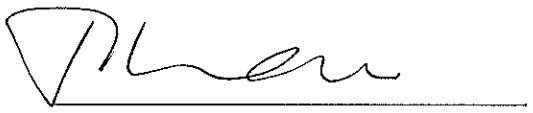
ASB Biodiesel (Hong Kong) Limited

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

Monthly EM&A Report

(Version 1.0)

April 2010

Certified By 

(Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties

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EXECUTIVE SUMMARY

Introduction

1. This is the 11th monthly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate". This report documents the findings of EM&A Works conducted in April 2010.

2. The major site activities undertaken in the reporting month included:

- Structural Steel Works;
- Material transportation;
- Material assembling;
- Welding jointing; and
- General site cleaning and tidying.

Environmental Monitoring and Audit Works

3. Environmental monitoring and audit works for the Project were performed regularly as stipulated in the EM&A Manual and the results were checked and reviewed. The implementation of the environmental mitigation measures and environmental complaint handling procedures were also checked.

Environmental Licenses and Permits

4. Licenses/Permits granted to the Project include the Environmental Permit (EP) for the Project, An Environmental Permit No. EP-319/2009 and EP-319/2009/A was issued on 11 March 2009 and 7 April 2009 respectively. The contractor has applied for the Registration of Chemical Waste Producer (WPN-5113-839-C1186-15), Construction Noise Permit (GW-RE0561-09) and Wastewater Discharge License (WT00004508-2009).

Key Information in the Reporting Month

5. Summary of key information in this reporting month is tabulated in Table I.

Table I Summary Table for Key Information in the Reporting Month

Event	Event Details		Action Taken	Status	Remark
	Number	Nature			
Complaint received	0	---	N/A	N/A	---
Changes to the assumptions and key construction / operation activities recorded	0	---	N/A	N/A	---
Status of submissions under EP	1	Monthly EM&A Report for March 2010	Submitted to EPD on 19 April 2010 (EP condition 4.2)	Verified by IEC	---
Notifications of any summons & prosecutions	0	---	N/A	N/A	---

Future Key Issues

6. Major site activities for the coming month will include:

- Tank Farm 2A – Remaining foundation and bund wall construction;
- Possessing Building – Structural steelwork, tank installation and painting;
- Administration Building – Concrete frame construction; and
- Fat Pad Fabrication – Concrete frame construction.

7. The future environmental concerns are air quality, waste management and surface runoff from construction works.

1 INTRODUCTION

Background

1.1 Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate is a Designated Project (hereafter referred to as "the Project") under the Environmental Impact Assessment Ordinance (Cap. 449). A study of environmental impact assessment (EIA) was undertaken to consider the key issues of air quality, noise, water quality, ecological and identify possible mitigation measures associated with the works. An EIA Report was approved by the Environmental Protection Department (EPD) on 26 February 2009.

1.2 The project is to construct and operate a 100,000 tonnes per annum biodiesel plant at Tseung Kwan O Industrial Estate. The plant will use a multi-feedstock which consists of waste cooking oil (WCO), oil and grease recovered from grease trap waste (GTW), Palm Fatty Acid Distillate (PFAD) and animal fats. The proposed biodiesel plant not only offers a convenient recycling outlet for GTW and WCO but also converts the oil and grease recovered from these wastes into useful products. The Project also offers a cleaner alternative to diesel fuel to the Hong Kong market. The main processes include the followings:-

- Construction of feedstock reception and storage facilities, and offices;
- Construction of a grease trap waste pre-treatment facility (with a designated treatment capacity of about 200,000 tonnes per annum);
- Construction of a wastewater treatment plant (with a designed treatment capacity of about 170,000 m3 per annum);
- Installation of biodiesel production and glycerine purification system;
- Construction of product storage and ancillary facilities;
- Pretreatment of grease trap waste;
- Treatment of wastewater generated from feedstock pre-treatment and glycerine dewatering process, and filtrates from dewatering process of sludge treatment;
- Transesterification of feedstock with alcohol-catalyst; and
- Purification of biodiesel.

1.3 The general layout of the Project is shown in **Figure 1.1.**

1.4 Layout plan of tank farm **2A, 2B to 2E** is revised and a report is made by Environmental Resources Management (ERM) regarding such change. The report concluded that no deviation is found from the approved EIA report.

1.5 An Environmental Permit (EP) No. EP-319/2009 and EP-319/2009/A was issued on 11 March 2009 and 7 April 2009 respectively for Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate to ASB Biodiesel (Hong Kong) Limited as the Permit Holder.

1.6 Cinotech Consultants Limited was commissioned by ASB Biodiesel (Hong Kong) Limited to undertake the Environmental Monitoring and Audit (EM&A) works for the Project. China Harbour Engineering Company Limited is the Managing Contractor of

the Project. This is the 11th Monthly EM&A report summarizing the EM&A works for the Project in April 2010.

Project Organizations

1.7 Different parties with different levels of involvement in the project organization include:

- Project Proponent – ASB Biodiesel (Hong Kong) Limited
- Contractor – China Harbour Engineering Company Limited (CHEC)
- Environmental Team (ET) – Cinotech Consultants Limited
- Independent Environmental Checker (IEC) –Mannings (Asia) Consultants Ltd.

1.8 The responsibilities of respective parties are detailed in Section 1.10 of the Final EM&A Manual of the Project.

1.9 The key contacts of the Project are shown in Table 1.1.

Table 1.1 Key Project Contacts

Party	Role	Name	Position	Phone No.	Fax No.
ASB	Permit Holder	Mr. Eddie Chung	Project Manager	9189 8118	37411661
Cinotech	Environmental Team	Dr. HF Chan	ET Leader	2151 2088	3107 1388
		Ms. Ivy Tam	Project Coordinator	2151 2090	
		Mr. Gary Lau	Audit Team Leader	2151 2098	
Mannings	Independent Environmental Checker	Mr. Mark Cheung	Independent Environmental Checker	3168 2028	3168 2022
		Mr. Gavin Kwok	Assistant to Independent Environmental Checker	3168 2028	
CHEC	Contractor	Mr. Stephen Tse	Project Manager	8106 1848	2623 9226
		Mr. Matthew Cheung	Environmental Officer	9038 1803	

Construction Programme

1.10 The site activities undertaken in the reporting month were:

- Structural Steel Works;
- Material transportation;
- Material assembling;
- Welding jointing; and
- General site cleaning and tidying.

Summary of EM&A Requirements

1.11 The EM&A requirements are described in the following sections, including:

- Environmental mitigation measures, as recommended in the project EIA study final report; and
- Environmental requirements in contract documents.

1.12 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 3 of this report.

2 ENVIRONMENTAL AUDIT

Site Audits

2.1 Site audit was carried out by ET on monthly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site audits are attached in **Appendix A**.

2.2 Site audit was conducted on 27th April 2010 by ET in the reporting month. No non-compliance was observed during the site audits.

Status of Environmental Licensing and Permitting

2.3 All permits/licenses obtained for the Project are summarized in **Table 2.1**.

Status of Waste Management

2.4 No Construction and Demolition (C&D) Waste and no Chemical Waste are generated in the reporting month. The quantities of waste generated in this reporting month are summarized in **Appendix C**.

Implementation Status of Environmental Mitigation Measures

2.5 According to the EIA Study Report, Environmental Permit and the EM&A Manual of the Project, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An updated summary of the EMIS is provided in **Appendix B**.

Table 2.1 Summary of Environmental Licensing and Permit Status

Permit / License No.	Valid Period		Details	Status
	From	To		
Environmental Permit (EP)				
EP-319/2009/A	07/04/2009	N/A	Construction and operation of (i) a biochemical plant with a storage capacity of more than 500 tonnes and in which substances are processed and produced; (ii) a storage, transfer and tran-shipment of oil facility with a storage capacity of not less than 1,000 tonnes; and (iii) a dangerous goods godown with a storage capacity exceeding 500 tonnes	Valid
Registration of Chemical Waste Producer				
WPN-5113-839-C1186-15	12/06/2009	-	Spent Lubrication oil.	Valid
Construction Noise Permit (CNP)				
GW-RE0561-09	10/12/2009	26/05/2010	Use of Powered Mechanical Equipment during 0000-2400 hours on general holidays (including Sundays), 0000-0700 hours on any day not being a general holiday.	Valid
Wastewater Discharge License				
WT00004508-2009	07/09/2009	-	-	Valid

2.6 During site inspections in the reporting month, no non-conformance was identified. The observations and recommendations made during the audit sessions are summarized in Table 2.2.

Table 2.2 Observations and Recommendations of Site Audit

Parameters	Date	Observations and Recommendations	Follow-up
Water Quality	27-04-10	Reminder Contractor was reminded to clear the ponding water after raining.	Rectification photo was received from The Contractor on 7/05/2010.

Summary of Complaint and Prosecution

2.7 No environmental related complaint, prosecution or notification of summons was received in the reporting month.

2.8 There was no environmental complaint, prosecution or notification of summons received since the Project commencement. The Complaint Log is attached in **Appendix D**.

3 FUTURE KEY ISSUES

Key Issues for the Coming Month

3.1 Key issues to be considered in the coming month include:

- Noise from operation of the equipment and machinery on-site;
- Effluent discharge generated from surface runoff;
- Dust generated from excavation works and stockpile of dusty materials;
- Maintenance of de-silting facilities and drainage system, such as U-channels;
- Storage of chemicals/fuel and chemical waste/waste oil on site;
- Accumulation of stagnant water in the site areas; and
- Accumulation of C&D waste and general waste on site.

Construction Program for the Next Month

3.2 A tentative construction programme is provided in **Appendix E**. The major construction activities in the coming month will include:

- Tank Farm 2A – Remaining foundation and bund wall construction;
- Possessing Building – Structural steelwork, tank installation and painting;
- Administration Building – Concrete frame construction; and
- Fat Pad Fabrication – Concrete frame construction

4 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

4.1 Environmental audit works were conducted in the reporting month. Site inspections were conducted on a monthly basis. The results of were reviewed and checked.

4.2 There was no environmental complaint, prosecution or notification of summons received.

Recommendations

4.3 According to the environmental audit performed in the reporting month, the following recommendations were made:

Water Impact

- To identify any wastewater discharges from site.
- To ensure properly maintenance for de-silting facilities.
- To clear the silt and sediment in the sedimentation tanks.
- To review the capacity of de-silting facilities for discharge.
- To divert all the water generated from construction site to de-silting facilities with enough handling capacity before discharge.
- To avoid accumulation of stagnant and ponding water on site.

Dust Impact

- To remove fugitive dusty material on the haul road periodically.
- Excavated dusty materials or stockpile of dusty materials should be covered by impervious sheeting, or sprayed with water so as to maintain entire surface wet.

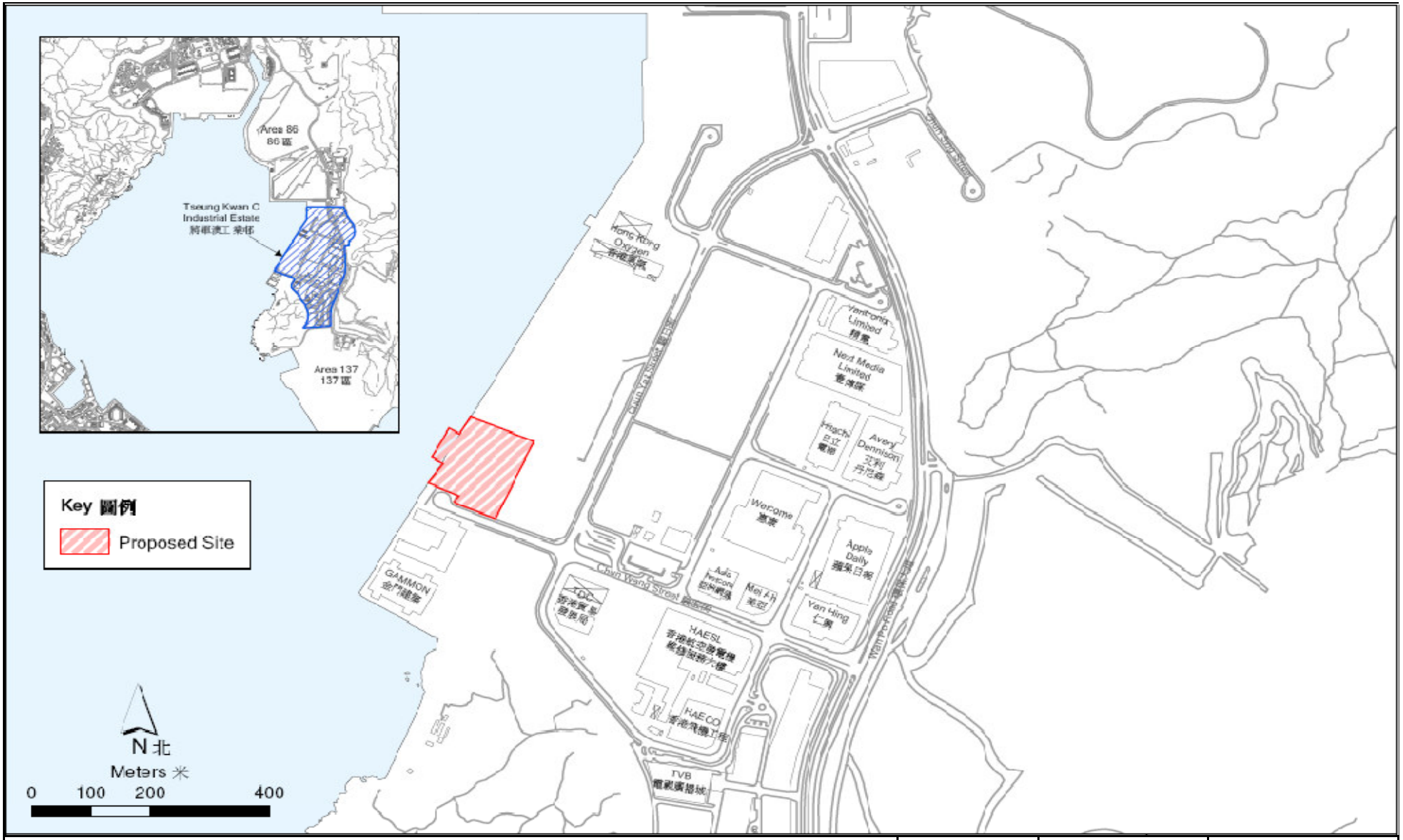
Noise Impact

- To space out noisy equipment and position as far away as possible from sensitive receivers.
- To inspect the noise sources inside the site.

Waste / Chemical Management

- To provide proper rubbish bins / skips for waste collection.
- To provide proper storage area for oil container on site.
- To avoid and check for any accumulation of waste materials or rubbish on site.
- To avoid any discharge or accidental spillage of chemical waste or oil directly from the equipment.

FIGURES



Title	Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate	Scale N.T.S	Project No. MA9021
	Site Layout Plan	Date Jun-09	Figure 1.1

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APPENDIX A
SITE AUDIT SUMMARY

Monthly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	000427
Date	27 April 2010 (Tuesday)
Time	15:00 – 16:00

Ref. No.	Non-Compliance	Related Item No.
-	None	-

Ref. No.	Remarks/Observations	Related Item No.
000427-R01	**A. Water Quality** • No environmental deficiency was identified during site inspection. **B. Air Quality** <u>Reminder</u> • Contractor was reminded to clear the ponding water after raining. **C. Noise** • No environmental deficiency was identified during site inspection. **D. Waste / Chemical Management** • No environmental deficiency was identified during site inspection **E. Permit / Licenses** • No environmental deficiency was identified during site inspection. **F. Reminders** • No environmental deficiency was identified during site inspection. **G. Others** • Follow-up on previous audit section (Ref. No.:000324), all environmental deficiencies were improved/rectified by contractor.	B13

	Name	Signature	Date
Recorded by	Gary Lau		10 May 2010
Checked by	Dr. HF Chan		10 May 2010

APPENDIX B
UPDATED ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

Appendix B - Summary of Environmental Mitigation Implementation Schedule (Construction Phase)

Types of Impacts	Mitigation Measures	Status
Construction Dust	• Dust control measures such as water spaying on roads and dusty areas, covering of lorries by impervious sheets and controlling of the falling height of fill materials will be implemented; • Effective dust screens, sheeting or netting will be provided to enclose the scaffolding from the ground level of the facility during the building construction; • All debris and materials will be covered or stored in a sheltered debris collection area; • Hoarding from ground level will be provided along the entire length of the site boundary except for a site entrance or exit; • Every stockpile of dusty materials will be covered entirely by impermeable sheeting or placed in an area sheltered on the top and the 3 sides; • Regular maintenance and checking of the diesel powered mechanical equipment will be adopted to avoid any black smoke emissions and to minimize gaseous emissions. • Monthly site audits will be conducted to ensure the implementation of suitable dust control measures and good site practices.	^ N/A ^ ^ ^ ^ ^
Construction Noise	• Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction program; • Silencers or mufflers on construction equipment will be utilized and will be properly maintained during the construction program; • Mobile plant, if any, will be sited as far from NSRs as possible; • Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or will be throttled down to a minimum; • Plant known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and • Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from onsite construction activities.	^ ^ ^ ^ ^ ^

Types of Impacts	Mitigation Measures	Status
Water Quality	<u>Piling Activities</u> • Silt curtain will be installed around the marine piling area to contain any suspended mud and sediments generated during the piling works. Silt removal facilities such as silt traps or sedimentation facilities will be provided to remove silt particles from groundwater (if pumping is required) to meet the requirements of the TM standard under the WPCO. The design of silt removal facilities will be based on the guidelines provided in ProPECC PN 1/94. All drainage facilities and erosion and sediment control structures will be inspected monthly and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. <u>Construction Site Run-off and Drainage</u> • Silt removal facilities such as silt traps or sedimentation facilities will be provided to remove silt particles from runoff to meet the requirements of the TM standard under the WPCO. The design of silt removal facilities will be based on the guidelines provided in ProPECC PN 1/94. All drainage facilities and erosion and sediment control structures will be inspected monthly and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. • Careful programming of the works to minimise surface excavations for the construction works during the wet season. If excavation of soil cannot be avoided during the wet season, exposed slope surfaces will be covered by a tarpaulin or other means. Other measures that need to be implemented before, during, and after rainstorms are summarised in ProPECC PN 1/94. • Exposed soil surfaces will be protected by paving or fill material as soon as possible to reduce the potential of soil erosion. • Open stockpiles of construction materials or construction wastes on-site of more than 50m3 will be covered with tarpaulin or similar fabric during rainstorms. These materials will not be placed near the seawall area. <u>General Construction Activities</u> • Debris and refuse generated on-site will be collected, handled and disposed of properly to avoid entering the nearby water sensitive receivers (WSRs). Stockpiles of cement and other construction materials will be kept covered when not being used. • Oils and fuels will only be used and stored in designated areas which have pollution prevention facilities. All fuel tanks and storage areas will be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund will be drained of rainwater after a rain event.	N/A ^ ^ ^ ^ ^ ^

Types of Impacts	Mitigation Measures	Status
	Sewage generated from On-site Workforce • Temporary sanitary facilities, such as portable chemical toilets, will be provided on-site. A specialised contractor will be responsible for regular collection and appropriate disposal of the sewage and maintenance of these facilities. • Monthly site inspections will be carried out during construction to ensure that the mitigation measures listed above are properly implemented. The site audit frequency will be increased to weekly intervals during the piling works.	N/A ^
Ecology	• Mitigation measures for minimising water quality impacts are presented in detail above. These measures will be properly implemented and good construction practices will be adopted to minimise potential adverse impacts to marine ecological resources.	^

Remarks: ^ Compliance of mitigation measure; X Non-compliance of mitigation measure;
N/A Not Applicable at this stage; • Non-compliance but rectified by the contractor;
* Recommendation was made during site audit but improved/rectified by the contractor;
# Non-compliance but rectified/improved by the contractor and awaiting IEC's further comment.

APPENDIX C
WASTE GENERATION IN THE REPORTING MONTH

Monthly Summary Waste Flow Table
For Contract 250 Biodiesel Plant Tseung Kwan O Project
Reporting Year: 2010

Month	Actual Quantities of Inert C&D Materials Generated / Imported (in '000 m³)						Actual Quantities of Other C&D Materials / Wastes Generated				
	Total Quantities Generated [a+b+c+d]	Broken Concrete (including rock for recycling into aggregates) (a)	Reused in the Contract (b)	Reused in Other Projects (c)	Disposed as Public Fill (d)	Imported C&D Material	Metal (in '000 kg)	Paper/ cardboard packaging (in '000kg)	Plastics (bottles/containers, plastic sheets/ foams from package material) (in '000kg)	Chemical Waste (in '000kg)	Others (e.g. General Refuse etc.) (in '000m3)
January	1.3	0	0	0	1.3	0	0	0.05	0.01	0	0.02
February	0	0	0	0	0	0	0	0.05	0.01	0	0.02
March	7	0	0	0	7	0	0	0.05	0.01	0	0.02
April	0	0	0	0	0	0	0	0.01	0.01	0	0.02
May											
June											
Half-year Total											
July											
August											
September											
October											
November											
December											
Yearly Total											

APPENDIX D
COMPLAINT LOG

APPENDIX D – COMPLAINT LOG

Reporting Month: April 2010

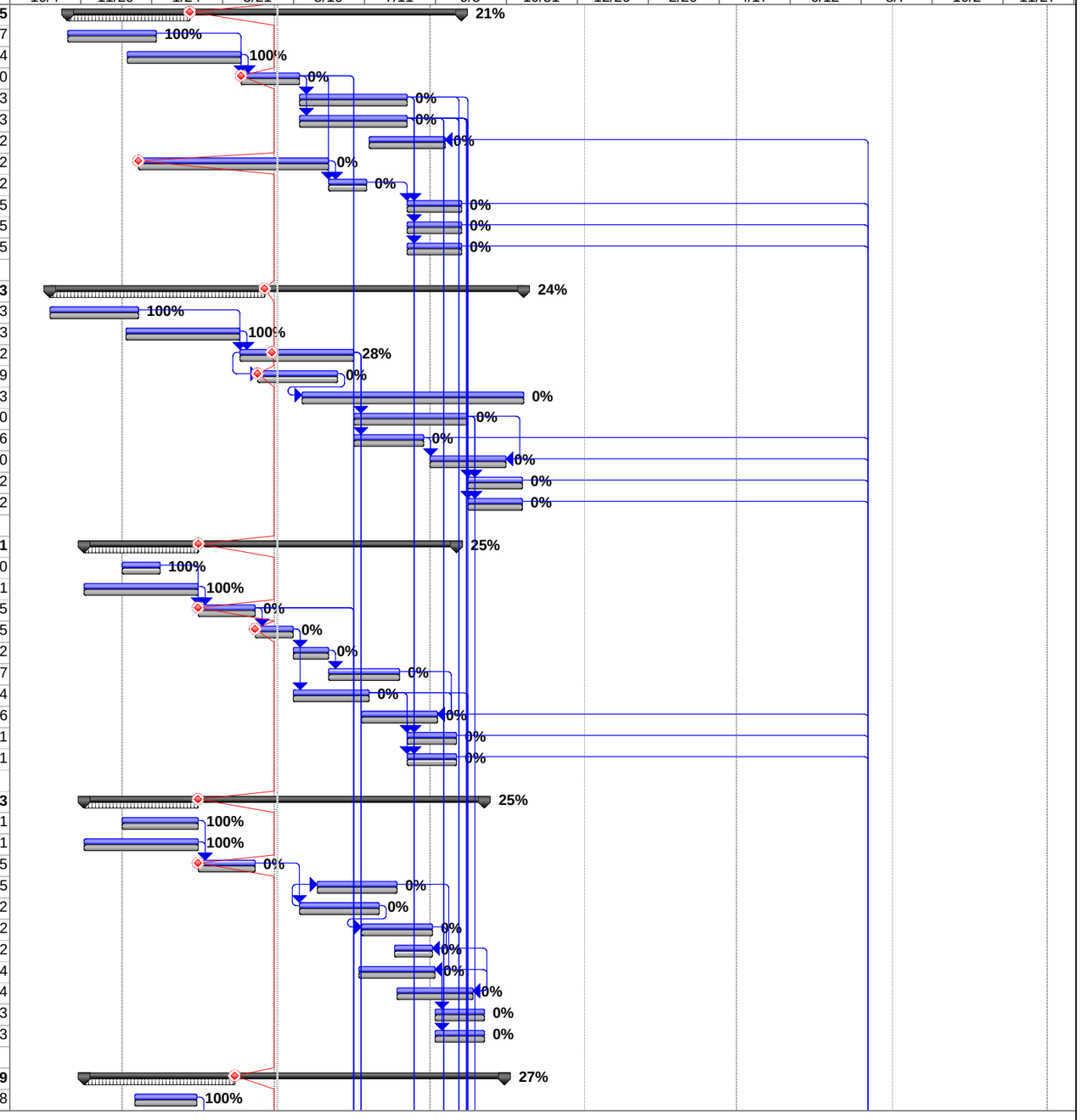
Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
N/A	N/A	N/A	N/A	N/A	N/A

Remarks: No environmental complaint was received in the reporting month.

APPENDIX E
CONSTRUCTION PROGRAMME

Proposed Bio-Diesel Plant at T.K.O.T. Lot No. 39
S.Q. ss.1, ss.2 and Ext. thereto Chun WangStreet, TKO Ind. Estate, Kln
3 Month Rolling Programme(April 2010 - June 2010)

ID	Task Name	% Complete	Duration	Start	Finish
1	**1A - Administration Building**	**21%**	**311 days**	**09/11/19**	**10/9/25**
2	Substructure Construction Works	100%	70 days	09/11/19	10/1/27
3	Superstructure Design and BD Approval and Consent	100%	90 days	10/1/5	10/4/4
4	Superstructure Construction Works	0%	46 days	10/4/5	10/5/20
5	Building Service Installation Works	0%	85 days	10/5/21	10/8/13
6	Transform Room Works	0%	85 days	10/5/21	10/8/13
7	Finishing Works	0%	60 days	10/7/15	10/9/12
8	Lift Procurement	0%	150 days	10/1/14	10/6/12
9	Lift Installation Works	0%	30 days	10/6/13	10/7/12
10	Lift Testing	0%	43 days	10/8/14	10/9/25
11	Building Service Testing	0%	43 days	10/8/14	10/9/25
12	Fire Service Testing	0%	43 days	10/8/14	10/9/25
13					
14	**1B - Process Building**	**24%**	**374 days**	**09/11/5**	**10/11/13**
15	Substructure Construction works (Include Ground Slab)	100%	70 days	09/11/5	10/1/13
16	Superstructure Design and BD Approval and Consent (2nd Submission)	100%	90 days	10/1/4	10/4/3
17	Superstructure Construction Works	28%	90 days	10/4/4	10/7/2
18	BDI Process Equipment Installation Works	0%	63 days	10/4/18	10/6/19
19	BDI Piping, Electrical, Insulation & Instrumentation Works	0%	175 days	10/5/23	10/11/13
20	Building Service Installation Works	0%	90 days	10/7/3	10/9/30
21	Cladding Works	0%	55 days	10/7/3	10/8/26
22	Finishing Works	0%	60 days	10/9/1	10/10/30
23	Building Service Testing	0%	43 days	10/10/1	10/11/12
24	Fire Service Testing	0%	43 days	10/10/1	10/11/12
25					
26	**1B - Fat Preparation Building**	**25%**	**294 days**	**09/12/2**	**10/9/21**
27	Substructure Construction Works	100%	30 days	10/1/1	10/1/30
28	Superstructure Design and BD Approval and Consent	100%	90 days	09/12/2	10/3/1
29	RC Superstructure Construction Works	0%	45 days	10/3/2	10/4/15
30	Fat Preparation Steel Works	0%	30 days	10/4/16	10/5/15
31	BDI Fat Prep. Equipment Installation Works	0%	28 days	10/5/16	10/6/12
32	BDI Fat Prep. Piping, Electrical, Insulation & Instrumentation Works	0%	56 days	10/6/13	10/8/7
33	Building Service Installation Works	0%	60 days	10/5/16	10/7/14
34	Finishing Works	0%	60 days	10/7/9	10/9/6
35	Building Service Testing	0%	39 days	10/8/14	10/9/21
36	Fire Service Testing	0%	39 days	10/8/14	10/9/21
37					
38	**1B - Boiler Room**	**25%**	**316 days**	**09/12/2**	**10/10/13**
39	Substructure Construction Works	100%	60 days	10/1/1	10/3/1
40	Superstructure Design and BD Approval and Consent	100%	90 days	09/12/2	10/3/1
41	RC Superstructure Construction Works	0%	45 days	10/3/2	10/4/15
42	Boiler Room Steel Works	0%	63 days	10/6/4	10/8/5
43	BDI Boiler Room & Utility Equipment Installation Works	0%	63 days	10/5/21	10/7/22
44	BDI Boiler Room Piping, Electrical, Insulation & Instrumentation Works	0%	56 days	10/7/9	10/9/2
45	Chimney Works	0%	30 days	10/8/4	10/9/2
46	Building Service Installation Works	0%	60 days	10/7/7	10/9/4
47	Finishing Works	0%	60 days	10/8/6	10/10/4
48	Building Service Testing	0%	39 days	10/9/5	10/10/13
49	Fire Service Testing	0%	39 days	10/9/5	10/10/13
50					
51	**2A - Tank Farm**	**27%**	**332 days**	**09/12/2**	**10/10/29**
52	2nd Plate Load Test & BD consent	100%	49 days	10/1/11	10/2/28



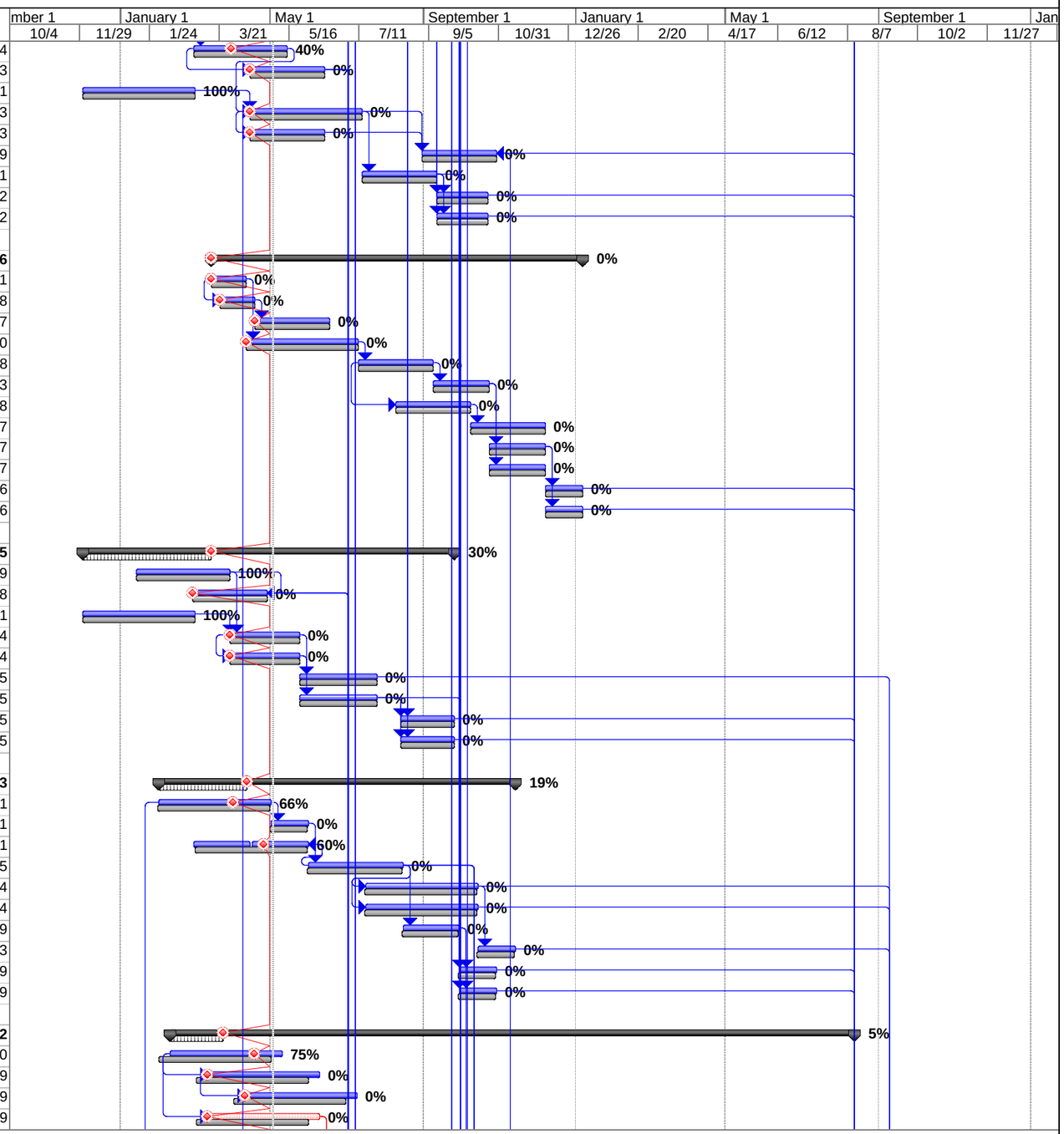
Project: TKO39-MP-R01-02 (Overview
Date: 10/5/3

Critical, Critical Split, Critical Progress, Task, Split, Task Progress, Baseline, Baseline Split, Baseline Milestone, Milestone, Summary Progress, Summary, Project Summary, External Tasks, External Milestone, Deadline

Data date:10/4/30

Proposed Bio-Diesel Plant at T.K.O.T. Lot No. 39
S.Q. ss.1, ss.2 and Ext. thereto Chun WangStreet, TKO Ind. Estate, Kln
3 Month Rolling Programme(April 2010 - June 2010)

ID	Task Name	% Complete	Duration	Start	Finish
53	Foundation Construction	40%	75 days	10/3/1	10/5/14
54	Bunwall Construction	0%	60 days	10/4/15	10/6/13
55	Tank Design and BD Approval and Consent	100%	90 days	09/12/2	10/3/1
56	Tank Erection Works	0%	90 days	10/4/15	10/7/13
57	BDI Process Equipment Installation Works	0%	60 days	10/4/15	10/6/13
58	BDI Process Piping and Instrumentation Works	0%	60 days	10/8/31	10/10/29
59	Building Service Installation Works	0%	60 days	10/7/14	10/9/11
60	Building Service Testing	0%	41 days	10/9/12	10/10/22
61	Fire Service Testing	0%	41 days	10/9/12	10/10/22
62					
63	**2A - GTW Separation Room & Pump Yard**	**0%**	**298 days**	**10/3/15**	**11/1/6**
64	GBP Amendment to incorporate GTW and Pump Yard	0%	28 days	10/3/15	10/4/11
65	2A Foundation Design Amemdment to inc. GTW and Pump Yard	0%	28 days	10/3/22	10/4/18
66	Foundation Construction	0%	60 days	10/4/19	10/6/17
67	Supersturcture Design BD submission and Consent	0%	90 days	10/4/12	10/7/10
68	Superstructure Construction	0%	60 days	10/7/11	10/9/8
69	Cladding Roof Works	0%	45 days	10/9/9	10/10/23
70	BDI Process Equipment Installation Works	0%	60 days	10/8/10	10/10/8
71	BDI Piping, Electrical, Insulation & Instrumentation Works	0%	60 days	10/10/9	10/12/7
72	Building Service Installation Works	0%	45 days	10/10/24	10/12/7
73	Finishing Works	0%	45 days	10/10/24	10/12/7
74	Building Service Testing	0%	30 days	10/12/8	11/1/6
75	Fire Service Testing	0%	30 days	10/12/8	11/1/6
76					
77	**2B-E Tank Farm**	**30%**	**298 days**	**09/12/2**	**10/9/25**
78	Foundation Construction	100%	75 days	10/1/14	10/3/29
79	Bunwall Construction	0%	60 days	10/2/28	10/4/28
80	Tank Design and BD Approval and Consent	100%	90 days	09/12/2	10/3/1
81	Tank Erection Works	0%	56 days	10/3/30	10/5/24
82	BDI Process Equipment Installation Works	0%	56 days	10/3/30	10/5/24
83	BDI Process Piping and Instrumentation Works	0%	62 days	10/5/25	10/7/25
84	Building Service Installation Works	0%	62 days	10/5/25	10/7/25
85	Building Service Testing	0%	43 days	10/8/14	10/9/25
86	Fire Service Testing	0%	43 days	10/8/14	10/9/25
87					
88	**3 - Waste Water Treatment Plant**	**19%**	**286 days**	**10/2/1**	**10/11/13**
89	Foundation Design, BD Approval and Consent	66%	90 days	10/2/1	10/5/1
90	Foundation Construction	0%	30 days	10/5/2	10/5/31
91	Superstructure Design and BD Approval and Consent	60%	90 days	10/3/1	10/6/1
92	Supersturcture Construction including IC reactor	0%	76 days	10/6/1	10/8/15
93	Treatment Equipment Installation Works	0%	90 days	10/7/17	10/10/14
94	Process Equipment Installation Works.	0%	90 days	10/7/17	10/10/14
95	Building Service Installation Works	0%	45 days	10/8/16	10/9/29
96	Treatment Installation Testing	0%	30 days	10/10/15	10/11/13
97	Building Service Testing	0%	30 days	10/9/30	10/10/29
98	Fire Service Testing	0%	30 days	10/9/30	10/10/29
99					
100	**4A - Jetty**	**5%**	**549 days**	**10/2/10**	**11/8/12**
101	Piling Design, BD Approval and Consent	75%	90 days	10/2/10	10/5/10
102	Pile Cap Design, BD Approval and Consent	0%	90 days	10/3/12	10/6/9
103	Superstructure, BD Approval and Consent	0%	90 days	10/4/11	10/7/9
104	SI and Founding Level determination	0%	90 days	10/3/12	10/6/9



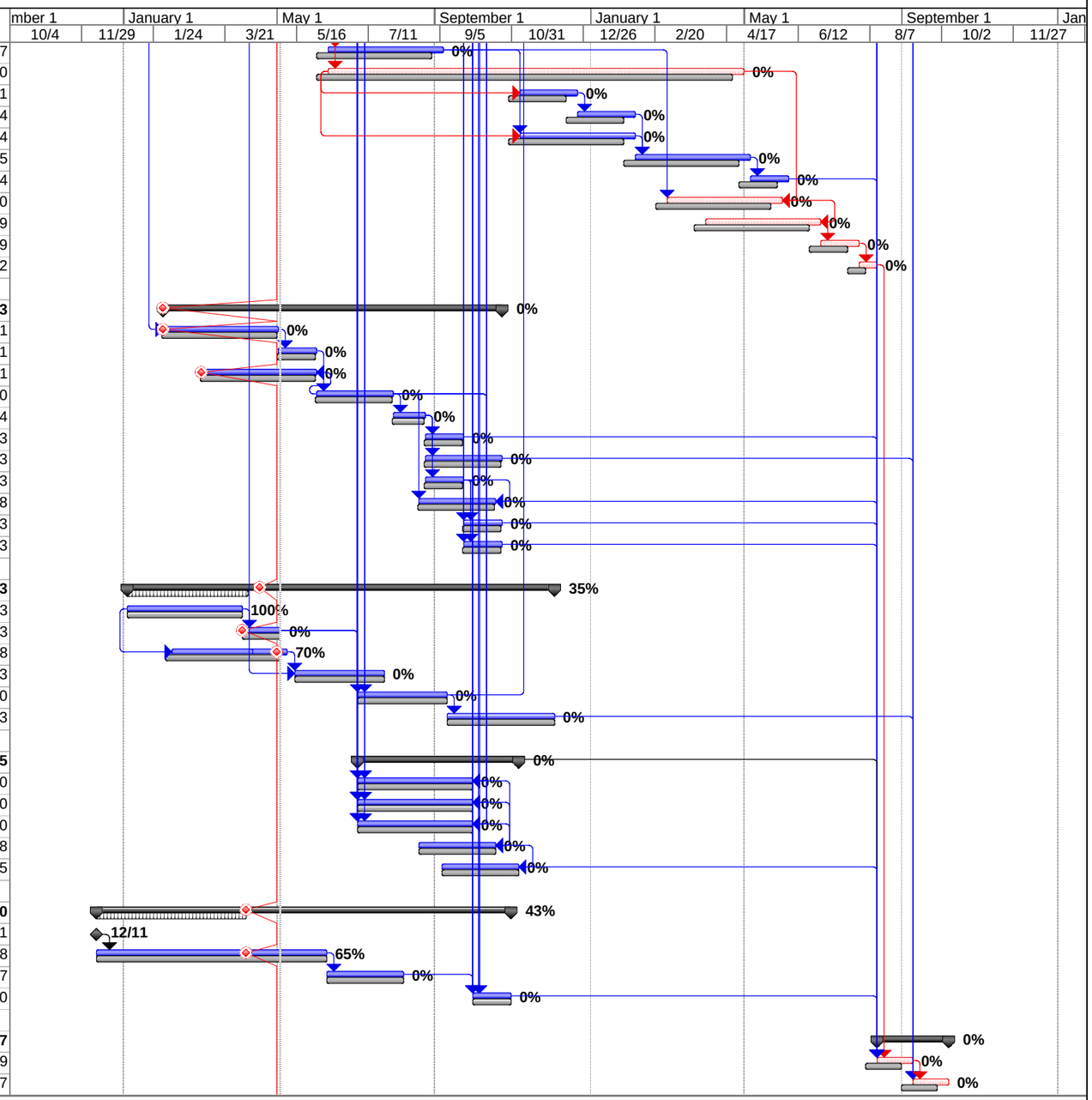
Project: TKO39-MP-R01-02 (Overview
Date: 10/5/3

Critical
Critical Split
Critical Progress
Task
Split
Task Progress
Baseline
Baseline Split
Baseline Milestone
Milestone
Summary Progress
Summary
Project Summary
External Tasks
External Milestone
Deadline

Data date:10/4/30

Proposed Bio-Diesel Plant at T.K.O.T. Lot No. 39
S.Q. ss.1, ss.2 and Ext. thereto Chun WangStreet, TKO Ind. Estate, Kln
3 Month Rolling Programme(April 2010 - June 2010)

ID	Task Name	% Complete	Duration	Start	Finish
105	Land Piling Works (assumed 3 nos)	0%	90 days	10/6/10	10/9/7
106	Marine Piling Works (assumed 2 set of equipment)	0%	325 days	10/6/10	11/4/30
107	FS Pump House Pile Cap Construction	0%	45 days	10/11/7	10/12/21
108	FS Pump House Supersturcture Works	0%	45 days	10/12/22	11/2/4
109	FS Pipe Bridge Works	0%	90 days	10/11/7	11/2/4
110	FS Pump House piping, E&M installation works	0%	90 days	11/2/5	11/5/5
111	FS Pump House Testing	0%	30 days	11/5/6	11/6/4
112	Jetty Pile Cap Construction	0%	90 days	11/3/2	11/5/30
113	Jetty Steel Works Construction	0%	90 days	11/4/1	11/6/29
114	Jetty Furniture, Lighting & Building Service Works	0%	30 days	11/6/30	11/7/29
115	Jetty E&M testing	0%	14 days	11/7/30	11/8/12
116					
117	**4B - Loading and Unloading Station**	**0%**	**265 days**	**10/2/1**	**10/10/23**
118	Foundation Design, BD Approval and Consent	0%	90 days	10/2/1	10/5/1
119	Foundation Construction	0%	30 days	10/5/2	10/5/31
120	Superstructure Design and BD Approval and Consent	0%	90 days	10/3/3	10/6/1
121	RC Structure Construction	0%	60 days	10/6/1	10/7/30
122	Steel Structure Construction	0%	25 days	10/7/31	10/8/24
123	Cladding Roof Installation	0%	30 days	10/8/25	10/9/23
124	Process Equipment Installation Works.	0%	60 days	10/8/25	10/10/23
125	Building Service Installation Works	0%	30 days	10/8/25	10/9/23
126	Finish Works	0%	60 days	10/8/20	10/10/18
127	Building Service Testing	0%	30 days	10/9/24	10/10/23
128	Fire Service Testing	0%	30 days	10/9/24	10/10/23
129					
130	**Pipe Bridge Works**	**35%**	**334 days**	**10/1/4**	**10/12/3**
131	Foundation Design, BD Approval and Consent	100%	90 days	10/1/4	10/4/3
132	Foundation Construction	0%	30 days	10/4/4	10/5/3
133	Superstructure Design and BD Approval and Consent	70%	90 days	10/2/8	10/5/8
134	Pipe Bridge at Tank Farm	0%	70 days	10/5/15	10/7/23
135	External Bridge Construction	0%	70 days	10/7/3	10/9/10
136	Pipe Installation	0%	84 days	10/9/11	10/12/3
137					
138	**External works**	**0%**	**126 days**	**10/7/3**	**10/11/5**
139	External Drainage Works.	0%	90 days	10/7/3	10/9/30
140	External Plumbing Works	0%	90 days	10/7/3	10/9/30
141	External Service Cable Works	0%	90 days	10/7/3	10/9/30
142	Boundary Wall	0%	60 days	10/8/20	10/10/18
143	Road Works	0%	60 days	10/9/7	10/11/5
144					
145	**Water Supply Works**	**43%**	**324 days**	**09/12/11**	**10/10/30**
146	Water Supply Application	100%	0 days	09/12/11	09/12/11
147	WSD XP Application	65%	180 days	09/12/11	10/6/8
148	WSD pipe laying works	0%	60 days	10/6/9	10/8/7
149	WSD inspection and installation of watermeter (WWO46)	0%	30 days	10/10/1	10/10/30
150					
151	**FS & OP Inspection**	**0%**	**56 days**	**11/8/13**	**11/10/7**
152	FS Inspection	0%	28 days	11/8/13	11/9/9
153	OP Inspection	0%	28 days	11/9/10	11/10/7



Project: TKO39-MP-R01-02 (Overview
Date: 10/5/3

Critical | Task | Baseline | Milestone | Project Summary | Deadline
Critical Split | Split | Baseline Split | Summary Progress | External Tasks
Critical Progress | Task Progress | Baseline Milestone | Summary | External Milestone

Data date:10/4/30