Environmental Monitoring Report

Semi-Annual Report (January to June 2013)
July 2013

VIE: Ho Chi Minh City-LongThanh-Dau Giay Expressway

Package No. 6

Prepared by the Hanshin Engineering & Construction Co., Ltd. for the Ministry of Transport of Vietnam, and the Asian Development Bank.

CURRENCY EQUIVALENTS
(as of 1 July 2013)

Currency unit	–	dong (D)
D1.00	=	$0.000047
$1.00	=	D21,170

NOTE

In this report, "$" refers to US dollars unless otherwise stated.

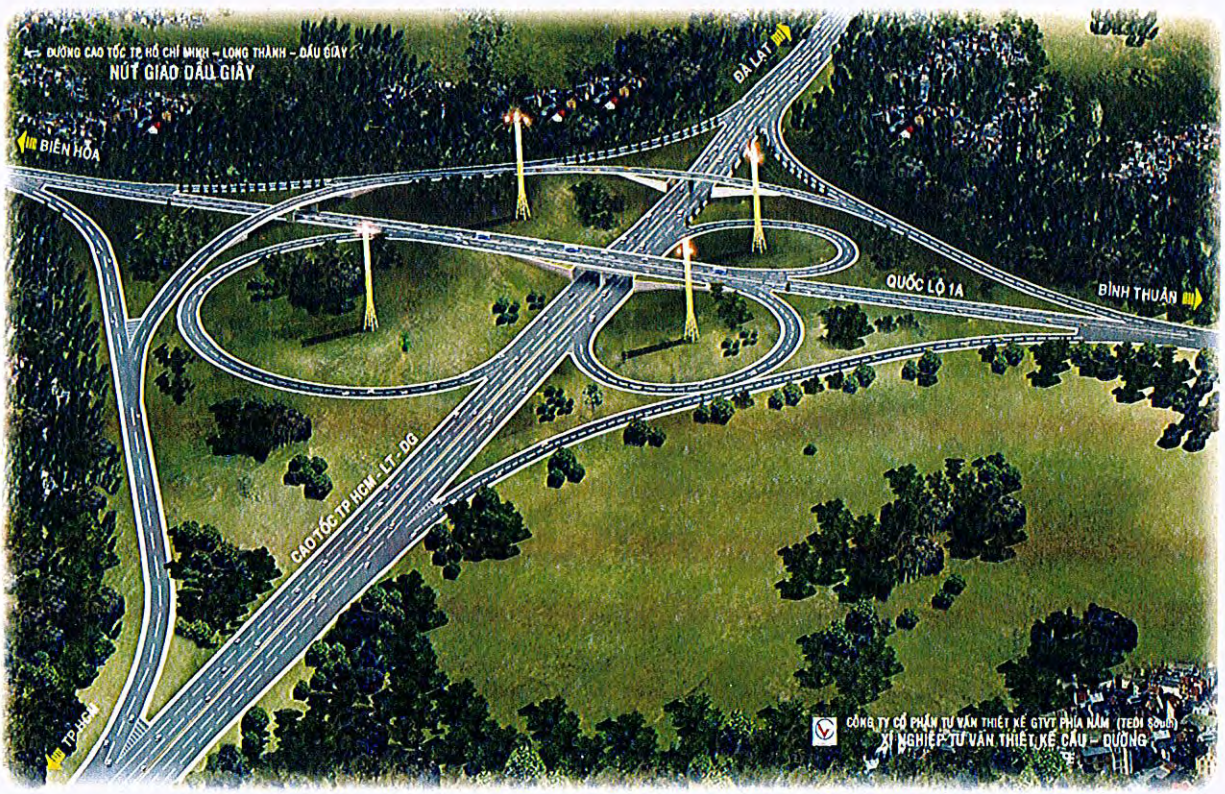
THE SOCIALIST REPUBLIC OF VIET NAM
MINITRY OF TRANSPORT

VIETNAM EXPRESSWAY CORPORATION
HOCHIMINH – LONG THANH – DAU GIAY EXPRESSWAY
PROJECT MANAGEMENT UNIT (HLD EPMU)

CDM SMITH INC (PSC)
LOAN ADB NO. 2451-VIE

HANSHIN Engineering & Construction

HO CHI MINH – LONG THANH – DAU DAY
EXPRESSWAY CONSTRUCTION PROJECT
PACKAGE NO.6



SEMI-ANNUAL ENVIRONMENTAL MANAGEMENT REPORT
(January – June 2013)

Hanshin
Engineering & Construction Co., Ltd

June, 2013

SEMI - ANNUAL ENVIRONMENTAL MANAGEMENT REPORT

(January – June 2013)

CONTRACTOR

	Prepared by	Checked by	Approved by
Name	HOANG MINH PHUONG	CHOI, DAE SOON	KIM, KYONG SOB
Signature			
Date	12th July 2013	1/07/2013	12/07/2013
Position	Environmental Specialist	Construction Manager	Project Manager

CONTENT

ABBREVIATIONS AND ACRONYMS

ADB	-	Asian Development Bank
JBIC	-	Japan Bank for International Cooperation
JICA	-	Japan International Cooperation Agency
VEC	-	Vietnam Expressway Corporation
EPMU HLD	-	Ho Chi Minh–Long Thanh–Dau Giay Expressway Project Management Unit
CDM SMITH	-	CDM Smith Inc – Project Supervision Consultant
PSC	-	Project Supervision Consultant
TCVN	-	Vietnamese Standard
QCVN	-	Vietnamese Regulation
DONRE	-	Department Of Natural Resources and Environment
MONRE	-	Ministry Of Natural Resources and Environment
EIA	-	Environmental Impact Assessment
UEMP	-	"Updated Environmental Management Plan – Final Report – June 2010" is supplied by the Employer
SEMP	-	"Site Environment Management Plan" is issued by the Contractor.
HCMC	-	Ho Chi Minh City

1: INTRODUCTION

1.1 Report Purpose

In the surrounding area of Ho Chi Minh City (HCMC), the traffic volume has long been over the capacity of road. It is foreseen that the demand of traffic in HCMC and Dong Nai area where industrial development has been recently significant with the planned development of industrial zones and the international airport will increase significantly.

The Government of Vietnam (GOV) has decided to construct the HCMC – Long Thanh - Dau Giay Expressway (HLD Expressway) with the assistance from Asian Development Bank (ADB) and Japan Bank for International Cooperation (JBIC), which was currently named as Japan International Cooperation Agency (JICA) by integrating with previous JICA.

The project area is divided in two sections that are funded by two sources. The section funded by JBIC extends from km 4+000 (at Ring Road 2) to km 23+900 (the intersection of National Highway No.51 at the southern end of Long Thanh). The section funded by ADB extends from Km 23+900 to the Dau Giay Interchange, where it meets National Highway No.1

Ho Chi Minh –Long Thanh –Dau Giay Expressway crosses thinly population density areas such as agricultural land and some high population density areas. Environmental Impact Assessment (EIA) has been implemented for environmental and social consideration according to the Vietnamese environmental law and regulations and JBIC and ADB guidelines for Environmental and Social Considerations and Regulations.

Implementation of Site Environmental Management Plan (SEMP) during construction and post-construction stages is necessary for sustainable development as well as to ensure the environmental protection in the road construction project.

The main purpose of the Semi-Annual Environmental Management Report (January 2013 – June 2013) is to summarize compliance with the environmental management activities by contractor of Package No.6.

The main objectives of this Semi-Annual Environmental Management Report are follows:

- ✓ Grasp the general environmental condition
- ✓ Identify the environmental impacts during the construction period and propose mitigation measures
- ✓ Summarize the result of environment inspection during construction period.
- ✓ Implementation of environmental monitoring in pre-construction.
- ✓ Implementation of environmental protection

1.2 Introduction about Package No.6

1.2.1. The Employer

Viet Nam Expressway Corporation (VEC)

Add: MITEC Tower, Block E2, Cau Giay New Urban Area, Yen Hoa Ward, Cau Giay District, Ha Noi City, Viet Nam

Tell: (04) 36.430.275 Fax: (04) 36.430.270

Ho Chi Minh - Long Thanh - Dau Giay Expressway Project Management Unit - EPMU HLD

Add: 35 – 36 – 37 Song Hanh Street, An Phu – An Khanh, District 2, HCMC, Viet Nam

Tell: (08) 62.811.795 – 62.811.796 Fax: (08) 62.811.797

1.2.2. Project Supervision Consultant - PSC

CDM Smith Inc

Add: Group 13, Hamlet 12, Long Duc Commune, Long Thanh District, Dong Nai Province, Viet Nam

Tel: (84-061) 2807001 Fax: (84-061) 2648868

1.2.3. Contractor Package No. 6

Hanshin Engineering & Construction Co., Ltd.

Management: Mr. Kim Kyong Sob Project Manager

Project Management Office:

Add: Hamlet 6, Road 25 Ward, Thong Nhat Dist., Dong Nai Province, Viet Nam

Tell: (84-61) 3.964.716/726/826 Fax: (84-61) 3.964.611

- **Construction Period**: 32 (thirty two) months
- **Extension period:**
- **Fund for the project: Asian Development Bank - ADB**
- **Project location of package 6:**

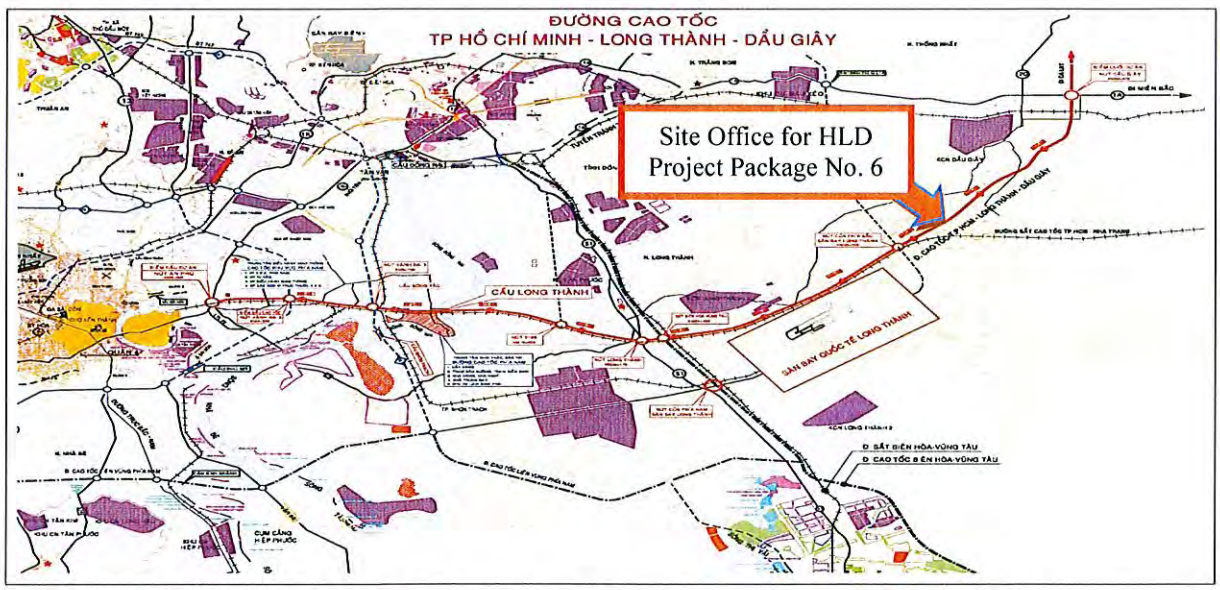


Figure 1.1. The Location of HLD Expressway Project Package No.6

1.2.4. Organization of Contractor Package No. 6

Chart of Organization & Pertinent Agencies

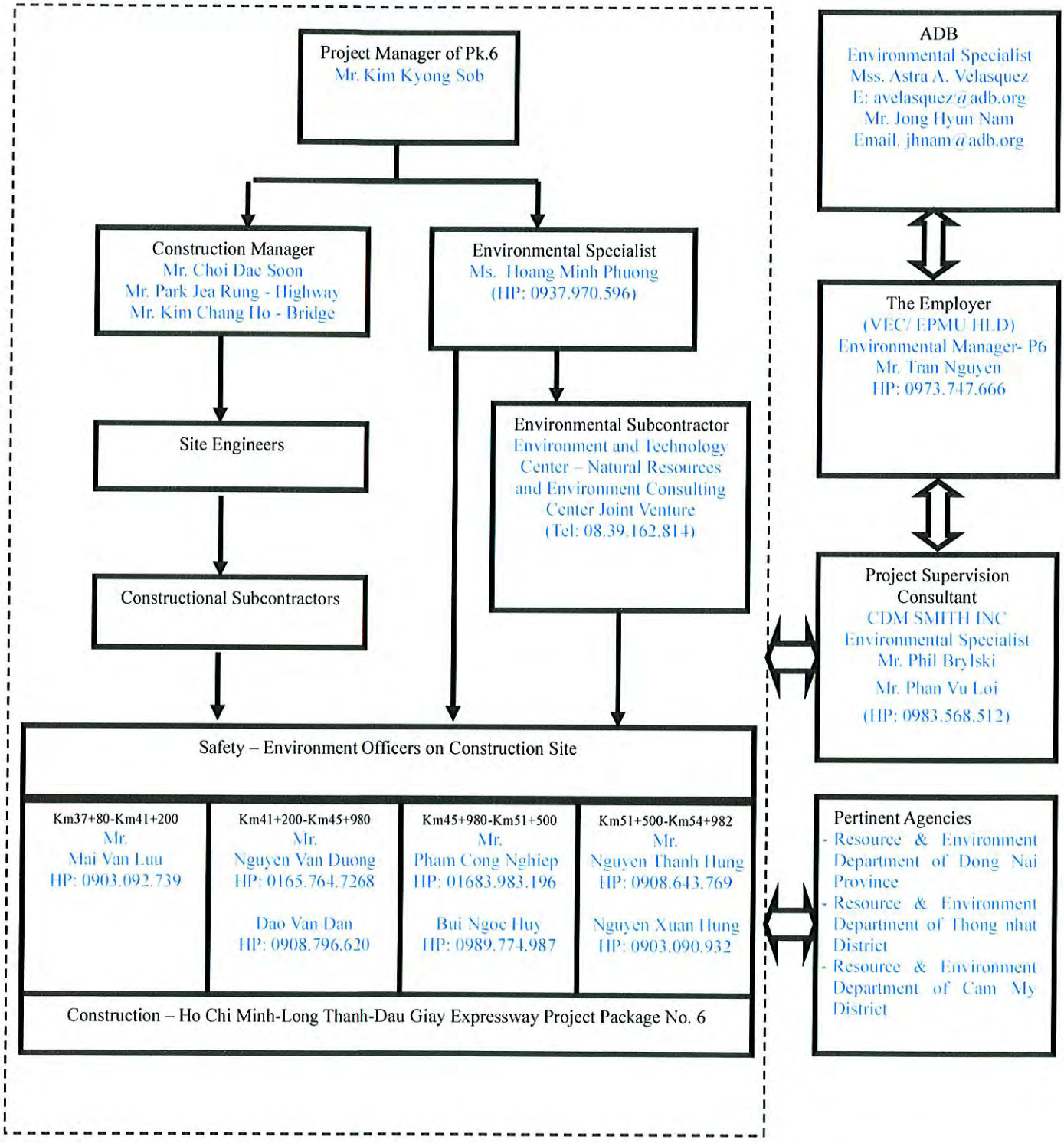


Figure 1.2. Chart of Organization & Pertinent Agencies

Table 1.1. The tasks, name and contact details of the individuals/ entities in the organizational chart above indicated follows:

INDIVIDUAL/ ENTITIES	RESPONSIBILITY	NAME	CONTACT
The Employer (VEC/ EPMU HLD)	- Supervise and check the "Environmental Monitoring Report" implementation and the environmental issues of Contractor. - Handing of complaints on environmental issues	**Environmental Manager of P.6** Mr. Tran Nguyen	HP: 0973.747.666 Email: nguyenvec@gmail.com
The Project Supervision Consultant - PSC (CDM SMITH INC)	- Check/clearance and review/approval all of the environmental issues of Contractor. - **Senior Environmental Specialist of PSC is responsible main on environmental education program.**	**Senior Environmental Specialist** Mr. Phil Brylski Mr. Phan Vu Loi	HP: 01245.471.786 Email: pbrylski@gmail.com HP: 0983.568.512 Email: loipv04@gmail.com
Pertinent Agencies (Regarding Environment Issue)	- Check the environment on site to ensure they meet EIA and SEMP. - Ensuring that necessary permits or authorizations are obtained.	Resource & Environment Department of Dong Nai Province	Dong Khoi Street, Tan Hiep Dist, Bien Hoa City, Dong Nai Province Phone: 061.3.895.668 Fax : 061.3.827.364
		Resource & Environment Department of Thong Nhat District	Add: Hung Loc Ward, Thong Nhat Dist, Dong Nai Province Phone: 061.3.771.025
		Resource & Environment Department of Cam My District	Add: Suoi Ca Hamlet, Long Giao Ward, Cam My Dist, Dong Nai Province Phone: 061.3.878.565
Contractor	- Implementation of individual mitigation measures and monitoring actions - Handing of complaints on environmental issues - Perform the environmental education program has given and approved by PSC		
Project Director	Manage entire work of package 6 and supply under-position to do their duty	Mr. Kim Kyong Sob	HP: 0933.856.529 Email: kskim@hanshinc.com
Construction Manager	Control all of the works on site.	Mr. Choi Dae Soon Mr. Kim Chang Ho- Bridge Mr. Park Jea Rung - Highway	HP:0932.435.808 Email: asd6321@hanshinc.com HP:0932.504.465 Email: krpark@hanshinc.com
Environmental Specialist	Manage environmental issues on the site and the office to ensure the environment protected during construction.	Ms. Hoang Minh Phuong	HP: 0937.970.596 Email: minhphuong265vungtau@yahoo.com
Site Engineers	Survey and inspection on site	Mr. Nguyen Xuan Lam	HP: 0986.974.113 Email: nxlam.1707@yahoo.com

Subcontractors			
Site Environment – Safety Staff	Check on construction site about safety – environment, and reports and related communication on SEMP implementation and compliance of contractor every day (such as: wear PPEs; barrier; protect fence; waste and watering for reduce dust, etc.).	Km37+80-Km41+200 Mr. Mai Van Luu	HP: 0903.092.739 Email: italyamyc@gmail.com
		Km41+200-Km45+980 Mr. Nguyen Van Duong Mr. Đao Van Dan	HP: 0165.764.7268 Email: vanduong@yahoo.com HP: 0908.796.620
		Km45+980-Km51+500 Mr. Pham Cong Nghiep Mr. Bui Ngoc Huy	HP: 01683.983.196 Email: thienphuxdgt@yahoo.com HP: 0989.774.987 Email: ngochuygtvt@gmail.com
		Km51+500-Km54+982 Mr. Nguyen Thanh Hung Mr. Nguyen Xuan Hung	HP: 0908.643.769 Email: hoangtuankhang248@yahoo.com HP: 0903.090.932 Email: hungnguyennh59@gmail.com
Environmental Subcontractor	Monitor the environment on site, sampling and make the environmental report based on environmental monitoring result (Quarterly)	Environment and Technology Centre – Natural Resources and Environment Consulting Centre Joint Venture Mr. Ton That Lang - Director	20 street 4, ward 15, Go Vap Dist, HCMC Phone: 08.39.162.814 Email: ttlang@hcm.vnn.vn

1.2.5. Venue construction of Contractor Package No. 6

The total length of package 6 is 17.2 km, from km37+800 to km54+982 and includes nine bridges (Suoi Sau, Suoi Ram, Song Nhan, Railway flyover, Dau Giay, Thong Nhat; Overpass No. 01, Overpass No. 02, Overpass No. 03) and seven underpasses.

1.3 Project Implementation Progress and Change in Project Scope

1.3.1 Project Implementation Progress

The construction progress of package 6 until 20th of June 2013 is described as follows

I. General Works

* Site Clearance
* Construction and maintain Service Roads, Temporary Bridge
* Earthworks (Embankment, construction of sub grade and capping layer …)
* Construction of sub base layer
* Casting Super T at Long An 620 Casting yard.
* Construction of Substructure of Pier & Abutment for Bridges
* Construction of super structure for Bridges
* Fabrication and installation of railing for bridge
* Casting side ditch U50, U35 at Long An 620 and Gia Phuoc casting yard

* Casting beam and pre cast slab for slope protection at yard
* Design and submit Construction Drawings
* Laboratory work

II. Status of Site Handover and Obstacles

- Unsettled land acquisition for cutting area: Km48+980 ~ Km49+120; Underpass Km52+140 for approach road, remained 30 households in Dau Giay Interchange.
- Rubber tree area:

✓ Toll Plaza

- At Km51+200~Km51+300: Local people complaint regarding to crossing Expressway, waiting decision from Employer.
- Remaining Obstacles:

✓ Road trace: 12 nos of local power electric lines and 11 nos of low voltage power poles.

III. Design works

- Resubmission of Working Drawing for Approach Roads Overpass & Toll Plaza Km 52+300 (Rev 01).
- Resubmission of 06 Sets of Working Drawing for Retaining Wall at Service Area.
- Submission 04 Sets of Working Drawing for 10m Road after Abutment for Overpass No 1, 2, 3.
- Proposal for Designing Longitudinal Profile-NH1A at Dau Giay Interchange.
- Resubmission of Working Drawing for Lighting and Power Supply System (Rev 01).
- Resubmission of Working Drawing for Drainage at Service area.

IV. Earth Work

* Expressway:
  - Excavation
  - Embankment for shoulder
  - Cutting slope
  - Construction and compaction of sub grade & Capping layer
  - Temporary ditch to prevent erosion of slope
* Service road
  - Repaired and maintenance of service road
* Box culvert, technical culvert and underpass
  - Back filling granular for box culvert, technical culvert and underpass
* Construction of Sub grade layer:
  - Completed except Ramp ways at interchange (Remain: Ramp way A1 - Km0+000 ~ Km1+219; Ram way A2 – Km0+000 ~ Km0+400; Ramp way D1 & Ramp way D2 – Km0+500 ~ Km1+020).
* Construction of capping layer:
  - Table Quantity for capping layer:

Sec.	Unit	Total quantity	Previous	Target last month	This month	Accumulate	Remain Quantity	% completed
1	cu.m	26,461	16,356	43,574	4,223	20,579	5,882	77,77
2	cu.m	28,731	17,536		2,915	20,451	8,280	71,18
3-1	cu.m	9,845	9,845		0	9,845	0	100
3-2	cu.m	30,599	25,760		2,460	28,220	2,379	92,23
4-1	cu.m	16,924	2,000		3,630	5,630	11,294	30,96
4-2	cu.m	14,623	12,712		0	12,712	1,911	86,93
Total		**127,183**	**84,209**	**43,574**	**13,228**	**97,437**	**29,746**	**76,61**

Sub-Base and Base Courses

1) Production of Aggregate work:

- Operation of crusher: 03 crushers are operating.
- Table Quantity of Sub base and Base Material.

Type of material		Total (cu.m)	Previous	Target last month	This month	Accumulate	Remain Quantity	%
Sub base	Production	179,771	150,728	21,000	13,127	163,855	16,644	91,15
	Inspection and acceptance		141,000	20,000	10,000	151,000	28,771	84,00
Base	Production	144,865	5,255		0	5,255	139,61	3,63
	Inspection and acceptance		0		0	0	144,865	0,00

2) Construction of base and sub base

- Spreading and compaction material for sub base.
- Table quantity for construction of sub base

Section	Unit	Total quantity	Previous	Target last month	This month	Accumulate	Remain Quantity	%
Km37+800 ~ Km40+655	cu.m	34,206	0	20,000	0	0	34,206	0
Km40+655 ~ Km45+333	cu.m	43,629	2,335		5,548	7,883	35,746	18,07
Km45+333 ~ Km49+385	cu.m	35,340	1,974		9,224	11,198	24,142	31,69
Km49+385 ~ Km53+730	cu.m	37,156	0		0	0	37,156	0,00
Km53+730 ~ Km54+983	cu.m	7,927	0		0	0	7,927	0,00
Ramp way and NH 1A at DG Interchange	cu.m	18,193	0		1,883	1,883	16,310	10,35
10m for 09 bridges	cu.m	1,513	0		0	0	1,513	0,00
Total		**177,964**	**4,309**	**20,000**	**16,655**	**20,964**	**157,000**	**11,78**

Drainage Work

- Casting precast side ditch: Completed production of precast side ditch for U35, U50.
- Installation of side ditch:

Type	Total (lm)	Previous	Target last month	This Month	Accumulate	Remain Quantity	%
Side Ditch – U35	4,484.5	0	0	0	0		
Side Ditch – U35C	1,592.31	0	0	0	0		
Side Ditch – U50	14,149.0	1,378	5,000	3,462	4,840	9,309	34,21
Top Ditch – V50	4,838.0	0	0	0	0		

Slope protection:

1) **Production of beam:**

Casting precast beam:

Type		Total (Nos)	Previous	Target last Month	This Month	Accumulate	Remain Quantity	%
Type 1	PC Beam Type 1	235,619	201,176	0	77	201,253	34,366	85,41
	PC Beam Type 2	14,714	11,844	0	0	11,844	2,870	80,49
Type 2	PC Slab	207,164		0			207,164	0,00
	PC Beam Type 1	6,474	144	0	1,277	1,421	5,053	78,05
	PC Beam Type 2	26		0			26	0,00

2) **Construction of Slope protection:**

- Installation of beam for slope protection
- Table quantity of slope protection

Type	Total quantity (sq.m)	Last month	Target last month	This month	Accumulate	Remain Quantity	%
Slope protection type 1	156,705	1,063	12,000	1,820	2,833	153,872	1,81
Slope protection type 2	42,730						
Total	199,435						

V. Bridge Work:

1) Suoi Sau bridge:
   - A1, A2: Embankment quarter cone and clay layer.
   - A1, A2: Casting concrete for railing and wing wall
   - Surface treatment for railing
   - P1: Placed Riprap
2) Suoi Ram bridge:
   - A1, A2: Backfilling and Embankment for quarter cone
   - A1L, A2L: Casting concrete for approach slab
3) Song Nhan Bridge :
   - A1, A2: Backfilling of abutment

- A1, A2: Embankment for quarter cone.
- A1L: Approach slab casting concrete
- A1, A2: Casting concrete for wing wall and railing
- Installation of rebar, formwork and casting concrete for railing

4) Railway Flyover Bridge:
   - Surface treatment of railing
   - Fabrication of drainage pipe
5) Overpass No.01
   - A1, A2: Backfilling
   - Launching super T girder: 08/08 Nos
   - A1, A2: Casting concrete for parapet
   - Casting concrete for cross beam
6) Overpass No.02
   - A1, A2: Backfilling
   - A1, A2: Casting concrete for parapet and wing wall
   - Installation of rebar, formwork and casting concrete for railing
   - Load test for Hollow slab
7) Overpass No.03
   - Surface treatment for railing.
8) Thong Nhat Bridge
   - Mobilized Scaffolding and formwork
   - Compaction of aggregate for construction of Box girder
9) Dau Giay Bridge
   - Fabrication of super T girder: 02 Nos (Completed)
   - Structural excavation for bored pile work.
   - A1-7R A1-3L: Drilling, installation of steel cage and casting concrete for bored pile
   - A1-1R: Drilling for bored pile
10) Fabrication of Girder: Completed
11) Curb

Type	Total (Nos)	Previous	Target last month	This month	Accumulate	Remain Quantity	%
Curb (1m)	31,818	12,920	6,000	5,480	18,400	13,418	57,83

VI. Box Culvert

* Laying PC Box Culvert:
  - 34 locations completed (27 Box culverts, 7 Technical culverts)/Total 34 locations.
  - Construction at Km44+633: Completed structural work and backfilling granular.
* Cast in situ: 10 locations completed.

VII. Pipe Culvert

- Laying Pipe Culvert: Completed

VIII. Underpass Culvert

* Casting concrete: Completed 06 locations and Km39+400 is ongoing.
* Piles load test

IX. Lighting and electrical Works

* Installation of Steel Conduit D80 mm Protect at Cable Crossroad

X. Others

* Watering for reduce dust on the dry season.
* Construction and maintenance Service road.

1.3.2 Changes in project scope

HLD Expressway construction project with total length of about 55km, is divided into 2 parts; Part 1: From An Phu Intersection (beginning point) to Ring Road 2 intersection (Km4+000) will be constructed as urban road. This section is funded by Hochiminh City People Committee; Part 2: From Ring Road 2 intersection (Km4+000) to Dau Giay Intersection (ending point). The Project scope is summarized in following table.

Table 1.2. Project Scope

SECTION	DISTANCE (KM)
Ring Road 2 intersection to NH-51 interchange (JICA portion); Km4+000 to Km23+900	19.900 km
NH-51 interchange to Dau Giay interchange (ADB portion); Km23+900 to Km54+982	31.082 km
Total	50.982 km

Change in project scope:

- Nothing to change in project scope.

2: INCORPORATION OF ENVIRONMENTAL REQUIREMENTS INTO PROJECT CONTRACTUAL ARRANGEMENTS

2.1 Incorporation of Environmental Requirements into Project Contractual Arrangements

Environmental requirements were incorporated into Volume 3. General Specification of contract document. Which requires the construction contractors comply with environmental regulations and protection as summarized below:

- The Contractor submitted an Site Environmental Management Plan (SEMP) detailing how he intends to comply with applicable local laws and regulations concerning protection of the environment and the attached specification for environmental monitoring.
- The contractor implemented environmental monitoring program which shall be implemented in two phases: prior to the start of construction and during construction. The first phase is required to provide baseline data on environmental quality in the Project area, in particular for houses adjacent to areas of the works. Monitoring programs in the construction phase are required to collect data and evaluate the impact of the Project and the effectiveness of the Contractor's mitigation measures.
- The Contractor strictly complies with Vietnamese Laws and Standards regarding the environment on all works associated with the Contract.
- The Contractor shall be responsible for implementing and managing mitigation measures during the construction of the Works. The recommended mitigation measures including measure for air quality, noise and vibration, water environment, waste management, impacts on traffic.
- **Subcontracts have been signed during the reporting period that have incorporated the environmental mitigation measures into the subcontractors work plan, such as:**
  - Waste Collection Contract
  - Minutes of use of water well with local resident
  - Book of registration for the waste source owner of hazardous waste.
  - Permit for underground water exploitation.
  - Taking and testing sample of Quarterly Environment Monitoring

Regulations:

- Law on Environmental Protection No 52/2005/QH11 on Nov. 29th 2005
- Decree No. 80/2006/NĐ-CP on August 9th 2006, Subject "The Guidelines on Implementation of Law on Environment Protection"

- Decree No. 68/2005/NĐ-CP on May 20th 2005, Subject to Chemical Safety
- Decree No. 59/2007/NĐ-CP on April 9th 2007, Subject to Management of Solid Waste
- Decree No. 177/2009/NĐ-CP on Dec. 31st 2009, Subject to "Handling of Law Violations in the field of the Environmental Protection"
- Circular No. 12/2006/TT-BTNMT on Dec. 26th 2006, Subject to "The Guidelines on Operation Conditions and Code, Inventory, Registration, Approval for Hazardous Wastes"
- Decision No. 23/2006/QĐ-BTNMT on Dec. 25th 2006, Subject to Promulgation of the List of Hazardous Wastes
- Decision No. 3733/2002/QĐ-BYT on Oct. 10th 2002, Subject to Workplace Sanitation and Safety Regulations and Standards
- Decision 2525/2003/QĐ-BGTVT on August 28th 2003, Subject to Regulations on the Construction Activities on in-use roads
- Decision No. 22/2006/QĐ-BTNMT on Dec. 17th 2006, Subject to "Application of Vietnamese Environmental Standards"

Regulations and Standards about Environment

Air Quality

- QCVN 05/2009/BTNMT. National technical regulation on ambient air quality.
- QCVN 06/2008/BTNMT. National technical regulation on certain hazardous.

Noise and Vibration Quality

- QCVN 26/2010/BTNMT. National technical regulation on Noise.
- QCVN 27/2010/BTNMT. National technical regulation on Vibration.

Water Quality

- QCVN 08/2008/BTNMT. National Technical Regulation on Surface Water Quality
- QCVN 09/2008/BTNMT. National Technical Regulation on Under Ground Water Quality
- QCVN 14/2008/BTNMT. National Technical Regulation on Waste Water Quality

Hazardous Substances

- Circular No. 12/2011/TT-BTNMT on Dec. 26th 2011. "Hazardous Waste Management"

Waste

- Decree No. 59/2007/NĐ-CP on April 9th 2007. "Solid Waste Management"

2.2 Implementation arrangement of Site Environment Management Plan - SEMP

The SEMP including the explanation of baseline condition at pre-construction and potential impacts and mitigation measures at construction stage and operation stage

EMP has been prepared to monitor the environmental impacts and implement the appropriate mitigation measures during construction and operation stages as required in the EIA. The frameworks of management are described in the following figure:

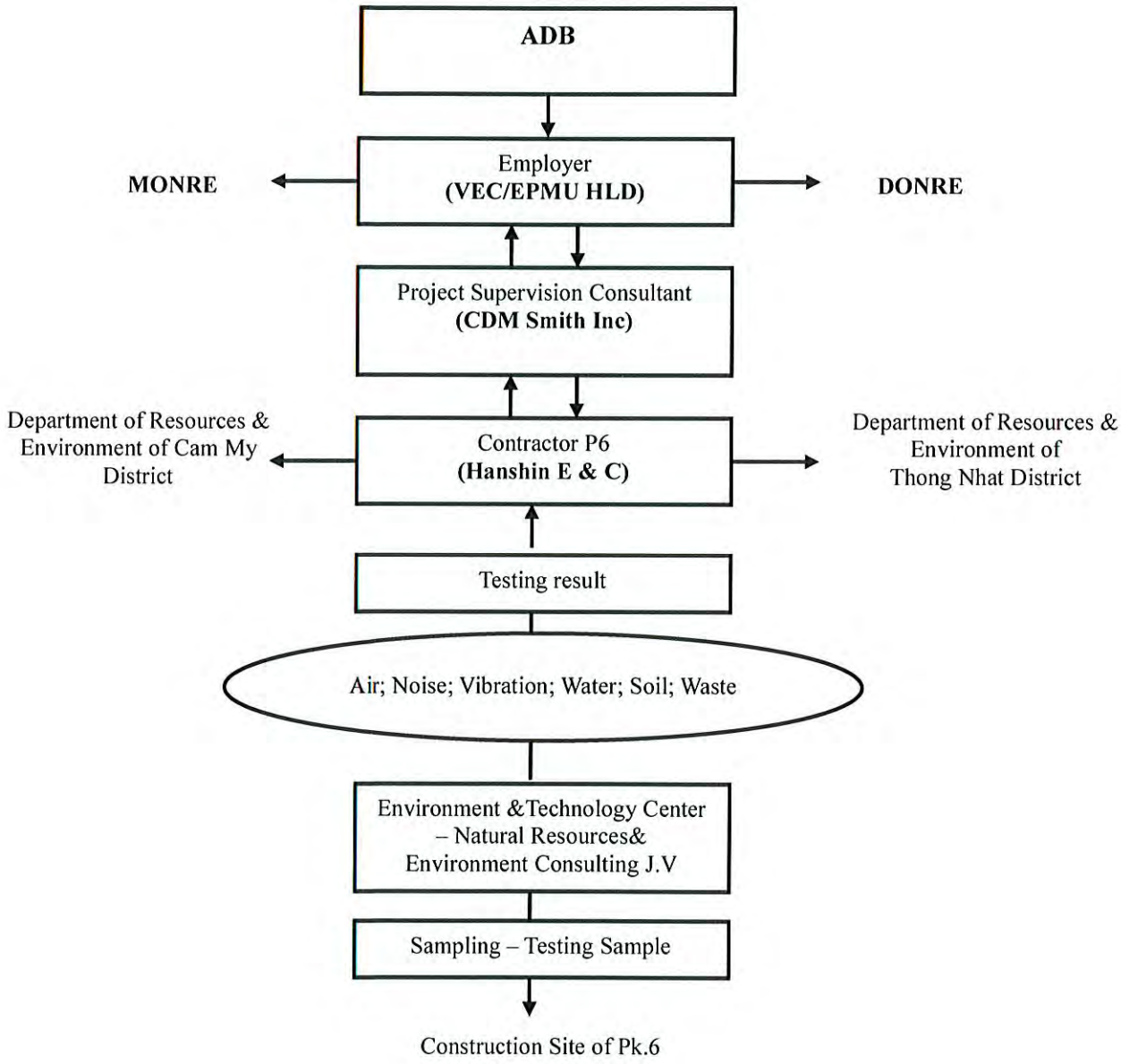


Figure 2.3 Framework of organizations regarding environmental management of PK.6

3: SUMMARY OF ENVIRONMENTAL MITIGATIONS AND COMPLIANCE WITH "UEMP – June 2010"

MITIGATION MEASURES	COMPLIANCE ATTAINED	REMARK
1. Over-all		
Prepare and implement a site-specific environment management plan - SEMP	Good	- SEMP's approved by ADB's specialist via email. - Waiting for official consent letter by ADB's specialist.
2. Air quality Reduction of air pollution from construction activities		
Dust suppression measures including but not limited to the following will be implemented: ✓ Stockpiles of sand and aggregate greater than 20 cubic meters ($20m^3$) for use in concrete manufacture shall be enclosed on three sides, with walls extending above the pile and two meters (2m) beyond the front of the piles. Locations should be indicated by the accompanying site plan(s). ✓ Effective water sprays are used during the delivery and handling of all raw sand and aggregate, and other similar materials, when dust is likely to be created and to dampen all stored materials during dry and windy weather. ✓ Areas of reclamation is completed, including final compaction, as quickly as possible consistent with good practice to limit the creation of wind blown dust. ✓ All equipment and machinery on the site are checked at least weekly and all necessary corrections and or repairs made to ensure compliance with safety and air pollution requirements.	Good	- Compliamce with the requirement into « UEMP – June 2010 »
To prevent impacts of vehicle operation the following requirements shall be applied: ✓ All roads within the construction areas of the site are watered at least twice each day, and more if necessary to control dust to the satisfaction of the Environment and Safety Staff of contractor on site. ✓ Areas within the site where there is a regular movement of vehicles have an acceptable hard surface and be kept clear of loose surface material. Locations should be indicated by the accompanying site plan(s). ✓ Ensure that vehicles and machinery are used and maintained properly to meet applicable emission standards. Fuel-efficient vehicles are preferred. ✓ All vehicles, while parked on the site, will be required to have their engines turned off. ✓ Any vehicles with an open load carrying area used for moving potentially dust-producing materials shall have properly fitting side and tailboards. ✓ Ensure that employees are trained on the proper use and maintenance of machinery and vehicles. Use dust suppression measures: cover and wet loads, limit the speed for vehicles	Good	- Mobilized more water trucks on site (each section /one) on during the dry season. - Watering on service road at least four times each day on during the dry season.

transporting construction materials, select suitable transport routes and vehicles, and water roads and other open areas regularly. ✓ Limit traffic congestion through planning of transportations in coordination with local officials. Conduct regular site inspections to ensure the use of best practices and report any complaints from local people.		
Measures to control air quality impacts arising from concrete batch plant operation are as follows: ✓ Dust nuisance as a result of its activities will be avoided. ✓ Install a three-sided roofed enclosure with a flexible curtain across the entry where dusty materials are being discharged to vehicles from a conveying system at a fixed transfer point. Install exhaust fans for this enclosure and vented to a suitable fabric filter system. ✓ Materials having the potential to create dust is not loaded to a level higher than the side and tail boards, and is covered by a clean tarpaulin in good condition. ✓ The concrete batching plant and crushing plant sites and ancillary areas must be frequently cleaned and watered to minimize any dust emissions. The plants are not located within 1000m of settlements, schools, health facilities and other sensitive sites. The contractor provided VEC/EPMU HLD and PSC – CDM Smith a map on the location of plants prior to the beginning of construction works for approval. Dust suppression and other air pollution control measures are used in the plants to minimize emission levels. ✓ Dry mix batching is carried out in a totally enclosed area with exhaust to suitable fabric filters. ✓ Conveyor belts are fitted with wind-boards, and conveyor transfer points and hopper discharge areas shall be enclosed to minimize dust emission. All conveyors carrying materials that have the potential to create dust shall be totally enclosed and fitted with belt cleaners. Locations should be indicated by the accompanying site plan(s). ✓ The Contractor clean and water frequently the concrete batch plant and adjoining area to control dust emissions. ✓ A suitable air pollution control system must be in place when the batch plant is in operation. Regarding mitigation measures for dust control, the Contractor minimize the area of bare ground during the construction period and use temporary surface protection measures. As a routine procedure, water spraying is provided on the Construction site, especially on the access roads.	Good	- Compliamce with the requirement into «UEMP – June 2010» - Frequently clearance and watering for dust prevent on during season.
3. Water quality Wastewater from mixing materials is drained to a separate collecting system, and processed by sediment traps before release to the public drainage system. Mud from drilling is collected and processed to avoid pollution of surface water. Drilling solutions for performing the abutment is processed in a closed system, especially for abutments at the riverbed.	Good	- Compliamce with the requirement into « UEMP – June 2010 »

Inner-lined drill holes will be used during piling. Proper drainage systems are provided at all construction, material exploitation, and storage sites. All existing stream courses and drains within, and adjacent to, the site is kept safe and free from any debris and any excavated materials arising from the works. Chemicals, sanitary wastewater, spoil, waste oil and concrete agitator washings is not be deposited in the watercourses All water and waste products arising on the site is collected, removed from the site via a suitable and properly designed temporary drainage system and disposed of at a location and in a manner that will cause neither pollution nor nuisance. The Contractor ensure that construction camps and other potential sources of secondary impacts are properly sited and provided with drainage and wastewater facilities. Hygiene bathrooms are set up at all construction camp sites and septic tanks are used to treat wastewater. Proper drainage is provided to avoid creation of stagnant water bodies. Extraction of sand and gravel in river beds will be prohibited except: ✓ Where there is no technically and economically feasible alternative, and ✓ Provided specific mitigation measures are implemented to minimize impacts on river morphology, water quality (e.g. turbidity), and ecosystems (e.g. reduced extraction during fish spawning period). Equipment and vehicle maintenance area are provided with adequate drainage facility as well as oil and grease separator to avoid discharge of oil-laden water into the surrounding soil and water courses. Drainage works will be constructed, maintained, removed and reinstated as necessary and all other precautions taken, as necessary, for the avoidance of damage by flooding and silt washed down from the works. Adequate precautions will be taken to ensure that no spoil or debris of any kind is allowed to be pushed, washed down, fallen or be deposited on land adjacent to the site. Stockpiles will not be located near rivers and streams. Dumping of spoils and obstruction of flows along rivers and streams will be avoided. Downstream slopes are stabilized, where warranted, with concrete, rock gabions or walls to avoid erosion. Prepare emergency response plan in case of fuel and chemical spills		
4. Loss of water resources Any source of water (potable or otherwise) for the community, such as wells, ponds or tube wells, accidentally lost will be replaced immediately. The location and sitting of the replaced source of water will be as per design or as directed by the engineer. In general, there should be only lateral displacement (of the new site from the old); the replacement will be ready prior to demolition/dismantling of the existing source.	Good	- Not arised this matter yet
5. Noise and vibration Vehicles and machinery must be used, maintained and equipped so	Good	- Compliamce with the requirement into « UEMP

as to avoid unnecessary noise and vibration. Plants must be located away from sensitive areas and noisy construction work, such as crushing, concrete mixing and batching must be done during daylight hours. Use of machines causing loud noise and vibration (drill, excavator etc.) is prohibited between 23 pm and 5 am. If night-time construction is necessary, the contractor will apply for a permit from local authorities and inform residents about coming works beforehand. At residential areas, temporary noise walls or boards will be used to minimize noise impacts from construction activities near schools, temples, clinics etc. The contractor will specify the locations and type of temporary noise walls before beginning of construction. Ensure that local authorities and residents are notified in advance about disturbing activities, such as blasting operations. The effectiveness of mitigation activities will be monitored regularly through noise level measuring. Be responsible for repairing any damage caused as the result of vibrations generated from or by the use of his equipment, plant, and machinery. Erect temporary noise barriers where schools and other potentially sensitive receptors (as identified during consultation with local residents) are within 50 meters of construction activities. Temporary barriers of sufficient height with skid footings and a cantilevered upper portion will be erected within a short distance from stationary plants, and at practicable distances from mobile plants. The minimum effective height of the noise barriers should be as such that no part of the noise sources associated with the operation of construction machinery should be visible from the target receptors to be protected. The locations of the temporary noise barriers shall be adjusted where and when necessary taking into consideration the locations and type of receptor involved and the machinery intended to be protected. Use of the proposed noise barriers, as other construction site equipment, should take into account the following standard requirements: ✓ A minimum of 4.5 meter wide thoroughfare with not less than 4.5 meter vertical clearance to be maintained at all times for the free passage of fire appliances; ✓ The barrier shall not be located where it prevents access to community facilities, residential areas, and places of work or access routes. ✓ Ensure that the use of noise sources (i.e., aggregate crushers, operators, etc.) will be avoided as much as possible near sensitive receptors. Non-vibratory rollers (for compaction) will be used near sensitive receptors such as schools and cultural resources. ✓ Ensure that all exhaust systems will be maintained in good working order; properly designed engine enclosures and intake silencers will be employed; and regular equipment maintenance will be undertaken. ✓ Ensure that stationary equipment will be placed as far from sensitive land uses as practical; selected to minimize		– June 2010 »

objectionable noise impacts; and provided with shielding mechanisms where possible.		
6. Waste Waste from construction activities, including the demolishing of structures before the construction itself begins, must be collected and recycled when possible. The contractor establish hygienic groups to collect waste from construction camp sites and to ensure the cleanliness of the whole construction area. The contractor also co-operate with local authorities or companies to organize the waste collection and specify the measures in the SEMP. The SEMP always is updated during detailed design and require that contractors be responsible for spoil disposal in a manner consistent with a SEMP that they are required to prepare prior to any construction work. Spoils from the works only is disposed of in selected locations to avoid any adverse impacts to water or soil quality. The locations must specified by the contractor in the site-specific SEMP before the beginning of construction activities. The contractor also obtain permission from the authorities to dispose any surplus material or other spoils from the works.	Good	- Unsuitable soil removed from the alignment is given to owners of a agricultural land in the vicinity. - Waste collection contract with waste collection company's approved by local authorities - Installed more recycle bins at proper position and easily see on site. - Oil from routine maintenance of vehicles and heavy equipment is collected and recycled. - ***Detailed assessment of oil and grease spills is attached at Appendix 1***
7. Handling of hazardous and toxic materials During the construction, fuels, oil, and other dangerous chemical substances is transported, stored and handled at the site. If adequate mitigation measures are not used, there is a risk of spills into the surrounding area. The contractor apply for appropriate permits for the transport and handling of hazardous materials and prepare an emergency and contingency plan for fuel and oil spillage. Fuel storage sites is located away from water bodies on a cement pavement with a surrounding canal leading to an oil and grease separator to facilitate the capture and removal of spilled oil. The contractor also ensures that employees are trained on handling hazardous materials. Fuel storage sites is located away from water bodies on a cement pavement with embankment. A canal leading to an oil and grease separator is installed to facilitate the capture and removal of spilled oil. Use and maintain vehicles and machinery properly to avoid accidental spills.	Good	- Oil from routine maintenance of vehicles and heavy equipment is collected and recycled.
8. Soil		
Contamination of soil Use good housekeeping practices to avoid any contamination of soil from solid wastes, wastewater and hazardous materials. All wastes must disposed in designated disposal sites approved by local authorities. Ensure all workers are aware of the importance of careful handling of hazardous and dangerous materials. Prepare emergency plans for accidents.	Good	- Unsuitable soil removed from the alignment is given to owners of a agricultural land in the vicinity.
Spoils disposal Waste from construction activities, including the demolishing of structures before the construction itself begins, must be collected and recycled when possible. Establish hygienic groups to collect waste from construction camp	Good	- Top soil removed from the alignment is given to owners of a agricultural land in the vicinity. - Waste collection contract

sites and to ensure the cleanliness of the whole construction area. Spoils from the works will only be disposed of in selected locations approved by local authorities. Disposal is not cause adverse impacts to water and soil quality as well as land use. The locations of spoils disposal sites is specified by the contractor in the SEMP before the beginning of construction activities.		with waste collection company's approved by local authorities
Erosion Provide temporary or permanent drainage to protect sites susceptible to erosion. Stabilize downstream slopes on rivers and streams prone to erosion problems. Protect sensitive surface/erosion prone sites with vegetation and replace removed trees to ensure interception of rainwater and deceleration of surface runoff as soon as possible after construction works. On streams, downstream slopes can be stabilized with concrete, rock gabions or walls as seen necessary. Careful stockpiling of topsoil in suitable locations to prevent these from being washed away. Specify the erosion protection measures to be used in the SEMP	Good	- Installing beams for slope protection on site. - Mobilized and installed precast site ditch on site.
9. Loss of vegetation cover Minimize the clearing of vegetation for construction activities and borrow areas. Re-vegetate embankment slopes and road cuts. Landscape road verges and plant vegetation to contribute to aesthetic value. Where roadside trees are lost as a result of construction activities, the Contractor shall replant trees as a ratio of one-to-one. Where trees is replaced at the roadside due to a lack of roadside space, the Contractor consult with affected residents to determine an appropriate alternative planting location and schedule. The Contractor is responsible for all works associated with tree planting including maintenance of the trees for a one-year period after planting.	Good	
10. Changes in Hydrological Situation and Irrigation systems Temporary drainage is established along the expressway to avoid inundation during construction. The contractor ensure that activities are not cause disruption of irrigation into surrounding croplands and that damaged irrigation facilities are repaired immediately. The Contractor ensure irrigation channels diverted during the construction phase is returned to their original status. Where this is not possible, or where channels are irrevocably altered, consultation will be held with landowners to ensure that an adequate redesign is undertaken to ensure that irrigation channels are returned as closely as possible to their former layout. The Contractor undertake all necessary works to achieve this status, including provision of labor.	Good	- Few sections were mudded in rainy season, installed more temporary culvert. - At those locations, installed more culvert for water go out. - Temporary drainage has been established along the expressway to manage surface runoff during the rainy season.
11. Traffic conditions and use of waterways Contractor to formulate and implement a traffic management plan minimizing the disturbance caused by construction activities. The	Good	- Deployed for Ensuring Road Traffic Control at Interchange with NH1A.

plan explain the means and methods to be taken for proper and adequate control of traffic during the course of the Works. This plan include but not be limited to the traffic control equipment the Contractor proposes to use for the Works; traffic control signage including location and sign descriptions; how and when the Contractor proposes to use traffic control flag men; traffic control means during no-working periods; and traffic control means and devices for night and off-hour periods. The contractor also ensure implementation of the following measures: that the traffic management plan comply with the traffic control provisions with regard to: (a) General traffic management requirements (b) Temporary road works (c) Traffic control (d) Number of lanes for traffic control (e) Half-width construction (f) Extraordinary traffic (g) Vertical clearance (h) Materials for traffic control devices In order to facilitate traffic through or around the Works, or wherever ordered by the ESC, the Contractor shall erect and maintain at prescribed points on the Works and at the approaches to the Works, traffic signs, lights, flares, barricades, rubber cones with traffic lamps, temporary signaling stations on river.and other facilities as necessary or required by the ESC for the proper direction and control of traffic. As necessary for proper control of traffic or when/ where directed by the ESC, the Contractor furnish and station competent flagmen whose sole duties shall consist of directing the movement of traffic through or around the Works. Furnish and erect, within or in the vicinity of the project area, such warning and guide signs as may be necessary or ordered by the ESC. In order to minimize disruption to traffic flows the Contractor shall enclose the site with temporary fence to provide a visual barrier between his work and adjacent traffic. The temporary fence shall be two meters high and the movement of men, materials and plant into and out of the barrier area shall be controlled by flagmen Organize temporary means of access to avoid such short-term negative impacts. Maintain local roads and bridges used by construction vehicles.		***Attached photos in Appendix 7.3*** - Ensuring Road Traffic Management Plan has already submitted and received approval (refer our letter No. HSCHLD P6 417 ; refer Consultant's letter No. WSA.HAN HLD-PK6-0384 and refer Employer's letter No. 100-2451 VIE) and which is deploying. - Ensuring Railway Traffic Plan has already submitted (refer letter No. HSCHLD P6 981) and which is deploying.
12. Historic and Cultural Resources Protect sites of known antiquities, historic and cultural resources by the placement of suitable fencing and barriers. Not locate construction camps within 500 meters from cultural resources. Adhere to accepted international practice and all applicable historic and cultural preservation requirements of the Government of Vietnam. In the event of unanticipated discoveries of cultural or historic artifacts (movable or immovable) in the course of the work, the Contractor shall take all necessary measures to protect the findings and shall notify the ESC/ESO and concerned provincial-level and central government level representatives. If continuation of the work would endanger the discovery, work shall be suspended until a	Good	- Compliamce with the requirement into « UEMP – June 2010 »

solution for preservation of the artifacts is agreed upon.		
13. Utilities Ascertain and take into account, in the method of working, the presence of utility services on and in the vicinity of the site. Take into account the periods required to locate, access, protect, support and divert all utility services, including any periods of notice required to affect such work in consultation with authorities operating such services. Assume all responsibility to locate or to confirm the details and location of all utility services on or in the vicinity of the project site. Exercise the greatest care at all times to avoid damage to or interference with services. The contractor assumes responsibility for any damage and/or interference caused by them, their agents, directly or indirectly, arising from actions taken or a failure to take action, and for full restoration of the damage. Wherever existing ground surfaces are to be disturbed for construction of the works, carry out full and adequate preliminary investigations to locate all services in the area by means of hand-dug trial holes and trenches in combination with electronic and electro-mechanical devices, where appropriate. Each service thus exposed shall be identified. Every service at risk is fully exposed and adequately protected and supported in situ or diverted to the satisfaction of the appropriate authority prior to the commencement of such construction. When working in the vicinity of overhead power cables, ascertain and satisfy safety requirements about the safe clearances to be maintained from the power cables in consultation with the authority operating the power line. Where existing overhead power lines, communications cables or other major utilities require relocation, the Contractor uses the services of specialist enterprises with the necessary skills and technology to carry out the work. The Contractor consults with Provincial Departments of Transportation (PDOTs) to determine the proposed schedule for future utilities works on the Project Road. If such works, i.e. cable laying, is proposed in the near future the Contractor should propose an appropriate works schedule to synchronize such activities and reduce potential disruption.	Good	- Compliamce with the requirement into « UEMP – June 2010 »
14. Health and Safety Ensure that safety, rescue and industrial health matters are given a high degree of publicity to all persons who are regularly or occasionally on the site. Posters, in both Vietnamese and English, drawing attention to site safety, rescue and industrial health regulation is made or obtained from the appropriate sources and shall be displayed prominently in relevant areas of the site. Basic medical care is provided at camp sites. A fully equipped first aid base is set up. Arrangements for emergency medical services shall be made to the satisfaction of the ESC and ESO..Workers are provided with potable water supply and appropriate protective equipment. Work camps are provided with facilities to ensure the safety of workers, e.g., fire-fighting equipment, adequate storage for hazardous materials, and contingency measures in case of accidents. Borrow pits are constructed with proper drainage to prevent the creation of mosquito-breeding sites. Upon completion of extraction	Good	- All worker are wearing person protective equipment (PPE) when working - Direct Safety – Environment Training for workers on construction site. ***Detail training course is attached at Appendix 4.*** - Monthly meeting for Safety – Environment Control. ***Detail meeting is attached at Appendix 4.*** - Implement of HIV/AIDS & Human Trafficking Prevention Program.

activities, the contractor restores borrow pits through dewatering and installation of fences, as appropriate, to minimize health and safety risks. Borrow pits are left in a tidy state with stable side slopes and proper drainage in order to avoid creation of stagnant water bodies. Contractors ensures that blasting activities shall not cause damage to lives and properties by making sure that the area is clear, adequately warning people using sirens and other appropriate means, and stopping at a safe distance in case blasting is near the road. Implement a Safety Training Program consisting of: a) Initial Safety Induction Course b) Periodic Safety Training Courses c) Safety Meetings d) Safety Inspections e) Safety Equipment and Clothing		Already had finished the phase 1 of this above program since last year. Now, we are deploying continue for the phase 2 of this program. ***Detail training program is attached at Appendix 3.***
15. Social impacts Consultation and Complaints Procedures Provide local communities information on upcoming construction related activities and issues related to traffic safety. Record any complaints received and respond to them promptly. Co-operate with local authorities to prevent and solve problems related to environmental issues.	Good	- ***Detail solving complaints is attached at Appendix 2***

Note:

1. Very good : Mitigations are fully effective
2. Good : Mitigations are generally effective
3. Fair : Mitigations are partially affective
4. Poor : Mitigations are generally ineffective
5. Very poor : Mitigations are completely ineffective

4: SUMMARY OF ENVIRONMENTAL MONITORING

4.1 Monitoring Program

4.1.1 Monitoring Items

Environmental monitoring items include:

- Air Quality /Dust
- Noise
- Vibration
- Surface Water Quality
- Underground Water Quality
- Soil Quality
- Waste water

4.1.2 Environmental reference standards and regulation

The environmental regulation to be referred were updated in line with recent Vietnamese regulation from the SEMP as follows

Table 4.3. Environmental Regulation

No.	ENVIRONMENTAL COMPONENT	ENVIRONMENTAL REGULATION
1	Air Quality	QCVN 05/2009/BTNMT " National Technical Regulation on ambient air quality" QCVN 06/2009/BTNMT " National Technical Regulation on hazardous substances in ambient air"
2	Noise	QCVN 26/2010/BTNMT – National technical regulation on noise
3	Vibration	QCVN 27/2010/BTNMT – National technical regulation on vibration
4	Surface Water	QCVN 08/2008/BTNMT " National Technical Regulation on surface water quality"
5	Ground Water	QCVN 09/2008/BTNMT " National Technical Regulation on groundwater quality"
6	Soil	QCVN 03/2008/BTNMT " National Technical Regulation on soil quality"
7	Waste Water	QCVN 24/2009/BTNMT "National Technical Regulation on industrial waste water"

4.1.3 Monitoring Location

Monitoring locations of air, noise, vibration, surface water, groundwater and soil are selected for most affected areas during construction and operation stages. The monitoring of wastewater will be carried out during only construction stages for affected area. The monitoring locations are summarized as following table. Map of sampling location is presented in the Appendix 1.

(Refer to UEMP - dated June 2010 at Item 7.1 Monitoring Location – Page 44 and Item 8.6.3.1 Environmental Monitoring Locations – Page 83 into Item 8.6 EMP of the Package 6 – Page 81. And refer Table 1. Sampling Location for each Environmental Parameter – ADB's Further Comments on dated 19th Sept. 2011)

Km / Location		Package 6 37+800 – 54+983 Pre-Construction	Number of Sample
Air – Dau Giay Intersection		Km 54+350	8
Noise – Dau Giay Intersection			Every hour from 6:00 – to 22:00
Vibration – Dau Giay Intersection			Every hour from 6:00 – to 22:00
Soil – Dau Giay Intersection (Km 54)		Km 53+800	3
Groundwater – In the residential area of Xuan Thanh		Km 54+400	2
Surface water – Upstream/ Downstream of Song Nhạn River		Km 49+400	4
WasteWater		(*)	0
Km / Location		**Package 6 37+800 – 54+983 Construction Phase**	**Number of Sample**
Air	Dau Giay Intersection (Km54+350) Intersection with NH1 (Km54+983) Song Nhan residential area (Km39+400)	Km 39+400 / 54+350 / 54+983	8
Noise	Dau Giay Intersection (Km54+350) Intersection with NH1 (Km54+983)	Km 54+350 / 54+983	Every hour from 6:00 – to 22:00
Vibration	Dau Giay Intersection (Km54+350) Intersection with NH1 (Km54+983)		Every hour from 6:00 – to 22:00
Soil	Bau Ham 2 ward (Near Km53+800) Service station	Near Km 53+800 / 41+100 / 54+350 / 54+400	4

	(Km41+100) Dau Giay Interchange (Km54+350) Xuan Thanh residential area (Km54+400)		
Undergroundwater	Tran Cao Van hamlet (Bau Ham 2 ward) Xuan Thanh residential area (near Km54+400)	Km 54+400	2
Surface water	Stream in Xuan Que Ward (Upstream-Downstream of Song Nhan river)	Km 49+400	2
Waste Water	Construction Worker Camp Km54+800 Batching Plant Km 54+900	Km 54+800 / 54+900	2

Note: (*): Pre-Construction Phase: Wastewater has not generated yet.

Construction Phase:

- One location at Concrete Batching Plant (Km 54+900)
- One locations at Construction worker Camp (Km54+800)

4.1.4 Monitoring Schedule

Quarterly Environmental Monitoring Schedule of package No.6 is summarized as follows:

Year	Month	Survey	Stage	Remark
2010	12	Pre-Construction Phase (Baseline)		Finished
2011	03	Quarter I	Construction Phase	Finished
	06	Quarter II		Finished
	09	Quarter III		Finished
	12	Quarter IV		Finished
2012	03	Quarter V		Finished
	06	Quarter VI		Finished
	09	Quarter VII		Finished
	12	Quarter VIII		Finished
2013	03	Quarter IX		Finished
	06	Quarter X		Finished
	09	Quarter XI		
	12	Quarter XII		

4.1.5 Air Quality Monitoring

No	Parameter	Baseline Monitoring (Pre-Construction Phase)				Impact Monitoring (During Construction Phase)				Remarks
		Frequency	Location		Duration	Frequency	Location		Duration	
1	TPS	1 times	8 samples /1time	1 point: Dau Giay Intersection (Km 54+350)	1 day (6h00-22h00)	4 times/year	8 samples/ 1time	3 points: Dau Giay Intersection (Km54+350) Intersection with NH1 (Km54+983) Song Nhan residential area (Km39+400)	1 day (6h00-22h00)	Reference standard: QCVN 05/2009/ BTNMT
2	Humidity, Temperature, Wind speed									
3	CO									
4	SO_2									
5	NO_2									
6	HC									

4.1.6 Noise Monitoring

Parameter	Baseline Monitoring (Pre-Construction Phase)				Impact Monitoring (During Construction Phase)				Remarks
	Frequency	Location		Duration	Frequency	Location		Duration	
L_{EQ}; L_{10} ; L_{90} ;	1 time	Every hour (From 6h00-To 22h00)	1 point: Dau Giay Intersection (Km 54+350)	1 day	4 times/year	Every hour (From 6h00-To 22h00)	2 points: Dau Giay Intersection (Km54+350) Intersection with NH1 (Km54+983)	1 day	Reference standard: QCVN 26/2010/ BTNMT

4.1.7 Vibration Monitoring

Parameter	Baseline Monitoring (Pre-Construction Phase)				Impact Monitoring (During Construction Phase)				Remarks
	Frequency	Location		Duration	Frequency	Location		Duration	
L_{eq} ; L_{veq}	1 time	Every hour (From 6h00-To 22h00)	1 point: Dau Giay Intersection (Km 54+350)	1 day	4 times/year	Every hour (From 6h00-To 22h00)	2 points: Dau Giay Intersection (Km54+350) Intersection with NH1 (Km54+983)	1 day	Reference standard: QCVN 27/2010/ BTNMT

4.1.8 Surface water quality monitoring

No	Parameter	Baseline Monitoring (Pre-Construction Phase)				Impact Monitoring (During Construction Phase)				Remarks
		Frequency	Location		Duration	Frequency	Location		Duration	
1	pH	1 time	2 samples/ 1 time	2 points: Upstream / Downstream of Song Nhan River	1 day	4 times/year	2 samples /1time	2 points: Stream in Xuan Que Ward - (Upstream / Downstream of Song Nhan River)	1 day	Reference standard: QCVN 08/2008/ BTNMT
2	BOD									
3	COD									
4	DO									
5	SS									
6	As									
7	Cd									
8	Pb									
9	Cr									
10	Cu									
11	Zn									
12	Hg									
13	$NH4^+$									
14	∑N (N-Kjeldalh)									
15	∑N									
16	∑P									
17	Lubricant									
18	Coliform									
19	Turbidity									
20	Aquatic Ecosystem									

4.1.9 Underground Water Monitoring

No	Parameter	Baseline Monitoring (pre-construction phase)				Impact monitoring (during construction phase)				Remarks
		Frequency	Location		Duration	Frequency	Location		Duration	
1	pH	1 time	2samples /1time	2 points: Nguyen Thai Hoc hamlet (Bau Ham 2 ward) Xuan Thanh residential area (Km54+400)	1 day	4 times/year	2samples /1 time	2 points: Tran Cao Van hamlet (Bau Ham 2 ward) Xuan Thanh residential area (near Km54+400)	1 day	Reference standard: QCVN 09/2008/ BTNMT
2	Color									
3	Temperature									
4	Odor									
5	TDS									
6	Hardness level									
7	Conductivity									
8	Turbility									
9	NO_2^-									
10	CN^-									
11	Cl^-									
12	SO_4^{2-}									
13	Mn									
14	Fe									
15	Cd									
16	Pb									
17	As									
18	Fecal Coliform									
19	Total coliform									

4.1.10 Waste Water Monitoring for Construction plant (Specific monitoring only)

No	Parameters	Specific Monitoring (Construction Stage)						Remarks
		Frequency	Location				Duration	
1	pH	4 times/year	Before and during discharging waste water into river/canal	2samples /1 time	Any waste water source created by construction `	2 location (*)	Construction	Reference standard: QCVN 24/2009/BTNMT
2	BOD							
3	COD							
4	DO							
5	SS							
6	NH_4^+							
7	∑N (N-Kjeldalh)							
8	∑P							
9	Lubricant							
10	Coliform							

Note: (*) Location: Concrete Batching Plant at Km 54+900

Construction Worker Camp at Km 54+800

4.1.11 Soil Monitoring

No	Parameters	Baseline Monitoring (pre-construction phase)				Impact monitoring (during construction phase)				Remarks
		Frequency	Location		Duration	Frequency	Location		Duration	
1	pH	1 time	3 samples / 1 time	3 points: Service station (Km41+100) Xuan Thanh residential area (Km49+000 and 54+400)	1 day	4 times/ year	4 samples/ 1 time	4 points: Bau Ham 2 ward (near Km53+800) Service station (Km41+100) Dau Giay Interchange (Km54+350) Xuan Thanh residential area (Km54+400)	1 day	Reference standard: QCVN 03/2008/ BTNMT
2	Organic Matter									
3	Total N									
4	Total P									
5	Cl^-									
6	SO_4^{2-}									
7	Cu									
8	Zn									
9	Cd									
10	Pb									
11	Hg									
12	As									
13	Fe									

4.2 Monitoring Result (Aggregated by stages: Pre-Construction Phase; Quarter I – 03/2011; Quarter II – 06/2011; Quarter III – 09/2011; Quarter IV – 12/2011; Quarter I – 03/2012; Quarter II – 06/2012; Quarter III – 09/2012; Quarter IV – 12/2012; Quarter I – 03/2013 and Quarter II – 06/2013)

4.2.1 Air Quality

Sampling location:

- *A1: Song Nhan residential area (Km 39+400) (X: 0736854, Y: 1205918)*
- *A2: Intersection with NH1(Km 54+983) (X: 0733497, Y: 1203915)*
- *A3: Dau Giay intersection (Km 54+350) (X: 0733484, Y: 1203996)*

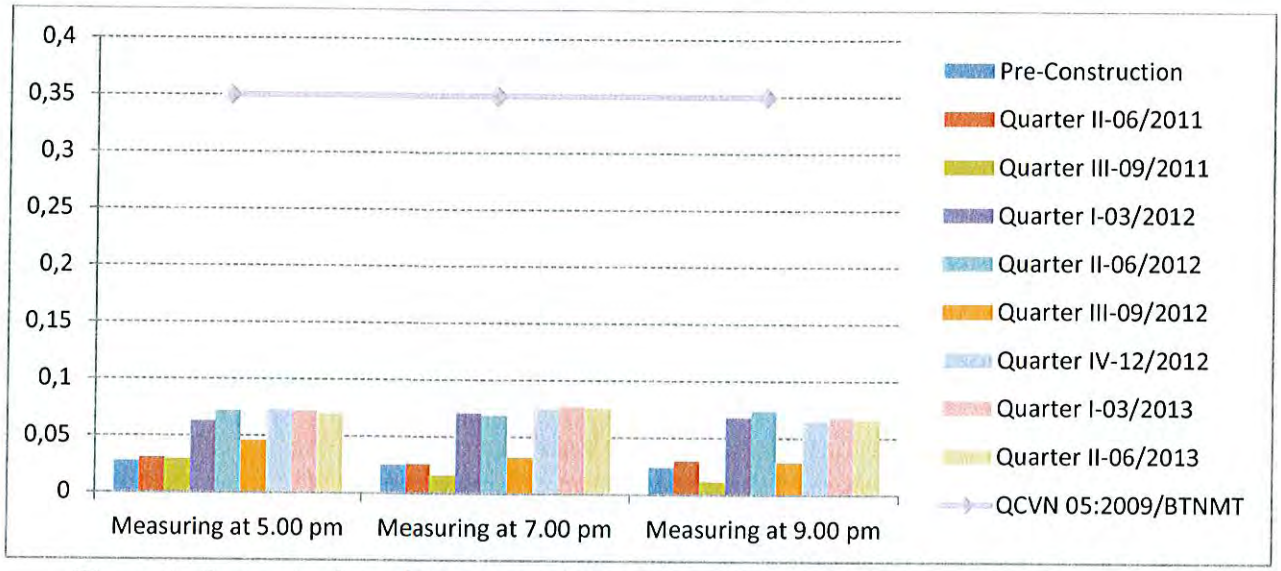


Figure 1: Concentration of SO_2 varies follow time at Dau Giay intersection (km 54+350)

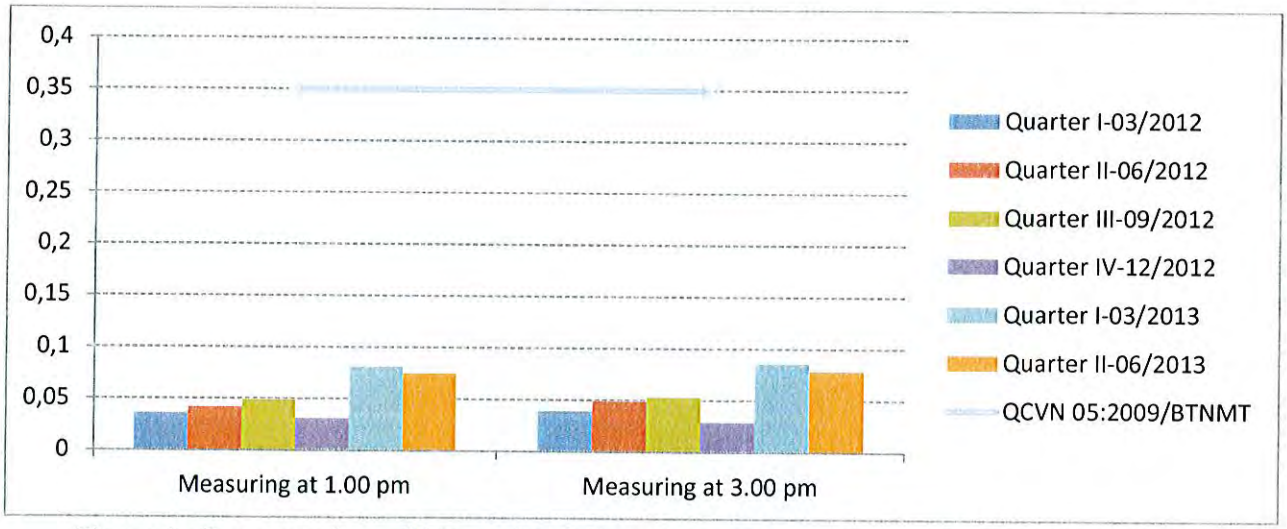


Figure 2: Concentration of SO_2 varies follow time at Intersection with NH1 (km 54+983)

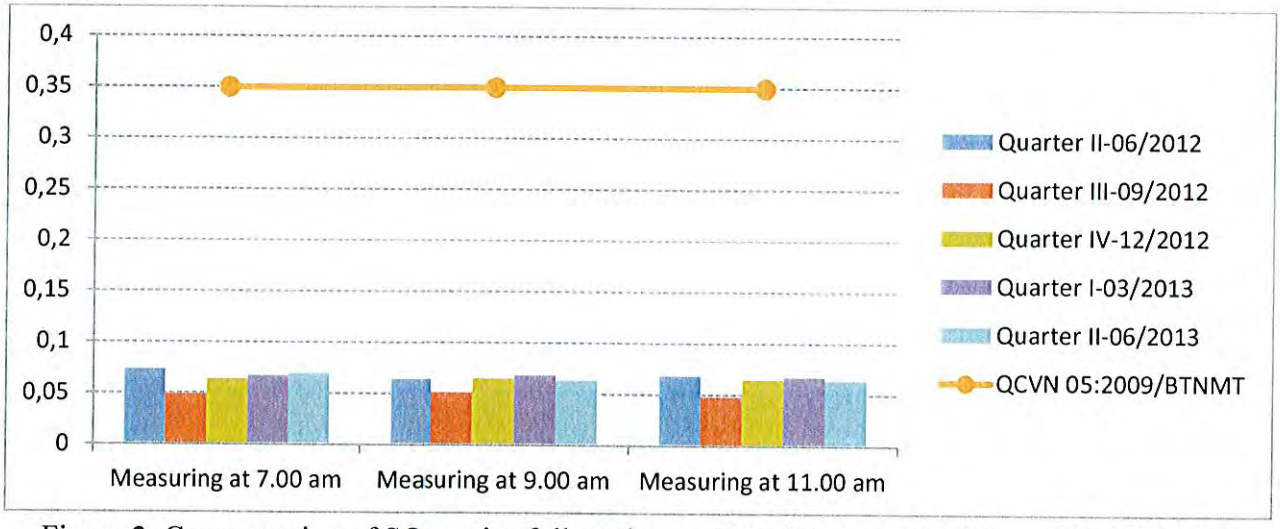


Figure 3: Concentration of SO_2 varies follow time at Song Nhan residential area (km 39+400)

Remark:

In the quarter II-06/2013, concentration of SO_2 at Dau Giay intersection (Km 54+350) around 0.067 đến 0.076 mg/m^3, at two new points side the ADB requiements: Intersection with NH1 (Km 54+983) around 0.07-0.077 mg/m^3 and Song Nhan residential area (Km 39+400) around 0.063-0.069 mg/m^3. The values analysis in quarter II-06/2013 are lower than the previous quarter and lower Vietnamese regulation allows (QCVN 05:2009/BTNMT; 0.35 mg/m^3) many times.

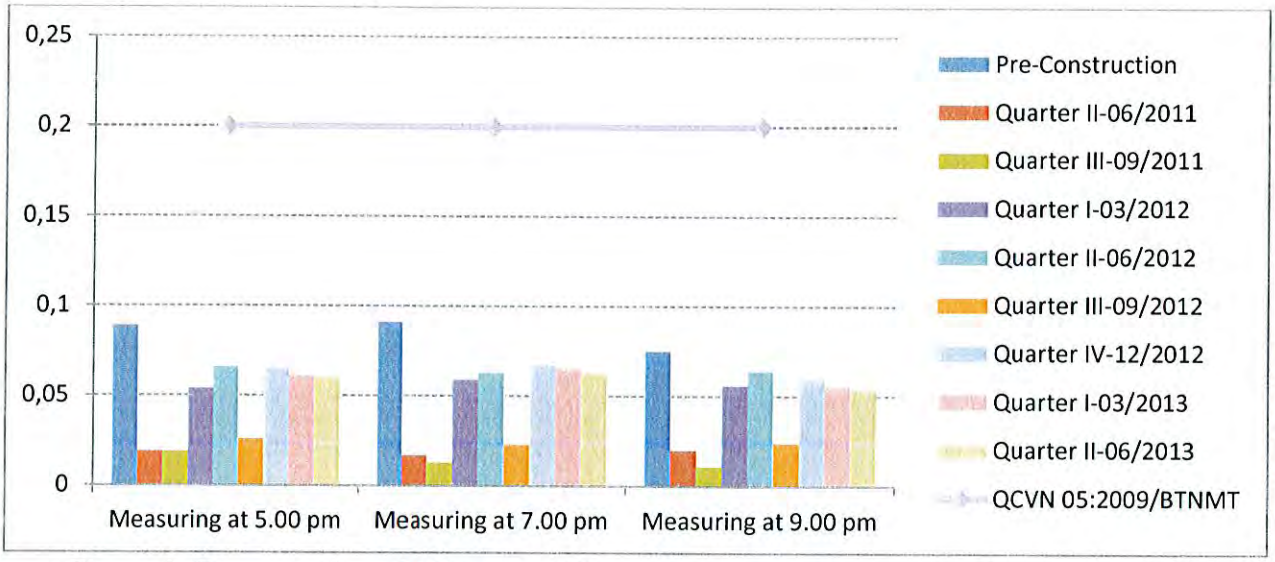


Figure 4: Concentration of NO_2 varies follow time at Dau Giay intersection (km 54+350)

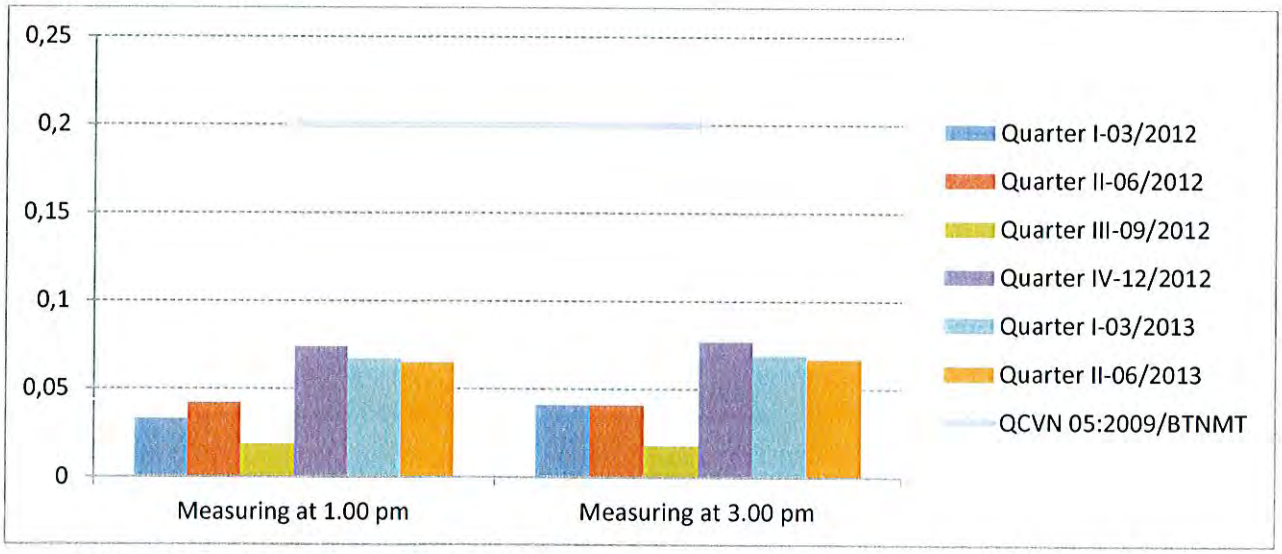


Figure 5: Concentration of NO_2 varies follow time at Intersection with NH1 (km 54+983)

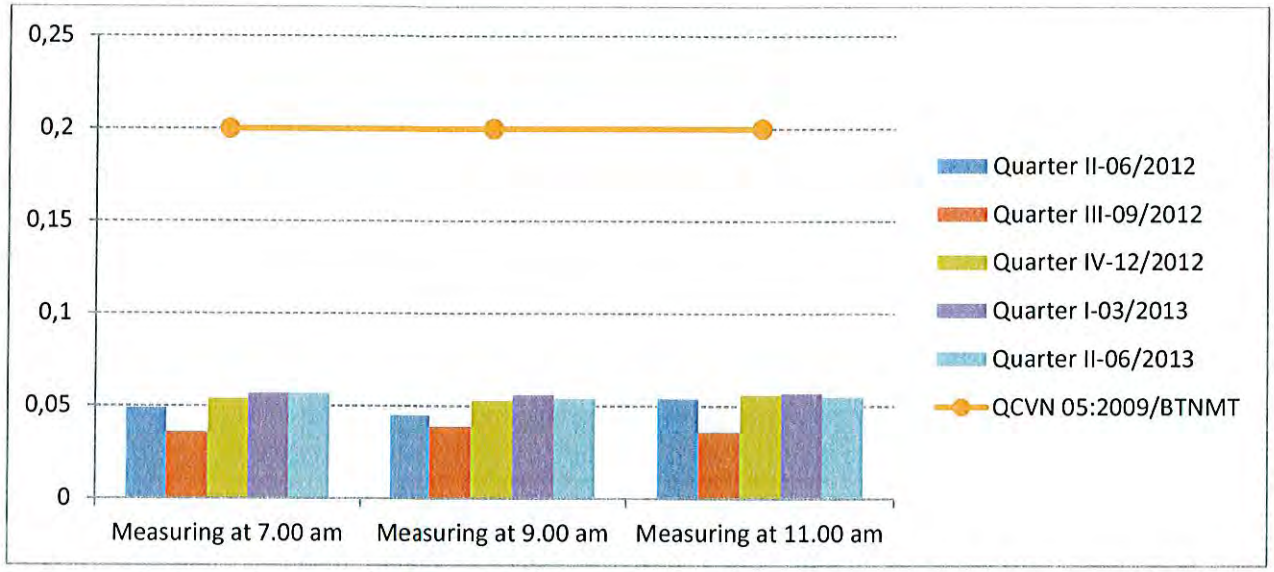


Figure 6: Concentration of NO_2 varies follow time at Song Nhan residential area (km 39+400)

Remark:

In the quarter II-06/2013, concentration of NO_2 at Dau Giay intersection (Km 54+350) around 0.054 đến 0.063 mg/m^3, at two new points side the ADB requiements: Intersection with NH1 (Km 54+983) around 0.065-0.067 mg/m^3 and Song Nhan residential area (Km 39+400) around 0.054-0.057 mg/m^3. The values analysis in quarter II-06/2013 are lower than the previous quarter and lower Vietnamese regulation allows (QCVN 05:2009/BTNMT; 0.2 mg/m^3) many times.

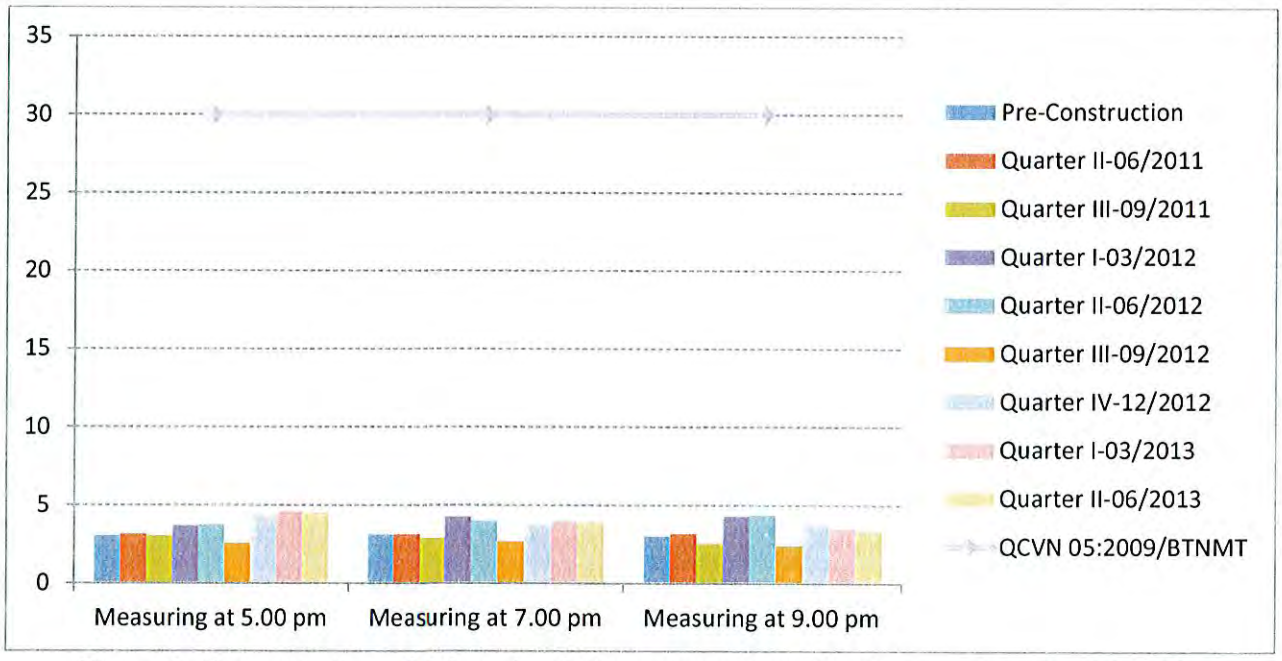


Figure 7: Concentration of CO varies follow time at Dau Giay intersection (km 54+350)

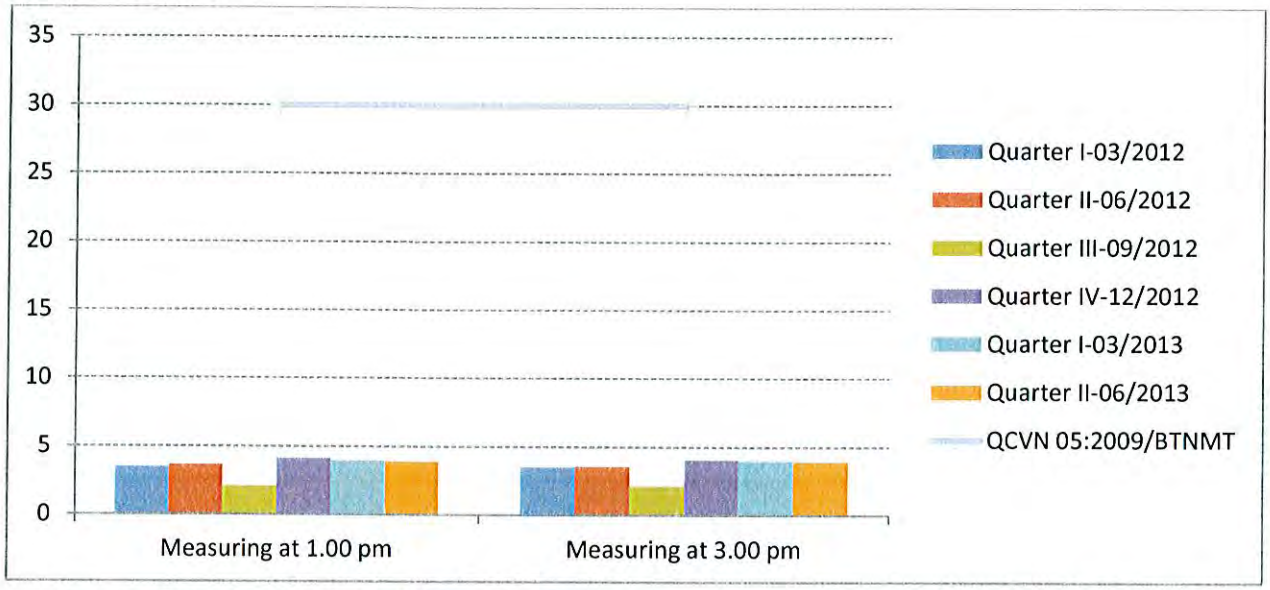


Figure 8: Concentration of CO varies follow time at Intersection with NH1 (km 54+983)

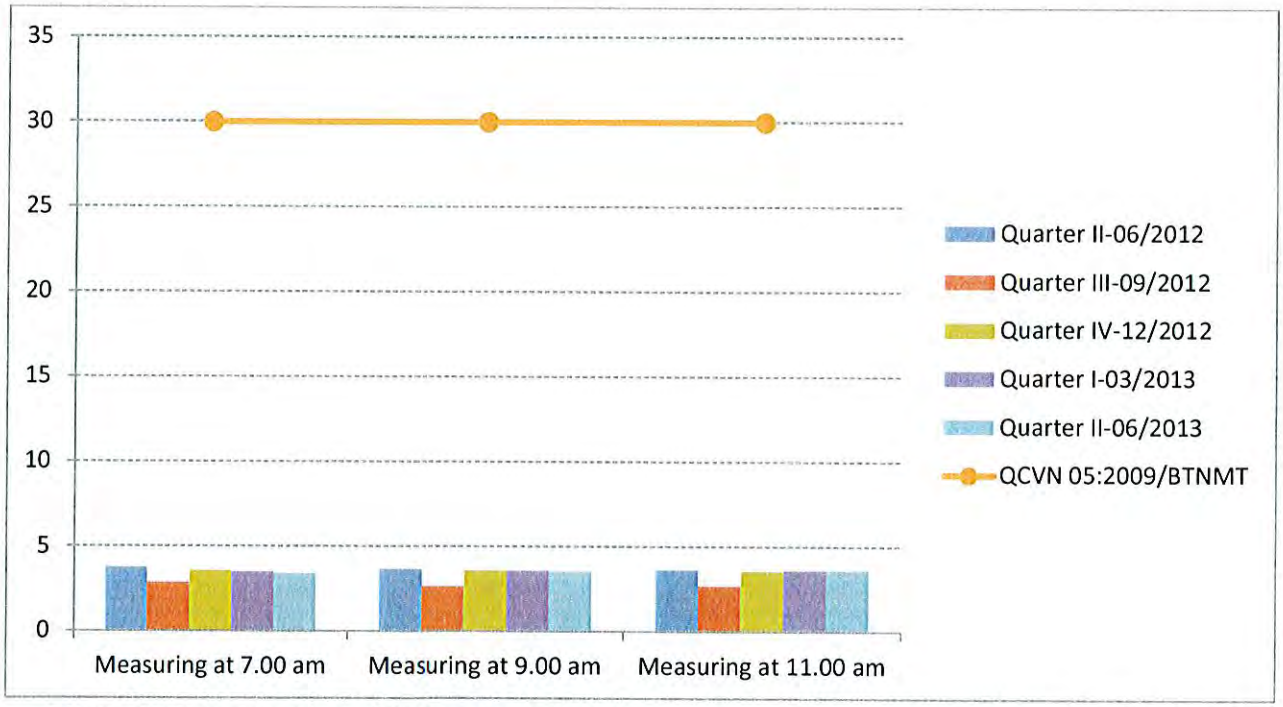


Figure 9: Concentration of CO varies follow time at Song Nhan residential area (km 39+400)

Remark:

Concentration of CO in the quarter II-06/2013 at Dau Giay intersection (Km 54+350) around 3.42-4.52 mg/m^3, at two new points side the ADB requiements: Intersection with NH1 (Km 54+983) around 3.90- 3.94 mg/m^3 and Song Nhan residential area (Km 39+400) around 3.4-3.61 mg/m^3. These values were lower than the Vietnamese regulation (QCVN 05:2009/BTNMT; 30 mg/m^3) many times.

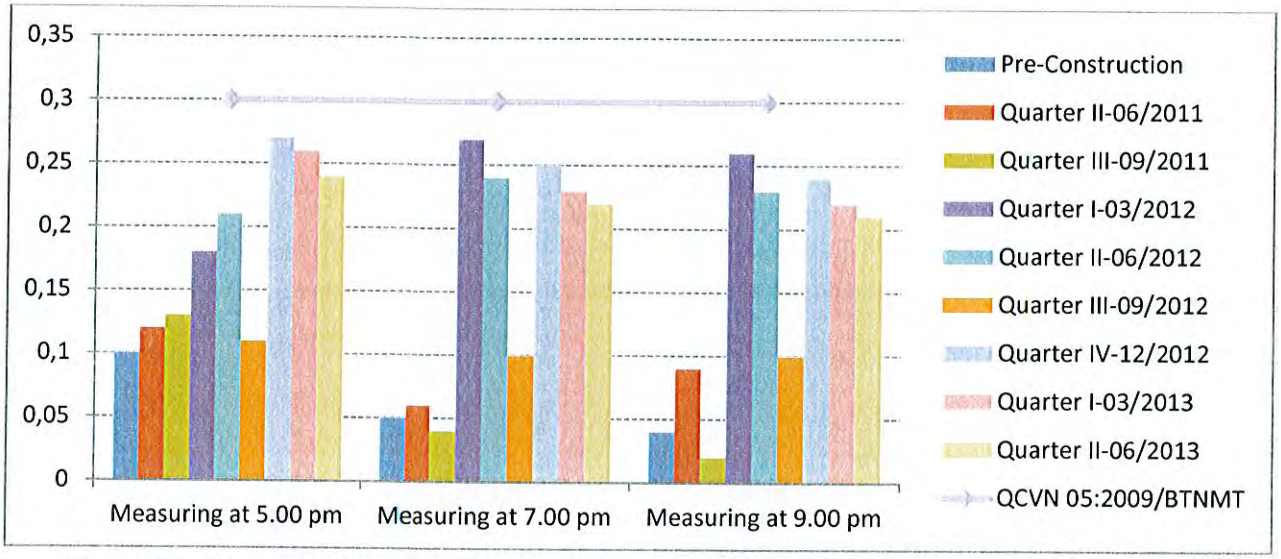


Figure 10: Concentration of TSP varies follow time at Dau Giay intersection (km 54+350)

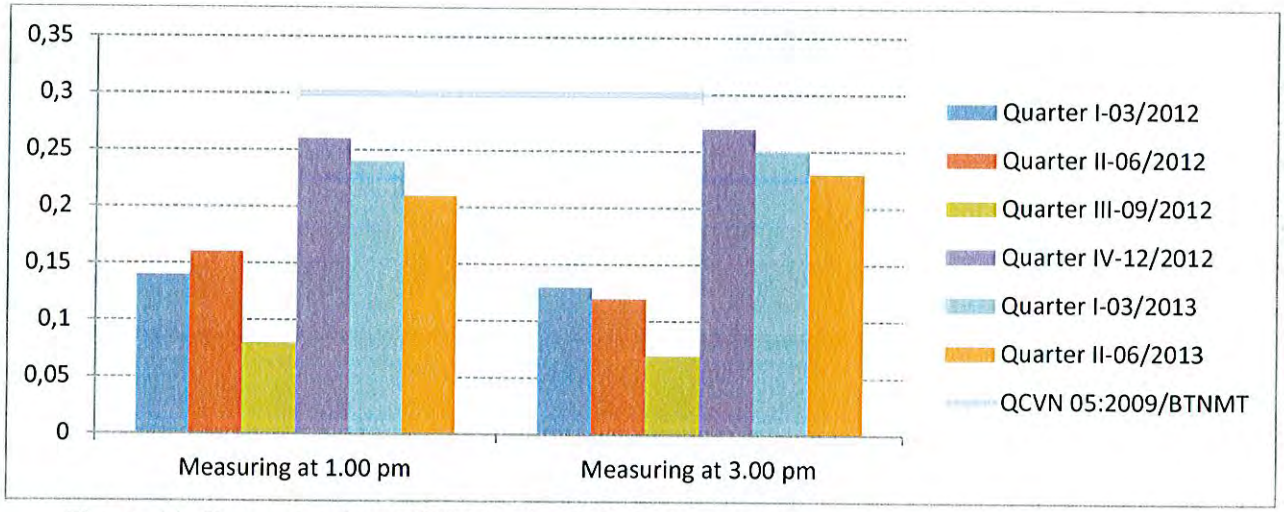


Figure 11: Concentration of TSP varies follow time at Intersection with NH1 (km 54+983)

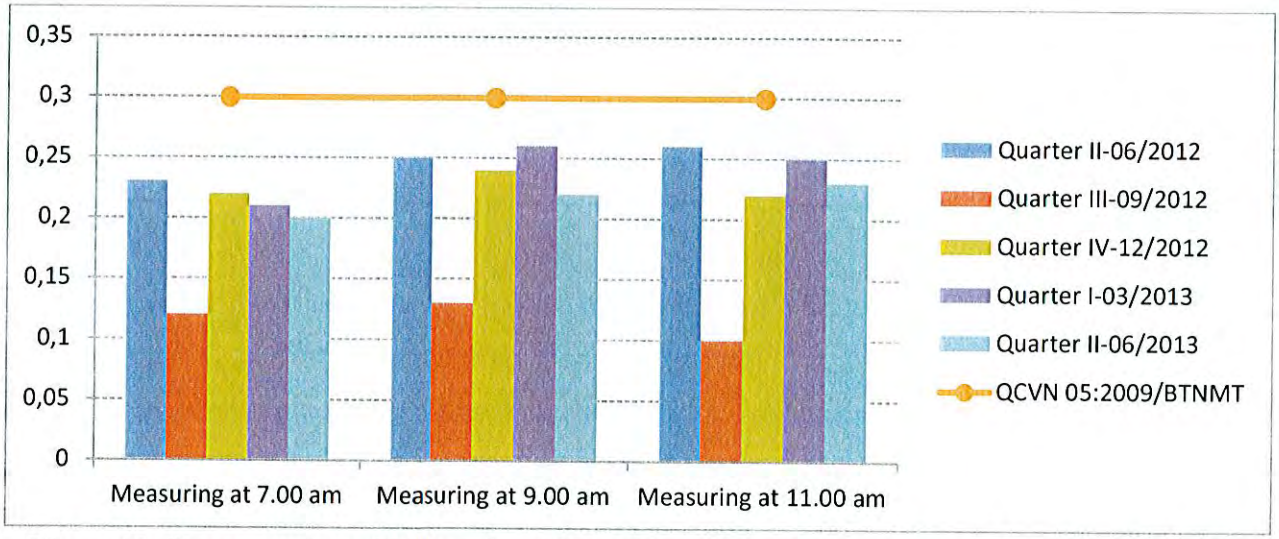


Figure 12: Concentration of TSP varies follow time at Song Nhan residential area (Km 39+400)

Remark:

In the quarter II-06/2013, concentration of TSP at Dau Giay intersection (Km 54+350) around 0.21-0.24 mg/m^3, at two new points side the ADB requipments: Intersection with NH1 (Km 54+983) around 0.21- 0.23 mg/m^3 and Song Nhan residential area (Km 39+400) around 0.2-0.23 mg/m^3. These values were lower than the Vietnamese regulation (QCVN 05:2009/BTNMT; 0.3 mg/m^3) many times.

General Remark:

Based on the figure shows the concentration of NO2, SO2, CO, TSP in ambient air environment can be seen concentration in the quarter II/2013 at some time lower than the most recent quarter because it is the time of the rainy season and this value remains within the limits of Regulation (QCVN 05:2009/BTNMT). Individual hydrocarbon concentrations similar to the previous quarter are not detected at the time of sampling.

Based on the above result, the impact is negligible. However, additional specific measures has already brought out to reduce TSP on the dry season, such as:

- Mobilize more water truck on the section 1,2,3,4 and batching plant, one water truck/section.
- Increase watering to four times each day, and more if necessary (up to now only twice each day)
- No watering on the rain seasion.

4.2.2 Noise

In general, the value of noise at the two location monitoring in the quarter II/2013 was lower than the previous quarter and lower still allow regulation (QCVN 26:2010/BTNMT, 55-70 dBA). At some point may find the noise level value is high because the impact of transportation crossing in field and other motor vehicles operating in the field but the impact is negligible. Contractor will continue to monitor to avoid affecting the ambient.

Besides, The hours of work will be approved by the site engineer having due regard for possible noise disturbance to the local residence. Vehicles and machinery must be used, maintained and equipped so as to avoid unnecessary noise and vibration. Plants must be located away from sensitive areas and noisy construction work, such as crushing, concrete mixing and batching must be done during daylight hours. Use of machines causing loud noise and vibration (drill, excavator etc.) is prohibited between 23 PM and 5AM. If night-time construction is necessary, the contractor will apply for a permit from local authorities and inform residents about coming works beforehand.

4.2.3 Vibration

According to the monitoring results, value of noise at Dau Giay intersection (Km 54+350) around 0.0019-0.0035 m/s^2 equivalent is converted to decibel 45.6 – 50.9 dBA and Intersection with NH1 (Km 54+983) around 0.0021-0.0031 m/s^2 equivalent is converted to decibel 46.4 - 49.5 dBA. Its value is lower than limit regulation (QCVN 27:2010/BTNMT, 55-75 dBA).

Similarly the value of noise, vibration at some point high because the impact of transportation crossing in field and other motor vehicles operating in the field but the impact is negligible. Contractor will continue to monitor to avoid affecting the ambient.

4.2.4 Surface Water Quality

+ Sampling location: Song Nhan area.

- *125-NM-(1)/2012: Surface water of Song Nhan (upstream)*
- *125-NM-(2)/2012: Surface water of Song Nhan (downstream)*

- **pH**

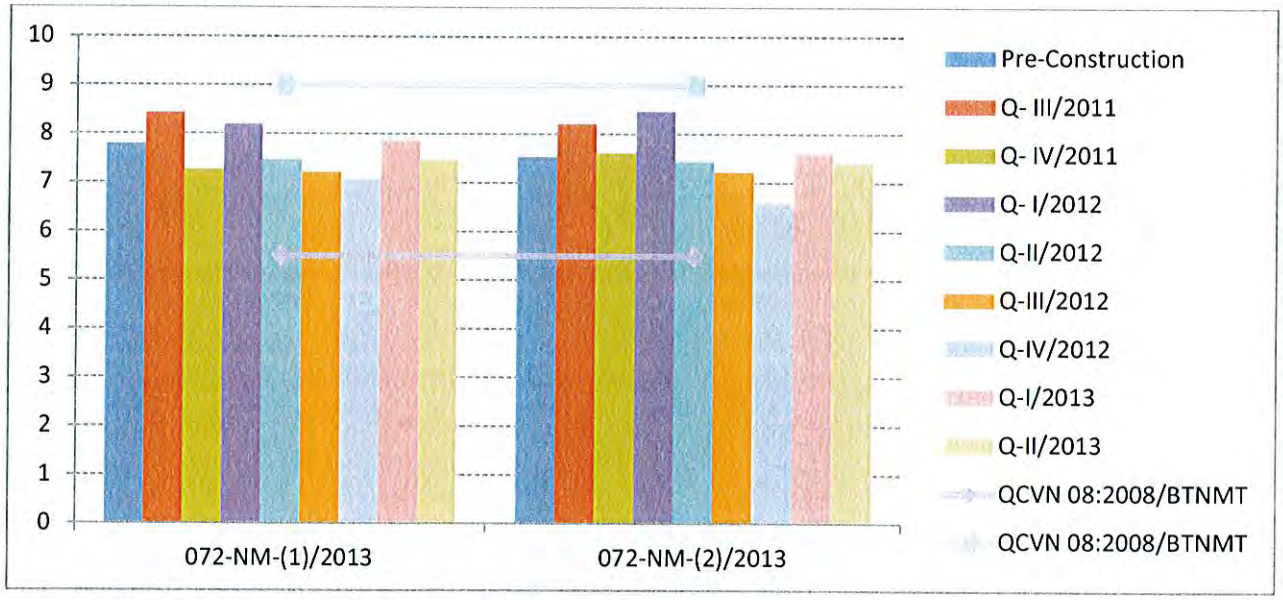


Figure 13: pH varies follow quarter of surface water quality monitoring

Remark:

At all sampling locations listed above *(072-NM-(1)/2013, 072-NM-(2)/2013)*, pH values are met Vietnamese regulation (QCVN 08:2008/BTNMT; pH: 5.5-9). pH values fluctuated around 7.43÷7.48.

- **DO**

Dissolve Oxygen (DO) is a very important parameter that guarantees aquatic life. DO take part in metabolism, maintains energy for growing, breeding and reproduction for aquatic microorganism.

DO concentration definition is the foundation for water quality assessment, the basic for BOD_5 concentration definition, for assessing the pollution level of water source caused by organic matters and for defining the self-cleaning capacity of water source so that this parameter also indicates pollution level of water source. National technical regulation on surface water quality (QCVN 08:2008/BTNMT, level B2) limits value of DO ≥ 2mg/L. However, if the DO concentration is less than 5mg/L, it can cause effectiveness to aquatic population conversion.

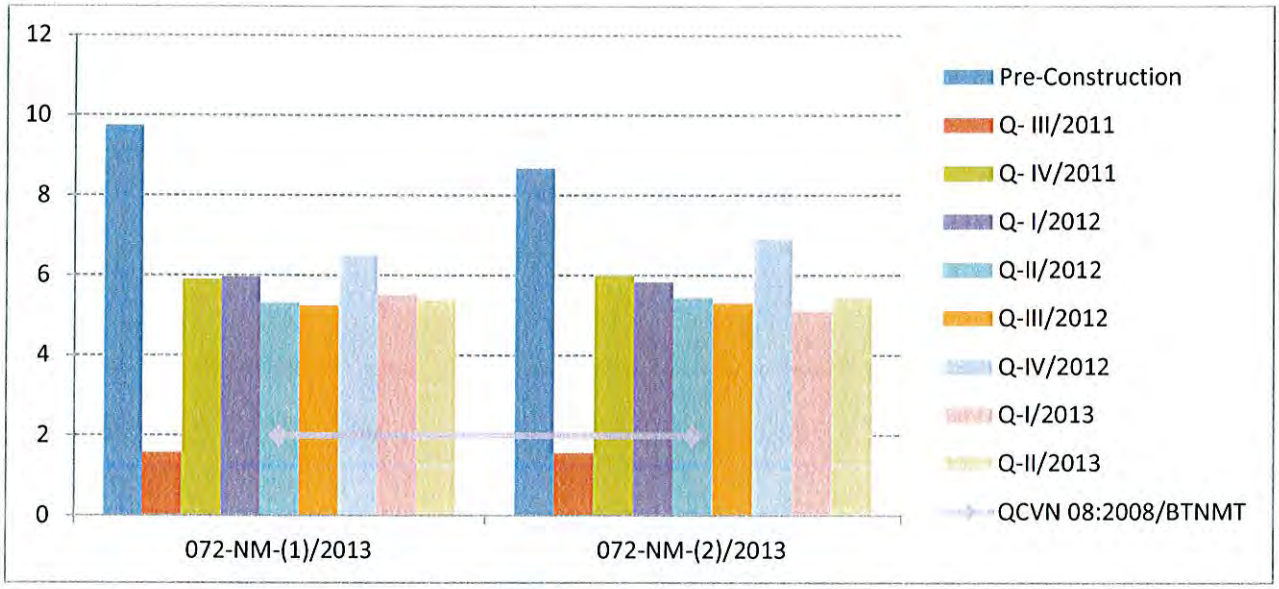


Figure 14: DO varies follow quarter of surface water quality monitoring

Remark:

Dissolved oxygen in surface water samples un the project area quarter II-06/2013 range 5.38 ÷ 5.46 mg/L.

Dissolved oxygen in surface water at the monitoring location are lower than quarter I/2013 but higher than 5 mg/L as requirement. The cause of the decline in the amount of dissolved oxygen in this survey because people littered corpses of cattle, poultry and down theriver. The decomposed bodies of this kind causes reduced levels of DO in the water. However, that is not significant impact to water quality.

- **Organic pollution**

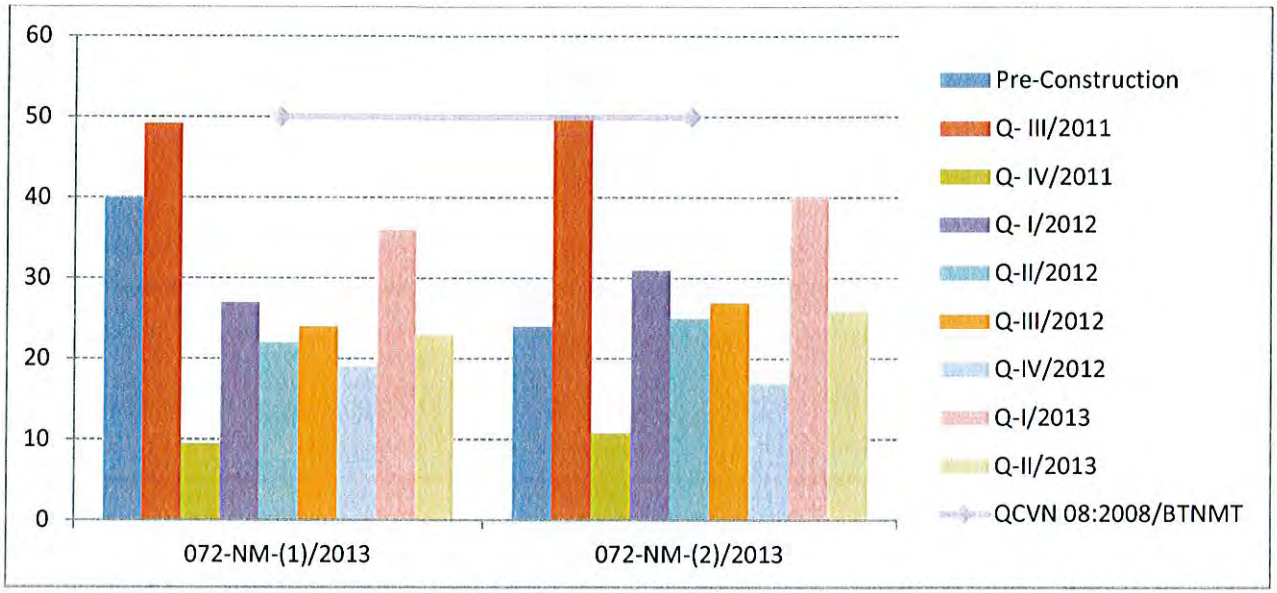


Figure 15: COD varies follow quarter of surface water quality monitoring

Remark:

Chemical oxygen demand (COD): The result monitoring, COD concentrations in the sample positions are met the limit regulation allow (QCVN 08:2008/BTNMT, level B2; 50 mg/L). Values of COD fluctuated around 23 ÷ 26 mg/L.

General remark:

In general, the location of surface water quality monitoring in the quarter II/2013 are good signs gradually over the content of organic matter was significantly reduced compared to the quarter I/2013.

- **SS**

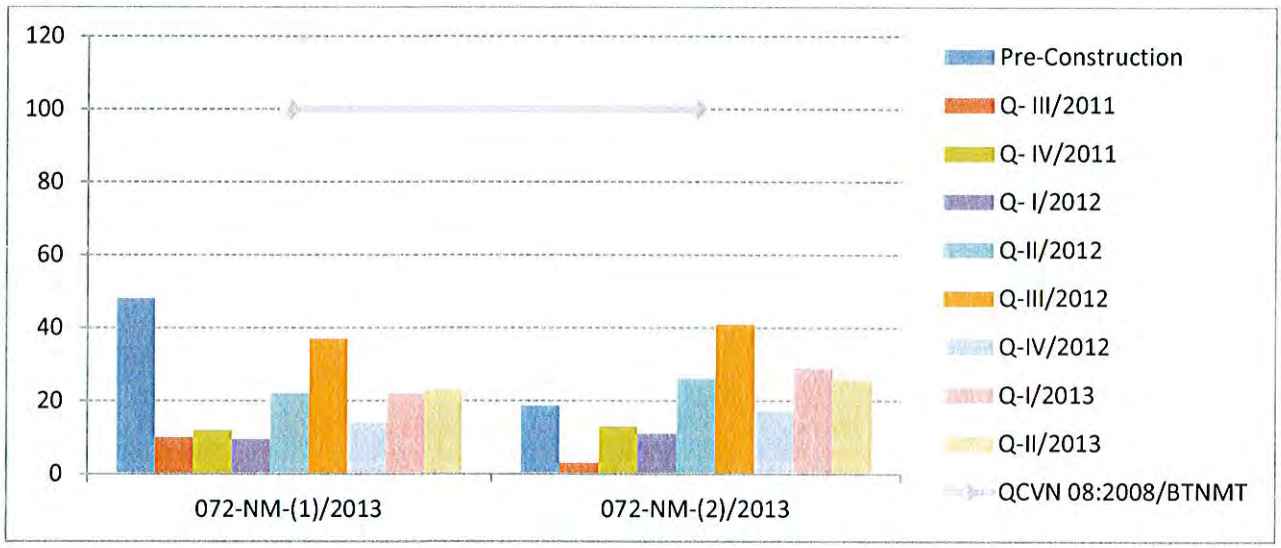


Figure 16: SS varies follow quarter of surface water quality monitoring

Remark:

Suspended solid (SS) content is very low at all monitoring locations and lower than quarter I/2013 but have reached regulation allow (QCVN 08:2008/BTNMT, level B2; 100 mg/L) with value fluctuated around 23÷26 mg/L.

- **Nitrate concentration (NO_3^-):**

In this monitoring, nitrate concentration fluctuated around 2.34 ÷ 2.49 mg/L and lower than the Vietnamese regulation (QCVN 08:2008/BTNMT, level B2; 15 mg/L).

- **Heavy metal pollution**

Almost of heavy metals concentration (Cu, Zn, Cd, Pb, As, Hg) in quarter II/2013 are very lower than the Vietnamese regulation. Copper concentration fluctuated around 3.14 ÷ 3.28) $x10^{-3}$ mg/L (QCVN 08:2008/BTNMT, level B2; 1mg/L). Zinc concentration fluctuated around (18,53 ÷ 19,52) $x10^{-3}$mg/L (QCVN 08:2008/BTNMT, level B2; 2mg/l). Cadmium concentration fluctuated around (0,022 ÷ 0,03) $x10^{-3}$mg/L (QCVN 08:2008/BTNMT, level B2; 0.01mg/L). Lead concentration fluctuated around (3,14 ÷ 3,22) $x10^{-3}$ mg/L (QCVN 08:2008/BTNMT, level B2; 0.05mg/L). Arsenic concentration fluctuated around (0,89 ÷ 0,92) $x10^{-3}$ mg/L (QCVN 08:2008/BTNMT, level B2; 0.1mg/L). Mercury concentration not detected at monitoring locations (QCVN 08:2008/BTNMT, level B2; 0.002mg/L).

- **Lubricant:**

Lubricant fluctuated around 0,06 ÷ 0,10 mg/L, These values are met the Vietnamese regulation (QCVN 08:2008/BTNMT, level B2; 0.3mg/L).

- **CN^- :**

CN^- concentration fluctuated around (0,04 ÷ 0,06) $x10^{-3}$ mg/L. These values are met the Vietnamese regulation (QCVN 08:2008/BTNMT, level B2; 0.02 mg/L).

- **$N\text{-}NH_4^+$:**

$N\text{-}NH_4^+$ concentration fluctuated around 0,67 ÷ 0,73 mg/L. These values are met the Vietnamese regulation (QCVN 08:2008/BTNMT, level B2; 1mg/L).

- **Total N, total P**

Concentrations of total N, total P, respectively in the around of about 12,30 ÷ 12,38 mg / L, 0,75 ÷ 0,78 mg / L. Because the regulations (QCVN 08:2008 /BTNMT) does not stipulate the content of total N, total P should not be compared.

- **Total Coliform:**

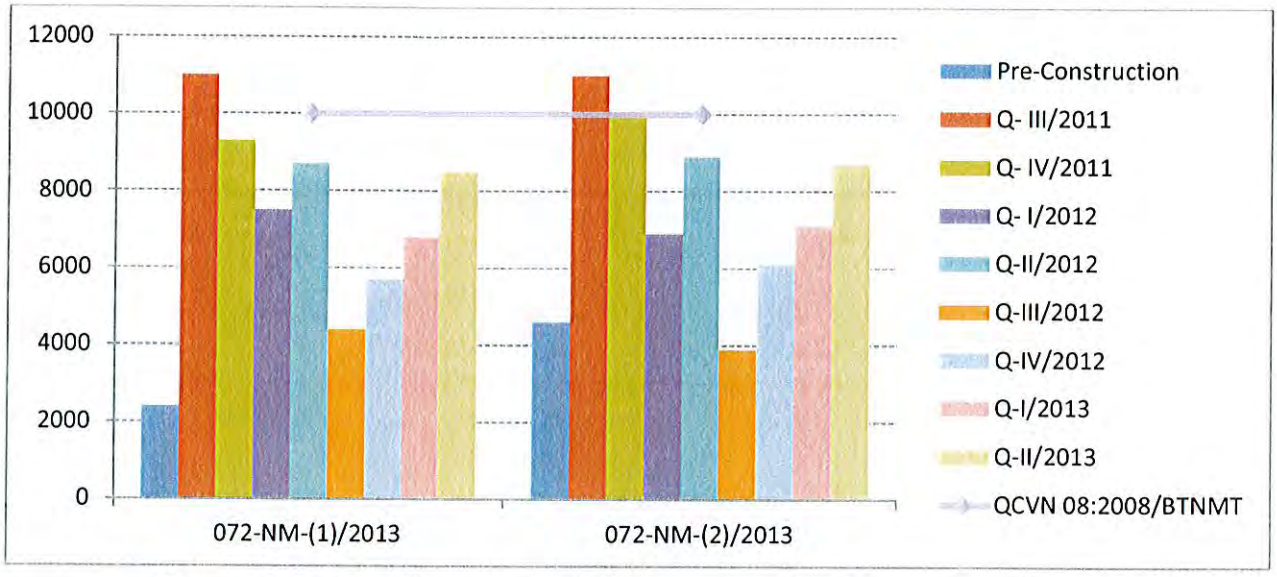


Figure 17: Total Coliform varies follow quarter of surface water quality monitoring

Remark:

Concentration of total Coliform are fluctuated around 5700÷6100 MPN/100mL. This value although higher than the previous quarter but still within the limits Vietnamese regulation allow (QCVN 08:2008/BTNMT, level B2; 10000 MPN/100mL).

Through the survey, this issue is not arising from the project. It's coming from less awareness of local people. They drop litter, animal died body to river. On the next meeting with people's committee, contractor recommend that local people should not use surface water at the monitoring sampling location and near the project area, and also remind them not to litter any more.

4.2.5 Underground Water Quality

+ Sampling location: *Xuan Thanh residential area – Km 54+400.*

- *125-NN-(1)/2012: Mr. Tran Ngoc Son households; 1398 Tran Cao Van St, Bau Ham 2 Commune, Thong Nhat District, Dong Nai Province.*
- *125-NN-(2)/2012: Mr. Cao Van Duong households; Lap Thanh hamlet, Xuan Thanh Commune, Thong Nhat District, Dong Nai Province.*

- **pH:**

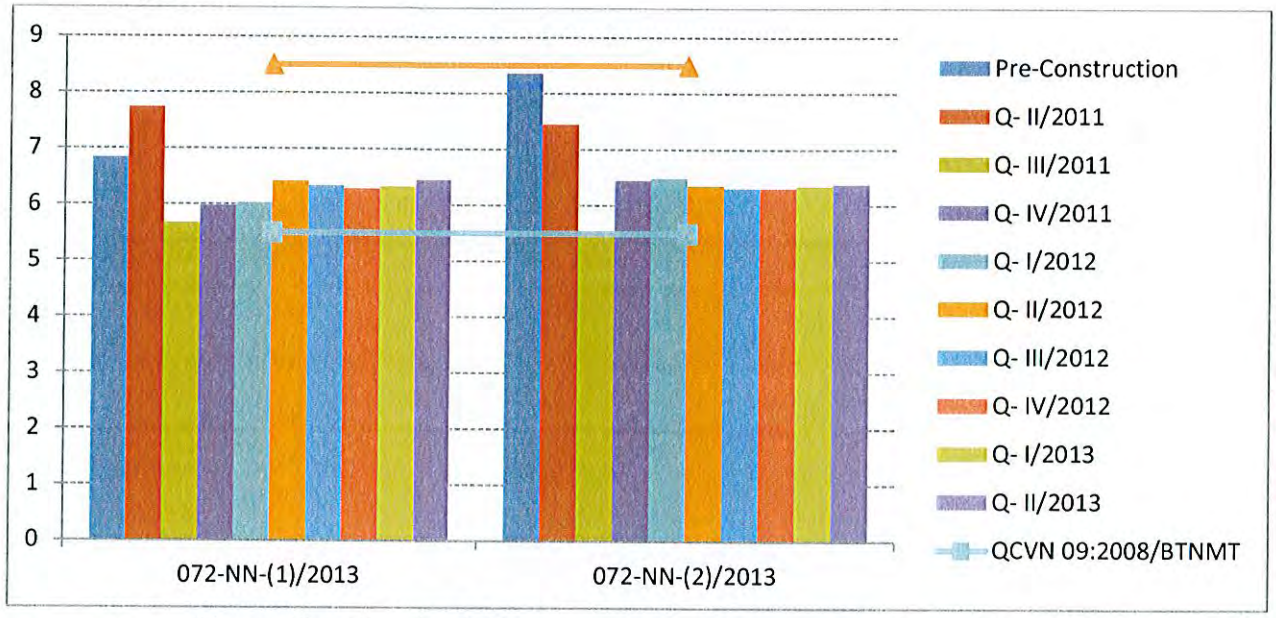


Figure 18: pH varies follow quarter of underground water quality monitoring

Remark:

pH value at two sampling locations: *072-NN-(1)/2013, 072-NN-(2)/2013* are met Vietnamese regulation (QCVN 09:2008/BTNMT; 5.5-8.5) with value around 6,38÷6,45.

- **Total dissolved solids (TDS)**

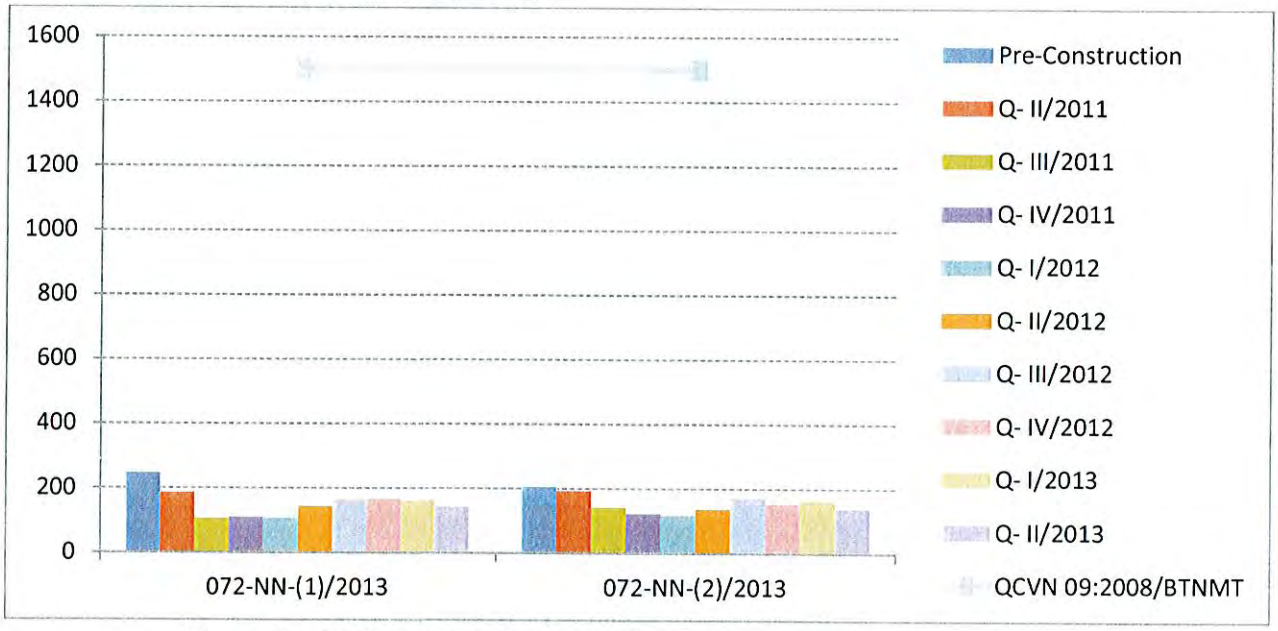


Figure 19: TDS varies follow quarter of underground water quality monitoring

Remark:

Total dissolved solid in quarter II-06/2013 is low at all monitoring locations and its value is about 138,2÷142,9 mg/L. These values are met the Vietnamese regulation (QCVN 09:2008/BTNMT; 1500 mg/L).

- **Hardness level**

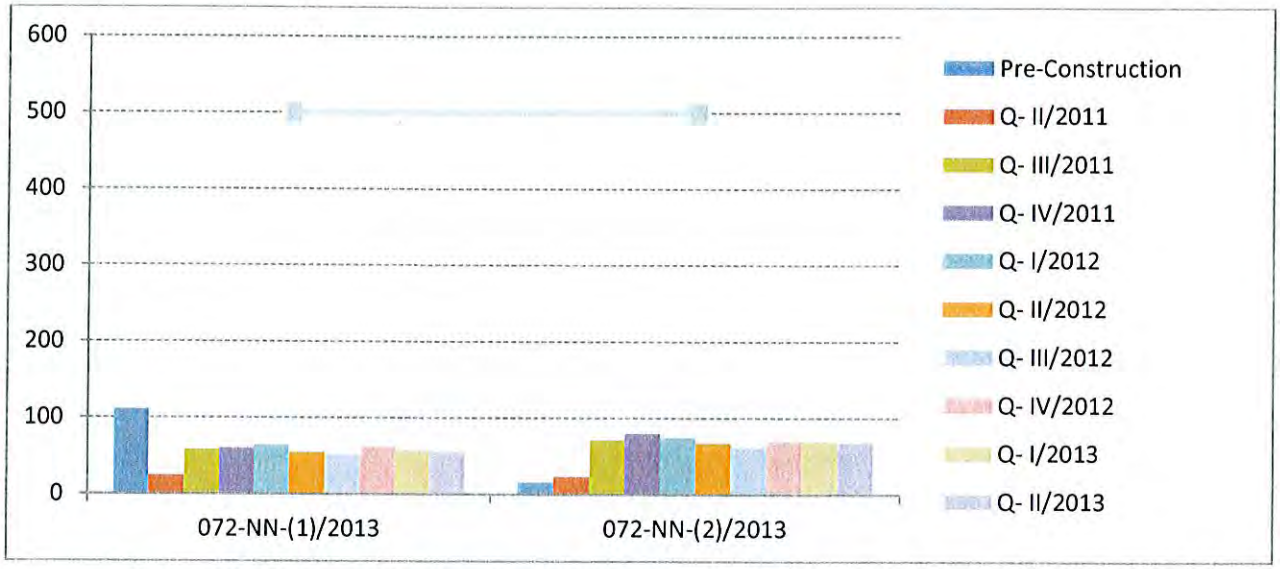


Figure 20: Hardness level varies follow quarter of underground water quality monitoring

Remark:

According to the monitoring result, hardness level fluctuated around 55,4÷68 mg/L mg/L and these values are met the Vietnamese regulation (QCVN 09:2008/BTNMT; 500 mg/L).

- **CN^-**

CN^- concentration fluctuated around (0,014÷0,016) $x10^{-3}$ mg/L. These values are met the Vietnamese regulation (QCVN 09:2008/BTNMT; 0.01 mg/L).

- **$N\text{-}NO_3^-$**

$N\text{-}NO_3^-$ concentration at all monitoring locations is very lower than the limit regulation (QCVN 09:2008/BTNMT; 15 mg/L). $N\text{-}NO_3^-$ concentration is fluctuated around 0,22 ÷ 0,25 mg/L.

- **Cl^-**

Cl^- concentration at all monitoring locations is very lower than the limit regulation (QCVN 09:2008/BTNMT; 250 mg/L). Cl^- concentration fluctuated around 0,69÷0,83 mg/L.

- **SO_4^{2-}**

SO_4^{2-} concentration at all monitoring locations is very lower than the limit regulation (QCVN 09:2008/BTNMT; 400mg/l). SO_4^{2-} concentration fluctuated around 0,036 ÷ 0,040 mg/L.

- **Heavy metals**

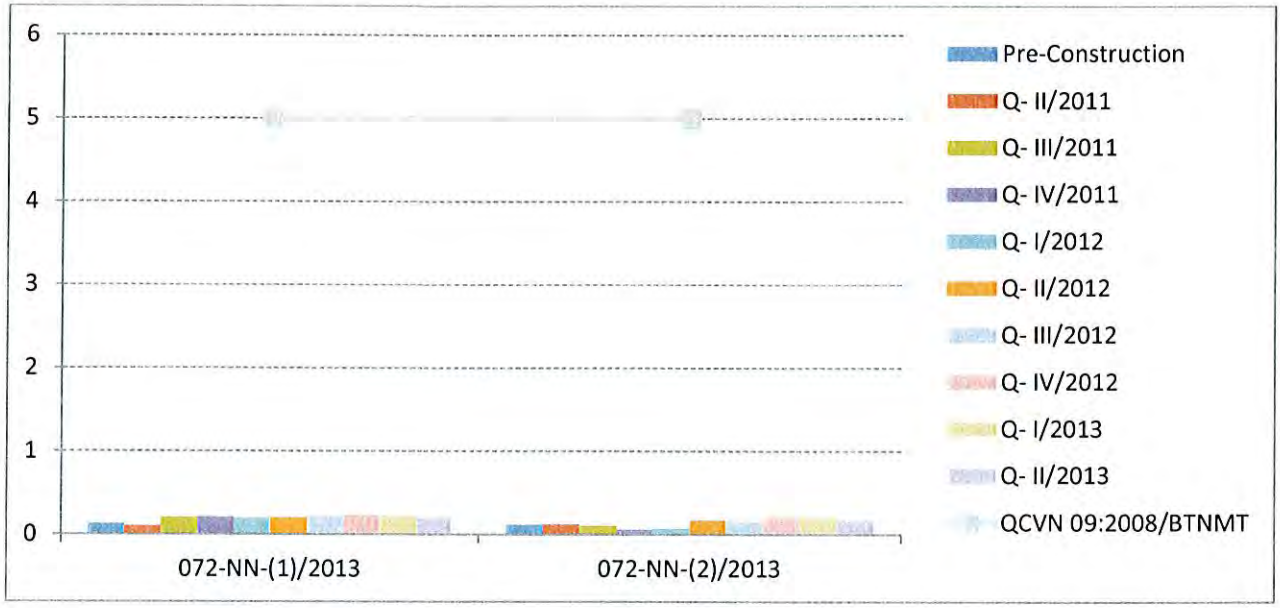


Figure 21: Total Fe varies follow quarter of underground water quality monitoring

Remark:

Almost of heavy metals concentration (Mn, total Fe, Cd, Pb, As) are very lower than the Vietnamese regulation. Manganese concentration fluctuated around (0,014÷0,017) mg/L (QCVN 09:2008/BTNMT; 0.5mg/L). Total Fe concentration fluctuated around 0,168÷0,202 mg/L (QCVN 09:2008/BTNMT; 5mg/L). Cadmium concentration fluctuated around 0,189÷0,258) $x10^{-3}$mg/L (QCVN 09:2008/BTNMT; 0.005mg/L). Lead concentration fluctuated around (0,601÷0,735) $x10^{-3}$mg/L (QCVN 09:2008/BTNMT; 0.01mg/l). Arsenic concentration fluctuated around (1,284÷1,405) $x10^{-3}$ mg/L (QCVN 09:2008/BTNMT; 0.05mg/L).

- **Total coliform and Fecal coliform**

According to the monitoring result, almost of total coliform values and fecal coliform values are zero at location: *072-NN-(1)/2013, 005-NN(2)/2013*. These values are met the Vietnamese regulation (QCVN 09:2008/BTNMT; Total coliform: < 2 MPN/100mL; Fecal coliform: 0MPN/100mL).

4.2.6 Soil Quality

+ Sampling location: Package No.6 area.

- *125-MĐ-(1)/2012: Bau Ham 2 ward (near Km 53+800, PK.6) (X: 0734106, Y: 1204617)*
- *125-MĐ-(2)/2012: Km 41+100 (X: 0735644, Y: 1205820)*
- *125-MĐ-(3)/2012: Km 54+350 (X: 0733484, Y: 1203996)*
- *125-MĐ-(4)/2012: Km 54+400 (X: 0733147, Y: 1203753)*

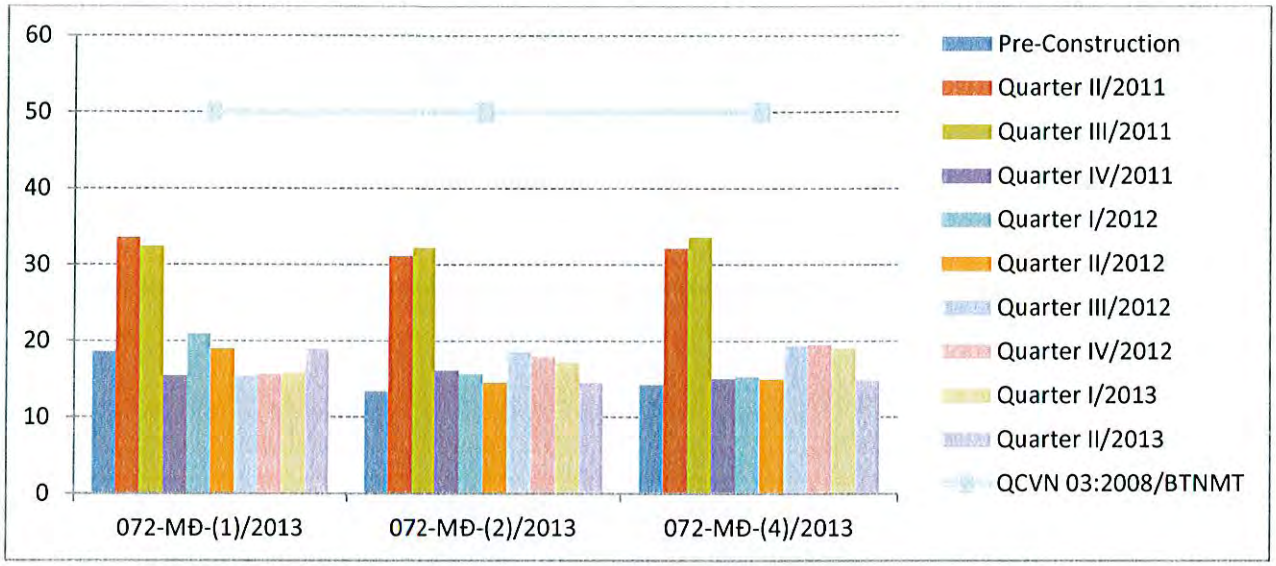


Figure 22: Cu varies follow quarter of soil quanlity monitoring

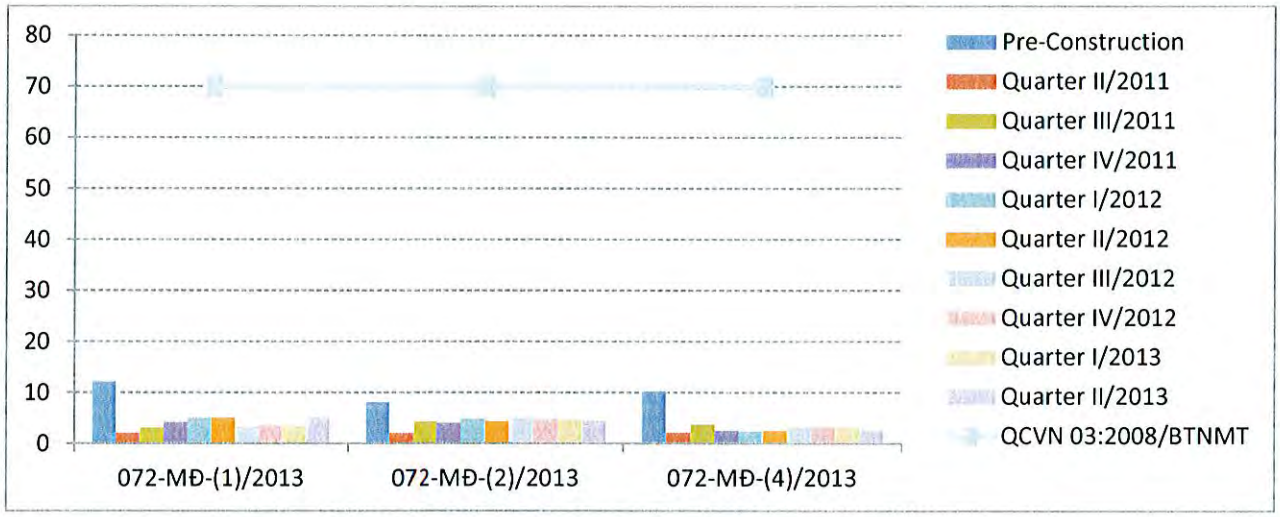


Figure 23: Pb varies follow quarter of soil quanlity monitoring

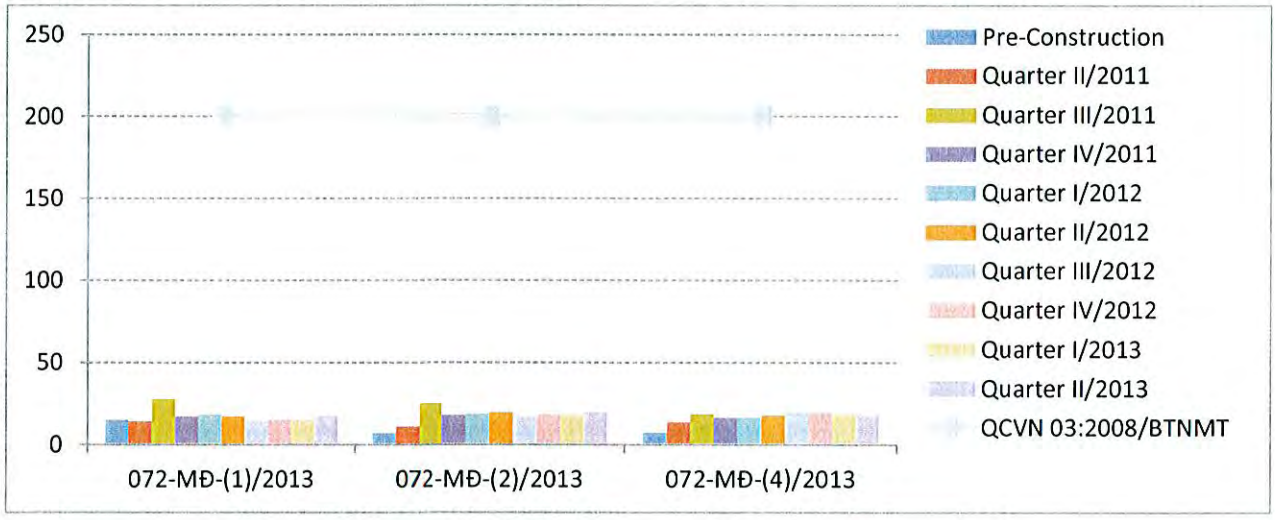


Figure 24: Zn varies follow quarter of soil quanlity monitoring

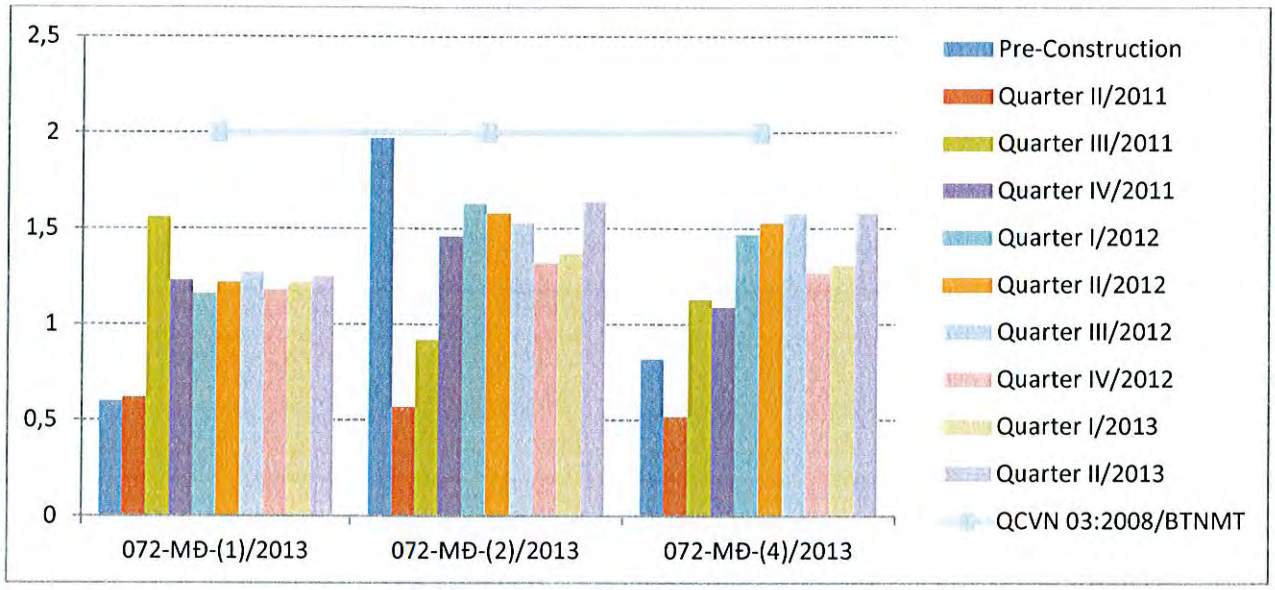


Figure 25: Cd varies follow quarter of soil quanlity monitoring

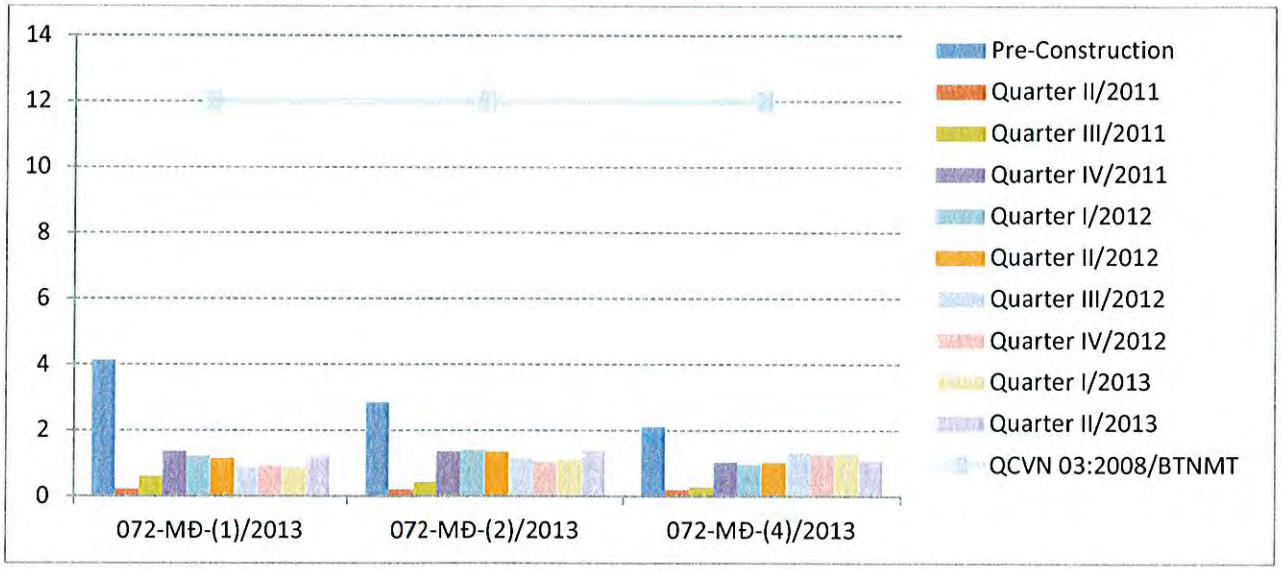


Figure 26: As varies follow quarter of soil quanlity monitoring

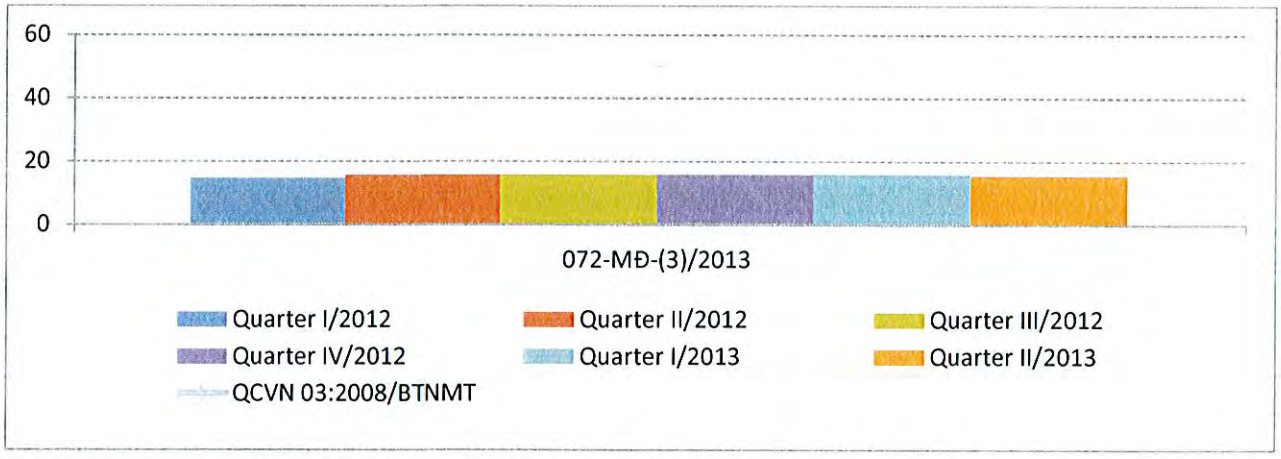


Figure 27: Cu varies follow quarter of soil quanlity monitoring

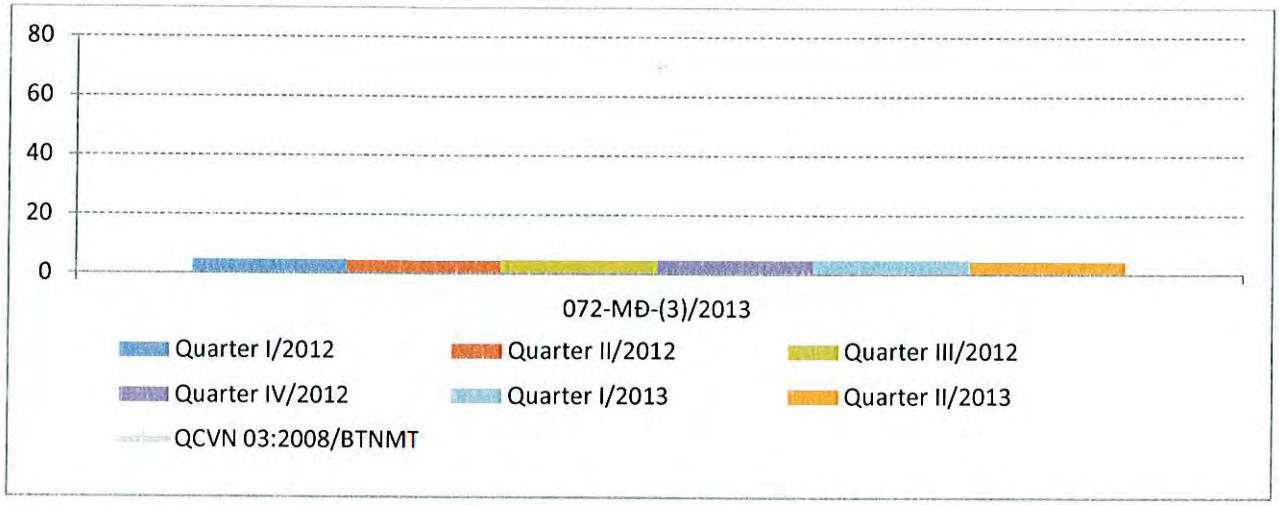


Figure 28: Pb varies follow quarter of soil quanlity monitoring

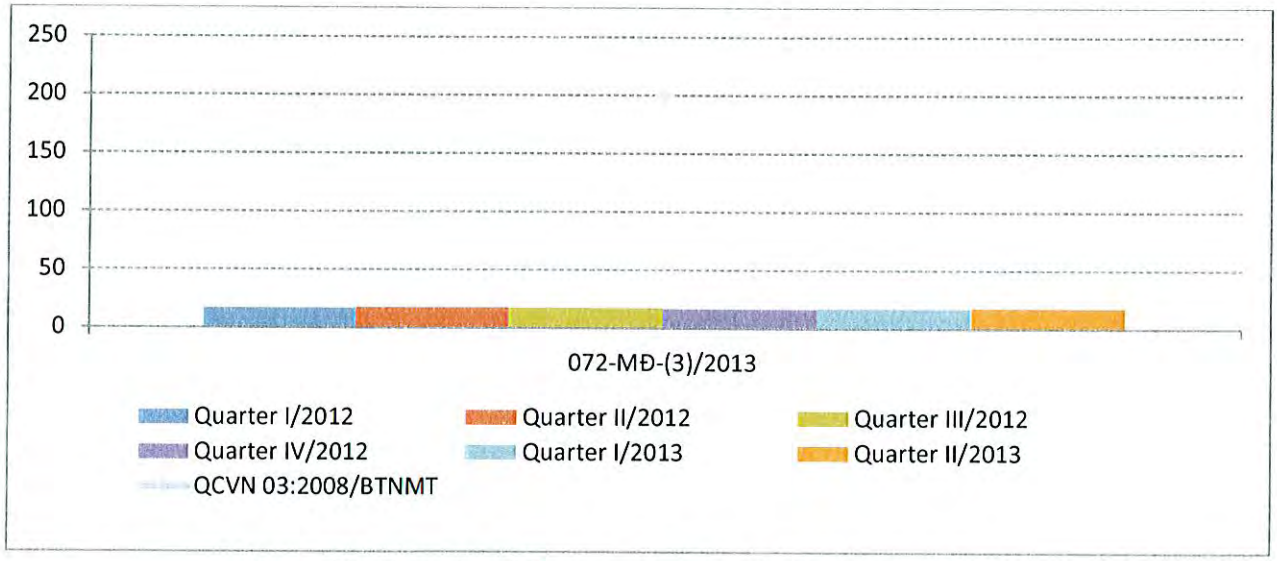


Figure 29: Zn varies follow quarter of soil quanlity monitoring

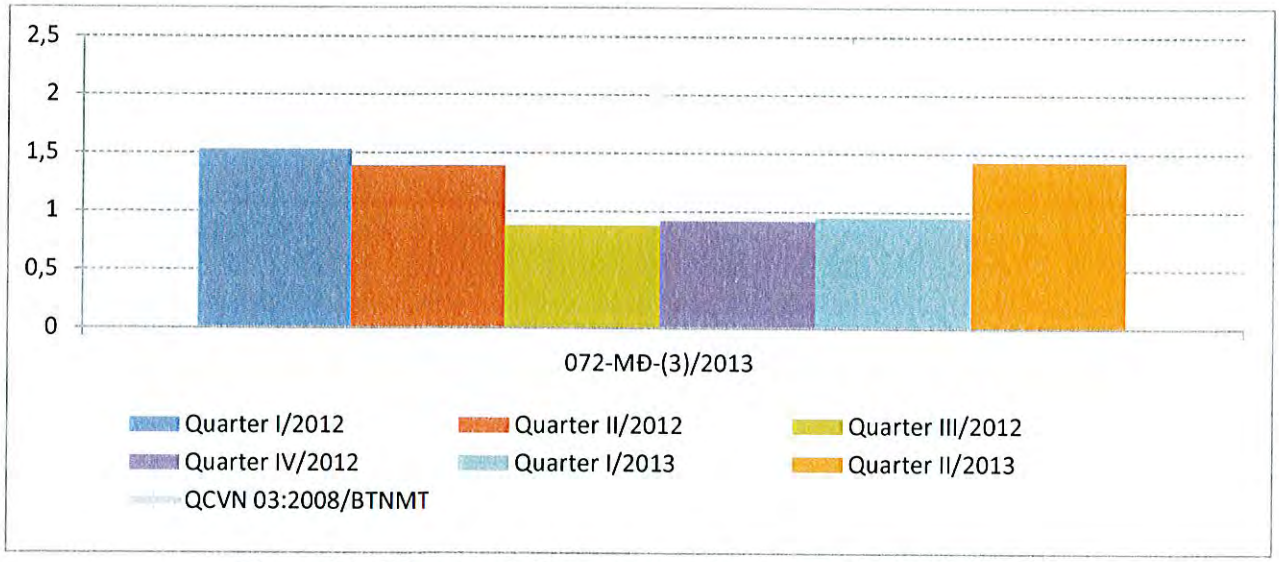


Figure 30: Cd varies follow quarter of soil quanlity monitoring

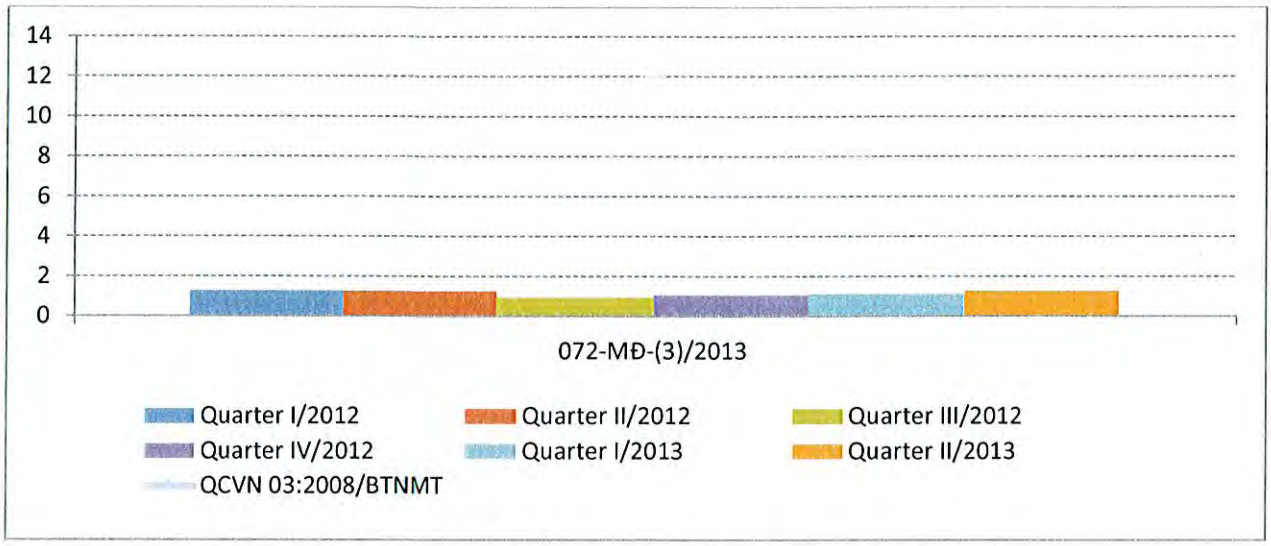


Figure 31: As varies follow quarter of soil quanlity monitoring

Remark :

According to the monitoring results, show all value of heavy metals were analyzed were reached for regulation QCVN 03:2008/BTNMT (Agricultural land). This demonstrates that the construction activity has yet to impact the surrounding environment.

4.2.7 Waste Water Quality

- ***Domestic wastewater:***

+ Location and symbol of samples:

- Location: As from last quarter III -9/2012 onward, the location of domestic wastewater quality monitoring in the area of the site worker's camp has changed from Km 49+980 to Km54+800 (near the concrete batching plant of Package No.6). Purpose of the above change that is workers live near the batching plant for more favorable to work construction and activities at site. In this quarter II-06/2013, the location of the above mentioned sampling continued to perform at Km 54+800.
- Symbol of samples: *125-NT-(1)/2012: Worker's camp area (Km54+800)*

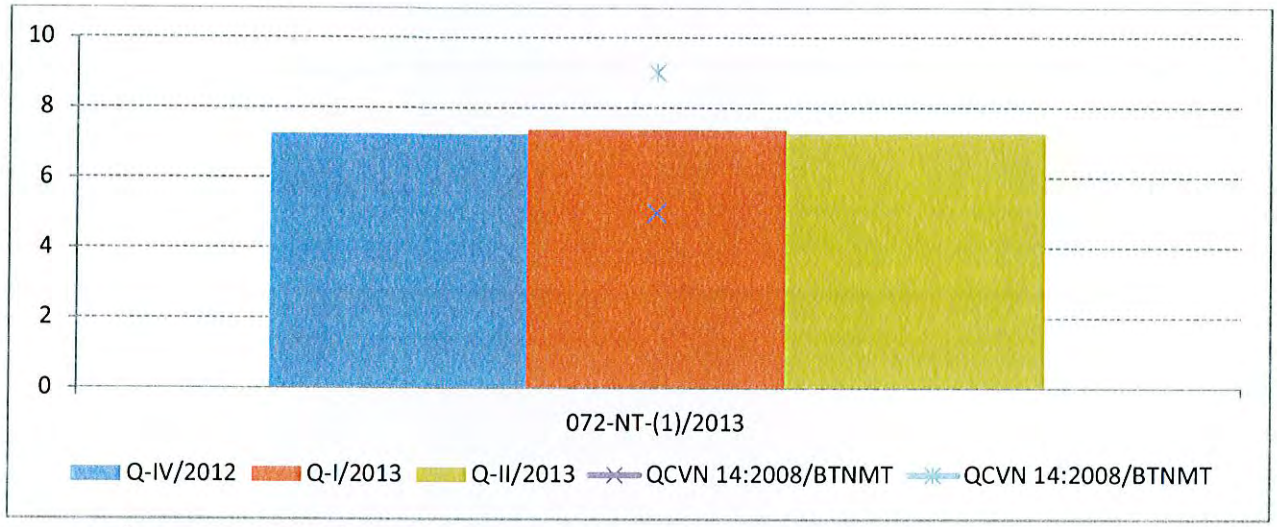


Figure 32: pH varies follow quarter of domestic wastewater quality monitoring

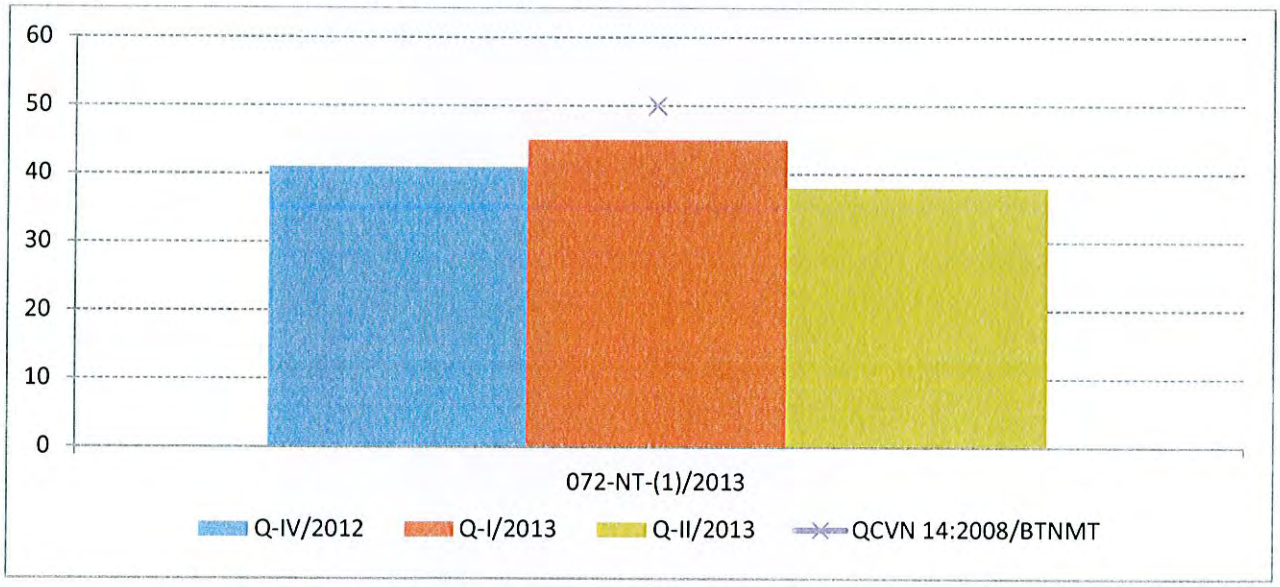


Figure 33: BOD_5 varies follow quarter of domestic wastewater quality monitoring

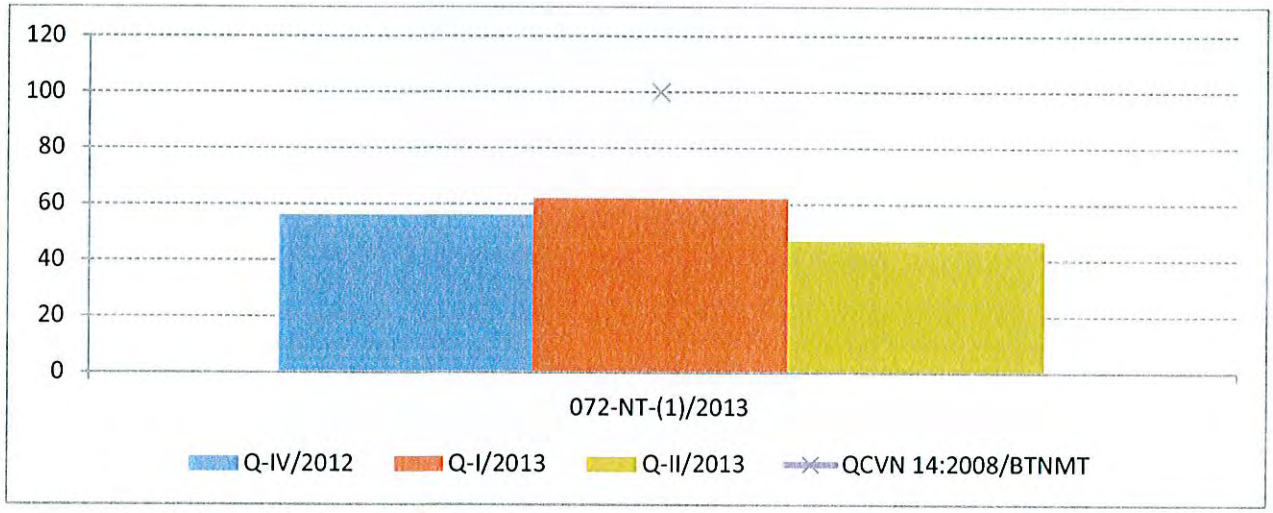


Figure 34: TSS varies follow quarter of domestic wastewater quality monitoring

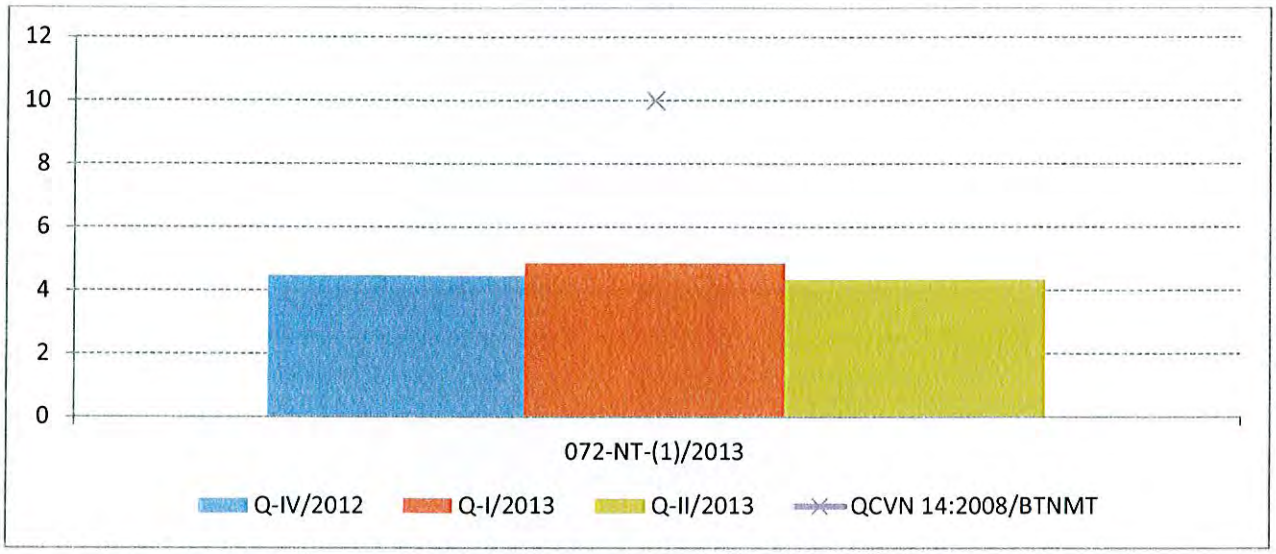


Figure 35: NH_4^+ varies follow quarter of domestic wastewater quality monitoring

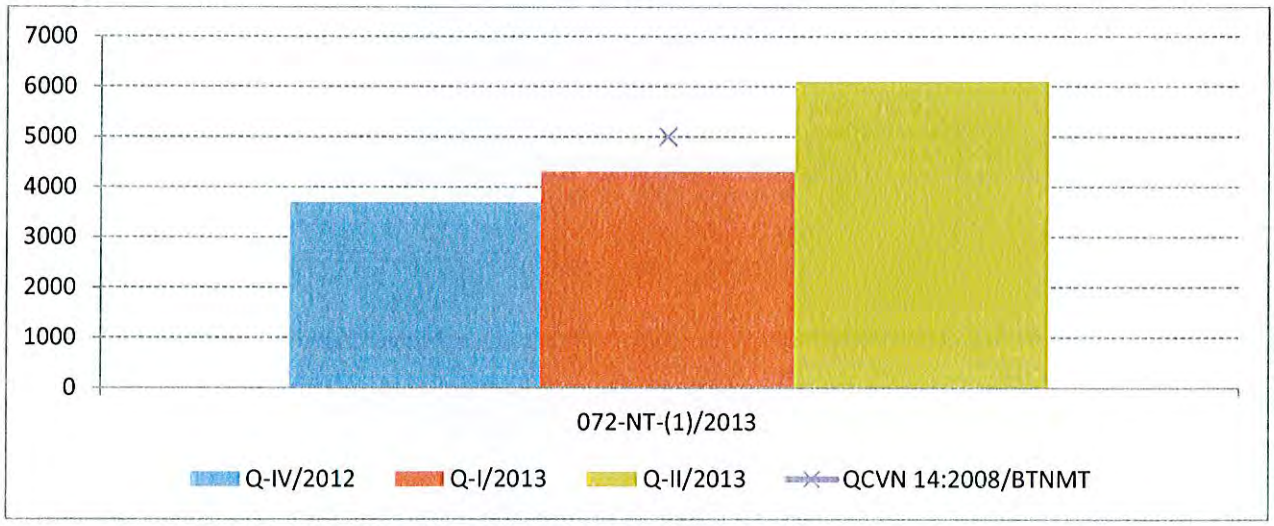


Figure 36: Total Coliform varies follow quarter of domestic wastewater quality monitoring

Remark :

According to the monitoring domestic wastewater quality of worker's camp area at concrete mixing station area (Km54+900) showed that almost all parameters analyzed during the observation in this quarter II/2013 although have increase than quarter I/2013 and lower than the standard limit (QCVN 14:2008/BTNMT (level B).

The contractor shall clear the bathroom and other sanitary facilities for workers and waste water treatment system will be improve.

A proposal for treatment of waste water is mentioned in the item 5.3.1 Domestic wastewater

- ***Waste water from construction activities:***
  - + Location and symbol of samples:
  - ➢ 125-NT-(2)/2012: *Concrete mixing station area* (Km54+900)

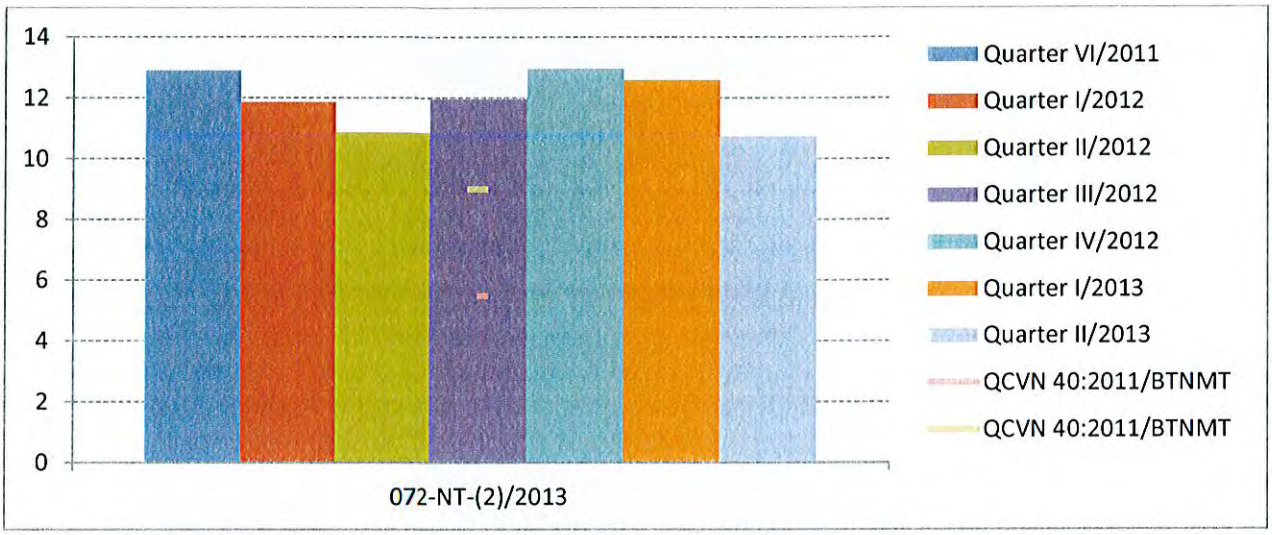


Figure 37: pH varies follow quarter of wastewater from construction activities quality monitoring

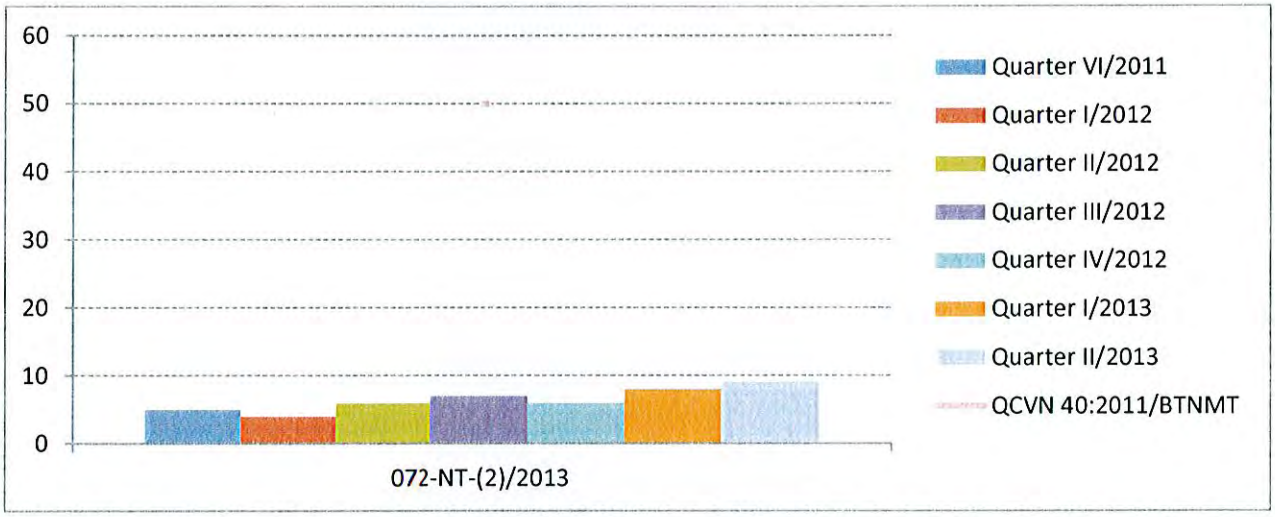


Figure 38: BOD varies follow quarter of wastewater from construction activities quality monitoring

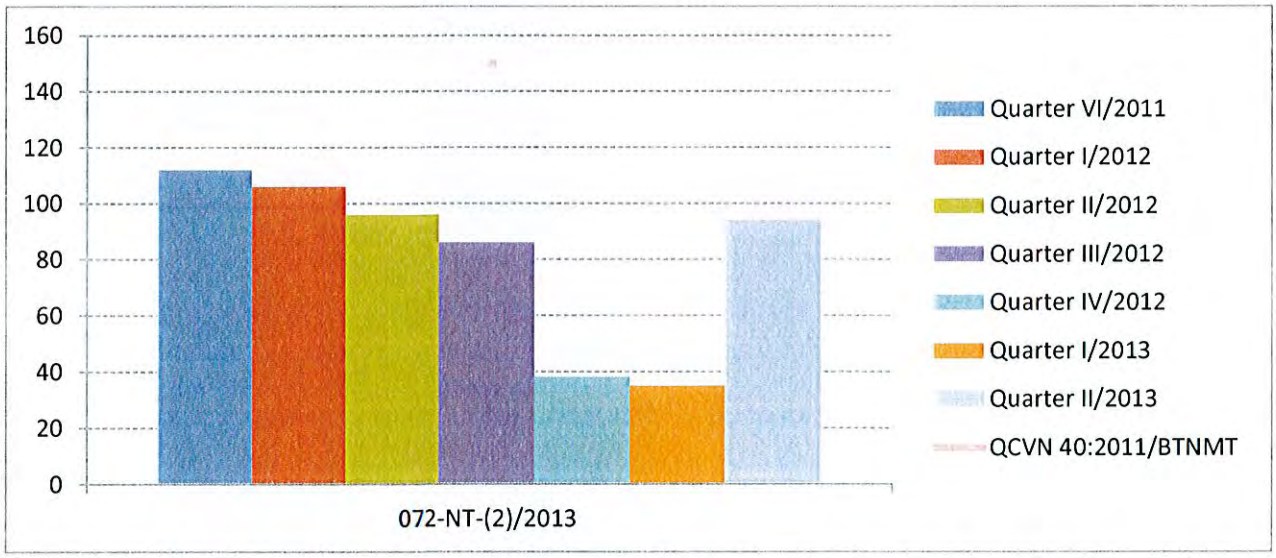


Figure 39: COD varies follow quarter of wastewater from construction activities quality monitoring

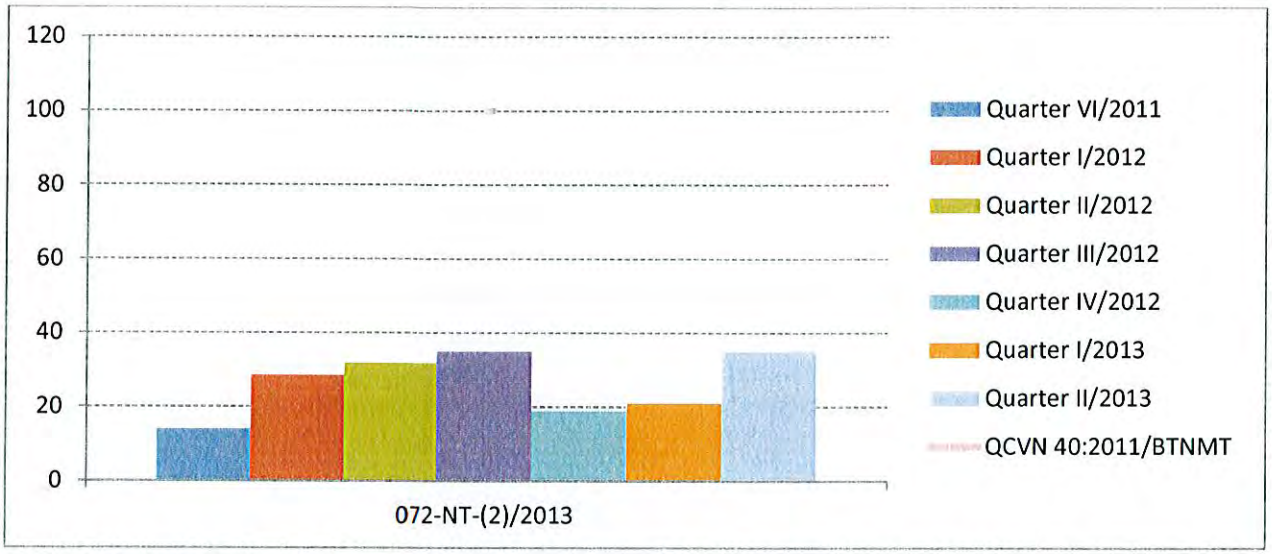


Figure 40: TSS varies follow quarter of wastewater from construction activities quality monitoring

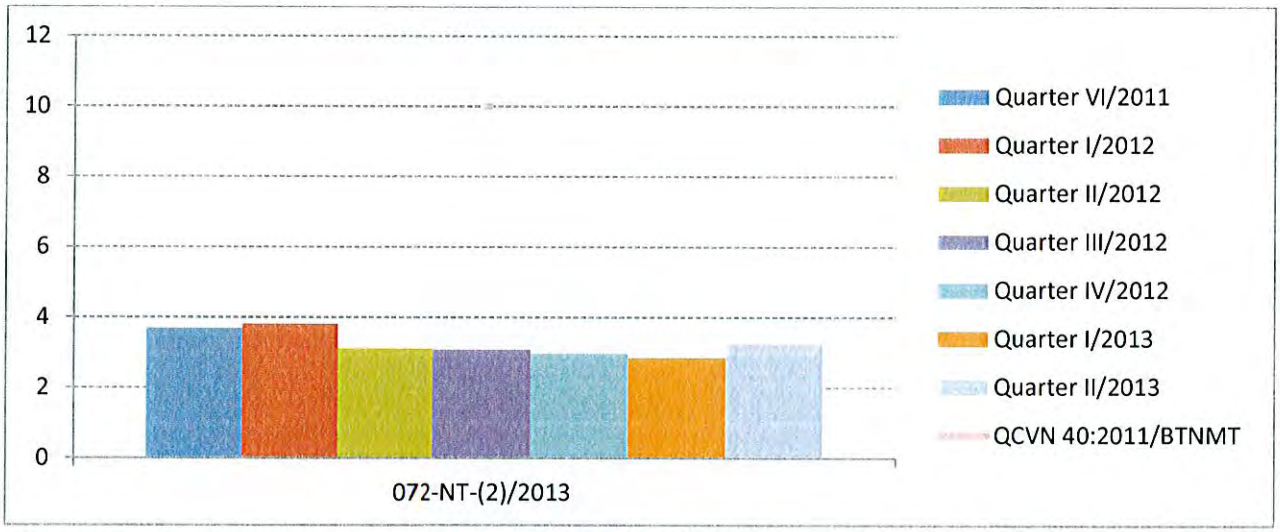


Figure 41: NH_4^+ varies follow quarter of wastewater from construction activities quality monitoring

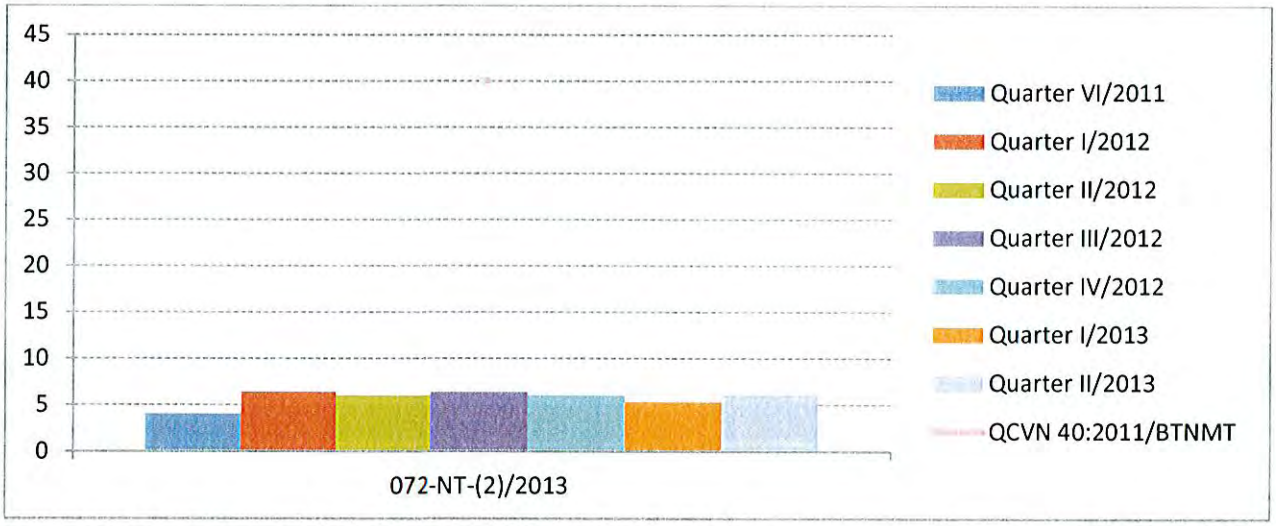


Figure 42: Total N varies follow quarter of wastewater from construction activities quality monitoring

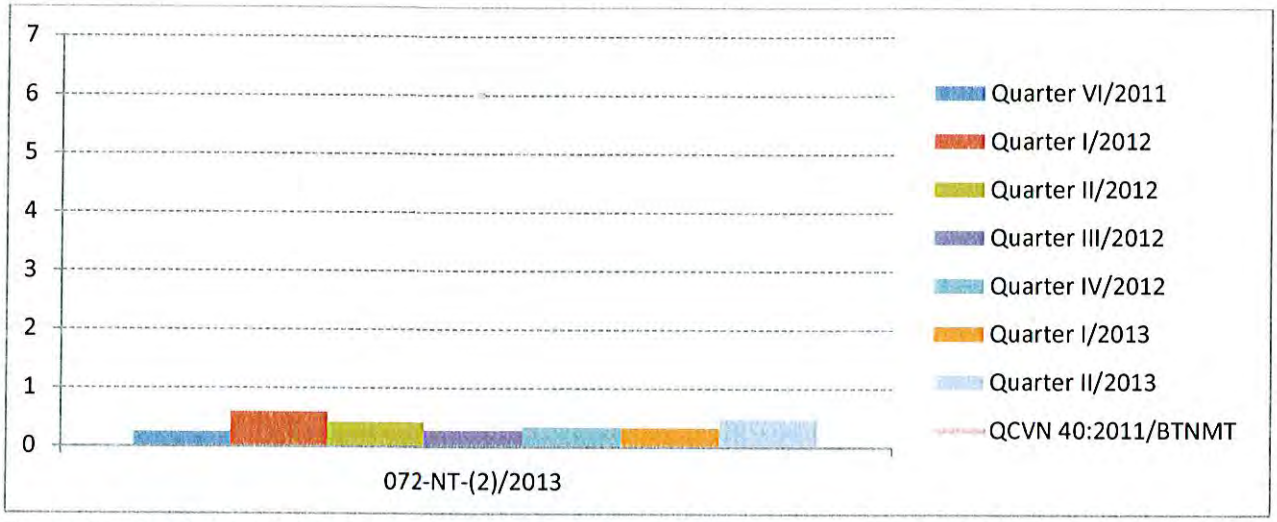


Figure 43: Total P varies follow quarter of wastewater from construction activities quality monitoring

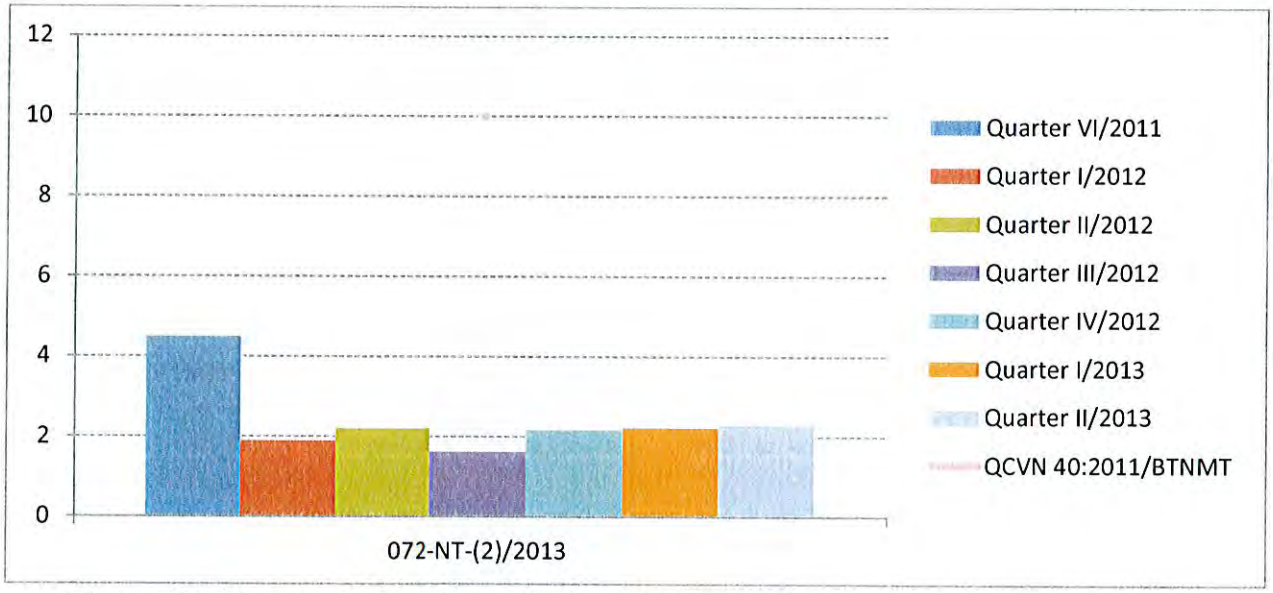


Figure 44: Lubricant varies of wastewater from construction activities quality monitoring

Remark :

According to the results of monitoring the quality of wastewater from construction activities showed that pH value exceeded Regulation allow (pH=10,73) (QCVN 40:2011/BTNMT; pH, level B; 5.5 – 9 mg/L). The construction activities in the quarter II/2013 has not cause any significant effect compared to last quarters.

However, additional specific measures has already brought out, such as:

- Cleaning waste water treatment system for construction activity twice per week (currently, once per week);
- Repair and improve waste water treatment system.

4.3 Assessment of Environmental Results

According to the results of measurement of air quality, surface water quality, groundwater quality, soil quality, noise and vibration shows: Status of environment in the project area is still quite better than the Pre-construction phase. This proves the environment quality in the project area was not affected by the activities of the project.

5: ENVIRONMENTAL PROTECTION IMPLEMENTED

5.1 Environmental permit

- Confirmation letter for registration for the environmental protection commitment for Batching plant of Pk.6.
- Book of registration for the waste source owner of hazardous waste.
- Permit for underground water exploitation.
- Exploitation Permit and the Environmental Permit of Nui Nua Quarry in Xuan Lap commune, Long Khanh town, Dong Nai province.
- Exploitation Permit for Borrow Pit.
- Environmental permit for Asphalt Plant of Pk.6 which has been mobilized.

5.2 Air pollution treatment.

5.2.1 Measures to control air pollution caused by vihecles.

A large volume of raw materials and fuel are transported to project area. The transports will be caused significant impact to the environment without the planning and control appropriately.

Air pollution from vehicles contains pollutants such as: TSP, SO2, NO2, CO, etc. To reduce the pollution, contractors are applying the following measures:

- Stockpiles of sand and aggregate greater than 20 cubic meters ($20m^3$) for use in concrete manufacture shall be enclosed on three sides, with walls extending above the pile and two meters (2m) (*at batching plant*).
- Using the fuel that sulfur contain lowly.
- Using the correct type of fuel for the engine.
- Periodic maintenance for construction vehicles.
- Do not carry the prescribed load.
- Transport of sand, soil, raw materials to the construction site must be covered by canvas drop cloth to avoid.
- Regularly clean trasportration and water spray moisturizing on the road when it's sunny and moving.
- Watering on the routes with frequency is 4times/day.
- Construction walls are provided in all locations where strong winds could blow dust and debris.
- Speed limit and select the appropriate transport routes.
- Soil, sand and rock stockpiles are protected from winds and sprayed with water as needed.
- The Contractor is cleanning and watering frequently in the concrete batch plant and adjoining area to control dust emissions.
- Areas of reclamation is completed, including final compaction, as quickly as possible consistent with good practice to limit the creation of wind blown dust.

- The operator, using the equipment must be trained to ensure correct operation and reduce the risk.

• **Assessment**:

- To protect and storage of construction materials by contractors implemented relatively well.
- Measures to control air pollution and dust are well implemented on site and concrete batch plant.
- Already submitted Confirmation letter for registration for the environmental protection commitment for Batching plant of Pk.6.
- Already submitted Environmental permit for Asphalt Plant of Pk.6 which has been mobilized.

5.2.2 Noise and vibration.

Noise and vibration generated during construction is mainly due to the activities of construction vehicles.

Noise and vibration impacts our health. Especially, workers near the sources. Noise above the permitted standards will affect worker health, reduced attention, headache, dizziness, fatigue ans insomnia,… reduces labor productivity. When expose to large noise level continuously for eight hours and lasts for many years may be increase blood pressure, which affects the digestive system, nervous system leading to occupational deafness,... And this is an agent that causes inhibition phenomenon (stress).

So, Hanshin contractor has applied the following measures to limit the lowest level noise spread out around.

- Install anti-vibration cushions imbalance for these machines have high noise levels such as the compressor.
- During the construction process, regularly check the balance of the machine, abrasion details, check oil and replace equipment wear.
- Supply equipment for labor protection against noise for workers in noisy areas.
- Restrict the transportation of land, sand activities in the rush hour when traffic on public roads.
- Use of machines that is causing loud noise and vibration (drill, excavator, etc.) is prohibited from 23:00pm to 5:00am.
- Do not use the equipment and machinery to avoid unnecessary noise and vibration.
- Activities causing noise shall be planned to be carried out when they have the lowest impact on people (from 7:30 to 18:00 daily).

• **Assessment**:

- Workers are supplied labor protection equipment.
- Noise and vibration are mitigated to lowest level and met Standard Vietnam. This is well implemented.

5.3 Wastewater treatment measures.

5.3.1 Domestic wastewater

Wastewater generated at the site during construction. This is domestic wastewater from activities of bathing, washing of the workers at construction sites with very small amounts, so plan should be selected as follows:

Treatment plan

Domestic wastewater is preliminary treated by a three-compartment septic tanks it is absorbed by soil.

Operation principles of three-compartment septic tanks are: sedimentation, decomposition and fermentation of organic.

Treatment system was built as three-compartment septic tank with the filter holder.

Wastewater in the toilets will be collected in tanks and anaerobic microorganisms decompose with effective treatment to meet 40-45%. Retention time in the tank about 20 days, 95% of suspended solids will settle to the bottom tank. Residue remains in the bottom of the tank for 6-8 months, under the action of anaerobic microorganisms, organic matter will decompose, creating a gas and a form of inorganic dissolved. Wastewater in the tank for a long time to ensure high performance of sedimentation to flow through the filter holder complete removal of suspended matter and escape. Each of septic tanks has vents to release gases from decomposition. Smoking section sediment will be periodically. Composed diagram of three-compartment septic tank with the filter holder has shown in figure 6.

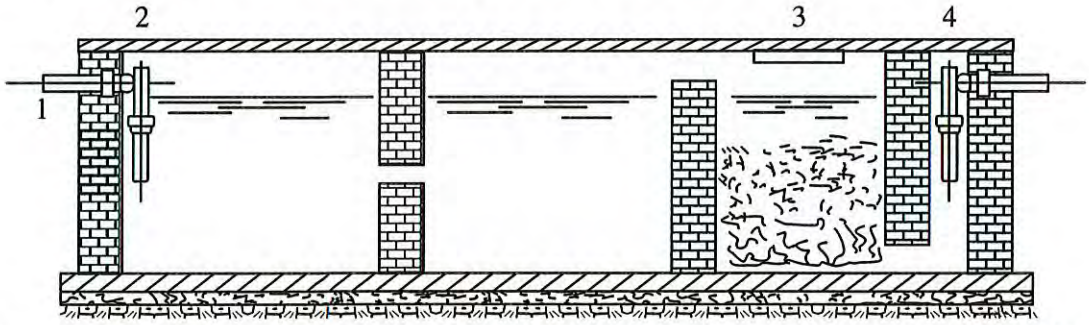


Figure 5.49: Schematic structure three-compartment septic tank with filter holder

1 - Sewage pipe into the tank. 2 - Vent pipe. 3 - Covers visits (to smoke residue).
4 - Prevention of discharge of wastewater treatment works to the next.

As mentioned above, the amount of wastewater was little generated by workers and were collected into a septic tank system has three tanks with filters before infiltration into soils. Therefore, this process did not affect the surrounding environment.

- **Assessment**:

- Have bathroom on site for worker and ensure environmental problems.

5.3.2 Wastewater from construction activity

Wastewater from construction activity is mainly wastewater from concrete mixing station area: This wastewater is flowed by private sewage systems and focused in tank. Wastewater is guaranteed deposited time before being discharged into rainwater drainage system.

- **Assessment**:

- Sewer system and tank had been operated on concrete mixing station. Should improve deposited time for tank to ensure come out water (To increase deposited time on compartment of tank).
- Regularly clean the waste water treatment system for treatment has effected.

5.4 Solid waste treatment.

At the current, contractor is applying solid waste management measures:

5.4.1 Domestic waste

Solid waste activities are generated about 4kg/day. At the current, solid waste activities are kept in plastic container with cap and it kept in prescribed place. Every day, this garbage is collected, concentrated and transferred to landfills governed by the people-household waste collection.

5.4.2 Solid waste from construction activity

Management and treatment for solid waste are implemented by contractor as follows:

- The Contractor establishes hygienic groups to collect waste from construction camp sites and to ensure the cleanliness of the whole construction area. The contractor will also co-operate with local authorities or companies to organize the waste collection.
- The Contractor and Sub-Contractors promptly clean up all spillage and waste from the transport vehicles on route to disposal sites.
- The amount of industrial waste generated during construction is very little, mainly packaging containing raw materials and most of these substances are reused, specifically:

+ Oil can or tank.
+ Bag of bentonies.
+ The solid waste is well managed on construction site

Controlling of the bentonite flow: All location where are building bridge (bored piles), bentonites is well managed. Bentonite is contained in the strong tanks and it was recovered, treated and reused.

- **Assessment**:

- The management of solid waste is implemented according to regulation.
- The solid waste collection contract with waste collection company's approved by local authorities

5.5 Controlling for Environment and Safety Activities on site

- Monthly direct training for Safety and Environment problem for all workers and staffs on construction site on the first week of month (***Detail of the above mentioned training is attached at Appendix 4, the photos in Appendix 7***);
- Monthly meeting for Safety and Environment control (***Detail of the above mentioned meeting is attached at Appendix 4, the photos in Appendix 7***);
- Implement of HIV/AIDS & Human Trafficking Prevention Program for all workers on site, 6 months/times. Already had finished the phase 1 of this above program since last year. Now, we are deploying continue for the phase 2 of this program (***Detail of the above mentioned training is attached at Appendix 3***);
- Taking and testing sample and submitting report for quarterly environment monitoring are happening and following the plan of SEMP which was submitted and approved (***Detail contents is depicted in the Chapter 4, the photos in Appendix 7***)
- Checking site every day and troubleshooting (if any) for environment and safety on site always ensure.

Tables of summary data on Controlling for Environment and Safety Activities on site

Table 1: Site Inspection

No.	Item	No. times	Period	Content	Remark
1	Checking on Site	Every day	09:00 – 11:30 AM and/or 14:00 – 16:30 PM	Controlling for environment & safety on site and troubleshooting (if any)	

Table 2: Monthly training and meeting

No.	Item	No. Times (1time/month)	Location	With the participator	Content	Remark
1	Monthly meeting	6	Main-contractor's Office	The preson in-charge Safety & Environment of all Sub-contractors and Construction Teams	Environment & safety Control on site and troubleshooting (if any)	Detail content is attached at Appendix 4, the photos in Appendix 7
2	Site direct training	6	Construction Site of Package No.6	All engineers, staffs and workers who are working on site		

Table 3: Some remind to sub-contractors for activities improved on site

No.	Content	No. times	Written	Improvement	Remark
1	Remind letter from the main-contractor	4	HSEI/No./01 dated 17th Jan. 2013 HSEI/No./02 dated 04th Mar. 2013 HSEI/No./03 dated 12th Mar. 2013 HSEI/No./04 dated 17th May 2013	Has been improved	Detail letter is attached at Appendix 5
2	Up to now, nothing critical had happened about Environment & Safety, thus no work to temporary stop the construction activities to improve the mitigation measures.				

6: CONCLUSION AND RECOMMENDATION

6.1 Conclusion

Hanshin Engineering & Construction Co., Ltd has applied measures better protect the environment. According to the results of measurement of air quality, surface water quality, groundwater quality, soil quality, noise and vibration on Quarter II - June 2013 shows: Status of environment in the project area is still quite better than the quarter I-2013. This demonstrates that the methods of environmental protection have been implemented well and fully. The contractor shall continue to apply the measures required to achieve the lowest limits to affect the environmental quality of the area.

6.2 Recommendation

Bases on the results of environmental monitoring, contractor shall take measures to prevent and mitigate the impact of environmental factors. Special attention to the potential impact may change in environmental quality and environmental pollution.

Project Manager

HANSHIN ENGINEERING & CONSTRUCTION CO. GÓI THẦU XÂY LẮP SỐ 6 DỰ ÁN XÂY DỰNG ĐƯỜNG CAO TỐC TP.HỒ CHÍ MINH LONG THÀNH DẦU GIÂY

Kim Kyong Sob

APPENDIX

APPENDIX 1:

EMERGENCY RESPONSE PLAN IN CASE OF FUEL AND CHEMICAL SPILLS

❖ **Responsibility, timeframe, resources/equipments and procedures to control in emergency response plan**

	Responsibility	Timeframe	Available Resources/Equipment	Control Procedure	Government Permit
Related Authorities	Record information, survey on the scene and support to clean up spills.	In working time or overtime if necessary	+Shovel: 5 units +Dry sand: 2 m^3 +Cotton: 10 kg +Tank: 5 units +Gloves & Hobnailed boots: 10 sets +Big tank for hazardous waste: 2 units (200 liters/unit)	Figure 3.4	Will be mobilized
Supervisor	Record, survey and check on the scene	Anytime have risk			
Project Director	Receiving information and assign tasks to employees to solve the problem				
Site Environmental Specialist	Record on the scene and give the urgent methods for solving and control implementing process until finishing the problem.				
Construction Manager	Mobilize Resources/Equipment to the scene and survey on site				
Site Manager	Check on the scene and inform to Site Environmental Specialist				
Site Engineer	Record risks and inform to manager and supply resources/equipments				
Subcontractors	Support equipments and give method for solution if can be				
Client (VEC)	Check and assess on the scene after handling	In working time			

❖ **Process troubleshooting**

❖ ***Evacuate from the risky areas***

Individuals in the spill area with oil/chemical need to be evacuated from the site immediately (Except those who have been trained to handle the overflow traces). If the wound in the full-size medium and large or seems dangerous to immediately inform to site manager to apply the plan for

emergency incidents.

❖ ***Plan against spills and clean up spills***

Upon receiving the information happens to oil spills/chemical from the site (technical staff of the contractors/local communities/local authorities) in the process of troubleshooting, Site Manager should perform the following steps:

Step 1: To note the information about the inci

dent from the signal-man were notified and from other sources to determine property and scale of the problem (small/medium /large).

Step 2: Implementation quickly rescue forces as well as rescue plan as follows:

- Organization of emergency response forces to the scene carrying out rescue work.
- Inform the stakeholders involved in rescue work.
- Mobilization of the specialized units perform the rescue (if necessary)

Step 3: Force-site rescue coordinate of related agencies involved in rescue work. The work of the rescue scene, including:

- *For small spill stain (<10 liters)*

- Ensure that the spill area can access and full marks are not dangerous to life and health of the individuals involved in spill prevention.
- Identify and stop the overflow source (plug the leak, close the valve, the bottle is upright overflow ...).
- Check/identify risk factors such as combustible materials, the harmful gases, the causes of spills. If the flammable liquid must turn off the engine, power/electrical equipment nearby. If found the risk of serious harm should immediately leave the area overflow. If in doubt, consider the list of oil / chemicals to test and identify hazards.
- Keep track overflow drain into drainage lines or the surrounding water by using absorbent materials and/or other materials (if necessary), close the valve drains, cover the drain ...
- If material spills have penetrated drainage pipe/water is necessary to apply measures to isolate the source of water to oil/chemical spills wide and alert to local communities.
- Clean up spills and other materials used in absorbent material (not water) into the container security - are boxes for hazardous waste.
- Ensure that the area is cleaned non-slip. If it is easy to slip, you need to use anti-slip material and or use warning signs.
- Prepare minutes of the incident and report to stakeholders (People's committee, WSA).

- *For medium spill stain (10 liters to 100 liters)*

- Ensure that the spill area can access and spills do not endanger the lives and health of the

individuals involved in spill prevention.

- Identify and stop the overflow source (plug the leak, close the valve, the bottle is upright overflow ...).
- Check/identify risk factors such as combustible materials, the harmful gases, the causes of spills. If the flammable liquid must turn off the engine, power/electrical equipment nearby. If found the risk of serious harm should immediately leave the spill area. If it is flammable liquid in doubt, consider the list of oil/chemicals to test and identify hazards.
- To mobilize additional support forces to handle spills and stains direct command and supervision of the entire process of managing pain overflow.
- Keep track overflow drain into sewer lines or the surrounding water using absorbent materials and/or other materials (if necessary), close the valve drains, cover the drain ...
- If material spills have penetrated sewer / water is necessary to apply measures to isolate the source of water to oil / chemical spills wide and alert local people.
- Clean up spills and other materials used in absorbent material (not water) into the container security - are boxes for hazardous waste.
- Ensure that the area is clean non-slip. If you slip, you need to use anti-slip material and or use warning signs.
- To record and report incidents to the relevant parties (People's community, and WSA)

• *For full marks (over 100 liters)*

- Ensure that the spill area can access and spills and stains do not endanger the lives and health of the individuals involved in spill prevention.
- Identify and stop the overflow source (plug the leak, close the valve, the bottle is upright overflow ...).
- Check/identify risk factors such as combustible materials, the harmful gases, the causes of spills. If the flammable liquid must turn off the engine, power/electrical equipment nearby. If found the risk of serious harm should immediately leave the area overflow. If in doubt, consider the list of oil/chemicals to test and identify hazards.
- To mobilize additional support forces to handle spills and stains direct command and supervision of the entire process of managing pain overflow.
- Keep track overflow drain into sewer lines or the surrounding water using absorbent materials and/or other materials (if necessary), close the valve drains, cover the drain ...
- If material spills have penetrated sewer/water is necessary to apply measures to isolate the source of water to oil/chemical spills wide and alert local people.
- Depending on the size and capacity overflow traces of actual rescue team to request the

assistance of the specialized agencies at the local (if necessary).

- Clean up spills and other materials used in absorbent material (not water) into the container security - are boxes for hazardous waste.
- Ensure that the area is clean non-slip. If you slip, you need to use anti-slip material and or use warning signs.
- Prepare minutes of the incident and report to stakeholders (People's communities, Environmental Resources district office and WSA).

Step 5: Collaborate with other professional agencies and organizations carrying out the assessment of environmental impacts caused by the incident, the statistical survey of economic damage and the environmental cleanup process after the incident.

Step 6: Meeting with stakeholders to consider the cost of troubleshooting.

Step 7: Prepare procedures and requirements for compensation and treatment under the law.

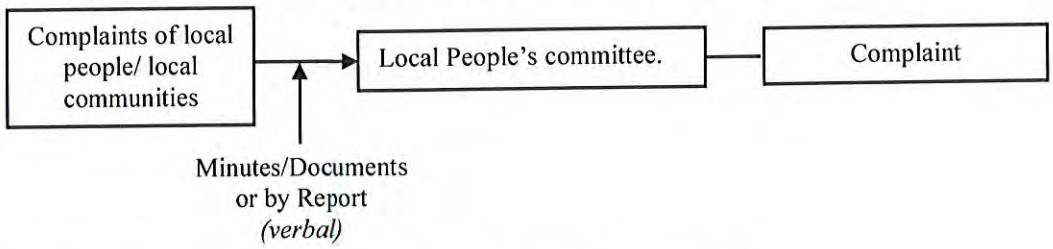
APPENDIX 2:

SOLVING COMPLAINTS

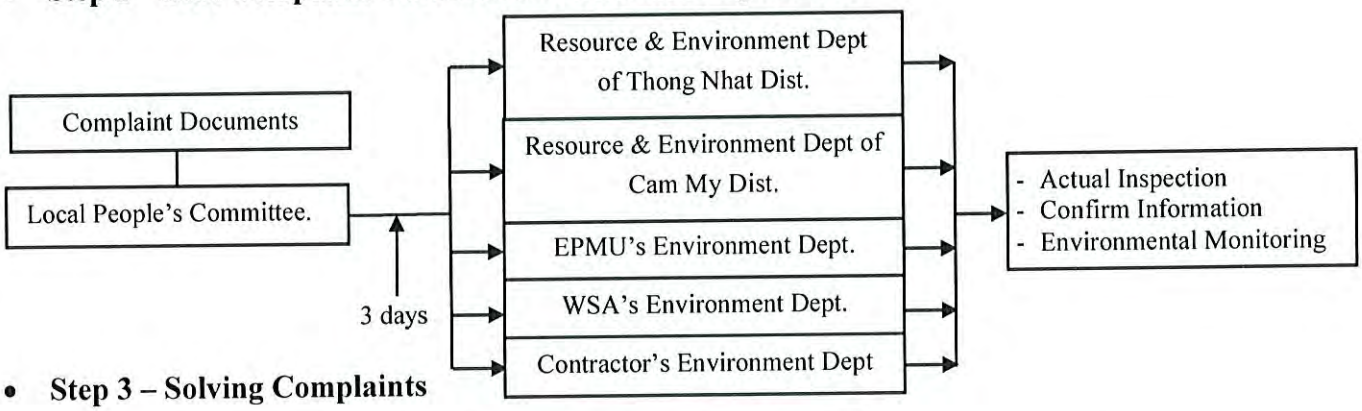
SOLVING COMPLAINTS

Propose a solving complaint as below:

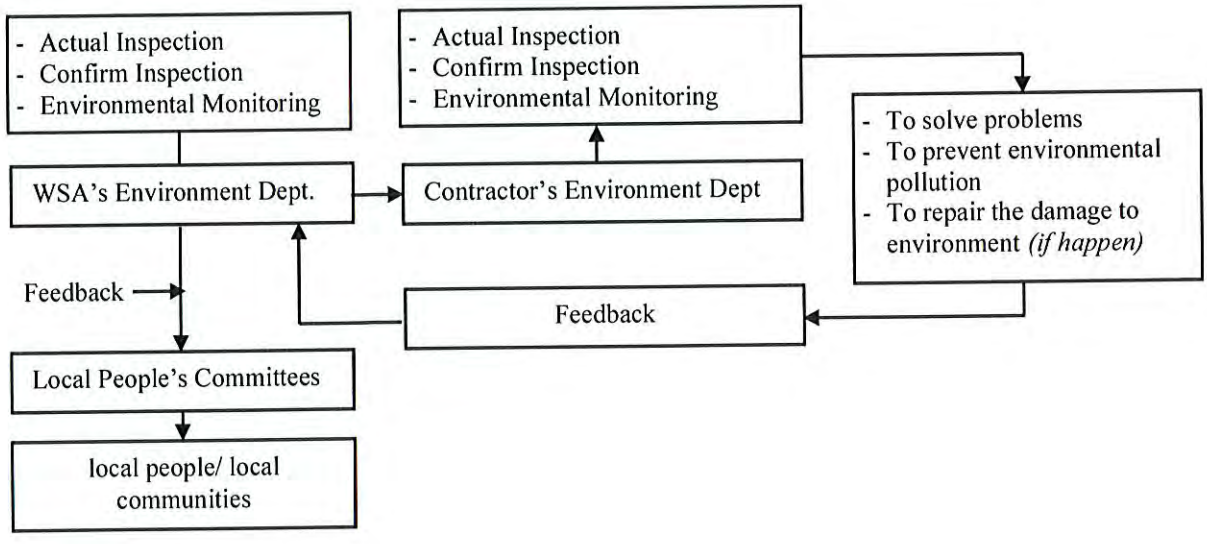
- **Step 1 – Record any Complaints received from Local People/ Local Communities:**



- **Step 2 – Sent Complaint Documents to Relevant Department**



- **Step 3 – Solving Complaints**



- **Step 4 – Filing**

Solving Complaints Result will have in Environmental Monitoring Report per quarter and will be submitted WSA/EPMU/VEC/ADB and Resource & Environment Department of Thong Nhat dist., Dong Nai province.

Documents of solving complaints result will be save by WSA/EPMU and Contractor.

APPENDIX 3:

HIV/ AIDS & HUMAN TRAFFICKING PREVENTION PROGRAM

CURRICULUM AND SOURCE

TRAINING	TOPIC	CURRICULUM AND SOURCE
Introductory Training Module	Topic 1.1 - Male and Female Reproductive Organs	Source: *For Life, With Love* (ADB)[1] Module 1 Activity 2 – Male and Female Reproductive organs (page 32)
	Topic 1.2 – Information about Sexually Transmitted infections	Source: *HIV/STI Training in Construction Settings* (CARE International in Viet Nam)[2] Lesson 2 – Sexually Transmitted Infections
	Topic 1.3 – How to prevent STIs - Safe Sex	Source: *HIV/STI Training in Construction Settings* (CARE International in Viet Nam) Lesson 4 – Safe Sex
	Topic 1.4 – Where to get condoms and STI Testing	Source: *For Life, With Love* (ADB) Module 2 Activity 10 - Where to Find Condoms and Places Providing HIV Testing and STI-Related Services in the Community (page 80)

- Trainers: Dr. Tran Nguyen Duc, Msc Nguyen Quoc Binh ;
- Questionnaire for baseline survey

[1] *For Life, With Love, Training Tool for HIV Prevention and Safe Migration;* ADB and IOM, 2009
[2] *HIV/STI Training in Construction Settings,* CARE International in Viet Nam

HIV/AIDS TRAINING PHASE 2
HO CHI MINH – LONG THÀNH – DAU GIAY EXPRESSWAY PROJECT
PACKAGE No. 6

Date	Period	Main contractor	Sub-contractors	Total of engineers/ officers/ workers	Number of session	Training venues	In-charge	Remark
1st Jul. 2013	Morning 10:30 – 12:00 AM	HANSHIN PK.6	GIA PHUOC	20 - 30	1	Site Worker Camp at Underpass Culvert Km39+400	Mr. Phu – 0902.579.169	
1st Jul. 2013	Afternoon 13:00 – 17:00 PM		LONG AN	80 - 100	2	620 Long An Batching Plant	Mr. Dan – 0908.796.620	
2nd Jul. 2013	Morning 10:00 – 12:00 AM		AN THONG	20	1	Site Worker Camp (Km54+983)	Mr. Long – 0962.058.643	Together
			HOANG TUAN KHANG	15			Mr. Linh – 0903.883.356	
2nd Jul. 2013	Afternoon 16:00 – 17:00 PM		SHINKWANG	15	1	Asphalt Plant (Km43+658)	Mr. Hung – 0903.090.932	

Note: Already had finished the phase 1 of this above program since last year. Now, we are deploying continue for the phase 2 of this program.

Hanshin Engineering& Construction Co., Ltd
Ho Chi Minh City - Long Thanh-DauGiay Expressway Construction Project (Package 6)
Project Management Office:
Hamlet 6, Road 25 ward, Thong Nhat District, Dong Nai Province, Vietnam
Tel: +84-61-3.964.716/726/826 - Fax: +84-61-3.964.611 - Email: hr_hanshin@yahoo.com.vn

REPORT

TRAINING FOR HIV/AIDS PREVENTION PROGRAM – PHASE 2
HO CHI MINH – LONG THÀNH – DAU GIAY EXPRESSWAY PROJECT
PACKAGE No. 6

I – TRAINING SUBJECT

Implementation for Phase 2 of HIV/AIDS & Human Trafficking Prevention Program (*Attached Curriculum and Minutes*)

II – Time: 10:00 – 12:00 AM, Wednesday, July 3rd , 2013 (one session)

III – Venue: Hanshin's office

IV – Trainer: Dr. Tran Nguyen Duc + Msc. Nguyen Quoc Binh (DRCC – Sub-consultant)

V – Participator:

DRCC Sub-consultant; All staffs of Hanshin - Main contractor.

VI – Pictures:




Tổng công ty Đầu tư Phát triển
đường cao tốc Việt Nam
DỰ ÁN ĐƯỜNG CAO TỐC
TP.HCM - LONG THÀNH - DẦU GIÂY

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

BIÊN BẢN TẬP HUẤN NÂNG CAO NĂNG LỰC PHÒNG CHỐNG HIV/AIDS ĐỢT 1 - GIAI ĐOẠN II

Dự án đường cao tốc TP. Hồ Chí Minh - Long Thành - Dầu Giây

I. Thời gian và địa điểm tập huấn

1.1 Thời gian:.....Ngày..03...tháng 07 năm 2013

1.2 Địa điểm: .....Văn phòng Hanshin - Xã Lộ 25 - Long Thành - Đồng Nai.....

1.3 Gói thầu: ..Số 6.....Nhà thầu chính: Hanshin... Nhà thầu phụ:.....

II. Thành phần tham dự

2.1 Đại diện Trung tâm Nghiên cứu và Tư vấn về Phát triển (DRCC)

Ông/bà:...Trần Nguyên Đức..... Chức vụ:....Phó giám đốc Chuyên gia HIV..

Ông/bà:...Nguyễn Nam Sơn..... Chức vụ:....Cán bộ.....

Ông/bà:....Trần Văn Thưa..... Chức vụ:....Cán bộ hỗ trợ.....

2.2 Đại diện Tư vấn giám sát

Ông/bà:...Francis C. Flanagan..... Chức vụ:....Project Manager.....

Ông/bà:..... Chức vụ:.....

2.3 Đại diện Nhà thầu

Ông/bà:...Hoàng Minh Phương..... Chức vụ:....Cán bộ an toàn.....

Ông/bà:..... Chức vụ:.....

Ông/bà:..... Chức vụ:.....

2.4 Cán bộ công nhân/nhân viên tham gia

Số lượng công nhân tham gia:...21...., trong đó số lượng nam: ..14..; nữ: ..7.....

III. Mục đích và nội dung tập huấn

3.1 Mục đích

- Khảo sát về mức độ hiểu biết của công nhân các kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD);

- Tập huấn cho công nhân những kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD) nhằm nâng cao nhận thức của họ.

- Phân phát tài liệu tuyên truyền và bao cao su cho công nhân;

3.2 Nội dung thực hiện

- Tiếp đón học viên, ghi danh sách, phân phát tài liệu, phiếu xét nghiệm và bảng hỏi;

- Đại diện DRCC giới thiệu chương trình;

- Giảng viên trình bày nội dung tập huấn; giải thích/trả lời những ý kiến thắc mắc của công nhân;

- Phân phát bao cao su và thu thập lại bảng hỏi.

IV. Kết luận

- Số học viên tham gia buổi tập huấn: ..... 21 .....học viên
- Số bảng hỏi đã phát và thu thập lại: ..... bảng hỏi
- Số bao cao su đã phát và để lại công trường: ..... 288 ..... bao cao su
- Số phiếu xét nghiệm đã phát:..... 21 ..... phiếu
- Một số ý kiến thắc mắc của học viên:

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Buổi tập huấn kết thúc vào lúc ..11... giờ..30.. ngày ..03...tháng.07.. năm...2023... Các đại diện tham gia nhất trí với nội dung ghi nhận tại biên bản này.

Đại diện DRCC	Đại diện Tư vấn giám sát	Đại diện Nhà thầu
Trần Nguyên Đức	SMITH SỐ 5 & 6 DỰ ÁN ĐƯỜNG CAO TỐC TP. HỒ CHÍ MINH LONG THÀNH DẦU GIÂY Mr.Francis G.Flanagan Project Manager	Hoàng Minh Phương

DỰ ÁN ĐƯỜNG CAO TỐC TP HỒ CHÍ MINH- LONG THÀNH- DẦU GIÂY

DANH SÁCH CÁN BỘ, CÔNG NHÂN/NHÂN VIÊN THAM DỰ

TẬP HUẤN NÂNG CAO KIẾN THỨC PHÒNG CHỐNG HIV/AIDS - VÒNG 1(GIAI ĐOẠN 2)

GÓI THẦU: .....Số 6.....**NHÀ THẦU:**....Hanshin.

Ngày 03 **tháng** 7 **năm 2013**

TT	Họ tên	Địa chỉ	Đã nhận			Ký nhận
			Tài liệu	BCS	Phiếu XN	
1	Nguyễn Như Trung					
2	Lưu Thế Hiền					
3	Đinh Bá Thiêm					
4	Đỗ Trung Kiên					
5	Nguyễn Anh Thọ					
6	Hoàng Minh Phương					
7	Nguyễn Thanh Luân					
8	Trần Văn Chuẩn					
9	Nguyễn Trần Ngọc Bích					
10	Nguyễn Việt Thắng					
11	Ngô T. T. Thuý					
12	Đặng T. Lê					
13	Vũ Thị Muôn					
14	Nguyễn Thế Hoài Thương					
15	Hồ Công Minh					
16	Trần Văn Chinh					
17	Đinh Minh Chí					
18	Bùi Văn Thi					
19	Đỗ Quang Huy					
20	Nguyễn Xuân Lâm					
21	Lê Thị Ánh Tuyết					
22						
23						
24						

Hanshin Engineering& Construction Co., Ltd
Ho Chi Minh City - Long Thanh-DauGiay Expressway Construction Project (Package 6)
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REPORT

TRAINING FOR HIV/AIDS PREVENTION PROGRAM – PHASE 2
HO CHI MINH – LONG THÀNH – DAU GIAY EXPRESSWAY PROJECT
PACKAGE No. 6

I – TRAINING SUBJECT

Implementation for Phase 2 of HIV/AIDS & Human Trafficking Prevention Program

II – Time: 10:00 – 12:00 AM, Tuesday, July 2nd , 2013 (one session)

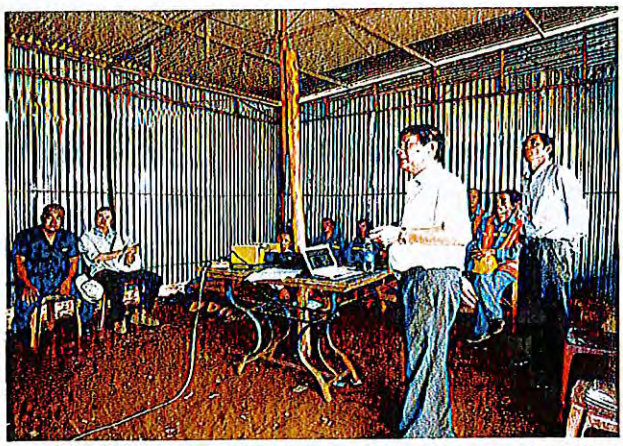
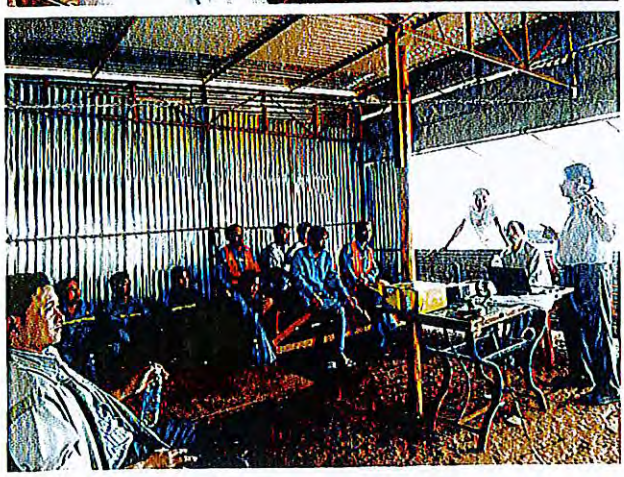
III – Venue: Worker Camp at Dau Giay Interchange–**An Thong + Hoang Tuan khang**

IV – Trainer: Dr. Tran Nguyen Duc + Msc. Nguyen Quoc Binh (DRCC – Sub-consultant)

V – Participator:

DRCC Sub-consultant; The person in-charge of Hanshin - Main contractor; All workers are working near Dau Giay Interchange

VI – Pictures:


Tổng công ty Đầu tư Phát triển
đường cao tốc Việt Nam
DỰ ÁN ĐƯỜNG CAO TỐC
TP.HCM - LONG THÀNH - DẦU GIÂY

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

BIÊN BẢN TẬP HUẤN NÂNG CAO NĂNG LỰC PHÒNG CHỐNG HIV/AIDS ĐỢT 1 - GIAI ĐOẠN II

Dự án đường cao tốc TP. Hồ Chí Minh - Long Thành - Dầu Giây

I. Thời gian và địa điểm tập huấn

1.1 Thời gian: 11h30 .....Ngày 02 tháng 07 năm 2013

1.2 Địa điểm: ....Xuân Thanh, Thống Nhất, Đồng Nai.....

1.3 Gói thầu: ...số 6.....Nhà thầu chính: Hanshin.... Nhà thầu phụ: Cty An Thông + Cty Hoàng Tuấn Khang

II. Thành phần tham dự

2.1 Đại diện Trung tâm Nghiên cứu và Tư vấn về Phát triển (DRCC)

Ông/bà:...Trần Nguyên Đức..... Chức vụ:....Bác sỹ - Chuyên gia HIV....

Ông/bà:....Trần Văn Hòa..... Chức vụ:.....Cán bộ hỗ trợ.....

Ông/bà:..... Chức vụ:.....

2.2 Đại diện Tư vấn giám sát

Ông/bà:...Francis G. Flanagan..... Chức vụ:...Project Manager.....

Ông/bà:..Huỳnh Minh Phương..... Chức vụ:..Cán bộ an toàn Hanshin....

2.3 Đại diện Nhà thầu

Ông/bà:...Nguyễn Thanh Long..... Chức vụ:..Quản lý an toàn nhà thầu An Thông

Ông/bà:....Hồ Ngọc Thiên Ân..... Chức vụ:..Đại tướng cả gói Hoàng Tuấn Khang

Ông/bà:..... Chức vụ:.....

2.4 Cán bộ công nhân/nhân viên tham gia

Số lượng công nhân tham gia:..21. ...., trong đó số lượng nam: ..21...; nữ: ..0.....

III. Mục đích và nội dung tập huấn

3.1 Mục đích

- Khảo sát về mức độ hiểu biết của công nhân các kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD);

- Tập huấn cho công nhân những kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD) nhằm nâng cao nhận thức của họ.

- Phân phát tài liệu tuyên truyền và bao cao su cho công nhân;

3.2 Nội dung thực hiện

- Tiếp đón học viên, ghi danh sách, phân phát tài liệu, phiếu xét nghiệm và bảng hỏi;

- Đại diện DRCC giới thiệu chương trình;

- Giảng viên trình bày nội dung tập huấn; giải thích/trả lời những ý kiến thắc mắc của công nhân;

- Phân phát bao cao su và thu thập lại bảng hỏi.

IV. Kết luận

- Số học viên tham gia buổi tập huấn: ....21.... học viên
- Số bảng hỏi đã phát và thu thập lại: .... bảng hỏi
- Số bao cao su đã phát và để lại công trường: ....188.... bao cao su
- Số phiếu xét nghiệm đã phát:....21.... phiếu
- Một số ý kiến thắc mắc của học viên:

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Buổi tập huấn kết thúc vào lúc 11.... giờ..30... ngày ..02...tháng..08.. năm...2019.. Các đại diện tham gia nhất trí với nội dung ghi nhận tại biên bản này.

Đại diện DRCC	Đại diện Tư vấn giám sát	Đại diện Nhà thầu
Trần Nguyễn Dũng	Mr.Francis G.Flanagan Project Manager	Hồ ngọc Thiên Ân Nguyễn Thanh Long Hoàng Minh Phương

Hanshin Engineering& Construction Co., Ltd
Ho Chi Minh City - Long Thanh-DauGiay Expressway Construction Project (Package 6)
Project Management Office:
Hamlet 6, Road 25 ward, Thong Nhat District, Dong Nai Province, Vietnam
Tel: +84-61-3.964.716/726/826 - Fax: +84-61-3.964.611 - Email: hr_hanshin@yahoo.com.vn

REPORT

TRAINING FOR HIV/AIDS PREVENTION PROGRAM – PHASE 2
HO CHI MINH – LONG THÀNH – DAU GIAY EXPRESSWAY PROJECT
PACKAGE No. 6

I – TRAINING SUBJECT

Implementation for Phase 2 of HIV/AIDS & Human Trafficking Prevention Program

II – Time: 15:00 – 17:00 PM, Tuesday, July 2nd , 2013 (one session)

III – Venue: Asphalt Plant – **ShinKwang**

IV – Trainer: Dr. Tran Nguyen Duc + Msc. Nguyen Quoc Binh (DRCC – Sub-consultant)

V – Participator:

DRCC Sub-consultant; The person in-charge of Hanshin - Main contractor; All workers of Shinkwang Sub-contractor

VI – Pictures:




Tổng công ty Đầu tư Phát triển
đường cao tốc Việt Nam
DỰ ÁN ĐƯỜNG CAO TỐC
TP.HCM - LONG THÀNH - DẦU GIÂY

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

BIÊN BẢN TẬP HUẤN NÂNG CAO NĂNG LỰC PHÒNG CHỐNG HIV/AIDS ĐỢT 1 - GIAI ĐOẠN II

Dự án đường cao tốc TP. Hồ Chí Minh - Long Thành - Dầu Giây

I. Thời gian và địa điểm tập huấn

1.1 Thời gian:.....17h.....Ngày.02.....tháng 07 năm 2013

1.2 Địa điểm: .....Ấp An Bình xã Bình An huyện Long Thành, tỉnh Đồng Nai

1.3 Gói thầu: Số 6.....Nhà thầu chính: Hanelin. Nhà thầu phụ:..Shin Kwang Global

II. Thành phần tham dự

2.1 Đại diện Trung tâm Nghiên cứu và Tư vấn về Phát triển (DRCC)

Ông/bà:....Trần Nguyên Duẩn..... Chức vụ:....Giám đốc Chuyên gia HIV

Ông/bà:....Trần Văn Hòa..... Chức vụ:....Cán bộ kỹ thuật.....

Ông/bà:..... Chức vụ:.....

2.2 Đại diện Tư vấn giám sát

Ông/bà:...Francis R. Flanagan..... Chức vụ:...Project Manager.....

Ông/bà:..Hoàng Minh Phương..... Chức vụ:..Cán bộ an toàn Hanelin....

2.3 Đại diện Nhà thầu

Ông/bà:....Nguyễn Xuân Hưng..... Chức vụ:...Trợ lý Giám đốc.....

Ông/bà:..... Chức vụ:.....

Ông/bà:..... Chức vụ:.....

2.4 Cán bộ công nhân/nhân viên tham gia

Số lượng công nhân tham gia:...6...., trong đó số lượng nam: ..5....; nữ: ...01.....

III. Mục đích và nội dung tập huấn

3.1 Mục đích

- Khảo sát về mức độ hiểu biết của công nhân các kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD);

- Tập huấn cho công nhân những kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD) nhằm nâng cao nhận thức của họ.

- Phân phát tài liệu tuyên truyền và bao cao su cho công nhân;

3.2 Nội dung thực hiện

- Tiếp đón học viên, ghi danh sách, phân phát tài liệu, phiếu xét nghiệm và bảng hỏi;

- Đại diện DRCC giới thiệu chương trình;

- Giảng viên trình bày nội dung tập huấn; giải thích/trả lời những ý kiến thắc mắc của công nhân;

- Phân phát bao cao su và thu thập lại bảng hỏi.

IV. Kết luận

- Số học viên tham gia buổi tập huấn: .....6.....học viên
- Số bảng hỏi đã phát và thu thập lại: ..... bảng hỏi
- Số bao cao su đã phát và để lại công trường: .....288..... bao cao su
- Số phiếu xét nghiệm đã phát:.....6..... phiếu
- Một số ý kiến thắc mắc của học viên:

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Buổi tập huấn kết thúc vào lúc ..17.... giờ..00... ngày ..02...tháng..07.. năm..2013... Các đại diện tham gia nhất trí với nội dung ghi nhận tại biên bản này.

Đại diện DRCC	Đại diện Tư vấn giám sát	Đại diện Nhà thầu
Mai Nguyen Duc	SMITH GÓI THẦU SỐ 5 & 6 DỰ ÁN ĐƯỜNG CAO TỐC TP. HỒ CHÍ MINH LONG THÀNH DẦU GIÂY Mr.Francis G.Flanagan Project Manager	Ngô Xuân Hưng Hoàng Minh Phương

Hanshin Engineering& Construction Co., Ltd
Ho Chi Minh City - Long Thanh–DauGiay Expressway Construction Project (Package 6)
Project Management Office:
Hamlet 6, Road 25 ward, Thong Nhat District, Dong Nai Province, Vietnam
Tel: +84-61-3.964.716/726/826 - Fax: +84-61-3.964.611 - Email: hr_hanshin@yahoo.com.vn

REPORT

TRAINING FOR HIV/AIDS PREVENTION PROGRAM – PHASE 2
HO CHI MINH – LONG THÀNH – DAU GIAY EXPRESSWAY PROJECT
PACKAGE No. 6

I – TRAINING SUBJECT

Implementation for Phase 2 of HIV/AIDS & Human Trafficking Prevention Program (*Attached Curriculum and Minutes*)

II – Time: 10:00 – 12:00 AM, Monday, July 1st , 2013 (one session)

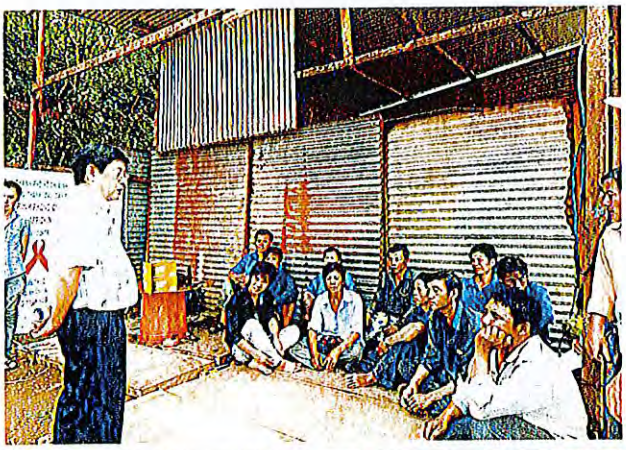
III – Venue: Worker Camp at Underpass Culvert Km39+400–**Gia Phuoc Sub-contractor**

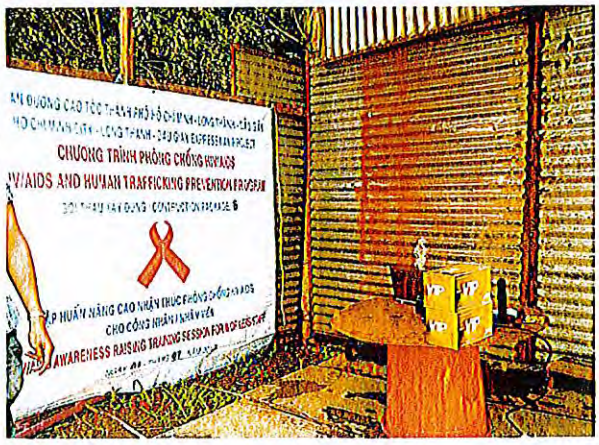
IV – Trainer: Dr. Tran Nguyen Duc + Msc. Nguyen Quoc Binh (DRCC – Sub-consultant)

V – Participator:

DRCC Sub-consultant; The person in-charge of Hanshin - Main contractor; All workers are working at Underpass Culvert Km39+400

VI – Pictures:





Tổng công ty Đầu tư Phát triển
đường cao tốc Việt Nam
DỰ ÁN ĐƯỜNG CAO TỐC
TP.HCM - LONG THÀNH - DẦU GIÂY

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

BIÊN BẢN TẬP HUẤN NÂNG CAO NĂNG LỰC PHÒNG CHỐNG HIV/AIDS ĐỢT 1 - GIAI ĐOẠN II

Dự án đường cao tốc TP. Hồ Chí Minh - Long Thành - Dầu Giây

I. Thời gian và địa điểm tập huấn

1.1 Thời gian:.....Ngày..01...tháng 08 năm 2013

1.2 Địa điểm: .....Ấp 5.....xã Sông Nhạn.....

1.3 Gói thầu: ..Số 6.....Nhà thầu chính: Hanshin. Nhà thầu phụ: Cty cổ phần xây dựng Cà Phước

II. Thành phần tham dự

2.1 Đại diện Trung tâm Nghiên cứu và Tư vấn về Phát triển (DRCC)

Ông/bà:...Trần Nguyễn Diễ..... Chức vụ:....Bác sỹ - Chuyên gia HIV...

Ông/bà:....Trần Hữu Nhơn..... Chức vụ:.....Cán bộ hỗ trợ.....

Ông/bà:..... Chức vụ:.....

2.2 Đại diện Tư vấn giám sát

Ông/bà:....Hoàng Minh Phương..... Chức vụ:.....Cán bộ Antoàn Hanshin....

Ông/bà:....Francis G. Flanagan..... Chức vụ:....Project Manager.....

2.3 Đại diện Nhà thầu

Ông/bà:..Nguyễn Quang Phú..... Chức vụ:.BCH nhà thầu Cà Phước....

Ông/bà:..... Chức vụ:.....

Ông/bà:..... Chức vụ:.....

2.4 Cán bộ công nhân/nhân viên tham gia

Số lượng công nhân tham gia:...17...., trong đó số lượng nam: ..16...; nữ: ..01.....

III. Mục đích và nội dung tập huấn

3.1 Mục đích

- Khảo sát về mức độ hiểu biết của công nhân các kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD);

- Tập huấn cho công nhân những kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD) nhằm nâng cao nhận thức của họ.

- Phân phát tài liệu tuyên truyền và bao cao su cho công nhân;

3.2 Nội dung thực hiện

- Tiếp đón học viên, ghi danh sách, phân phát tài liệu, phiếu xét nghiệm và bảng hỏi;

- Đại diện DRCC giới thiệu chương trình;

- Giảng viên trình bày nội dung tập huấn; giải thích/trả lời những ý kiến thắc mắc của công nhân;

- Phân phát bao cao su và thu thập lại bảng hỏi.

IV. Kết luận

- Số học viên tham gia buổi tập huấn: .....17.....học viên
- Số bảng hỏi đã phát và thu thập lại: ..... bảng hỏi
- Số bao cao su đã phát và để lại công trường: .....288..... bao cao su
- Số phiếu xét nghiệm đã phát:.....17..... phiếu
- Một số ý kiến thắc mắc của học viên:

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Buổi tập huấn kết thúc vào lúc .11.... giờ .30... ngày 01.....tháng.08... năm.2013... Các đại diện tham gia nhất trí với nội dung ghi nhận tại biên bản này.

Đại diện DRCC	Đại diện Tư vấn giám sát	Đại diện Nhà thầu
Trần Nguyễn Đức	Mr.Francis G.Flanagan Project Manager	Hoàng Minh Phương

Hanshin Engineering& Construction Co., Ltd
Ho Chi Minh City - Long Thanh-DauGiay Expressway Construction Project (Package 6)
Project Management Office:
Hamlet 6, Road 25 ward, Thong Nhat District, Dong Nai Province, Vietnam
Tel: +84-61-3.964.716/726/826 - Fax: +84-61-3.964.611 - Email: hr_hanshin@yahoo.com.vn

REPORT

TRAINING FOR HIV/AIDS PREVENTION PROGRAM – PHASE 2
HO CHI MINH – LONG THÀNH – DAU GIAY EXPRESSWAY PROJECT
PACKAGE No. 6

I – TRAINING SUBJECT

Implementation for Phase 2 of HIV/AIDS & Human Trafficking Prevention Program.

II – Time: 13:30 – 15:00 PM and 15:30 – 17:00 Monday, July 1st , 2013 (two session).

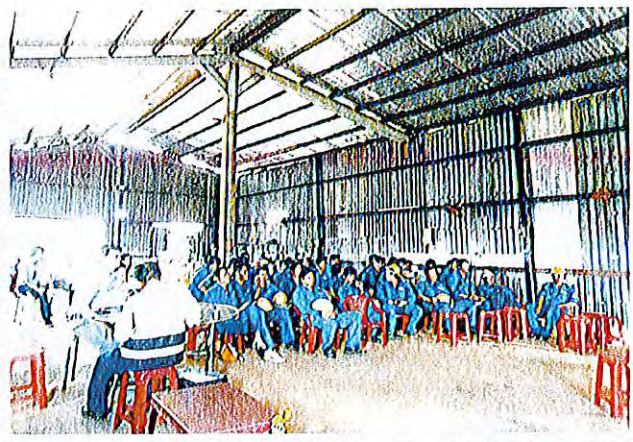
III – Venue: Batching Plant – **620 Long An.**

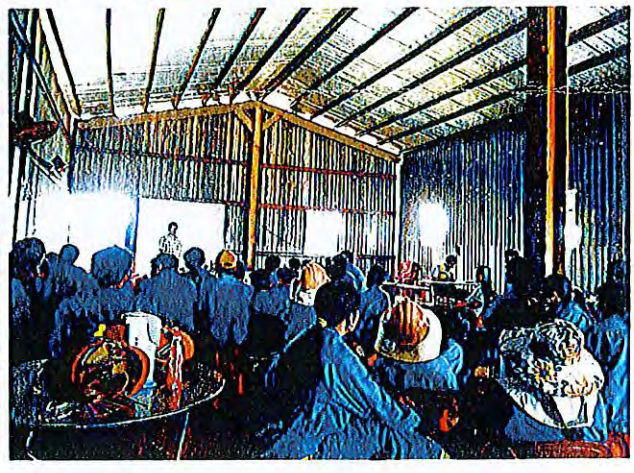
IV – Trainer: Dr. Tran Nguyen Duc + Msc. Nguyen Quoc Binh (DRCC – Sub-consultant).

V – Participator:

DRCC Sub-consultant; The person in-charge of Hanshin - Main contractor; All workers of 620 Long An Sub-contractor.

VI – Pictures:



Tổng công ty Đầu tư Phát triển
đường cao tốc Việt Nam
DỰ ÁN ĐƯỜNG CAO TỐC
TP.HCM - LONG THÀNH - DẦU GIÂY

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

BIÊN BẢN TẬP HUẤN NÂNG CAO NĂNG LỰC PHÒNG CHỐNG HIV/AIDS ĐỢT 1 - GIAI ĐOẠN II

Dự án đường cao tốc TP. Hồ Chí Minh - Long Thành - Dầu Giây

I. Thời gian và địa điểm tập huấn

1.1 Thời gian:...15h.30.....Ngày.01...tháng 08 năm 2013

1.2 Địa điểm: Ấp Trần Hưng Đạo, xã Xuân Thạnh, Thống Nhất, Đồng Nai

1.3 Gói thầu: Số 6.....Nhà thầu chính: Hanshin.. Nhà thầu phụ: Công ty Cổ phần Beta 620 Long An

II. Thành phần tham dự

2.1 Đại diện Trung tâm Nghiên cứu và Tư vấn về Phát triển (DRCC)

Ông/bà:..Trần Nguyên Duẩn..... Chức vụ:..Phó giáo - Chuyên gia HIV.....

Ông/bà:..Toàn Văn Hòa..... Chức vụ:...Cán bộ Hỗ trợ.....

Ông/bà:..... Chức vụ:.....

2.2 Đại diện Tư vấn giám sát

Ông/bà:..Hoàng Minh Phương..... Chức vụ:...Cán bộ an toàn Hanshin.....

Ông/bà:...Francis A. Flanagan..... Chức vụ:...Project Manages.....

2.3 Đại diện Nhà thầu

Ông/bà:..Đào Văn Dần..... Chức vụ:..Cán bộ an toàn Beta 620 Long An

Ông/bà:..... Chức vụ:.....

Ông/bà:..... Chức vụ:.....

2.4 Cán bộ công nhân/nhân viên tham gia

Số lượng công nhân tham gia:..45...., trong đó số lượng nam: .35...; nữ: ..10.....

III. Mục đích và nội dung tập huấn

3.1 Mục đích

- Khảo sát về mức độ hiểu biết của công nhân các kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD);

- Tập huấn cho công nhân những kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD) nhằm nâng cao nhận thức của họ.

- Phân phát tài liệu tuyên truyền và bao cao su cho công nhân;

3.2 Nội dung thực hiện

- Tiếp đón học viên, ghi danh sách, phân phát tài liệu, phiếu xét nghiệm và bảng hỏi;

- Đại diện DRCC giới thiệu chương trình;

- Giảng viên trình bày nội dung tập huấn; giải thích/trả lời những ý kiến thắc mắc của công nhân;

- Phân phát bao cao su và thu thập lại bảng hỏi.

IV. Kết luận

- Số học viên tham gia buổi tập huấn: ..... 45 .....học viên
- Số bảng hỏi đã phát và thu thập lại: ..... bảng hỏi
- Số bao cao su đã phát và để lại công trường: ..... 432 ..... bao cao su
- Số phiếu xét nghiệm đã phát:..... 45 ..... phiếu
- Một số ý kiến thắc mắc của học viên:

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Buổi tập huấn kết thúc vào lúc .15... giờ..30.. ngày .01....tháng..07... năm..2013..... Các đại diện tham gia nhất trí với nội dung ghi nhận tại biên bản này.

Đại diện DRCC	Đại diện Tư vấn giám sát	Đại diện Nhà thầu
Trần Nguyễn Đức	Mr.Francis G.Flanagan Project Manager	Đào Văn Dần

Hoàng Minh Phương

Tổng công ty Đầu tư Phát triển
đường cao tốc Việt Nam
DỰ ÁN ĐƯỜNG CAO TỐC
TP.HCM - LONG THÀNH - DẦU GIÂY

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

BIÊN BẢN TẬP HUẤN NÂNG CAO NĂNG LỰC PHÒNG CHỐNG HIV/AIDS ĐỢT 1 - GIAI ĐOẠN II

Dự án đường cao tốc TP. Hồ Chí Minh - Long Thành - Dầu Giây

I. Thời gian và địa điểm tập huấn

1.1 Thời gian:.....Ngày.01...tháng 07 năm 2013

1.2 Địa điểm: Ấp Trần Hưng Đạo, xã Xuân Thạnh, huyện Thống Nhất, tỉnh Đồng Nai

1.3 Gói thầu: .Số 6.....Nhà thầu chính: Hanshin Nhà thầu phụ: Cty. Cổ phần Beton 620 Long An

II. Thành phần tham dự

2.1 Đại diện Trung tâm Nghiên cứu và Tư vấn về Phát triển (DRCC)

Ông/bà:...Trần Nguyễn Duy..... Chức vụ:...Bác sỹ - Chuyên gia HIV

Ông/bà:...Trần Văn Hoa..... Chức vụ:...CBS Hỗ trợ.....

Ông/bà:..... Chức vụ:.....

2.2 Đại diện Tư vấn giám sát

Ông/bà:..Frances C. Flanagan..... Chức vụ:...Project Manager.....

Ông/bà:...Hoàng Minh Phương..... Chức vụ:...Cán bộ An toàn Hanshin

2.3 Đại diện Nhà thầu

Ông/bà:..Đào Văn Dần..... Chức vụ:..Cán bộ an toàn Beton 620 Long An

Ông/bà:..... Chức vụ:.....

Ông/bà:..... Chức vụ:.....

2.4 Cán bộ công nhân/nhân viên tham gia

Số lượng công nhân tham gia:....45..., trong đó số lượng nam: ..45...; nữ: ..0.....

III. Mục đích và nội dung tập huấn

3.1 Mục đích

- Khảo sát về mức độ hiểu biết của công nhân các kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD);

- Tập huấn cho công nhân những kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD) nhằm nâng cao nhận thức của họ.

- Phân phát tài liệu tuyên truyền và bao cao su cho công nhân;

3.2 Nội dung thực hiện

- Tiếp đón học viên, ghi danh sách, phân phát tài liệu, phiếu xét nghiệm và bảng hỏi;

- Đại diện DRCC giới thiệu chương trình;

- Giảng viên trình bày nội dung tập huấn; giải thích/trả lời những ý kiến thắc mắc của công nhân;

- Phân phát bao cao su và thu thập lại bảng hỏi.

IV. Kết luận

- Số học viên tham gia buổi tập huấn: ....45.... học viên
- Số bảng hỏi đã phát và thu thập lại: ..... bảng hỏi
- Số bao cao su đã phát và để lại công trường: ....432.... bao cao su
- Số phiếu xét nghiệm đã phát:....45.... phiếu
- Một số ý kiến thắc mắc của học viên:

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Buổi tập huấn kết thúc vào lúc ..15... giờ..30... ngày ..01...tháng..07.. năm...2013. Các đại diện tham gia nhất trí với nội dung ghi nhận tại biên bản này.

Đại diện DRCC	Đại diện Tư vấn giám sát	Đại diện Nhà thầu
Trần Nguyễn Đức	Mr.Francis G.Flanagan Project Manager	Đào Văn Dân Hoàng Minh Phương

HIV/AIDS TRAINING ROUND 1 – PHASE 1
HO CHI MINH – LONG THÀNH – DAU GIAY EXPRESSWAY PROJECT
PACKAGE No. 6

Date	Period	Main contractor	Sub-contractors	Total of engineers/ officers/ workers	Number of session	Training venues	In-charge	Remark
24th Oct. 2012	Morning	HANSHIN	GIA PHUOC	40	1	Gia Phuoc's Casting Yard (Near Overpass No.2)	Mr. Phu – 0902.579.169	
3rd Nov. 2012	Morning		620 LONG AN	30	1	620 Long An's Batching Plant (Km54+982)	Mr. Hung – 0918.800.620	
	Afternoon			30	1			
	Afternoon			30	1			

HIV/AIDS TRAINING ROUND 2 – PHASE 1
HO CHI MINH – LONG THÀNH – DAU GIAY EXPRESSWAY PROJECT
PACKAGE No. 6

Date	Period	Main contractor	Sub-contractors	Total of engineers/ officers/ workers	Number of session	Training venues	In-charge	Remark
16th Nov. 2012	Morning	HANSHIN	HUY PHUONG	40	1	Site Worker Camp (Km44+500)	Mr. Phuong – 0988.189.575	
16th Nov. 2012	Afternoon		THIEN PHU	20	1	Site Worker Camp (Km46+400)	Mr. Hieu – 0907.049.460	Together
			SHP	20			Mr. Thoi – 0988.002.871	
19th Nov. 2012	Morning		MINH Y	15	1	Site Worker Camp (Km54+140)	Mr. Hoat – 0983.728.255	Together
			HOANG TUAN KHANG	25			Mr. Linh – 0903.883.356	
19th Nov. 2012	Afternoon	HANSHIN		22-25	1	Hanshin's Office	Ms. Phuong – 0937.970.596	

APPENDIX 4:

MONTHLY TRAINING AND MEETING

MONTHLY MEETING FOR SAFETY & ENVIRONMENT CONTROL

(Detail photos is attached at Appendix 7)

HANSHIN

Hanshin Engineering & Construction Co., Ltd
Ho Chi Minh City - Long Thanh - Dau Giay Expressway Construction Project (Package 6)
Site office: Hamlet 6 Road 25 Ward, Thong Nhat District – Dong Nai Province
Tel: (84-61) 3964716/726/826 Fax: (84-61) 3964611 Tax code: 3602395689

SAFETY & ENVIRONMENT MEETING MINUTES

(Monthly meeting)

Ref No. HS-HSE- 07

Date/Time 05th June 2013 – 9:00 AM
Meeting Venue: HANSHIN'S Meeting Room

Location Hamlet 6, Ward 25 Road, THONG NHAT District, DONG NAI Province

PATICIPANTS		NAME	POSITION	DEPARTMENT
CDM SMITH	Mr	PHAN VU LOI	SENIOR	SAFETY & ENVIRONMENT
HANSHIN	Mr	DO QUANG HUY	MANAGER	HEALTH & SAFETY
	Ms	HOANG MINH PHUONG	SPECIALIST	ENVIRONMENT
SHIN KWANG	Mr	NGUYEN XUAN HUNG	MANAGER	SAFETY & ENVIRONMENT
MINH Y	Mr	LE THANH HAI	STAFF	SAFETY & ENVIRONMENT
HUY PHUONG	Mr	TO QUANG HOANG	STAFF	SAFETY & ENVIRONMENT
THIEN PHU	Mr	PHAM CONG NGHIEP	STAFF	SAFETY & ENVIRONMENT
SHP	Mr	NGUYEN SY DUOC	STAFF	SAFETY & ENVIRONMENT
H.T.KHANG	Mr	HO NGOC THIEN AN	MANAGER	SAFETY & ENVIRONMENT
AN THONG	Mr	NGUYEN THANH LONG	STAFF	SAFETY & ENVIRONMENT
GIA PHUOC	Mr	NGUYEN QUANG PHU	MANAGER	SAFETY & ENVIRONMENT
LONG AN 620	Mr	DAO VAN DAN	STAFF	SAFETY & ENVIRONMENT

Recorded by: Hanshin Engineering & Construction Co.,Ltd

AGENDA

1 **Environment & Safety Management Review**

2 **Standing Items & Discuss**

3 **Incident Report (Cause & Effect)**

HANSHIN

Hanshin Engineering & Construction Co., Ltd
Ho Chi Minh City - Long Thanh - Dau Giay Expressway Construction Project (Package 6)
Site office: Hamlet 6 Road 25 Ward, Thong Nhat District – Dong Nai Province
Tel: (84-61) 3964716/726/826 Fax: (84-61) 3964611 Tax code: 3602395689

DETAIL RECORD

ITEMS	SUBJECT AND DISCUSSION	NOTE

1 Environment & Safety Management Review

Presented by CONTRACTOR

SAFETY MANAGER / ENVIRONMENTAL SPECIALIST

CONTENTS

A. ALL SUBCONTRACTORS

I. Safety Issues

1. Management Organization Chart
2. Regulation Board at Site
3. Employee Safety Training
4. Provide Personal Protective Equipment (PPE)
5. Prestart Equipment/ Machineries checking
6. Install warning tape, sign board at trenches and foundation pits, hole ...
7. Ensure safety when crane & drilling
8. Fire and explosion prevention programme
9. Safety welding Gas/Oxy-acetylene
10. Ensuring safety traffic for whole package
11. Checking construction site frequency/ remind keep the labor safety rules
12. Improve working conditions and prevent labour accidents in work construction site
13. Emergency Plan/ Procedures
14. Safety Management Procedure & Report

II. Environmental Issues

1. Mobilized water truck for watering to reduce dust on the service road regularly.
2. Dump truck carrying unsuitable material/ embankment must well covered by using canvas, in order to prevent scattering.
3. Instruct drivers keep low speed when passing residential areas.
4. Cleaning site worker camp, collect waste.
5. For Batching plant:
   - Cleaning for waste water treatment system and drainage system once per week; Request for

system improvement.

6. Solid waste must collected daily.

B. <u>DETAIL</u>

➢ SHIN KWANG CO., LTD
- To carry out Occupational Health – Safety – Security – Environment Management Plan
- Provide Personal Protection Equipment for workers
- Fuel storage safety/ Keep hygiene at Shelter, Site camp, Warehouse.

➢ MINH Y CO., LTD (1):
- Pre-start Equipment & Machineries checking
- Install warning tape & sign board of slope talus excavation at Km 41+000
- Remind drivers slow down & to horn at new local's road intersection with Expressway Km 39+100
- Fuel storage safety/ Keep hygiene at Shelter, Site camp, Warehouse.

➢ HUY PHUONG SJC (2):
- Pre-start Equipment & Machineries checking
- Install warning tape & sign board of slope talus excavation at Km 43+700 ~ Km 43+800
- Remind drivers slow down & to horn at Local's road intersection with Expressway Km 43+658 (Overpass No.2)
- Fuel storage safety/ Keep hygiene at Shelter, Site camp, Warehouse.

➢ THIEN PHU T&S CO.,LTD (3-1):
- Pre-start Equipment & Machineries checking
- Install warning tape & sign board at danger places
- Remind drivers slow down & to horn at Underpass culvert Km 46+400
- Fuel storage safety/ Keep hygiene at Shelter, Site camp, Warehouse.

➢ SHP CO.,LTD (3-2):
- Pre-start Equipment & Machineries checking
- Install warning tape & sign board of slope talus excavation at Km 48+800; Km 49+780; Km 51+300
- Remind drivers slow down & to horn at Underpass culvert Km 46+400; U/C Km 47+616; U/C Km 50+440

- Fuel storage safety/ Keep hygiene at Shelter, Site camp, Warehouse.

➢ MINH Y CO., LTD (4-1):
- Pre-start Equipment & Machineries checking
- Remind drivers slow down & to horn at Underpass culvert Km 47+616 & U/C Km 50+440
- Fuel storage safety/ Keep hygiene at Shelter, Site camp, Warehouse.

➢ HOANG TUAN KHANG (4-2):
- Pre-start Equipment & Machineries checking
- Install warning tape & sign board at Dau Giay interchange (excavation work)
- Remind drivers slow down and press to horn before crossing between Service road intersection with National Highway 1A, 620 Long An Factory (concrete slab)
- Fuel storage safety/ Keep hygiene at Shelter, Site camp, Warehouse.

➢ GIA PHUOC CO., LTD (BRIDGES):
- Provide Personal Protection Equipment for workers are working at Km 39+400, Overpass No.2, 3, Song Nhan Bridge, Suoi Sau Bridge & side ditch…
- Welding Gas/Oxy acetylene valve checking
- Wear safety belt when working on height at Underpass Culvert 39+400
- Pre-start Equipment & Machineries checking
- Install warning tape & sign board at excavation km 39+400
- Checking construction site frequency/ remind keep the labor safety rules
- Fuel storage safety/ Keep hygiene at Shelter, Site camp, Warehouse.

➢ 620 LONG AN CO., LTD (BRIDGES):
- Welding Gas/Oxy acetylene valve checking
- Wear safety belt when working on height at Overpass No.1
- Pre-start Equipment & Machineries checking
- Install warning tape & sign board at box culvert of Ramp-way D2
- Provide Personal Protection Equipment for workers
- Checking construction site frequency/ remind keep the labor safety rules

- Fuel storage safety/ Keep hygiene at Shelter, Site camp, Warehouse.

➢ AN THONG CO.,LTD
- To carry out Ensure road traffic safety at Dau Giay interchange plan
- Always turn on the signal light at night
- Ensure safety traffic regulation/ Checking frequency
- Clean up dust scattering on National Highway 1A

Instruction:

— Subcontractor/ working team must review and correct all the unfinished work related to the safety & environment management, which mentioned very clear in the meeting of May 2013
— Report to Hanshin of every finished work/ item.
— Correcting accordance to the letter of Employer/ Consultant
— The letter 76/2451.VIE-EPMU HLD dated 10 May, 2013
— The letter CDM.HAN-HLD-PL6 372 dated 10 April, 2013
— The letter CDM.HAN-HLD-PL6 440 dated 07 April, 2013

2 Standing Items & Discuss

1. How to control PPE
2. How to make report :
   - Daily Report
   - Monthly Report
   - Incident/ Accident Report
   - PPE Deployment Report
3. How to deployment:
   - Prestart Equipment/ Machineries checking
   - Safety meeting before work/ before shift
   - Work Site Inspection
   - Safety Training for Employee & People work on site
4. How to deployment regulation/ management plan
   - Site Safety Regulation Board
   - Safety & Environment Protection Plan
   - Emergency Plan

3 Incident Report (Cause & Effect)

Reported by Safety person in-charge of Subcontractor

(As report there is no Incident happened in last May, 2013)

Instructed by

Note:

— In detail for each items or work subcontractor's safety officer discuss with Contractor's Safety Manager for further instruction, and guidance.

— Subcontractor is advised strictly follow procedure and keep work sequence.

The meeting closed at: 10:20 AM June 05th, 2013

HANSHIN COMPANY

ENVIR. SPECIALIST	SAFETY MANAGER	Reviewed & Approved by			
		C.MANAGER	P.DIRECTOR	CONSULTANT	EMPLOYER
Hoàng Minh Phương	Đ. Q. Huy	Kim Chang Ho		P.V.Lời	

SUBCONTRACTORS/ WORKING TEAMS

SHIN KWANG	MINH Y	H.PHUONG	THIEN PHU	SHP
Ng Xuân Hưng	Lê Thanh Hải	Tô Quang Hoàng	Phạm Công Nghiệp	Nguyễn Chí Thức

HOANG TUAN KHANG	AN THONG	GIA PHUOC	620 LONG AN
Hồ Ngọc Thiều Ân	Nguyễn Thanh Long	Lâm Việt	Đào Văn Dân

SITE SAFETY & ENVIRONMENT TRAINING

(Detail photos is attached at Appendix 7)

Hanshin Engineering& Construction Co., Ltd
Ho Chi Minh City - Long Thanh-DauGiay Expressway Construction Project (Package 6)
Project Management Office:
Hamlet 6, Road 25 ward, Thong Nhat District, Dong Nai Province, Vietnam
Tel: +84-61-3.964.716/726/826 - Fax: +84-61-3.964.611 - Email: hr_hanshin@yahoo.com.vn

MONTHLY MEETING FOR SITE SAFETY CONTROL

June 2013

I - MEETING CONTENT

1. HSE (Health - Safety – Environment) on construction site.
2. Clearing labor camp on site, collecting waste.
3. PPE (Personal Protection Equipment) using
4. Improving working condition
5. Remind engineers and workers for safety protection

II – Time: 09:00 AM – 11:30 AM, Thursday, June 06th, 2013

III – Meeting Places:

LOCATION	TIME	MANPOWER				REMARK
		ENGINEER	SAFETY STAFF	FOREMAN	WORKER	
Underpass Culvert Km39+400	09:00 AM	1	1	0	7	Engineers and workers are working at Underpass Culvert Km39+400 and Side Ditch Km39+700
Suoi Sau Bridge	09:30 AM	1	1	0	15	Engineers and workers are working at Suoi Sau Bridge and Overpass No.1
Overpass No.2 Bridge	10:00 AM	1	1	0	6	Engineers and workers are working at Suoi Ram Bridge, Overpass No.2, Gia Phuoc's Casting Yard (Factory)
Song Nhan Bridge		0	0	0	0	No activity at Song Nhan Bridge and Overpass No.3
620 Long An Batching Plant	11:00 AM	10	1	2	52	Engineers and workers are working at Batching Plant, Railway Flyover Bridge and Casting Yard for concrete curb

HANSHIN

Hanshin Engineering& Construction Co., Ltd
Ho Chi Minh City - Long Thanh - DauGiay Expressway Construction Project (Package 6)
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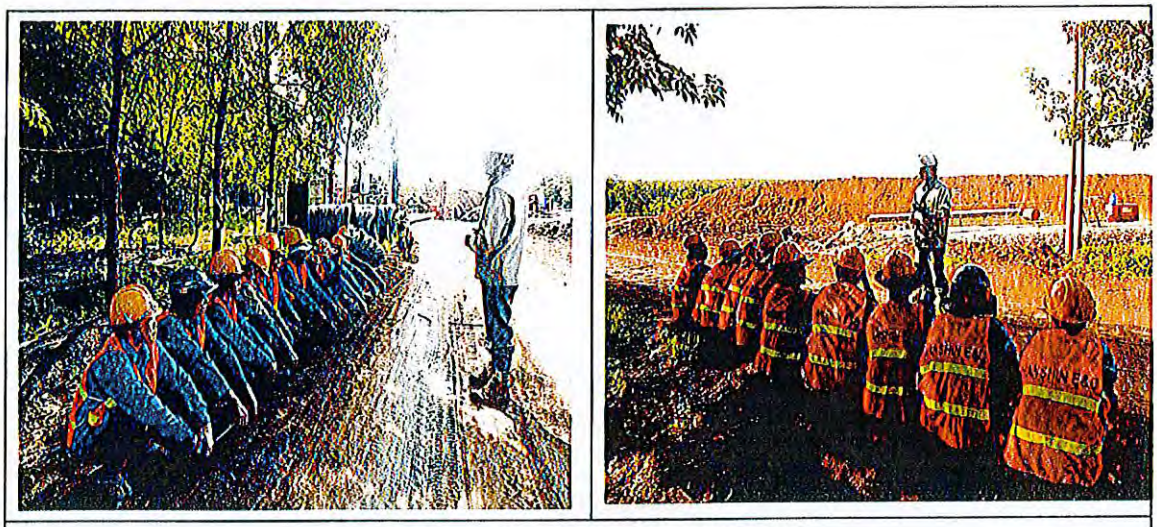
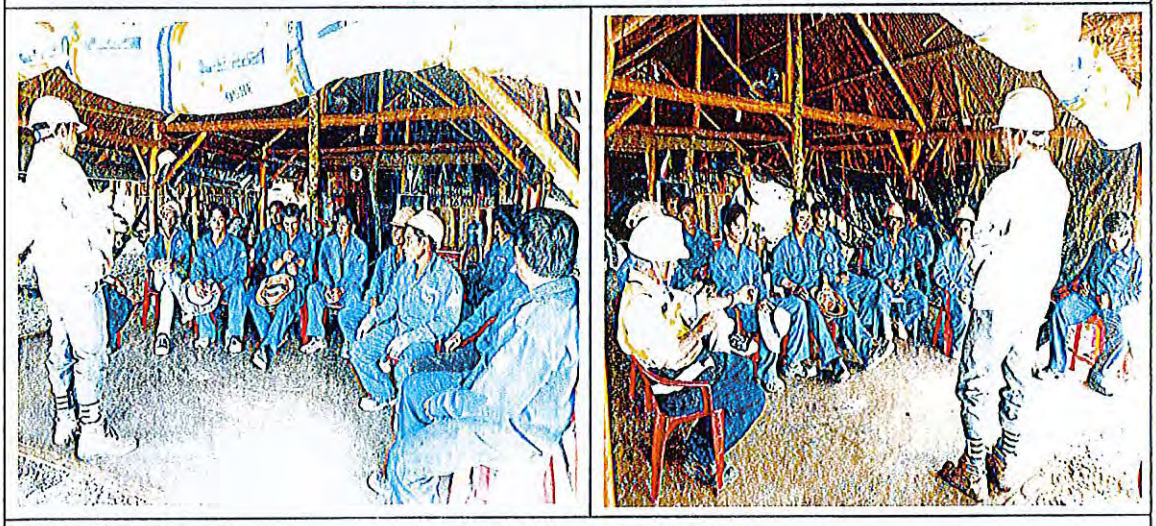
IV – Pictures:



Underpass Culvert Km39+400 at 09:00 AM



Suoi Sau Bridge at 09:30 AM

Overpass Bridge No.2 at 10:00 AM

HANSHIN

Hanshin Engineering& Construction Co., Ltd
Ho Chi Minh City - Long Thanh-DauGiay Expressway Construction Project (Package 6)
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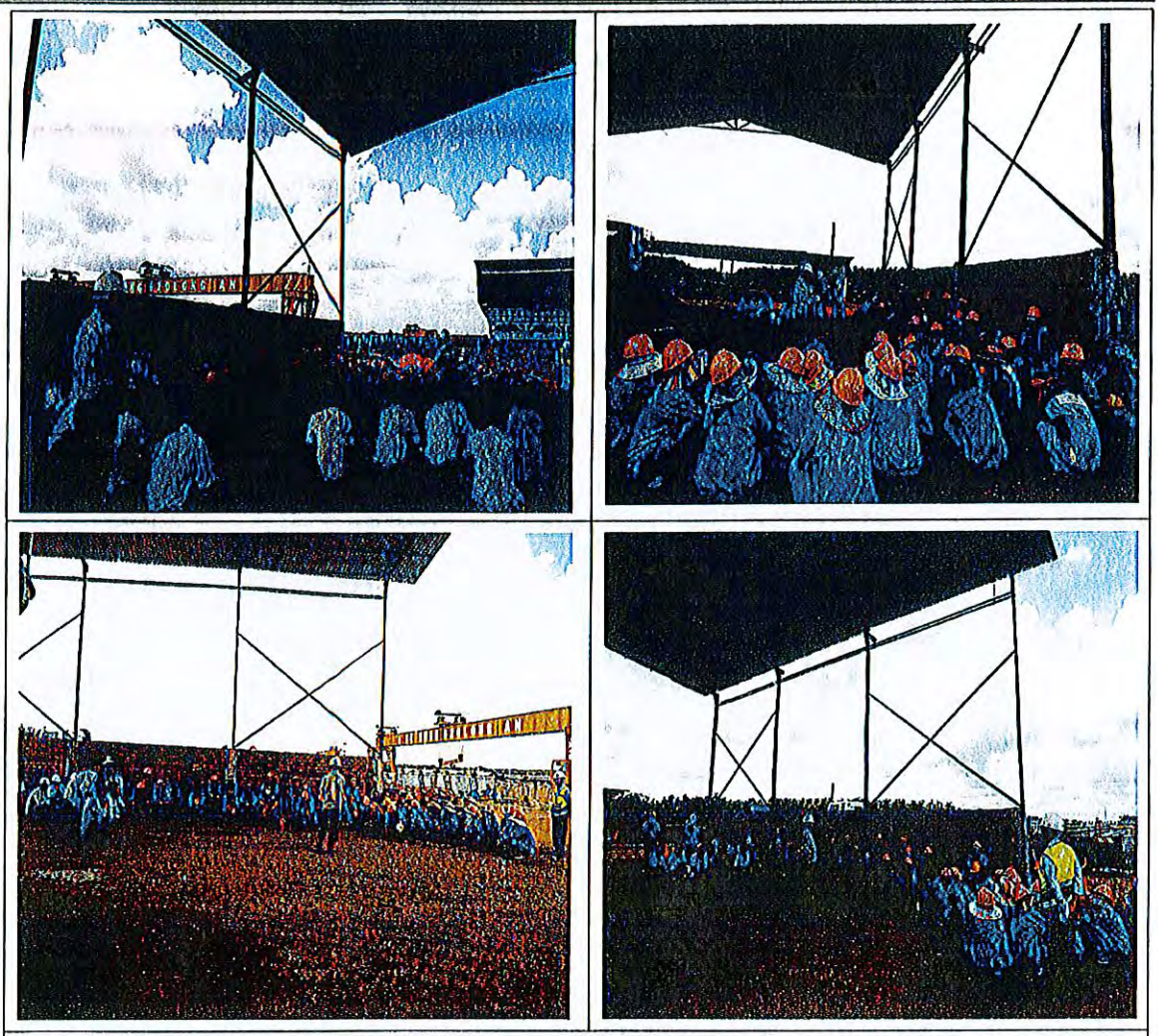

620 Long An Batching Plant at 11:00 AM

Reported by:	*In-charge:*	*Approved by:*
Hoang Minh Phuong	**Do Quang Huy**	**Kim Chang Ho**
Environmental Specialist	**Safety Manager**	**Construction Management**

HANSHIN Engineering & Construction

TOOLBOX MEETING
(Cuộc họp thảo luận an toàn)

DATE/ Ngày:	06th June 2013, start at 09:00 AM		
LOCATION: Địa điểm:	Underpass Culvert km 39+400	CONDUCTED BY/ Chủ Trì cuộc họp:	Hanshin E&C
No. Employees present/ Số người tham dự:	09.	No. Employees absent/ Số người vắng mặt:	01
Purpose of tool box meeting/ Mục đích cuộc họp:			
Topic discussed/ Chủ đề:	**Monthly Meeting for Site Safety Training**		

Details of topic / Chi tiết: Phổ biến nội quy an toàn Lao động về Sinh môi trường

Included: all staff at Underpass culver km 39+400 and Side ditch km 39+700

Nhắc nhở trong khi bảo hộ Lao động trong quá trình làm việc

An toàn khi làm việc trên cao

Phòng cháy chữa cháy khi làm việc

Công nhân 07. Kỹ Sư 01. An toàn 01

Comment / Nhận xét:

	HSE OFFICER Nhân Viên AT	SITE MANAGER GĐ Công Trường	PROJECT DIRECTOR GĐ Dự Án
GIA PHUOC	Kỹ Sư Phú		Trần Thanh Hường
HANSHIN E&C	ENVIRONMENT SPECIALIST Hoàng Minh Phương	SAFETY MANAGER D.Q. Huy	CONSTRUCTION MANAGER Kim chang Ho.

HANSHIN Engineering & Construction

TOOLBOX MEETING
(Cuộc họp thảo luận an toàn)

DATE/ Ngày:	06th June 2013, start at: 09:30 AM		
LOCATION: Địa điểm:	Suoi Sau Bridge	CONDUCTED BY/ Chủ Trì cuộc họp:	Hanshin E&C
No. Employees present/ Số người tham dự:	16+1	No. Employees absent/ Số người vắng mặt:	01.
Purpose of tool box meeting/ Mục đích cuộc họp:	Nhắc nhở về công tác an toàn trong lúc làm v		
Topic discussed/ Chủ đề:	**Monthly Meeting for Site Safety Training**		

Details of topic / Chi tiết:

Included: All staff and workers at Suoi Sau bridge and Overpass No. 1
13 công nhân - 1cy² Sư 01. An toàn 01 Tài xế 01
Nội dung: Họp nhắc nhở về an toàn lao động
vệ sinh công nghiệp. An toàn khi cầu vật nặng
chú ý về điện trong công trường.

Comment / Nhận xét:

	HSE OFFICER Nhân Viên AT	SITE MANAGER GĐ Công Trường	PROJECT DIRECTOR GĐ Dự Án
620 LONG AN	Đào Lem Dam		P. Nhi
	ENVIRONMENT SPECIALIST	**SAFETY MANAGER**	**CONSTRUCTION MANAGER**
HANSHIN E&C	Hoàng Minh Phương	D.G. Huy	Kim Chang Ho

HANSHIN Engineering & Construction	**TOOLBOX MEETING** (Cuộc họp thảo luận an toàn)

DATE/ Ngày:	06th June 2013, start at: 10:00 AM		
LOCATION: Địa điểm:	Overpass No. 2	CONDUCTED BY/ Chủ Trì cuộc họp:	Hanshin E&C
No. Employees present/ Số người tham dự:	08	No. Employees absent/ Số người vắng mặt:	03
Purpose of tool box meeting/ Mục đích cuộc họp:			
Topic discussed/ Chủ đề:	**Monthly Meeting for Site Safety Training**		

Details of topic / Chi tiết: phổ biến an toàn lao động Vệ sinh lao động

Included: All staff and workers at Overpass No.2 and Gia Phuoc casting yard

Công Nhân 06. Kỹ Sư 01 an toàn 01

phổ biến bảo hộ lao động phòng cháy nổ khi làm việc và dọn dẹp vệ sinh khu vực thi công và nơi ở.

Comment / Nhận xét:

	HSE OFFICER Nhân Viên AT	SITE MANAGER GĐ Công Trường	PROJECT DIRECTOR GĐ Dự Án
GIA PHUOC (signature) Trần Phi Hải	(signature) Kỹ Quang phú		(signature) Trần Thanh Hưng
	ENVIRONMENT SPECIALIST	**SAFETY MANAGER**	**CONSTRUCTION MANAGER**
HANSHIN E&C	(signature) Hoàng Minh Phương	(signature) H.Q. Huy	(signature) Kim chang Ho

HANSHIN Engineering & Construction

TOOLBOX MEETING
(Cuộc họp thảo luận an toàn)

DATE/ Ngày:	06th June 2013, start at: 11:00 AM		
LOCATION: Địa điểm:	Long An Batching Plant	CONDUCTED BY/ Chủ Trì cuộc họp:	Hanshin E&C
No. Employees present/ Số người tham dự:	065	No. Employees absent/ Số người vắng mặt:	05
Purpose of tool box meeting/ Mục đích cuộc họp:			
Topic discussed/ Chủ đề:	**Monthly Meeting for Site Safety Training**		
Details of topic / Chi tiết:	Nhắc nhở về an toàn lao động.		

Included: All staffs and workers at Batching plant and others (Railway Flyover)

2 LGD - 2 Quản đốc - CN + Tài xế 52 - 1 An toàn

8 Kỹ Sư.

Họp nhắc nhở về công tác an toàn trong thi công tại các mũi thi công của công ty B162 tại Long An.

Comment / Nhận xét:

	HSE OFFICER Nhân Viên AT	SITE MANAGER GĐ Công Trường	PROJECT DIRECTOR GĐ Dự Án
620 LONG AN	Đào Văn Dậu		P.V.Thi
	ENVIRONMENT SPECIALIST	SAFETY MANAGER	CONSTRUCTION MANAGER
HANSHIN E&C	Hoàng Minh Phương	D. Q. Huy	Kim Chang Ho

Hanshin Engineering& Construction Co., Ltd
Ho Chi Minh City - Long Thanh - DauGiay Expressway Construction Project (Package 6)
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TOOLBOX MEETING FOR SAFETY CONTROL

- May 2013 -

I - MEETING CONTENT

1. HSE (Health - Safety – Environment) on construction site.
2. Clearing labor camp on site, collecting waste.
3. PPE (Personal Protection Equipment) using
4. Improving working condition
5. Remind engineers and workers for safety protection

II – Time: 09:00 AM – 11:30 AM, Monday, May 06th, 2013

III – Meeting Places:

LOCATION	TIME	MANPOWER				REMARK
		ENGINEER	SAFETY STAFF	FOREMAN	WORKER	
Underpass Culvert Km39+400	09:00 AM	1	1	0	8	Engineers and workers are working at Underpass Culvert Km39+400
Suoi Sau Bridge	09:15 AM	2	1	0	8	Engineers and workers are working at Suoi Sau Bridge and Overpass No.1
Suoi Ram Bridge	09:30 AM	1	1	0	5	Engineers and workers are working at Suoi Ram Bridge. Overpass No.2. Gia Phuoc's Casting Yard
Song Nhan Bridge	10:00 AM	0	0	0	0	No activity at Song Nhan Bridge and Overpass No.3
Railway Flyover Bridge	10:30 AM	2	1	2	16	Engineers and workers are working at Railway Flyover Bridge. Casting Yard for concrete curb
620 Long An Batching Plant	11:00 AM	8	1	2	25	Engineers and workers are working at Batching Plant

Hanshin Engineering& Construction Co., Ltd
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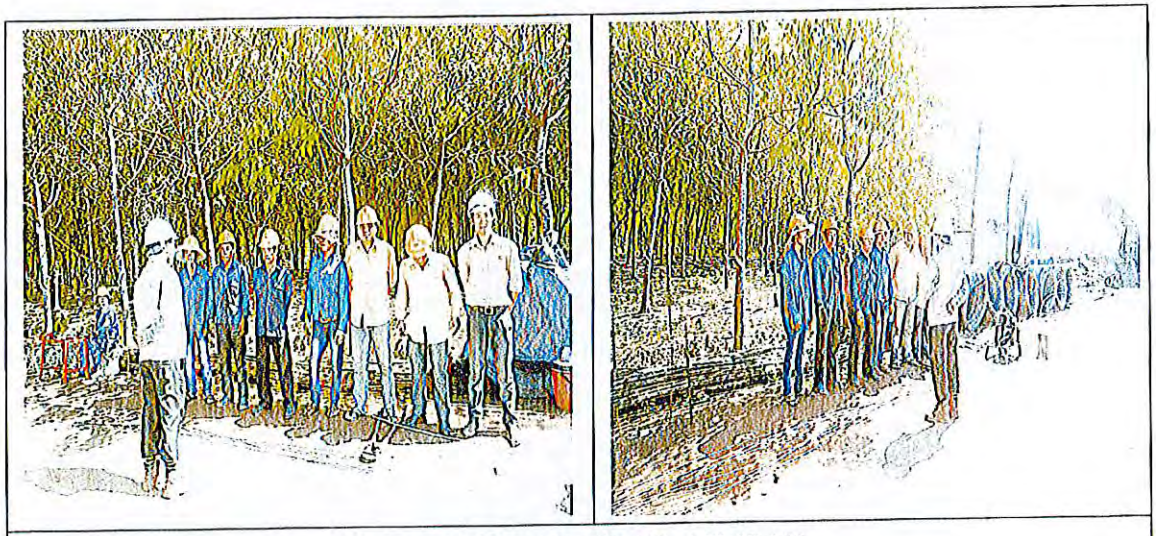
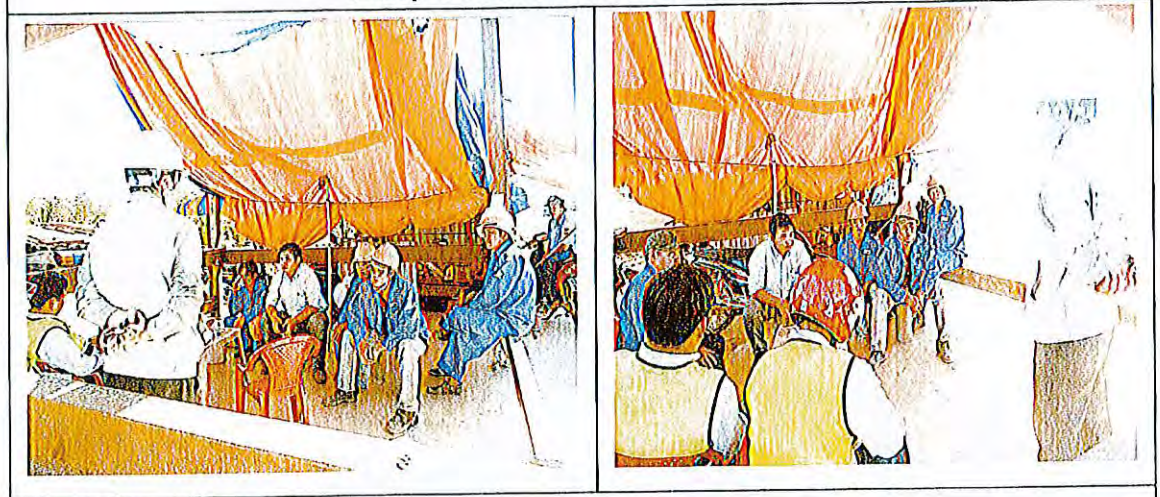
IV – Pictures:



Underpass Culvert Km39+400 at 09:00 AM



Suoi Sau Bridge at 09:15 AM

Suoi Ram Bridge at 09:30 AM

Hanshin Engineering& Construction Co., Ltd
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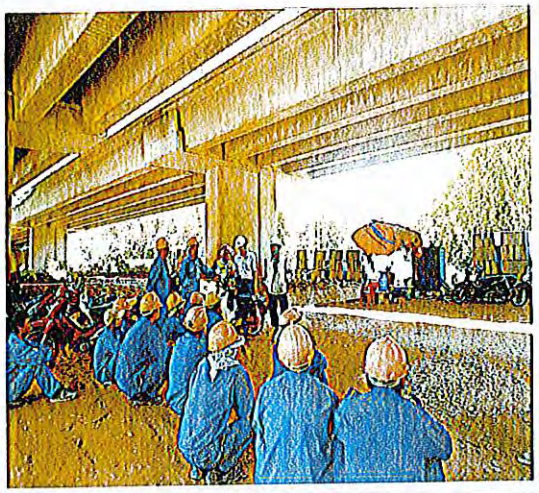
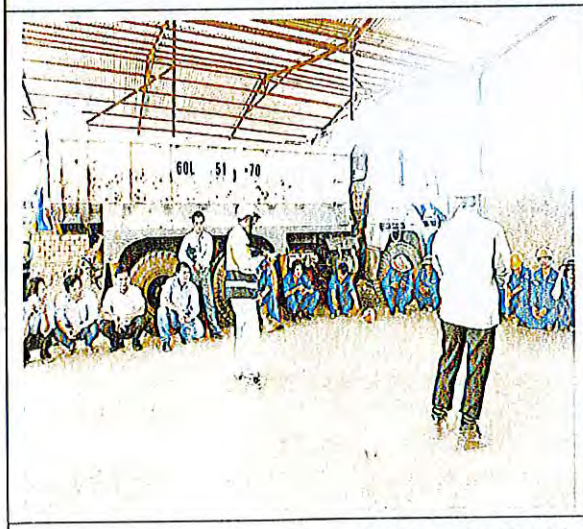
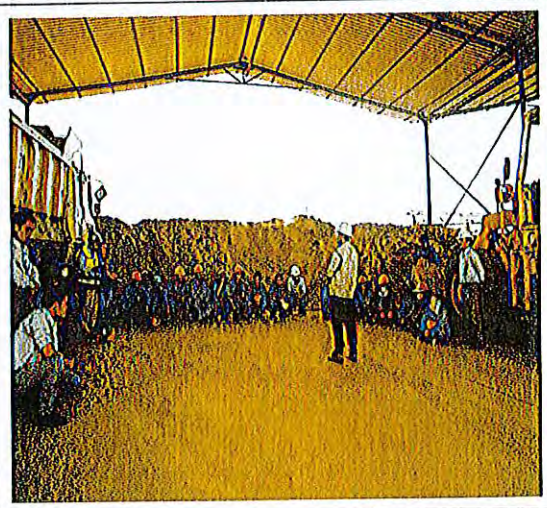


Railway Flyover Bridge at 10:30 AM





620 Long An Batching Plant at 11:00 AM

Reported by:

Hoang Minh Phuong
Environmental Specialist

In-charge:

Do Quang Huy
Safety Manager

Approved by:

Kim Chang Ho
Construction Management

HANSHIN Engineering & Construction

TOOLBOX MEETING
(Cuộc họp thảo luận an toàn)

DATE/ Ngày: 06th May 2013 - Time : 09:00 AM

LOCATION: Địa điểm: UVP km39 + 400

CONDUCTED BY/ Chủ Trì cuộc họp: HANSHIN E&C

No. Employees present/ Số người tham dự: 09

No. Employees absent/ Số người vắng mặt: 0

Purpose of tool box meeting/ Mục đích cuộc họp:

Topic discussed/ Chủ đề: Phổ biến an toàn lao động trên Công Trường.

Details of topic / Chi tiết:

Workers: 05 , Foremans: 0 ; Engineers : 03 ; Sayety staff : 01
Nhắc Nhở anh em Thực hiện tốt vấn đề an toàn Lao động và không chây cháy Nỗ tại công Trường.

Comment / Nhận xét:

	HSE OFFICER Nhân Viên AT	SITE MANAGER GĐ Công Trường	PROJECT DIRECTOR GĐ Dự Án
GIA PHUOC	Ngô Quang Phú		Tran Thanh Huong
	ENVIRONMENT SPECIALIST	SAFETY MANAGER	CONSTRUCTION MANAGER
HANSHIN E&C	Hoàng Minh Phương	Đỗ Quang Huy kiêm chức vụ	

HANSHIN Engineering & Construction

TOOLBOX MEETING
(Cuộc họp thảo luận an toàn)

DATE/ Ngày: 16th May 2013 - Time: 09:15 AM
LOCATION: Địa điểm: Suoi Sau Bridge Overpass No.1
CONDUCTED BY/ Chủ Trì cuộc họp: HANSHIN E&C
No. Employees present/ Số người tham dự: 11
No. Employees absent/ Số người vắng mặt: /

Purpose of tool box meeting/ Mục đích cuộc họp:

Topic discussed/ Chủ đề: Phổ biến nhắc nhở công tác an toàn LĐ - VSLĐ.

Details of topic / Chi tiết:

Inclusion : Suoi Sau Bridge and Overpass No.1
Workers: 8 ; Foremans: 0 ; Engineers: 2 ; Safety staff: 1.

- Về ca chi: Khi tham dự để biết giờ thời gian thay qui định về an toàn phòng chống cháy nổ?
- Về công tác trong công việc phải an toàn: về con người máy móc và biết bị - Về sinh công nghiệp môi làm việc

Comment / Nhận xét:

	HSE OFFICER Nhân Viên AT	SITE MANAGER GĐ Công Trường	PROJECT DIRECTOR GĐ Dự Án
620 LONG AN	Đào Văn Dần		Đào Văn Sơn
	ENVIRONMENT SPECIALIST	SAFETY MANAGER	CONSTRUCTION MANAGER
HANSHIN E&C	Hoàng Minh Phương	Đỗ Quang Huy	

HANSHIN Engineering & Construction

TOOLBOX MEETING
(Cuộc họp thảo luận an toàn)

DATE/ Ngày: 16th May 2013 - Time: 09:30 AM
LOCATION: Địa điểm: Suoi RAM Bridge
CONDUCTED BY/ Chủ Trì cuộc họp: HANSHIN E&C

No. Employees present/ Số người tham dự: 07
No. Employees absent/ Số người vắng mặt: /

Purpose of tool box meeting/ Mục đích cuộc họp:

Topic discussed/ Chủ đề: Phổ biến An toàn lao động trên công trường

Details of topic / Chi tiết:

Inclusion: Suoi Kam Bridge, Overpass No. 2 and Gia Phuoc Casting Yard
Workers: 5 ; Foremans: 0 ; Engineers: 1 ; Safety staff: 1

+ Phổ biến Cán bộ, công nhân trên công trường đội nón, dây bảo hộ đầy đủ,

Comment / Nhận xét: /

	HSE OFFICER Nhân ~~Viên AT~~	SITE MANAGER GĐ Công Trường	PROJECT DIRECTOR GĐ Dự Án
GIA PHUOC	Lê Văn Luân		Trần Thanh Hưng
	ENVIRONMENT SPECIALIST	SAFETY MANAGER	CONSTRUCTION MANAGER
HANSHIN E&C	Hoàng Minh Phương	Đỗ Quang Huy	Kim Chang Ho

HANSHIN Engineering & Construction

TOOLBOX MEETING
(Cuộc họp thảo luận an toàn)

DATE/ Ngày: 06th May 2013 - Time. 10: 30 AM

LOCATION: Railway Flyover
Địa điểm:

CONDUCTED BY/ HANSHIN E&C
Chủ Trì cuộc họp:

No. Employees present/ 20
Số người tham dự:

No. Employees absent/ 0
Số người vắng mặt:

Purpose of tool box meeting/
Mục đích cuộc họp:

Topic discussed/ Chủ đề: An toàn lao động trong sản xuất

Details of topic / Chi tiết:

Inclusion : Railway Flyover and Casting yard for concrete curb
Workers : 16 ; Foremans: 2 ; Engineers : 2 ; Safety staff : 1

- Công nhân BP 620 khi làm việc phải chú ý các an toàn trong sản xuất. An toàn về con người - máy móc
Vệ sinh công nghiệp trong công trình

Comment / Nhận xét:

	HSE OFFICER Nhân Viên AT	SITE MANAGER GĐ Công Trường	PROJECT DIRECTOR GĐ Dự Án
620 LONG AN	Đào Văn Dẫn		Đào Văn Sơn
	ENVIRONMENT SPECIALIST	SAFETY MANAGER	CONSTRUCTION MANAGER
HANSHIN E&C	Hoàng Minh Phương	Đỗ Quang Huy	Kim Chang Ho

HANSHIN Engineering & Construction

TOOLBOX MEETING
(Cuộc họp thảo luận an toàn)

DATE/ Ngày: 07th May 2013 - Time : 11: 00 AM
LOCATION: Địa điểm: long An Batching Plant
CONDUCTED BY/ Chủ Trì cuộc họp: HANSHIN E&C
No. Employees present/ Số người tham dự: 36
No. Employees absent/ Số người vắng mặt: /
Purpose of tool box meeting/ Mục đích cuộc họp:
Topic discussed/ Chủ đề: Công tác an toàn.
Details of topic / Chi tiết:

Workers: 25 ; Foremans: 2. ; Engineers: 8 ; Safety staff: 1

- Chú ý công tác trong khi vận hành máy trộn
- Xe cô máy nước trước khi máy phải xem trước sau - trái - phải -
- Trong khi sản xuất phải tuân thủ an toàn.

Comment / Nhận xét:

/

	HSE OFFICER Nhân Viên AT	SITE MANAGER GĐ Công Trường	PROJECT DIRECTOR GĐ Dự Án
620 LONG AN	Đào Văn Dần		Đào Văn Sơn
	ENVIRONMENT SPECIALIST	SAFETY MANAGER	CONSTRUCTION MANAGER
HANSHIN E&C	Hoàng Minh Phương	Đỗ Quang Huy	Kim Chang Ho

Hanshin Engineering& Construction Co., Ltd
Ho Chi Minh City - Long Thanh-DauGiay Expressway Construction Project (Package 6)
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TOOLBOX MEETING FOR SAFETY CONTROL

- April 2013 -

I - MEETING CONTENT

1. HSE (Health - Safety – Environment) on construction site.
2. Clearing labor camp on site, collecting waste.
3. PPE (Personal Protection Equipment) using
4. Improving working condition
5. Remind engineers and workers for safety protection

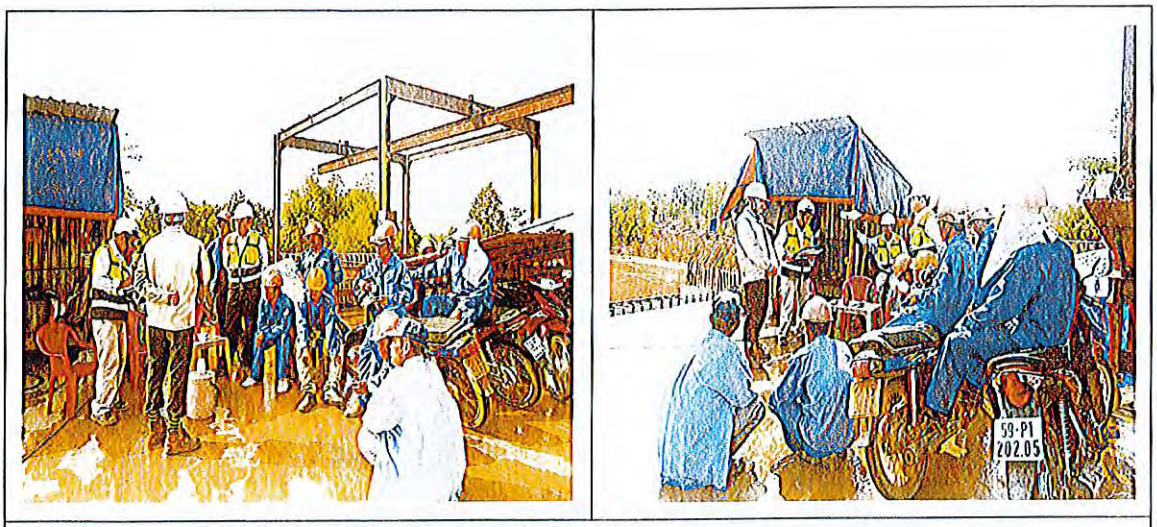
II – Time: 09:00 AM – 11:30 AM, Monday, April 01st, 2013

III – Meeting Places:

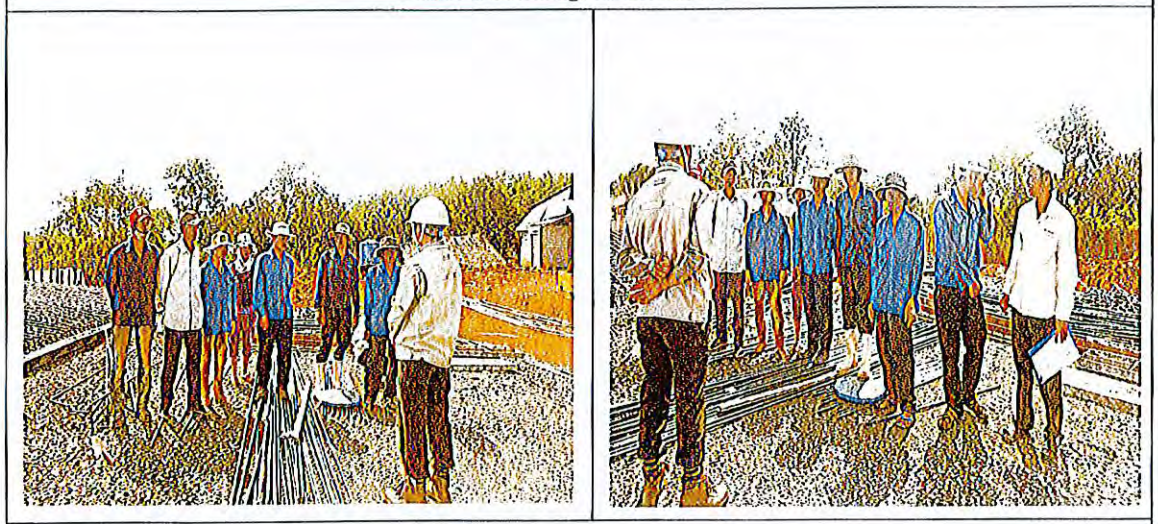
LOCATION	TIME	MANPOWER				REMARK
		ENGINEER	FOREMAN	SAFETY STAFF	WORKER	
Suoi Sau Bridge	09:00 AM	3	0	1	8	Engineers and workers are working at Suoi Sau Bridge and Overpass No.1
Suoi Ram Bridge	09:30 AM	1	0	1	8	Engineers and workers are working at Suoi Ram Bridge, Overpass No.2, Gia Phuoc's Casting Yard
Song Nhan Bridge	10:00 AM	1	2	1	6	Engineers and workers are working at Song Nhan Bridge and Overpass No.3
Railway Flyover Bridge	10:30 AM	2	2	1	20	Engineers and workers are working at Railway Flyover Bridge, Casting Yard for concrete curb
620 Long An Batching Plant	11:00 AM	10	2	1	25	Engineers and workers are working at Batching Plant

Hanshin Engineering& Construction Co., Ltd
Ho Chi Minh City - Long Thanh–DauGiay Expressway Construction Project (Package 6)
Project Management Office:
Hamlet 6, Road 25 ward, Thong Nhat District, Dong Nai Province, Vietnam
Tel: +84-61-3.964.716/726/826 - Fax: +84-61-3.964.611 - Email: hr_hanshin@yahoo.com.vn

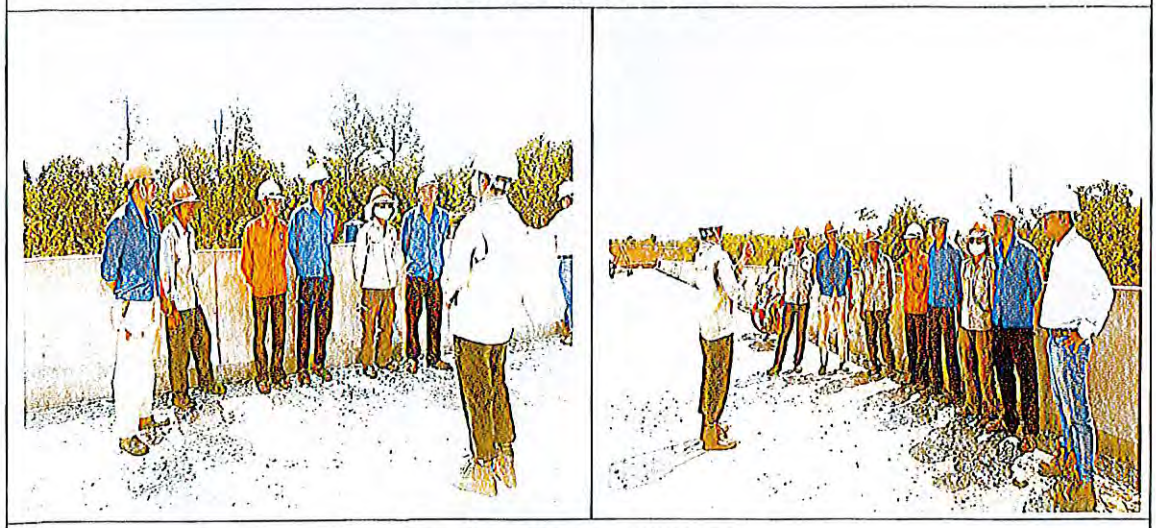
IV – Pictures:



Suoi Sau Bridge at 09:00 AM



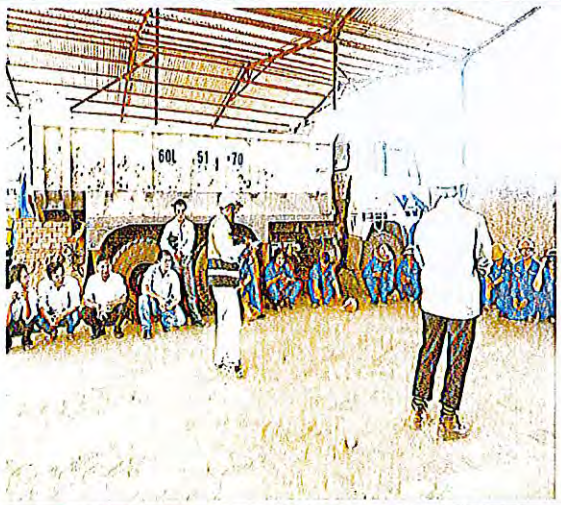
Suoi Ram Bridge at 09:30 AM

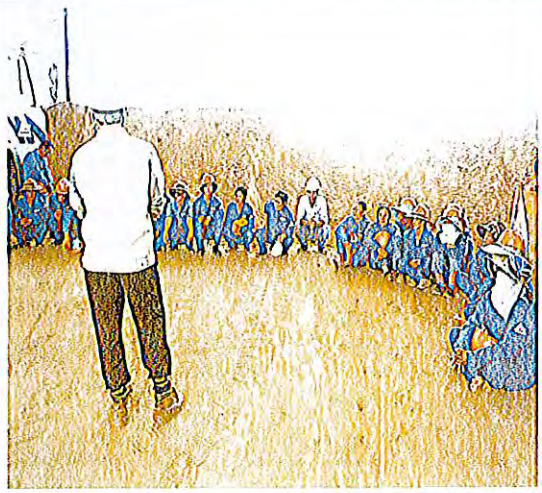


Song Nhan Bridge at 10:00 AM

Hanshin Engineering& Construction Co., Ltd
Ho Chi Minh City - Long Thanh–DauGiay Expressway Construction Project (Package 6)
Project Management Office:
Hamlet 6, Road 25 ward, Thong Nhat District, Dong Nai Province, Vietnam
Tel: +84-61-3.964.716/726/826 - Fax: +84-61-3.964.611 - Email: hr_hanshin@yahoo.com.vn

Railway Flyover Bridge at 10:30 AM





620 Long An Batching Plant at 11:00 AM

Reported by:

Hoang Minh Phuong
Environmental Specialist

Checked by:

Do Quang Huy
Safety Manager

Approved by:

Kim Chang Ho
Construction Management

HANSHIN Engineering & Construction

TOOLBOX MEETING
(Cuộc họp thảo luận an toàn)

DATE/ Ngày: 01st April 2013 , 09: 00 AM
LOCATION: Địa điểm: Sun Sau Bridge Overpass No. 1
CONDUCTED BY/ Chủ Trì cuộc họp: Hanshin E&C
No. Employees present/ Số người tham dự: 8 workers 3 engineers
No. Employees absent/ Số người vắng mặt
Purpose of tool box meeting/ Mục đích cuộc họp:
Topic discussed/ Chủ đề: Phổ biến an toàn lao động và phòng chống cháy nổ
Details of topic / Chi tiết:

- workers: 08
- engineers: 03
- Foreman: 0
- Safety staff: 01

total: 12

Comment by supervisor and foreman / Nhận xét của Giám Sát/ Đội trưởng thi công

	HSE OFFICER Nhân Viên AT	FOREMAN Quản Đốc	SITE MANAGER GĐ Công Trường	PROJECT DIRECTOR GĐ Dự Án
620 LONG AN	Đào V Dần			Đào Văn Sơn
	ENVIRONMENT SPECIALIST		SAFETY MANAGER	CONST. MANAGER
HANSHIN E&C	Hoàng Minh Thường		Đỗ Quang Huy	Kim chang Ho

HANSHIN Engineering & Construction

TOOLBOX MEETING
(Cuộc họp thảo luận an toàn)

DATE/ Ngày: 01 st April 2013 ; 07:30 AM
LOCATION: Sua Ram Bridge ; Overpass No2 and Gia Phuoc Casting Yard (Factory)
Địa điểm:
CONDUCTED BY/ Chủ Trì cuộc họp: Hanshin E&C
No. Employees present/ Số người tham dự: 9 + 1
No. Employees absent/ Số người vắng mặt:

Purpose of tool box meeting/ Mục đích cuộc họp:

Topic discussed/ Chủ đề: Phổ biến nội dung an toàn thên công Trường

Details of topic / Chi tiết:

engineer : 1 - Safety staff : 01
Foreman : 01
worker : 8
- Quần áo, mũ, kiến, bao tay
- Dây an toàn
-

Comment by supervisor and foreman / Nhận xét của Giám Sát/ Đội trưởng thi công

	HSE OFFICER Nhân Viên AT	FOREMAN Quản Đốc	SITE MANAGER GĐ Công Trường	PROJECT DIRECTOR GĐ Dự Án
GIA PHUOC	Thái Thanh Điền			Trần Thanh Hường

	ENVIRONMENT SPECIALIST	SAFETY MANAGER	CONST. MANAGER
HANSHIN E&C	Hoàng Minh Phương	Đỗ Quang Huy	Kim Chang Ho

HANSHIN Engineering & Construction

TOOLBOX MEETING
(Cuộc họp thảo luận an toàn)

DATE/ Ngày: 01 st April 2013 , 10 : 00 AM
LOCATION: Song Nhan Bridge Overpass No. 3
Địa điểm:
CONDUCTED BY/ Chủ Trì cuộc họp: Hanshin E&C
No. Employees present/ Số người tham dự: 8
No. Employees absent/ Số người vắng mặt

Purpose of tool box meeting/ Mục đích cuộc họp:

Topic discussed/ Chủ đề: phổ biến an toàn trên công trường

Details of topic / Chi tiết:

Engineers : 01
Foremans : 01 + safety manager : 01
Workers : 6
phổ biến về bảo hộ Lao động và đảm an toàn cho Cá Nhân làm việc tại công trường

Comment by supervisor and foreman / Nhận xét của Giám Sát/ Đội trưởng thi công

	HSE OFFICER Nhân Viên AT	FOREMAN Quản Đốc	SITE MANAGER GĐ Công Trường	PROJECT DIRECTOR GĐ Dự Án
GIA PHUOC	ký & ghi rõ họ tên			Trần Thanh Hường
HANSHIN E&C	ENVIRONMENT SPECIALIST Hoàng Minh Phương		SAFETY MANAGER Đỗ Quang Huy	CONST. MANAGER kim chang ho

HANSHIN Engineering & Construction

TOOLBOX MEETING
(Cuộc họp thảo luận an toàn)

DATE/ Ngày: 01st April 2013 , 10:30AM

LOCATION: Địa điểm: Railway fly over Bridge

CONDUCTED BY/ Chủ Trì cuộc họp: Hanshin E&C

No. Employees present/ Số người tham dự: 24 + 1

No. Employees absent/ Số người vắng mặt

Purpose of tool box meeting/ Mục đích cuộc họp:

Topic discussed/ Chủ đề: về an toàn lao động trong lúc thi công và PPE N

Details of topic / Chi tiết:

Foreman: 2
engineer: 2
worker: 20
- safety staff: 1

: phổ biến về việc sắp phát áo quần, mũ nón, ti giày, khẩu trang.
- Khi leo cao phải có dây an toàn.
chú ý đứng tế nhuật ngữ....

Comment by supervisor and foreman / Nhận xét của Giám Sát/ Đội trưởng thi công

	HSE OFFICER Nhân Viên AT	FOREMAN Quản Đốc	SITE MANAGER GĐ Công Trường	PROJECT DIRECTOR GĐ Dự Án
620 LONG AN	Đào Văn Dân			Đào Văn Sơn
HANSHIN E&C	ENVIRONMENT SPECIALIST Hoàng Minh Phương		SAFETY MANAGER Đỗ Quang Huy	CONST. MANAGER kim chang ho

HANSHIN Engineering & Construction

TOOLBOX MEETING
(Cuộc họp thảo luận an toàn)

DATE/ Ngày: 01st April 2013 , 11:00 AM

LOCATION: Địa điểm: 620 long An Batching plant

CONDUCTED BY/ Chủ Trì cuộc họp: Hanshin E & C

No. Employees present/ Số người tham dự: 38

No. Employees absent/ Số người vắng mặt

Purpose of tool box meeting/ Mục đích cuộc họp:

Topic discussed/ Chủ đề: về an toàn lao động trong sản xuất và phòng chống cháy

Details of topic / Chi tiết:

- foreman: 02.
- enginor: 10ng
- worker: 25
- safety manager: 01.

Content: - Trong thi công chú ý về an toàn xe máy, leo cao phải có dây an toàn
- chú ý khi đi làm phải mang giầy, đội nón, đồng phục của công ty. tuân thủ nội quy qui của công ty.

Comment by supervisor and foreman / Nhận xét của Giám Sát/ Đội trưởng thi công

	HSE OFFICER Nhân Viên AT	FOREMAN Quản Đốc	SITE MANAGER GĐ Công Trường	PROJECT DIRECTOR GĐ Dự Án
620 LONG AN	Đào Văn Dần			Đào Văn Sơn
HANSHIN E&C	ENVIRONMENT SPECIALIST Hoàng Minh Phương		SAFETY MANAGER Đỗ Quang Huy	CONST. MANAGER Kim Chang Ho

APPENDIX 5:

THE REMIND FROM MAIN-CONTRACTOR

HANSHIN Engineering & Construction

HO CHI MINH – LONG THANH – DAU GIAY EXPRESSWAY PROJECT

OCCUPATIONAL SAFETY AND HEALTH INSTRUCTION HSE/No./.02...

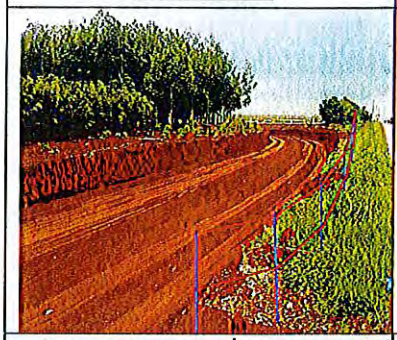
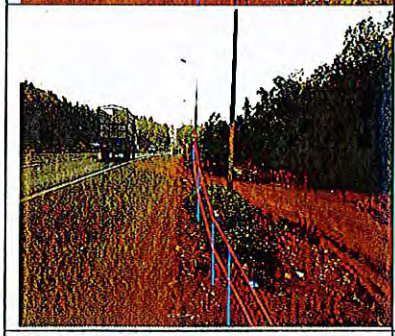
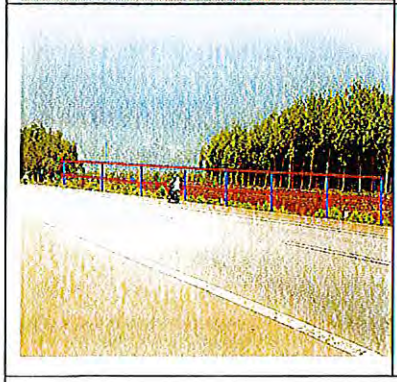
PROJECT : HO CHI MINH – LONG THANH – DAU GIAY EXPRESSWAY

SUB-CONTRACTOR : **HOANG TUAN KHANG**

LOCATION/GRIDLINES : **Ramp-way A1 Km 0+260 & Ramp-way D2 Km 1+680**

Sheet: ...1.....of.....2.....

Attention to: Site Engineer & Safety Officer Signature: Date: May 17, 2013

Description:	Violation:	Hazard	Preventive Measure
	Safety (not install warning tape)	Danger (Trip and fall cause injuries)	Install warning tape at Excavation Ramp-way D2, Km 1+680
	Safety (not install warning tape)	Danger (Trip and fall cause injuries)	Install warning tape at Excavation Ramp-way D2, Km 1+680
	Safety (not install warning tape)	Danger (Trip and fall cause injuries)	Install warning tape at Excavation Ramp-way A1, Km 0+260

HANSHIN Engineering & Construction

HO CHI MINH – LONG THANH – DAU GIAY EXPRESSWAY PROJECT

Requested by: Do Quang Huy Date: 17 May, 2013 **Safety items:**	Confirmed by: Kim Chang Ho Date: 17-May-2013 Cc:

NOTES:

1. The above Instruction shall be complied within as soon as possible upon receipt falling which HANSHIN Engineering & Construction may engaged others to execute the same and recover all cost from the defaulting Sub-contractor.
2. The Sub-contractor shall notify HANSHIN Engineering & Construction in writing any cost and / or time implication within seven (7) days upon receipt of this instruction where the above instruction constitute a variation under the Sub-contractor falling which no further claims will be entertained.
3. HANSHIN Engineering & Construction shall evaluate and ascertain the price adjustment accordance with the terms and conditions of the Sub-contractor if the above instruction constitutes variations under the same.

HANSHIN Engineering & Construction

HO CHI MINH – LONG THANH – DAU GIAY EXPRESSWAY PROJECT

OCCUPATIONAL SAFETY AND HEALTH INSTRUCTION HSEI/No./...01.....

PROJECT : HO CHI MINH – LONG THANH – DAU GIAY EXPRESSWAY

SUB-CONTRACTOR : **MINH Y CO., LTD**

LOCATION/GRIDLINES : **Km 41+000 – 41+100**

Sheet: ...1.....of.....2.....

Attention to: Site Engineer & Safety Officer Signature: Date: March 12, 2013

Description:	Violation:	Hazard	Preventive Measure
	Safety (not install warning tape)	Danger (Trip and fall cause injuries)	Install warning tape at Excavation Km 41+000 ~ 41+100)
	Safety (not install warning tape)	Danger (Trip and fall cause injuries)	Install warning tape at Excavation Km 41+000 ~ 41+100)
	Safety (not install warning tape)	Danger (Trip and fall cause injuries)	Install warning tape at Excavation Km 41+000 ~ 41+100)
	Safety (not install warning tape)	Danger (Trip and fall cause injuries)	Install warning tape at Excavation Km 41+000 ~ 41+100)

HANSHIN Engineering & Construction

HO CHI MINH – LONG THANH – DAU GIAY EXPRESSWAY PROJECT

Requested by: Do Quang Huy

Date: 12 Mar, 2013

Safety Items:

Confirmed by: Kim

Date: 12 - March - 2013

Cc:

NOTES:

1. The above Instruction shall be complied within as soon as possible upon receipt falling which HANSHIN Engineering & Construction may engaged others to execute the same and recover all cost from the defaulting Sub-contractor.
2. The Sub-contractor shall notify HANSHIN Engineering & Construction in writing any cost and / or time implication within seven (7) days upon receipt of this instruction where the above instruction constitute a variation under the Sub-contractor falling which no further claims will be entertained.
3. HANSHIN Engineering & Construction shall evaluate and ascertain the price adjustment accordance with the terms and conditions of the Sub-contractor if the above instruction constitutes variations under the same.

HANSHIN Engineering & Construction

HO CHI MINH – LONG THANH – DAU GIAY EXPRESSWAY PROJECT

OCCUPATIONAL SAFETY AND HEALTH INSTRUCTION HSEI/No./..01.....

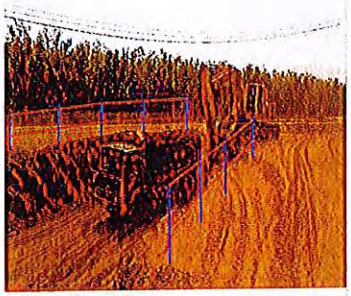
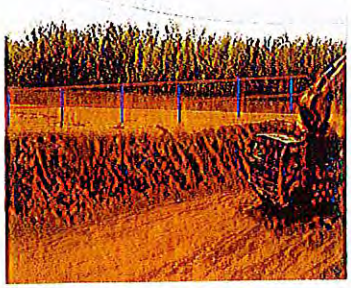
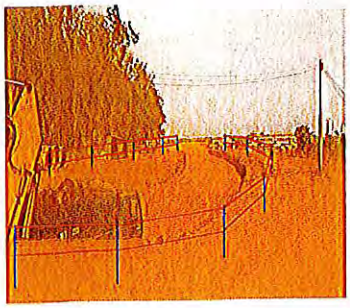
PROJECT : HO CHI MINH – LONG THANH – DAU GIAY EXPRESSWAY

SUB-CONTRACTOR : **HOANG TUAN KHANG**

LOCATION/GRIDLINES : **Rampway A2**

Sheet: ...1.....of.....2.....

Attention to: Site Engineer & Safety Officer Signature: Date: March 04, 2013

Description:	Violation:	Hazard	Preventive Measure
	Safety (not install warning tape)	Danger (Trip and fall cause injuries)	Install warning tape at Rampway A2 (Km 54+700 ~ 54+800)
	Safety (not install warning tape)	Danger (Trip and fall cause injuries)	Install warning tape at Rampway A2 (Km 54+700 ~ 54+800)
	Safety (not install warning tape)	Danger (Trip and fall cause injuries)	Install warning tape at Excavation (Km 54+700)
	Safety (not install warning tape)	Danger (Trip and fall cause injuries)	Install warning tape at Rampway A2 (Km 54+700 ~ 54+800)

HANSHIN Engineering & Construction

HANSHIN ENGINEERING & CONSTRUCTION CO.,LTD GÓI THẦU XÂY LẮP SỐ 6 DỰ ÁN XÂY DỰNG ĐƯỜNG CAO TỐC TP.HỒ CHÍ MINH LONG THÀNH DẦU GIÂY

HO CHI MINH – LONG THANH – DAU GIAY EXPRESSWAY PROJECT

Safety (not install warning tape)

Danger (Trip and fall cause injuries)

Install warning tape at Rampway A2 (Km 54+700 ~ 54+800)

Requested by: Do Quang Huy

Date: 04 March ,2013

Safety Items:

Confirmed by: Tim Cl...

Date; 4 - March - 2013

Cc:

HANSHIN ENGINEERING & CONSTRUCTION CO.,LTD GÓI THẦU XÂY LẮP SỐ 6 DỰ ÁN XÂY DỰNG ĐƯỜNG CAO TỐC TP.HỒ CHÍ MINH LONG THÀNH DẦU GIÂY

NOTES:

1. The above Instruction shall be complied within as soon as possible upon receipt falling which HANSHIN Engineering & Construction may engaged others to execute the same and recover all cost from the defaulting Sub-contractor.
2. The Sub-contractor shall notify HANSHIN Engineering & Construction in writing any cost and / or time implication within seven (7) days upon receipt of this instruction where the above instruction constitute a variation under the Sub-contractor falling which no further claims will be entertained.
3. HANSHIN Engineering & Construction shall evaluate and ascertain the price adjustment accordance with the terms and conditions of the Sub-contractor if the above instruction constitutes variations under the same.

HANSHIN Engineering & Construction

HO CHI MINH – LONG THANH – DAU GIAY EXPRESSWAY PROJECT

OCCUPATIONAL SAFETY AND HEALTH INSTRUCTION HSEI/No./.....

PROJECT : HO CHI MINH – LONG THANH – DAU GIAY EXPRESSWAY

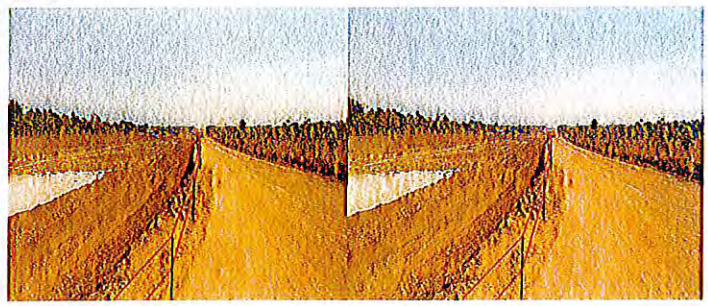
SUB-CONTRACTOR : **HUY PHUONG JSC**

LOCATION/GRIDLINES : Km 43+700~42+800

Sheet: ...1...

Attentionto: Site Engineer & Safety Officer Signature: Date: Jan 17, 2013

Description:	Violation:	Hazard	Preventive Measure
	Safety (Not install warning tape)	Danger, trip and fall cause injuries	Request to install warning tape



Requested by: Do Quang Huy

Date: 17 - Jan - 2013

Safety items:

Confirmed by: Kim Chang Ho

Date: 17 - Jan - 2013

Cc:

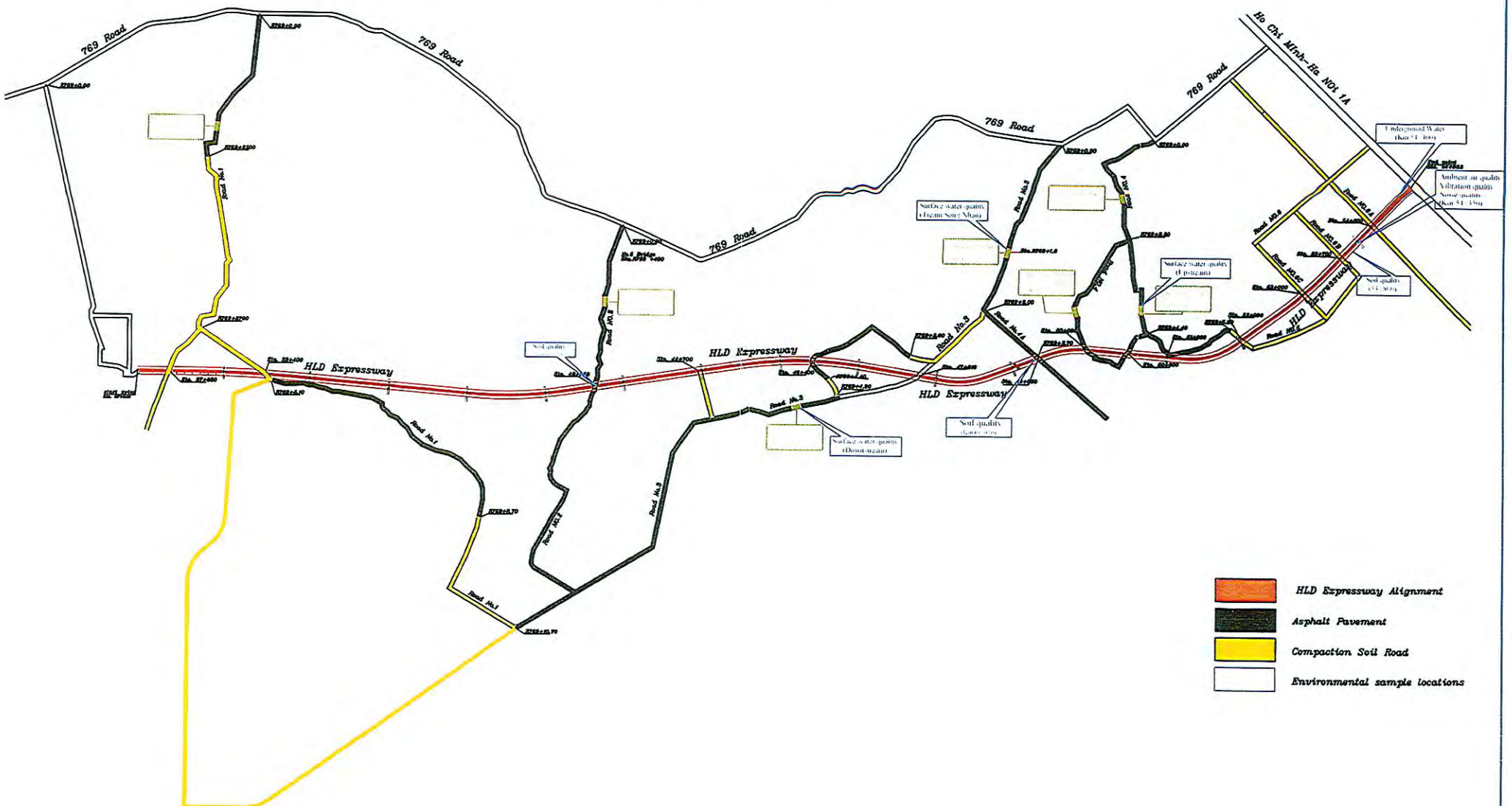
NOTES:

1. The above Instruction shall be complied within as soon as possible upon receipt falling which HANSHIN Engineering & Construction may engaged others to execute the same and recover all cost from the defaulting Sub-contractor.
2. The Sub-contractor shall notify HANSHIN Engineering & Construction in writing any cost and / or time implication within seven (7) days upon receipt of this instruction where the above instruction constitute a variation under the Sub-contractor falling which no further claims will be entertained.
3. HANSHIN Engineering & Construction shall evaluate and ascertain the price adjustment accordance with the terms and conditions of the Sub-contractor if the above instruction constitutes variations under the same.

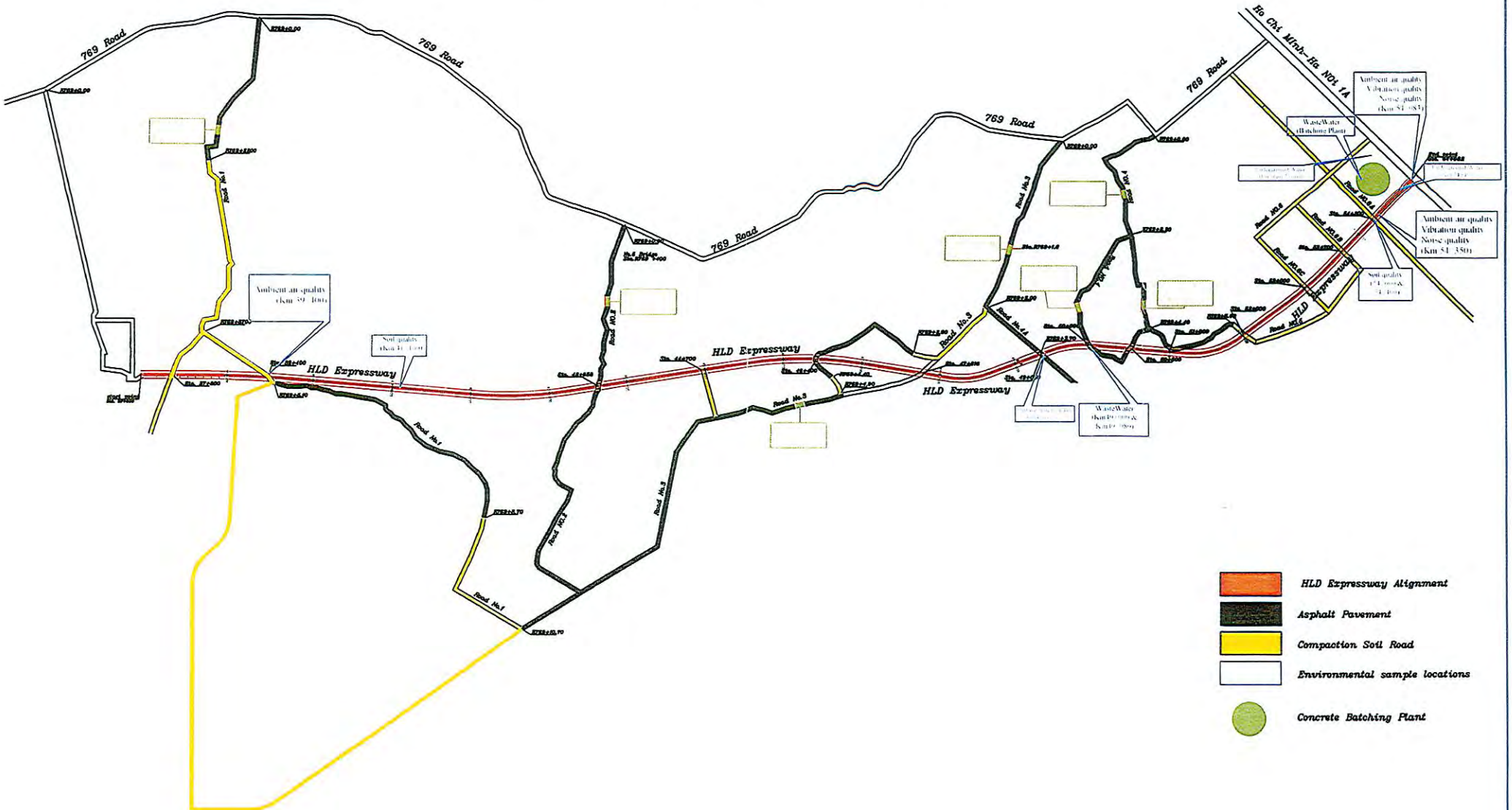
APPENDIX 6:

SAMPLING LOCATIONS MAP

ENVIRONMENTAL MONITORING SAMPLE LOCATION
(PRE - CONSTRUCTION)



ENVIRONMENTAL MONITORING SAMPLE LOCATION
(CONSTRUCTION - PHASE)



APPENDIX 7:

PHOTOS OF ENVIRONMENTAL MONITORING AND MANAGEMENT

1. Quarterly Environment Monitoring on construction site of Package No.6

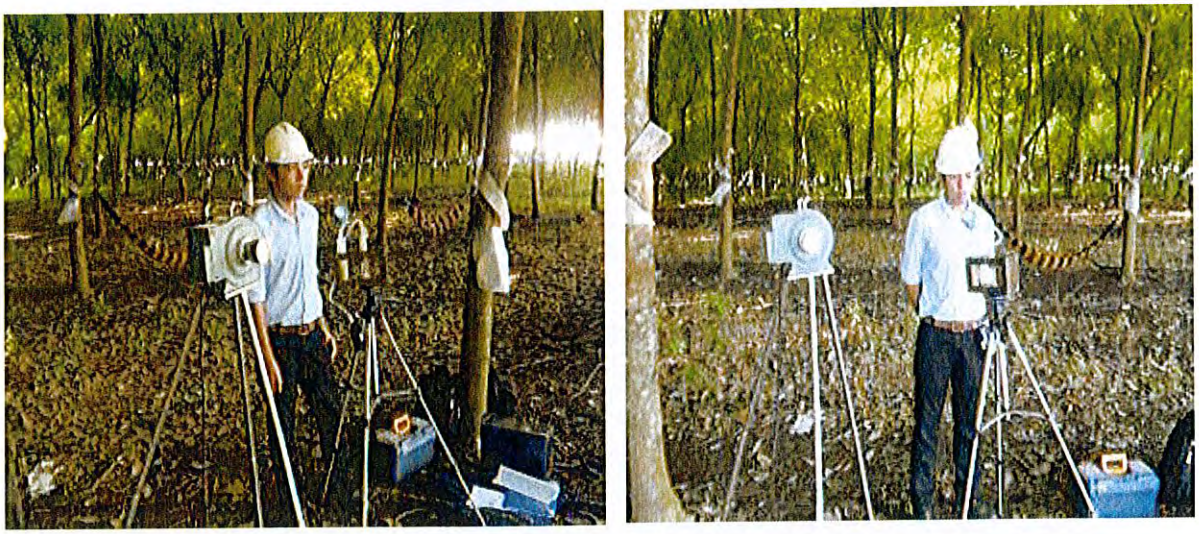


Figure 1: Air sampling on site near Song Nhan residential area (Km39+400)

Figure 2: Air sampling at Dau Giay intersection with NH1 (Km54+983)

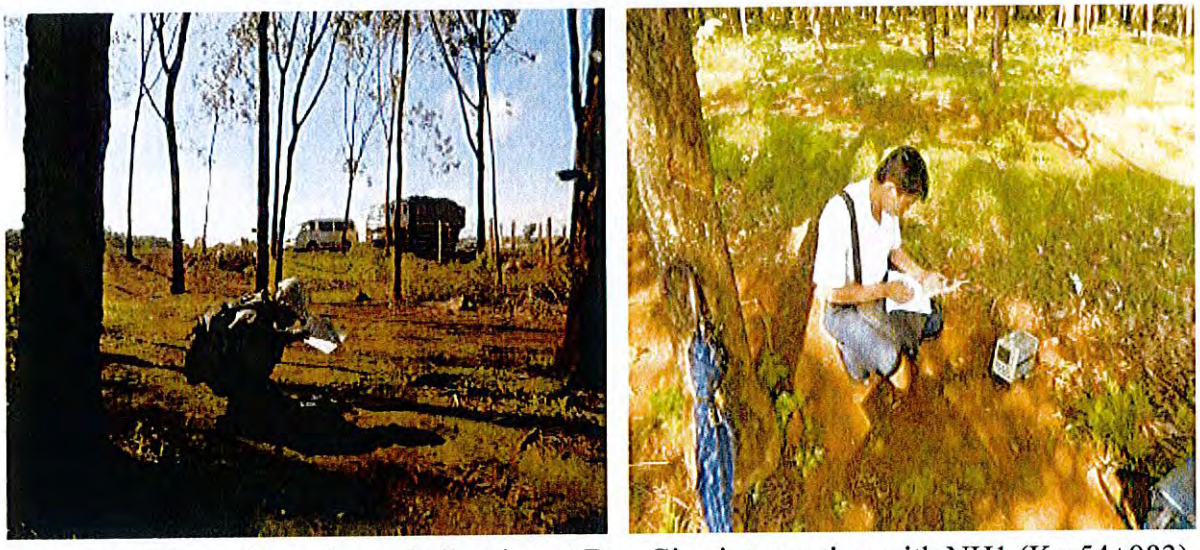


Figure 3: Measuring noise and vibration at Dau Giay intersection with NH1 (Km54+983)

1. Quarterly Environment Monitoring on construction site of Package No.6

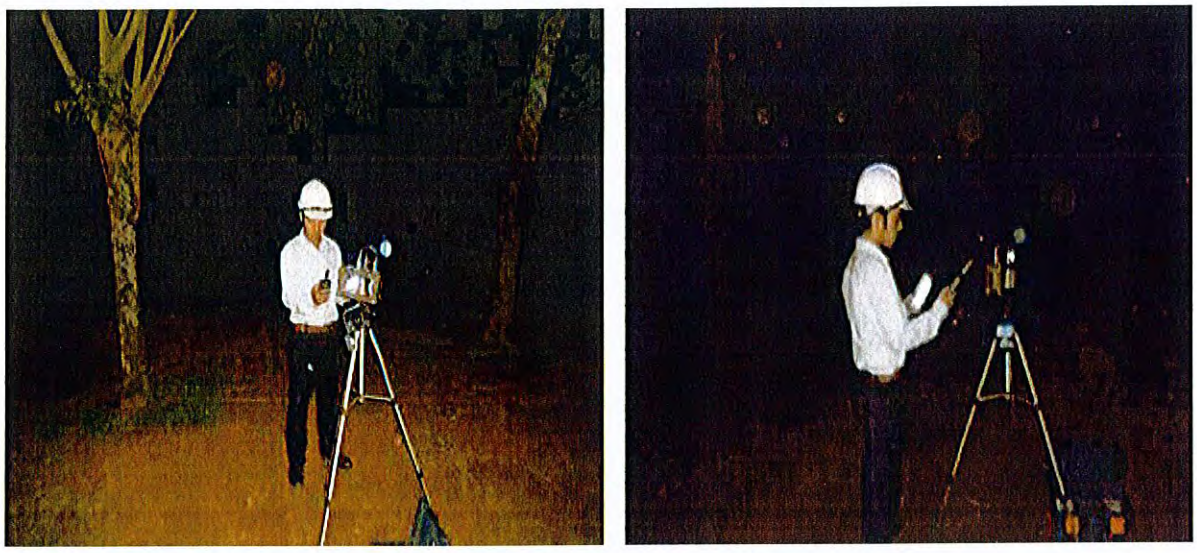


Figure 4: Air sampling at Dau Giay (Km54+350)

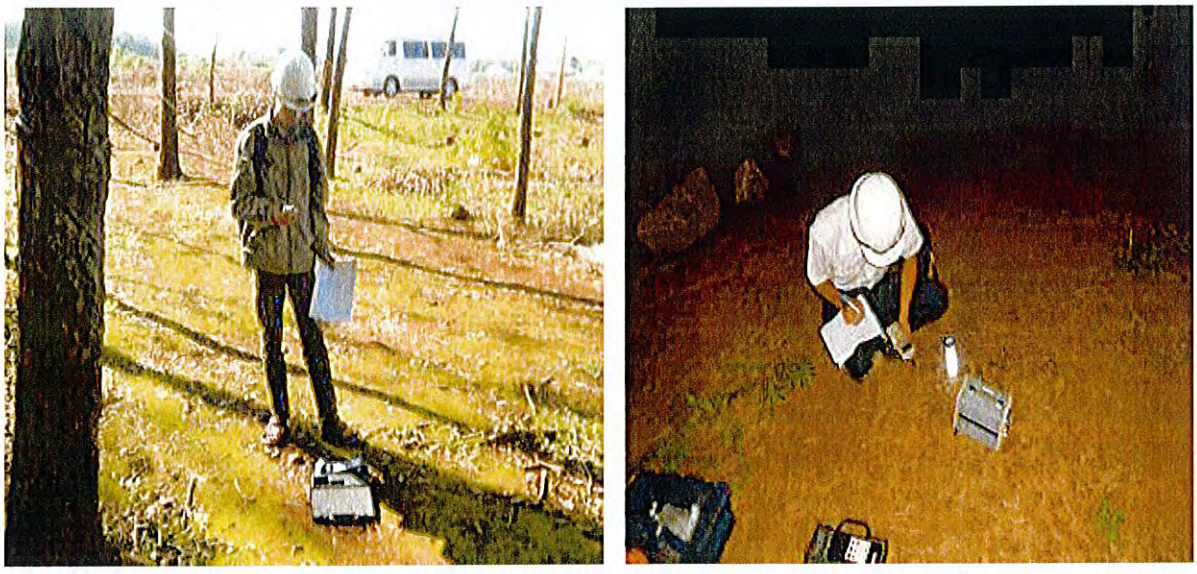
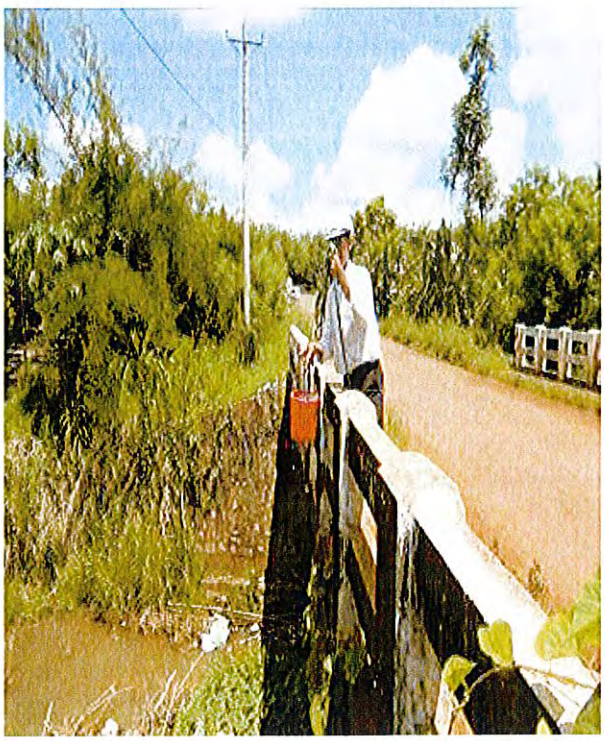


Figure 5: Measuring noise and vibration at Dau Giay (Km54+350)

1. Quarterly Environment Monitoring on construction site of Package No.6

Figure 6: Surface water sample location (Song Nhan River - Upstream)



1. Quarterly Environment Monitoring on construction site of Package No.6

Figure 7: Surface water sample location (Song Nhan River – Downstream)

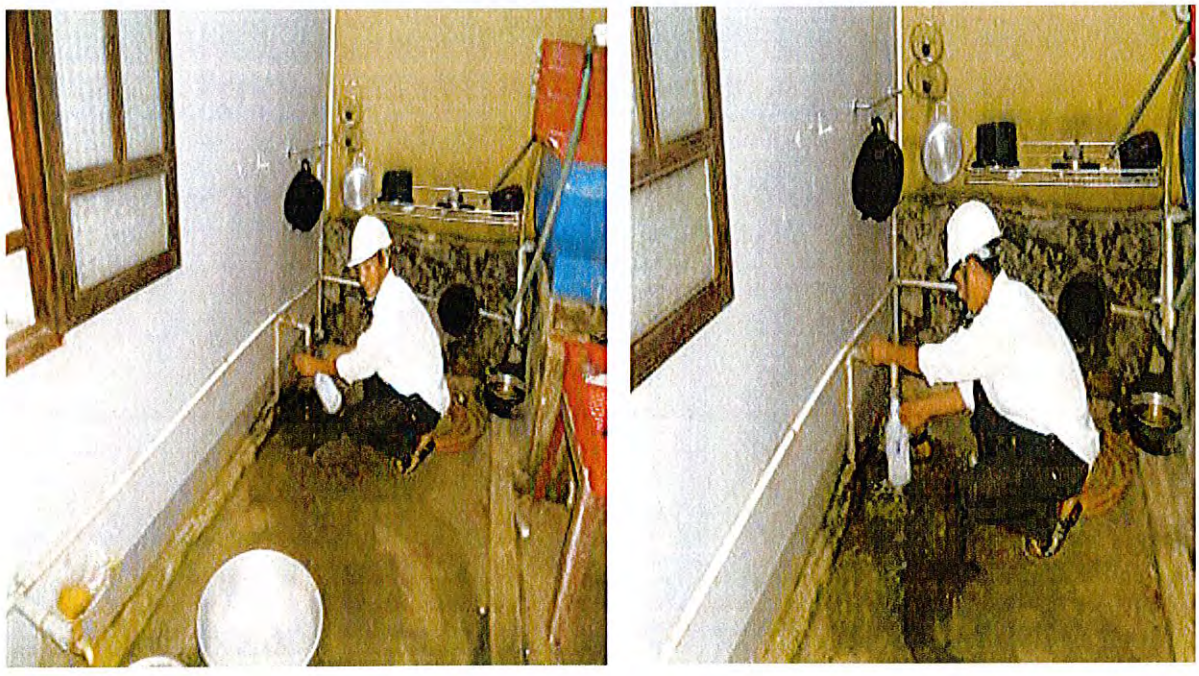


Figure 8: Underground water sample location in Xuan Thanh residential area (Km 54+400)

1. Quarterly Environment Monitoring on construction site of Package No.6

Figure 9: Underground water sample location in Tran Cao Van Hamlet – Bau Ham 2 ward

Figure 10: Soil sample location (Km41+100, Km53+800, Km54+350, Km54+400)

1. Quarterly Environment Monitoring on construction site of Package No.6

Figure 11: Taking the waste water at the batching plant (Km54+900)

Figure 12: Taking the domestic waste water (Km54+900)

Figure 13: Store and fuel for vehicles that are used in the project area. (Km54+900)

2. Activities management on construction site of Package No.6

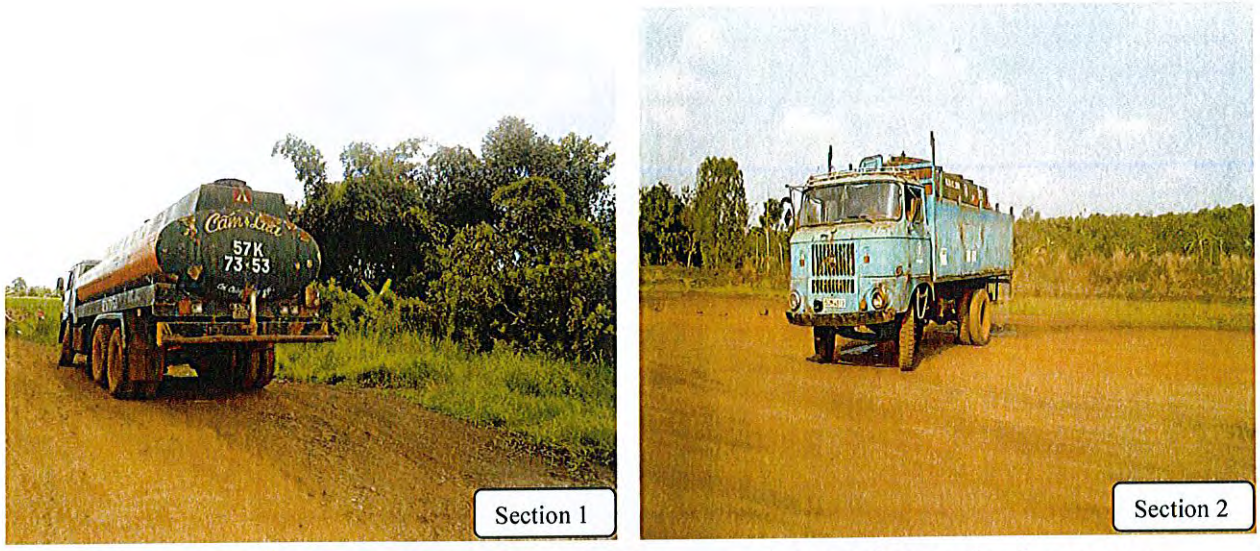


Figure 1: Watering service road and temporary road every day on the dry season

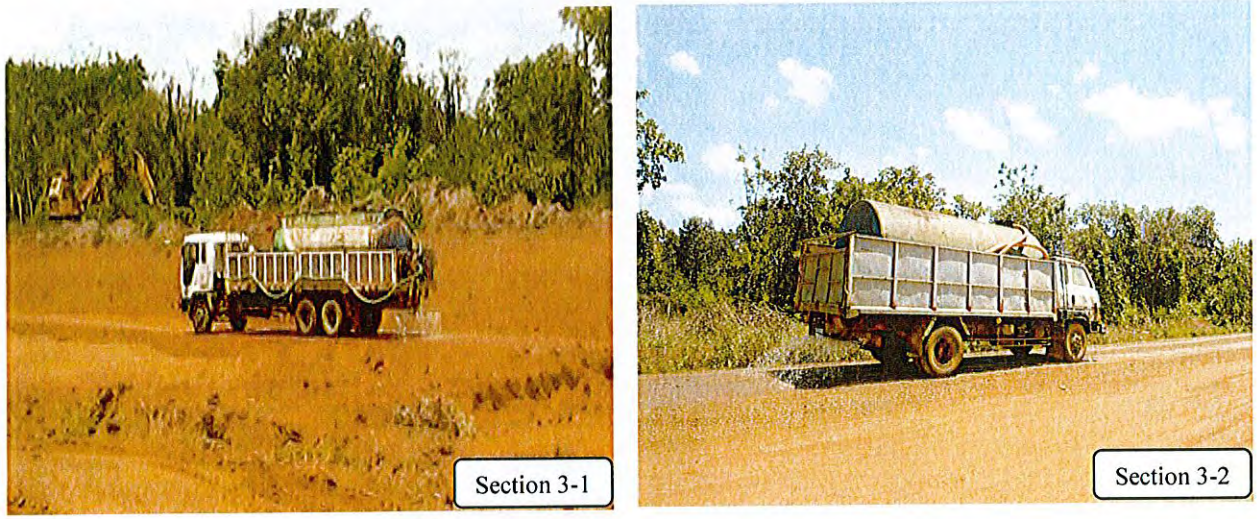


Figure 2: Water trucks on Site

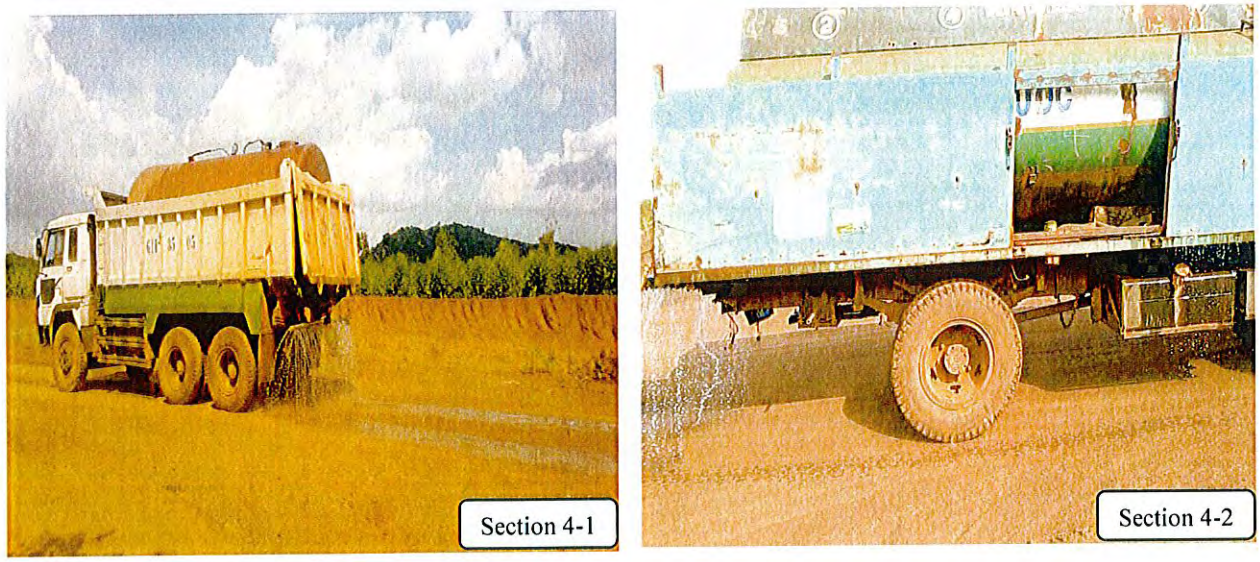


Figure 3: Water trucks on Site

2. Activities management on construction site of Package No.6

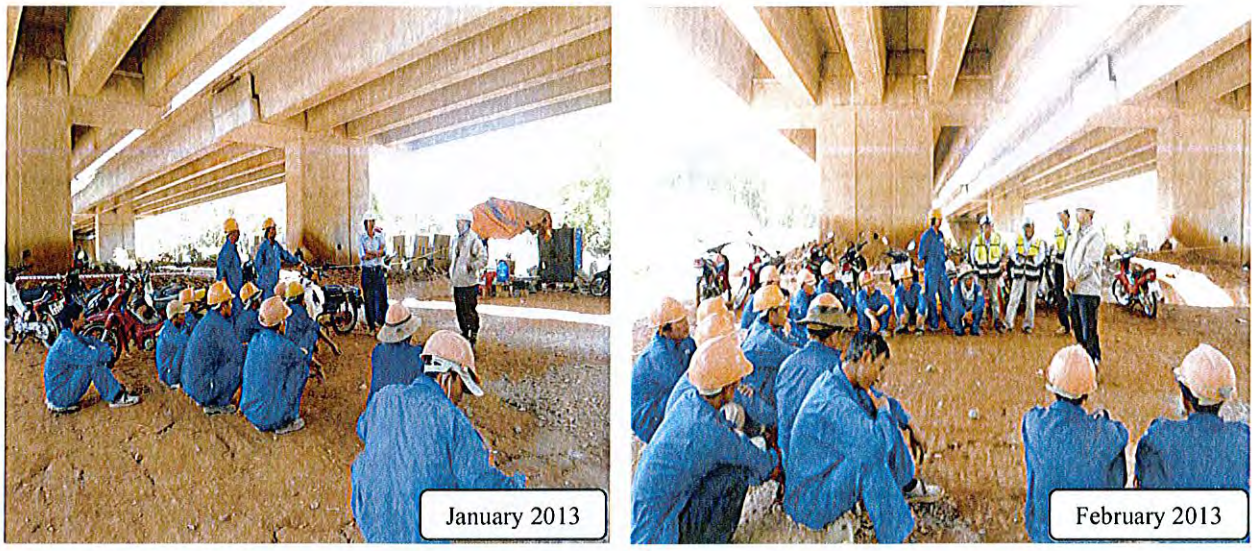


Figure 4: Monthly direct training for Site Environment & Safety Issues

Figure 5: Monthly direct training for Site Environment & Safety Issues

Figure 6: Monthly direct training for Site Environment & Safety Issues

2. Activities management on construction site of Package No.6

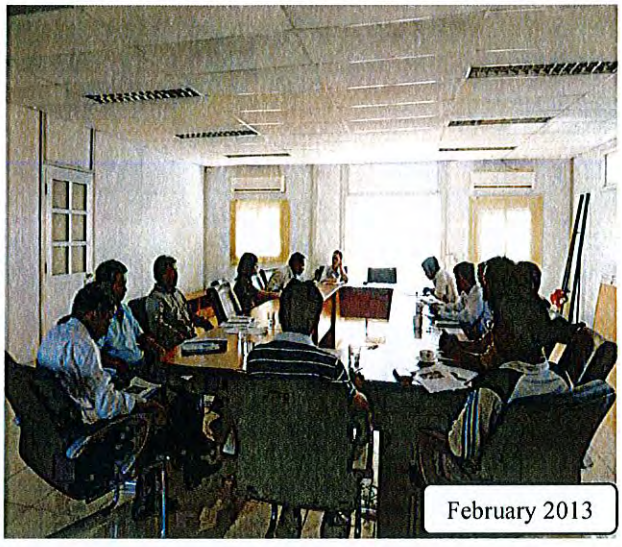


Figure 7: Monthly meeting for Site Environment & Safety Control

Figure 8: Monthly meeting for Site Environment & Safety Control

Figure 9: Monthly meeting for Site Environment & Safety Control

2. Activities management on construction site of Package No.6

Figure 10: The propaganda for HIV/AIDS prevention for all staffs

Figure 11: The propaganda for HIV/AIDS prevention for all workers

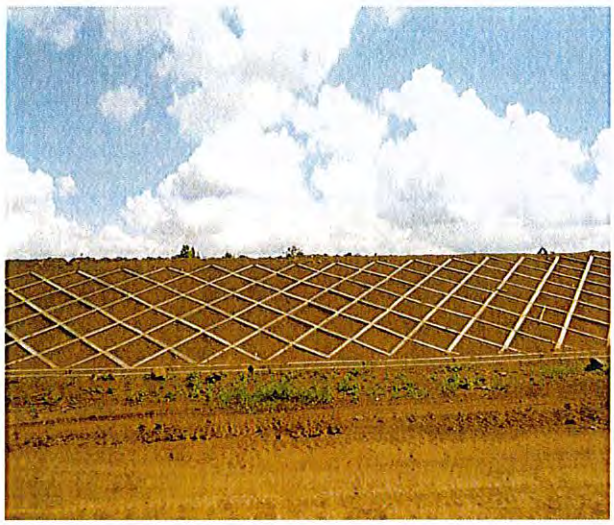


Figure 12: Slope protection at Km 46+400 (Left side) and Km 47+00 (Left side)

Figure 13: Side ditch at Km 45+800 – 45+900 (Right side)

Figure 14: Side ditch at Km 46+140 – 46+300 (Right side)

3. Ensuring labor and construction safety on site

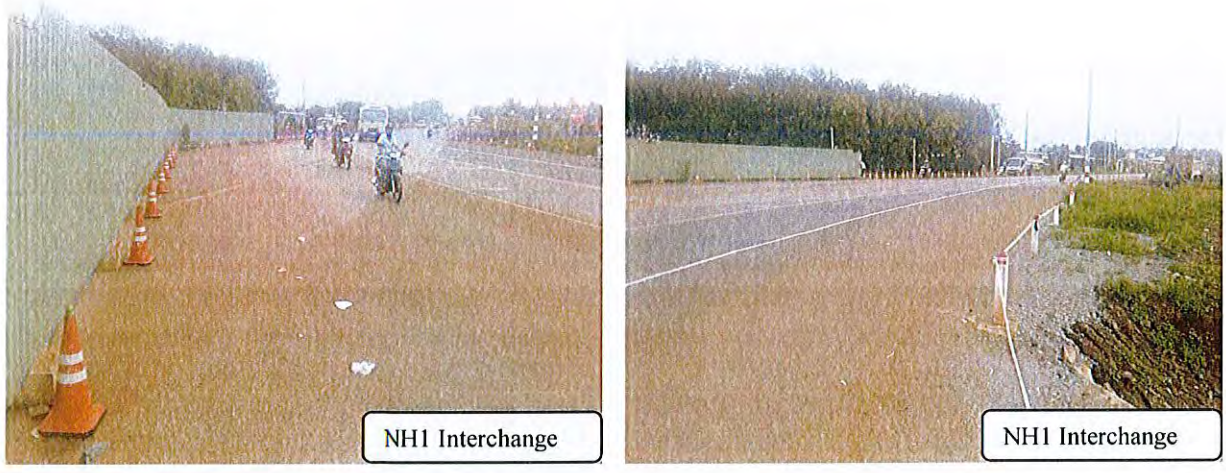


Figure 1: Temporary fences encloses the Site with 2m high

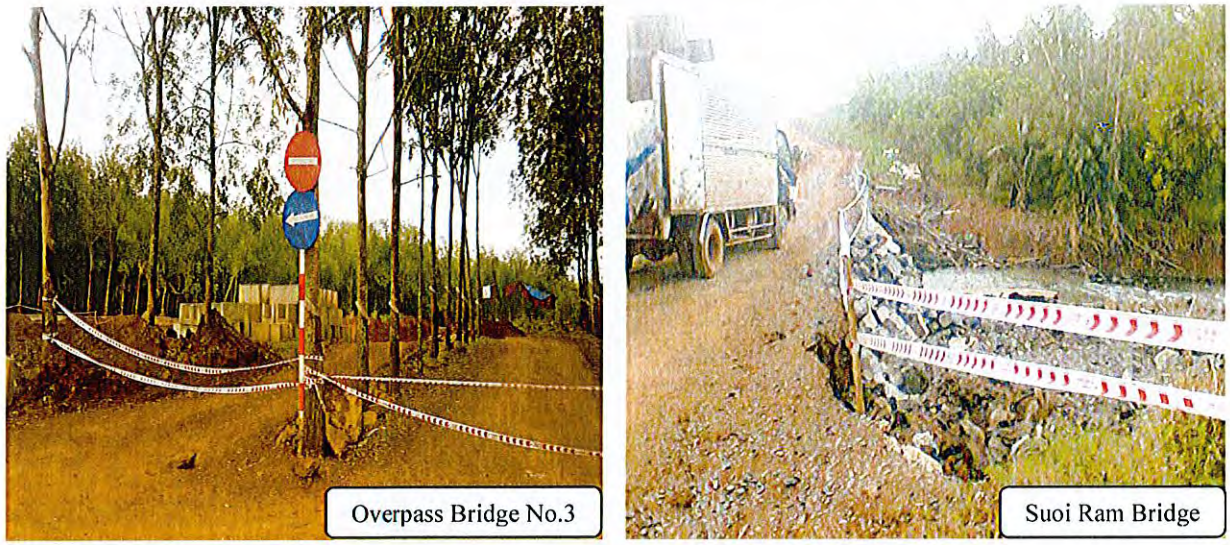


Figure 2: Installing warning tape and sign board at the all service roads on Site

Figure 3: Installing warning board at the local road crosses construction site

3. Ensuring labor and construction safety on site

Figure 4: Installing notice board on site

Figure 5: Installing sign board on site – Detour road at Km39+100

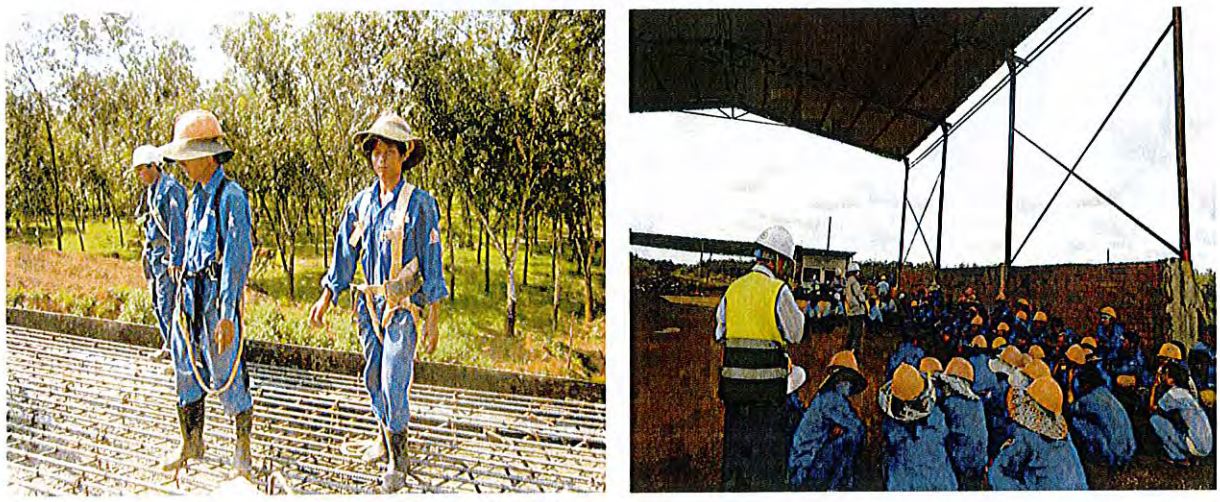


Figure 6: All workers wearing personal protective equipment when working (PPE)

4. Ensuring traffic safety – Detour road at NH1A

Figure 1: Notice board on NH1A near Detour road

Figure 2: Sign board at Detour road

Figure 3: Sign board at Detour road

Figure 4: Lighting system at Detour road

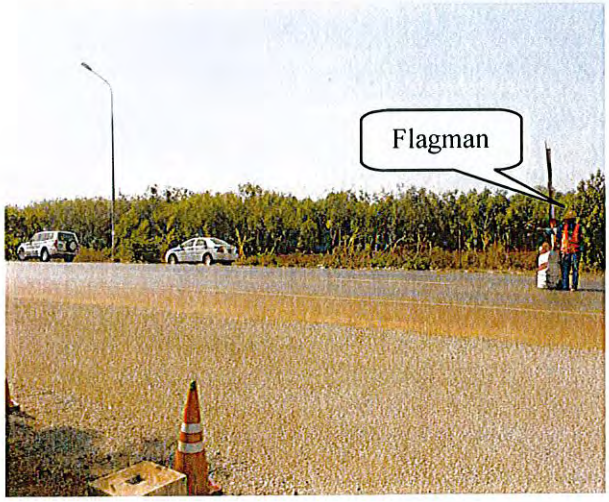


Figure 5: Flagman at Detour road

Figure 6: Supported by Traffic policeman at Detour road

4. Concrete batching plant of Package No.6

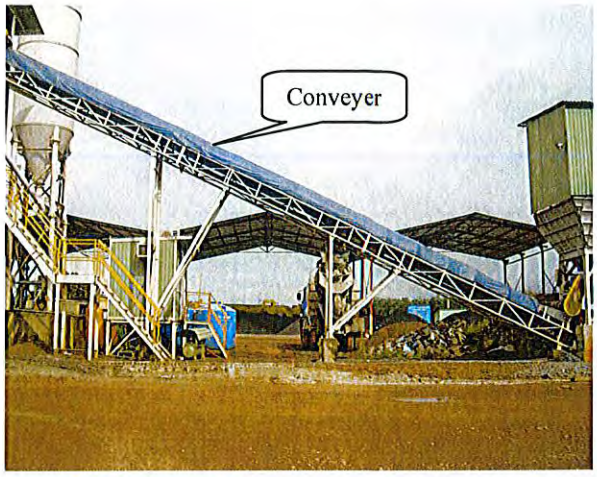


Figure 1: Conveyer has been enclosed by canvas

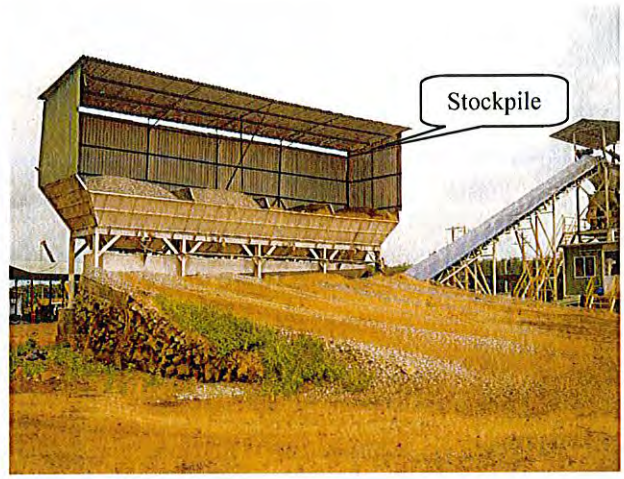
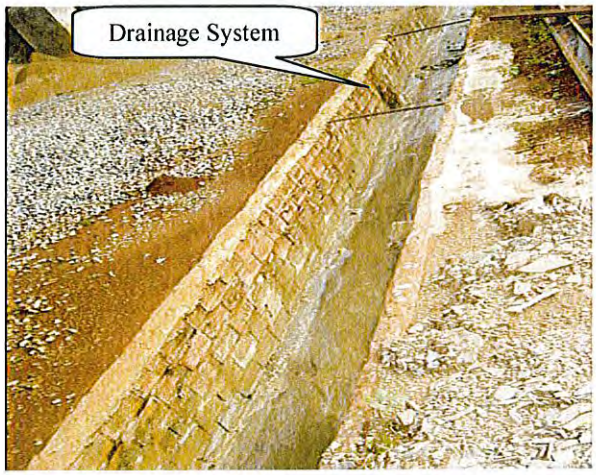


Figure 2: Material stockpile has been wind-board and roof



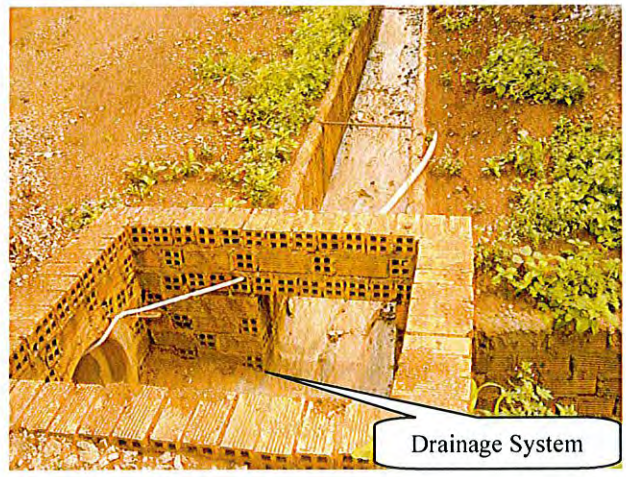


Figure 3: Drainage system in Batching Plant

Figure 4: Cleaning waste water treatment system and drainage system - one per week

4. Concrete batching plant of Package No.6

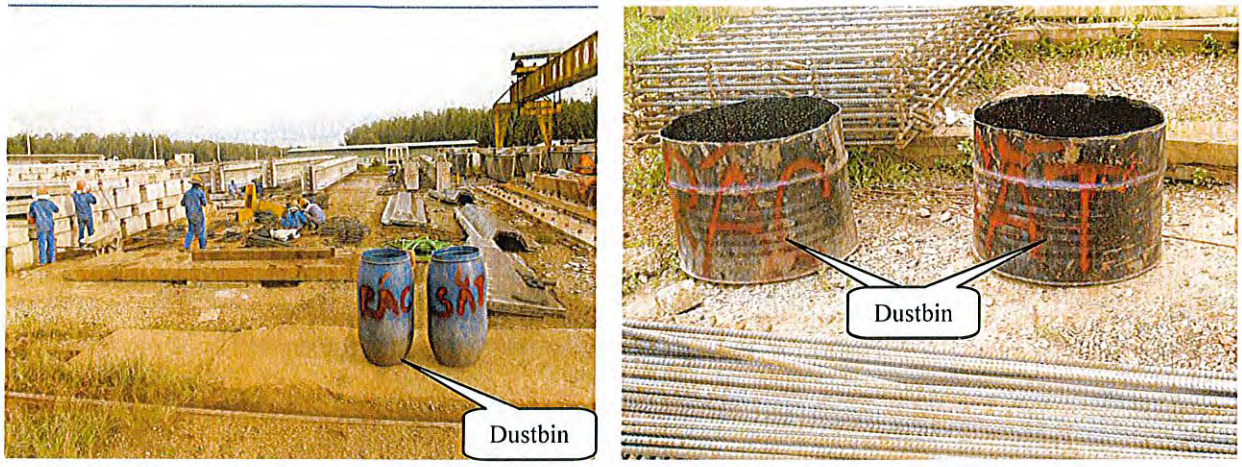


Figure 5: Recycle bin/dustbin has placed on proper position and easily seen

Figure 6: Recycle bin/ dustbin has placed on proper position and easily seen

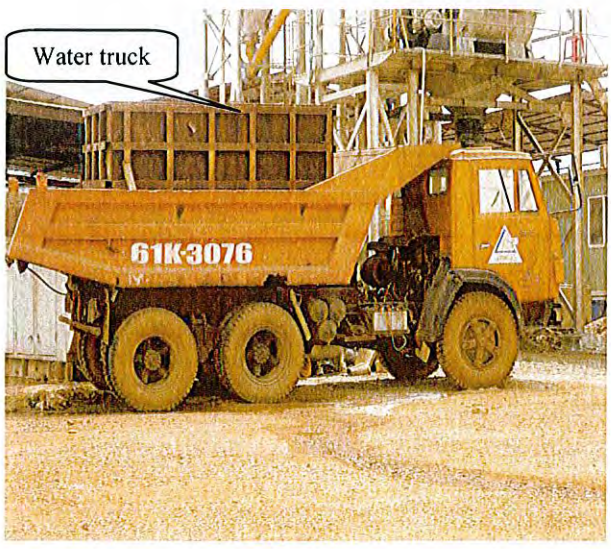


Figure 7: Watering for prevention of dust

Figure 8: Site worker camp

4. Concrete batching plant of Package No.6

Figure 9: Proper fuel tank/storage areas with roof, concrete floor and around protect fence

Figure 10: All workers wearing personal protective equipment when working (PPE)

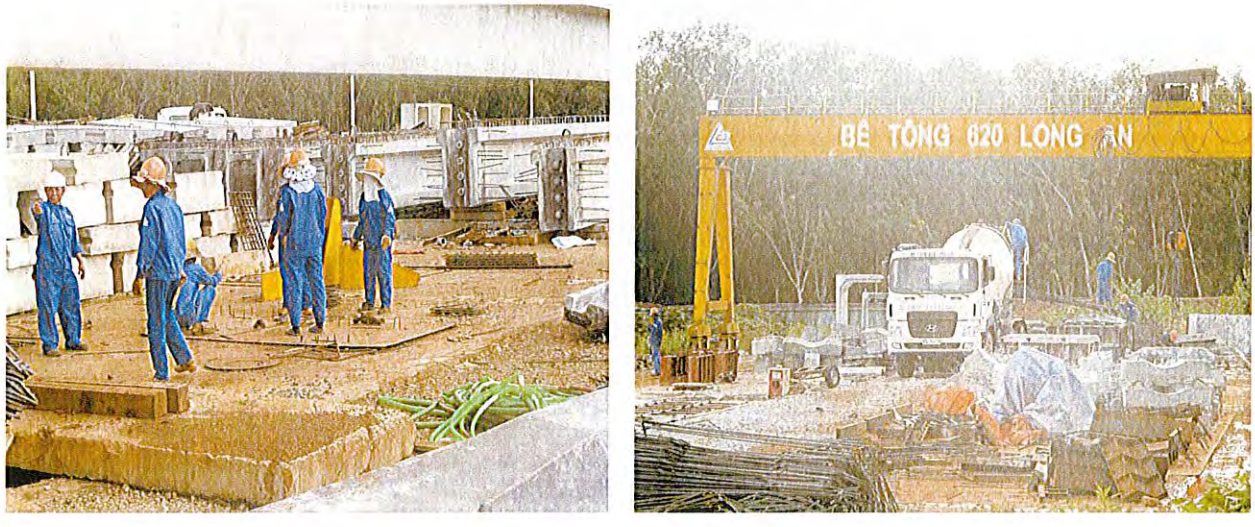


Figure 1: All workers wearing personal protective equipment when working (PPE)

4. Asphalt Concrete Plant – Has already mobilized but not operated yet.

Figure 1: Asphalt plant

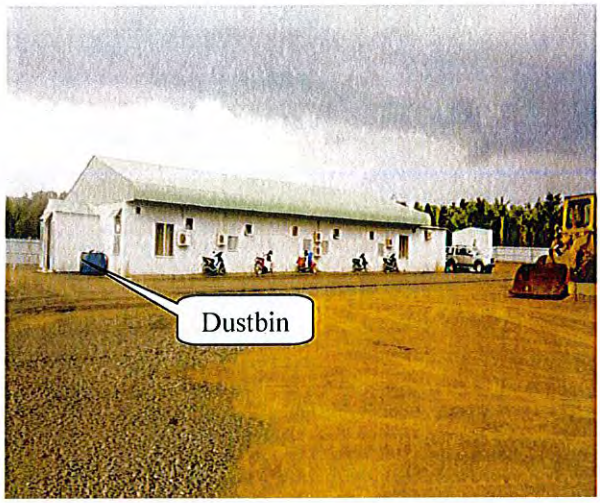


Figure 2: Site office in Asphalt plant

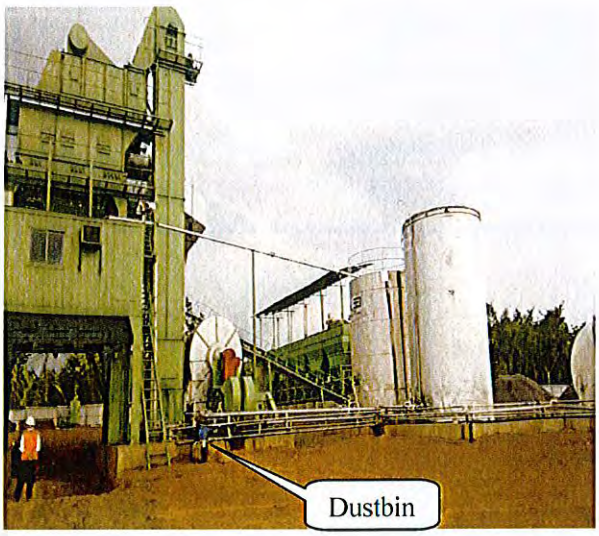


Figure 3: Install dustbins

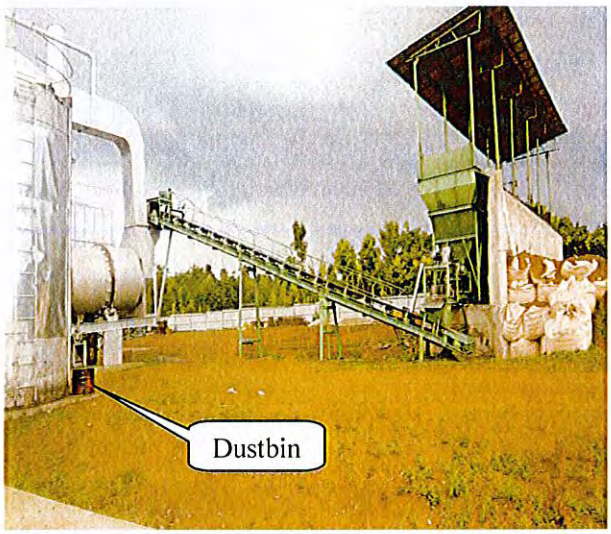


Figure 4: Install dustbins

Figure 5: Material stockpile with roof

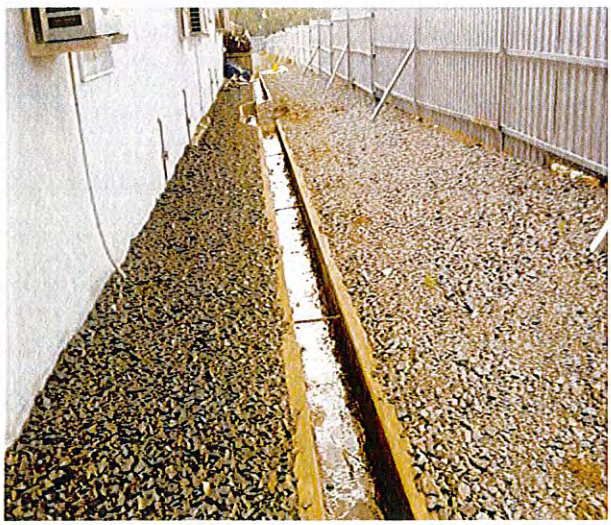


Figure 6: Drainage system