

Asia Submarine-cable Express (ASE) – Tseung Kwan O

Fifteenth Weekly Site Inspection Report

6 May 2013

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15th Weekly Site Inspection Report

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Client: NTT Com Asia Ltd		GMS No: 0171870			
Summary: This report presents the inspection findings and the implementation status of the EM&A recommendations on environmental protection and pollution control mitigation measures and monitoring.		Date: 6 May 2013			
		Approved by: 			
		Terence Fong Project Director			
0	15 th Weekly Site Inspection Report	STSANG	STSANG	TFONG	6 May 13
Revision	Description	By	Checked	Approved	Date
<p>This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.</p> <p>This report has been prepared by Environmental Resources Management the trading name of 'ERM Hong-Kong, Limited', with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.</p> <p>We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.</p> <p>This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.</p>		<p>Distribution</p> <p><input checked="" type="checkbox"/> Internal</p> <p><input checked="" type="checkbox"/> Public</p> <p><input type="checkbox"/> Confidential</p>			
		  			

**Asia Submarine-cable Express (ASE) - Tseung Kwan O
Environmental Certification Sheet
EP-433/2011**

Reference Document/Plan

Document/ Plan -to be Certified/ Verified:	Fifteenth Site Inspection Report
Date of Report:	6 May 2013
Date prepared by ET:	ERM-Hong Kong Ltd
Date received by IEC:	Ecosystems Ltd

Reference EM&A Manual/ EP Requirement

EM&A Manual Requirement:	Section 5.1
Content: <i>Site Inspections</i>	
<p>"...A weekly site inspection will be carried out at the proposed BMH in TKO Industrial Estate until the completion of construction works at the landing point. The areas of inspection will not be limited to the site area and should also include the environmental conditions outside the site which are likely to be affected, directly or indirectly, by the site activities..."</p>	
EP Condition:	Condition No. 2.4
Content: <i>Site Audit</i>	
<p>"To monitor the environmental impacts and timely implementation of the recommended mitigation measures, the Permit Holder shall:</p> <p>(i) implement the EM&A programme of the Project in accordance with the procedures and requirements set out in the approved EM&A"</p> <p>(ii) submit to the Direct... (a)...; (b) weekly impact monitoring and site audit report within three days after the relevant monitoring data are collected or become available; and (c)..."</p>	

ET Certification

I hereby certify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-433/2011.

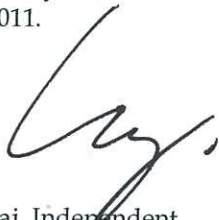


Terence Fong, Environmental
Team Leader:

Date: 6 May 2013

IEC Verification

I hereby verify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-433/2011.



Vincent Lai, Independent
Environmental Checker:

Date: 6 May 2013

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EXECUTIVE SUMMARY

NTT Com Asia (NTTCA) proposes to install a telecommunication cable (Asia Submarine-cable Express (ASE) cable) of approximately 7,200 km in length, connecting Japan and Singapore with branches to the Philippines, Hong Kong SAR (HKSAR) and Malaysia. A Project Profile (PP-452/2011) which includes an assessment of the potential environmental impacts associated with the installation of the submarine telecommunications cable system was prepared and submitted to the Environmental Protection Department (EPD) under section 5. (1)(b) and 5.(11) of the Environmental Impact Assessment Ordinance (EIAO) for the application for Permission to apply directly for Environmental Permit (EP). The Environmental Protection Department, subsequently issued an Environmental Permit (EP- 433/2011).

This is the **Fifteenth Weekly Site Inspection Report** that presents the findings of the site inspection and other EM&A activities undertaken during the period from **29 April 2013 to 5 May 2013**.

Environmental Site Inspection

A weekly environmental site inspection was carried out by the representative of the Environmental Team (ET). Environmental performance complied with the environmental requirements and all necessary mitigation measures were properly implemented.

Environmental Complaints, Non-compliance & Summons

No non-compliance with PP recommendations, EP conditions and other requirements associated with the construction of the Project was recorded in the reporting period.

No environmental complaint was received in this reporting period.

No environmental summons was received in this reporting period.

Upcoming Works for the Next Reporting Period

It is advised that all the construction works of this project have been completed, no further weekly site inspection will be carried out.

1 INTRODUCTION

ERM-Hong Kong, Limited (ERM) was appointed by NTT Com Asia (NTTCA) as the Environmental Team to conduct regular site inspections and audit the implementation of all environmental monitoring and mitigation measures recommended in the Project Profile (PP) (Register No. PP – 452/2011) for the Proposed Asia Submarine-cable Express (ASE) – Tseung Kwan O (the Project).

1.1 PURPOSE OF THE REPORT

This is the **Fifteenth Weekly Site Inspection Report** (the Report), which summarises the inspection findings for the period from **29 April 2013** to **5 May 2013** and the implementation status of the EM&A recommendations on environmental protection and pollution control mitigation measures and monitoring.

1.2 STRUCTURE OF THE REPORT

The structure of the Report is as follows:

Section 1 : **Introduction**

Details the scope and structure of the Report.

Section 2 : **Project Information**

Summarises background and scope of the Project, site description, construction programme, the construction works undertaken and the status of Environmental Permits/Licenses during the reporting period.

Section 3 : **Environmental Monitoring**

Summarises the monitoring programmes as recommended in the PP and the monitoring undertaken during the reporting period.

Section 4 : **Site Inspection Results**

Summarises the findings of the weekly site inspection undertaken within the reporting period.

Section 5 : **Environmental Non-conformance**

Summarises any exceedances of environmental performance standard, environmental complaints and environmental summons received within the reporting period.

Section 6 : **Upcoming Works for the Next Reporting Period**

Summarises the impact forecast and monitoring schedule for the next reporting week.

Section 7 : **Conclusions**

2 PROJECT INFORMATION

2.1 BACKGROUND

NTT Com Asia (NTTCA) proposes to install a telecommunication cable (Asia Submarine-cable Express (ASE) cable) of approximately 7,200 km in length, connecting Japan and Singapore with branches to the Philippines, Hong Kong SAR (HKSAR) and Malaysia. NTTCA is responsible for securing the approval to land the ASE cable in Tseung Kwan O, Hong Kong SAR (HKSAR). The proposed landing site will be at a new Beach Manhole (BMH) and ultimately connect with a Data Centre in Tseung Kwan O (TKO) Industrial Estate which is scheduled for completion in 2012. From Tseung Kwan O, the cable will extend eastward approaching the Tathong Channel. Near to Cape Collinson, the cable is approximately parallel to the Tathong Channel until north of Waglan Island where the cable travels eastward to the boundary of HKSAR waters where it enters the South China Sea. The total length of cable in Hong Kong SAR waters is approximately 33.5 km. A map of the proposed cable route is presented in *Annex A*.

A Project Profile (PP-452/2011) which includes an assessment of the potential environmental impacts associated with the installation of the submarine telecommunications cable system was prepared and submitted to the Environmental Protection Department (EPD) under section 5.(1)(b) and 5.(11) of the Environmental Impact Assessment Ordinance (EIAO) for the application for Permission to apply directly for Environmental Permit (EP). The Environmental Protection Department, subsequently issued an Environmental Permit (EP- 433/2011).

Under the requirements of Condition 2.4 of the EP, an EM&A programme as set out in the revised Environmental Monitoring and Audit Manual (EM&A Manual) is required to be implemented. The EM&A programme includes water quality monitoring, marine mammal observation, coral monitoring and weekly site inspection.

2.2 WORKS PROGRAMME AND WORKS LOCATIONS

The location of the cable installation works within the boundary of Hong Kong SAR waters is shown in *Annex A*, while the location of the landing point (ie new Beach Manhole (BMH) in TKO Industrial Estate) is shown in *Annex B*.

2.3 CONSTRUCTION ACTIVITIES

Submarine Cable Installation

Starting from 8 October 2012, the submarine-cable laying works in Zone A, Zone B and Zone C have been largely finished and the installation barge

reached the boundary of Hong Kong marine waters on 24 October 2012. All marine works associated with the Project were finished in late January 2013.

Landing Point Construction

The construction works of the landing point, which included the beach manholes and the land duct, commenced on 4 October 2012, and were completed in late December of 2012, dismantlement of the site hoarding fence were completed in late February. During the reporting period, BMH fences construction work was conducted and was completed on 3 May 2013 (*Table 2.1*).

Table 2.1 *Summary of Landing Point Construction Activities Undertaken during Reporting Period*

Construction Activities Undertaken
<ul style="list-style-type: none"> Construction of new Beach Manholes (BMH) fences

2.4 STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS

A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project is presented in *Table 2.2*.

Table 2.2 *Summary of Current Environmental Licensing, Notification and Permit Status*

Permit/ Licences/ Notification	Reference	Validity Period	Remarks
Environmental Permit	EP-433/2011	Throughout the construction and operation of the Project	Permit granted on 20 December 2011
Construction Noise Permit	GW-RE0774-12	18 Sep 2012 – 31 Jan 2013	Permits granted on using of registered powered mechanical equipment for 07:00-23:00 hrs on general holidays (including Sundays) and 19:00-23:00 hrs on any day not being a general holiday for Sub-marine cable laying works of the Project

3 ENVIRONMENTAL MONITORING

3.1 CABLE INSTALLATION WATER QUALITY MONITORING

As all marine works of the Project were finished in late January 2013, post project water quality monitoring in Zone A, Zone B and Zone C was conducted in February 2013. Post Project Water Quality Monitoring Reporting summarizing the findings of the water quality monitoring in the three zones were submitted on 28 February 2013.

3.2 MARINE MAMMAL OBSERVATION (MMO)

Daily marine mammal exclusion zone monitoring is required to be conducted during the cable installation works taking place in daylight hours along the sections outside Zone A to Zone B (ie Zone C and from C to the boundary of HKSAR waters). This monitoring was completed on 24 October 2012.

3.3 CORAL MONITORING

Post-project coral monitoring was conducted within one month after completion of the marine works of the Project in late January. The Post-Project Coral Monitoring Survey Report was submitted to EPD and AFCD on 28 February 2013.

3.4 SITE INSPECTION AND AUDIT

In accordance with the revised EM&A Manual, a weekly site inspection should be undertaken at the landing point (ie new Beach Manhole (BMH) in TKO Industrial Estate) to ensure that the appropriate environmental protection and pollution control mitigation measures are properly implemented in accordance with the Project Profile (PP-452/2011). Results of the site inspection in the reporting period are provided in *Section 4*.

SITE INSPECTION RESULTS

The weekly site inspection is required to be carried out by the representative of the Contractor and the Environmental Team (ET). A Site Inspection Log was completed by the ET representative to record whether the Contractor is compliant with environmental regulations in terms of noise, water quality and housekeeping etc. (*Annex C*).

During the reporting period, the site inspection was conducted on 3 May 2013. Construction works for the new beach manhole fence has been completed. (*Annex D Photos Nos. 2*). There was no non-compliance recorded during the site audit.

5 *ENVIRONMENTAL NON-CONFORMANCE*

5.1 *SUMMARY OF ENVIRONMENTAL NON-COMPLIANCE*

No non-compliance of PP/ EM&A/ EP/ legislative requirements was recorded during the reporting period.

5.2 *SUMMARY OF ENVIRONMENTAL COMPLAINT*

No complaint was received during the reporting period.

5.3 *SUMMARY OF ENVIRONMENTAL SUMMON AND SUCCESSFUL PROSECUTION*

No summons was received during the reporting period.

6 *FUTURE KEY ISSUES*

6.1 *MONITORING SCHEDULE FOR THE NEXT REPORTING PERIOD*

All of the construction works have been completed. No further inspection will be required.

This **Fifteenth Weekly Site Inspection Report** presents the findings of the site inspection and other EM&A activities undertaken during the period from **29 April 2013 to 5 May 2013**, in accordance with the PP (Register No. PP – 452/2011), revised EM&A Manual and the requirements of Environmental Permit (EP- 433/2011).

A weekly environmental site inspection was conducted on 3 May 2013 during the reporting period. It confirmed that the environmental mitigation measures recommended in the PP were properly implemented by the Contractor.

No non-compliance event was recorded during the reporting period.

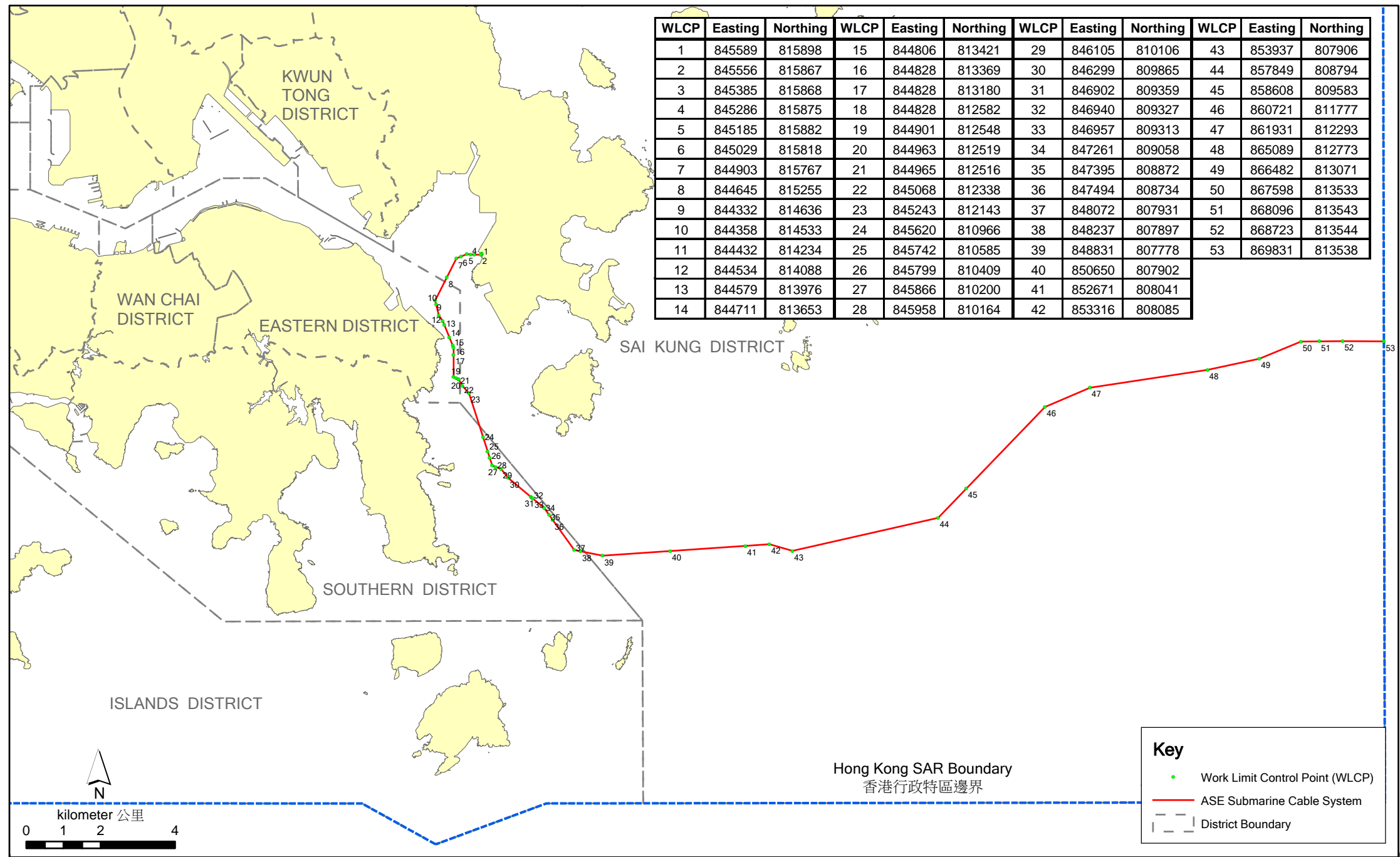
No complaint and summons/prosecution was received during the reporting period.

It is advised that all the construction works of this project have been completed, no further weekly site inspection will be carried out.

Annex A

Proposed ASE Submarine Cable System (Layout Plan)

WLCP	Easting	Northing	WLCP	Easting	Northing	WLCP	Easting	Northing	WLCP	Easting	Northing
1	845589	815898	15	844806	813421	29	846105	810106	43	853937	807906
2	845556	815867	16	844828	813369	30	846299	809865	44	857849	808794
3	845385	815868	17	844828	813180	31	846902	809359	45	858608	809583
4	845286	815875	18	844828	812582	32	846940	809327	46	860721	811777
5	845185	815882	19	844901	812548	33	846957	809313	47	861931	812293
6	845029	815818	20	844963	812519	34	847261	809058	48	865089	812773
7	844903	815767	21	844965	812516	35	847395	808872	49	866482	813071
8	844645	815255	22	845068	812338	36	847494	808734	50	867598	813533
9	844332	814636	23	845243	812143	37	848072	807931	51	868096	813543
10	844358	814533	24	845620	810966	38	848237	807897	52	868723	813544
11	844432	814234	25	845742	810585	39	848831	807778	53	869831	813538
12	844534	814088	26	845799	810409	40	850650	807902			
13	844579	813976	27	845866	810200	41	852671	808041			
14	844711	813653	28	845958	810164	42	853316	808085			



Key

- Work Limit Control Point (WLCP)
- ASE Submarine Cable System
- District Boundary

Annex A

ASE Submarine Cable System (Layout Plan)

**Environmental
Resources
Management**



File: T:\GIS\CONTRACT\0171870\Mxd\0171870_Landing_Overview_20110815.mxd
Date: 10-Oct-2012

Annex B

Location of ASE Landing
Point and Terrestrial Cable
Route

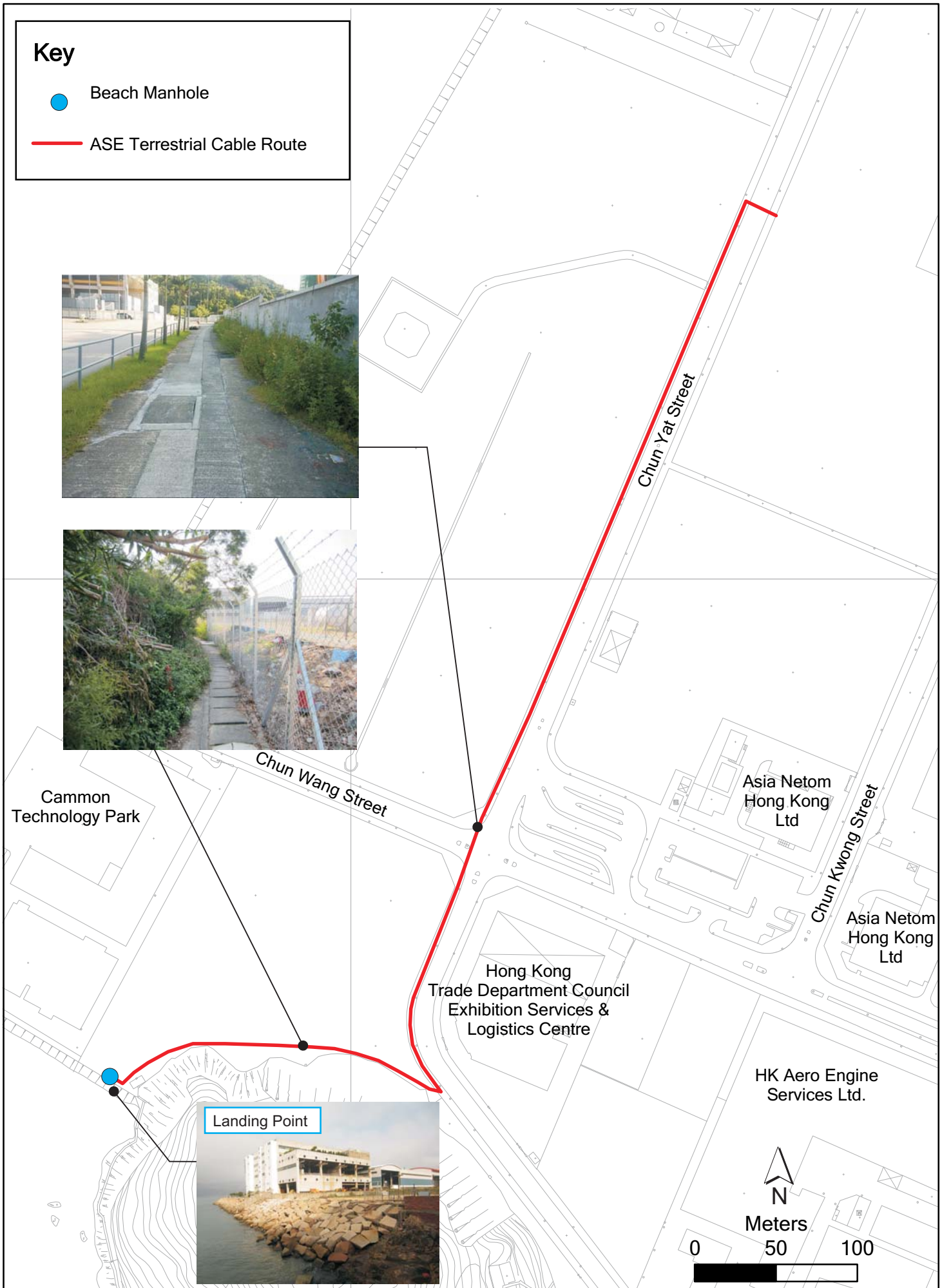
Key



Beach Manhole



ASE Terrestrial Cable Route



Annex B

Location of ASE Landing Site and Terrestrial Cable Route

File: 0171870a (0122859_ASE_Landing_Site_and_Route.mxd)
Date: 21/12/2012

Environmental Resources Management



Annex C

Completed Site Inspection Log

Site: ASE Tseung Kwan O Landing Point

Inspected By: Stacey Tsang

Inspection Date: 3-May-13

Time: 15:20 -16:00

Weather

Condition Sunny Fine Overcast Drizzle Rain Storm Hazy

Temperature °C Humidity High Moderate Low

Wind Calm Light Breeze Strong

A Noise

	N/A or not observed	Yes	No	Photo/Remarks
A1 Are all plant and equipment well maintained and in good operating condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A2 Is idle equipment turned off or throttled down?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A3 Are powered mechanical equipment covered or shielded by acoustic materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A4 Are silenced equipment used where practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A5 Do mobile plants be sited as far away from NSRs as possible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No NSRs nearby.
A6 Do plants known to emit noise strongly in one direction be oriented away from nearby NSRs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No NSRs nearby.
A7 Major noise source(s)	<input type="checkbox"/> Traffic <input checked="" type="checkbox"/> Construction activities outside of site <input type="checkbox"/> Construction activities inside of site <input type="checkbox"/> Others			
A8 Any remedial action undertaken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

B Water Quality

	N/A or not observed	Yes	No	Photo/Remarks
B1 Is drainage system adequate? Are there temporary ditches for runoff discharge into appropriate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B2 Watercourse?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B3 With silt retention pond?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B4 Do permanent drainage channels have: sediment basin?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B5 traps and baffles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B6 Are there sediment tanks for settling runoff prior to disposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B7 Are there oil interceptors in drainage system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B8 Oil and grease removed regularly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B9 Bypass to prevent flushing during periods of heavy rain?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B10 Is drainage system well maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B11 Is exposed earth stabilized after earthworks have been completed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B12 Are exposed slope surfaces covered (by tarpaulin or other means)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B13 Are open stockpiles of more than 20 m ³ covered during rainstorm?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B14 Are manholes covered and sealed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Rainy Season				
B15 Drainage system adequately designed for storm flow?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
B16 Sediment control measures inspected and maintained after rain storms?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B17 Is debris and rubbish on site collected and disposed of properly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
B18 Is wastewater discharge license available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B19 Measures to prevent the washing away of sand/silt to drains?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
B20 Is there any sediment plume observed existing the marine works area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Photo 1

C Environmental Complaint

C1 Number of Environmental Complaint Received from 29-Apr-13 to 5-May-13 . _____

D General / Housekeeping

	N/A or not observed	Yes	No	Photo/Remarks
D1 Are potential stagnant pools cleared and mosquito breeding prevented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____ _____

Items for Inspection

- Beach Manholes fence

Notes / Issues Recorded On Site

Nil.

Corrective Actions

Nil.

Signatures:

ET:



(Name: Stacey TSANG)

Annex D

Photographic Records on Site



Photo 1 – No sediment plume observed in the sea adjacent to the Beach Manhole (BMH)



Photo 2 – BHM fence construction work completed

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Environmental Resources Management

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