1.30	Cloudy
17-Dec-15	9:00	3.25	+1.30	Fine
18-Dec-15	13:00	3.23	+1.32	Fine
19-Dec-15	14:20	3.21	+1.34	Fine
21-Dec-15	9:00	3.19	+1.36	Cloudy
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DGEL\Site-F12 03/02 STD



Drillhole No.

S1-DH13 (Lower)

Contract No.:

GE/2014/07

Works Order No. :

GE/2014/07.34

Co-ordinates:

Piezometer

Project:

Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town

connecting with Long Ping Station -

Investigation, Design and Construction

E 820696.35

N 833945.40

Ground Level:

+4.55mPD

Depth:

50.50m

Date of Installation:

10-Dec-15

Tip Level:

-45.95mPD

Measured By:

C.K. Chiu

Dip Meter I.D. :

DT-010-008

		Ground Water	er Level	
Date	Time	Depth below Ground Level (m)	Reduced Level (mPD)	Weather
14-Dec-15	9:17	2.68	+1.87	Cloudy
15-Dec-15	13:17	2.70	+1.85	Cloudy
16-Dec-15	9:02	2.71	+1.84	Cloudy
17-Dec-15	9:02	2.73	+1.82	Fine
18-Dec-15	13:02	2.74	+1.81	Fine
19-Dec-15	14:22	2.70	+1.85	Fine
21-Dec-15	9:02	2.74	+1.81	Cloudy
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DGEL\Site-F12 03/02 STD



Drillhole No.

S1-DH14 (Upper)

Contract No.:

GE/2014/07

Works Order No. :

GE/2014/07.34

Standpipe

Co-ordinates:

Project:

Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town

connecting with Long Ping Station -Investigation, Design and Construction E 820695.13

N 833868.26

Ground Level:

+4.41mPD

Depth:

11.50m

Date of Installation:

24-Dec-15

Tip Level:

-7.09mPD

Measured By:

C.K. Chiu

Dip Meter I.D.:

DT-010-008

Time	Depth below Ground Level (m)	Reduced Level (mPD)	Weather
13:00	2.97	+1.44	Fine
13:00	3.03	+1.38	Fine
9:00	3.06	+1.35	Fine
9:00	3.07	+1.34	Fine
13:00	3.08	+1.33	Cloudy
13:00	3.08	+1.33	Rainy
9:15	3.02	+1.39	Fine
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	13:00 9:00 9:00 13:00	(m) 13:00 2.97 13:00 3.03 9:00 3.06 9:00 3.07 13:00 3.08 13:00 3.08	(m) (mPD) 13:00 2.97 +1.44 13:00 3.03 +1.38 9:00 3.06 +1.35 9:00 3.07 +1.34 13:00 3.08 +1.33 13:00 3.08 +1.33 9:15 3.02 +1.39

DGEL\Site-F12 03/02 STD



Drillhole No.

S1-DH14 (Lower)

Contract No.:

GE/2014/07

Works Order No.:

GE/2014/07.34

Co-ordinates:

Piezometer

Project:

Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town

connecting with Long Ping Station -

Investigation, Design and Construction

E 820695.13

N 833868.26

Ground Level:

+4.41mPD

Depth:

22.50m

Date of Installation:

24-Dec-15

Tip Level:

-18.09mPD

Measured By:

C.K. Chiu

Dip Meter I.D.:

DT-010-008

		Ground Wat	er Level	
Date	Time	Depth below Ground Level (m)	Reduced Level (mPD)	Weather
29-Dec-15	13:02	3.16	+1.25	Fine
30-Dec-15	13:02	3.21	+1.20	Fine
31-Dec-15	9:02	3.25	+1.16	Fine
2-Jan-16	9:02	3.27	+1.14	Fine
4-Jan-16	13:02	3.28	+1.13	Cloudy
5-Jan-16	13:02	3.28	+1.13	Rainy
6-Jan-16	9:17	3.29	+1.12	Fine
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Appendix J

Chain of Custody Documentations and Photographs of Environmental Samples

	CHAIN OF CUSTODY DOCUMENTATION	00C	UME	NTAI	N <u>O</u>							Ė		H 031547		
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PROJECT MANAGER (PM):	GER (PM): F CBN P 1-	<u>*</u>	P.M.				A	PHONE		2908	064					ALS Laboratory Group
PROJECTID:	YUSU Lorg	5	1 TOIH	レーシ	ነ ን삭		EM	EMAIL REPORT TO	RT TO:	艾	Klainemong(R)	on ala	AKN D. (OM	, (0M),	arthu	arthur, chiu (d) arup, com
SITE:	prof Wan/			P.O. NO.:		A CONTRACTOR OF THE CONTRACTOR	EN	AIL INVOI	SE TO: (if	EMAIL INVOICE TO: (if different to report)	report)	<i>\</i>				「一個の一個の一個の一個の一個の一個の一個の一個の一個の一個の一個の一個の一個の一
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Intact: Yes N SAMPLE TEMPERATURE CHILLED: Yes	S No (N/A). RATURE SS) No						5mt	5 M	829)	Ţâ						Extra volume for QC or trace LORs etc.
	EINFORM	= Soil, W	=Water)		CONTAINE	CONTAINER INFORMATION		i-einkin	Judition.	1						
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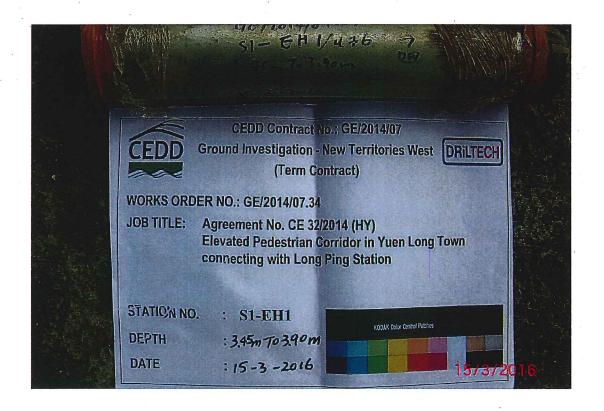
ALS Laboratory Group

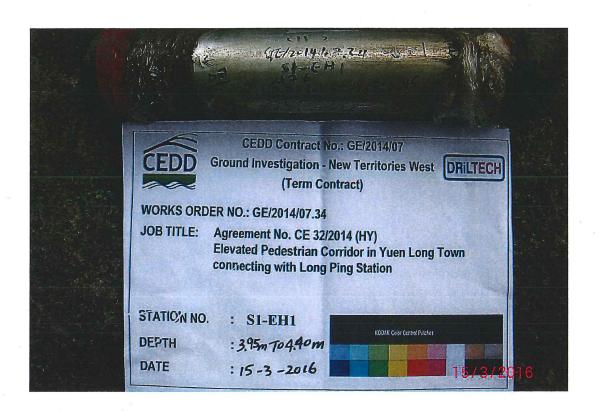
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottle; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soll; B = Unpreserved Bag.

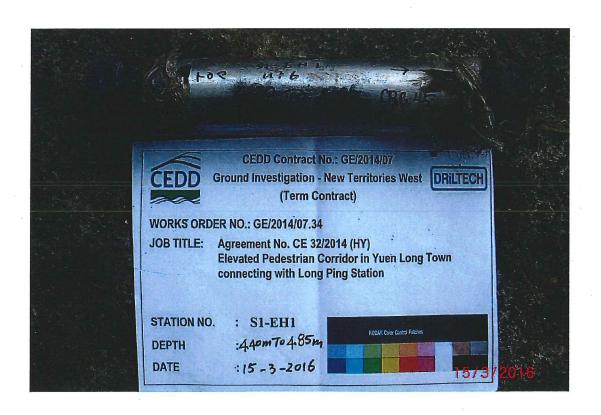
WHITE - LAB COPY
YELLOW - CUSTOMER COPY
PINK - BOOK COPY

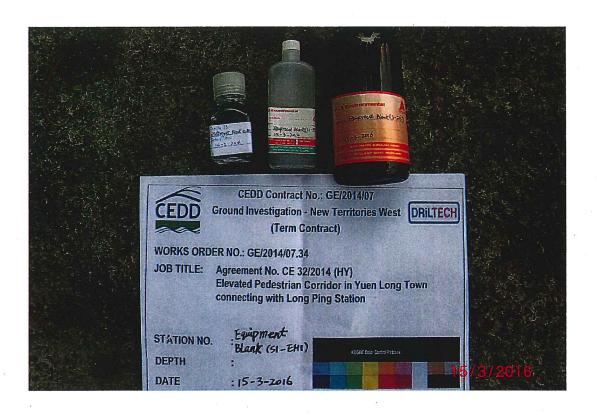
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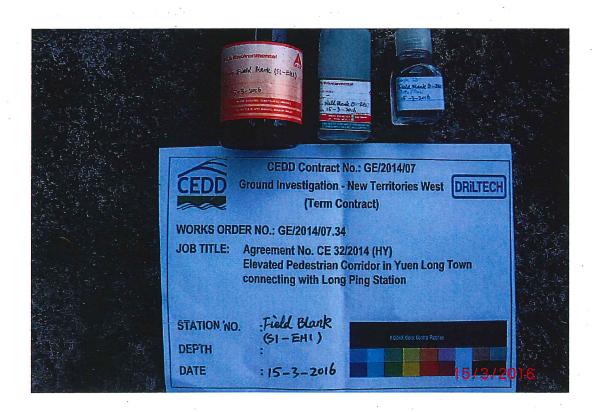


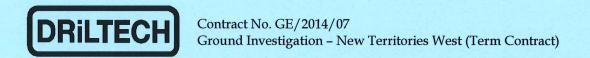












Appendix K

Digital Data Records (AGS and PDF in CD-ROM)



Media Index Record

Project Identification	D-626
Project Name	Contract No. GE/2014/07
	Ground Investigation - New Territories West (Term Contract)
Works Order No.	GE/2014/07.34
Location	Agreement No. CE 32/2014 (HY)
	Elevated Pedestrian Corridor in
	Yuen Long Town connecting with Long Ping Station -
	Investigation, Design and Construction
Client	Geotechnical Engineering Office,
	Civil Engineering and Development Department
From	DrilTech Ground Engineering Ltd.

Issue Sequence Number	Date of Issue	Issue	ed To	General Notes
D626_GE201407.34.00	20/May/16	Geotechnical En Office, Civil En Development D	gineering and	
File Name	Creation Date	Creation Time	File Size in Bytes	General Description of Data Transferred
GE201407.34.ags	20/May/16	9:55	291KB	Digital Data in AGS Format for Final Field Work Report
GE201407.34.pdf	20/May/16	12:06	207,827KB	Digital Data in PDF Format for Final Field Work Report
Photographs_201407.34.jpg	20/May/16	11:21	904MB	Digital Data in JPG Format for Final Field Work Report
Individual Investigation Stations.pdf	20/May/16	11:26	133MB	Digital Data in PDF Format for Final Field Work Report

End of Report