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TEST REPORT

CONCENTRIC CONSTRUCTION LIMITED

**OPERATION OF PUBLIC FILL RECEPTION
FACILITIES AT TUEN MUN AREA 38, TSEUNG
KWAN O AREA 137, QUARRY BAY AND MUI WO
(CONTRACT NO.: CV/2006/02)**

TUEN MUN AREA 38

MONTHLY EM&A REPORT

(OCTOBER 2006)

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Issue Date: 22 November 2006

Report No.: ENA 60794

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Attn. Mr. C. L. Lau

Date 23 November 2006

From Joseph Poon

No. of Pages 1 (Incl. this page)

C.c. To Mr. Thomas Wong

Fax No. 2714 0113

Subject **Contract No. CV/2006/02****Operation of Public Fill Reception Facilities at Tuen Mun Area 38, TKO Area 137,
Quarry Bay and Mui Wo – Tuen Mun Area 38**

We refer to the second monthly EM&A report (rev. 0) that we received through fax on 22 November 2006 and are pleased to confirm we have no further comment on the report.

Should you require further information, please feel free to contact us.

Best regards,



Joseph Poon
Independent Environmental Checker

JP/ac

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EXECUTIVE SUMMARY

This is the second monthly Environmental Monitoring and Audit (EM&A) report prepared by ETS-Testconsult Ltd (ET) for the "Contract No. CV/2006/02 Operation of Public Fill Reception Facilities at Tuen Mun Area 38, Tseung Kwan O Area 137, Quarry Bay and Mui Wo" (The Project).

This report documented the findings of EM&A Works conducted during the operation phase of Fill Bank at Tuen Mun Area 38 in October 2006.

Construction Progress

As informed by the Contractor, the construction activities in this reporting month were as below:

- Public filling operation; and
- Construction of Crushing Plant.

Environmental Monitoring Progress

The summary of the monitoring activities in this monitoring month is listed below:

- 24-hour TSP Monitoring: 5 Occasions at 2 designated locations
- 1-hour TSP Monitoring: 15 Occasions at 2 designated locations
- Marine Water Quality Monitoring: 12 Occasions at 2 designated locations
- Weekly-site inspection: 4 Occasions

Air Monitoring

No exceedances of Action and Limit levels were recorded for 24-hr and 1-hr TSP monitoring in the reporting month.

Marine Water Quality Monitoring

According to the summary of marine water monitoring results, no exceedance of Action and Limit Level were recorded in this reporting month.

Site Inspection

Environmental site inspections conducted in this reporting month are presented as follows:

<u>Concerned Parties</u>	<u>Dates of Audit / Inspection</u>
ET Weekly site inspection	05, 11, 17, 23, 28
IEC site inspection	23

In general, performance on environmental mitigation measures implemented was found to be satisfactory in this reporting month. The major findings observed during site inspections are presented in the Section 7.0.



Environmental Complaints, Notification of summons and successful prosecutions

No complaints, notification of summons and prosecutions with respect to environmental issues were received in this monitoring month.

Future Key Issues

Based on the site inspections and forecast of engineering works in the coming month, key issues to be considered are as follows:

- Dust generation from activities on site, such as vehicular movements along unpaved area and rock crushing activities;
- Noise impact from operating equipment and machinery on site;
- Wastewater and surface runoff from the site discharged into nearby water body; and
- Storage and usage of chemicals / fuel and chemical waste / waste oil.



1.0 INTRODUCTION

Concentric Construction Ltd (CCL) appointed Environmental Team (ET) of ETS-Testconsult Limited (ETL) to undertake the Environmental Monitoring and Audit (EM&A) for the "Operation of Public Fill Reception Facilities at Tuen Mun Area 38, Tseung Kwan O Area 137, Quarry Bay and Mui Wo" (Contract No.: CV/2006/02) (The Project).

In accordance with the Section 4 of Environmental Permit (No.: EP-210/2005) (the EP), an EM&A programme as set out in the Project Profile should be implemented.

The EM&A programme requires environmental monitoring for air quality, water quality and environmental site inspections for air quality, water quality, landscape and visual, and waste management. The EM&A requirements for each parameter described in the following sections include:

- All monitoring parameters;
- Monitoring schedules for the reporting month and forthcoming months;
- Action and Limit levels for all environmental parameters;
- Event/Action Plans;
- Environmental mitigation measures, as recommended in the Project Profile; and
- Environmental requirements in contract documents.

This report documented the findings of EM&A Works conducted during the operation phase of Fill Bank at Tuen Mun Area 38 in October 2006.

2.0 PROJECT INFORMATION

2.1 Construction Programme

Details of construction programme are shown in Appendix F.

2.2 Project Organization and Management Structure

The organization chart and lines of communication with respect to the on-site environmental management and monitoring program are shown in Appendix A.

2.3 Contact Details of Key Personnel

The key personnel contact names and telephone numbers are shown in Table 2.1.

Table 2.1 Contact Details of Key Personnel

Organization	Name of Key Staff	Project Role	Tel. No.	Fax No.
<i>CEDD</i>	<i>Mr. Thomas Wong</i>	<i>Engineer</i>	<i>2762 5602</i>	<i>2714 0113</i>
<i>IEC (Materialab)</i>	<i>Mr Joseph Poon</i>	<i>IEC</i>	<i>2450 8238</i>	<i>2450 6138</i>
<i>Contractor (CCL)</i>	<i>Mr. C P Lam</i>	<i>Project Manager</i>	<i>2398 8001</i> <i>9212 9417</i>	<i>2398 8301</i>
<i>ET (ETL)</i>	<i>Mr C. L. Lau</i>	<i>ET Leader</i>	<i>2946 7791</i>	<i>2695 3944</i>



3.0 CONSTRUCTION PROGRESS IN THIS REPORTING MONTH

As informed by the Contractor, the activities in the reporting month include:

- Public filling operation; and
- Construction of Crushing Plant.
- Construction of concrete access road under variation order

4.0 AIR QUALITY MONITORING

4.1 Monitoring Requirement

1-hr and 24-hr TSP levels were monitored in the reporting month. Table 4.4 shows the Action and Limit Levels for the environmental monitoring works.

4.2 Monitoring Equipment

Both 1-hour and 24-hour TSP air quality monitoring was performed using a GMWS2310 High Volume Air Sampler (HVS) located at each of the designated monitoring station. Table 4.1 summarizes the equipment used in the air quality monitoring programme. A copy of the calibration certificates for the HVS are attached in Appendix B1.

Table 4.1 Air Quality Monitoring Equipment

<i>Equipment</i>	<i>Model and Make</i>
<i>HVS</i>	<i>Greasby GMWS2310</i>
<i>Calibrator</i>	<i>Tisch TE-5025A</i>

4.3 Monitoring Parameters, Frequency and Duration

Table 4.2 summarizes the monitoring parameters, monitoring duration and frequencies of air quality monitoring.

Table 4.2 Monitoring parameters, duration, frequency of air quality monitoring

<i>Parameter</i>	<i>Duration</i>	<i>Frequency</i>
<i>24-hr TSP</i>	<i>24 hr</i>	<i>One per six days</i>
<i>1-hr TSP</i>	<i>1 hr</i>	<i>Three times per six days</i>

4.4 Monitoring Locations and Schedule

In accordance with the Project Profile, two air-quality monitoring stations, namely A1 and A2, were selected for the 1-hr TSP and 24-hr TSP sampling. The locations of monitoring stations are shown in Figure 2.

During the reporting month, 1-hr and 24-hr TSP monitoring were carried out as the schedule. The details for 24-hr and 1-hr TSP monitoring carried out in this reporting month are summarized in table 4.3.



Table 4.3 Monitoring Schedule for the air quality monitoring stations

Air quality monitoring stations	Monitoring Period						
	24-hr TSP				1-hr TSP		
	Start		Finish		Date	Start	Finish
	Date	Time	Date	Time			
A1	---				05/10/2006	08:30	09:30
						09:45	10:45
						11:00	12:00
					11/10/2006	09:00	10:00
						13:30	14:30
						14:45	15:45
					17/10/2006	09:00	10:00
						11:00	12:00
						13:00	14:00
					23/10/2006	09:00	10:00
						10:30	11:30
						13:00	14:00
					28/10/2006	09:00	10:00
						10:30	11:30
13:00	14:00						
A2	---				05/10/2006	08:30	09:30
						09:45	10:45
						11:00	12:00
					11/10/2006	09:00	10:00
						13:30	14:30
						14:45	15:45
					17/10/2006	09:00	10:00
						11:00	12:00
						13:00	14:00
					23/10/2006	09:00	10:00
						10:30	11:30
						13:00	14:00
					28/10/2006	09:00	10:00
						10:30	11:30
13:00	14:00						
A1	05/10/06	16:45	06/10/06	16:46	---		
	11/10/06	16:00	12/10/06	16:00			
	17/10/06	14:15	18/10/06	14:00			
	23/10/06	16:00	24/10/06	16:00			
	28/10/06	14:30	29/10/06	15:29			
A2	05/10/06	13:00	06/10/06	13:01	---		
	11/10/06	16:00	12/10/06	16:17			
	17/10/06	14:15	18/10/06	15:08			
	23/10/06	16:00	24/10/06	16:00			
	28/10/06	14:30	29/10/06	15:30			

4.5 Monitoring Methodology

Both 1-hr and 24-hr air quality monitoring (High Volume Sampler)

Instrumentation

High volume sampler, as HVS, (Greasby GMWS2310) complete with appropriate sampling inlets were employed for both 1-hour and 24-hour TSP monitoring. The sampler is composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complies with that required by USEPA standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

Installation

The installation of HVS refers to the requirement stated in EM&A Manual.

Operation/Analytical Procedures

Operating/analytical procedures for the operation of HVS are as below:

Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 0.6m³/min and 1.7m³/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.

- For TSP sampling, fiberglass filters (GA-55) were used.



- The power supply was checked to ensure the sampler worked properly.
- On sampling, the sampler was operated 5 minutes to establish thermal equilibrium before placing any filter media at designated air monitoring station.
- The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen.
- The filter was aligned on the screen so that the gasket formed an air-tight seal on the outer edges of the filter. Then the filter holder frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.
- The programmable timer will be set for a sampling period of 24 hours \pm 1 hour. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number.).
- After sampling, the filter was transferred from the filter holder of the HVS to a sealed plastic bag and sent to the laboratory for weighting. The elapsed time was also recoded.
- Before weighting, all filters were equilibrated in a desiccator for 24 hour with the temperature of $25^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and the relative humidity (RH) $<50\% \pm 5\%$.

Maintenance & Calibration

- The HVS and their accessories should be maintained in good working condition, such as replacing motor brushes routinely and checking electrical wiring to ensure a continuous power supply.
- HVS should be calibrated at bi-monthly intervals.

Wind Data Monitoring

Wind data (wind speed and wind direction) were directly extracted from Tuen Mun Station of Hong Kong Observatory during this reporting month. The wind data are presented in Appendix D.

4.6 Action and Limit Levels

Table 4.4 shows the Action and Limit levels for 24-hr TSP and 1-hr TSP monitoring.

Table 4.4 Action and Limit Levels for 24-hr TSP and 1-hr TSP

Monitoring Location	24-hr TSP ($\mu\text{g}/\text{m}^3$)		1-hr TSP ($\mu\text{g}/\text{m}^3$)	
	Action Level *	Limit Level *	Action Level *	Limit Level *
A1	192	260	344	500
A2	192	260	344	500

4.7 Event-Action Plans

Please refer to Appendix E for details.

4.8 Results and Observations

Totally 5 occasions of 24-hr TSP monitoring and 15 occasions of 1-hr TSP monitoring were carried out in this reporting period. All monitoring data of both 1-hour and 24-hour TSP monitoring is provided in Appendix B2. Graphical presentation of 1-hour and 24-hour TSP monitoring results for the reporting month is shown in Appendix B3. Wind data, including wind speed and wind direction, are annexed in Appendix D.

No exceedances of Action and Limit Level of both 1-hour and 24-hour TSP monitoring results were recorded during the reporting month.

Generally, the Contractor implemented sufficient dust mitigation measures, including operation of wheel washing facilities and road dampening by water bowsers on the main haul roads and unpaved areas.



5.0 MARINE WATER QUALITY MONITORING

5.1 Monitoring Requirements

In accordance with the Project Profile, impact marine water quality monitoring was conducted three days per week. Measurements were taken at both mid-flood and mid-ebb tides at three depths (i.e. 1m below surface, mid depth and 1m from seabed) at four monitoring stations, FC1, FM1, FM2 and FC2.

5.2 Monitoring Locations

As stipulated in the EM&A requirement, there were four monitoring stations undertaken during the impact monitoring. Figure 3 shows the locations of the marine water quality monitoring stations.

5.3 Monitoring Parameters and Frequency

Monitoring of the marine water quality parameters and frequency are listed in Table 5.1.

Table 5.1 Monitoring Parameters and Frequency of the marine water

Monitoring Station	Parameter	Frequency	No. of Depths
Control Stations: FC1 and FC2	Depth (m)	3 days/week, 2 tides/day	3 (Surface, mid-depth & bottom)
	Temperature (°C)		
Impact Stations: FM1 and FM2	Dissolved Oxygen (mg/L and % saturation)		
	Turbidity (NTU)		
	Salinity (ppt)		
	Suspended solids (mg/L)		

5.4 Monitoring Methodology and Equipment Used

For Location of the monitoring stations

Global Positioning System (GPS)

A hand-held digital GPS was used to identify the designated monitoring stations prior to water sampling.

For Water Depth measurement

Echo Sounder

A portable, battery-operated echo sounder was used for the determination of water depth at each designated monitoring station.

For In-situ Water Quality Measurement

All in-situ monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use, and subsequently re-calibrated at 3 monthly intervals or sometimes longer throughout all stages of the water quality monitoring.



Dissolved Oxygen (DO) and temperature measuring equipment

A portable, weatherproof DO-measuring meter with built-in salinity compensation (YSI model 95) was used in the impact monitoring. It can be capable for measuring:

- a dissolved oxygen level in the range of 0-20 mg/L and 0-200 % saturation; and
- a temperature of 0-45 degree Celsius

This type of DO-measuring meter has a membrane electrode with automatic temperature compensation complete with a 50-foot cable. Wet bulb calibration for a DO meter was carried out before measurement at each monitoring location

Turbidity Measurement Instrument

A portable and weatherproof turbidity meter (HACH model 2100P) was used during impact monitoring. It has a photoelectric sensor capable of measuring turbidity between 0-1000 NTU. Response of the sensor was checked with certified standard Turbidity solutions before the start of measurement.

Salinity Meter

A portable salinity meter capable of measuring salinity in the range 0-40 ppt (YSI Model 30M) was provided for measuring salinity of the water at each monitoring location. It was checked with standard 30 ppt Salinity solutions before the start of measurement.

For Water Sampling and Sample Analysis

In-situ monitoring was carried out at three depths: 1 meter below water surface, at mid-depth and 1 meter above the seabed. At each sampling depth, duplicate readings of dissolved oxygen content and turbidity were taken. The probes were retrieved out of the water after first measurement and then redeployed for the second measurement. The difference between the two readings of each set was more than 25% of the value of the first reading while a third measurement would be conducted to ensure data precision.

Water Sampler

A water sampler comprising a transparent PVC cylinder, with a capacity of not less than 2 liters, was lowered into the water body at the predetermined depth. The both opening ends of the sampler were then closed accordingly by dead weight and water samples were collected.

Water Container

The sample container, made by high-density polythene, was rinsed with a portion of the water sample. The water sample was then transferred to the container, labelled with a unique sample ID and sealed with a screw cap. The water samples were stored in a cool box maintained at 4°C. The water samples were then delivered to a local HOKLAS-accredited laboratory (Environmental Laboratory, ETS-Testconsult Ltd, HOKLAS Registration No. 022) on the same day for analysis.

The summary of testing method of testing parameter as recommended by EIA or required by EPD, with the QA/QC results in accordance with the requirement of HOKLAS or international accredited scheme is shown in Table 5.2. For the QA/QC procedures, one QC sample, one duplicate sample and one sample spike of every batch of 20 samples were analysis. The QA/QC results are summarized in Appendix K.

Table 5.2 Summary of testing procedures

Laboratory Analysis	Testing Procedure	Detection Limit
Total suspended solids	In house method based on APHA 19 th ed 2540D	1.0 mg/L

In-situ measurement

All in-situ monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use. Responses of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibration for a DO meter was carried out before measurement at each monitoring location.



At each measurement/sampling depth, two consecutive measurements of dissolved oxygen (DO), dissolved oxygen saturation (DOS), turbidity and salinity were taken. For turbidity measurement, the sample was collected by using sampler and then transferred to the cell. The reading of turbidity of the sample was directly recorded from the Turbidimeter (HACH 2100P) after inserting the cell to the Turbidimeter. For DO, DOS and Salinity, measurements were conducted three days per week at both mid-ebb and mid-flood tides at three depths (i.e. 1m below surface, mid depth and 1m from seabed). The duplicate measurements were averaged if the difference was not greater than 25%.

Table 5.3 shows the equipment used for in-situ monitoring of water quality. The calibration certificates are attached in Appendix C1.

Table 5.3 Details of Marine Water Quality Monitoring Equipment (In-site measurement)

Parameter	Model	Date of Calibration	Due Date	Equipment No.
Coordinate of Monitoring stations	MLR GPS Navigator, SP24	----	----	EW/005/01*
Dissolved Oxygen (Saturation), Temperature	YSI Dissolved Oxygen Meter, YSI 95	22-08-2006	21-11-2006	EW/003/001*
Turbidity	HACH Model 2100P Turbid Meter	28-07-2006	28-10-2006	ET/0505/002
Salinity	YSI Model 30M	28-07-2006	28-10-2006	ET/0527/001
Water Depth	EAGLE Strata 128 Sonar	----	----	EW/002/02

Remark: (*) indicates the instrument should be calibrated on use.

5.5 Action and Limit Level

The water quality criteria, namely Action and Limit (A/L) levels are presented in the table below.

Table 5.4 Water Quality Action and Limit Levels

Parameter	Action Level *	Limit Level *
DO (mg/L)	<u>Surface & Middle</u> <4.78 mg/L (5%-ile of baseline data) <u>Bottom</u> <4.16 mg/L (5%-ile of baseline data)	<u>Surface & Middle</u> <4.00 mg/L (1%-ile of baseline data) <u>Bottom</u> <2.00 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day
Turbidity (NTU) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day

5.6 Event and Action Plan

Please refer to the Appendix E for details.

5.7 Monitoring Duration and Period in this reporting month

Below is the time schedule for the water quality monitoring events that were conducted in this reporting month:



Table 5.5 Time Schedule of Water Quality Monitoring

October 2006						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3 ▼	4	5 ▼	6	7
8	9	10 ▼	11	12 ▼	13	14 ▼
15	16	17 ▼	18	19 ▼	20	21 ▼
22	23	24 ▼	25	26 ▼	27	28 ▼
29	30	31 ▼				

Remark (▼) : Marine water quality monitoring carried out by ET

The duration of marine water quality monitoring is detailed in Appendix C2.

5.8 Marine Water Quality Monitoring Results

Totally 13 occasions (mid-flood and mid-ebb) of marine water quality monitoring were carried out in this reporting period. The impact water quality measurement results are detailed in Appendix C2. Appendix C3 presents the water quality monitoring data and graphical presentations of monitoring results respectively.

The summary of marine water quality exceedances is shown in Table 5.6.

Table 5.6 Summary of Marine Water Quality Exceedances in this reporting month

Tide	Station	Exceedance Level	DO		Turbidity	SS	Total
			Surface and Middle	Bottom			
Mid-Ebb	FM1	Action	0	0	0	0	0
		Limit	0	0	0	0	0
	FM2	Action	0	0	0	0	0
		Limit	0	0	0	0	0
Mid-Flood	FM1	Action	0	0	0	0	0
		Limit	0	0	0	0	0
	FM2	Action	0	0	0	0	0
		Limit	0	0	0	0	0
Total		Action	0	0	0	0	0
		Limit	0	0	0	0	0

According to the summary of marine water monitoring results, no exceedances of Action and Limit Level were recorded in this reporting month.



6.0 ENVIRONMENTAL AUDIT

6.1 Weekly Site Inspection

Weekly ET site inspections were carried out by ET to monitor the timely implementation of proper environmental pollution control and mitigation measures for the Project. In this reporting month, four weekly site inspections were conducted (05, 11, 17, and 23 October 2006). Summaries of the weekly site inspection observations and recommendations in this reporting month are described as follows:

Air Quality

- No dark smoke emission was noted from the site equipment and machinery during weekly site inspections. The Contractor was still reminded to maintain all the Powered Mechanical Equipment (PME) regularly.

Noise

- No noise nuisance was observed during operating.

Water Quality

- Rainy water and mud were observed to have accumulated near constructor site office, crushing plant and near by Gammy site boundary during the ET weekly site inspection on 23 October 2006. The Contractor should backfill the pond to prevent mosquito breeding. Since the finding was found improved during the weekly site inspection on 28 October 2006, no further verification should be required; and

Chemical and Waste Management

- The Contractor provided waste skips to collect general refuse and disposal of them regularly to the WENT Landfill; However, the waste skip at TP1 was found to be full during weekly site inspection on 17 October 2006. The Contractor was reminded to clean up the waste skip regularly. During the subsequent weekly site inspection on 23 October 2006, the rubbish had been removed;
- On 05, and 11 October 2006 appropriate chemical waste label for chemical waste storage area was spotted missed. Clear label with English and Chinese was placed in-place during site inspection on 17 October, 2006, hence, no further action is required;

Site Practices

- Certain rubbish skips was found being missed at site during site inspection on 11 to 23 October 2006. Contractor was being reminded to replace missing rubbish skips.

6.2 Review of Environmental Monitoring Procedures

The monitoring works conducted by the ET were inspected internally on a regular basis. The following observations have been recorded for the monitoring works:

Air Quality Monitoring

- The monitoring team recorded the observations around the monitoring stations within and outside of the construction site.
- The monitoring team recorded the temperature, air pressure and general weather condition on the monitoring day.

Water Quality Monitoring

- The monitoring team recorded the observations around the monitoring stations, which might affect the results; and
- No water pollution sources were identified and recorded.

6.3 Status of Environmental Licensing and Permitting

All permits/licenses valid in this reporting month are summarized in Table 6.1.



Table 6.1 Summary of environmental licensing and permit status

Description	Permit No.	Valid Period		Section
		From	To	
Environmental Permit	EP-210/2005	25/02/05	---	Issued
Effluent Discharge License	Application had been submitted to EPD			
Chemical Waste Producer	Application had been submitted to EPD			

6.4 Implementation Status

6.4.1 Implementation Status of Environmental Mitigation Measures

An updated summary of the Environmental Mitigation Implementation Schedule (EMIS) is presented in Appendix H. Most of the necessary mitigation measures were implemented properly. Any deficiencies were noted in the remarks of the schedule.

6.4.2 Implementation Status of Event and Action Plan

There was no exceedance on air quality monitoring parameters recorded in this monitoring month. Hence no further actions were required.

According to the summary of marine water monitoring results, **no** exceedances of Action and Limit Level **were** recorded in this reporting month.

6.4.3 Implementation Status of Environmental Complaint, Notifications of Summons and Successful Prosecutions Handling

No complaints, notifications of summons and successful prosecutions were received in this reporting month. A summary of environmental complaints, notifications of summons and successful prosecutions was given in Table 6.2.

Table 6.2 Summary of Environmental Complaints and Prosecutions

Complaints logged		Summons served		Successful Prosecution	
October 2006	Cumulative	October 2006	Cumulative	October 2006	Cumulative
0	1	0	0	0	0

7.0 LANDSCAPE AND VISUAL

Landscape and visual site audit was carried out on a weekly basis to monitor environmental issues in order to ensure that all mitigation measures were implemented timely and properly. The findings in October 2006 were:

- The maximum stockpiling height at the Fill Bank was limited to a maximum of +40 mPD;
- The Contractor hydroseeded the outer slopes of the Fill Bank as far as practicable;
- The Contractor removed the stockpile of public fill in a sequence to allow the outer hydroseeded to be removed later than other portions as far as practicable;
- *Casuarina equisetifolia* were planted as buffer tree along the northern perimeter of the site. The height of *Casuarina equisetifolia* was maintained at least 3000mm above soil level; and
- *Lighting was set to minimize night-time glare.*

8.0 WASTE MANAGEMENT

The actual amounts of different types of waste generated by the activities of the Project in the month are shown in Table 8.1



Table 8.1 Actual amounts of Waste generated in October 2006

Waste Type	Actual Amount	Disposal Locations
Public Fill	0 m ³	---
C&D Waste	34 tones	WENT Landfill
Chemical Waste	0 L	---

9.0 ENVIRONMENTAL NON-CONFORMANCE

9.1 Summary of air quality, noise and marine water quality

No exceedances of Action and Limit Level of 24-hour and 1-hour TSP monitoring results were recorded during the reporting month.

According to the summary of marine water monitoring results, no exceedances of Action and Limit Level were recorded in this reporting month.

9.2 Summary of Environmental Complaints

No complaint was received in this reporting month.

9.3 Summary of Notification of Summons and Prosecution

There was no notification of summons respect to environmental issues registered in this reporting month.

10.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Impact monitoring of air quality were carried out at designated locations in accordance with the Profile in this reporting month.

According to the summary of air monitoring results, no exceedances of Action and Limit Level of 24-hour and 1-hour TSP monitoring results were recorded during the reporting month.

According to the summary of marine water monitoring results, no exceedance of Action and Limit level were recorded in this reporting month.

According to the weekly site inspections carried out in this reporting month, the Contractor generally implemented sufficient dust mitigation measures, including operation of the mist spraying systems and automatic wheel washing facilities, dampening of haul roads and stockpiling areas.

No complaints, prosecutions or notifications of summons were received in this reporting month.

Recommendations

According to the environmental site inspections performed in the reporting month, the following recommendations were provided:

Air Quality

- Ensure the frequency of water spraying on haul roads, unloading areas and stockpiles to be sufficient to suppress the dust sources;
- Provide proper maintenance for the powered mechanical equipment and barges to avoid emission of dark smoke;
- Provide water spraying onto the truckloads during inspection of fill material;
- Conduct road sweeping on the public road and the main haul roads outside and near the site egress by the road sweeper. Undertake water spraying on stockpiling area by water bowsers;
- Erect adequate speed limit signs to advise the truck drivers of the speed limit;
- Operate mist spraying systems and automatic water sprinklers in the Fill Bank;
- Implement the dust mitigation measures for the construction activities;
- Designate proper haul roads to ensure effective water spraying; and



- Ensure all vehicles to be washed before leaving the site egress by provision, operation and maintenance of automatic wheel washing facilities.

Noise

- Conduct noisy activities at a farther location from the NSRs.

Water Quality

- Maintain the drainage system, including the trapezoidal channels and permanent desilting chambers regularly;
- Remove the stagnant water or provide approved pesticides for the stagnant water in the permanent desilting chambers, if any.

Chemical and Waste Management

- Remove waste materials from the site to avoid accumulation regularly;
- Handle and store chemical wastes properly;
- Remove unwanted material in the existing stockpiles and avoid further dumping of such material;
- Provide and maintain sufficient drip trays for diesel drums, chemical containers, chemical waste storage drums and diesel operated generator set;
- Maintain mesh screen on top of the additional drainage, DP3 to avoid improper dumping of rubbish;
- Maintain good housekeeping at the workshop area;
- Ensure sufficient tarpaulin sheets are provided to cover drip trays; and
- Avoid soil being polluted during oil filling and equipment maintenance; hence, properly remove and store the contaminated soil, if any.

Landscape and Visual

- Provide hydroseeding on the exposed slopes, on which the final profile has been formed;
- Erect all the site hoarding / chaining fences in accordance with agreed design at proper location; and
- Maintain the hydroseeded slopes properly.

11.0 FUTURE KEY ISSUES

11.1 Construction Programme for the Coming Month

As informed by the Contractor, the activities to be conducted by them in the next month included:

- *Public filling operation;*
- *Operation of Crushing Plant.*

11.2 Key Issues for the Coming Month

Key issues to be considered in the coming month include:

- Chemical and waste management
- Treatment of runoff and wastewater prior to discharge
- Dust generated from loading and unloading activities; and
- Dust generated from dump trucks traffic.

Mitigation measures to be required in the coming month:

Air Quality Impact

- To provide adequate water spraying on haul roads and working platform;
- To operate and maintain automatic wheel washing facilities properly;
- To dampen the fill material prior to unloading or movement;
- To provide road sweeping on the haul road near site egress and the public roads outside site egress;
- To ensure implementation of the dust mitigation measures for the construction activities;
- To maintain proper operation of the mist spraying system;



- To provide proper maintenance for vehicles and machines on site; and
- To investigate any other dust sources around the air sensitive receivers.

Noise

- To switch off equipment if not in use;
- To operate silent equipment;
- To identify the noise sources inside and outside of the site;
- To follow up any exceedance caused by the Fill Bank operation; and
- To re-schedule the work activities in the event of valid noise exceedance.

Water Quality Impact

- To maintain the drainage system in the Fill Bank;
- To ensure the cleanliness of oil interceptor bypass tanks and all the drainage channels;
- To maintain the existing silt trap to ensure good efficiency of wheel wash facilities;
- To provide covers for the drip trays to avoid stagnant water pond due to rainfall;
- To provide proper treatment for oily water discharged from the area around air monitoring station AA1;
- To deploy a cleaning vessel to remove floating on the sea; and
- To avoid any stagnant water or provide insecticide to avoid mosquito breeding in the Fill Bank.

Chemical and Waste Management

- To remove waste from the site regularly;
- To properly store and handle chemical wastes on site;
- To implement trip ticket system for all the imported public fill and general refuse disposal;
- To provide and manage sufficiently sized drip trays for diesel drums or chemical containers;
- To remove existing unwanted material in the stockpiles and avoid improper disposal at the Fill Bank through inspection of imported truckloads;
- To maintain proper housekeeping at the workshop area;
- To remove the oil stains in the event of leakage and handle all materials using for this cleaning works as chemical waste;
- To identify C&D material by packaging, labeling, storage, transportation and disposal in accordance with statutory regulations.

11.3 Monitoring Schedule for the Coming 3 Months

The proposed EM&A program of the coming 3 months are attached in Appendix J.

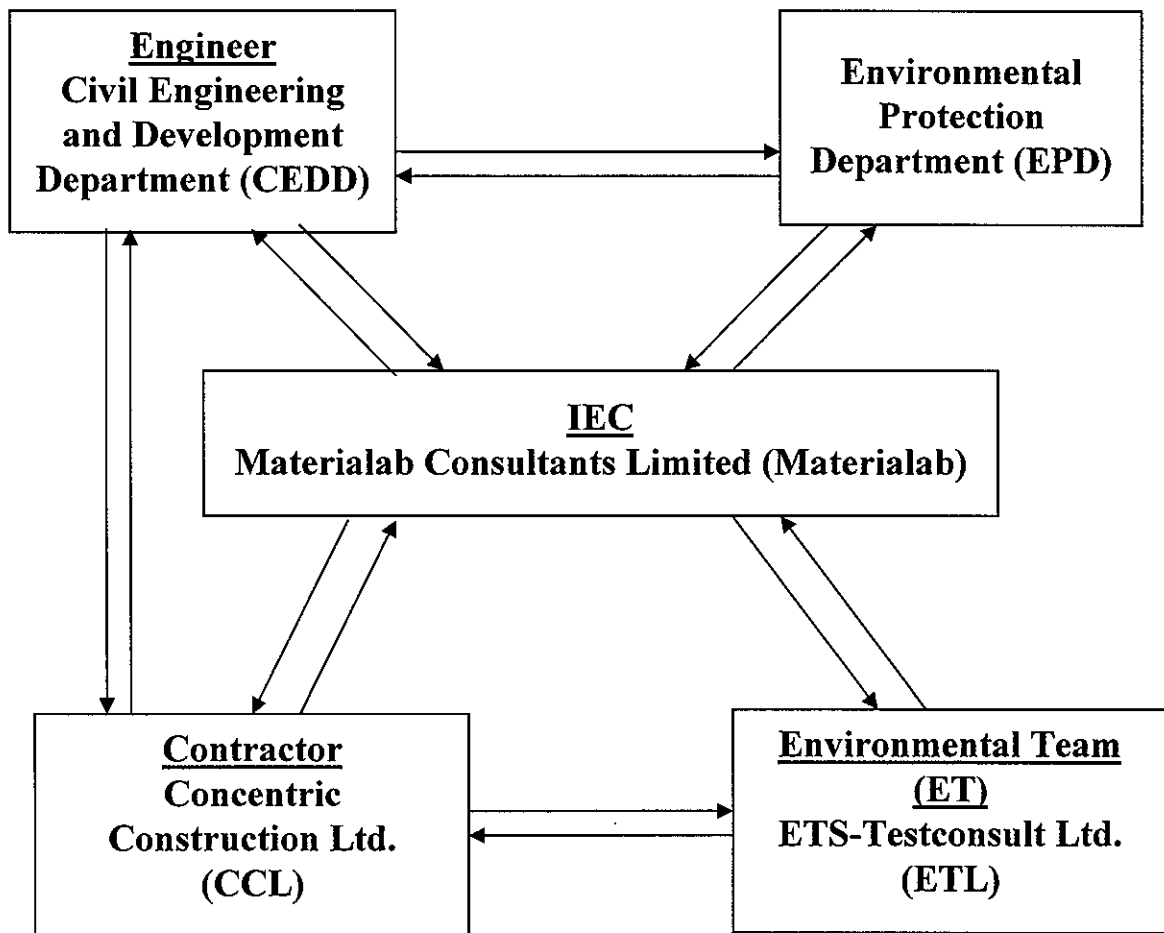


Appendix A

Organization Chart and Lines of Communication



Lines of Communication





Appendix B1

Calibration Certificates for Air Quality Monitoring Equipments



東業德勤測試顧問有限公司

ETS-TESTCONSULT LIMITED

8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pul Wan Street, Fofan, Hong Kong

Tel : 2695 8918

E-mail : etf@ets-testconsult.com

Fax : 2695 3944

Web site : www.ets-testconsult.com

TEST REPORT

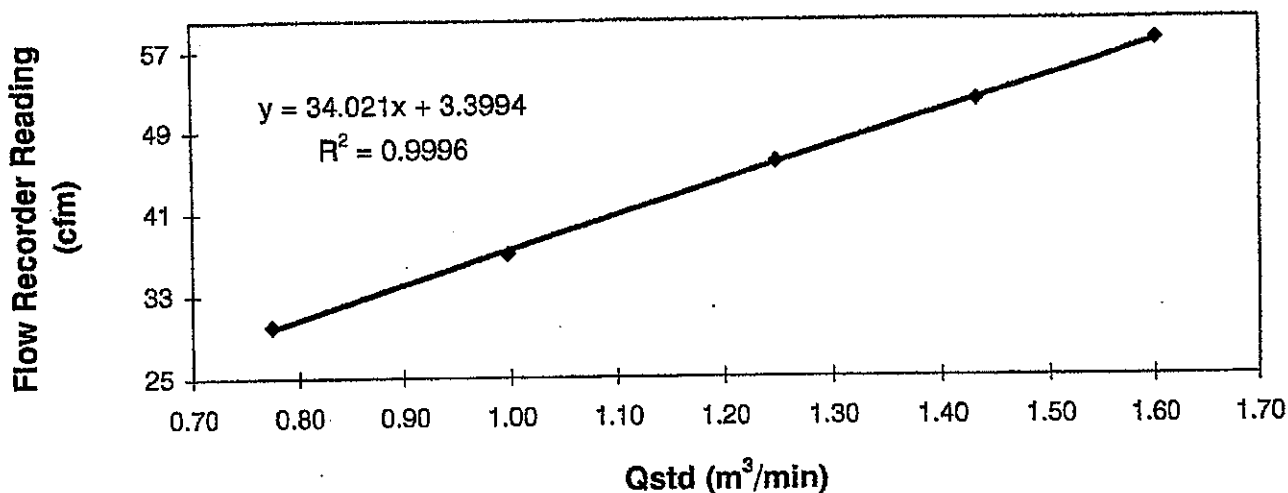
**Calibration Report
of
High Volume Air Sampler**

Manufacturer : Graseby GMW **Date of Calibration** : 06 September 2006
Serial No. : 9503 (ET / EA / 003 / 03) **Calibration Due Date** : 05 November 2006
Method : Based on Operations Manual for the 5-point calibration using standard calibration kit manufactured by Tisch TE-5025 A

Results :

Flow recorder reading (cfm)	58	52	46	37	30
Qstd (Actual flow rate, m ³ /min)	1.60	1.43	1.25	1.00	0.78
Pressure :	758.31 mm Hg			Temp. :	303 K

**Sampler 9503 Calibration Curve
Site: Tuen Mun 38 (AM-1)
Date of Calibration: 06 September 2006**



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5-point calibration

The high volume sampler complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable * / ~~unacceptable~~ * for use.

Calibrated by : H. T. Chow
H. T. Chow
(Asst. Environmental Officer)

Approved by : Linda Law
Linda Law
(Environmental Officer)



東業德勤測試顧問有限公司

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E-mail : eil@ets-testconsult.com

Fax : 2695 3944

Web site : www.ets-testconsult.com

TEST REPORT

Calibration Report

of

High Volume Air Sampler

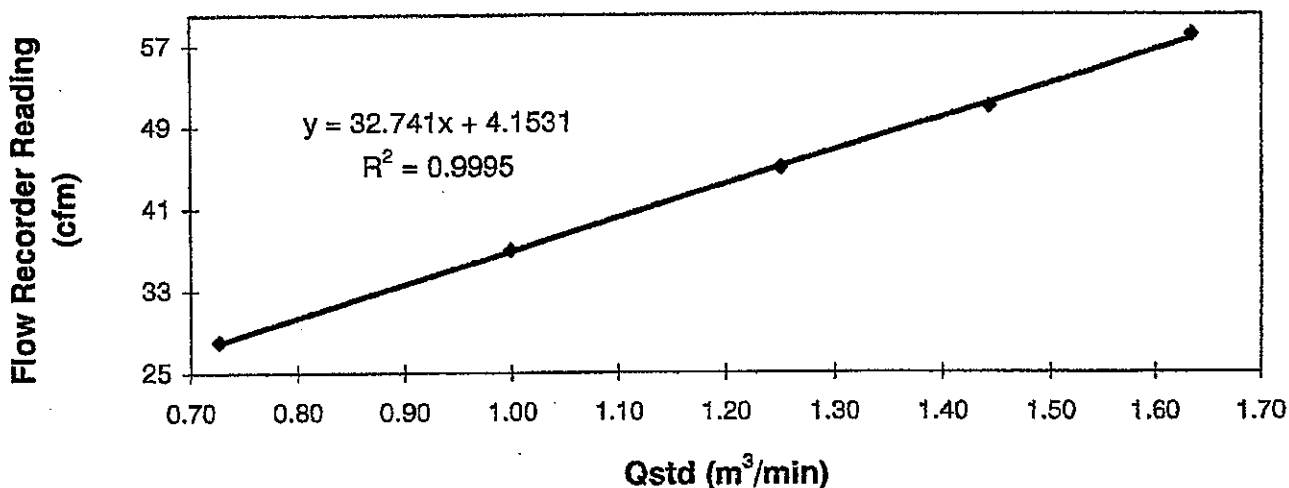
Manufacturer : Graseby GMW Date of Calibration : 06 September 2006

Serial No. : 8115 (ET / EA / 003 / 13) Calibration Due Date : 05 November 2006

Method : Based on Operations Manual for the 5-point calibration using standard calibration kit manufactured by Tisch TE-5025 A

Results	Flow recorder reading (cfm)	58	51	45	37	28
	Qstd (Actual flow rate, m ³ /min)	1.63	1.44	1.25	1.00	0.73
	Pressure :	758.31 mm Hg			Temp. :	302 K

Sampler 8115 Calibration Curve
Site: Tuen Mun 38 (AM-2)
Date of Calibration: 06 September 2006



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5-point calibration

The high volume sampler complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable * / unacceptable * for use.

Calibrated by : H. T. Chow
H. T. Chow
(Asst. Environmental Officer)

Approved by : Linda Law
Linda Law
(Environmental Officer)



Appendix B2

Air Quality Monitoring Results

Summary of 24-hr TSP Monitoring Results

Monitoring Station : A1

Start Date	Start Time	Finish		Elapse Time		Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average (m ³ /min.)	Filter Weight (g)		Conc. (µg/m ³)
		Date	Time	Initial	Final		Initial	Final		Initial	Final	
05/10/06	16:45	06/10/06	16:46	9559.11	9583.12	24.01	1.0758	1.0758	1.0758	2.8871	3.1142	147
11/10/06	16:00	12/10/06	16:00	9586.12	9610.12	24.00	1.0464	1.0464	1.0464	2.8753	3.0810	137
17/10/06	14:15	18/10/06	14:00	9613.12	9637.06	23.45	1.0464	1.0464	1.0464	2.8851	3.0533	112
23/10/06	16:00	24/10/06	16:00	9640.06	9664.06	24.00	1.0758	1.0758	1.0758	2.8954	3.1279	150
28/10/06	14:30	29/10/06	15:29	9667.06	9691.05	24.00	1.2816	1.2816	1.2816	2.8914	3.1394	134

Monitoring Station : A2

Start Date	Start Time	Finish		Elapse Time		Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average (m ³ /min.)	Filter Weight (g)		Conc. (µg/m ³)
		Date	Time	Initial	Final		Initial	Final		Initial	Final	
05/10/06	13:00	06/10/06	13:01	8498.83	8522.83	24.01	0.8505	0.8505	0.8505	2.8899	3.1128	182
11/10/06	16:00	12/10/06	16:17	9525.83	9550.12	24.17	0.9727	0.9727	0.9727	2.8811	3.0664	131
17/10/06	14:15	18/10/06	15:08	8553.07	8577.95	24.53	0.8505	0.8505	0.8505	2.8743	3.1149	190
23/10/06	16:00	24/10/06	16:00	8580.95	8604.95	24.00	0.8200	0.8200	0.8200	2.8732	3.0822	177
28/10/06	14:30	29/10/06	15:30	8607.95	8631.95	24.00	0.7894	0.7894	0.7894	2.8987	3.0908	169

Summary of 1-hr TSP Monitoring Results

Monitoring Station : AA1
Location : Outside CEDD Site Office

Date	Time		Elapse Time		Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average (m ³ /min.)	Filter Weight (g)		Conc. (µg/m ³)
	Start	Finish	Initial	Final		Initial	Final		Initial	Final	
05/10/2006	08:30	09:30	9556.11	9557.11	1.00	0.95	0.95	0.95	2.8763	2.8879	204
	09:45	10:45	9558.11	9559.11	1.00	0.95	0.95	0.95	2.8809	2.8939	228
	11:00	12:00	9558.11	9559.11	1.00	0.95	0.95	0.95	2.8645	2.8801	274
	09:00	10:00	9583.12	9584.12	1.00	1.0758	1.0758	1.0758	2.8562	2.8731	262
11/10/2006	13:30	14:30	9584.12	9585.12	1.00	1.0758	1.0758	1.0758	2.8712	2.8898	288
	14:45	15:45	9585.12	9586.12	1.00	1.0464	1.0464	1.0464	2.8641	2.8844	323
	09:00	10:00	9610.12	9611.12	1.00	0.9876	0.9876	0.9876	2.8854	2.8953	167
	11:00	12:00	9611.12	9612.12	1.00	0.9876	0.9876	0.9876	2.8591	2.8698	181
23/10/2006	13:00	14:00	9612.12	9613.12	1.00	0.9876	0.9876	0.9876	2.8643	2.8764	204
	09:00	10:00	9637.06	9638.06	1.00	1.0464	1.0464	1.0464	2.8687	2.8851	261
	10:30	11:30	9638.06	9639.06	1.00	1.0170	1.0170	1.0170	2.8710	2.8905	320
	13:00	14:00	9639.06	9640.06	1.00	1.0170	1.0170	1.0170	2.8759	2.8936	290
28/10/2006	09:00	10:00	9664.06	9665.06	1.00	1.0464	1.0464	1.0464	2.8761	2.8892	209
	10:30	11:30	9665.06	9666.06	1.00	1.1640	1.1640	1.1640	2.8703	2.8933	329
	13:00	14:00	9666.06	9667.06	1.00	1.2228	1.2228	1.2228	2.8736	2.8910	237

Monitoring Station : AA2
Location : Site Egress

Date	Time		Elapse Time		Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average (m ³ /min.)	Filter Weight (g)		Conc. (µg/m ³)
	Start	Finish	Initial	Final		Initial	Final		Initial	Final	
05/10/2006	08:30	09:30	8495.83	8496.83	1.00	0.95	0.95	0.95	2.8672	2.8808	187
	09:45	10:45	8496.83	8497.83	1.00	0.95	0.95	0.95	2.8872	2.8924	209
	11:00	12:00	8497.83	8498.83	1.00	0.95	0.95	0.95	2.8719	2.8934	296
	09:00	10:00	8522.83	8523.83	1.00	0.91	0.91	0.91	2.8533	2.8653	206
11/10/2006	13:30	14:30	8523.83	8524.83	1.00	0.94	0.94	0.94	2.8805	2.8998	331
	14:45	15:45	8524.83	8525.83	1.00	0.91	0.91	0.91	2.8629	2.8780	259
	09:00	10:00	8550.12	8551.12	1.00	0.91	0.91	0.91	2.8759	2.8883	257
	11:00	12:00	8551.12	8552.12	1.00	0.94	0.94	0.94	2.8740	2.8846	220
23/10/2006	13:00	14:00	8552.12	8553.07	1.00	0.94	0.94	0.94	2.8603	2.8742	275
	09:00	10:00	8577.95	8578.95	1.00	0.94	0.94	0.94	2.8915	2.9116	288
	10:30	11:30	8578.95	8579.95	1.00	0.94	0.94	0.94	2.8936	2.9094	325
	13:00	14:00	8579.95	8580.85	1.00	0.94	0.94	0.94	2.08877	2.09025	304
28/10/2006	09:00	10:00	8604.95	8605.05	1.00	0.82	0.82	0.82	2.8595	2.8685	176
	10:30	11:30	8605.95	8606.95	1.00	0.82	0.82	0.82	2.8832	2.9028	336
	13:00	14:00	8606.95	8607.95	1.00	0.82	0.82	0.82	2.8814	2.8941	279

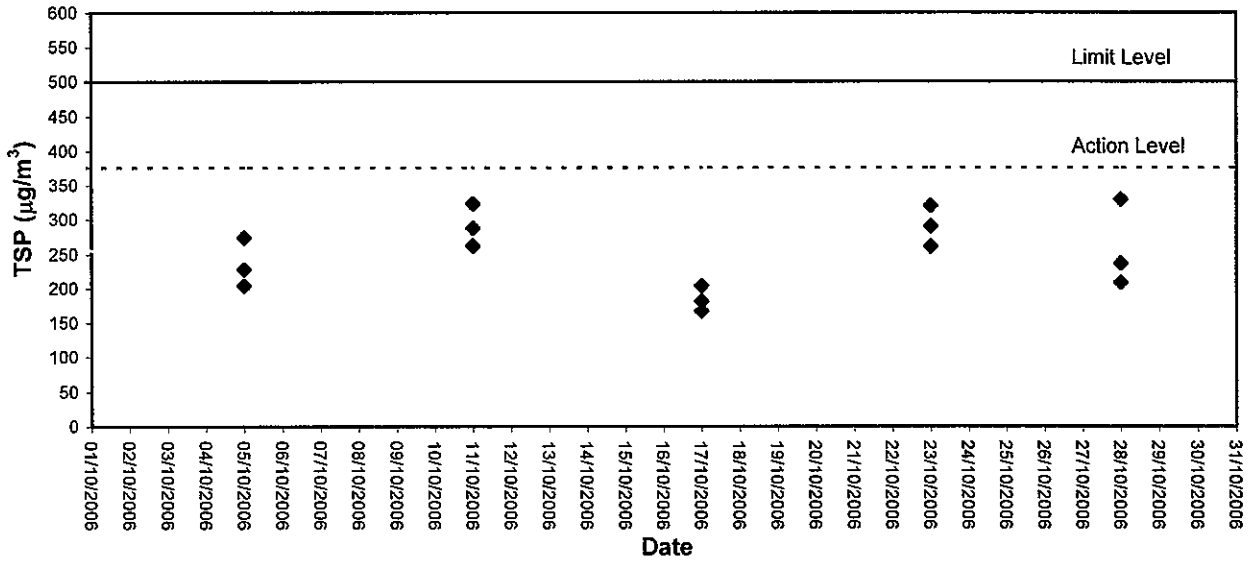


Appendix B3

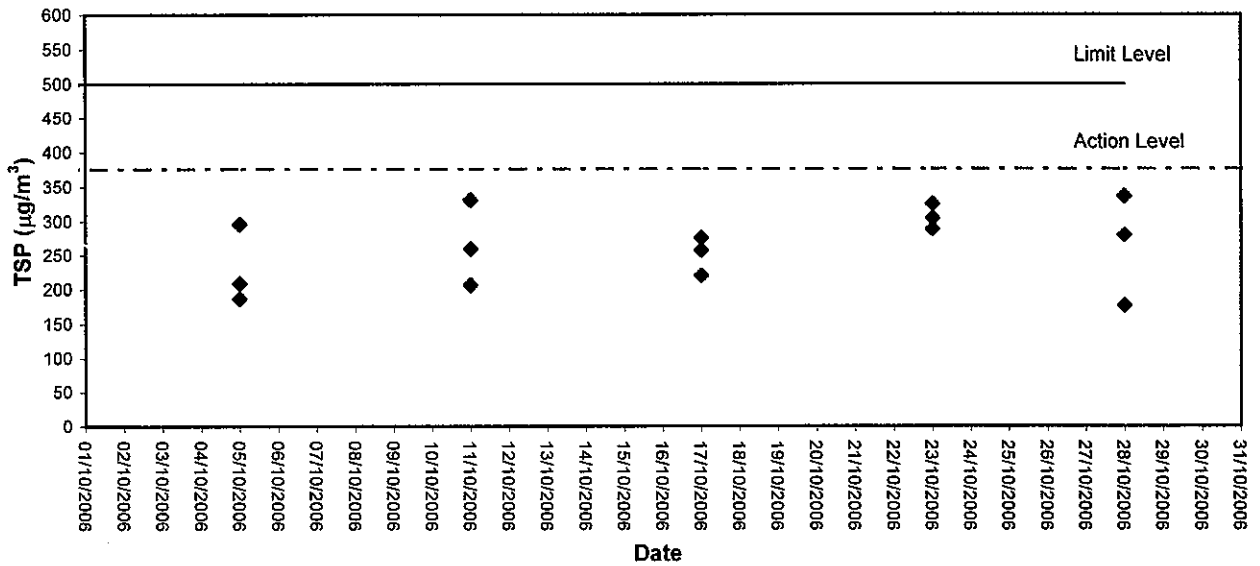
Graphical Plots of Air Quality Monitoring Data



1-hour TSP level at A1



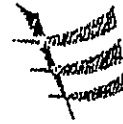
1-hour TSP level at A2





Appendix C1

Calibration Certificates for Marine Water Quality Monitoring Equipments



Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No. : ET/EN/003/001 Manufacturer : - YSI
 Model No. : 95 Serial No. : 97H 04071 AD
 Date of Calibration : 22/8/06 Calibration Due Date : 21/11/06

Ref. No. of Reference Thermometer : ET/2403/01
 Ref. No. of Potassium Dichromate : ET/0520/003/02

Temperature Verification

	Temperature (°C)
Thermometer reading	20.0
Meter reading	20.0

Linearity Checking

Purging time, min	DO meter reading, mg/L			Winkler Titration result, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	7.64	7.66	7.65	7.58	7.60	7.59	0.79
5	5.54	5.56	5.55	5.46	5.44	5.45	1.82
10	3.14	3.16	3.15	3.27	3.29	3.28	4.04
Linear regression coefficient						0.9988	

Zero Point Checking

DO meter reading, mg/L	0.00
------------------------	------

Salinity Checking

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.29	7.31	7.30	7.24	7.26	7.25	0.69
30	6.99	6.97	6.98	6.89	6.87	6.88	1.44

Acceptance Criteria

- (1) Difference between temperature readings from temperature sensor of DO probe and reference thermometer : < 0.5 °C
- (2) Linear regression coefficient : > 0.99
- (3) Zero checking: 0.0mg/L
- (4) Difference (%) of DO content from the meter reading and by winkler titration : within ± 5%

The equipment complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable *
 / ~~unacceptable~~ * for use:

* Delete as appropriate

Calibrated by : PK Approved by : [Signature]



Internal Calibration Report of Turbidimeter

Equipment Ref. No. : ET/0505/002

Manufacturer : HACH

Model No. : 2100P

Serial No. : 930900003728

Date of Calibration : 28/7/06

Calibration Due : 28/10/06

Data

(4.95) 0 - 10 NTU Gelex Vial	(49.0) 10 - 100 NTU Gelex Vial	(409) 100 - 1000 NTU Gelex Vial
4.92	48.2	405

The equipment complies * / does not comply * with the specified requirements and is deemed acceptable * / ~~unacceptable~~ * for use.

* Delete as appropriate

Calibrated by : PH

Approved by : [Signature]



Performance Check of Salinity Meter

Equipment Ref. No. : E7/0527/001 Manufacturer : YSI
Model No. : Model 30 Serial No. : 9961183
Date of Calibration : 28/7/06 Due Date : 28/10/06

Ref. No. of Salinity Standard used (30ppt)

I 196A

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference %
30	29.5	1.7%

Acceptance Criteria

Difference : <10 %

The salinity meter complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable * / ~~unacceptable~~ * for use. Measurements are traceable to national standards.

Checked by :

[Signature]

Approved by :

[Signature]



Appendix C2

Impact Marine Water Quality Monitoring Results

Mid-Flood Tide

Monitoring Station : TM-FC1

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)	Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)			Dissolved Oxygen Saturation (%)			Turbidity (NTU)			Suspended Solids (mg/L)			Date	Dissolved Oxygen		
					Value	Average	Value	Average	Depth-average	Value	Average	Value	Average	Depth-average	Value	Average	Value	Depth-average		S&M B	Action Level	Limit Level
03/10/2006	16:20 - 16:30	29/Sunny	Surface	27.8	29.0	29.1	7.61	7.57	6.93	115.7	115.0	9.12	9.12	9.0	9.2	6.93	5.45	5.10	03/10/2006	6.93	5.45	5.10
					29.1	30.6	7.52	6.29	6.93	114.3	95.6	10.85	10.82	9.3	11.0	11.1						
					30.5	30.5	6.24	5.84	5.84	94.8	88.8	10.80	12.50	11.0	13.0	13.0						
05/10/2006	17:15 - 17:25	30/Sunny	Surface	27.9	31.2	31.2	5.87	5.84	5.84	89.2	88.8	12.50	12.50	7.5	7.5	5.84	4.72	2.00	05/10/2006	5.84	4.72	2.00
					27.6	27.6	6.67	6.66	6.54	99.3	99.1	7.37	7.38	7.5	7.5	8.6						
					28.8	28.8	6.84	6.43	6.54	98.9	95.1	7.39	8.05	8.2	8.2	10.0						
10/10/2006	08:15 - 08:25	29/Cloudy	Surface	27.9	29.6	29.6	5.84	5.82	5.82	86.4	86.1	9.92	9.93	10.0	10.0	5.82	4.72	2.00	10/10/2006	5.82	4.72	2.00
					29.5	29.5	6.95	6.94	6.61	103.1	103.3	8.79	8.79	8.8	8.9	5.10						
					30.7	30.8	6.27	6.28	6.61	93.4	93.6	9.96	9.96	10.0	10.0	10.0						
12/10/2006	10:30 - 10:45	29/Fine	Surface	26.6	31.1	31.2	5.96	5.95	5.95	88.2	88.0	10.70	10.75	11.0	11.0	5.95	4.72	2.00	12/10/2006	5.95	4.72	2.00
					31.2	31.2	5.93	5.46	5.46	87.7	81.0	8.22	8.19	8.5	8.4	2.00						
					29.6	29.6	6.84	6.81	6.49	102.9	102.4	8.45	8.48	8.5	8.5	5.10						
14/10/2006	17:00 - 17:13	26/Fine	Surface	26.1	30.2	30.2	7.04	7.06	6.84	99.7	100.0	9.57	9.61	9.5	9.5	6.84	5.45	5.10	14/10/2006	6.84	5.45	5.10
					30.6	30.6	6.64	6.62	6.49	94.0	93.7	9.28	9.34	9.0	9.2	5.10						
					30.5	31.2	6.12	6.16	6.16	92.2	92.8	7.56	7.63	7.7	7.8	2.00						
17/10/2006	16:00 - 16:11	28/Fine	Surface	27.2	31.5	31.5	5.84	5.80	5.80	82.7	82.1	10.50	10.30	10.2	10.2	5.80	4.72	2.00	17/10/2006	5.80	4.72	2.00
					31.5	31.5	5.76	5.46	5.46	81.4	81.0	8.15	8.19	8.2	8.4	2.00						
					29.2	29.2	6.82	6.79	6.50	95.6	95.1	9.25	9.31	9.0	9.2	5.10						
19/10/2006	16:00 - 16:10	29/Cloudy	Surface	27.1	29.7	29.8	6.24	6.22	6.56	87.5	87.2	10.40	10.55	10.0	10.0	5.80	4.72	2.00	19/10/2006	5.80	4.72	2.00
					29.7	29.8	6.19	6.22	6.56	86.8	82.1	10.70	10.90	10.0	10.0	2.00						
					29.3	29.3	5.84	5.86	5.86	81.8	82.1	11.80	11.90	11.0	11.0	5.10						
21/10/2006	17:30 - 17:40	29/Cloudy	Surface	28.2	27.1	27.1	7.06	7.01	6.64	105.9	105.2	7.84	7.84	7.5	7.5	6.64	5.45	5.10	21/10/2006	6.64	5.45	5.10
					27.7	27.7	6.96	6.11	6.11	104.4	105.2	7.84	8.15	8.0	8.0	5.10						
					29.4	29.5	6.15	6.17	6.64	91.6	91.5	10.70	10.65	10.0	10.0	2.00						
24/10/2006	07:40 - 07:50	28/Cloudy	Surface	27.2	29.7	29.7	5.69	5.72	5.72	84.2	84.6	10.50	10.45	10.0	10.0	6.64	5.45	5.10	24/10/2006	6.64	5.45	5.10
					29.7	29.7	5.74	5.72	5.72	84.9	84.9	10.40	10.45	10.0	10.0	2.00						
					27.8	27.8	7.12	7.16	6.66	106.8	107.4	9.14	9.14	9.0	9.0	5.10						
26/10/2006	09:00 - 09:10	29/Sunny	Surface	26.4	28.7	28.7	7.20	7.16	6.59	108.0	107.4	9.14	9.14	9.0	9.0	6.66	5.45	5.10	26/10/2006	6.66	5.45	5.10
					28.7	28.7	6.15	6.15	6.59	92.8	92.3	10.50	10.55	10.0	10.0	2.00						
					29.6	29.6	5.78	5.81	5.81	86.7	87.2	11.80	11.80	10.0	10.0	5.10						

Mid-Flood Tide



英泰 德 勘 測 試 驗 有 限 公 司
ETS-TESTCONSULT LIMITED

Monitoring Station : TM-FM2

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)	Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)			Dissolved Oxygen Saturation (%)			Turbidity (NTU)			Suspended Solids (mg/L)			Date		Dissolved Oxygen		
					Value	Average	Value	Average	Depth-average	Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	S&M B	Action Level
03/10/2006	16:58 - 17:08	29/Sunny	Surface	27.8	29.0	29.1	7.25	7.22	6.71	110.2	109.8	9.06	9.07	9.3	9.2	9.3	9.3	10.79	11.1	03/10/2006	6.71	5.45	5.10
			Middle	26.9	30.6	30.6	6.21	6.19	6.71	109.3	94.4	9.07	10.90	11.0	11.0	11.0	11.0	10.85	10.9	03/10/2006	5.58	4.72	2.00
			Bottom	26.5	31.2	31.3	5.62	5.58	5.58	85.4	83.8	12.50	12.40	12.45	13.0	13.0	13.0	12.45	13.0	05/10/2006	6.31	5.45	5.10
05/10/2006	17:45 - 17:55	30/Sunny	Surface	28.2	28.5	28.5	6.59	6.58	6.31	98.1	97.9	6.67	6.68	6.8	6.8	6.8	6.68	8.8	8.8	05/10/2006	5.67	4.72	2.00
			Middle	27.4	29.4	29.4	6.07	6.05	6.05	90.4	90.1	9.47	9.48	9.5	9.5	9.5	9.48	8.8	8.8	10/10/2006	6.75	5.45	5.10
			Bottom	27.1	29.8	29.8	5.68	5.67	5.67	83.6	83.8	9.90	9.90	10.0	10.0	10.0	9.90	10.0	10.9	10/10/2006	5.78	4.72	2.00
10/10/2006	08:45 - 08:55	29/Cloudy	Surface	28.0	29.7	29.7	7.06	7.05	6.75	105.1	104.9	8.67	8.67	8.8	8.8	8.8	8.67	10.66	10.9	10/10/2006	6.28	5.45	5.10
			Middle	27.0	30.8	30.8	6.47	6.46	6.46	96.4	96.3	11.50	11.40	11.45	12.0	12.0	12.0	11.45	10.9	12/10/2006	6.28	5.45	5.10
			Bottom	26.6	31.2	31.2	5.79	5.78	5.78	85.6	85.4	11.90	11.80	11.85	12.0	12.0	12.0	11.85	10.9	12/10/2006	5.25	4.72	2.00
12/10/2006	11:17 - 11:32	29/Fine	Surface	28.1	29.5	29.5	6.66	6.70	6.28	100.0	100.6	8.22	8.20	8.4	8.2	8.5	8.2	7.27	7.3	12/10/2006	6.28	5.45	5.10
			Middle	27.2	31.2	31.2	5.82	5.86	5.86	87.5	88.2	8.17	7.16	7.21	7.0	7.0	7.25	7.2	7.3	14/10/2006	7.19	5.45	5.10
			Bottom	26.8	31.6	31.6	5.21	5.25	5.25	78.2	78.8	6.43	6.40	6.40	6.5	6.5	6.43	6.5	9.6	9.6	14/10/2006	5.75	4.72
14/10/2006	17:32 - 17:41	28/Fine	Surface	26.0	29.9	30.0	7.45	7.44	7.19	105.5	105.3	8.65	8.71	8.5	8.5	8.5	8.71	10.21	9.6	14/10/2006	6.32	5.45	5.10
			Middle	25.5	30.8	30.8	6.98	6.95	6.95	98.8	98.4	9.44	9.56	9.4	9.3	9.3	9.44	9.5	9.6	17/10/2006	5.40	4.72	2.00
			Bottom	25.3	31.6	31.6	5.77	5.75	5.75	81.7	81.4	12.10	12.60	12.35	11.0	11.0	12.10	12.35	11.0	17/10/2006	6.32	5.45	5.10
17/10/2006	16:33 - 16:42	28/Fine	Surface	27.3	29.3	29.3	6.59	6.56	6.32	92.4	92.0	9.22	9.26	9.2	9.0	9.3	9.22	9.68	9.6	17/10/2006	5.40	4.72	2.00
			Middle	27.0	29.9	29.9	6.11	6.09	6.09	85.6	85.3	9.55	9.53	9.5	9.5	9.5	9.55	9.53	9.6	19/10/2006	6.46	5.45	5.10
			Bottom	26.7	30.8	30.8	5.44	5.40	5.40	76.3	75.7	10.20	10.30	10.25	10.0	10.0	10.20	10.25	10.3	19/10/2006	5.70	4.72	2.00
19/10/2006	16:35 - 16:40	29/Cloudy	Surface	27.8	28.1	28.1	6.87	6.84	6.46	103.1	102.7	8.03	8.04	7.8	7.8	7.8	8.03	8.53	8.3	19/10/2006	6.46	5.45	5.10
			Middle	27.5	28.8	28.8	6.11	6.08	6.08	91.7	91.2	8.49	8.49	8.49	8.0	8.0	8.49	8.53	8.3	21/10/2006	6.47	5.45	5.10
			Bottom	27.0	29.5	29.5	5.82	5.86	5.86	87.3	87.9	9.05	9.06	9.06	8.8	8.8	9.05	9.06	9.2	21/10/2006	5.70	4.72	2.00
21/10/2006	18:00 - 18:10	29/Cloudy	Surface	27.9	28.5	28.6	6.77	6.79	6.47	100.8	101.1	8.02	8.03	7.8	7.8	7.8	8.02	11.83	10.3	21/10/2006	6.47	5.45	5.10
			Middle	27.5	29.4	29.4	6.13	6.15	6.15	101.4	91.6	9.96	9.97	9.9	9.7	9.7	9.96	9.62	9.2	24/10/2006	6.63	5.45	5.10
			Bottom	27.3	29.8	29.9	5.71	5.70	5.70	84.5	84.3	10.90	10.80	10.85	10.0	10.0	10.90	10.85	10.3	24/10/2006	5.52	4.72	2.00
24/10/2006	08:15 - 08:20	28/Cloudy	Surface	27.1	27.6	27.7	7.17	7.14	6.63	107.6	107.2	10.90	10.90	10.0	10.0	10.0	10.90	11.83	10.3	24/10/2006	6.63	5.45	5.10
			Middle	26.8	28.9	28.9	6.16	6.12	6.12	92.4	91.8	11.70	11.70	11.70	10.0	10.0	11.70	11.70	10.3	26/10/2006	5.52	4.72	2.00
			Bottom	26.3	30.0	30.1	5.48	5.52	5.52	82.2	82.8	12.90	12.90	12.90	11.0	11.0	12.90	12.90	10.3	26/10/2006	5.61	4.72	2.00
26/10/2006	09:30 - 09:40	29/Sunny	Surface	27.4	27.3	27.3	6.98	6.97	6.53	104.0	103.8	9.07	9.08	8.8	8.8	8.8	9.07	11.23	10.3	26/10/2006	6.53	5.45	5.10
			Middle	26.8	28.7	28.7	6.07	6.10	6.10	103.5	90.8	12.20	12.10	12.15	11.0	11.0	12.20	12.15	10.3	26/10/2006	5.61	4.72	2.00
			Bottom	26.4	29.8	29.8	5.59	5.62	5.62	82.7	82.9	12.50	12.40	12.45	11.0	11.0	12.50	12.45	10.3	26/10/2006	5.61	4.72	2.00

Mid-Flood Tide



英業 儀器 測試 顧問 有限公司
ETS-TEST CONSULT LIMITED

Monitoring Station : TM-FM2

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)			Dissolved Oxygen			
			Surface	Middle		Bottom	Value	Average	Value	Average	Value	Depth-average	Value	Average	Value	Depth-average	Value	Average	Value	Depth-average	S&M B
28/10/2006	15:42 - 15:50	29/Sunny	1.0	Surface	27.8	27.8	27.8	6.78	6.74	101.7	101.1	7.68	7.68	7.5	7.5	8.5	8.5	6.39	5.45	5.10	
				Middle	27.8	6.70	100.5	7.68	7.5	8.8	8.9	8.5									
				Bottom	29.2	6.06	90.9	8.92	8.9	9.0	8.9	8.5									
			16.0	Surface	29.1	6.02	90.3	8.93	9.37	9.37	9.0	9.2	9.3	9.2	9.2	9.2	9.2	9.2	5.85	4.72	2.00
				Middle	29.6	5.81	87.2	87.8	9.36	9.37	9.3	9.2	9.3	9.2	9.2	9.2	9.2	9.2	5.85	4.72	2.00
				Bottom	29.5	5.89	88.4	87.8	9.36	9.37	9.3	9.2	9.3	9.2	9.2	9.2	9.2	9.2	5.85	4.72	2.00
31/10/2006	15:30 - 15:40	28/Sunny	1.0	Surface	28.6	28.6	6.86	6.85	101.7	102.0	8.87	8.88	8.5	8.5	9.8	9.8	6.60	5.45	5.10		
				Middle	28.6	6.86	102.2	8.87	8.88	8.5	8.5	8.5									
				Bottom	29.6	6.33	93.6	93.9	10.50	10.45	10.0	10.0	10.0	10.0						10.0	10.0
			16.6	Surface	29.5	6.36	94.1	88.0	12.20	12.15	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	5.95	4.72	2.00
				Middle	30.5	5.93	87.7	88.0	12.20	12.15	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	5.95	4.72	2.00
				Bottom	30.4	5.96	88.2	88.0	12.10	12.15	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	5.95	4.72	2.00
			Surface			#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	5.45	5.10	
			Middle			#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	5.45	5.10
			Bottom			#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	4.72	2.00

Mid-Flood Tide

Monitoring Station : TM-FM1



專業檢測測試顧問有限公司
ETS-TEST CONSULT LIMITED

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)	Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)			Dissolved Oxygen Saturation (%)			Turbidity (NTU)			Suspended Solids (mg/L)			Dissolved Oxygen		
					Value	Average	Value	Average	Depth-average	Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average
03/10/2006	16:41 - 16:50	29/Sunny	Surface	27.9	28.9	28.9	7.16	7.12	6.59	107.9	107.8	107.6	8.97	8.97	9.0	9.0	9.0	9.0	6.59	5.45	5.10
			Middle	27.1	30.1	30.1	6.09	6.05	6.59	92.6	92.0	91.4	11.20	11.25	12.0	12.0	12.0	11.0	5.45	5.10	
			Bottom	26.4	30.9	30.9	5.72	5.68	5.68	86.9	86.3	85.7	11.90	11.85	12.0	12.0	12.0	12.0	12.0	5.68	4.72
05/10/2006	17:30 - 17:40	30/Sunny	Surface	28.1	28.4	28.4	6.50	6.52	6.31	96.8	97.1	97.4	7.02	7.03	7.3	7.3	7.3	7.3	6.31	5.45	5.10
			Middle	27.6	29.1	29.1	6.12	6.11	6.31	90.5	90.3	90.1	7.75	7.76	7.7	7.7	7.7	7.7	8.2	5.45	5.10
			Bottom	27.0	29.7	29.7	5.97	5.97	5.97	88.3	88.2	88.0	9.47	9.48	9.5	9.5	9.5	9.5	9.5	5.97	4.72
10/10/2006	08:30 - 08:40	29/Cloudy	Surface	28.2	29.6	29.6	6.84	6.82	6.58	101.9	101.6	101.2	9.24	9.25	9.5	9.5	9.5	9.5	6.58	5.45	5.10
			Middle	27.4	30.8	30.8	6.33	6.35	6.58	93.6	93.9	94.1	10.20	10.15	11.0	11.0	11.0	11.0	10.5	5.45	5.10
			Bottom	26.5	31.3	31.3	5.85	5.83	5.83	86.5	86.2	85.9	10.80	10.75	11.0	11.0	11.0	11.0	11.0	5.83	4.72
12/10/2006	10:52 - 11:07	29/Fine	Surface	28.2	29.4	29.4	6.45	6.41	6.20	97.0	96.4	95.8	9.11	9.09	9.3	9.3	9.3	9.3	6.20	5.45	5.10
			Middle	27.3	31.0	31.0	5.96	5.99	6.20	89.6	90.1	89.6	8.47	8.44	8.5	8.5	8.5	8.5	8.4	5.45	5.10
			Bottom	26.9	31.6	31.6	5.31	5.30	5.30	79.8	79.6	79.4	7.31	7.28	7.5	7.5	7.5	7.4	7.4	5.30	4.72
14/10/2006	17:18 - 17:27	26/Fine	Surface	25.9	29.9	29.9	7.22	7.19	6.96	102.2	101.9	101.5	10.20	10.07	10.0	10.0	10.0	10.0	6.96	5.45	5.10
			Middle	25.8	30.7	30.7	6.72	6.70	6.96	95.2	94.9	94.5	11.50	11.30	11.0	11.0	11.0	11.0	10.3	5.45	5.10
			Bottom	25.4	31.6	31.6	5.66	5.64	5.64	80.1	79.9	78.7	10.90	11.15	10.0	10.0	10.0	10.0	10.0	5.64	4.72
17/10/2006	16:19 - 16:27	26/Fine	Surface	27.4	29.4	29.4	6.43	6.42	6.23	90.1	89.9	89.7	10.20	10.30	10.0	10.0	10.0	10.0	6.23	5.45	5.10
			Middle	27.0	30.0	30.0	6.07	6.04	6.23	85.1	84.6	84.1	9.75	9.69	9.5	9.5	9.5	9.5	9.8	5.45	5.10
			Bottom	26.8	30.4	30.4	5.29	5.26	5.26	74.2	73.8	73.3	11.00	10.85	10.0	10.0	10.0	10.0	10.0	5.26	4.72
19/10/2006	16:15 - 16:24	29/Cloudy	Surface	27.7	27.4	27.4	7.12	7.08	6.70	105.8	106.2	105.6	7.76	7.76	7.5	7.5	7.5	7.5	6.70	5.45	5.10
			Middle	27.2	28.5	28.6	6.37	6.31	6.70	95.6	94.7	93.8	8.37	8.38	8.2	8.2	8.2	8.2	8.2	5.45	5.10
			Bottom	26.8	29.6	29.6	5.79	5.82	5.82	86.9	87.3	87.6	9.18	9.19	9.0	9.0	9.0	9.0	9.0	5.82	4.72
21/10/2006	17:45 - 17:55	29/Cloudy	Surface	28.0	28.4	28.4	6.84	6.83	6.45	101.9	101.7	101.4	7.98	7.99	7.7	7.7	7.7	7.7	6.45	5.45	5.10
			Middle	27.7	29.5	29.5	6.09	6.07	6.45	90.7	90.4	90.1	9.89	9.90	9.5	9.5	9.5	9.5	9.1	5.45	5.10
			Bottom	27.2	29.8	29.8	5.55	5.67	5.67	83.6	83.8	83.0	11.00	11.05	10.0	10.0	10.0	10.0	10.0	5.67	4.72
24/10/2006	07:55 - 08:06	28/Cloudy	Surface	27.2	27.2	27.2	7.32	7.28	6.75	109.8	109.2	108.6	11.20	11.20	10.0	10.0	10.0	10.0	6.75	5.45	5.10
			Middle	26.8	28.8	28.9	6.24	6.21	6.75	93.6	93.2	92.7	12.10	12.15	11.0	11.0	11.0	11.0	11.0	5.45	5.10
			Bottom	26.4	30.1	30.1	5.73	5.76	5.76	86.0	86.5	86.0	13.60	13.60	12.0	12.0	12.0	12.0	12.0	5.76	4.72
26/10/2006	09:15 - 09:25	29/Sunny	Surface	27.5	27.1	27.1	6.94	6.96	6.59	103.4	103.6	103.8	9.12	9.13	9.0	9.0	9.0	9.0	6.59	5.45	5.10
			Middle	26.9	28.8	28.8	6.23	6.22	6.59	92.2	92.0	91.7	11.70	11.80	10.0	10.0	10.0	10.0	10.0	5.45	5.10
			Bottom	26.6	29.5	29.5	5.60	5.62	5.62	83.4	83.7	84.0	12.30	12.25	11.0	11.0	11.0	11.0	11.0	5.62	4.72

Mid-Flood Tide

Monitoring Station : TM-FM1

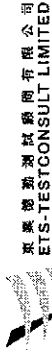
Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)	Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)			Dissolved Oxygen Saturation (%)			Turbidity (NTU)			Suspended Solids (mg/L)			Date			Dissolved Oxygen	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	S&M B	Action Level
28/10/2006	15:28 - 15:36	29/Sunny	Surface	1.0	27.5	27.6	27.6	6.49	6.52	97.4	97.9	8.12	8.12	8.0	8.0	8.8	8.8	8.8	6.31	5.45	5.10		
				27.6	6.55	98.3	8.12	8.0															
				29.0	6.12	91.8	9.05	8.8															
			Middle	8.2	27.1	29.1	6.06	91.4	9.05	9.05	8.8	8.8											
				29.5	5.84	87.6	9.98	9.7	9.7														
				Bottom	15.4	26.6	29.4	5.92	88.2	9.98	9.7	9.7											
31/10/2006	15:15 - 15:25	28/Sunny	Surface	1.0	27.7	28.6	6.79	6.81	101.1	101.4	8.95	8.95	8.8	8.8	9.7	9.7	9.7	6.49	5.45	5.10			
				28.5	6.82	101.6	8.94	8.8															
				29.5	6.15	91.6	9.98	9.8															
			Middle	8.4	27.1	29.5	6.18	91.8	9.98	9.98	9.8	9.8											
				30.5	5.87	86.8	11.80	11.0	10.0	10.5													
				Bottom	15.8	26.9	30.4	5.84	86.6	11.70	11.60	10.0	10.5										

Mid-Ebb Tide

Monitoring Station : TM-FM1

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)	Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)			Dissolved Oxygen Saturation (%)			Turbidity (NTU)			Suspended Solids (mg/L)			Date			Dissolved Oxygen		
					Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	S&M B	Action Level	Limit Level
26/10/2006	15:15 - 15:25	29/Sunny	Bottom	16.8	26.2	29.9	29.9	5.74	5.70	5.70	86.1	85.5	14.20	14.20	13.0	13.0	24/10/2006	5.70	4.72	2.00				
						29.8	29.8	5.66	5.70	84.9	85.5	14.20	13.0	13.0	24/10/2006	5.70	4.72	2.00						
						27.4	27.5	6.63	6.65	98.7	99.0	10.50	10.0	10.0	26/10/2006	6.35	5.45	5.10						
						28.8	28.8	6.03	6.05	99.2	99.0	10.40	10.0	10.0	26/10/2006	6.35	5.45	5.10						
						28.8	28.8	6.07	6.05	89.2	89.5	11.20	11.25	11.0	11.0	26/10/2006	6.35	5.45	5.10					
						29.7	29.8	5.43	5.45	89.8	89.5	11.30	11.25	11.0	11.0	26/10/2006	6.35	5.45	5.10					
28/10/2006	07:18 - 07:26	29/Sunny	Bottom	15.6	27.1	29.8	29.8	5.46	5.45	5.45	80.3	80.6	11.70	11.65	10.0	10.0	26/10/2006	5.45	4.72	2.00				
						27.2	27.2	6.81	6.78	80.8	80.6	11.60	10.0	10.0	26/10/2006	5.45	4.72	2.00						
						27.6	27.4	6.74	6.78	102.1	101.6	8.14	8.0	8.0	28/10/2006	6.43	5.45	5.10						
						28.8	28.9	6.12	6.09	101.1	101.6	8.15	8.0	8.0	28/10/2006	6.43	5.45	5.10						
						28.9	28.9	6.06	6.09	91.8	91.4	9.17	9.17	9.0	9.0	28/10/2006	6.43	5.45	5.10					
						29.6	29.6	5.92	5.89	90.9	88.4	9.16	9.17	9.0	9.0	28/10/2006	6.43	5.45	5.10					
28/10/2006	07:18 - 07:26	29/Sunny	Bottom	15.2	26.9	29.6	29.6	5.92	5.89	5.89	88.8	88.4	10.80	10.85	10.0	10.0	28/10/2006	5.89	4.72	2.00				
						29.5	29.5	5.86	5.89	87.9	88.4	10.80	10.0	10.0	28/10/2006	5.89	4.72	2.00						

Mid-Ebb Tide



英業德測試顧問有限公司
ETS-TESTCONSULT LIMITED

Monitoring Station : TM-FM2

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)	Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)			Dissolved Oxygen Saturation (%)			Turbidity (NTU)			Suspended Solids (mg/L)			Date	Dissolved Oxygen		
					Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average		S&M B	Action Level	Limit Level
03/10/2006	09:17 - 09:28	29/Sunny	Surface	28.1	28.9	28.9	7.11	7.15	6.68	108.1	108.7	108.7	9.08	9.08	9.3	9.3	6.68	5.10	03/10/2006	6.68	5.45	5.10
			Middle	27.6	30.1	30.1	6.25	6.21	10.96	93.8	94.4	94.4	11.50	11.50	12.0	12.0	11.4	5.92		4.72	2.00	
			Bottom	26.9	30.8	30.8	5.94	5.92	12.30	90.3	90.0	90.0	12.30	12.30	13.0	13.0	6.5	6.30		5.10		
05/10/2006	11:00 - 11:10	30/Sunny	Surface	27.5	28.4	28.4	6.64	6.63	6.30	98.9	98.7	98.7	6.42	6.43	8.0	8.0	6.30	5.10	05/10/2006	6.30	5.45	5.10
			Middle	27.1	29.2	29.2	5.98	5.97	8.11	88.0	88.3	88.3	8.09	8.10	8.2	8.2	8.0	5.76		4.72	2.00	
			Bottom	26.9	29.5	29.5	5.73	5.76	9.14	84.8	85.2	85.2	9.15	9.15	9.3	9.3	9.5	6.94		5.45	5.10	
10/10/2006	14:30 - 14:40	29/Cloudy	Surface	28.5	29.7	29.7	7.24	7.23	6.94	107.8	107.6	107.6	9.15	9.16	10.8	10.8	6.94	5.10	10/10/2006	6.94	4.72	2.00
			Middle	27.8	30.9	30.9	6.64	6.66	10.35	98.9	99.2	99.2	10.90	10.80	11.0	11.0	10.8	5.85		4.72	2.00	
			Bottom	27.1	31.5	31.5	5.87	5.85	11.10	86.8	86.5	86.5	11.10	11.10	12.0	12.0	9.5	6.14		5.10		
12/10/2006	15:45 - 16:02	29/Fine	Surface	28.1	29.4	29.4	6.30	6.34	6.14	96.0	95.3	95.3	9.24	9.26	8.9	8.9	6.14	5.10	12/10/2006	6.14	5.45	5.10
			Middle	27.0	30.8	30.8	5.98	5.94	8.72	89.8	89.2	89.2	8.10	8.06	8.2	8.2	8.9	5.30		4.72	2.00	
			Bottom	26.6	31.6	31.6	5.33	5.30	9.31	80.3	79.9	79.9	8.88	8.84	9.0	9.0	9.0	7.08		5.45	5.10	
14/10/2006	07:33 - 07:48	26/Fine	Surface	25.7	30.1	30.1	7.35	7.35	7.08	104.1	104.0	104.0	9.26	9.31	10.3	10.3	7.08	5.10	14/10/2006	7.08	4.72	2.00
			Middle	25.1	30.5	30.5	6.84	6.82	10.95	96.9	96.7	96.7	10.60	10.30	10.0	10.0	9.9	5.92		4.72	2.00	
			Bottom	25.0	31.3	31.3	5.95	5.92	13.25	84.2	83.8	83.8	13.40	13.25	12.0	12.0	12.0	5.92		4.72	2.00	
17/10/2006	09:55 - 10:04	28/Fine	Surface	27.1	29.8	29.8	6.17	6.13	5.98	88.0	87.4	87.4	8.11	8.09	9.3	9.3	5.98	5.10	17/10/2006	5.98	5.45	5.10
			Middle	26.4	30.2	30.2	5.87	5.84	9.78	82.7	83.2	83.2	10.60	10.40	10.0	10.0	10.0	5.98		4.72	2.00	
			Bottom	26.2	30.6	30.6	5.22	5.22	10.85	74.4	74.3	74.3	11.00	10.85	10.0	10.0	10.0	5.22		4.72	2.00	
19/10/2006	11:04 - 11:12	29/Cloudy	Surface	28.1	27.8	27.8	6.94	6.91	6.55	104.1	103.7	103.7	6.71	6.71	7.3	7.3	6.55	5.10	19/10/2006	6.55	5.45	5.10
			Middle	27.3	28.7	28.7	6.22	6.18	7.61	93.3	92.7	92.7	7.25	7.25	7.0	7.0	7.0	5.70		4.72	2.00	
			Bottom	26.9	29.3	29.3	5.65	5.70	8.87	84.7	85.4	85.4	8.87	8.87	8.5	8.5	8.5	6.24		5.45	5.10	
21/10/2006	12:00 - 12:10	29/Cloudy	Surface	27.8	28.5	28.5	6.67	6.65	6.24	99.3	99.0	99.0	8.09	8.10	8.8	8.8	6.24	5.10	21/10/2006	6.24	5.45	5.10
			Middle	27.4	29.8	29.8	5.84	5.82	8.99	86.4	86.7	86.7	8.95	8.95	8.8	8.8	8.8	5.46		4.72	2.00	
			Bottom	26.8	29.9	29.9	5.47	5.46	9.94	80.9	80.7	80.7	9.93	9.94	9.8	9.8	9.8	6.24		5.45	5.10	
24/10/2006	13:35 - 13:44	28/Cloudy	Surface	27.3	27.1	27.1	7.03	7.06	6.57	105.5	106.0	106.0	9.18	9.18	10.3	10.3	6.57	5.10	24/10/2006	6.57	5.45	5.10
			Middle	26.7	28.2	28.2	6.11	6.08	11.43	91.7	91.2	91.2	11.50	11.50	10.0	10.0	10.0	5.82		4.72	2.00	
			Bottom	26.1	29.4	29.4	5.76	5.82	13.60	86.4	87.3	87.3	13.60	13.60	12.0	12.0	12.0	6.20		5.45	5.10	
26/10/2006	15:30 - 15:40	29/Sunny	Surface	28.2	27.4	27.4	6.52	6.55	6.20	97.1	97.5	97.5	9.96	9.96	9.9	9.9	6.20	5.10	26/10/2006	6.20	5.45	5.10
			Middle	27.8	28.6	28.6	5.87	5.85	10.70	87.4	87.1	87.1	10.80	10.70	10.0	10.0	10.0	5.82		4.72	2.00	
			Bottom	27.8	28.5	28.5	5.67	5.67	11.45	84.4	84.5	84.5	11.50	11.45	10.0	10.0	10.0	6.20		5.45	5.10	

Mid-Ebb Tide



東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Monitoring Station : TM-FM2

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)	Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)			Dissolved Oxygen Saturation (%)			Turbidity (NTU)			Suspended Solids (mg/L)			Date			Dissolved Oxygen				
					Value	Average	Value	Average	Depth-average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Action Level	Limit Level
28/10/2006	07:35-07:48	29/Sunny	Surface	27.1	29.7	27.2	5.68	6.58	84.6	11.40	8.57	10.0	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	
				27.2	27.2	27.2	6.65	6.52	99.8	8.56	8.57	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	
				29.1	29.2	29.2	6.21	6.15	93.2	9.97	9.93	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
			29.2	29.6	29.6	6.09	6.07	91.4	11.20	11.25	9.8	9.8	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
			29.6	29.6	29.6	6.03	6.07	90.4	11.30	11.25	11.20	11.30	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
			29.6	28.5	28.5	6.10	6.62	91.5	9.60	9.60	9.60	9.60	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
31/10/2006	08:00-08:10	28/Sunny	Surface	28.4	30.2	29.5	6.64	5.79	98.3	10.85	10.68	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
				28.4	30.2	29.5	6.64	5.79	98.9	10.85	10.68	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
				29.5	30.2	29.5	6.21	6.24	92.5	10.85	10.68	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
			29.5	30.2	29.5	6.26	5.79	93.1	11.50	11.60	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
			30.2	30.3	30.3	5.79	5.77	85.6	11.50	11.60	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
			30.4	30.3	30.3	5.75	5.77	85.0	11.70	11.60	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0

Mid-Ebb Tide



東業德務測試顧問有限公司
ETS-TESTCONSULT LIMITED

Monitoring Station : TM-FC2

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)	Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)		Dissolved Oxygen			
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Depth-average	Value	Average	S&M B	Action Level	Limit Level
03/10/2006	08:36 - 09:45	29/Sunny	Surface	28.2	29.1	7.38	112.2	9.08	9.3	9.3	9.3	9.08	9.08	6.86	6.86	5.45	5.10		
				27.4	29.2	7.30	111.0	10.90	10.90									11.0	11.1
				26.8	30.4	6.41	97.0	10.90	10.90									11.0	11.1
05/10/2006	11:15 - 11:25	30/Sunny	Surface	27.0	30.4	6.35	96.5	12.60	13.0	13.0	13.0	12.60	12.60	7.5	7.5	5.45	5.10		
				26.8	31.1	6.03	91.7	12.60	12.60									13.0	13.0
				27.6	29.9	5.95	90.4	12.60	12.60									13.0	13.0
10/10/2006	14:45 - 14:55	29/Cloudy	Surface	28.4	29.2	6.42	94.4	7.54	7.5	7.5	7.5	7.54	7.54	6.18	6.18	5.45	5.10		
				27.6	29.2	6.45	94.8	9.60	9.60									9.8	9.8
				27.2	29.9	5.93	88.0	9.60	9.60									9.8	9.8
12/10/2006	16:12 - 16:30	29/Fine	Surface	27.1	29.9	5.82	86.1	11.50	11.45	11.45	11.45	11.50	11.40	12.0	12.0	4.72	2.00		
				27.9	29.8	5.85	86.5	11.40	11.40									12.0	12.0
				27.9	29.8	5.85	86.5	11.40	11.40									12.0	12.0
14/10/2006	07:54 - 08:05	26/Fine	Surface	25.6	29.7	7.15	106.5	9.07	9.07	9.07	9.07	9.07	9.07	8.1	8.1	5.45	5.10		
				25.2	29.7	6.62	106.9	12.40	12.40									13.0	13.0
				25.0	30.9	6.47	96.4	12.40	12.40									13.0	13.0
17/10/2006	10:12 - 10:24	28/Fine	Surface	27.2	31.6	5.92	87.6	12.70	12.65	12.65	12.60	12.70	12.60	7.0	7.0	4.72	2.00		
				27.9	31.6	5.96	89.8	7.91	7.91									8.0	8.1
				27.9	31.6	5.96	89.8	7.91	7.91									8.0	8.1
19/10/2006	11:17 - 11:30	29/Cloudy	Surface	27.9	29.5	6.55	99.2	7.96	7.96	7.96	7.96	7.96	7.96	6.38	6.38	5.45	5.10		
				27.4	29.5	6.51	99.8	8.00	8.00									8.2	8.2
				26.8	30.9	6.20	93.3	8.00	8.00									8.2	8.2
21/10/2006	12:15 - 12:25	29/Cloudy	Surface	27.7	29.5	6.14	89.5	6.07	6.07	6.07	6.07	6.07	6.07	6.2	6.2	5.45	5.10		
				27.4	29.5	6.14	89.5	6.07	6.07									6.0	6.0
				26.8	30.9	6.14	89.5	6.07	6.07									6.0	6.0
24/10/2006	13:55 - 14:05	28/Cloudy	Surface	27.1	30.3	7.26	103.2	10.25	10.25	10.25	10.25	10.25	10.25	10.0	10.0	5.45	5.10		
				26.6	30.6	6.58	102.7	12.00	12.00									10.0	10.0
				26.1	30.6	6.52	92.7	12.00	12.00									10.0	10.0
26/10/2006	15:50 - 16:00	29/Sunny	Surface	27.9	31.5	6.00	85.0	12.50	12.50	12.50	12.50	12.50	12.50	11.0	11.0	5.45	5.10		
				27.9	31.5	6.00	85.0	12.50	12.50									11.0	11.0
				27.9	31.5	6.00	85.0	12.50	12.50									11.0	11.0

Mid-Ebb Tide



英泰 傑 德 測 試 顧 問 有 限 公 司
ETS-TEST CONSULT LIMITED

Monitoring Station : TM-FC2

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)	Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		Date	Dissolved Oxygen	
					Value	Average	Value	Average	Value	Average	Value	Depth-average	Value	Depth-average		Value	Average
28/10/2006	07:55 - 08:05	29/Sunny	Surface	27.7	29.6	26.5	5.83	83.4	11.80	11.0	7.5	7.5	28/10/2006	6.27	5.45	5.10	
				27.4	26.5	6.41	97.1	7.65	7.5								
				27.4	28.4	6.12	91.8	8.74	8.5								
			Bottom	27.0	28.4	6.06	90.9	8.75	8.5	8.7	10.0	10.0					
				27.1	29.2	5.74	86.1	10.20	10.0	8.5	8.5						
				26.6	29.2	5.82	87.3	10.20	10.0	8.5	8.5						
31/10/2006	08:15 - 08:25	28/Sunny	Surface	26.3	28.5	28.5	6.72	100.1	8.87	8.8	10.0	10.0	31/10/2006	6.53	4.72	2.00	
				26.3	28.5	6.75	100.5	8.89	8.5								
				26.3	29.7	6.30	93.2	11.20	10.0	9.7	10.0						
			Bottom	26.3	29.7	6.33	93.6	11.40	10.0	8.5	8.5						
				26.3	30.4	5.66	83.7	11.70	10.0	8.5	8.5						
				26.3	30.4	5.69	84.2	11.80	10.5	8.5	8.5						

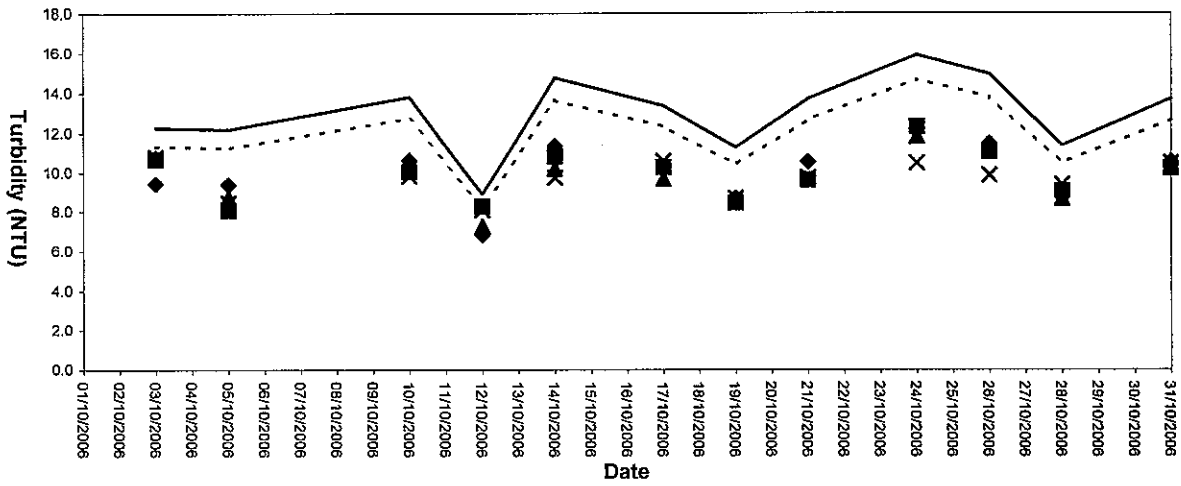


Appendix C3

Graphical Plots of Impact Marine Water Quality Monitoring Data

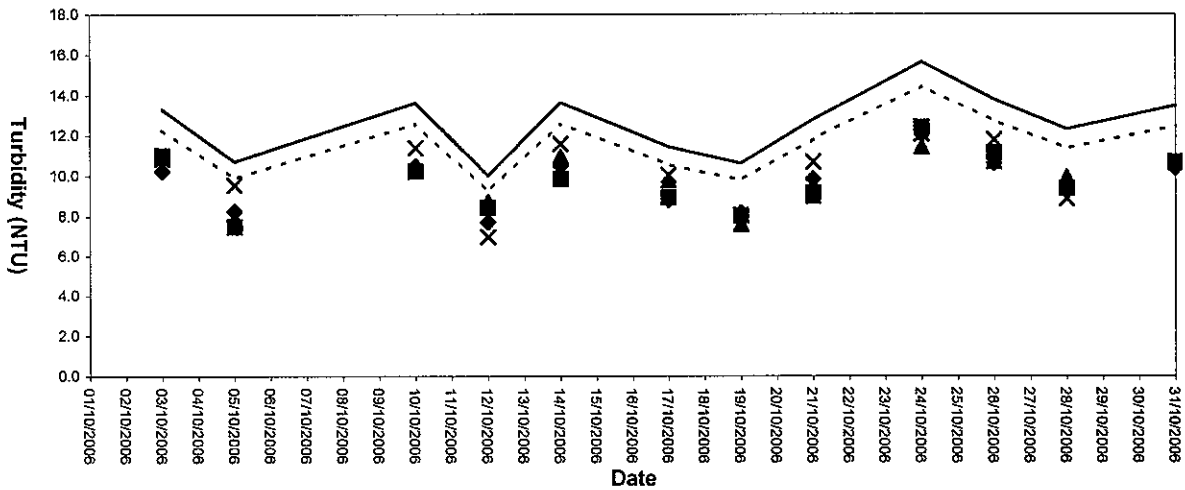


Turbidity (Depth-average) at Mid-Flood Tide



◆ Monitoring Station : TM-FC2 ■ Monitoring Station : TM-FM1 ▲ Monitoring Station : TM-FM2
× Monitoring Station : TM-FC1 - - - - - Action Level ——— Limit Level

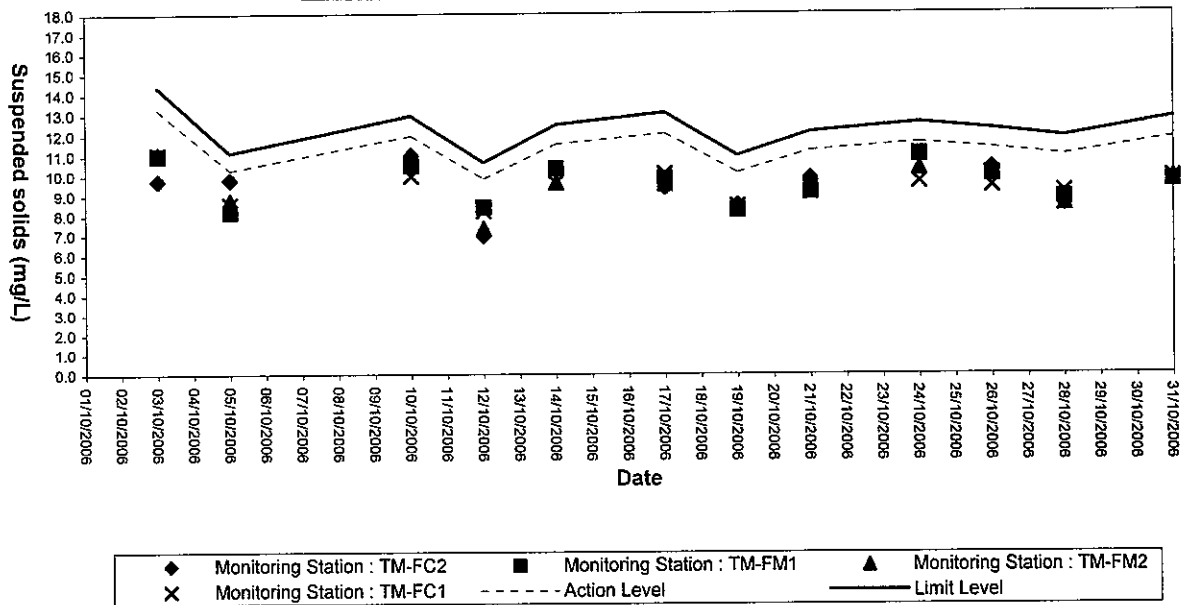
Turbidity (Depth-average) at Mid-Ebb Tide



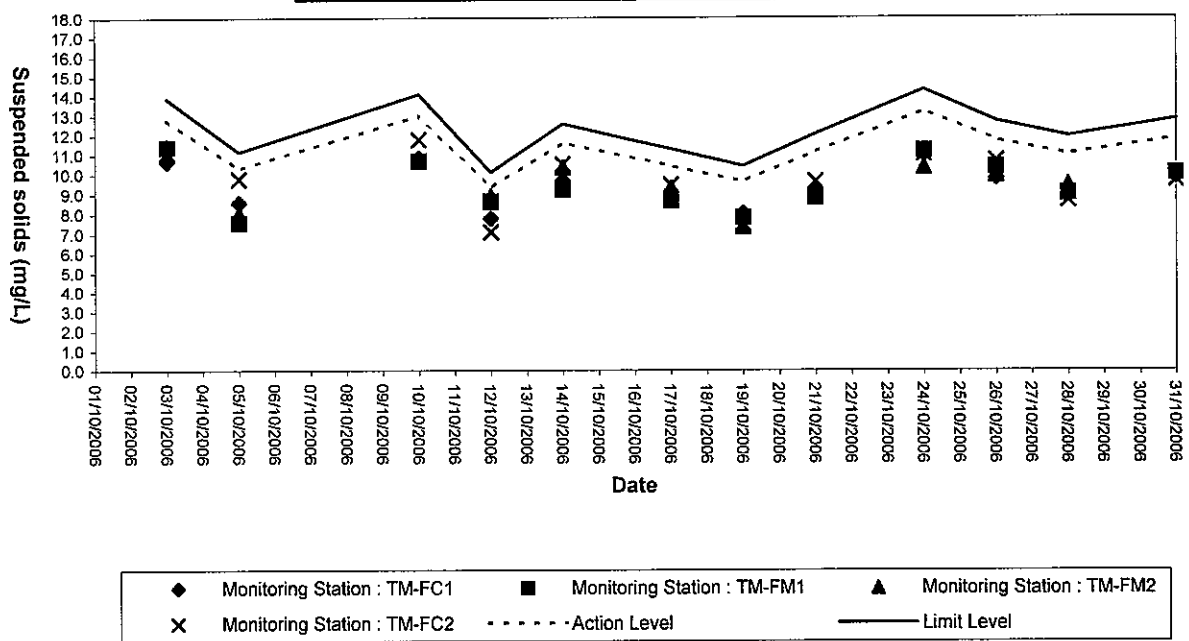
◆ Monitoring Station : TM-FC1 ■ Monitoring Station : TM-FM1 ▲ Monitoring Station : TM-FM2
× Monitoring Station : TM-FC2 - - - - - Action Level ——— Limit Level



Suspended solids (Depth-average) at Mid-Flood Tide

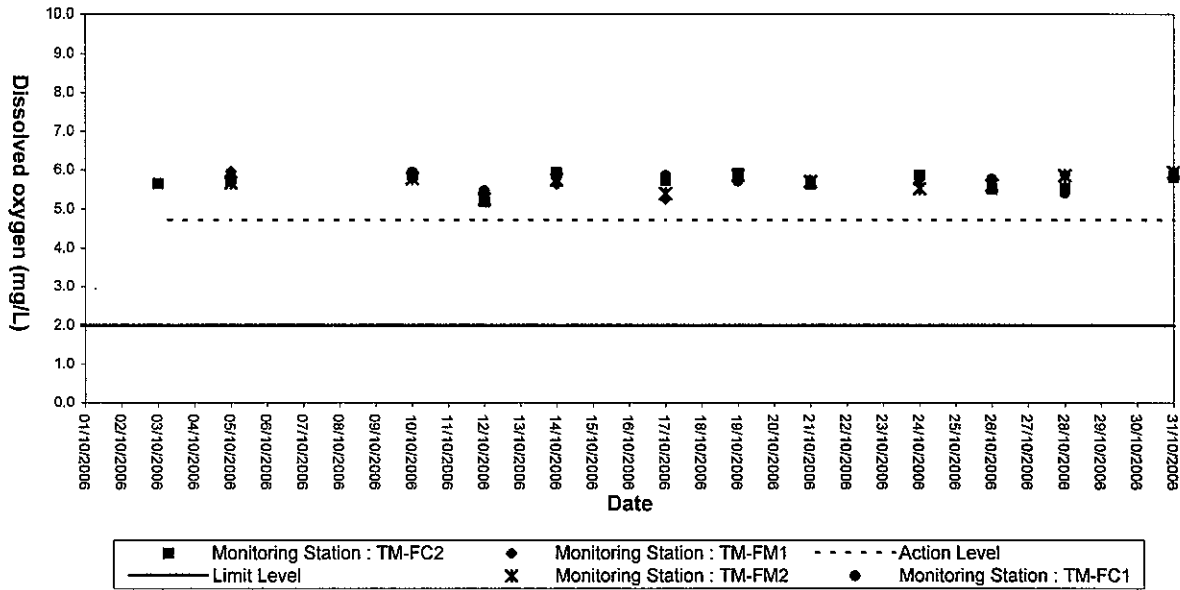


Suspended Solids (Depth-average) at Mid-Ebb Tide

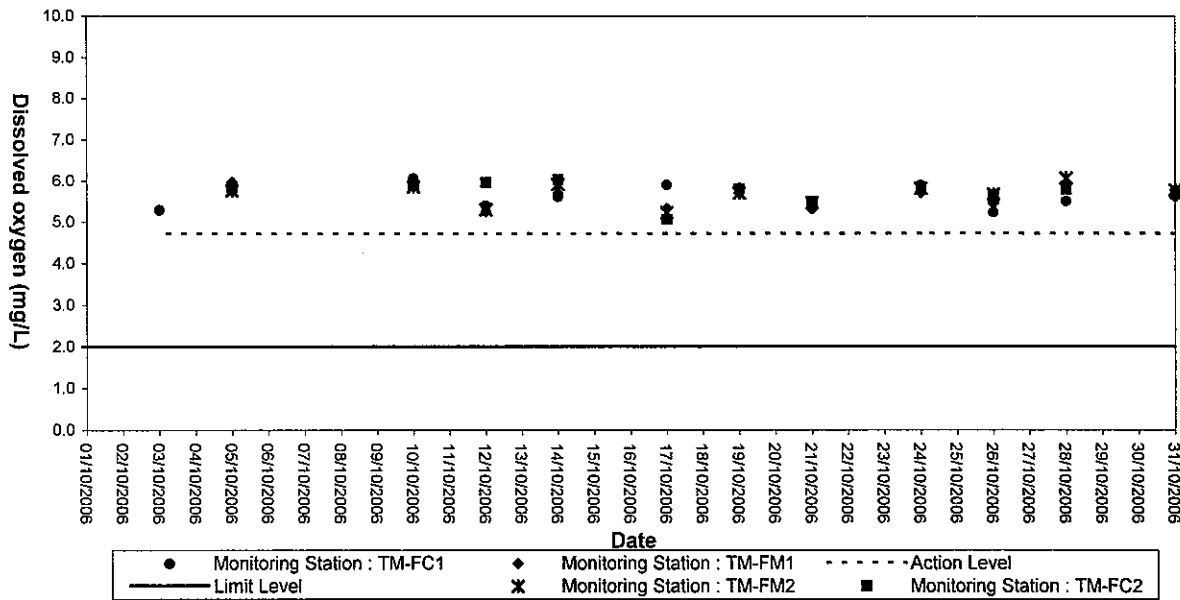




Dissolved Oxygen (Bottom) at Mid-Flood Tide

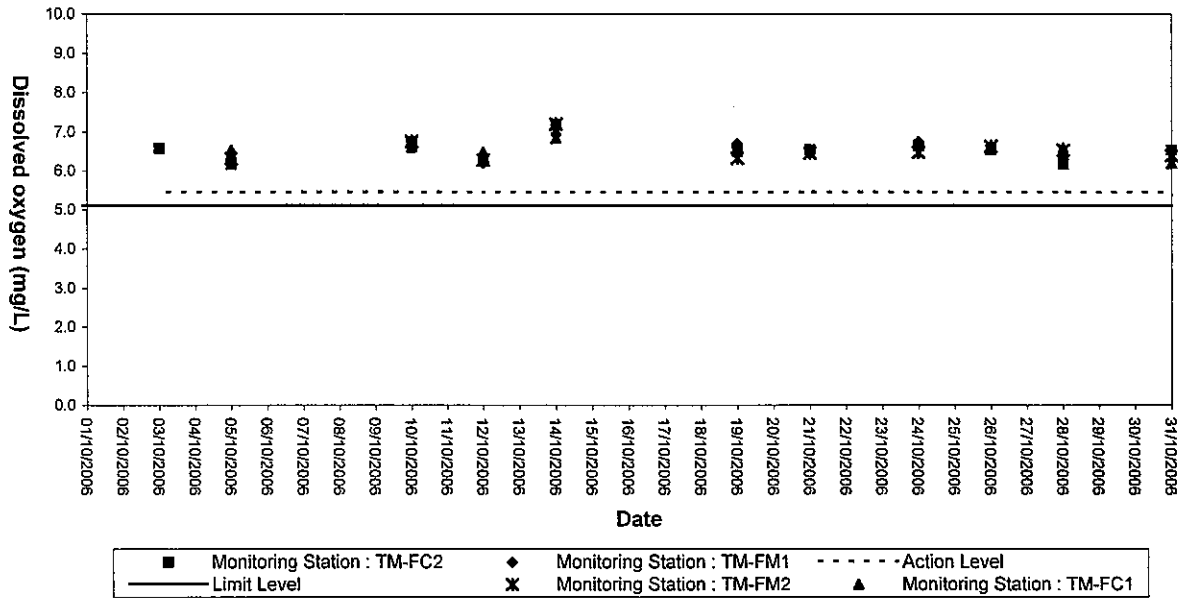


Dissolved Oxygen (Bottom) at Mid-Ebb Tide

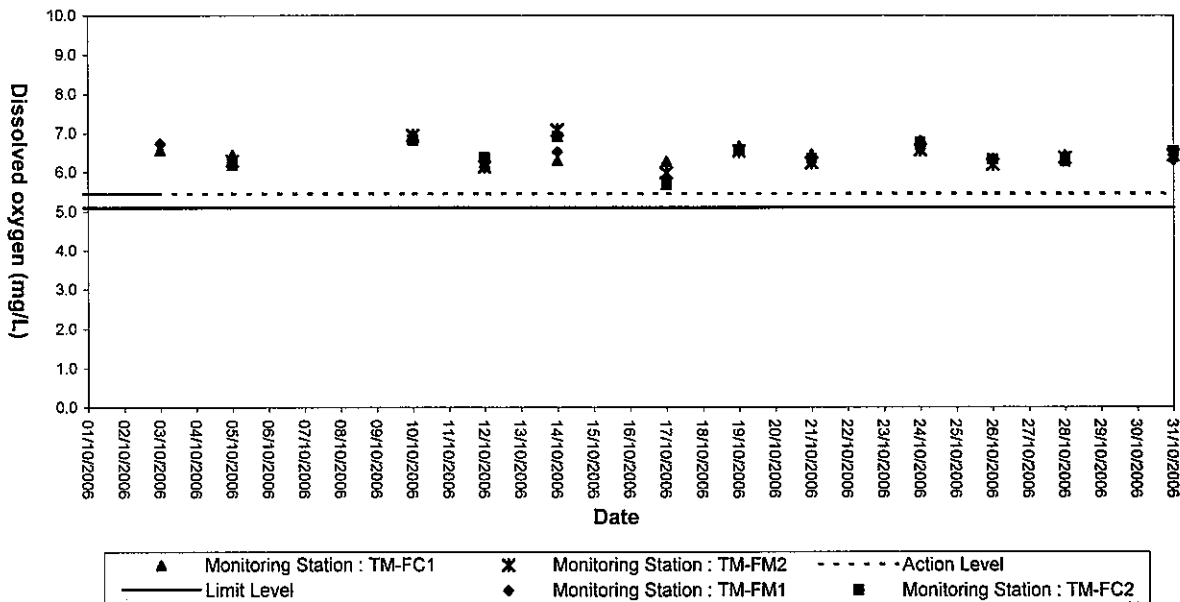




Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide



Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide





Appendix D

Weather Condition



Weather Condition

Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp. (°C)	Relative Humidity (%)	Wind Direction	Wind Speed (m/s)
01/10/06	Trace	27.6	25.7	78	E	<5
02/10/06	Trace	29.4	25.6	77	E	<5
03/10/06	5.1	29.4	24.4	80	NE	<5
04/10/06	Trace	29.9	25.3	73	SE	<5
05/10/06	-	30.4	24.9	75	SE	<5
06/10/06	Trace	29.0	24.9	77	SEE	<5
07/10/06	-	29.1	24.3	71	SE	<5
08/10/06	-	29.0	25.0	79	SE	<5
09/10/06	0.6	26.3	24.2	83	E	<5
10/10/06	-	29.1	24.2	77	SE	<5
11/10/06	-	30.1	25.0	78	SE	<5
12/10/06	-	29.5	25.0	77	SE	<5
13/10/06	-	30.1	25.3	77	E	<5
14/10/06	5.3	28.2	25.3	82	E	<5
15/10/06	10.7	27.9	24.8	84	SE	<5
16/10/06	7.1	28.3	24.1	85	SE	<5
17/10/06	-	28.6	25.3	82	E	<5
18/10/06	-	29.0	25.4	80	SE	<5
19/10/06	-	27.8	25.4	78	E	<5
20/10/06	-	29.3	24.7	77	E	<5
21/10/06	-	28.9	25.1	79	E	<5
22/10/06	-	29.7	24.6	79	E	<5
23/10/06	Trace	31.0	25.3	79	E	<5
24/10/06	1.9	28.4	24.7	79	E	<5
25/10/06	Trace	28.6	25.1	77	E	<5
26/10/06	-	28.8	24.6	73	E	<5
27/10/06	Trace	28.4	23.0	70	E	<5
28/10/06	Trace	29.2	23.4	68	N	<5
29/10/06	Trace	29.9	23.8	72	E	<5
30/10/06	0.5	29.4	23.5	71	E	
31/10/06	Trace	28.3	23.3	63	N	<5

Remark: Data of wind speed and wind direction were extracted from Hong Kong Observatory (Shatin Station).



Appendix E

Event-Action Plans

EVENT/ACTION PLAN FOR AIR QUALITY EXCEEDANCE

ACTION

	ET Leader	IC(E)	ER	Contractor
		ACTION LEVEL		
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Inform ER, IC(E) and Contractor 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET 2. Check contractor's working method 	<ol style="list-style-type: none"> 1. Notify Contractor 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practise 2. Amend working methods if appropriate
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Inform IC(E) and Contractor 3. Repeat measurements to confirm finding 4. Increase monitoring frequency to daily 5. Discuss with IC(E) and Contractor on remedial actions 6. If exceedance continues, arrange meeting with IC(E) and ER. 7. If exceedance stops, cease additional monitoring 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET 2. Check the Contractor's working method 3. Discuss with ET and Contractor on possible remedial measures 4. Advise the ER on the effectiveness of the proposed remedial measures 5. Supervise implementation of remedial measures 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing 2. Notify the Contractor 3. Ensure remedial measures properly implemented 	<ol style="list-style-type: none"> 1. Submit proposals for remedial actions to IC(E) within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate
		LIMIT LEVEL		
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Inform ER, Contractor and EPD 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 5. Assess the effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET 2. Check Contractor's working method 3. Discuss with ET and Contractor on possible remedial measures 4. Advise the ER on the effectiveness of the proposed remedial measures 5. Supervise implementation of remedial measures 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing 2. Notify the Contractor 3. Ensure remedial measures properly implemented 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IC(E) within 3 working days of notification 3. Implement the agreed proposals 4. Amend proposal if appropriate.

EVENT/ACTION PLAN FOR AIR QUALITY EXCEEDANCE

EVENT	ACTION				Contractor
	ET Leader	IC(E)	ER		
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Notify IC(E), ER, EPD and Contractor 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 5. Carry out analysis of contractor's working procedures to determine possible mitigation to be implemented 6. Arrange meeting with IC(E) and ER to discuss the remedial actions to be taken 7. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results 8. If exceedance stops, cease additional monitoring 	<ol style="list-style-type: none"> 1. Discuss amongst ER, ET and Contractor on the potential remedial actions 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly 3. Supervise the implementation of remedial measures 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. In consultation with the IC(E), agree with the Contractor on the remedial measures to be implemented 4. Ensure remedial measures are properly implemented 5. If exceedances continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedances 2. Submit proposals for remedial actions to IC(E) within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant activity of works as determined by the ER until the exceedance is abated. 	

EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE

Event	ACTION			IEC
	ET Leader	Contractor	ER	
<p>Action level being exceeded by one sampling day</p>	<ol style="list-style-type: none"> 1. Identify source(s) of impact; 2. Repeat in-situ measurement to confirm findings; 3. Notify Contractor in writing within 24 hours of identification of the exceedance 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Carry out investigation 6. Report the results of investigation to the Contractor within 3 working days of identification of exceedance and advise contractor if exceedance is due to contractor's construction works 7. Discuss mitigation measures with Contractor if exceedance is due to the construction works within 4 working days 8. Repeat measurement on next day of exceedance if exceedance is due to the construction works 	<ol style="list-style-type: none"> 1. Notify the ER and IEC in writing within 24 hours of identification of exceedance 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Submit investigation report to IEC and ER within 3 working days of the identification of an exceedance 5. Consider changes of working method if exceedance is due to the construction works 6. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER if exceedance is due to the construction works within 4 working days of identification of an exceedance 7. Implement the agreed mitigation measures within reasonable time scale 	<ol style="list-style-type: none"> 1. Notify EPD and other relevant governmental agencies in writing within 24 hours of the identification of the exceedance 2. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 3. Require contractor to propose remedial measures for the analysed problem if related to the construction works 4. Ensure remedial measures are properly implemented 5. Assess the effectiveness of the mitigation measure 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Confirm ET assessment if exceedance is due / not due to the works 3. Discuss with ET, ER and Contractor on the mitigation measures 4. Review contractor's mitigation measures whenever necessary to ensure their effectiveness and advise the ER accordingly 5. Supervise the implementation of mitigation measures

EVENT AND ACTION PLAN FOR WATER QUALITY

Event	ACTION			IEC
	ET Leader	Contractor	ER	
<p>Action level being exceeded by more than one consecutive sampling days</p>	<ol style="list-style-type: none"> 1. Identify source(s) of impact; 2. Repeat in-situ measurement to confirm findings 3. Notify Contractor in writing within 24 hours of identification 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Carry out investigation 6. Report the results of investigation to the Contractor within 3 working days of identification of exceedance and advise contractor if exceedance is due to contractor's construction works 7. Discuss mitigation measures with IEC and Contractor within 4 working of identification of an exceedance 8. Ensure mitigation measures are implemented; 9. Prepare to increase the monitoring frequency to daily; 10. Repeat measurement on next day of exceedance. 	<ol style="list-style-type: none"> 1. Notify IEC and ER in writing within 24 hours of identification of exceedance 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Submit the results of the investigation to IEC and ER within 3 working days of the identification of an exceedance 6. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 4 working days of identification of an exceedance 7. Implement the agreed mitigation measures within reasonable time scale 	<ol style="list-style-type: none"> 1. Notify EPD and other relevant governmental agencies in writing within 24 hours of the identification of the exceedance 2. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 3. Require contractor to propose remedial measures for the analysed problem if related to the construction works 4. Ensure remedial measures are properly implemented 5. Assess the effectiveness of the mitigation measure 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Confirm ET assessment if exceedance is due / not due to the works 3. Discuss with ET, ER and Contractor on the mitigation measures. 4. Review contractor's mitigation measures whenever necessary to ensure their effectiveness and advise the ER accordingly 5. Assess the effectiveness of the implemented mitigation measures.

EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE

Event	ACTION		
	ET Leader	Contractor	ER IEC
Limit level being exceeded by one sampling day	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Notify Contractor in writing within 24 hours of exceedance 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Carry out investigation 6. Report the results of investigation to the Contractor within 3 working days of identification of exceedance and advise contractor if exceedance is due to contractor's construction works 7. Discuss mitigation measures with IEC, ER and Contractor within 4 working of exceedance 8. Ensure mitigation measures are implemented; 9. Increase the monitoring frequency to daily until no exceedance of Limit Level. 	<ol style="list-style-type: none"> 1. Notify IEC and ER in writing; within 24 hours of the identification of the exceedance 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Submit the results of the investigation to IEC and ER within 3 working days of the identification of an exceedance 6. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 4 working days of the identification of an exceedance 7. Implement the agreed mitigation measures within reasonable time scale 	<ol style="list-style-type: none"> 1. Notify EPD and other relevant governmental agencies in writing within 24 hours of identification of exceedance 2. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 3. Request Contractor to critically review the working methods; 4. Ensure remedial measures are properly implemented 5. Assess the effectiveness of the implemented mitigation measures.
			<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Confirm ET assessment if exceedance is due / not due to the works 3. Discuss with ET, ER and Contractor on the mitigation measures. 4. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly. 5. Assess the effectiveness of the implemented mitigation measures

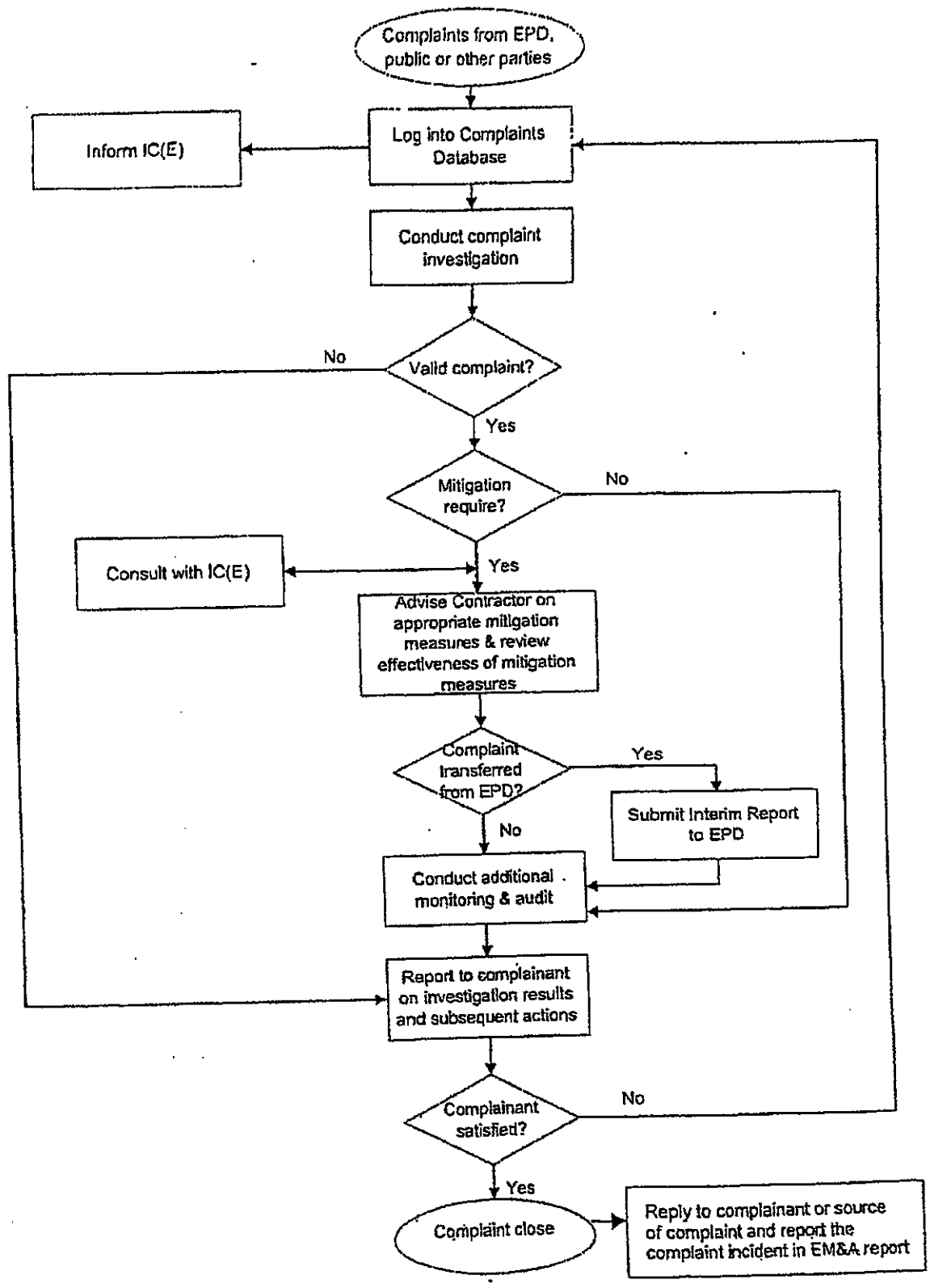
EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE

Event	ACTION			IEC
	ET Leader	Contractor	ER	
Limit Level being exceeded by more than one consecutive sampling days	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Notify Contractor in writing within 24 hours of identification of the exceedance 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Carry out investigation 6. Report the results of investigation to the Contractor within 3 working days of identification of exceedance and advise contractor if exceedance is due to contractor's construction works 7. Discuss mitigation measures with IEC, ER and Contractor; 8. Ensure mitigation measures are implemented; 9. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days. 	<ol style="list-style-type: none"> 1. Notify ER and IEC in writing within 24 hours of the identification of the exceedance and Rectify unacceptable practice; 2. Check all plant and equipment; 3. Consider changes of working methods; 4. Submit the results of the investigation to IEC and ER within 3 working days of the identification of an exceedance 5. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 4 working days; 6. Implement the agreed mitigation measures within reasonable time scale 7. As directed by the Engineer, to slow down or to stop all or part of the marine work or construction activities. 	<ol style="list-style-type: none"> 1. Notify EPD and other relevant governmental agencies in writing within 24 hours of identification of exceedance 2. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 3. Request Contractor to critically review the working methods; 6. Ensure remedial measures are properly implemented 4. Assess the effectiveness of the implemented mitigation measures; 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit Level. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Confirm ET assessment if exceedance is due / not due to the works 3. Discuss with ER, ET and Contractor on the mitigation measures. 4. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly. 5. Assess the effectiveness of the implemented mitigation measures.



Appendix F

Construction Programme



CEDD Contract No. CV/2006/02 Operation of Public Fill Reception Facilities at Tuen Mun Area 38, Tseung Kwan O Area 137, Quarry Bay and Mui Wo

Figure 4 Environmental Complaint Handling Procedure - Tuen Mun Area 38

Scale : ---

Revised Date : September 2006



東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED



OPERATION OF PUBLIC FILL RECEPTION FACILITIES

1A-001 Commence Operation of the PFRI in Portion A

1A-002 SECTION 1A

1A-003 SECTION 1B

1A-004 SECTION 1C (Subject to Liaison)

1B-001 Commence Operation of the PFRI in Portion B

1B-002 SECTION 2A

1B-003 Crushing Plant Design & Set up

1B-004 Crushing Plant Trial Testing

1B-005 Crushing Plant Approval for Operation

1B-006 Crushing Plant Commencement of Operation

1B-007 SECTION 2B

1B-008 SECTION 2C (Subject to Liaison)

1C-001 Commence Operation of the PFRI in Portion C

1C-002 SECTION 3A

1C-003 SECTION 3B

1C-004 SECTION 3C (Subject to Liaison)

1D-001 Commence Operation of the PFRI in Portion D

1D-002 SECTION 4A

1D-003 SECTION 4B

1D-004 SECTION 4C (Subject to Liaison)

NO.	DESCRIPTION	DATE	BY	CHECKED BY
1	Acceptance of this set			
2	Commencement of the Work			
3	Commencement of the Crushing Plant Operation			
4	Approval of the Crushing Plant Design			
5	Approval of the Crushing Plant Approval			
6	Approval of the Crushing Plant Commencement of Operation			
7	Approval of the Crushing Plant Design			
8	Approval of the Crushing Plant Approval			
9	Approval of the Crushing Plant Commencement of Operation			
10	Approval of the Crushing Plant Design			
11	Approval of the Crushing Plant Approval			
12	Approval of the Crushing Plant Commencement of Operation			
13	Approval of the Crushing Plant Design			
14	Approval of the Crushing Plant Approval			
15	Approval of the Crushing Plant Commencement of Operation			
16	Approval of the Crushing Plant Design			
17	Approval of the Crushing Plant Approval			
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90	Approval of the Crushing Plant Commencement of Operation			
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93	Approval of the Crushing Plant Commencement of Operation			
94	Approval of the Crushing Plant Design			
95	Approval of the Crushing Plant Approval			
96	Approval of the Crushing Plant Commencement of Operation			
97	Approval of the Crushing Plant Design			
98	Approval of the Crushing Plant Approval			
99	Approval of the Crushing Plant Commencement of Operation			
100	Approval of the Crushing Plant Design			

Main Contractor: Concentric Construction Ltd.



CV/2006/02 - Operation of Public
Fill Reception Facilities at Tuen Mun Area 38,
Tuen Ng Kwan O Area 137, Quarry Bay & Mui Wo



Appendix G

Weekly ET's Site Inspection Record



CEDD Contract No.: CV/2006/02
Project: Fill Bank at Tuen Mun Area 38

Inspection Date : 23 October 2006
 Time : 14:45
 Weather : Sunny / Fine / Cloudy / Overcast / Drizzle / Rain / Storm / Hazy
 Wind : Calm / (Light) Breeze / Strong
 Temperature : 29°C
 Humidity : High / (Moderate) / Low

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	N/A	
Fugitive Dust Emission				
▪ Dust control / mitigation measures shall be provided to prevent dust nuisance.	✓			
▪ Water sprays shall be provided and used to dampen materials.	✓			
▪ All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.	✓			
▪ Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.	✓			
▪ Unpaved areas should be watered regularly to avoid dust generation.	✓			
▪ The designated site main haul road shall be paved or regular watering.	✓			
▪ The public road around the site entrance should be kept clean and free from dust.	✓			
▪ Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.	✓			
▪ Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.	✓			
▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	✓			
▪ Vehicle and equipment should be switched off while not in use.	✓			
▪ All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
▪ Open burning should be prohibited.	✓			
Noise Impact				
▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	✓			
▪ The constructions works should be scheduled to minimize noise nuisance.	✓			
▪ Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
▪ Air compressors and hand held breakers should have noise labels.			✓	
▪ Compressors and generators should operate with door closed.	✓			
▪ Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
▪ Noisy equipment and mobile plant shall always be site away from NSRs.	✓			

Environmental Checklist		Implementation Stages*			Remark
		Yes	No	N/A	
Water Quality					
<input checked="" type="checkbox"/>	The existing / realigned intercepting channels and the sand / silt removal facilities shall be used and maintained.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	The material shall be properly covered to prevent washed away especially before rainstorm.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	Final slope surfaces, especially those facing to the north of the site shall be treated by hydroseeding, vegetation planting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	A wheel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged into storm drains.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	The barges shall be in right size such that adequate clearance is maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	The work activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the water in the vicinity of the barging facilities.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	A waste collection vessel shall be deployed to remove floating debris.	<input checked="" type="checkbox"/>			
Landscape and Visual					
<input checked="" type="checkbox"/>	The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	Surface of outer slopes of the Fill Bank shall preferably be hydroseeded.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	Stockpile of public fill shall be removed in a sequence to allow the outer hydroseeded to be removed later than other portions as far as practicable.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at least 3m above soil level.	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	Lighting shall be set to minimise night-time glare.	<input checked="" type="checkbox"/>			

Waste Management			
Construction Waste Management			
Relevant licence / permits for disposal of construction waste or excavated materials available for inspection.		✓	
Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal.		✓	
Mud and debris should be removed from waterworks access roads and associated drainage systems.		✓	
Provision of sufficient waste disposal points and regular collection for disposal. Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.		✓	
Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.		✓	
Prior to disposal of C&D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill.		✓	
In order to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements.		✓	
Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials.		✓	
Chemical Waste Management			
It is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.		✓	
After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.		✓	
Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.		✓	
Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility.		✓	
Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area.		✓	
The designated chemical waste storage area should only be used for storing chemical wastes.		✓	
The set-up of chemical waste storage area should			
Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition.		✓	
Be enclosed on at least 3 sides and securely closed.		✓	
Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.		✓	
Have adequate ventilation.		✓	
Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary).		✓	
Be arranged so that incompatible materials are adequately separated.		✓	
Warning panels should be displayed at the waste storage area.		✓	
Waste storage area should be cleaned and maintained regularly.		✓	Item ①


<ul style="list-style-type: none"> Chemical waste should be transported by a registered chemical waste collector to a facility licensed to receive chemical waste. 	✓		
<ul style="list-style-type: none"> All generators, fuel and oil storage should be within bundle areas. 	✓		
<ul style="list-style-type: none"> Oil leakage from machinery, vehicle and plant should be prevented. 	✓		
<ul style="list-style-type: none"> In the event of chemical waste / dangerous goods / chemicals spillage or leakage, the procedures as outlined in the Spillage Response Plan should be followed. 	✓		
<ul style="list-style-type: none"> The dangerous goods / chemical spillage or leakage procedures (including equipments) should be in place. 	✓		
Good Site Practices			
<ul style="list-style-type: none"> Nomination of approved personnel, such as site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site. 	✓		
<ul style="list-style-type: none"> Training of site personnel in proper waste management and chemical handling procedures should be provided. 	✓		
<ul style="list-style-type: none"> Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment. 	✓		
<ul style="list-style-type: none"> Proper storage and site practices to minimise the potential for damage or contamination of construction materials. 	✓		item ③, #1
<ul style="list-style-type: none"> The Environmental Permit should be displaced conspicuously on site. 	✓		
<ul style="list-style-type: none"> Construction noise permits should be posted at site entrance or available for site inspection. 	✓		
<ul style="list-style-type: none"> Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. 	✓		
<ul style="list-style-type: none"> Chemical storage area provided with lock and located on sealed areas. 	✓		
<ul style="list-style-type: none"> All chemicals should be placed at the banded area with adequate band capacity (>110% of largest tank). 	✓		
<ul style="list-style-type: none"> Any unused chemicals or those with remaining functional capacity should be recycled. 	✓		
<ul style="list-style-type: none"> Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors. 	✓		
<ul style="list-style-type: none"> To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce. 	✓		
<ul style="list-style-type: none"> A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods. 	✓		
<ul style="list-style-type: none"> A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be banded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system. 	✓		
<ul style="list-style-type: none"> Remove wastes in a timely manner. 	✓		

Summary of the Weekly Site Inspection:

Item	Details of Follow-up Observation(s)
#1	Follow up action to previous site inspection item ② on 11-10-06 & #3 (17-10-06), a covered rubbish bin still not provided for TP-1.
#2	Follow up action to previous site inspection item ① on 17-10-2006, the manhole of main drainage channel at "TP-3" was cleaned up. Since the follow up action was completed, no further action to be taken.
#3	The water trucks sprinkling records and mosquito-repellent records were checked.

Item	Details of New Observation(s)
①	An appropriate label was not provided for chemical wastes storage area at "TP-1".
②	Unnecessary water was found accumulated on "Contractor's site office", "Crushing Plant" and near by "Grooming site boundary" respectively, the Contractor was reminded to back fill the ground level to prevent mosquito breeding.
③	Rubbish was found generated on the ground next to the air monitoring station AM-1, the Contractor was reminded to clean up the area and remove the rubbish skip.

Remark

Inspected by	Name	Signature	Date
Checked by	H. T. Chow		23-10-2006

CEDD Contract No.: CV/2006/02
 Project: Fill Bank at Tuen Mun Area 3B

Inspection Date : 17 October 2006
 Time : 11:15
 Weather : Sunny / Fine / Cloudy / Overcast / Drizzle / Rain / Storm / Hazy
 Wind : Calm / Light / Breeze / Strong

Temperature : 29°C
 Humidity : High / Moderate / Low

Environmental Checklist

	Implementation Stages*			Remark
	Yes	No	N/A	
Fugitive Dust Emission				
▪ Dust control / mitigation measures shall be provided to prevent dust nuisance.	✓			
▪ Water sprays shall be provided and used to dampen materials.	✓			
▪ All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.	✓			
▪ Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.	✓			
▪ Unpaved areas should be watered regularly to avoid dust generation.	✓			
▪ The designated site main haul road shall be paved or regular watering.	✓			
▪ The public road around the site entrance should be kept clean and free from dust.	✓			
▪ Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.	✓			
▪ Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.	✓			
▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	✓			
▪ Vehicle and equipment should be switched off while not in use.	✓			
▪ All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
▪ Open burning should be prohibited.	✓			
Noise Impact				
▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	✓			
▪ The constructions works should be scheduled to minimize noise nuisance.	✓			
▪ Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
▪ Air compressors and hand held breakers should have noise labels.	✓			
▪ Compressors and generators should operate with door closed.	✓			
▪ Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
▪ Noisy equipment and mobile plant shall always be site away from NSRs.	✓			

CEDD Contract No.: CV/2006/02
Project: Fill Bank at Tuen Mun Area 38

Environmental Checklist

	Implementation Stages*		Remark
	Yes	No / N/A	
Water Quality			
<ul style="list-style-type: none"> ▪ The existing / realigned intercepting channels and the sand / silt removal facilities shall be used and maintained. ▪ Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels. ▪ The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge. ▪ The material shall be properly covered to prevent washed away especially before rainstorm. ▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water. ▪ Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD. ▪ Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times. ▪ A wheel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged into storm drains. ▪ The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcore to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains. ▪ Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided. ▪ The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities. ▪ The barges shall be in right size such that adequate clearance is maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash. ▪ All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport. ▪ Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal. ▪ Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer. ▪ The work activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the water in the vicinity of the barging facilities. ▪ A waste collection vessel shall be deployed to remove floating debris. 	<p style="text-align: center;">Item ①</p>	<p style="text-align: center;">Item ①</p>	<p style="text-align: center;">Item ①</p>
Landscape and Visual			
<ul style="list-style-type: none"> ▪ The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD. ▪ Surface of outer slopes of the Fill Bank shall preferably be hydroseeded. ▪ Stockpile of public fill shall be removed in a sequence to allow the outer hydroseeded to be removed later than other portions as far as practicable. ▪ Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at least 3m above soil level. ▪ Lighting shall be set to minimise night-time glare. 			

CEDD Contract No.: CV/2006/02
 Project: Fill Bank at Tuen Mun Area 38

Waste Management			
Construction Waste Management			
▪	Relevant licence / permits for disposal of construction waste or excavated materials available for inspection.	✓	
▪	Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal.	✓	
▪	Mud and debris should be removed from waterworks access roads and associated drainage systems.	✓	
▪	Provision of sufficient waste disposal points and regular collection for disposal. Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	✓	
▪	Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.	✓	
▪	Prior to disposal of C&D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill.	✓	
▪	In order to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements.	✓	
▪	Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials.	✓	
Chemical Waste Management			
▪	It is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	✓	
▪	After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.	✓	
▪	Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.	✓	
▪	Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility.	✓	
▪	Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area.	✓	
▪	The designated chemical waste storage area should only be used for storing chemical wastes.	✓	
▪	The set-up of chemical waste storage area should		
▪	Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition.	✓	
▪	Be enclosed on at least 3 sides and securely closed.	✓	
▪	Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.	✓	
▪	Have adequate ventilation.	✓	
▪	Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary).	✓	
▪	Be arranged so that incompatible materials are adequately separated.	✓	
▪	Warning panels should be displayed at the waste storage area.	✓	
▪	Waste storage area should be cleaned and maintained regularly.	✓	



<ul style="list-style-type: none"> Chemical waste should be transported by a registered chemical waste collector to a facility licensed to receive chemical waste. 	✓		
<ul style="list-style-type: none"> All generators, fuel and oil storage should be within bundle areas. 	✓		
<ul style="list-style-type: none"> Oil leakage from machinery, vehicle and plant should be prevented. 	✓		
<ul style="list-style-type: none"> In the event of chemical waste / dangerous goods / chemicals spillage or leakage, the procedures as outlined in the Spillage Response Plan should be followed. 	✓		
<ul style="list-style-type: none"> The dangerous goods / chemical spillage or leakage procedures (including equipments) should be in place. 	✓		
Good Site Practices			
<ul style="list-style-type: none"> Nomination of approved personnel, such as site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site. 	✓		
<ul style="list-style-type: none"> Training of site personnel in proper waste management and chemical handling procedures should be provided. 	✓		
<ul style="list-style-type: none"> Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment. 	✓		
<ul style="list-style-type: none"> Proper storage and site practices to minimise the potential for damage or contamination of construction materials. 	✓		
<ul style="list-style-type: none"> The Environmental Permit should be displaced conspicuously on site. 	✓		
<ul style="list-style-type: none"> Construction noise permits should be posted at site entrance or available for site inspection. 	✓		
<ul style="list-style-type: none"> Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. 	✓		
<ul style="list-style-type: none"> Chemical storage area provided with lock and located on sealed areas. 	✓		
<ul style="list-style-type: none"> All chemicals should be placed at the banded area with adequate band capacity (>110% of largest tank). 	✓		
<ul style="list-style-type: none"> Any unused chemicals or those with remaining functional capacity should be recycled. 	✓		
<ul style="list-style-type: none"> Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors. 	✓		
<ul style="list-style-type: none"> To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce. 	✓		
<ul style="list-style-type: none"> A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods. 			✓
<ul style="list-style-type: none"> A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be banded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system. 	✓		
<ul style="list-style-type: none"> Remove wastes in a timely manner. 	✓		

Summary of the Weekly Site Inspection:

Item	Details of Follow-up Observation(s)
#1	Follow up action to previous site inspection item ① (1-10-2006) and #1 (11-10-2006), an appropriate labels in english and chinese were provided for chemical waste storage area, since the follow up action was completed, no further action to be taken.
#2	Follow up action to previous site inspection item ① on 11-10-2006, an excavator (Cat PY-2) at "Causing Plant" was removed.
#3	Follow up action to previous site inspection item ② on 11-10-2006, rubbish on the ground at "PT-1" was cleaned up, but a covered rubbish bin still not provided for "PT-1".

Item	Details of New Observation(s)
①	Rubbish was found accumulated in the main drainage channel at "TP-3", the Contractor was reminded to clean up the channel regularly.
	Others: The Contractor was reminded to provide water truck's sprinkling records and mosquito-repellent records for checking on next site inspection.

Remark

Inspected by	Name	Signature	Date
	H. T. Chow		17-10-2006
Checked by	C. K. Lau		18-10-2006

CEDD Contract No.: CV/2006/02
Project: Fill Bank at Tuen Mun Area 38

Inspection Date : 11 October 2006
 Time : 13:30
 Weather : Sunny / Fine / Cloudy / Overcast / Drizzle / Rain / Storm / Hazy
 Wind : Calm / Light / Breeze / Strong
 Temperature : 27°C
 Humidity : High / Moderate / Low

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	N/A	
Fugitive Dust Emission				
▪ Dust control / mitigation measures shall be provided to prevent dust nuisance.	✓			
▪ Water sprays shall be provided and used to dampen materials.	✓			
▪ All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.	✓			
▪ Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.	✓			
▪ Unpaved areas should be watered regularly to avoid dust generation.	✓			
▪ The designated site main haul road shall be paved or regular watering.	✓			
▪ The public road around the site entrance should be kept clean and free from dust.	✓			
▪ Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.	✓			
▪ Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.	✓			
▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	✓			
▪ Vehicle and equipment should be switched off while not in use.	✓			
▪ All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
▪ Open burning should be prohibited.	✓			
Noise Impact				
▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	✓			
▪ The constructions works should be scheduled to minimize noise nuisance.	✓			
▪ Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
▪ Air compressors and hand held breakers should have noise labels.	✓			
▪ Compressors and generators should operate with door closed.	✓			
▪ Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
▪ Noisy equipment and mobile plant shall always be site away from NSRs.	✓			

CEDD Contract No.: CV/2006/02
Project: Fill Bank at Tuen Mun Area 38

Environmental Checklist		Implementation Stages*		Remark
		Yes	No / N/A	
Water Quality				
<input checked="" type="checkbox"/>	The existing / realigned intercepting channels and the sand / silt removal facilities shall be used and maintained.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The material shall be properly covered to prevent washed away especially before rainstorm.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Final slope surfaces, especially those facing to the north of the site shall be treated by hydroseeding, vegetation planting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	A wheel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged into storm drains.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcore to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The barges shall be in right size such that adequate clearance is maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The work activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the water in the vicinity of the barging facilities.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	A waste collection vessel shall be deployed to remove floating debris.	<input checked="" type="checkbox"/>		
Landscape and Visual				
<input checked="" type="checkbox"/>	The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Surface of outer slopes of the Fill Bank shall preferably be hydroseeded.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Stockpile of public fill shall be removed in a sequence to allow the outer hydroseeded to be removed later than other portions as far as practicable.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at least 3m above soil level.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Lighting shall be set to minimise night-time glare.	<input checked="" type="checkbox"/>		

CEDD Contract No.: CV/2006/02
Project: Fill Bank at Tuen Mun Area 3B

Waste Management			
Construction Waste Management			
▪	Relevant licence / permits for disposal of construction waste or excavated materials available for inspection.	✓	
▪	Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal.	✓	
▪	Mud and debris should be removed from waterworks access roads and associated drainage systems.	✓	
▪	Provision of sufficient waste disposal points and regular collection for disposal. Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	✓	
▪	Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.	✓	
▪	Prior to disposal of C&D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill.	✓	
▪	In order to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements.	✓	
▪	Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials.	✓	
Chemical Waste Management			
▪	It is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	✓	
▪	After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.	✓	item #1
▪	Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.	✓	
▪	Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility.	✓	
▪	Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area.	✓	
▪	The designated chemical waste storage area should only be used for storing chemical wastes.	✓	
▪	The set-up of chemical waste storage area should	✓	
▪	Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition.	✓	
▪	Be enclosed on at least 3 sides and securely closed.	✓	
▪	Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.	✓	
▪	Have adequate ventilation.	✓	
▪	Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary).	✓	
▪	Be arranged so that incompatible materials are adequately separated.	✓	
▪	Warning panels should be displayed at the waste storage area.	✓	
▪	Waste storage area should be cleaned and maintained regularly.	✓	


• Chemical waste should be transported by a registered chemical waste collector to a facility licensed to receive chemical waste.	✓		
• All generators, fuel and oil storage should be within bundle areas.	✓		
• Oil leakage from machinery, vehicle and plant should be prevented.	✓		
• In the event of chemical waste / dangerous goods / chemicals spillage or leakage, the procedures as outlined in the Spillage Response Plan should be followed.	✓		
• The dangerous goods / chemical spillage or leakage procedures (including equipments) should be in place.	✓		
Good Site Practices			
• Nomination of approved personnel, such as site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.	✓		
• Training of site personnel in proper waste management and chemical handling procedures should be provided.	✓		
• Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	✓		item 2
• Proper storage and site practices to minimise the potential for damage or contamination of construction materials.	✓		
• The Environmental Permit should be displaced conspicuously on site.	✓		
• Construction noise permits should be posted at site entrance or available for site inspection.	✓		
• Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.	✓		
• Chemical storage area provided with lock and located on sealed areas.	✓		
• All chemicals should be placed at the banded area with adequate band capacity (>110% of largest tank).	✓		
• Any unused chemicals or those with remaining functional capacity should be recycled.	✓		
• Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.	✓		
• To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce.	✓		
• A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.	✓		
• A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be banded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.	✓		
• Remove wastes in a timely manner.	✓		

Summary of the Weekly Site Inspection:

Item	Details of Follow-up Observation(s)
#1	Follow up action to previous site inspection item 10 on 5-10-2006, an appropriate labels were still not provided for chemical waste storage area, The Contractor was reminded display a clearly label in english and chinese with instructions prescribed for the Chemical Waste Regulations and Codes of Practice for chemical waste storage area at TP1.

Item	Details of New Observation(s)
①	An excavator (Cat PY-2) was found black smoke emission at Crushing Plant, the Contractor should stop to use the excavator immediately until repaired.
②	Rubbish was found generated on the ground at PT-1, the Contractor was reminded to clean up PT-1 area and provide a covered rubbish bin.

Remark

Inspected by	Name	Signature	Date
Checked by	H.T. Chow		11-10-2006

CEDD Contract No.: CV/2006/02
Project: Fill Bank at Tuen Mun Area 38

Inspection Date : 5 October 2006
Time : 11:00

Weather : Sunny / Fine / Cloudy / Overcast / Drizzle / Rain / Storm / Hazy
Wind : Calm / (Light) Breeze / Strong

Temperature : 30°C
Humidity : High / Moderate / (Low)

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	N/A	
Fugitive Dust Emission				
▪ Dust control / mitigation measures shall be provided to prevent dust nuisance.	✓			
▪ Water sprays shall be provided and used to dampen materials.	✓			
▪ All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.	✓			
▪ Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.	✓			
▪ Unpaved areas should be watered regularly to avoid dust generation.	✓			
▪ The designated site main haul road shall be paved or regular watering.	✓			
▪ The public road around the site entrance should be kept clean and free from dust.	✓			
▪ Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.	✓			
▪ Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.	✓			
▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	✓			
▪ Vehicle and equipment should be switched off while not in use.	✓			
▪ All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
▪ Open burning should be prohibited.	✓			
Noise Impact				
▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	✓			
▪ The constructions works should be scheduled to minimize noise nuisance.	✓			
▪ Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
▪ Air compressors and hand held breakers should have noise labels.	✓			
▪ Compressors and generators should operate with door closed.	✓			
▪ Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
▪ Noisy equipment and mobile plant shall always be site away from NSRs.	✓			

Environmental Checklist		Implementation Stages*		Remark
		Yes	No / N/A	
Water Quality				
<input checked="" type="checkbox"/>	The existing / realigned intercepting channels and the sand / silt removal facilities shall be used and maintained.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The material shall be properly covered to prevent washed away especially before rainstorm.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shotcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	A wheel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged into storm drains.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The barges shall be in right size such that adequate clearance is maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Adequate environmental control measures shall be provided / avoid dropping of fill material into the sea during the transfer.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The work activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the water in the vicinity of the barging facilities.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	A waste collection vessel shall be deployed to remove floating debris.	<input checked="" type="checkbox"/>		
Landscape and Visual				
<input checked="" type="checkbox"/>	The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Surface of outer slopes of the Fill Bank shall preferably be hydroseeded.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Stockpile of public fill shall be removed in a sequence to allow the outer hydroseeded to be removed later than other portions as far as practicable.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at least 3m above soil level.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Lighting shall be set to minimise night-time glare.	<input checked="" type="checkbox"/>		

CEDD Contract No.: CV/2006/02
Project: Fill Bank at Tuen Mun Area 3B

Waste Management				
Construction Waste Management				
<ul style="list-style-type: none"> ▪ Relevant licence / permits for disposal of construction waste or excavated materials available for inspection. 		✓		
<ul style="list-style-type: none"> ▪ Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal. 		✓		
<ul style="list-style-type: none"> ▪ Mud and debris should be removed from waterworks access roads and associated drainage systems. 		✓		
<ul style="list-style-type: none"> ▪ Provision of sufficient waste disposal points and regular collection for disposal. Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers. 		✓		
<ul style="list-style-type: none"> ▪ Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal. 		✓		
<ul style="list-style-type: none"> ▪ Prior to disposal of C&D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill. 		✓		
<ul style="list-style-type: none"> ▪ In order to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements. 		✓		
<ul style="list-style-type: none"> ▪ Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials. 		✓		
Chemical Waste Management				
<ul style="list-style-type: none"> ▪ It is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes. 		✓		
<ul style="list-style-type: none"> ▪ After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. 		✓		item ①
<ul style="list-style-type: none"> ▪ Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation. 		✓		
<ul style="list-style-type: none"> ▪ Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility. 		✓		
<ul style="list-style-type: none"> ▪ Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area. 		✓		
<ul style="list-style-type: none"> ▪ The designated chemical waste storage area should only be used for storing chemical wastes. 		✓		
<ul style="list-style-type: none"> ▪ The set-up of chemical waste storage area should <ul style="list-style-type: none"> ▪ Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition. ▪ Be enclosed on at least 3 sides and securely closed. ▪ Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest. ▪ Have adequate ventilation. 		✓		
<ul style="list-style-type: none"> ▪ Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary). 		✓		
<ul style="list-style-type: none"> ▪ Be arranged so that incompatible materials are adequately separated. 		✓		
<ul style="list-style-type: none"> ▪ Warning panels should be displayed at the waste storage area. 		✓		
<ul style="list-style-type: none"> ▪ Waste storage area should be cleaned and maintained regularly. 		✓		

<ul style="list-style-type: none"> ▪ Chemical waste should be transported by a registered chemical waste collector to a facility licensed to receive chemical waste. 	✓		
<ul style="list-style-type: none"> ▪ All generators, fuel and oil storage should be within bundle areas. 	✓		
<ul style="list-style-type: none"> ▪ Oil leakage from machinery, vehicle and plant should be prevented. 	✓		
<ul style="list-style-type: none"> ▪ In the event of chemical waste / dangerous goods / chemicals spillage or leakage, the procedures as outlined in the Spillage Response Plan should be followed. 	✓		
<ul style="list-style-type: none"> ▪ The dangerous goods / chemical spillage or leakage procedures (including equipments) should be in place. 	✓		
Good Site Practices			
<ul style="list-style-type: none"> • Nomination of approved personnel, such as site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site. 	✓		
<ul style="list-style-type: none"> • Training of site personnel in proper waste management and chemical handling procedures should be provided. 	✓		
<ul style="list-style-type: none"> • Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment. 	✓		
<ul style="list-style-type: none"> • Proper storage and site practices to minimise the potential for damage or contamination of construction materials. 	✓		
<ul style="list-style-type: none"> • The Environmental Permit should be displaced conspicuously on site. 		✓	
<ul style="list-style-type: none"> • Construction noise permits should be posted at site entrance or available for site inspection. 		✓	
<ul style="list-style-type: none"> • Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. 	✓		
<ul style="list-style-type: none"> • Chemical storage area provided with lock and located on sealed areas. 	✓		
<ul style="list-style-type: none"> • All chemicals should be placed at the banded area with adequate band capacity (>110% of largest tank). 	✓		
<ul style="list-style-type: none"> • Any unused chemicals or those with remaining functional capacity should be recycled. 	✓		
<ul style="list-style-type: none"> • Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors. 	✓		
<ul style="list-style-type: none"> ▪ To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce. 	✓		
<ul style="list-style-type: none"> ▪ A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods. 			✓
<ul style="list-style-type: none"> ▪ A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be banded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system. 	✓		
<ul style="list-style-type: none"> ▪ Remove wastes in a timely manner. 	✓		


Summary of the Weekly Site Inspection:

Item	Details of Follow-up Observation(s)
	
	
	
	
	
	
	
	
	

Item	Details of New Observation(s)
①	The Contractor was reminded display a clearly label in english and chinese with instructions prescribed of the Chemical Waste Regulations and Codes of Practice for chemical waste storage at T.P.I.

Remark

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Inspected by	Name	Signature	Date
Checked by	H.T. Chow		5 - 10 - 2006

Appendix H

Implementation Schedule of Mitigation Measures

Environmental Mitigation Implementation Schedule

Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially Implemented	Not Implemented	Not Applicable
Air Quality					
<ul style="list-style-type: none"> ▪ Dust control / mitigation measures shall be provided to prevent dust nuisance. ▪ Water sprays shall be provided and used to dampen materials. ▪ All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition. ▪ Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin. ▪ Unpaved areas should be watered regularly to avoid dust generation. ▪ The designated site main haul road shall be paved or regular watering. ▪ The public road around the site entrance should be kept clean and free from dust. ▪ Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site. ▪ Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank. ▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water. ▪ Vehicle and equipment should be switched off while not in use. ▪ All plant and equipment should be well maintained e.g. without black smoke emission. ▪ Open burning should be prohibited. 	√				
Noise Impact					
<ul style="list-style-type: none"> ▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted. ▪ Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works. ▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials. ▪ Air compressors and hand held breakers should have noise labels. ▪ Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum. ▪ Noisy equipment and mobile plant shall always be site away from NSRs. 	√			√	

	Location	Implementation Status		
		Implemented	Partially implemented	Not implemented
Water Quality				
<ul style="list-style-type: none"> ▪ The existing / realigned intercepting channels and the sand / silt removal facilities shall be used and maintained. ▪ Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels. ▪ The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge. ▪ The material shall be properly covered to prevent washed away especially before rainstorm. ▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water. ▪ Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times. ▪ A wheel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged into storm drains. ▪ The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains. ▪ Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided. ▪ The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities. ▪ Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer. ▪ A waste collection vessel shall be deployed to remove floating debris. 	√			
Landscape and Visual				
<ul style="list-style-type: none"> • The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD. • Surface of outer slopes of the Fill Bank shall preferably be hydroseeded. • Stockpile of public fill shall be removed in a sequence to allow the outer hydroseeded to be removed later than other portions as far as practicable. • Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at least 3m above soil level. • Lighting shall be set to minimise night-time glare. 	√			
Waste Management				
Construction Waste Management				
<ul style="list-style-type: none"> ▪ Relevant licence / permits for disposal of construction waste or excavated materials available for inspection. ▪ Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal. ▪ Mud and debris should be removed from waterworks access roads and associated drainage systems. 	√			

	Location	Implementation Status			
		Implemented	Partially Implemented	Not Implemented	Not Applicable
<ul style="list-style-type: none"> Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal. Prior to disposal of C&D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill. In order to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements. Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials. 	All areas	√			
	All areas	√			
	All areas	√			
	All areas	√			
Chemical Waste Management					
<ul style="list-style-type: none"> It is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes. After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation. Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility. Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area. The designated chemical waste storage area should only be used for storing chemical wastes. The set-up of chemical waste storage area should <ul style="list-style-type: none"> Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition. Be enclosed on at least 3 sides and securely closed. Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest. Have adequate ventilation. Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary). Be arranged so that incompatible materials are adequately separated. Warning panels should be displayed at the waste storage area. Waste storage area should be cleaned and maintained regularly. Chemical waste should be transported by a registered chemical waste collector to a facility licensed to receive chemical waste. 	Waste Storage Area			√	
	Waste Storage Area	√			
	Waste Storage Area	√			
	Waste Storage Area	√			
	Waste Storage Area	√			
	Waste Storage Area	√			
	Waste Storage Area	√			
	Waste Storage Area	√			
	Waste Storage Area	√			
	Waste Storage Area	√			
	Waste Storage Area	√			
	Waste Storage Area	√			
	Waste Storage Area	√			
	Waste Storage Area	√			
	Waste Storage Area	√			
	Waste Storage Area	√			
	All areas	√			



Appendix I
Site General Layout plan



Appendix J

Monitoring Schedule for the Coming 3 Months



Contract No. CV/2006/02

Operation of Public Fill Reception Facilities at Tuen Mun Area 38,
Tseung Kwan O Area 137, Quarry Bay and Mui Wo

Tuen Mun Area 38

**Time Schedule for Water Quality Impact Monitoring (WQM),
Impact Air Monitoring (1-hr TSP & 24-hr TSP) and Weekly Site Inspection (Weekly SI)**

November 2006

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2 WQM Mid-ebb (09:00-10:00) Mid-flood (16:00-17:00)	3 <u>1-hr TSP,</u> 24-hr TSP Weekly SI	4 WQM Mid-ebb (11:00-12:00) Mid-flood (17:00-18:00)
5	6	7 WQM Mid-ebb (13:30-15:00) Mid-flood (18:00-19:00)	8	9 WQM Mid-ebb (14:30-15:30) Mid-flood (09:30-11:00) <u>1-hr TSP,</u> 24-hr TSP Weekly SI	10	11 WQM Mid-flood (14:00-16:00)) Mid-ebb (06:00-07:00)
12	13	14 WQM Mid-flood (15:30-17:00) Mid-ebb ((07:30-09:00))	15 <u>1-hr TSP,</u> 24-hr TSP Weekly SI	16 WQM Mid-flood (16:00-17:30) Mid-ebb (08:30-09:30)	17	18 WQM Mid-ebb (10:30-12:00) Mid-flood (16:30-18:00)
19	20	21 WQM Mid-ebb (13:00-14:30) Mid-flood (07:30-09:30) <u>1-hr TSP,</u> 24-hr TSP Weekly SI	22	23 WQM Mid-flood (08:00-09:30) Mid-ebb (14:30-15:00)	24	25 WQM Mid-flood (09:30-11:00) Mid-ebb (14:30-16:30)
26	27 <u>1-hr TSP,</u> 24-hr TSP Weekly SI	28 WQM Mid-ebb (06:00-07:30) Mid-flood (13:00-15:30)	29	30 WQM Mid-ebb (09:45-11:45) Mid-flood (13:30-15:00)		



Contract No. CV/2006/02

Operation of Public Fill Reception Facilities at Tuen Mun Area 38,
Tseung Kwan O Area 137, Quarry Bay and Mui Wo

Tuen Mun Area 38

**Time Schedule for Water Quality Impact Monitoring (WQM),
Impact Air Monitoring (1-hr TSP & 24-hr TSP) and Weekly Site Inspection (Weekly SI)**

December 2006

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2 WQM Mid-flood (16:00-17:00) Mid-ebb (09:00-10:00) <u>1-hr TSP,</u> <u>24-hr TSP</u> Weekly SI
3	4	5 WQM Mid-flood (07:15-08:30) Mid-ebb (11:00-14:00)	6	7 WQM Mid-flood (08:30-09:30) Mid-ebb (13:00-15:00)	8 <u>1-hr TSP,</u> <u>24-hr TSP</u> Weekly SI	9 WQM Mid-flood (10:00-12:00) Mid-ebb (14:30-16:30)
10	11	12 WQM Mid-ebb Mid-flood (13:00-14:00)	13	14 WQM Mid-ebb (06:00-07:00) Mid-flood (14:00-15:00) <u>1-hr TSP,</u> <u>24-hr TSP</u> Weekly SI	15	16 WQM Mid-ebb (09:30-10:30) Mid-flood (15:00-16:30)
17	18	19 WQM Mid-flood (16:30-17:30) Mid-ebb (11:00-13:00)	20 <u>1-hr TSP,</u> <u>24-hr TSP</u> Weekly SI	21 WQM Mid-flood (08:00-09:00) Mid-ebb (13:00-14:00)	22	23 WQM Mid-flood (09:00-10:15) Mid-ebb (14:30-16:30)
24/31	25 Public Holiday	26 Public Holiday	27 WQM Mid-flood (11:30-13:30) Mid-ebb (18:00-19:00) <u>1-hr TSP,</u> <u>24-hr TSP</u> Weekly SI	28	29	30 WQM Mid-flood (14:30-15:30) Mid-ebb (08:00-09:00)



Contract No. CV/2006/02

Operation of Public Fill Reception Facilities at Tuen Mun Area 38,
Tseung Kwan O Area 137, Quarry Bay and Mui Wo

Tuen Mun Area 38

**Time Schedule for Water Quality Impact Monitoring (WQM),
Impact Air Monitoring (1-hr TSP & 24-hr TSP) and Weekly Site Inspection (Weekly SI)**

January 2007

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 PH	2 WQM Mid-flood (15:00-6:00) Mid-ebb (11:00-12:00) <u>1-hr TSP,</u> <u>24-hr TSP</u> Weekly SI NM	3	4 WQM Mid-flood (17:00-18:00) Mid-ebb (13:00-14:00)	5	6 WQM Mid-flood (17:00-18:00) Mid-ebb (13:00-14:00) <u>1-hr TSP,</u> <u>24-hr TSP</u> Weekly SI
7	8	9 WQM Mid-flood (09:30-10:00) Mid-ebb (16:00-17:00)	10	11 WQM Mid-flood (09:30-10:00) Mid-ebb (16:00-17:00)	12 <u>1-hr TSP,</u> <u>24-hr TSP</u> Weekly SI	13 WQM Mid-flood (07:00-08:00) Mid-ebb (12:00-13:00)
14	15	16 WQM Mid-ebb (10:00-11:00) Mid-flood (16:00-17:00)	17	18 WQM Mid-ebb (10:00-11:00) Mid-flood (16:00-17:00) <u>1-hr TSP,</u> <u>24-hr TSP</u> Weekly SI	19	20 WQM Mid-flood (8:00-9:00) Mid-ebb (13:00-14:00)
21	22	23 WQM Mid-flood (10:00-11:30) Mid-ebb (16:00-17:00)	24 <u>1-hr TSP,</u> <u>24-hr TSP</u> Weekly SI	25 WQM Mid-flood (11:00-12:00) Mid-ebb (16:00-17:00)	26	27 WQM Mid-flood (07:00-08:00) Mid-ebb (12:00-13:00)
28	29	30 WQM Mid-flood (15:30-17:00) Mid-ebb (11:00-12:00) <u>1-hr TSP,</u> <u>24-hr TSP</u> Weekly SI	31			



Appendix K

QA/QC Results of Laboratory Analysis



QA/QC Results of Laboratory Analysis of Total Suspended Solids

Sampling Date	QC Sample Analysis	Sample Duplicate		Sample Spike	
	% Recovery *	Sample ID	% Error #	Sample ID	% Recovery @
03 /10/06	97.4	FC1-S	0.0	FM2-M	96.7
	102.3	FM2-B	0.0	EM1-S	97
	102.2	EM1-M	0.0	EC2-B	88.5
05 /10/06	99.3	FC1-S	0.0	FM2-M	108.3
	97.4	FM2-B	0.0	EM1-S	96.8
	106.2	EM1-M	0.0	EC2-B	105.9
10 /10/06	102.1	FC1-S	0.0	FM2-M	95.4
	100.0	FM2-B	0.0	EM1-S	108.5
	104.1	EM1-M	0.0	EC2-B	93.1
12 /10/06	105.3	FC1-S	0.0	FM2-M	105.1
	101.3	FM2-B	0.0	EM1-S	92.6
	104.5	EM1-M	0.0	EC2-B	108.8
17 /10/06	93.3	FC1-S	0.0	FM2-M	107
	93.1	FM2-B	0.0	EM1-S	112.3
	100.9	EM1-M	0.0	EC2-B	100
19 /10/06	103.9	FC1-S	0.0	FM2-M	105.9
	104.8	FM2-B	0.0	EM1-S	101.9
	106.7	EM1-M	0.0	EC2-B	95.7
21 /10/06	96.0	FC1-S	0.0	FM2-M	92.1
	93.4	FM2-B	0.0	EM1-S	93.3
	106.7	EM1-M	0.0	EC2-B	93.5
24 /10/06	94.0	FC1-S	0.0	FM2-M	105.5
	99.1	FM2-B	0.0	EM1-S	104.4
	101.5	EM1-M	0.0	EC2-B	95.7
26 /10/06	96.5	FC1-S	0.0	FM2-M	94.5
	102.8	FM2-B	0.0	EM1-S	100.0
	95.8	EM1-M	0.0	EC2-B	109.1
28 /10/06	103.0	FC1-S	0.0	FM2-M	100.0
	101.5	FM2-B	0.0	EM1-S	100.0
	106.4	EM1-M	0.0	EC2-B	90.9
31 /10/06	101.2	FC1-S	0.0	FM2-M	109.8
	102.5	FM2-B	0.0	EM1-S	107.4
	102.6	EM1-M	0.0	EC2-B	101.6

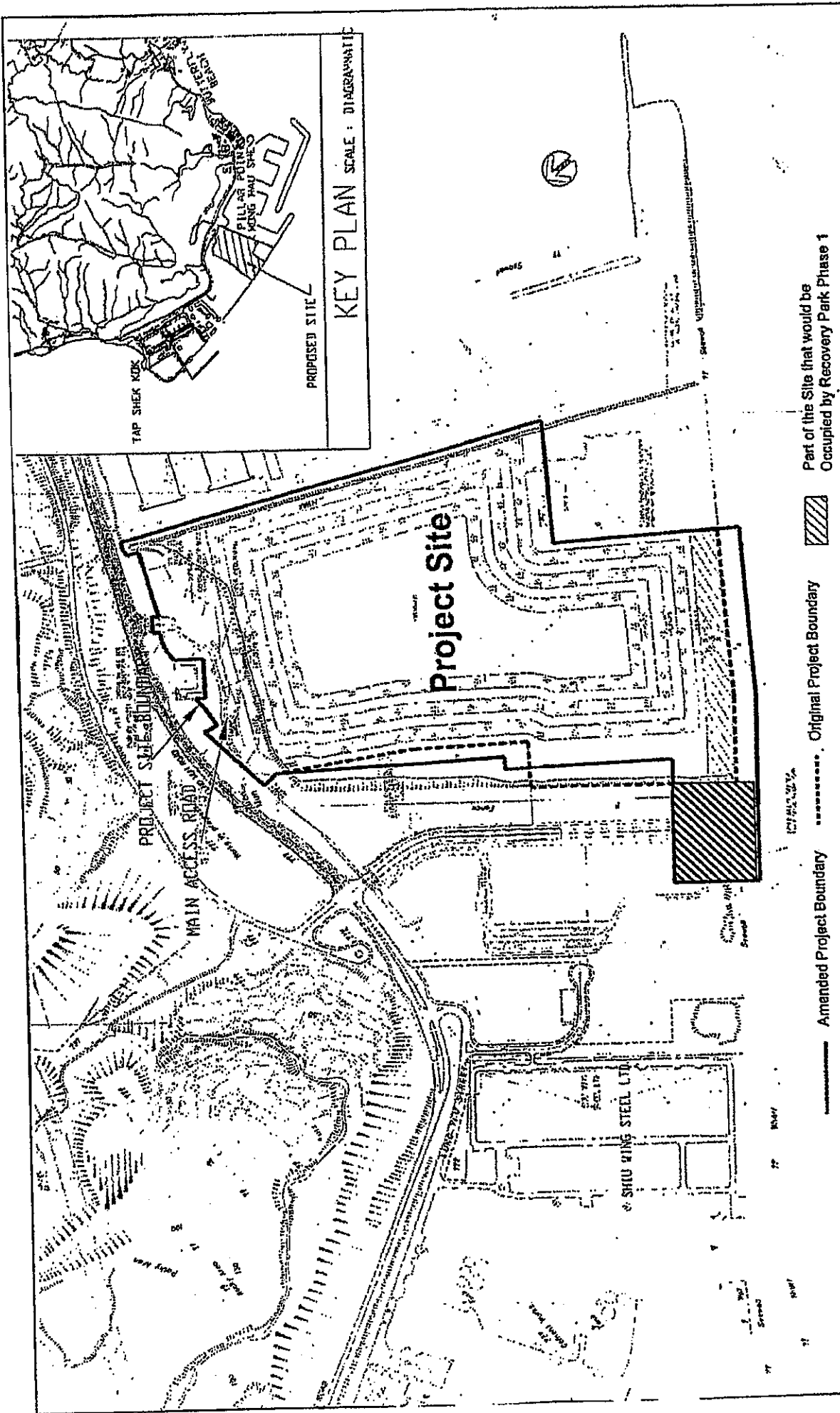
Note:(*)% Recovery of QC sample should be between 80% to 120%.

(#)% Error of Sample Duplicate should be between -10% to 10%.

(@)% Recovery of Sample Spike should be between 80% to 120%.



Figures



Part of the Site that would be Occupied by Recovery Park Phase 1



Original Project Boundary



Amended Project Boundary



Scale : ---

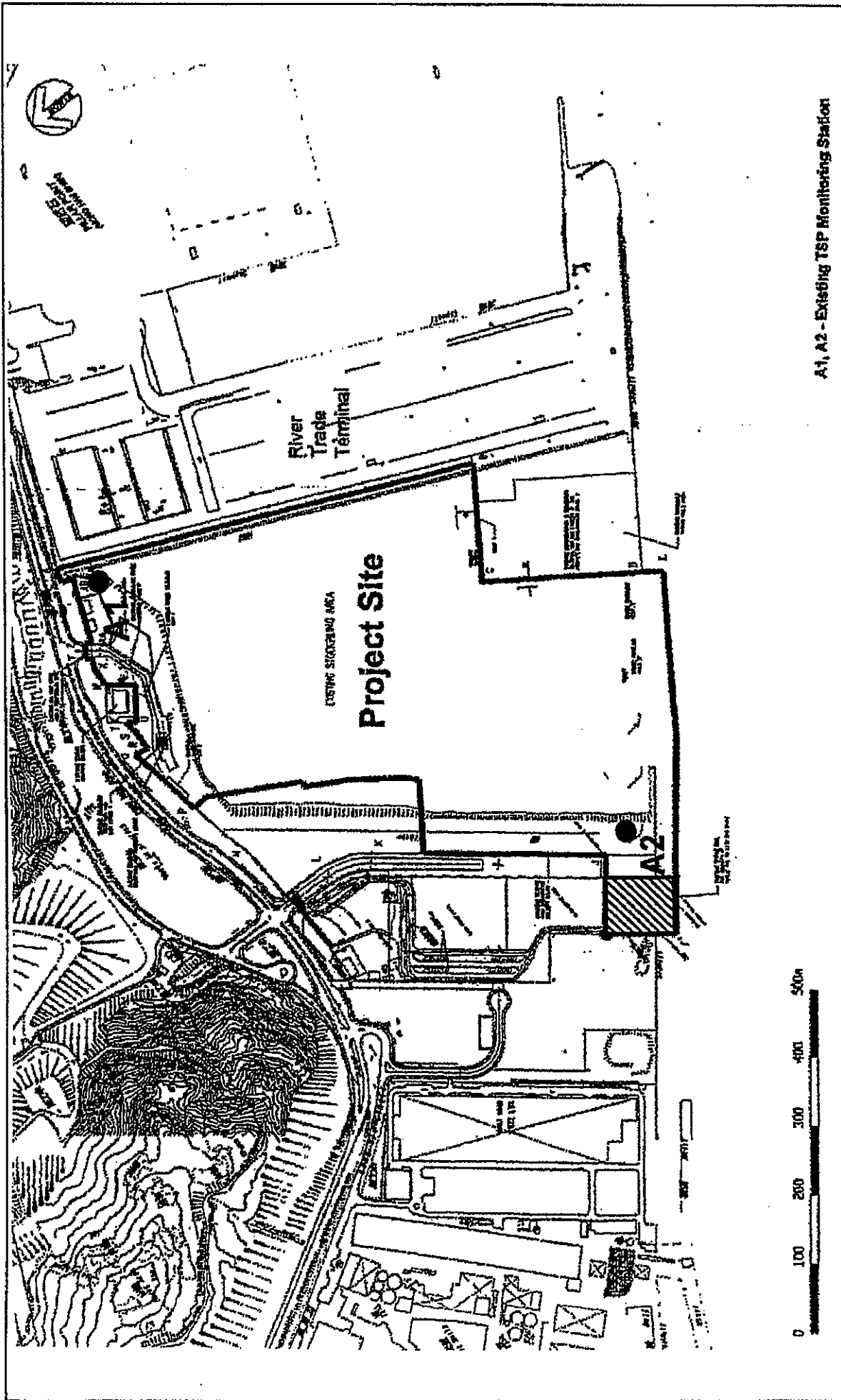
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Revised Date :
September
2006

Figure 1 Site Layout Plan - Tuen Mun Area 38



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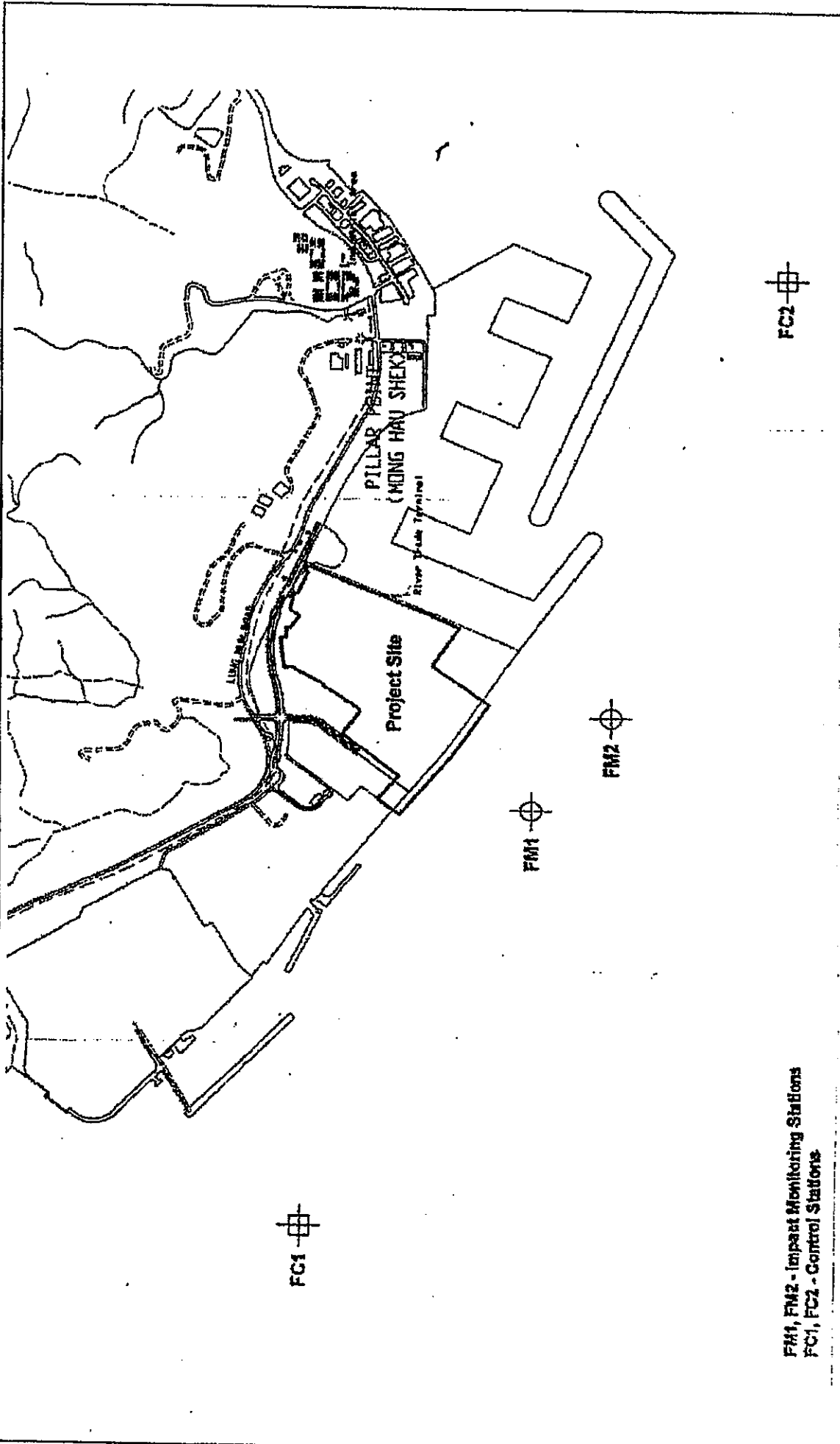
A1, A2 - Existing TSP Monitoring Station

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Figure 2 Air Quality Monitoring Stations - Tuen Mun Area 38

Scale : ---
 Revised Date :
 September
 2006





FM1, FM2 - Impact Monitoring Stations
 FC1, FC2 - Control Stations

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 at Tuen Mun Area 38, Tseung Kwan O Area 137, Quarry Bay and Mui Wo

Figure 3 Water Quality Monitoring Stations - Tuen Mun Area 38

Scale : ---
 Revised Date :
 September
 2006



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