

Contract No. : EP/SP/52/06
Development of an EcoPark in Tuen Mun Area 38

ENVIRONMENTAL MONITORING AND AUDIT

MONTHLY EM&A REPORT for

NOVEMBER 2006

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APPROVAL SHEET

DOCUMENT DATE: 30 November 2006

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Miss Patricia Chung

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IEC

Date: _____

Approved by: _____

EcoPark Group

Date: _____

* IEC – Independent Environmental Checker

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EXECUTIVE SUMMARY

This is the fifth monthly Environmental Monitoring and Audit (EM&A) Report for the Environmental Protection Department Contract No. EP/SP/52/06 entitled “Development of an EcoPark in Tuen Mun Area 38”. (Environmental Permit No. EP-226/2005)

This report contains the results and findings of site inspection activities and EM&A works carried out by the Environmental Team (ET) of the Works Contractor as required in the contract during November 2006.

The site activities in the reporting period mainly consisted of site formation, excavation works, and construction of administration building, electrical sub-stations and drainage and sewerage.

Disposal of inert C&D material was recorded. No substantial noise impact was noted by ET during weekly environmental site walks. Landfill gas monitoring was carried out at site; measurement results are within Action/ Limit Level in accordance with the EM&A Manual.

ET performed the dust monitoring in September, October and November 2006. The result of dust monitoring on 11 October 2006 exceeds the hourly level of Total Suspended Particulates (TSP) stipulated in Annex 4 of Technical Memorandum of Environmental Impact Assessment Ordinance. ET suggested 2 more dust monitoring on 25 October 2006 and 01 November 2006. The results of these two dust monitoring were in compliance with the requirement of the Ordinance. The results showed that dust nuisance of the Site has been rectified after dust mitigation measures were implemented by the Contractor.

Underground water accumulated in the jacking pit and the trench was discharged directly at the manhole without any treatment. The Contractor rectified this by using two in-series sedimentation tanks to treat underground water before discharging at the manhole.

Damage of silt curtain was observed. The Contractor was reminded to repair and

maintain silt curtain properly in order to prevent muddy discharge into sea.

Only minor deficiencies were found during the site inspections of November 2006. There were no notification of summons or successful prosecution during November 2006.

The planned activities for December 2006 and January 2007 with regard to development of EcoPark consist of:

- 1) Excavation and Site Formation Works
- 2) Construction of Electrical Sub-stations
- 3) Construction of Drainage and Sewerage
- 4) Construction of Administration Building
- 5) Construction of Marine Office

1. BASIC PROJECT INFORMATION

1.1 Introduction

This is the fifth monthly Environmental Monitoring and Audit (EM&A) Report for the Environmental Protection Department Contract No. EP/SP/52/06 entitled “Development of an EcoPark in Tuen Mun Area 38”. The site layout plan was shown in Appendix 1. The report was prepared by the Environmental Team, Environmental Pioneers & Solutions Limited, of the Works Contractor, Kaden Construction Limited. The report is to be submitted to the Works Contractor, the Engineer and the Environmental Protection Department for the project.

This report presents the results of the environmental monitoring of the project activities conducted during the month of November 2006. This included regular site inspections once per week for verification of implementation of the mitigation measures as recommended in the EM&A Manual and the Contractor’s Environmental Management Plan (EMP).

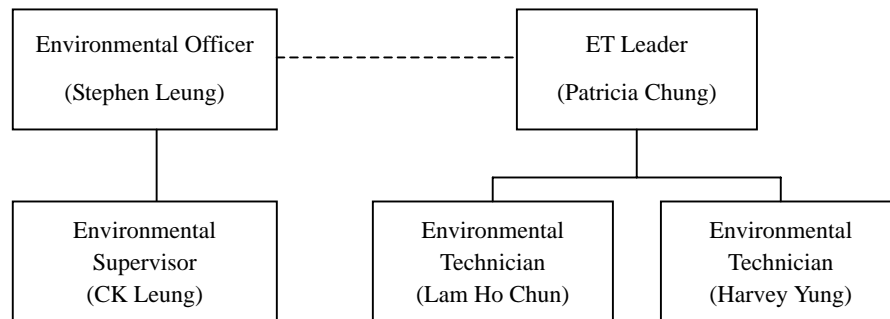
Phase 1 of the construction works has already commenced in July 2006 and is anticipated to complete on June 2007.

The contact person and telephone number of key personnel for the captioned project are shown in Appendix 2.

1.2 Project Organization and Management

The Works Contractor has commissioned Environmental Pioneers & Solutions Limited as the Environmental Team, which comprises the environmental team leader and the environmental technicians to undertake the environmental monitoring and audit work for this project. The project Organization Chart of Environmental Team is shown in Figure 1.1.

Figure 1.1 Organization Chart of Environmental Team



2. SUMMARY OF WORK ACTIVITIES AND CONSTRUCTION STATUS

2.1 Works Undertaken during the Month

A summary of the site installation works in this month, with the information of locations, activities, equipment/materials and dates of occurrence, is provided by the Contractor, as shown in Table 2.1.

Table 2.1 Work Activities for November 2006		
Item	Work Activities & Location	Date of Occurrence
1	Site Formation Works & Roadworks	1 November 2006 – 30 November 2006
2	Construction of Electrical Sub-stations, Administration Building, RCP & MFMO	1 November 2006 – 30 November 2006
3	Construction of Drainage & Sewerage	1 November 2006 – 30 November 2006

Machineries		
	Equipment/ Plant	Quantity
1	Mobile Crane	2
2	Excavator	20
3	Generator	8
4	Air Compressor	2
5	Roller	6
6	Loader	2
7	Grab Lorry	2
8	Crane Lorry	3
9	Water Truck	1
10	Dump Truck	5

Remarks:

- As informed by the Contractor, most equipment are mobile site subject to work progress.
- Refer to Appendix 1 – Site layout plan for location of construction activities.

2.2 Future Key Issues

The Contractor has provided an updated construction program in Table 2.2 to show the planned activities for the coming three months (December 2006 – February 2007). The anticipated environmental issues are summarized as follow:

Table 2.2 Construction Program and Anticipated Environmental Issues		
Item	Works	Anticipated Environmental Issues
1	Site Formation Works & Roadworks	<ul style="list-style-type: none"> - Generation of C&D Waste; excavated material should be reused as much as practicable - Dust may be generated; the wheel washing machine should be in operation - Haul road should be sprayed regularly, by truck or sprinkler - Stagnant water should be removed - Mosquito mitigation measures should be implemented
2	Construction of Electrical Sub-stations, Administration Building, RCP & MFMO	<ul style="list-style-type: none"> - Generation of waste from packaging materials and C&D wastes
3	Construction of Drainage & Sewerage	<ul style="list-style-type: none"> - Generation of C&D Waste; excavated material should be reused as much as practicable - Dust may be generated; the wheel washing machine should be in operation

The site inspection schedule for the next month (December 2006) is designated on 6, 13, 20 and 27 December 2006.

3. STATUS OF ENVIRONMENTAL PROTECTION AND SITE INSPECTIONS

3.1 Environmental Site Inspections

Environmental site inspections are required to inspect the construction activities of the Development of EcoPark in order to ensure that appropriate environmental protection and pollution control mitigation measures are properly implemented.

Site inspections were conducted on 1, 8, 15, 22 and 29 November 2006.

A detailed checklist of each site inspection together with comments, relevant photos and maps have been filed and kept.

The findings and results of site inspections are provided in Table 3.1:

Table 3.1 Summary of Site Inspections				
Date	Observations	Advice from ET	Outcome	Closing Date
1 Nov 06 8 Nov 06 22 Nov 06	Underground water was discharged directly at the manhole without any treatment	To treat underground water by using sedimentation tanks	Underground water was treated by two in-series sedimentation tanks before discharging at the manhole	15 Nov 06 29 Nov 06
22 Nov 06 29 Nov 06	Damage of silt curtain was observed	To repair and maintain silt curtain properly to prevent muddy discharge at sea	Repair work is underway and should be inspected in the next reporting period	--
1 Nov 06 15 Nov 06 22 Nov 06	Muddy water was found at discharge point bounded by silt curtain	To find the source of muddy water and to treat muddy water before discharging at discharge point	No muddy water was found at discharge point	8 Nov 06 29 Nov 06
29 Nov 06	Wastes such as timber, plastic and packaging materials were found around site areas	To collect and sort such wastes for reuse and recycle in accordance with the Environmental Management Plan	Waste collection and sorting are underway and should be inspected in the next reporting period	--

3.2 Air Dust

The dust monitoring program was performed by ET to monitor the implementation of mitigation measures by the Contractor for dust control. In accordance with Annex 4 of Technical Memorandum of Environmental Impact Assessment Ordinance, the result of dust monitoring on 11 October 2006 exceeded 1-hour Total Suspended Particulates (TSP) level. ET suggested 2 more dust monitoring to be carried out on 25 October 2006 and 01 November 2006. The table below lists the revised schedule of dust monitoring :

Table 3.2 Revised Schedule of Dust Monitoring		
Monitoring Date	Monitoring Location	Parameter to be measured
20 September 2006	The Entrance of the EcoPark	1-hour Total Suspended Particulates (TSP) in $\mu\text{g}/\text{m}^3$
27 September 2006		
04 October 2006		
11 October 2006		
25 October 2006		
01 November 2006		

* High Volume Air Sampler model: Tisch MFC TE-5170 will be used for monitoring.

The results of dust monitoring are shown in Appendix 3.

The location plan and photos of High Volume Air Sampler are shown in Appendix 4.

According to the dust monitoring program, nearly all results of dust monitoring are in compliance with the requirement of the Ordinance. This implies that dust nuisance of the site has been rectified after dust mitigation measures were implemented by the Contractor. ET will continue to monitor and audit the implementation of mitigation measures by the Contractor for dust control.

3.3 Noise

The major noise source was vehicle movement, machinery, rock excavation and breaking in the EcoPark. Since the nearby NSRs were remote, the noise impact was minimal. There was no specific observation noted regarding noise issue. The Construction Noise Permit was issued to the Contractor on 29 August 2006.

3.4 Surface Water Quality

Underground water accumulated in the jacking pit and the trench was discharged directly at the manhole. The Contractor was reminded to treat underground water before discharging at the manhole. The Contractor rectified this by using two in-series sedimentation tanks to treat the water before discharged at the manhole.

Silt curtain was installed at the discharge point at Marine Front. Damage of silt curtain was observed. The Contractor was reminded to regularly service the silt curtain to maintain its treatment function.

Chemical toilets (5 nos.) have been provided by a licensed contractor, of which sewage generated is collected every three to five days without causing contamination on surface water. The Effluent Discharge Licence was issued to the Contractor on 20 November 2006.

In November 2006, water sampling and analysis of Chemical Oxygen Demand (COD) was carried out to confirm that dewatering discharge to stormwater drains meets the WPCO-TM Standards. Results are summarized in Table 3.3.

Table 3.3 Summary of COD Analysis in November 2006		
Sampling Date	COD (mg O ₂ /L)	WPCO-TM Standard COD (mg O ₂ /L)
01 Nov06	6	80
08 Nov 06	13.6	
15 Nov 06	<5	
22 Nov 06	5	

3.5 Visual and Landscape Impact

Hoarding was erected at the site egress and aligned along the site boundary along Lung Mun Road. Hoardings were specially designed to be movable for future re-use in other locations.

During site clearance, trees are relocated to be replanted for landscaping in the future in EcoPark.

3.6 Waste / Chemical Waste

As advised by the Contractor, there was no disposal of chemical waste in the reporting month. Separate waste collection bins were made available for collecting aluminum cans, waste paper and plastic bottles etc.

Two waste dumpers were used for the collection and storage of general waste. Temporary storage areas for waste metals and waste tyres were established.

The Contractor has provided sufficient drip trays for all (8 nos.) temporary electricity generators at site. These drip trays should be covered by tarpaulin sheet to minimize rainfall accumulation.

Excavated materials are reused as back-fill material to balance cut and fill and hence reduce the generation of materials. Surplus materials are returned to stock in centralized area with suitable protective measures. The Contractor was reminded to comply with the requirements and conditions for disposal at public fill facility and all oversized aggregates should be crushed to less than 250mm before delivering to the public fill.

An incident was raised to ET on 27 November 2006 that dump truck originating from EcoPark site entering the public fill was not using mechanical cover. A preliminary investigation was carried out by ET on 29 November 2006 and the incident will be further investigated and reported in the next reporting month.

Materials are recycled and re-used at site as much as practicable to minimize waste generation. Timbers are recycled to make temporary tools and access ladders etc. Excavated rocks, concrete and asphalts are stored for future re-use in land formation and structural construction etc. Wasted tree branches are collected for recycling in future in processes such as mulching.

Registered waste collectors will be arranged to collect and transport the wastes whenever necessary.

Table 3.4 provides a summary table of waste disposal in November 2006. The Contractor has been reminded to keep good record at site in order to have a clear presentation of waste disposal.

Table 3.4 Summary of Waste Disposal in November 2006			
Type of Waste	Disposal Site	Quantity	Remarks
General Waste	WENT Landfill	36.8 tonnes	-
Inert C&D Material	Public Fill Facility	16616 tonnes	-

3.7 Landfill Gas

Landfill gas (LFG) monitoring was carried out at six (6) locations on site as instructed by the Engineer's Representative. LFG measurements on 1, 8, 15, 22 and 29 November 2006 are summarized in Table 3.5, and original field measurement sheets are appended in Appendix 5. Measurement locations are shown in Appendix 6. Measurement results are within Action/ Limit Level in accordance with the EM&A Manual, as shown in Table 3.6.

Table 3.5 Summary of LFG Measurement for November 2006						
Sampling Location	Date of Measurement	Sampling Time	Weather Condition	Methane (CH ₄) %LEL	Carbon Dioxide (CO ₂) %LEL	Oxygen (O ₂)
Point A	01 Nov 06	0950	Fine	0.0%	0.0%	19.9%
Point B1	01 Nov 06	0955	Fine	0.0%	0.0%	19.7%
Point B2	01 Nov 06	0952	Fine	0.0%	0.0%	19.9%
Point C1	01 Nov 06	0800	Fine	0.0%	0.0%	19.8%
Point C2	01 Nov 06	0805	Fine	0.0%	0.0%	19.7%
Point C1	01 Nov 06	1008	Fine	0.0%	0.0%	19.7%
Point C2	01 Nov 06	1002	Fine	0.0%	0.0%	19.6%
Point D	01 Nov 06	1012	Fine	0.0%	0.0%	19.5%
Point A	08 Nov 06	1025	Sunny	0.0%	0.0%	20.0%
Point B1	08 Nov 06	1030	Sunny	0.0%	0.0%	19.8%
Point B2	08 Nov 06	1035	Sunny	0.0%	0.0%	19.9%
Point C1	08 Nov 06	1041	Sunny	0.0%	0.0%	19.6%
Point C2	08 Nov 06	1043	Sunny	0.0%	0.0%	19.6%
Point D	08 Nov 06	1055	Sunny	0.0%	0.0%	19.5%
Point A	15 Nov 06	1547	Rainy	0.0%	0.0%	20.1%
Point B1	15 Nov 06	1542	Rainy	0.0%	0.0%	19.9%
Point B2	15 Nov 06	1544	Rainy	0.0%	0.0%	20.2%
Point C1	15 Nov 06	1538	Rainy	0.0%	0.0%	20.0%
Point C2	15 Nov 06	1531	Rainy	0.0%	0.0%	19.6%

Point D	15 Nov 06	1535	Rainy	0.0%	0.0%	20.0%
Point A	22 Nov 06	0944	Cloudy	0.0%	0.0%	19.1%
Point B1	22 Nov 06	0948	Cloudy	0.0%	0.0%	19.1%
Point B2	22 Nov 06	0950	Cloudy	0.0%	0.0%	19.1%
Point C1	22 Nov 06	0957	Cloudy	0.0%	0.0%	19.1%
Point C2	22 Nov 06	1005	Cloudy	0.0%	0.0%	19.0%
Point D	22 Nov 06	1001	Cloudy	0.0%	0.0%	19.0%
Point A	29 Nov 06	0842	Cloudy	0.0%	0.0%	19.0%
Point B1	29 Nov 06	0837	Cloudy	0.0%	0.0%	19.2%
Point B2	Not Accessable					
Point C1	29 Nov 06	0831	Cloudy	0.0%	0.0%	19.2%
Point C2	29 Nov 06	0829	Cloudy	0.0%	0.0%	19.2%
Point D	29 Nov 06	0826	Cloudy	0.0%	0.0%	19.2%

Table 3.6 Action Levels, Limit Levels and Event and Action Plan for LFG (From EM&A Manual)

Parameter	Level	Action
Oxygen	Action Level < 19% O ₂	Ventilate trench/ void to restore O ₂ to > 19%
	Limit Level < 18% O ₂	Stop works Evacuate personnel/prohibit entry Increase ventilation to restore O ₂ to > 19%
Methane (CH ₄)	Action Level >10% LEL	Post “No Smoking” signs Prohibit hot works Increase ventilation to restore CH ₄ to <10% LEL
	Limit Level >20% LEL	Stop works Evacuate personnel/prohibit entry Increase ventilation to restore CH ₄ to <10% LEL
Carbon Dioxide (CO ₂)	Action Level >0.5% CO ₂	Ventilate to restore CO ₂ to < 0.5%
	Limit Level >1.5% CO ₂	Stop works Evacuate personnel/prohibit entry Increase ventilation to restore CO ₂ to < 0.5%

4. SUMMARY OF ENVIRONMENTAL PERMIT AND LICENCES

ET has checked with the Contractor for the status of all environmental permits and licenses for this project as at November 2006, which is summarized in Table 4.1. ET will follow the application process of the outstanding permits / licenses and will provide suitable assistance whenever appropriate.

Table 4.1 Summary of Environmental Permits/ Licences				
Description	License / Permit No.#	Date of Issue	Date of Expiry	Status/Remarks
Environmental Permit	EP-226/2005	9-Sept-2005	--	Issued
Registration of Waste Producer	5111-421-K2869-02	27-Jul-2006	--	Issued
Construction Noise Permit	GW-RW0471-06	29-Aug-2006	28-Feb-2007	Issued
Effluent Discharge Licence	EP760/421/011762/I	20-Nov-2006	1-Dec-2011	Issued

5. CUMULATIVE LOG OF COMPLAINTS AND REMEDIAL ACTION

The cumulative log of complaints is referred in Appendix 7.

6. CUMULATIVE LOG OF NOTIFICATION OF SUMMONS AND PROSECUTIONS

No notification of summons and no prosecutions occurred during November 2006.

7. CONCLUSION

There is no summon nor prosecutions reported during November 2006.

ET performed the dust monitoring in September, October and November 2006. The result of dust monitoring on 11 October 2006 exceeds the hourly level of Total Suspended Particulates (TSP) stipulated in Annex 4 of Technical Memorandum of Environmental Impact Assessment Ordinance. ET suggested 2 more dust monitoring on 25 October 2006 and 01 November 2006. 83% of the results are in compliance (only one result slightly exceeded the EIAO Standard). According to the discussion in the environmental management meeting, dust nuisance of the site has been rectified after mitigation measure were implemented by the Contractor.

Underground water accumulated in the jacking pit and the trench was discharged directly at the manhole without any treatment. The Contractor rectified this by using two in-series sedimentation tanks to treat underground water before discharging at the manhole. Weekly water samples were taken by the ET at the discharge manhole, and all COD test results were in compliance WPCO-TM Standard.

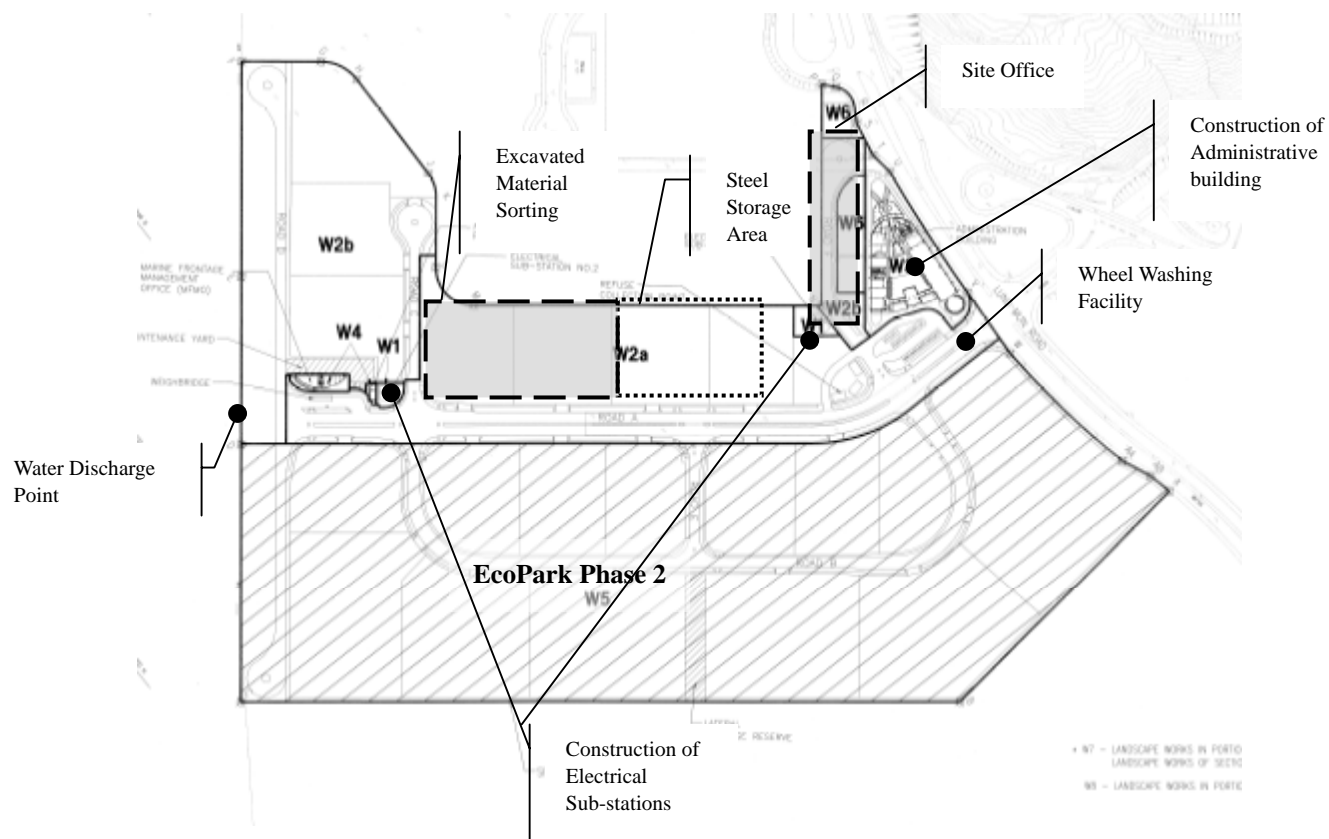
Daily landfill gas monitoring was carried out by the Contractor on site and all the results are within action and limit levels. ET will carry out weekly landfill gas inspection commencing in the next reporting month.

Damage of silt curtain was observed. The Contractor was reminded to repair and maintain silt curtain properly in order to prevent muddy discharge into sea.

The Contractor was advised to pay more efforts on environmental concerns and awareness such as the accumulated rainwater or stagnant water found at site that could cause the problem of mosquito breeding.

The Contractor has established the waste management and record system including allocation of waste storage areas and set-up of trip ticket system as proposed in the Environmental Management Plan.

APPENDIX 1 - SITE LAYOUT PLAN



APPENDIX 2 - THE CONTACT PERSONS, TELEPHONE NUMBERS OF KEY PERSONNEL FOR DEVELOPMENT OF AN ECOPARK IN TUEN MUN AREA

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Company/Department	Name	Position	Telephone
Scott Wilson Ltd.	Mike Bains	Independent Environmental Checker	--
Scott Wilson Ltd.	Mr. Michael Lo	Senior Resident Engineer	6290 8860
Scott Wilson Ltd.	Mr. Andy Cheung	Resident Engineer	6111 9703
Scott Wilson Ltd.	Mr. C S Lam	Senior Inspector of Works	9861 8011
Kaden Construction Limited	Mr. K M Book	Project Manager	9193 8680
Kaden Construction Limited	Mr. Stephen Leung	Section Agent	9071 7657
Environmental Pioneers & Solutions Limited	Miss. Patricia Chung	Environmental Team Leader	2185 0123
Environmental Pioneers & Solutions Limited	Mr. Harvey Yung	Environmental Technician	2185 0172
Environmental Pioneers & Solutions Limited	Mr. Lam Ho Chun	Environmental Technician	2185 0154

[illegible]

The Location Plan of High Volume Air Sampler

Photos of High Volume Air Sampler



APPENDIX 5- ORIGINAL LANDFILL GAS FIELD MEASUREMENT RECORDING SHEETS

Kaden Construction Limited

基利建築有限公司

EPD Contract No. EP/SP/52/06

Job No. K0603

環保署合約編號 EP/SP/52/06

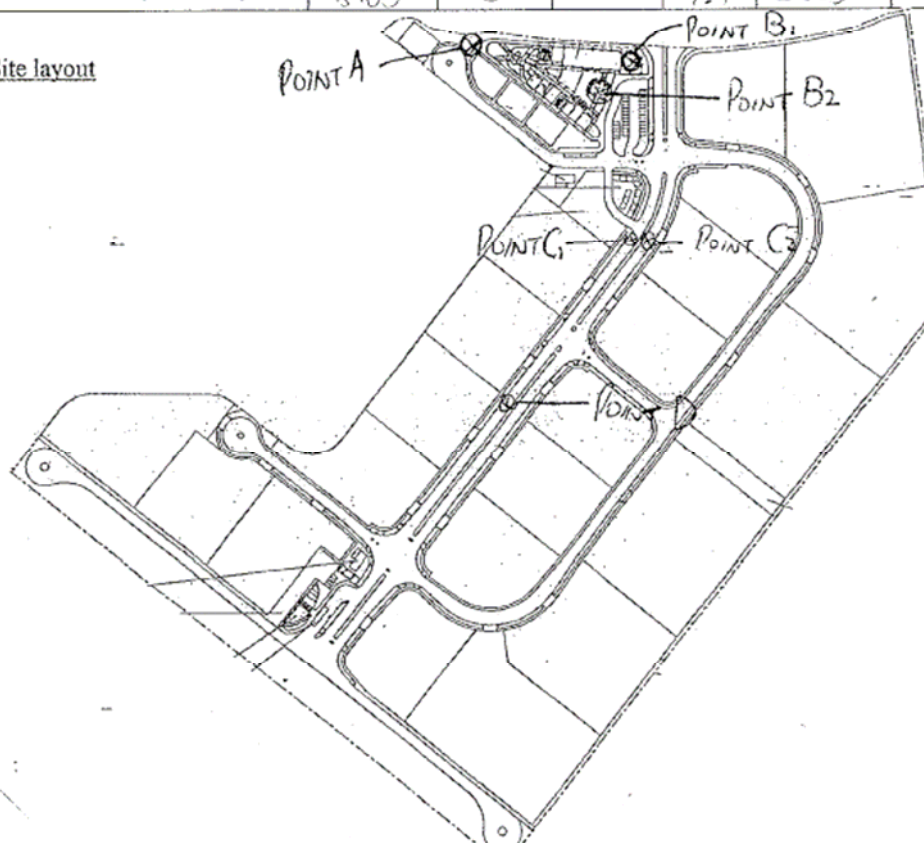
工程編號 K0603

Development of EcoPark in Tuen Mun Area 38 屯門 38 區環保園

**Daily Air Monitoring
每日空氣監測記錄**

Detector: 測試器	Model 型號: GEM 2000	Last calibration 上次檢測: 01 October 2006				
	S/N 編號: GM-08793	Next calibration 下次檢測: 01 April 2007				
Date of Monitor 監測日期: 01-11-2006		Performed by: MLC				
Location 位置	Time 時間 (hrs)	Result 結果				
		CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Bal. Gas (%)	Baro. Pressure ("Hg)
Point A	9:50	0	0	19.9	79.9	29.91
Point B1	9:55	0	0	19.7	80.1	29.91
Point B2 (Rainwater retention tank)	9:52	0	0	19.9	80.1	29.91
Point C1 (FMH041)	10:08	0	0	19.7	80.4	29.91
Point C2 (FMH040)	10:02	0	0	19.6	80.3	29.91
Point D	10:12	0	0	19.5	80.4	29.91
Point C1 (FMH041)	8:00	0	0	19.8	80.3	29.91
Point C2 (FMH040)	8:05	0	0	19.7	80.5	29.91

Site layout





Kaden Construction Limited

基利建築有限公司

EPD Contract No. EP/SP/52/06

Job No. K0603

環保署合約編號 EP/SP/52/06

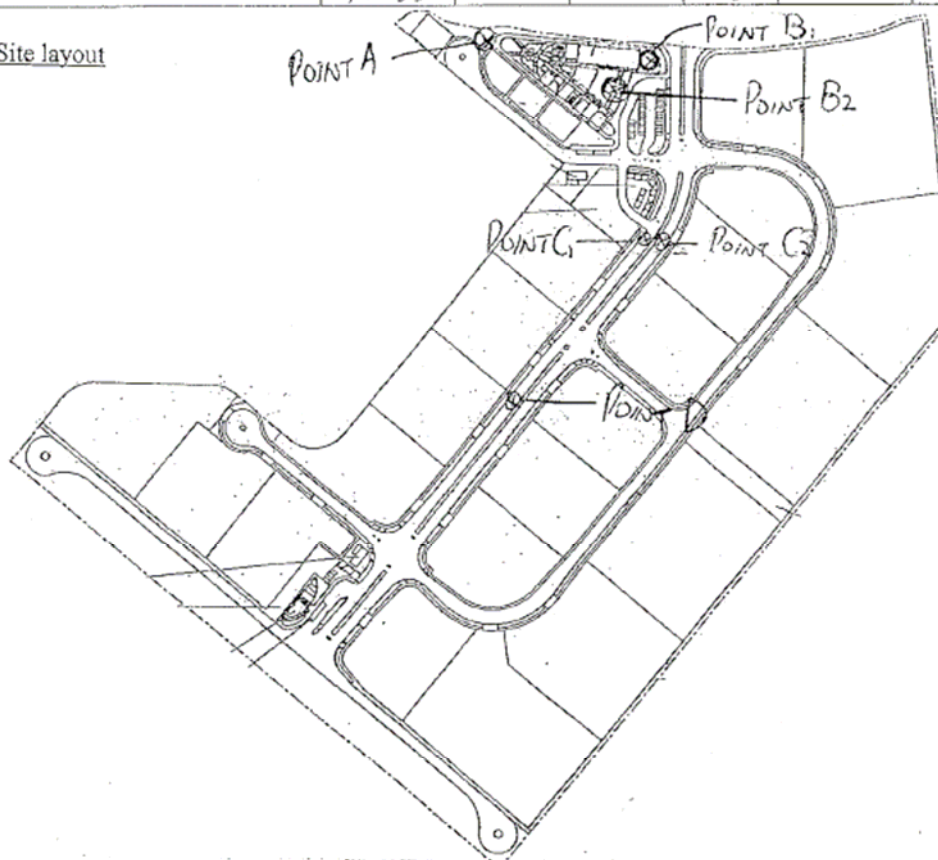
工程編號 K0603

Development of EcoPark in Tuen Mun Area 38 屯門 38 區環保園

Daily Air Monitoring 每日空氣監測記錄

Detector : 測試器	Model 型號 : S/N 編號 :	GEM 2000 GM-08793	Last calibration 上次檢測: Next calibration 下次檢測:	01 October 2006 01 April 2007			
Date of Monitor 監測日期 : 08 NOV 2006			Performed by: <i>ALC</i>				
Location 位置		Time 時間 (hrs)	Result 結果				
			CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Bal. Gas (%)	Baro. Pressure ("Hg)
Point A		10:25	0	0	20.0	80.0	30.08
Point B1		10:30	0	0	19.8	79.9	30.08
Point B2 (Rainwater retention tank)		10:35	0	0	19.9	80.1	30.08
Point C1 (FMH041)		10:41	0	0	19.6	80.3	30.08
Point C2 (FMH040)		10:43	0	0	19.6	80.3	30.08
Point D		10:55	0	0	19.5	80.5	30.08

Site layout





Kaden Construction Limited 基利建築有限公司

EPD Contract No. EP/SP/52/06 Job No. K0603

環保署合約編號 EP/SP/52/06 工程編號 K0603

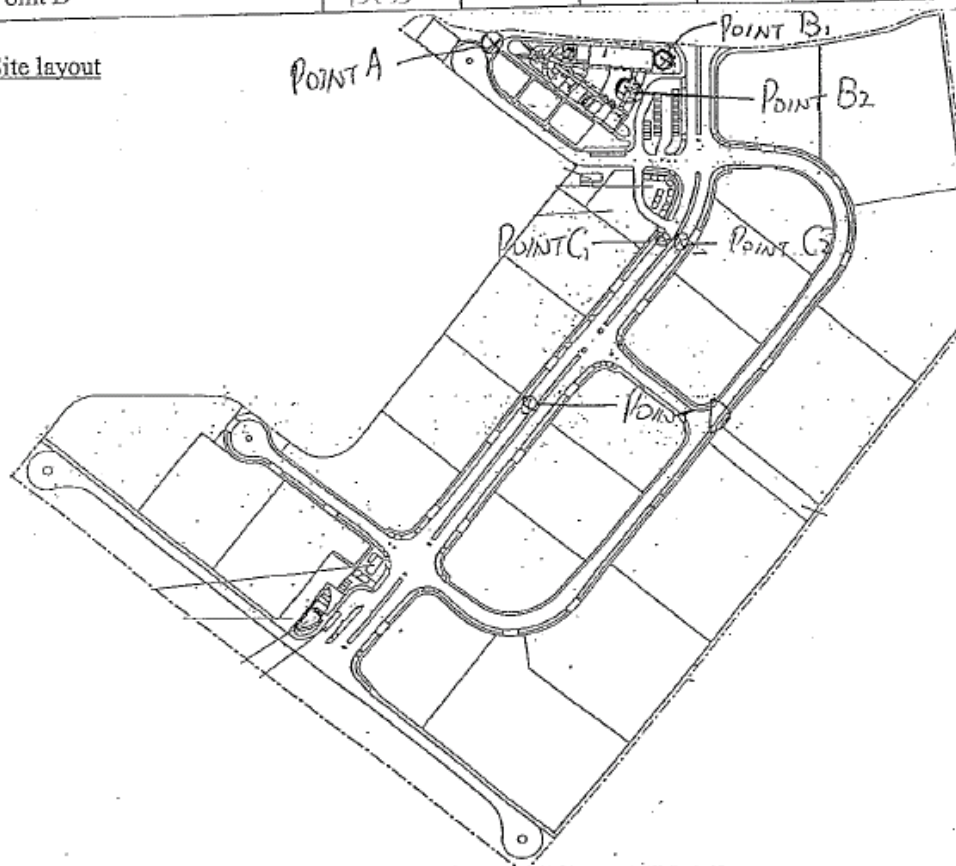
Development of EcoPark in Tuen Mun Area 38 屯門 38 區環保園

Daily Air Monitoring
每日空氣監測記錄

Detector: 測試器	Model 型號: GEM 2000	Last calibration 上次檢測: 01 October 2006
	S/N 編號: GM-08793	Next calibration 下次檢測: 01 April 2007
Date of Monitor 監測日期: 15 NOV 2006	Performed by: Mike	

Location 位置	Time 時間 (hrs)	Result 結果				
		CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Bal. Gas (%)	Baro. Pressure (“Hg)
Point A	15:47	0	0	20.1	79.8	29.98
Point B1	15:42	0	0	19.9	80.0	29.98
Point B2 (Rainwater retention tank)	15:44	0	0	20.2	79.97	29.98
Point C1 (FMH041)	15:38	0	0	20.0	79.9	29.98
Point C2 (FMH040)	15:31	0	0	19.6	80.2	29.98
Point D	15:35	0	0	20.0	79.9	29.98

Site layout





Kaden Construction Limited - 基利建築有限公司

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環保署合約編號 EP/SP/52/06 工程編號 K0603

Development of EcoPark in Tuen Mun Area 38 屯門 38 區環保園

Daily Air Monitoring 每日空氣監測記錄

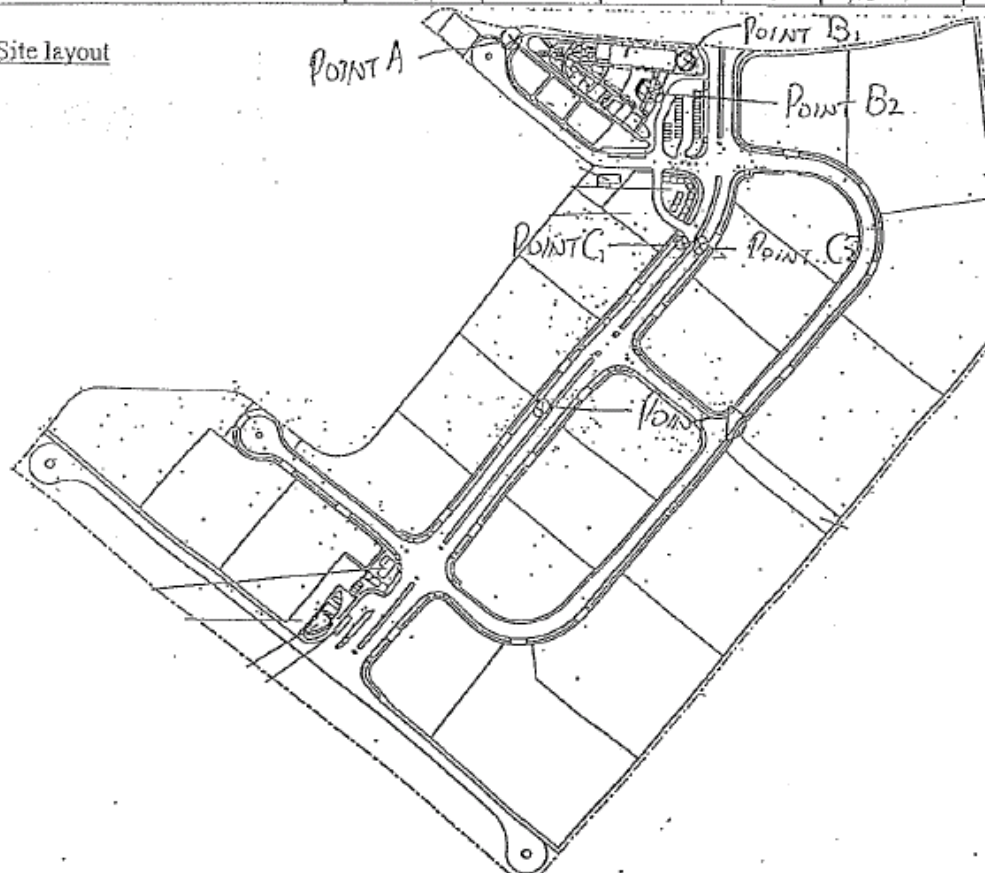
Detector: 測試器	Model 型號: GEM 2000	Last calibration 上次檢測: 01 October 2006
	S/N 編號: GM-08793	Next calibration 下次檢測: 01 April 2007

Date of Monitor 監測日期: 22-11-2006

Performed by: *Mick*

Location 位置	Time 時間 (hrs)	Result 結果				
		CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Bal. Gas (%)	Baro. Pressure (“Hg)
Point A	09:44	0	0	19.1	80.0	29.88
Point B1	09:48	0	0	19.1	80.8	29.88
Point B2 (Rainwater retention tank)	09:50	0	0	19.1	80.8	29.88
Point C1 (FMH041)	09:57	0	0	19.1	80.8	29.88
Point C2 (FMH040)	10:05	0	0	19.0	80.9	29.88
Point D	10:01	0	0	19.0	80.9	29.88

Site layout





Kaden Construction Limited 基利建築有限公司

EPD Contract No. EP/SP/52/06

Job No. K0603

環保署合約編號 EP/SP/52/06

工程編號 K0603

Development of EcoPark in Tuen Mun Area 38 屯門 38 區環保園

Daily Air Monitoring
每日空氣監測記錄

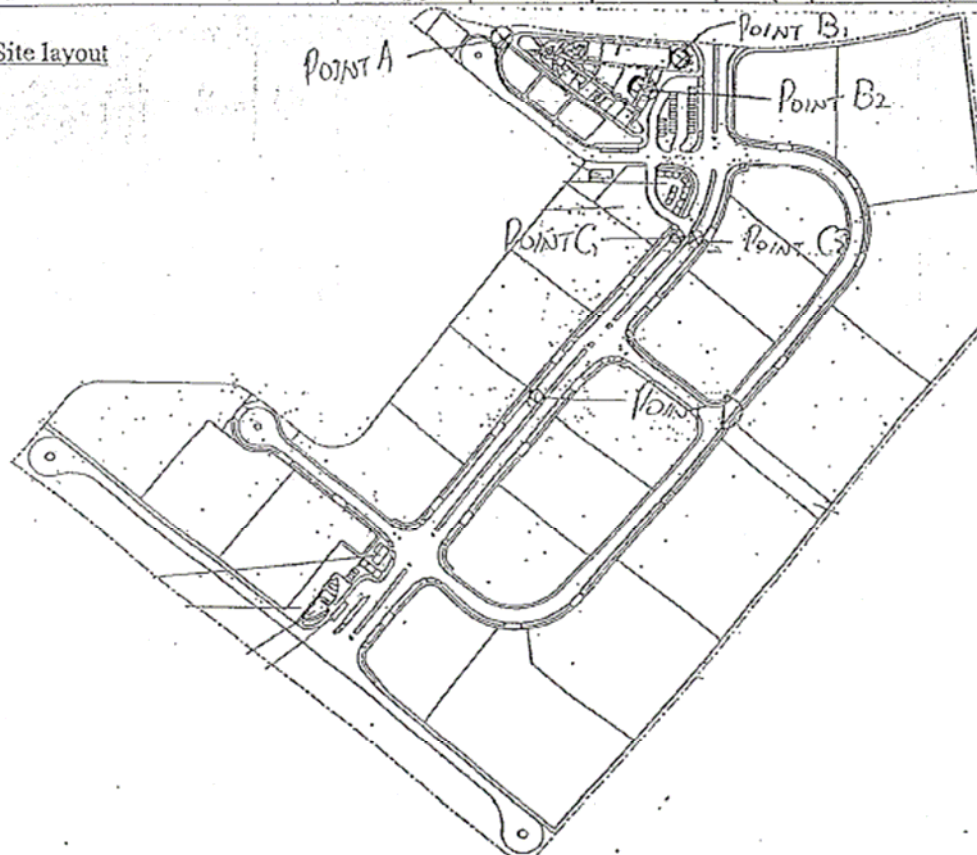
Detector: 測試器	Model 型號: GEM 2000	Last calibration 上次檢測: 01 October 2006
	S/N 編號: GM-08793	Next calibration 下次檢測: 01 April 2007

Date of Monitor 監測日期: 29 NOV 2006

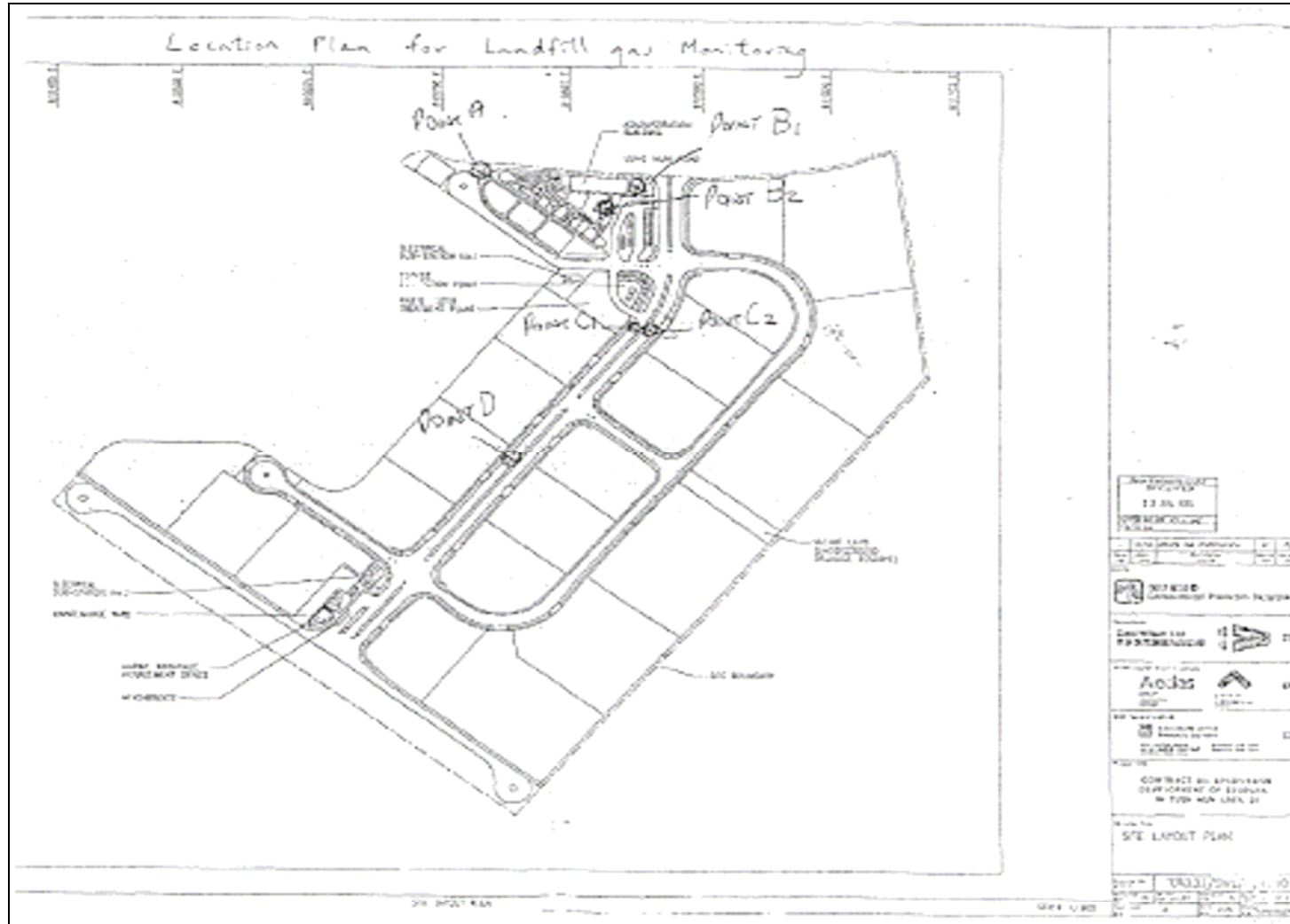
Performed by: MKE J

Location 位置	Time 時間 (hrs)	Result 結果				
		CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Bal. Gas (%)	Baro. Pressure ("Hg)
Point A	8:42	0	0	19.0	80.9	30.04
Point B1	8:47	0	0	19.2	80.7	30.04
Point B2 (Rainwater retention tank)	not	accessible				#
Point C1 (FMH041)	08:51	0	0	19.2	80.7	30.04
Point C2 (FMH040)	08:29	0	0	19.2	80.7	30.04
Point D	08:26	0	0	19.2	80.7	30.04

Site layout



APPENDIX 6- LANDFILL GAS MEASUREMENT LOCATIONS



APPENDIX 7– CUMULATIVE LOG OF COMPLAINTS**CUMULATIVE LOG OF COMPLAINTS**

Environmental Parameters	No. of Outstanding Complaints	No. of complaints received in November 2006	Cumulative no. of complaints received since the commencement of project
Air	0	0	1
Noise	0	0	0
Water	0	0	0
Waste	0	0	0
Total	0	0	1

DETAILS OF COMPLAINTS AND REMEDIAL ACTIONS

Log Ref.	Date of Compliant received	Location	Complainant /Date	Details of Complaint	Investigation /Mitigation Action	Investigated by/ Date
EP-C-01/06	5 Sept 06	Site Entrance	Dust / 1 Sept 06	Complaint against dust emission from vehicles driving in or out of EcoPark	Causes of problems identify as: Inadequate cover of excavated material stockpile. Accumulating silt on haul road. Ineffective water spraying of site haul/ access roads Mitigation Actions: Provide sprinkler system for areas that cannot be accessed by water truck. To enhance and increase spraying frequency by water truck. Silt deposited on main haul road should be removed regularly. Stockpiles of excavated materials should be covered with tarpaulin sheets. Use granular fill to pave access roads.	Environmental Team / 7 Sept 06