

## **Environmental Monitoring Report**

Project Number: 37143-033

January 2018

Period: January 2017 – June 2017

# IND: North Eastern States Roads Investment Program (Project 2)

Subproject: Road Project MN06-CW1 (Tupul to Bishnupur) and MN06-CW2 (Thoubal to Kasom Khullen)

Submitted by

Public Works Department, Government of Manipur

This report has been submitted to ADB by the Public Works Department, Government of Manipur and is made publicly available in accordance with ADB's Public Communications Policy (2011). It does not necessarily reflect the views of ADB.

This environmental monitoring report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature. In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

## Asian Development Bank

### **GOVERNMENT OF MANIPUR** PUBLIC WORKS DEPARTMENT

for logings

No. 36/PD/EAP/MDONER/2016/1684

Dated, the 9th October, 2017

To,

The Director (ADB), Ministry of Development of North East Region (MDONER), Government of India.

Vigyan Bhawan Annexe, Maulana Azad Road New Delhi-110011.

Subject :- Submission of Semi-Annual Environmental Monitoring Report for the period January to June,2017.

Madam,

herewith the Semi-Annual Environmental am submitting Monitoring Report for the period January to June, 2017 for the NESRIP project road MN06-CW1:Tupul to Bishnupur and MN06-CW2:Thoubal to Kasom Khullen in the state of Manipur for your kind perusal and reference.

Encl.: As above.

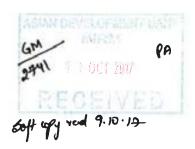
Yours faithfully,

(Y. Mohendro Singh) Project Manager, EAP, PWD, Manipur.

Copy to :-

- 1. The Chief Engineer, PWD, Manipur.
- 2. The Senior Project Officer, INRM, ADB, New Delhi.
- 3. The Project Assistant, PMU-NESRIP, MDONER, New Delhi.
- 4. The Chief Coordinator, PMC, NESRIP, Archtech Consultants.
- 5. The Team Leader, CSC, NESRIP Manipur.







### **GOVERNMENT OF MANIPUR**

# Semiannual Environmental Monitoring Report JANUARY 2017 to JUNE 2017

#### MN06-CW1 AND MN06-CW2

North Eastern State Roads Investment Program (NESRIP), And MDONER Funded by: ADB Loan No.3073-India.



Prepared and Submitted by:
AECOM Asia Company Limited
In association with
Rodic consultant Pvt. Ltd.

The Contractor: M/S DRAIPL - ABCI (JV)

# <u>INDEX</u>

1	Executive summery.	1
2	Introduction	2
3	Compliance Status with National/State/Local Statutory Environmental requirement	4
4	Environmental Covenant Compliance Requirement as per Loan Agreement and Present Status	5
5	Approach and Methodology engaged for Environmental Monitoring of the Project.	8
6	Compliance status with Environmental Management and Monitoring Plans as stipulated in the environmental documentation as agreed with ADB.	9
7	Changes in project scope	9
8	Overall Compliance status to the EMP implementation (Jan-2017 to Jun -2017)	10
9	Summary of Environmental Monitoring	20
10	Conclusion	21
11	Photographs	22
	Annexure – I Statutory NOC/Permissions for MN06-CW1	
	Annexure – II Statutory NOC/Permissions for MN06-CW2	

#### 1. Executive Summary:

This semi-annual report covers the period from January 2017 to June 2017 on environmental safeguards compliance of the Tupul-Kasom Khullen Road Project (MN-06) in the state of Manipur. This project has been included in tranche 2 of ADB's multitranche financing facility (MFF) for North Eastern State Roads Investment Program (NESRIP). This project includes improvement of 97.8 km of existing state roads to intermediate lane (5.5 m carriageway) standard. The project has been divided into two contract packages as CW1: Tupul-Bishnupur (50.8km) and CW2: Thoubal - Kasom Khullen (47.1km). The project is financed by ADB (under project 2, loan no-3073) at a cost of Rs. 3,606 million.

The Ministry of Development of North Eastern Region (MDONER) is the Executing Agency for the investment program and Public Works Department of Manipur, through Project Implementation Unit (PIU), is the implementing agency for the subproject. The sole civil works contract package under the project was awarded to DRAIPL-ABCL (JV) in December 2013. The Construction Supervision Consultant (CSC) overseeing the supervision of physical works is the JV of AECOM Asia Limited and Rodic Consultant Pvt. Ltd., India. As of June 2017, the total physical accomplishment of works are i) in package CW1 it is 98.84% for roadway excavation, 42.13% GSB 1st layer, 35.23% GSB 2nd layer, 29.30% WMM 1st layer, 17.56% WMM 2<sup>nd</sup> layer, 12.24% DBM and out of 171 culverts 31 nos completed ii) in package CW2 it is 88.41% for roadway excavation, 68.80% GSB 1st layer, 62.41% GSB 2nd layer, 58.90% WMM 1<sup>st</sup> layer, 53.07% WMM 2<sup>nd</sup> layer, 42.95% DBM, 26.31 BC and out of 145 culverts 31 nos completed. The environmental safeguards of the project are being implemented in compliance with the EARF, loan covenants, project agreement and contractor is complying with the proposed mitigation measures described in the Environmental Management Plan (EMP) and the contract specifications. The implementation of environmental safeguards are being monitored at CSC and PIU level. With exception of few issues the project is being implemented in compliance with project requirements. PIU environmental and forest officer is actively involved in coordinating and liaisoning with statutory agencies and CSC to implement the environmental safeguards of the project. The CSC Environmental Specialist has been working closely with the PIU Environmental and Forest Officer, and conducting site inspections regularly.

During the survey it has been noted that some sections of the road falls at an elevation of more than 1000 m above msl for which environmental clearance is a must as per the environmental regulations of India. State Environmental Impact Assessment Authority (SEIAA) of Manipur has issued the environmental clearance for the road sections >1000 AMSL for both CW1 and CW2 package in March 2015.

Forest clearance (FC) for CW1 and CW2 has been obtained. Permission for roadside tree cutting from forest dept. for MN-CW1 and MN-CW2 has been obtained. Contractor has obtained most of the required permits and NOCs required from various government agencies to establish its facilities.

The construction works are proceeding in accordance with the provisions of the EMP. The environmental monitoring plan is being implemented by the contractor in both the packages. Environmental quality monitoring has been carried out during the reported period and the results were found satisfactory.

PIU and CSC officials have regularly been meeting with the local people and village heads in the project area to inform them about the construction works. Measures have been taken to address concerns of the local communities such as sprinkling of water on roads, traffic diversion plans, road safety measures, awareness on health and safety etc.

Various proactive measures are being taken to implement project in compliance with requirements, prevent damages to heritage structures, coordinate with relevant agencies, communicate with the public and address grievances of the local public. Contractor has to improve in areas such as coordination with government officials, documentation and reporting need improvement.

There were no significant environmental impacts observed during the reporting period and a few short-comings on dust control, road safety, health and safety of workers, documentation and reporting were observed for which necessary corrective measures have to be taken.

#### 2. Introduction:

Environmental monitoring is part of project implementation process and disclosure of annual or semi-annual monitoring reports is an ADB requirement for environmental category-B projects like North Eastern State Roads Investment Program (NESRIP). The objective of environmental monitoring is to gather information to: i) evaluate the environmental management plan (EMP) progress by establishing compliance status, ii) detect and correct non-conformances, iii) identify unanticipated impacts and implement necessary mitigation measures, and iv) provide evidence to support enforcement of penalty provisions of the civil works contract to deter noncompliance.

The Tupul - Kasom Khullen project is categorised as environmental category B project. Accordingly an Initial Environmental Examination (IEE) including Environmental Management Plan (EMP) has been prepared and disclosed on ADB website prior to project approval. Supervision consultant is preparing and submitting semi-annual monitoring reports to PIU. This semi-annual monitoring report covers the period from January 2017 to June 2017.

The 'North Eastern State Roads Investment Program' is a multi-tranche financing facility (MFF) designed to: improve about 430 kms of priority roads in six states, namely: Assam, Manipur, Meghalaya, Mizoram, Sikkim, and Tripura in the north eastern region (NER) of India; and provide capacity building support to the executing agency, the Ministry of Development of North Eastern Region (MDONER) and implementing agencies, the state public works departments (PWDs) or its equivalent in the six project states. The investment program targets the secondary road network and aimed to enhance the performance of state roads sector in NER through investment project implementation and dedicated capacity building measures. The improved secondary road network will provide important linkage between the primary and tertiary road networks in the region, for which there are ongoing national programs for improvement.

NESRIP 2 (Tranche 2) is categorized by ADB as environment category B. The project MN-06: Tupul- Kasom Khullen is the subject of this environmental monitoring report. MN-06 project is being implemented on 2 civil works packages as CW1: Tupul-Bishnupur (50.7km) and CW2: Thoubal-Kasom Khullen (47.1km). The civil works contract was awarded to M/s. DRAIPL-ABCL (JV) and Construction Supervision is being undertaken by AECOM joint venture with Rodic consultant Pvt. Ltd.

#### **Description of project**

Package CW1 takes off from NH-53 at Tupul and ends at NH-150 in Bishnupur, covering a total length of 50.7 km. The road passes through Charoi, Lamdangmei, Thangal, Sangji, Dollang, Zouzangtek, Ngariyan and Chiniingkhol villages. The existing road alignment generally follows the topography of the terrain which is mainly hilly with land use being forested areas and some agricultural land. There are two major junctions (Tupul with NH-37 at start point and Bishnupur at project end point with NH-2) and a minor junction (Zouzangtek at km.30+600) along the existing alignment.

The Package CW2 comprising of two sections i.e. Thoubal —Yairipok—Mayai Keithel section (length of 14.550 km) in Thoubal District and Mayai Keithel to Kasom Khullen (length of 32.575 km) in Ukhrul District, covering a total length of 47.1 km. It takes off from NH-39 in built uparea at Thoubal (approx. 23kms from Imphal) and ends at Kasom Khullen, a Sub-Divisional Head Quarter. The first section of CW2 package passes through built up areas scattered all along in plain terrain with intermediate lane carriageway. Land use along the road is generally agriculture and there are no major rivers or canal crossings this road section. The geometrics are easy and gradients flat. The second road section passes through hilly terrain, forested areas with few villages enroute; viz. Sambrei, Yeasom,

Khamlong, Hongbei and ends at Kasom Khullen. This section of the Project road is single lane and in poor condition due to lack of maintenance and absence of proper drainage system. A number of streams crossing the road are bridged by narrow bridges. There are 4 major junctions Thoubal, Yairipok, Mayai Keithel and Khoiripok and a minor junction at km 96+600 along the existing alignment.

Total length of the project road MN-06 is 97.8 km. The existing roads are mostly gravel / earthen tracks [except 9 km stretch between Thoubal to Yairipok (CW2), which is a state highway with intermediate lane] with single lane carriageway. Average carriageway width is about 3.5m to 5.0 m. The road passes mostly through hilly terrain with hair pin bends and steep gradients. Some of the sections are difficult track, with muddy and slushy roadway during rains and hardly motorable. Both road sections under CW1 and CW2 are proposed for improvement and up gradation to intermediate lane configuration (5.5m carriageway) with side drains on hillside. Total formation width will be restricted to 9.0 m in plain areas and 7.8m in hilly terrain.

#### **Progress of work**

The civil works contracts for both the packages have been signed on 28 December 2013 and work has been commenced on 24 January 2014. The total physical accomplishment of works as of June' 2017, are shown in the table below:

#### Status of construction works as of June' 2017

			Highway len	gthwise iten	ns		
S. no.	Item description	Total	Physical progress	Progress in %	Total	Physical progress	Progress in %
			CW1			CW2	
1	Roadway excavation	48.200 km	47.640 km	98.84	32.560 km	28.785 km	88.41
2	GSB 1 <sup>st</sup> layer	50.750 km	21.380 km	42.13	39.875 km	26.638 km	66.80
3	GSB 2 <sup>nd</sup> layer	50.750 km	17.880 km	35.23	39.875 km	24.885 km	62.41
4	WMM 1 <sup>st</sup> layer	50.750 km	14.870 km	29.30	39.875 km	23.486 km	58.90
5	WMM 2 <sup>nd</sup> layer	50.750 km	8.910 km	17.56	39.875 km	21.163 km	53.07
6	DBM	50.750 km	6.210 km	12.24	47.125 km	20.240 km	42.95
7	BC	50.750 km	Yet to start		47.125 km	12.400 km	26.31
			Structi	ure-wise iten	ns		
1	Pipe culverts	145 nos	20 nos (5nos. in progress)	13.79	100 nos	13 nos (9 nos in progress)	13.00
2	Box culverts	26nos	11no. (4 nos. in progress)	42.31	43 nos	14 nos (1 no. in progress)	32.56
3	Minor Bridges	1 no	In progress	1	6 nos	2 nos (1 no. progress)	33.33
4	Slab culverts	NA	NA	NA	2nos	2 nos	100

# 3. Compliance Status with National/State/Local Statutory Environmental requirement till June 2017.

S.No.	Statutory Requirements	MN06-CW1	MN06-CW2
1	Environmental Clearance from SEIAA	Obtained	Obtained
2	Permission for the Tree Cutting	Obtained	Obtained
3	Consent to Establish (Stone crusher, HMP, WMM, Base camp)	Obtained	Obtained
4	Consent to Operate  > Stone crusher  > HMP  > WMM  > Base camp	Obtained Valid upto 06/12/17 Validity expired on 17/03/17 Validity expired on 17/03/17 Valid upto 23/07/17	Obtained Valid upto 08/07/17 Valid upto 08/07/17 Valid upto 26/11/17 Valid upto 26/11/17
5	Quarry Operation	In Process	In Process
6	Consent from Land Owners	Obtained	Obtained
7	Ambient Air Monitoring And Analysis Report	Complied	Complied
8	Noise Pollution monitoring report	Complied	Complied
9	Drinking water Sample Analysis report	Complied	Complied
10	Labour License	Complied (Valid upto 22- 03-2018)	Complied (Valid upto 22- 03-2018)
11	Work men compensation insurance	Complied (Validity expired on Mar'2017)	Complied (Validity expired on Mar'2017)
12	Pollution under Control Certificates	Obtained	Obtained

<sup>\*</sup> Supporting documents are attached as Annexure-I(CW1) and Annexure-II (CW2)

## 4. Status of Compliance to Environmental Provisions of the Loan Agreement

S.N.	Environmental Provision	Compliance Status
1	Schedule 4. Item 5(a) and (d)- Conditions for award of contract; commencement of works 5. The borrower shall cause the Project Executing Agency to ensure that; a. No works contract is awarded for a subproject that involves environmental impacts until the relevant Project Executing Agency has incorporated the relevant provisions from the EMP into the works contract.	Environmental Management Plan (EMP) is a part of bidding document. Section 6 of Contract Agreement includes condition of contract on EMP, requiring the contractor to implement the EMP.
	d. No commencement of works is allowed under any subproject that involves environmental impacts and requires environmental clearances, until the relevant Project Executing Agency has obtained the final approval of (i) the IEE from ADB; and (ii) environmental clearance, including approval of the environmental assessment report, from the State Environmental Impact Assessment Authority (SEIAA).	IEE has been approved by ADB.  Environmental clearance has been obtained from SEIAA.
2	Schedule 5. Item 4: Safeguards: Environment	Being complied.
	The Borrower shall cause the relevant Project Executing Agency to ensure that the preparation, design, construction, implementation and operation of each subprojects comply with (i) all applicable laws and regulations of the Borrower and the relevant State; (ii) the environmental safeguards; (iii) the EARF; and (iv) all measures and requirements set forth in the relevant IEE and EMP, and any corrective or preventive actions set forth in a Safeguards Monitoring Report.	Requirements on permits and clearances are being followed.  Subproject has been prepared following EARF.  Health and Safety aspects being followed.  Requirements of IEE and EMP are being implemented.
3	Schedule 5. item 8(a) & (b)  Human and Financial Resources to implement Safeguards Requirements 8. (a) The Borrower shall cause the relevant Executing Agency to ensure that all necessary budgetary and human resources to fully implement the EMP, and the RP and the IPP as required, are made available.	Being complied.  Adequate budget allocation has been made for implementation of safeguards activities.  Safeguards cell comprising of 05 officers including one

8. (b) Each Project Executing Agency shall environmental and forest officer designate at least one expert each to and one resettlement officer has supervise implementation of the EMPs, and been established in Manipur State RPs for subprojects in its State" PIU. Environmental Expert is part of Construction the PMC and Supervision Consultant team. Contractors' team also comprised of Environmental and Safety Officers (CW1 and CW2). Schedule 5, item 9 (a), (b) & (c) 4 Safeguards- related provisions in bidding Being complied. documents and works contracts 9. (a) comply with the measures and Safeguards experts of the PMC, CSC requirements relevant to the contractor set and civil works contractor teams are forth in the IEE, EMP, RP and IPP (to the implementing safeguard measures. extent they concern impacts on affected people during construction). and any corrective preventative actions set out in a Safeguards Monitoring Report. (b) make available a budget for all such Adequate budget allocation is being environmental and social measures. implementation made for safeguards activities. (c) provide the Project Executing Agency with a written notice of any unanticipated Being complied. environmental, resettlement or indigenous Appropriate measures are being and peoples risks or impacts that arise during will be taken to address these issues, construction, implementation or operation of as they arise. the Project that were not considered in the relevant IEE, EMP, RP or IPP; Schedule 5, item 10(a), (b), (c) & (d) Safeguards Monitoring and Reporting Being complied. 10.(a) submit semi-annual Safeguards Since the subproject is Category B Monitoring Reports to ADB and disclose project, it is agreed to submit and relevant information from such reports to disclose Annual Monitoring Report. affected persons promptly upon submission. First and second Annual Monitoring Report is submitted to ADB. (b) if any unanticipated environmental and/or Being complied. social risks and impacts arise during construction, implementation or operation of the Project that were not considered in any IEE. EMP. RP or IPP (as applicable). promptly inform ADB of the occurrence of with detailed such risks or impacts, description of the event and proposed corrective action plan. (c) no later than three months from the Being complied. commencement of RP implementation of the An NGO has been engaged. Subproject. engage gualified experienced external experts or qualified nongovernmental organizations under a selection

process and terms of reference acceptable to ADB, to verify information produced through

the project monitoring process resettlement, environment and indigenous peoples (if any), and facilitate the carrying out of any verification activities by such external Experts. (d) report any breach of compliance with the Being complied. measures and requirements set forth in any EMP, RP or IPP promptly after becoming aware of the breach. Schedule 5. Item 11 Prohibited List of Investments 11. The Borrower shall cause the Project Complied. Executing Agencies to ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the Safeguard Policy Statement. Schedule 5. Item 12 Labour Standards Complied. 12. The Borrower shall cause the Project Executing Agencies to ensure that the Works contracts under the Project follow all Various awareness programmes are being conducted. applicable labour laws of the Borrower and State and that these further include provisions Monthly environmental, physical and to the effect that contractors; (i) carry out general housekeeping training are HIV/AIDS awareness programs for labour and being conducted. disseminate information at worksites on risks of sexually transmitted diseases HIV/AIDS as part of health and safety measures for those employed during construction; and (ii) follow and implement all statutory provisions on labour (including not employing or using children as labour, equal pay for equal work), health, safety, welfare, sanitation, and working conditions. Such contracts shall also include clauses for termination in case of any breach of the stated provisions by the contractors. Schedule 5. Item 17 Counterpart Support Being complied. 17. The Borrower and each State shall provide, as necessary, respective counterpart Counterpart support has provided by Manipur PWD (as part of staff, land facilities, and counterpart funding for the Project and Subprojects in accordance PIU) for implementation of EMPs. with the financing plan, cost of making land available for the Subprojects and assistance, and implementation and monitoring of EMPs, RPs **IPPs** and (including unforeseen expenses beyond the estimates), utility relocation, road maintenance, and general Project management expenses in a timely manner through approved annual budget allocations.

# **5. Approach and Methodology engaged for Environmental Monitoring of the Project.**

Various environmental issues are likely to occur during the implementation of such project like air pollution, encroachment into eco-logically sensitive area, loss of agriculture soil, noise and vibration, deforestation, solid and hazardous waste disposal, soil and water contamination etc.

During the project preparation stages efforts were made to identify, mitigate and compensate these likely impacts on the environment. Now, in the construction stages, the environmental quality monitoring provides an opportunity to assess the effectiveness of the environmental management plan.

During January (2017) – June (2017), no major environmental complaint was recorded relating construction activities. The Contractor is the first point contact to lodge public complaints regarding environmental and social related matters. Instructions have been given not only to lodge all public complaints to be entered into the Complaints Register but also to promptly investigate and review environmental complaints and adopt appropriate corrective actions to address or mitigate the cause of the complaints.

All the complaints received are placed before the RE/Grievance Redress Committee and the decision of the TL/RE/Environment Specialist/committee will be implemented. On-site instructions have regularly been given that the site order book to be kept at a convenient place, easily accessible by site engineers like first aid boxes. The overall methodology for the assessment and monitoring of EMP implementation involves following stages:

- Onsite training to workers of Contractor regarding EMP items and their implementation
- Written intimation to RE/Project Manager of Contractor, PMU Offices regarding any non-compliance observed and making them aware regarding the significance of having compliance with statutory and other EMP requirements
- Road inspections by the Environment Specialist, PMU, RE and Project Managers of Contractor to assess EMP Compliance.
- Checking of Contractor's files/records with respect to EMP items.
- Preparation and evaluation of EMP Compliance monitoring checklists in consultation with Project Manager of the Contractor.
- Submission of evaluated compliance status report for verification to Nodal officer of respective PIU.
- Meeting of Environment Specialist PMU, Nodal officers of respective PIU, Team Leader, Resident Engineers, Project Manager, Contractors Environment, Health and safety Officer as and when an issue related with EMP implementation arises.
- Preparation of Environmental compliance reports and communication of the same to PIU Office (Imphal).

# 6. Compliance status with Environmental Management and Monitoring Plans as stipulated in the environmental documentation as agreed with ADB.

The environmental management and monitoring plans are being implemented with respect to the guidelines defined in the Initial Environmental Examination (IEE) report of ADB. The leading project personnel are trained and aware of the responsibility towards-Adhering to the relevant mitigation measures that are set out in the EMP while planning and implementing the project;

Recording the conditions of roads, agricultural land and other infrastructure prior to transport of materials and construction commencement and upon completion of construction, fully reinstate roads, agricultural land and other infrastructures to their preproject conditions.

The Environmental Specialist of SC regularly visiting the packages along with the respective Assistant Resident Engineers (SC), Field Engineers (SC), Project Managers (Contractor) and Environment Health and Safety Officer. During the visits, various ongoing activities were observed and reviewed in connection with the environmental health and safety requirements. Following to the reviews, information's were sought from the contractor on various aspects relating to the EHS compliances and reported periodically.

#### 7. Changes in project scope:

According to the Environmental Impact Assessment Notification 2006 (amended 2009) of Govt. of India, all State Highways (construction of new roads or construction of new bypasses) and expansion of state roads in hilly terrain (above 1000 m above msl and or ecologically sensitive areas) fall under category B projects and require Environmental Clearance from State Environmental Impact Assessment Authority.

Further, under the same notification, it is stated that any category B project will be treated as category A if located in whole or in part within 10 km from the boundary of: (i) Protected Areas notified under the Wild Life (Protection) Act, 1972; (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time; (iii) Notified Eco-sensitive areas; and (iv) interstate boundaries and international boundaries.

Therefore, in this project those terrain which are situated above 1000m AMSL, requires clearances from State Environmental Impact Assessment Authority.

As per above condition the client PWRD IMPHAL had applied and obtained the environmental clearances for road portions above 1000m MSL from State Environmental Impact Assessment Authority.

Forest Clearance from Department of Forests has been obtained for diversion of forest land to non-forest purpose. Prior permission is required from Forests Department to carry out any work within the forest areas and felling of road side trees. Cutting of roadside trees need to be compensated by compensatory afforestation as required by the Forest department. NOC for roadside tree cutting for MN-CW1 and MN-CW2 has already been issued.

**8.** Overall Compliance status to the EMP implementation (January-2017 to June -2017)

### **Environment Monitoring Status**

SI.N o.	Parameter	Standards	Location	Frequency	Duration	Implement ation	Super vision	STATUS (MN-06-CW1 & CW2)
(1)	Air quality	National Ambient Quality Standards	(1)Hot mix plant/Batching plant (1 location) (2)Stretch of the road where construction work is in progress or sensitive receptor locations. (3) One location throughout the stretch during operation.	Once in a Half year and as may be instructed by CSC (for 3 years).	Continuo us 24 hours/or for 1 full working day.	Contractor	CSC	Done
2)	Water quality	CPCB Standard	Surface water along the working stretch (e.g. flowing river passes through stretch, Ponds etc.). All parameters of drinking water at camp.	Soon after monsoon	Every season change	Contractor	CSC	Done
(3)	Noise Level	CPCB standard	Noise Level on dB (A) scale near crusher plant, school, Hospital etc.	Equivalent noise levels using an integrated noise level meter kept at a distance of 10-15 m from edge of pavement.	Thrice in a year	Contractor	CSC	Done

#### **ENVIRONMENT MANAGEMENT PLAN**

#### **Pre – Construction Phase**

S. No.	Environmental Issue	Location /Source	Mitigation Measures	Implementing Agency	Supervising & Monitoring Agency	Comments By CSC ON MN06-CW2	Comments By CSC ON MN06-CW1
(1)	Constricted Sections along the proposed alignment	As Per design requirement	We have restrict the COI for Minimize the adverse effect of Tree cutting and interference to major water bodies.	Contractor	PIU/CSC	Implemented as per site requirements.	Implemented as per site requirements.
(2)	Tree Cutting	As Per design requirement	Restricting tree cutting within construction limit.	Forest Dept./PIU	PIU/CSC	NOC obtained	NOC obtained
			Avoiding tree cutting at ancillary sites.			Yes	Yes
			Providing and maintaining compensatory tree plantation at the rate of 1:3 i.e. three times of cutting.			To be implemented by forest department as per the tree cutting and compensatory plantation term and condition.	To be implemented by forest department as per the tree cutting and compensatory plantation term and condition.
(3)	Removal of utilities	Work site clearance	Necessary planning and coordination with concerned authority and local body	Concerned utility agencies/	PIU/ CSC	Yes	Yes
			Prior notice to and consultation with concerned authority, local body and public to be affected so as to ensure that work does not get affected and impact			Yes. PIU is coordinating with the other concerned Departments such as PHE, Electricity board.	Yes. PIU is coordinating with other concerned Departments such as PHE, Electricity board

			on public is minimum.				
(4)	Religious places	Work site	Suitable mitigation measures have been incorporated in Social report.	PIU/NGO	CSC/PIU	Shall be implemented as and when required	Shall be implemented as and when required

#### **Construction Phase**

S.No	Environ mental Issue	Location /Source	Mitigation Measures	Implemen ting Agency	Supervising & Monitoring Agency	Comments By CSC ON MN06- CW2	Comments By CSC ON MN06- CW1
(1)	Air Pollution	Construction equipment's, HM plant, Crusher and vehicles	Refer to sub – clause 111.5 and sub – clause 111.13 of Technical Specification of the Contract with contractor.	Contractor	CSC/PIU	Implemented	Implemented
		Temporary diversion	Maintaining diversion and detour for road traffic in good shape and traffic regulated.	Contractor	CSC/PIU	Being Implemented	Being Implemented
			Regular sprinkling of water, as necessary.			Implemented but frequency needs to be increased	Implemented but frequency needs to be increased
		Dust during earth works or from soil dumps.	<ul> <li>Maintaining adequate moisture at surface of any earthwork layer completed or non – completed unless and until base course is applied, to avoid dust emission.</li> <li>Stockpiling spoil at designated areas and at least 5 m away from traffic lane.</li> </ul>	Contractor	CSC/PIU	Implemented but needs improvement	Implemented but needs improvement
		Borrow pits and haul road.	Refer sub – clause 111.2 of Technical Specification of contract.	Contractor	CSC/PIU	Shall be implemented as and when required	Shall be implemented as and when required

		Storage of construction materials	Sprinkling of water as necessary	Contractor	CSC/PIU	Implemented	Implemented
(2)	Water Pollution		Constructing and maintaining diversion channel, sedimentation basin, dykes etc. as may be required to temporarily channelize water flow of streams/river.	Contractor	CSC/PIU	Being implemented as per requirement	Being implemented as per requirement
			Storage of construction material and excavated soil above high flood level			Yes, implemented	Yes, implemented
		Construction vehicles	Strictly avoiding cleaning/washing of construction vehicle in any water body.	Contractor	CSC/PIU	Yes	Yes
		Soil erosion from construction site	<ul> <li>Proper planning of site clearing and grubbing so as not to keep the cleared site before working for long duration.</li> </ul>	Contractor	CSC	Implemented	Implemented
		Seepage from construction debris	Refer Sub – clause 111.17 of Technical Specifications.	Contractor	CSC	As per requirement, and the Technical Specification	As per requirement, and the Technical Specification
		Construction camp and worker's camp	Refer Sub – clause 111.16 of Technical Specifications	Contractor	CSC	Waste management plan is submitted by contractor and accordingly the work is undertaken.	Waste management plan is submitted by contractor and accordingly the work is undertaken.

3.	Ground Water Pollution	Wastewater logging	All wastewater will be diverted to a ditch that will be managed for the period of construction and after construction such ditches will be filled and restored to original condition.	Contractor	CSC/PIU	Being implemented	Being implemented
		Borrow pit excavation	Excavation of borrow pit should not touch the aquifer	Contractor	CSC/PIU	Implemented	Does not arise
		Human wastes and wastewater at construction	Providing septic tanks for treating sewage from toilets before discharging through soak pits.	Contractor	CSC	Yes	Yes
		camp	Locating soak pits at least 50m from any ground water sources	Contractor		Yes	Yes
			Decanting and or controlled disposal of oil and grease as collected at collection tanks of maintenance yard and chemical storage areas.			Implemented	Implemented
			Refer Sub – clause 111.16 of Technical Specifications				
4.	Noise		Scheduling of project Activities: Operations will be scheduled to coincide with period when people would least likely to be affected. Construction activities will be avoided between 9 P.M. and 6 A.M. near residential areas.	Contractor		Implemented	Implemented
			Protection devices (ear plugs or ear muffs) will be provided to the workers operating in the vicinity of high noise generating machines.	Contractor		Implemented but use of PPEs to be ensured.	Implemented but use of PPEs to be ensured.
			Construction equipment and machinery should be fitted with silencers and maintained properly.	Contractor		YES, Implemented	YES, Implemented
			Source control through proper maintenance of all equipment.	Contractor		Implemented	Implemented

			<ul> <li>Use of properly designed engine enclosures and intake silencers.</li> <li>Noise measurement should be carried out along the road to ensure the effectiveness of mitigation measures.</li> <li>Vehicles and equipment used should confirm to the prescribed noise</li> </ul>			Yes	Yes
			pollution Norms.  Constructing noise barriers as proposed for schools and hospitals prior to taking up road construction activities at those sections.			Shall be implemented, as and when required	Shall be implemented, as and when required
			Movements of heavy construction vehicles and equipment near public properties will be restricted.	Contractor		Yes	Yes
			Comply with set up criteria for stone crusher, Hot Mix Plants and concrete batching plants and installations and maintenance of pollution control devices as mentioned in sub-clause 111.5 of Technical Specifications.			Implemented	Implemented
			Refer Sub-clause 111.3 of Technical specifications for identifications, and operation of quarry areas and adopting controlled blasting.			Implemented	Implemented
5	Land Pollution	Spillages from plants and equipment at construction	Providing impervious platform and oil and grease trap for collection of spillage from construction equipment vehicle maintenance platform.	Contractor	CSC	Yes care has been taken	Yes care has been taken
		camp	Collection oil and lubes drips in container during repairing construction equipment vehicles.			Yes care has been taken	Yes care has been taken
			Providing impervious platform and collection tank for spillage of liquid fuel			Implemented	Implemented

	and lubes at storage area.				
	and lubes at storage area.				
	Providing bulk bituminous storage tank instead of drums for storage of bitumen and bitumen emulsion	Contractor	CSC	Practically not feasible. Due care has been taken in storing the bitumen drums	Practically not feasible. Due care has been taken in storing the bitumen drums
	Providing impervious base at bitumen and emulsion storage area and regular clearing of any bitumen spillage for controlled disposal.	Contractor	CSC	Proper care has been taken	Proper Care has been taken
	Reusing bitumen spillage	Contractor	CSC	Shall be implemented, as and when required	Shall be implemented, as and when required
	<ul> <li>Disposing non-usable bitumen spills in a deep trench providing clay lining at the bottom and filled with soil at the top(for at least 0.5 m)</li> <li>Refer Sub – clause 111.16 of Technical specification.</li> </ul>	Contractor	CSC	Shall be implemented, as and when required	Shall be implemented, as and when required
Domestic solid waste and liquid waste	Collecting Kitchen waste at separate bins and disposing of in a pit at designated areas	Contractor	CSC	Implemented but needs improvement	Implemented but needs improvement
generated at camp	Collecting plastics in separate bins and disposing in deep trench at designated areas for recycling.	Contractor	CSC	Not implemented	Not implemented
	Collecting cottons, clothes etc. at separate bins and burning in a pit(with sand bed)	Contractor	CSC	Not implemented	Not implemented
Borrow pits	Controlled operation and redevelopment of borrow pits to avoid water logging and land contamination.	Contractor	CSC	Implemented	Does not arise

6.	Loss of Topsoil	All construction sites	The topsoil from all areas of cutting and all areas to be permanently covered shall be stripped to be specified depth of 150 mm and stored in stockpiles. At least 10% of the temporarily acquired area shall be earmarked for storing topsoil.	Contractor	Implemented (Due to steepness of slope it is practically not possible to implement 100%)	Implemented (Due to steepness of slope it is practically not possible to implement 100%)
			The stockpile shall be designed such that the slope does not exceed 1:2(vertical to horizontal), and the height of the pile be restricted to 2m.To retain soil and to allow percolation of water, the edge of the pile shall be protected by silt fencing.		Implemented	Implemented
			Stockpiles will not be surcharged or otherwise loaded and multiple handling will be kept to a minimum to ensure that no compaction will occur. The stockpiles shall be covered with gunny bag or tarpaulin.		Care has been taken	Care has been taken
			<ul> <li>It shall be ensured by the contractor that the topsoil will not be unnecessarily trafficked either before stripping or when in stockpiles.</li> <li>Such stockpiled topsoil will be returned to cover the disturbed area and cut slopes .Residual topsoil will be distributed on adjoining /proximate barren/rocky areas as identified by the SC in a layer of thickness of 75mm-150 mm. Top soil shall also be utilized for redevelopment of borrow areas, landscaping along slopes, medians and incidental spaces.</li> </ul>	Contractor	Being implemented	Being implemented

7	Compact ion of soil	All construction sites	Construction vehicle, machinery and equipment shall move or be stationed in the designated area (ROW or COW, as applicable) only. While operating on temporarily acquired land for traffic detours, storage, material handling or any other construction related or incidental activates, topsoil from agricultural land will be preserved as mentioned above.	Contractor	Implemented	Implemented
8	Ecology	Site clearance	Restricting tree cutting within corridor of impact.	Contractor	Implemented.	Implemented.
		Ancillary sites	<ul> <li>Minimizing tree cutting and vegetation clearance during site selection.</li> <li>Preservation of trees within ancillary sites and avoiding impact on forest resources</li> <li>Providing buffer area from boundary of PF, RF, National Park and wildlife sanctuary of 1.5 km for locating construction plants, construction camp and quarry and 500m for borrow areas.</li> <li>Providing cooking at camp for</li> </ul>	Contractor	Implemented	Implemented
			discouraging and prohibiting use of fire wood i.e. cutting of trees by workers.	Contractor	implemented	Implemented
9	Occupatio nal health and safety of	camp	Water supply, sanitation, drainage and medical health facilities at camp site.	Contractor	Implemented but sanitation & drainage facilities need improvement	Implemented but sanitation & drainage facilities need improvement

	workers.		Providing and using PPEs.	Contractor		Implemented but needs improvement	Implemented but needs improvement
			Using working reverse horn for all construction equipment and vehicles.	Contractor	CSC	Yes	Yes
			Providing earth link circuit breaker (ECLB) for all electrical connections.	Contractor	CSC	Yes, provided	Yes, provided
			Maintaining first aid at construction sites.	Contractor	CSC	Yes	Yes
			Maintaining emergency response system.	Contractor	CSC	Implemented	Implemented
			Refer sub – clause 111.16 of Technical Specification.	Contractor	CSC		
10	Accident s and safety	and sites	Providing and maintaining traffic management comprising diversion, warning, guiding and regulatory signage, channelizes and delineators, lighting, flagman, dust control system etc. as specified in the contract.	Contractor	CSC	Being implemented as and when required but needs improvement	Being implemented as and when required but needs improvement
			Providing adequate light at construction site when working during night hours if permitted by the engineer.	Contractor	CSC	Working at day only, will be provided as and when required	Working at day only, will be provided as and when required
			Conducting induction and periodic training for all workers and supervisors.	Contractor	CSC	Implemented	Implemented
			Conducting periodic mock drilling on critical accident prone activities.	Contractor	CSC	Conducted periodically	Conducted periodically
			Conducting periodic training for all personnel working at plant site.	Contractor	CSC	Implemented	Implemented

#### 9. Summary of Environmental Monitoring

During the reporting period, the following issues were reviewed and the contractor was advised / instructed to take required action for improvement/compliance:

- 1) Provision and ensure use of PPEs for workers
- 2) Maintenance of drainage system, sanitation and hygiene within camp premises.
- 3) Provision and maintenance of safety measures for road users at work sites.
- 4) Ambulance facility within camps.
- 5) Increase the frequency of water sprinkling to reduce the dust pollution.
- 6) Update/Renewal of statutory consents/NOC and workmen compensation insurance.

#### Monitoring of Ambient Air, Noise and Water Quality

Environmental quality data collection (monitoring) has been carried out and the results were found satisfactory. Contractor is implementing various measures to control dust, noise and water pollution. The mitigation measures adopted to reduce the air pollution are: sprinkling of water on the roads and plant areas, vehicle speed restriction to 5-10 km/hrs at site, tyre washing facility for cleaning of vehicles at camps. To control noise pollution construction vehicles and machineries are being maintained regularly, timely scheduling of construction activities and controlled movement of construction vehicles.

#### **PUBLIC CONSULTATIONS AND ADDRESSING OF GRIEVANCES**

Consultations are being held regularly with the local people, village chiefs, and affected peoples in the project area including relevant government agencies. PIU has taken all possible measures to ensure that following concerns are regularly addressed:

- a) Controlled construction activities in settlement locations,
- b) Traffic diversion during construction, and
- c) Inclusion of all key stakeholders.

During the reporting period no major grievances were recorded. Contractor is addressing the issues in consultation with PIU and CSC. Other minor onsite grievances are being addressed in consultation with local communities and village chiefs. The complaints and grievances are being addressed as per the project provisions and in consultation with communities.

#### **UNANTICIPATED ENVIRONMENTAL ISSUES**

During the reporting period no major unanticipated environmental issues were encountered.

#### **10. CONCLUSION**

The implementation of environmental management measures in this project face some difficulties but it can be concluded that the overall progress of implementing environmental safeguard measures show a good level. CSC environmental specialist has been working closely with the environmental officer of the PIU and conducting regular site inspections. PIU environmental officer is active in coordinating the implementation of environment safeguards.

#### **Problems Identified and Actions Recommended**

During the reporting period (January 2017 – June 2017) some issues have been identified such as compliance with statutory requirements, impacts of dust emissions on air quality, inadequate road safety measures, inadequate use of PPEs by the workers, proper documentations and record keeping, information disclosure.

Following actions were recommended to address these problems.

- Follow-up with the concerned govt. department to obtain/update the required statutory permission/NOC.
- ❖ Adequate provision and ensuring the use of PPEs by the workers.
- ❖ Maintaining the storage and handling of used oil and grease.
- Improvement in drainage, hygiene and sanitation facilities at construction and labour camps.
- Improvement in road safety measures.
- Improvements in maintenance of records and reporting.

#### 11. PHOTOGRAPHS: MN06- CW1&CW2



Safety barricading and PPEs required (CW1)



2. AAQ monitoring (CW2)



3. Safety barricades & boards required (CW1)



4. Ambient noise monitoring (CW2)



5.Workers with PPEs (CW1)



6. worksite safety measures required (CW-1)

# **ANNEXURE-I**

**Statutory NOC/Permissions for MN06-CW1** 

SI. No.0612



# **Manipur Pollution Control Board**

Lamphelpat, Imphal-795004

# Certificate

Consent to Establish/Operate



Consent No. ..406/2016 .....

Consent is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended (herein-after referred to as 'the Act') and Rules made there under to Shri Shrimati/Messrs. M/s. DRAIPL-ABCI (JV) for operation of a Stone Crusher at Tupul, PO/PS – Noney, Tamenglong District, Manipur.

(here-in after referred to as 'the Applicant') authorising him to establish their plant in the Air Pollution Control Areas(s) notified.

This is subject to the provisions of the Act and Rules and orders made there-under and further subject to the terms and conditions annexed hereto.

The consent shall be valid for a period ending with the 23<sup>rd</sup> day of July, 2017.

Dated: this 20th day of August, 2016.

For and on behalf of the Manipur Pollution Control Board.

Member Secretary

Member Secretary

Manipur Pollution Control Board

Government of Manipur

SI. No.0906



# **Manipur Pollution Control Board**

Lamphelpat, Imphal-795004



## Certificate

Consent to Establish/Operate

Consent No. . . 105/2017

Consent is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended (herein-after referred to as 'the Act') and Rules made there under to Shri Shrimati/Messrs. M/s. DRAIPL-ABCI (JV) for setting up and operation of a Stone Crusher at Ngarian Village, Churachandpur Dist., Manipur. Senior General Manager: Mr. Dilip Kumar (here-in after referred to as 'the Applicant') authorising him to establish their plant in the Air Pollution Control Areas(s) notified.

This is subject to the provisions of the Act and Rules and orders made there-under and further subject to the terms and conditions annexed hereto.

The consent shall be valid for a period ending with the .... 6th day of Dec., 2017

For and on behalf of the Manipur Pollution Control Board.

Dated: this ... 7th day of March, 2017

Member Secretary

Member Secretary

Marious Pobution Control Board

Government of Manipur

SI. No. 0611



# **Manipur Pollution Control Board**

Lamphelpat, Imphal-795004

# Certificate

Consent to Establish/Operate



Consent No. ...405/2016.....

Consent is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended (herein-after referred to as 'the Act') and Rules made there under to Shri Shrimati/Messrs. M/s...DRAIPL-ABCI (JV) for operation of Base Camp at Ngariyan Village, Old Cachar Road, Churachandpur District, Manipur.

(here-in after referred to as 'the Applicant') authorising him to establish their plant in the Air Pollution Control Areas(s) notified.

This is subject to the provisions of the Act and Rules and orders made there-under and further subject to the terms and conditions annexed hereto.

> For and on behalf of the Manipur Pollution Control Board.

Dated: this 20th day of August, 2016.

Member Secretary

Member Secretary

Manipur Pollution Control Board

Government of Manipur



Choose certainty.
Add value.

### Test Report No. DEL/E(N)/17/002806 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Tupul to Bishnupur"ld No.

MN06-CW1, Imphal, Manipur India-795126

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail confirmation Dated 10/06/2017

Sample Particulars :

Sample Name : Ambient Noise

Sample Description : Ambient Noise level was monitored at Ngariyan Base camp 44+500

Sampling Location : Ngariyan Base camp 44+500

Date of Sampling : 22.06.2017

Sampled by : Mr. Danvir Singh(TUV Representative)

Client's Representative : Mr. Rajeev Kumar Sampling Protocol : LAB\_P(e)\_SOP\_05

Date of Sample Receipt : Received on 06/07/2017 9:38 am

 Date of Analysis
 : 06/07/2017

 Date of Completion
 : 06/07/2017

Note: The submitted sample is Drawn by the Laboratory

leighte

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida.

Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.060717.002 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072.



Priyanka Gupta

Report Reviewer



### Test Report No. DEL/E(N)/17/002806 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Ambient Noise Level Leq day	dB(A)	56.3	75	Lab SOP No-05 (Section-1)
2	Ambient Noise Level Leq Night	dB(A)	47.0	70	Lab SOP No-05 (Section -1)

Note: Surrounding conditions are normal. Remark: Above tested sample complies as per CPCB norms.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)

- END OF TEST REPORT-



Choose certainty. Add value.

### Test Report No. DEL/E(N)/17/002810 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Tupul to Bishnupur"Id No.

MN06-CW1, Imphal, Manipur India-795126

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail confirmation Dated 10/06/2017

Sample Particulars

Sample Name : Ambient Noise

Sample Description : Ambient Noise level was monitored at Tupul Crusher(0+000)

Sampling Location : Tupul Crusher(0+000)

Date of Sampling : 24.06.2017

Sampled by : Mr. Danvir Singh(TUV Representative)

Client's Representative : Mr. Rajeev Kumar Sampling Protocol : LAB\_P(e)\_SOP\_05

Date of Sample Receipt : Received on 06/07/2017 9:38 am

 Date of Analysis
 : 06/07/2017

 Date of Completion
 : 06/07/2017

Note: The submitted sample is Drawn by the Laboratory

Philygula

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida.

Uttar Pradesh,201301 Noida-201301,Uttar Pradesh,India.

Priyanka Gupta

Report Reviewer

Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.060717.006 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072.



Page 1 of 2



### Test Report No. DEL/E(N)/17/002810 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Ambient Noise Level Leq day	dB(A)	49.6	75	Lab SOP No-05 (Section-1)
2	Ambient Noise Level Leq Night	dB(A)	39.8	70	Lab SOP No-05 (Section -1)

Note: Surrounding conditions are normal. Remark: Above tested sample complies as per CPCB norms.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)

- END OF TEST REPORT-



Choose certainty. Add value.

### Test Report No. DEL/E(N)/17/002808 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Tupul to Bishnupur"Id No.

MN06-CW1, Imphal, Manipur India-795126

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail confirmation Dated 10/06/2017

Sample Particulars

Sample Name : Ambient Noise

Sample Description : Ambient Noise level was monitored at Minor Bridge 48+848

Sampling Location : Minor Bridge 48+848

Date of Sampling : 23.06.2017

Sampled by : Mr. Danvir Singh(TUV Representative)

Client's Representative : Mr. Rajeev Kumar
Sampling Protocol : LAB\_P(e)\_SOP\_05

Date of Sample Receipt : Received on 06/07/2017 9:38 am

 Date of Analysis
 : 06/07/2017

 Date of Completion
 : 06/07/2017

Note: The submitted sample is Drawn by the Laboratory

leighte

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory:
TÜV SÜD South Asia Pvt. Ltd.

Priyanka Gupta

Report Reviewer

G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida,

Uttar Pradesh,201301 Noida-201301,Uttar Pradesh,India. Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.060717.004 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072. India



Page 1 of 2



### Test Report No. DEL/E(N)/17/002808 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Ambient Noise Level Leq day	dB(A)	52.0	75	Lab SOP No-05 (Section-1)
2	Ambient Noise Level Leq Night	dB(A)	40.9	70	Lab SOP No-05 (Section -1)

Note: Surrounding conditions are normal. Remark: Above tested sample complies as per CPCB norms.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)

- END OF TEST REPORT-



### Test Report No. DEL/E(N)/17/002809 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Tupul to Bishnupur"Id No.

MN06-CW1, Imphal, Manipur India-795126

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail confirmation Dated 10/06/2017

Sample Particulars

Sample Name : Ambient Noise

Sample Description : Ambient Noise level was monitored at Lamdangmei 14+ 500

Sampling Location : Lamdangmei 14+ 500

Date of Sampling : 23.06.2017

Sampled by Mr. Danvir Singh(TUV Representative)

Client's Representative : Mr. Rajeev Kumar Sampling Protocol : LAB\_P(e)\_SOP\_05

Date of Sample Receipt : Received on 06/07/2017 9:38 am

 Date of Analysis
 : 06/07/2017

 Date of Completion
 : 06/07/2017

Note: The submitted sample is Drawn by the Laboratory

leight and

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar,

Uttar Pradesh,201301 Noida-201301,Uttar Pradesh,India.

Priyanka Gupta

Report Reviewer

Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.060717.005 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072.



Page 1 of 2



### Test Report No. DEL/E(N)/17/002809 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Ambient Noise Level Leq day	dB(A)	50.9	75	Lab SOP No-05 (Section-1)
2	Ambient Noise Level Leq Night	dB(A)	42.2	70	Lab SOP No-05 (Section -1)

Note: Surrounding conditions are normal. Remark: Above tested sample complies as per CPCB norms.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



### Test Report No. DEL/E(N)/17/002807 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Tupul to Bishnupur"Id No.

MN06-CW1, Imphal, Manipur India-795126

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail confirmation Dated 10/06/2017

Sample Particulars

Sample Name : Ambient Noise

Sample Description : Ambient Noise level was monitored at Bishnupur Crusher 41+610

Sampling Location : Bishnupur Crusher 41+610

Date of Sampling : 22.06.2017

Sampled by : Mr. Danvir Singh(TUV Representative)

Client's Representative : Mr. Rajeev Kumar
Sampling Protocol : LAB\_P(e)\_SOP\_05

Date of Sample Receipt : Received on 06/07/2017 9:38 am

 Date of Analysis
 : 06/07/2017

 Date of Completion
 : 06/07/2017

Note: The submitted sample is Drawn by the Laboratory

Philyone

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida,

Priyanka Gupta

Report Reviewer

Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072. India





### Test Report No. DEL/E(N)/17/002807 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Ambient Noise Level Leq day	dB(A)	50.4	75	Lab SOP No-05 (Section-1)
2	Ambient Noise Level Leq Night	dB(A)	41.7	70	Lab SOP No-05 (Section -1)

Note: Surrounding conditions are normal. Remark: Above tested sample complies as per CPCB norms.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



### Test Report No. DEL/E(W)/17/002764 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Tupul to Bishnupur"Id No.

MN06-CW1, Imphal, Manipur India-795126

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail Confirmation Dated 10/06/2017

Sample Particulars

Sample Name : Surface Water

Sample Description : Surface water sample was collected from Ngariyan Base camp, 44+500

Sample Package & Plastic bottle 2 ltrs.

Quantity

Sampling Location Ngariyan Base camp, 44+500

Date of Sampling 24.06.2017

Sampled by : Mr. Danvir Singh (TUV Representative)

Client's Representative : Mr. Rajeev Kumar Sampling Protocol : LAB\_P(e)\_SOP\_03

Date of Sample Receipt : Received on 04/07/2017 4:01 pm

 Date of Analysis
 : 05/07/2017

 Date of Completion
 : 12/07/2017

Note: The submitted sample is Drawn by the Laboratory

Swatantra Kumar Verma

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd.

G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida,

Uttar Pradesh,201301 Noida-201301,Uttar Pradesh,India.

Report Reviewer

Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.040717.034 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072.



Page 1 of 2



### Test Report No. DEL/E(W)/17/002764 Dated 20/07/2017

S. NO.	PARAMETERS	UNIT	TEST RESULT	TEST METHOD
1	pH,	-	7.2	IS 3025 : Part 11
2	Dissolved Oxygen,	mg/l	4.7	IS:3025(Part -38)
3	Chemical Oxygen Demand (COD),	mg/l	<5.0	IS:3025(Part-58)
4	Lead [as Pb],	mg/l	<0.01	IS : 3025 (Part-2)
5	Oil & grease,	mg/l	<2.0	IS 3025 : Part 39
6	Total Dissolved Solids	mg/l	54.0	IS: 3025 Part : 16
7	Anionic detergent (as MBAS),	mg/l	<0.2	Annex K of IS:13428
8	Biochemical Oxygen Demand (BOD at 20°C)	mg/l	<2.0	IS:3025(Part-44)

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



### Test Report No. DEL/E(W)/17/002763 Dated 20/07/2017

DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd **Issued To** 

Improve,

ment & Upgradation of road section"Tupul to Bishnupur"Id No.

MN06-CW1, Imphal, Manipur India-795126

**Attention** Mr. Bikel Singh,

Mail Confirmation Dated 10/06/2017 Customer Ref. No.

Sample Particulars

Surface Water Sample Name

Sample Description Surface water sample was collected from Lamdangmei, 14+550

Sample Package & Plastic bottle 2 ltrs.

Quantity

Sampling Location Lamdangmei, 14+550

**Date of Sampling** 24.06.2017

Mr. Danvir Singh (TUV Representative) Sampled by

Client's Representative Mr. Rajeev Kumar Sampling Protocol LAB\_P(e)\_SOP\_03

**Date of Sample Receipt** Received on 04/07/2017 4:01 pm

**Date of Analysis** 05/07/2017 **Date of Completion** 12/07/2017

Note: The submitted sample is Drawn by the Laboratory

Swatantra Kumar Verma

Authorised By

Vinay Vikram Singh **Authorized Signatory** 

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar,

Uttar Pradesh,201301 Noida-201301, Uttar Pradesh, India.

Report Reviewer

Phone :0091 120 4073000 Fax:0091 120 4073005 E-Mail:vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.040717.033

Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072.





### Test Report No. DEL/E(W)/17/002763 Dated 20/07/2017

S. NO.	PARAMETERS	UNIT	TEST RESULT	TEST METHOD
1	pH,	-	6.6	IS 3025 : Part 11
2	Dissolved Oxygen,	mg/l	5.0	IS:3025(Part -38)
3	Chemical Oxygen Demand (COD),	mg/l	<5.0	IS:3025(Part-58)
4	Lead [as Pb],	mg/l	<0.01	IS : 3025 (Part-2)
5	Oil & grease,	mg/l	<2.0	IS 3025 : Part 39
6	Total Dissolved Solids	mg/l	20.0	IS: 3025 Part : 16
7	Anionic detergent (as MBAS),	mg/l	<0.2	Annex K of IS:13428
8	Biochemical Oxygen Demand (BOD at 20°C)	mg/l	<2.0	IS:3025(Part-44)

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



### Test Report No. DEL/E(W)/17/002765 Dated 20/07/2017

DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd **Issued To** 

Improve,

ment & Upgradation of road section"Tupul to Bishnupur"Id No.

MN06-CW1, Imphal, Manipur India-795126

**Attention** Mr. Bikel Singh,

Mail Confirmation Dated 10/06/2017 Customer Ref. No.

Sample Particulars

Surface Water Sample Name

Sample Description Surface water sample was collected from Tupul, 0+060

Sample Package & Plastic bottle 2 ltrs.

Quantity

Sampling Location Tupul, 0+060 **Date of Sampling** 24.06.2017

Mr. Danvir Singh (TUV Representative) Sampled by

Client's Representative Mr. Rajeev Kumar Sampling Protocol LAB\_P(e)\_SOP\_03

**Date of Sample Receipt** Received on 04/07/2017 4:01 pm

**Date of Analysis** 05/07/2017 **Date of Completion** 12/07/2017

Note: The submitted sample is Drawn by the Laboratory

Swatantra Kumar Verma

Authorised By

Vinay Vikram Singh **Authorized Signatory** 

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd.

G-11, First Floor, Sector - 11, Gautam Budh Nagar,

Uttar Pradesh,201301 Noida-201301, Uttar Pradesh, India.

Report Reviewer

Phone :0091 120 4073000 Fax:0091 120 4073005 E-Mail:vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.040717.035

Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072.



Page 1 of 2



### Test Report No. DEL/E(W)/17/002765 Dated 20/07/2017

S. NO.	PARAMETERS	UNIT	TEST RESULT	TEST METHOD
1	pH,	-	6.8	IS 3025 : Part 11
2	Dissolved Oxygen,	mg/l	4.8	IS:3025(Part -38)
3	Chemical Oxygen Demand (COD),	mg/l	<5.0	IS:3025(Part-58)
4	Lead [as Pb],	mg/l	<0.01	IS : 3025 (Part-2)
5	Oil & grease,	mg/l	<2.0	IS 3025 : Part 39
6	Total Dissolved Solids	mg/l	30.0	IS: 3025 Part : 16
7	Anionic detergent (as MBAS),	mg/l	<0.2	Annex K of IS:13428
8	Biochemical Oxygen Demand (BOD at 20°C)	mg/l	<2.0	IS:3025(Part-44)

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



### Test Report No. DEL/E(A)/17/002778 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Tupul to Bishnupur"Id No.

MN06-CW1, Imphal, Manipur India-795126

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail confirmation Dated 10/06/2017

Sample Particulars :

Sample Name : Ambient Air

Sample Description : Ambient Air sample was collected from 22.06.2017 to 23.06.2017 at Ngariyan

Base camp 44+500

Sampling Location : Ngariyan Base camp 44+500 Date of Sampling : 22.06.2017 to 23.06.2017

Sampled by : Mr. Danvir Singh (TUV Representative)

Client's Representative : Mr. Rajeev Kumar Sampling Protocol : LAB\_P(e)\_SOP\_01

Date of Sample Receipt : Received on 05/07/2017 11:47 am

 Date of Analysis
 : 05/07/2017

 Date of Completion
 : 12/07/2017

Note: The submitted sample is Drawn by the Laboratory

leight

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar,

Uttar Pradesh,201301 Noida-201301,Uttar Pradesh,India.

Priyanka Gupta

Report Reviewer

Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.050717.013 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072.



Page 1 of 2



### Test Report No. DEL/E(A)/17/002778 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Sulphur Dioxide [as SO2]	μg/m³	8.2	80	IS : 5182 (Part -2)
2	Particulate Matter [PM 2.5]	μg/m³	17.1	60	As per CPCB, NAAQS Mannual
3	Carbon monoxide (as CO)	mg/m³	0.461	2.0	IS:5182 (Part 10)
4	Lead [As Pb],	μg/m³	<0.01	1.0	IS: 5182 (Part -22)
5	Nitrogen Dioxide [as NO2]	μg/m³	16.4	80	IS : 5182 (Part -6)
6	Particulate Matter-PM10	μg/m³	42.8	100	IS 5182(Part 23) : 2006

Remark: Above tested sample complies as per CPCB norms for the above tested parameters only.

Vinay Vikram Singh (Asst Lab Manager)

Authorised By



### Test Report No. DEL/E(A)/17/002779 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Tupul to Bishnupur"Id No.

MN06-CW1, Imphal, Manipur India-795126

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail confirmation Dated 10/06/2017

Sample Particulars :

Sample Name : Ambient Air

Sample Description : Ambient Air sample was collected from 22.06.2017 at Bishnupur Crusher 41+610

Sampling Location : Bishnupur Crusher 41+610

Date of Sampling 22.06.2017

Sampled by : Mr. Danvir Singh (TUV Representative)

Client's Representative : Mr. Rajeev Kumar Sampling Protocol : LAB\_P(e)\_SOP\_01

Date of Sample Receipt : Received on 05/07/2017 11:47 am

 Date of Analysis
 : 05/07/2017

 Date of Completion
 : 12/07/2017

Note: The submitted sample is Drawn by the Laboratory

leight

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in full without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd.

Priyanka Gupta

Report Reviewer

G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida

Uttar Pradesh,201301 Noida-201301,Uttar Pradesh,India. Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.050717.014 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072.



Page 1 of 2



### Test Report No. DEL/E(A)/17/002779 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Sulphur Dioxide [as SO2]	μg/m³	7.4	80	IS : 5182 (Part -2)
2	Particulate Matter [PM 2.5]	μg/m³	14.2	60	As per CPCB, NAAQS Mannual
3	Carbon monoxide (as CO)	mg/m³	0.246	2.0	IS:5182 (Part 10)
4	Lead [As Pb],	μg/m³	<0.01	1.0	IS: 5182 (Part -22)
5	Nitrogen Dioxide [as NO2]	μg/m³	18.4	80	IS : 5182 (Part -6)
6	Particulate Matter-PM10	μg/m³	33.6	100	IS 5182(Part 23) : 2006

Remark: Above tested sample complies as per CPCB norms for the above tested parameters only.

Vinay Vikram Singh (Asst Lab Manager)

Authorised By



### Test Report No. DEL/E(A)/17/002780 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Tupul to Bishnupur"Id No.

MN06-CW1, Imphal, Manipur India-795126

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail confirmation Dated 10/06/2017

Sample Particulars :

Sample Name : Ambient Air

Sample Description : Ambient Air sample was collected from 23.06.2017 to 24.06.2017 at Lamdangmei

14+500

Sampling Location : Lamdangmei 14+500

Date of Sampling : 23.06.2017 to 24.06.2017

Sampled by : Mr. Danvir Singh (TUV Representative)

Client's Representative : Mr. Rajeev Kumar Sampling Protocol : LAB\_P(e)\_SOP\_01

Date of Sample Receipt : Received on 05/07/2017 11:47 am

 Date of Analysis
 : 05/07/2017

 Date of Completion
 : 15/07/2017

Note: The submitted sample is Drawn by the Laboratory

leight

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in full without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd.

Priyanka Gupta

Report Reviewer

G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida,

Uttar Pradesh,201301 Noida-201301,Uttar Pradesh,India. Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.050717.015 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072. India



Page 1 of 2



### Test Report No. DEL/E(A)/17/002780 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Sulphur Dioxide [as SO2]	μg/m³	5.4	80	IS : 5182 (Part -2)
2	Particulate Matter [PM 2.5]	μg/m³	13.0	60	As per CPCB, NAAQS Mannual
3	Carbon monoxide (as CO)	mg/m³	0.284	2.0	IS:5182 (Part 10)
4	Lead [As Pb],	μg/m³	<0.01	1.0	IS: 5182 (Part -22)
5	Nitrogen Dioxide [as NO2]	μg/m³	16.7	80	IS : 5182 (Part -6)
6	Particulate Matter-PM10	μg/m³	32.4	100	IS 5182(Part 23) : 2006

Remark: Above tested sample complies as per CPCB norms for the above tested parameters only.

Vinay Vikram Singh (Asst Lab Manager)

Authorised By



### Test Report No. DEL/E(A)/17/002781 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Tupul to Bishnupur"Id No.

MN06-CW1, Imphal, Manipur India-795126

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail confirmation Dated 10/06/2017

Sample Particulars :

Sample Name : Ambient Air

Sample Description : Ambient Air sample was collected from 23.06.2017 to 24.06.2017 at Tupul

Crusher 0+000

Sampling Location : Tupul Crusher 0+000

Date of Sampling : 23.06.2017 to 24.06.2017

Sampled by : Mr. Danvir Singh (TUV Representative)

Client's Representative : Mr. Rajeev Kumar Sampling Protocol : LAB\_P(e)\_SOP\_01

Date of Sample Receipt : Received on 05/07/2017 11:47 am

 Date of Analysis
 : 05/07/2017

 Date of Completion
 : 15/07/2017

Note: The submitted sample is Drawn by the Laboratory

leight

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida.

Priyanka Gupta

Report Reviewer

Uttar Pradesh,201301

Noida-201301, Uttar Pradesh, India.

Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.050717.016 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072. India





### Test Report No. DEL/E(A)/17/002781 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Sulphur Dioxide [as SO2]	μg/m³	6.8	80	IS : 5182 (Part -2)
2	Particulate Matter [PM 2.5]	μg/m³	15.0	60	As per CPCB, NAAQS Mannual
3	Carbon monoxide (as CO)	mg/m³	0.211	2.0	IS:5182 (Part 10)
4	Lead [As Pb],	μg/m³	<0.01	1.0	IS: 5182 (Part -22)
5	Nitrogen Dioxide [as NO2]	μg/m³	18.4	80	IS : 5182 (Part -6)
6	Particulate Matter-PM10	μg/m³	36.4	100	IS 5182(Part 23) : 2006

Remark: Above tested sample complies as per CPCB norms for the above tested parameters only.

Vinay Vikram Singh (Asst Lab Manager)

Authorised By



### Test Report No. DEL/E(A)/17/002782 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Tupul to Bishnupur"Id No.

MN06-CW1, Imphal, Manipur India-795126

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail confirmation Dated 10/06/2017

Sample Particulars :

Sample Name : Ambient Air

Sample Description : Ambient Air sample was collected from 24.06.2017 to 25.06.2017 at Minor Bridge

48+848

Sampling Location : Minor Bridge 48+848

Date of Sampling : 24.06.2017 to 25.06.2017

Sampled by : Mr. Danvir Singh (TUV Representative)

Client's Representative : Mr. Rajeev Kumar Sampling Protocol : LAB\_P(e)\_SOP\_01

Date of Sample Receipt : Received on 05/07/2017 11:47 am

 Date of Analysis
 : 05/07/2017

 Date of Completion
 : 12/07/2017

Note: The submitted sample is Drawn by the Laboratory

leight

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd.

Priyanka Gupta

Report Reviewer

G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida,

Uttar Pradesh,201301 Noida-201301,Uttar Pradesh,India. Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.050717.017 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072.





### Test Report No. DEL/E(A)/17/002782 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Sulphur Dioxide [as SO2]	μg/m³	6.3	80	IS : 5182 (Part -2)
2	Particulate Matter [PM 2.5]	μg/m³	16.4	60	As per CPCB, NAAQS Mannual
3	Carbon monoxide (as CO)	mg/m³	0.384	2.0	IS:5182 (Part 10)
4	Lead [As Pb],	μg/m³	<0.01	1.0	IS: 5182 (Part -22)
5	Nitrogen Dioxide [as NO2]	μg/m³	16.2	80	IS : 5182 (Part -6)
6	Particulate Matter-PM10	μg/m³	38.0	100	IS 5182(Part 23) : 2006

Remark: Above tested sample complies as per CPCB norms for the above tested parameters only.

Vinay Vikram Singh (Asst Lab Manager)

Authorised By

sst Lab Manager)

### FORM VI [See rule 25(1)]

### GOVERNMENT OF MANIPUR OFFICE OF THE LICENSING OFFICER

Licence No.12 of 2014.

Dated 26 / 04 / 2014

Fee Rs. 12.50 /-

### LICENCE

- Licence is, hereby, granted to M/S DRAIPL-ABCI (JV), 1/3 Mc Donald Tower, G.S. Road, Guwahati - 781007, under Section 12 (1) of the Contract Labour (Regulation and Abolition) Act, 1970, subject to the condition specified in ANNEXURE.
- The licence is for doing the work of "Improvement and Up gradation of road Section MNO6-CW 1 Tupul to Bishnupur" in the establishment of NESRIP, PWD, Manipur
- The Licence shall remain in force till 25/04/2015.

Signation of Manufacture (rule 29)

Signature and Seal of Licensian Officer

Licensing Officer (CL)
Govt. of Manipur.

29-1-2016

Date of expiry

29-1-2014

Licensing Officer (CL)

Govt. of Manipur.

22 0 3 2018

Licensing Officer (CL)
Government of Manipur.

Signature and Seal of the Licensing Officer

Date

# FORM VIII GOVERNMENT OF MANIPUR OFFICE OF THE LICENSING OFFICER

(A

## LICENCE

Licence No. 2 of 2014

Dated 26/04/2014

Fee paid Rs. 40.00

- Licence is hereby granted to M/S DRAIPL-ABCI(JV),1/3Mc Donald Tower, GS
  Road, Guwahati-781007, Imphal under Section 8(2) of the Inter State Migrant
  Workmen (Regulation of Employment and Conditions of Service) Act,1979, subject
  to the conditions specified in the ANNEXURE.
- This licence is for doing the work of "Improvement and Upgradation of Road Section MN06-CW 1 Tupul to Bishnupur" in the establishment of the NESRIP, PWD, Government of Manipur.
- The licence shall remain in force till 25/04/2015.



Signature and Seal of the Licensing Officer Officer (ISMW)
Department of Labour
Government of Manipur.

RENEWAL [See Rule 14]

1. 29-01-2016

k 50)-

Date of expiry

28-01-2017

R, 50)=

Department of Labour Government of Manipur.

22/03/2018

Government of Manipur

Signature and Seal of the Licensing Officer

Date.....

22/03/2019

Certify that vehicle no. MNO/AA/00/4 (Tipper) is conforming to provision of rule 115 of (MV rule 1998).

Owner Name:

### SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Test - 1		1	
Test - 2			HSU
Test - 3	/		.71
Test - 4			
	K	- Avg	

w.e.s. 23/03/2017

This Certificate will expire on .....

22/09/2017

Inspector (Mechanical) Motor Vehicle Department Manipur

Inspector/Mech Imphal West

Certify that vehicle no. MNO/AA/00/4 (Tipper) is conforming to provision of rule 115 of (MV rule 1998).

Owner Name:

### SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Test - 1		1	
Test - 2			HSU
Test - 3	/		.71
Test - 4			
	K	- Avg	

w.e.s. 23/03/2017

This Certificate will expire on .....

22/09/2017

Inspector (Mechanical) Motor Vehicle Department Manipur

Inspector/Mech Imphal West

Certify that vehicle no MNOIAA/0152 (Tipper) is
conforming to provision of rule 115 of (MV rule 1998).
Owner Name:

#### SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Test - 1	1	- /	1
Test - 2			HSU
Test - 3			- 74
Test - 4			
	K-	- Avg	

w.e.f. 21,03.2017

This Certificate will expire on .20.09.2017

Inspector (Mechanical) Motor Vehicle Department Manipul Inspector/Mech Imphal West

Certify that vehicle no. MNO IAA / 0102 (Types) is conforming to provision of rule 115 of (MV rule 1998).

Owner Name:

#### SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Test - 1	1	. /	
Test - 2			HSU
Test - 3			-71
Test - 4			
	К	- Avg	

w.e.f. 23/03/2017

This Certificate will expire on 22/09/20/7

Inspector (Mechanical) Motor Vehicle Department

Inspector/Mech Imphal West

Certify that vehicle no. MNO. IAA /0/01 (7 pper) is
conforming to provision of rule 115 of (MV rule 1998).
Owner Name:

### SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Test - 1	1	. /	
Test - 2	/	/	HSU
Test - 3	/		. 71
Test - 4			
	К	- Avg	

w.e.s. 23/03/2017

This Certificate will expire on 22/09/2017

Inspector (Mechanical)

Motor Vehicle Department

Manipur

Inspector/Mech Imphal West

#### GOVERNMENT OF MANIPUR OFFICE OF THE DISTRICT TRANSPORT OFFICER IMPHAL MANIPUR

Certify that vehicle no.	MINOIAA	10099	(Teppea) is
conforming to provisi			
Owner Name	t		

### SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Test - 1			1
Test - 2			HSU
Test - 3			.74
Test - 4			
	K	- Avg	

w.e.f.	101	03/	2017	
				M9/M9

9/2017 This Certificate will expire on ........

> Motor Vehicle Imphal West

# OFFICE OF THE DISTRICT TRANSPORT OFFICER

Certify that vehicle no. MNO/AA - 6035 (TISTIPPOW), conforming to provision of rule 115 of (MV rule 1998).

Owner Name:

#### SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Acon 65 HSU	Full Loads 75 HSU	Remarks
Test - 1			
Test - 2			HSU
Test - 3			It.
Test - 4			00
	К-	Avg	

wel 20/7/2017

Inspecine (Mechanical)

Motor Vehicle Demactment
inspector

Certify that vehicle no. MNO/AA/ conforming to provision of rule 115	0022 (Typer) is
Owner Name:	***************************************

## SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Test - 1		1	
Test - 2			HSU
Test - 3	1		.71
Test - 4		1	-11
	К	- Avg	7

w.e.f. 23/03/2017

This Certificate will expire on 22/09/2017

Inspector (Mechanical) Motor Vehicle Department
Manipur
Inspector/Mech
Imphal West

Certify that vehicle no MNOIAA/0152 (Tipper) is
conforming to provision of rule 115 of (MV rule 1998).
Owner Name:

#### SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Test - 1	1	+ /	1
Test - 2	1		HSU
Test - 3			- 74
Test - 4			
	К	- Avg	

w.e.f. 21,03.2017

This Certificate will expire on .20.09.2017

Inspector (Mechanical) Motor Vehicle Department Manipul Inspector/Mech Imphal West

### GOVERNMENT OF MANIPUR OFFICE OF THE DISTRICT TRANSPORT OFFICER IMPHAL MANIPUR

Certify that vehicle no. MNOIAA	10148	(Tepper) is
conforming to provision of rule 115	And the second second second second	
Owner Name		

### SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Test - 1	1	1	1
Test - 2			HSU_
Test - 3			.74
Test - 4			
	K	- Avg	

wef 10/03/2017 

> Inspector (Mech Motor Vehicle Department Inspector/Mech

Imphal West

# OFFICE OF THE DISTRICT TRANSPORT OFFICER

Certify that vehicle no. MNO/AA - 6035 (TISTIPPOW), conforming to provision of rule 115 of (MV rule 1998).

Owner Name:

#### SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Acon 65 HSU	Full Loads 75 HSU	Remarks
Test - 1			
Test - 2			HSU
Test - 3			It.
Test - 4			
	К-	Avg	

wel 20/7/2017

Inspecine (Mechanical)

Motor Vehicle Demactment
inspector

# **ANNEXURE-II**

**Statutory NOC/Permissions for MN06-CW2** 

# Government of Manipur Office of the Principal Chief Conservator of Forests Sanjenthong, Imphal

No. 7/91/2013/Forests 207

Imphal, the 9th June 2017

To

- 1. The Project Director, NESRIP, PWD Govt of Manipur
  - The Divisional Forest Officer, Eastern Forest Division, Ukhrul Govt of Manipur

Subject: Diversion of 9.55 ha of forest land for widening/upgradation of Thoubal to Kasom Khullen road by PWD under NESRIP in Manipur.

Sir.

I am to say that the State Government vide Order No. 20/27/2013-For & Envt dated 5.6.2017 has issued working permission for a period of 1(one) year from the date of issue of Order allowing PWD to start tree cutting and commencement of work subject to fulfilment of 5 stipulated conditions. The Order copy is enclosed herewith for strict compliance of Para I, III, IV and V of the order and submit the compliance report.

The Divisional Forest Officer, Eastern Forest Division may demarcate the forest land under diversion by erecting the specified boundary pillars. They may also carry out the logging operation of the felled trees. Photographs of the boundary pillars are to be submitted to onward submission to Ministry along with the full compliance report.

Enclosed: Order dated 5.6.2017

Yours faithfully

(S. Dhananjoy Singh)
Chief Conservator of Forests/Nodal Officer, FCA

Govt of Manipur

Copy to :-

- 1. The Pr. Chief Conservator of Forests & HoFF, Manipur.
- 2. The Chief Conservator of Forests, Territorial II, Manipur
- The Conservator of Forests, Eastern Circle, Manipur

SI. No.0908

## **Manipur Pollution Control Board**

Lamphelpat, Imphal-795004



### Certificate

Consent to Establish/Operate

Consent No. . . 107/2017-

Consent is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended (herein-after referred to as 'the Act') and Rules made there under to Shri Shrimati/Messrs. M/s DRAIPL-ABCI (JV) for operation of a Concrete Batching Plant at Somrei Village, P.O./P.S. Yairipok, Senapati Dist., Manipur. Sr. General Manager: Mr. Dilip Kumar (here-in after referred to as 'the Applicant') authorising him to establish their plant in the Air Pollution Control Areas(s) notified.

This is subject to the provisions of the Act and Rules and orders made there-under and further subject to the terms and conditions annexed hereto.

> For and on behalf of the Manipur Pollution Control Board.

Dated: this ... 7th day of March, 2017

Member Secretary

Member Secretary
Manipur Pollution Control Board

SI. No. <sub>0947</sub>



# **Manipur Pollution Control Board**

Lamphelpat, Imphal-795004





Consent No. . . 108/2017

Consent is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended (herein-after referred to as 'the Act') and Rules made there under to Shri Shrimati/Messrs. M/s.DRAIPL-ABCI (JV) for operation of a WMM Plant at Saram / Salam Patong Village, P.O./P.S. Saikul, Senapati Dist., Manipur. Sr. General Manager: Mr. Dilip Kumar (here-in after referred to as 'the Applicant') authorising him to establish their plant in the Air Pollution Control Areas(s) notified.

This is subject to the provisions of the Act and Rules and orders made there-under and further subject to the terms and conditions annexed hereto.

> For and on behalf of the Manipur Pollution Control Board.

Dated: this 7th day of March, 2017

Member Secretary

SI. No. 0615



# **Manipur Pollution Control Board**

Lamphelpat, Imphal-795004





Consent No. ..409/2016 ....

Consent is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended (herein-after referred to as 'the Act') and Rules made there under to Shri Shrimati/Messrs. M/s. DRAIPL-ABCI (JV) for operation of a Stone Crushing Unit at Saram/ Salam Patong Village, P.O./P.S.Saikul, Senapati Dist., Manipur.

(here-in after referred to as 'the Applicant') authorising him to establish their plant in the Air Pollution Control Areas(s) notified.

This is subject to the provisions of the Act and Rules and orders made there-under and further subject to the terms and conditions annexed hereto.

> For and on behalf of the Manipur Pollution Control Board.

Dated: this 20th day of August, 2016.

Member Secretary

si. No0907



# **Manipur Pollution Control Board**

Lamphelpat, Imphal-795004



# Certificate

Consent to Establish/Operate

Consent No. .. 106/2017 .....

Consent is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended (herein-after referred to as 'the Act') and Rules made there under to Shri Shrimati/Messrs. M/s. DRAIPL-ABCI (JV) for operation of Camp at Somrei Village, P.O./P.S. Yairipok, Ukhrul District, Manipur. Sr. General Manager: Mr. Dilip Kumar.

(here-in after referred to as 'the Applicant') authorising him to establish their plant in the Air Pollution Control Areas(s) notified.

This is subject to the provisions of the Act and Rules and orders made there-under and further subject to the terms and conditions annexed hereto.

> For and on behalf of the Manipur Pollution Control Board.

Dated: this ... 7th day of March, 2017

Member Secretary

SI. No. 0613



# **Manipur Pollution Control Board**

Lamphelpat, Imphal-795004





Consent No. ..407/2016......

Consent is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended (herein-after referred to as 'the Act') and Rules made there under to Shri Shrimati/Messrs. M/sDRAIPL-ABCI(JV) for operation of a Hot Mix Plant at Komlaching Village, P.O./P.S.- Yairipok, Senapati District, Manipur.

(here-in after referred to as 'the Applicant') authorising him to establish their plant in the Air Pollution Control Areas(s) notified.

This is subject to the provisions of the Act and Rules and orders made there-under and further subject to the terms and conditions annexed hereto.

The consent shall be valid for a period ending with the .... 8th day of July, 2017.

For and on behalf of the Manipur Pollution Control Board.

Dated: this 20th day of August, 2016.

Member Secretary



#### Test Report No. DEL/E(N)/17/002805 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Thoubal to KassomKullen"Id

No. MN06-CW2, Imphal, Manipur India-795001

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail Confirmation Dated 10/06/2017

Sample Particulars

Sample Name : Ambient Noise

Sample Description : Ambient Noise level was monitored at Komlaching 94 + 960

Sampling Location : Komlaching 94 + 960

Date of Sampling : 29.06.2017

Sampled by : Mr. Danvir Singh (TUV Representative)

Client's Representative : Mr. Sukanta Mandol Sampling Protocol : LAB\_P(e)\_SOP\_05

Date of Sample Receipt : Received on 06/07/2017 9:31 am

 Date of Analysis
 : 06/07/2017

 Date of Completion
 : 06/07/2017

Note: The submitted sample is Drawn by the Laboratory

Pringer

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida, Uttar Pradesh,201301

Noida-201301, Uttar Pradesh, India.

Priyanka Gupta

Report Reviewer

Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.060717.001 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072. India



Page 1 of 2



# Test Report No. DEL/E(N)/17/002805 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Ambient Noise Level Leq day	dB(A)	52.9	75	Lab SOP No-05 (Section-1)
2	Ambient Noise Level Leq Night	dB(A)	39.6	70	Lab SOP No-05 (Section -1)

Note: Surrounding conditions are normal. Remark: Above tested sample complies as per CPCB norms.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



## Test Report No. DEL/E(N)/17/002813 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Thoubal to KassomKullen"Id

No. MN06-CW2, Imphal, Manipur India-795001

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail Confirmation Dated 10/06/2017

Sample Particulars :

Sample Name : Ambient Noise

Sample Description : Ambient Noise level was monitored at Yesom 106 + 710

Sampling Location : Yesom 106 + 710

Date of Sampling : 20.06.2017

Sampled by : Mr. Danvir Singh (TUV Representative)

Client's Representative : Mr. Sukanta Mandol Sampling Protocol : LAB\_P(e)\_SOP\_05

Date of Sample Receipt : Received on 06/07/2017 9:31 am

 Date of Analysis
 : 06/07/2017

 Date of Completion
 : 06/07/2017

Note: The submitted sample is Drawn by the Laboratory

Preyordia

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida, Uttar Pradesh,201301

Noida-201301, Uttar Pradesh, India.

Priyanka Gupta

Report Reviewer

Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.060717.009 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072. India



Page 1 of 2



# Test Report No. DEL/E(N)/17/002813 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Ambient Noise Level Leq day	dB(A)	50.9	75	Lab SOP No-05 (Section-1)
2	Ambient Noise Level Leq Night	dB(A)	42.2	70	Lab SOP No-05 (Section -1)

Note: Surrounding conditions are normal. Remark: Above tested sample complies as per CPCB norms.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



### Test Report No. DEL/E(N)/17/002814 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Thoubal to KassomKullen"Id

No. MN06-CW2, Imphal, Manipur India-795001

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail Confirmation Dated 10/06/2017

Sample Particulars :

Sample Name : Ambient Noise

Sample Description : Ambient Noise level was monitored at Yoiripok 88 + 560

Sampling Location : Yoiripok 88 + 560

Date of Sampling : 21.06.2017

Sampled by : Mr. Danvir Singh (TUV Representative)

Client's Representative : Mr. Sukanta Mandol Sampling Protocol : LAB\_P(e)\_SOP\_05

Date of Sample Receipt : Received on 06/07/2017 9:31 am

 Date of Analysis
 : 06/07/2017

 Date of Completion
 : 15/07/2017

Note: The submitted sample is Drawn by the Laboratory

Philygula

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida, Uttar Pradesh,201301

Noida-201301, Uttar Pradesh, India.

Priyanka Gupta

Report Reviewer

Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.060717.010 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072.





# Test Report No. DEL/E(N)/17/002814 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Ambient Noise Level Leq day	dB(A)	50.2	75	Lab SOP No-05 (Section-1)
2	Ambient Noise Level Leq Night	dB(A)	38.8	70	Lab SOP No-05 (Section -1)

Note: Surrounding conditions are normal. Remark: Above tested sample complies as per CPCB norms.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



### Test Report No. DEL/E(N)/17/002811 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve,

ment & Upgradation of road section"Thoubal to KassomKullen"Id

No. MN06-CW2, Imphal, Manipur India-795001

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail Confirmation Dated 10/06/2017

Sample Particulars :

Sample Name : Ambient Noise

Sample Description : Ambient Noise level was monitored at Somrei Base Camp 96 + 940

Sampling Location : Somrei Base Camp 96 + 940

Date of Sampling : 19.06.2017

Sampled by : Mr. Danvir Singh (TUV Representative)

Client's Representative : Mr. Sukanta Mandol Sampling Protocol : LAB\_P(e)\_SOP\_05

Date of Sample Receipt : Received on 06/07/2017 9:31 am

 Date of Analysis
 : 06/07/2017

 Date of Completion
 : 06/07/2017

Note: The submitted sample is Drawn by the Laboratory

leight and

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory:
TÜV SÜD South Asia Pvt. Ltd.
G-11, First Floor, Sector - 11, Gautam Budh Nagar,

Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo:.060717.007 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072. India



Priyanka Gupta

Report Reviewer



# Test Report No. DEL/E(N)/17/002811 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Ambient Noise Level Leq day	dB(A)	53.7	75	Lab SOP No-05 (Section-1)
2	Ambient Noise Level Leq Night	dB(A)	44.2	70	Lab SOP No-05 (Section -1)

Note: Surrounding conditions are normal. Remark: Above tested sample complies as per CPCB norms.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



### Test Report No. DEL/E(N)/17/002812 Dated 20/07/2017

Issued To : DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve.

ment & Upgradation of road section"Thoubal to KassomKullen"Id

No. MN06-CW2, Imphal, Manipur India-795001

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail Confirmation Dated 10/06/2017

Sample Particulars

Sample Name : Ambient Noise

Sample Description : Ambient Noise level was monitored at Saram patong 101 + 300

Sampling Location : Saram patong 101 + 300

Date of Sampling : 20.06.2017

Sampled by : Mr. Danvir Singh (TUV Representative)

Client's Representative : Mr. Sukanta Mandol Sampling Protocol : LAB\_P(e)\_SOP\_05

Date of Sample Receipt : Received on 06/07/2017 9:31 am

 Date of Analysis
 : 06/07/2017

 Date of Completion
 : 06/07/2017

Note: The submitted sample is Drawn by the Laboratory

leight

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida.

Priyanka Gupta

Report Reviewer

Phone:0091 120 4073000 Fax:0091 120 4073005 E-Mail:vinay.vikramsingh@tuv-sud.in Url: www.tuv-sud.in/Environment ControlNo:.060717.008 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072. India





# Test Report No. DEL/E(N)/17/002812 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Ambient Noise Level Leq day	dB(A)	49.6	75	Lab SOP No-05 (Section-1)
2	Ambient Noise Level Leq Night	dB(A)	41.1	70	Lab SOP No-05 (Section -1)

Note: Surrounding conditions are normal. Remark: Above tested sample complies as per CPCB norms.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



## Test Report No. DEL/E(W)/17/002760 Dated 13/07/2017

Issued To : DRAIPL-ABCI (JV)

-,

Improvement & Upgradation, Road SectionTubul to Bishnupur

Under Project 2at NESRIP

Imphal, Manipur India-795126

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail Confirmation Dated 12/07/2017

Sample Particulars

Sample Name : Surface water

Sample Description : Surface water sample was collected from Etok river at ABCI pit

Sample Package & : Plastic bottle 2 ltrs.

Quantity

Sampling Location : Etok river at ABCI pit

Date of Sampling : 21.06.2017

Sampled by : Mr. Danvir Singh (TUV Representative)

Client's Representative : Mr. Rajeev Kumar
Sampling Protocol : LAB\_P(e)\_SOP\_03

Date of Sample Receipt : Received on 04/07/2017 3:19 pm

 Date of Analysis
 : 05/07/2017

 Date of Completion
 : 12/07/2017

Note: The submitted sample is Drawn by the Laboratory

The same

Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test—report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory:

TÜV SÜD South Asia Pvt. Ltd.

Swatantra Kumar Verma Report Reviewer

G-11, First Floor, Sector - 11, Gautam Budh Nagar,

Noida,

Uttar Pradesh,201301 Noida-201301,Uttar Pradesh,India. Phone :0091 120 4073000
Fax :0091 120 4073005
E-Mail :vinay.vikramsingh@tuv-sud.in
Url : www.tuv-sud.in/Environment
ControlNo:.040717.030

Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072. India





# Test Report No. DEL/E(W)/17/002760 Dated 13/07/2017

S. NO.	PARAMETERS	UNIT	TEST RESULT	TEST METHOD
1	pH,	-	7.0	IS 3025 : Part 11
2	Dissolved Oxygen,	mg/l	5.0	IS:3025(Part -38)
3	Chemical Oxygen Demand (COD),	mg/l	<5.0	IS:3025(Part-58)
4	Lead [as Pb],	mg/l	<0.01	IS : 3025 (Part-2)
5	Oil & grease,	mg/l	<2.0	IS 3025 : Part 39
6	Total Dissolved Solids	mg/l	165	IS: 3025 Part : 16
7	Anionic detergent (as MBAS),	mg/l	<0.2	Annex K of IS:13428
8	Biochemical Oxygen Demand (BOD at 20°C)	mg/l	<2.0	IS:3025(Part-44)

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



## Test Report No. DEL/E(W)/17/002761 Dated 13/07/2017

**Issued To DRAIPL-ABCI (JV)** 

Improvement & Upgradation, Road SectionTubul to Bishnupur

Under Project 2at NESRIP

Imphal, Manipur India-795126

Mr. Bikel Singh, **Attention** 

Customer Ref. No. Mail Confirmation Dated 10/06/2017

Sample Particulars

Sample Name Surface Water

Surface water sample was collected from Kamdachiny Near WMM Plant River **Sample Description** 

Plastic bottle 2 ltrs. Sample Package &

Quantity

Sampling Location Kamdachiny Near WMM Plant River

21.06.2017 **Date of Sampling** 

Mr. Danvir Singh (TUV Representative) Sampled by

Client's Representative Mr. Rajeev Kumar **Sampling Protocol** LAB\_P(e)\_SOP\_03

**Date of Sample Receipt** Received on 04/07/2017 3:19 pm

**Date of Analysis** 05/07/2017 **Date of Completion** 12/07/2017

Note: The submitted sample is Drawn by the Laboratory

Authorised By

Vinay Vikram Singh Authorized Signatory

Report Reviewer Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar  $at \ IDMuthukumar. V @tuv-sud. in \ and \ for \ any \ complaint \ please \ contact \ Kohli, Shilpi \ at \ Shilpi.kohli @tuv-sud. in \ .$ 

ControlNo:.040717.031

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory:

TÜV SÜD South Asia Pvt. Ltd.

Swatantra Kumar Verma

G-11, First Floor, Sector - 11, Gautam Budh Nagar,

Uttar Pradesh.201301 Noida-201301, Uttar Pradesh, India

Phone:0091 120 4073000 Fax:0091 120 4073005 E-Mail:vinay.vikramsingh@tuv-sud.in Url: www.tuv-sud.in/Environment

Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072. India





# Test Report No. DEL/E(W)/17/002761 Dated 13/07/2017

S. NO.	PARAMETERS	UNIT	TEST RESULT	TEST METHOD
1	pH,	-	7.1	IS 3025 : Part 11
2	Dissolved Oxygen,	mg/l	5.0	IS:3025(Part -38)
3	Chemical Oxygen Demand (COD),	mg/l	8.0	IS:3025(Part-58)
4	Lead [as Pb],	mg/l	<0.01	IS : 3025 (Part-2)
5	Oil & grease,	mg/l	<2.0	IS 3025 : Part 39
6	Total Dissolved Solids	mg/l	168.0	IS: 3025 Part : 16
7	Anionic detergent (as MBAS),	mg/l	<0.2	Annex K of IS:13428
8	Biochemical Oxygen Demand (BOD at 20°C)	mg/l	3.0	IS:3025(Part-44)

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



### Test Report No. DEL/E(W)/17/002762 Dated 13/07/2017

Issued To : DRAIPL-ABCI (JV)

-,

Improvement & Upgradation, Road SectionTubul to Bishnupur

Under Project 2at NESRIP

Imphal, Manipur India-795126

Attention : Mr. Bikel Singh,

Customer Ref. No. : Mail Confirmation Dated 10/06/2017

Sample Particulars

Sample Name . Surface water

Sample Description : Surface water sample was collected from PHE Khoirom

Sample Package & : Plastic bottle 2 ltrs.

Quantity

Sampling Location : PHE Khoirom

Date of Sampling : 21.06.2017

Sampled by : Mr. Danvir Singh (TUV Representative)

Client's Representative : Mr. Rajeev Kumar
Sampling Protocol : LAB\_P(e)\_SOP\_03

Date of Sample Receipt : Received on 04/07/2017 3:19 pm

 Date of Analysis
 : 05/07/2017

 Date of Completion
 : 12/07/2017

Note: The submitted sample is Drawn by the Laboratory

The same

Authorised By

Vinay Vikram Singh Authorized Signatory

Report Reviewer Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in .

ControlNo:.040717.032

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test—report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory:

TÜV SÜD South Asia Pvt. Ltd.

Swatantra Kumar Verma

G-11, First Floor, Sector - 11, Gautam Budh Nagar,

Noida,

Uttar Pradesh,201301 Noida-201301,Uttar Pradesh,India Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikramsingh@tuv-sud.in Url : www.tuv-sud.in/Environment Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072. India





# Test Report No. DEL/E(W)/17/002762 Dated 13/07/2017

S. NO.	PARAMETERS	UNIT	TEST RESULT	TEST METHOD
1	рН,	-	7.2	IS 3025 : Part 11
2	Dissolved Oxygen,	mg/l	4.8	IS:3025(Part -38)
3	Chemical Oxygen Demand (COD),	mg/l	8.0	IS:3025(Part-58)
4	Lead [as Pb],	mg/l	<0.01	IS : 3025 (Part-2)
5	Oil & grease,	mg/l	<2.0	IS 3025 : Part 39
6	Total Dissolved Solids	mg/l	162.0	IS: 3025 Part : 16
7	Anionic detergent (as MBAS),	mg/l	<0.2	Annex K of IS:13428
8	Biochemical Oxygen Demand (BOD at 20°C)	mg/l	<2.0	IS:3025(Part-44)

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



#### Test Report No. DEL/E(A)/17/002770 Dated 20/07/2017

Issued To

DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

mprove.

ment & Upgradation of road section "Thoubal to KassomKullen" Id

No. MN06-CW2, Imphal, Manipur India-795001

Attention

: Mr. Bikel Singh,

Customer Ref. No.

Mail confirmation Dated 10/06/2017

Sample Particulars

.

Sample Name

Ambient Air

Sample Description

Ambient Air sample was collected from 19.06.2017 to 20.06.2017 at Komlaching,

94+960

Sampling Location

: Komlaching, 94+960

Date of Sampling Sampled by 19.06.2017 to 20.06.2017
 Mr. Danvir Singh (TUV Representative)

Client's Representative

: Mr. Sukanta Mandol

Sampling Protocol

LAB\_P(e)\_SOP\_01

Date of Sample Receipt

Received on 05/07/2017 10:52 am

Date of Analysis

05/07/2017

Date of Completion

15/07/2017

Note: The submitted sample is Drawn by the Laboratory

le instapa

Priyanka Gupta Report Reviewer Authorised By

Vinay Vikram Singh Authorized Signatory

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in.

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in full without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar, Nolda,

Utter Pradesh,201301 Nolds-201301,Utter Pradesh,India. Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay :vitrameingh@tuv-sud.in Uri : www.tuv-sud.in/Environment ControlNo::050717:005 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Murrbai-400072. India

TUV®

Page 1 of 2



# Test Report No. DEL/E(A)/17/002770 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Sulphur Dioxide [as SO2]	hã/m²	6.4	80	IS: 5182 (Part -2)
2	Particulate Matter [PM 2.5]	µg/m³	11.6	60	As per CPCB, NAAQS Mannual
3	Carbon monoxide (as CO)	mg/m³	0.316	2.0	IS:5182 (Part 10)
4	Lead [As Pb],	µg/m³	<0.01	1.0	IS: 5182 (Part -22)
5	Nitrogen Dioxide [as NO2]	µg/m³	15.9	80-	IS: 5182 (Part -6)
6	Particulate Matter-PM10	µg/m³	28.8	100	IS 5182(Part 23) : 2006

Remark: Above tested sample complies as per CPCB norms for the above tested parameters only.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



#### Test Report No. DEL/E(A)/17/002772 Dated 20/07/2017

Choose certainty. Add value.

Issued To

DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve.

ment & Upgradation of road section"Thoubal to KassomKullen"Id

No. MN06-CW2. Imphal, Manipur India-795001

Attention

Mr. Bikel Singh.

Customer Ref. No.

Mail confirmation Dated 10/06/2017

Sample Particulars

Sample Name

Ambient Air

Sample Description

Ambient Air sample was collected from 19.06.2017 to 20.06.2017 at Somrei

Sampling Location

Somrei 96+940

Date of Sampling

19.06.2017 to 20.06.2017 Mr. Danvir Singh (TUV Representative)

Sampled by Client's Representative

Mr. Sukanta Mandol

Sampling Protocol

LAB\_P(e)\_SOP\_01

**Date of Sample Receipt** 

Received on 05/07/2017 10:52 am

Date of Analysis

05/07/2017

Date of Completion

12/07/2017

Note: The submitted sample is Drawn by the Laboratory

Authorised By

Vinay Vikram Singh Authorized Signatory

Priyanka Gupta Report Reviewer

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in full without the written approval of the laboratory

TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida. Uttar Pradesh,201301 Noide-201301, Uttar Pradesh, India.

Phone :0091 129 4073000 Fax :0091 120 4073005 E-Mail: viney vikramsingh@tuv-sud.in Url: www.tuv-sud.in/Environment ControlNo: 050717,007

TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbai-400072.





# Test Report No. DEL/E(A)/17/002772 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Sulphur Dioxide [as SO2]	µg/m³	6.4	80	IS: 5182 (Part -2)
2	Particulate Matter [PM 2.5]	µg/m³	15.3	60	As per CPCB, NAAQS Mannual
3	Carbon monoxide (as CO)	mg/m³	0.417	2.0	IS:5182 (Part 10)
4	Lead [As Pb],	µg/m³	<0.01	1.0	IS: 5182 (Part -22)
5	Nitrogen Dioxide [as NO2]	µg/m³	18.4	80	IS: 5182 (Part -6)
6	Particulate Matter-PM10	µg/m³	38.2	100	IS 5182(Part 23) : 2006

Remark: Above tested sample complies as per CPCB norms for the above tested parameters only.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



Choose certainty.

## Test Report No. DEL/E(A)/17/002773 Dated 20/07/2017

Issued To

DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve.

ment & Upgradation of road section Thoubal to KassomKullen Id

No. MN06-CW2, Imphal, Manipur India-795001

Attention

: Mr. Bikel Singh,

Customer Ref. No.

Mail confirmation Dated 10/06/2017

Sample Particulars

- 1

Sample Name

: Ambient Air

Sample Description

Ambient Air sample was collected from 20.06.2017 to 21.06.2017 at

Saram, 101+300

Sampling Location

Saram, 101+300

Date of Sampling

: 20.06.2017 to 21.06.2017

Sampled by

: Mr. Danvir Singh (TUV Representative)

Client's Representative

: Mr. Sukanta Mandol

Sampling Protocol

LAB\_P(e)\_SOP\_01

Date of Sample Receipt

Received on 05/07/2017 10:52 am

Date of Analysis

05/07/2017

Date of Completion

12/07/2017

Note: The submitted sample is Drawn by the Laboratory

la your

Authorised By

Vinay Vikram Singh Authorized Signatory

Priyanka Gupta Report Reviewer

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any compleint please contact Kohli, Shilpi at Shilpi.kohli@tuv-sud.in.

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in ful without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar, Nolda.

Uttar Pradesh,201301 Noida-201301,Uttar Pradesh,India. Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay.vikrameingh@tuv-sud.in Url : www.tuv-sud.in/Environment ControlNo::050717.008 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Vihar Road, Saki naka, Andheri (East), Mumbal-400072. Iodia

TUV®



# Test Report No. DEL/E(A)/17/002773 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Sulphur Dioxide [as SO2]	µg/m³	5.6	80	IS: 5182 (Part -2)
2	Particulate Matter [PM 2.5]	µg/m²	13.8	60	As per CPCB, NAAQS Mannual
3	Carbon monoxide (as CO)	mg/m³ 0.278		2.0	IS:5182 (Part 10)
4	Lead [As Pb],	µg/m³	<0.01	1.0	IS: 5182 (Part -22)
5	Nitrogen Dioxide [as NO2]	µg/m³	16.6	80	IS: 5182 (Part -6)
6	Particulate Matter-PM10	µg/m³	34.6	100	IS 5182(Part 23) : 2006

Remark: Above tested sample complies as per CPCB norms for the above tested parameters only.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



### Test Report No. DEL/E(A)/17/002774 Dated 20/07/2017

Issued To

DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve.

ment & Upgradation of road section"Thoubal to KassomKullen"Id

No. MN06-CW2, Imphal, Manipur India-795001

Attention

Mr. Bikel Singh,

Customer Ref. No.

Mail confirmation Dated 10/06/2017

Sample Particulars

145

Sample Name

Ambient Air

Sample Description

Ambient Air sample was collected from 20.06.2017 to 21.06.2017 at Yesom,

106+710

Sampling Location

Yesom, 106+710

Date of Sampling

: 20.06.2017 to 21.06.2017

Sampled by

: Mr. Danvir Singh (TUV Representative)

Client's Representative

: Mr. Sukanta Mandol

Sampling Protocol

LAB\_P(e)\_SOP\_01

Date of Sample Receipt

Received on 05/07/2017 10:52 am

Date of Analysis

05/07/2017

Date of Completion

12/07/2017

Note: The submitted sample is Drawn by the Laboratory

le ingreso

Authorised By

Vinay Vikram Singh Authorized Signatory

Priyanka Gupta Report Reviewer

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf. (2) The results relate only to the items tested. (3) the test report shall not be recorduced except in ful with

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in full without the written approval of the laboratory

Laboratory: TÜV 500 South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida. Uttar Pradesh,201301 Noida-201301.Uttar Pradesh,India.

Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay :viorameingh@tuv-sud.in Uri : www.tuv-sud.in/Environment Controllot::050717.009 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saix Vihar Road, Saix naka, Andheri (East), Mumbai-400072. India



Page 1 of 2



# Test Report No. DEL/E(A)/17/002774 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Sulphur Dioxide [as SO2]	µg/m³	4.8	80	IS: 5182 (Part -2)
2	Particulate Matter [PM 2.5]	µg/m²	12.6	60	As per CPCB, NAAQS Mannual
3	Carbon monoxide (as CO)	mg/m³	0.246	2.0	IS:5182 (Part 10)
4	Lead [As Pb],	µg/m³	<0.01	1.0	IS: 5182 (Part -22)
5	Nitrogen Dioxide [as NO2]	µg/m³	17.4	80	IS: 5182 (Part -6)
6	Particulate Matter-PM10	hB/m <sub>3</sub>	31.6	100	IS 5182(Part 23) : 2006

Remark: Above tested sample complies as per CPCB norms for the above tested parameters only.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)



#### Test Report No. DEL/E(A)/17/002776 Dated 20/07/2017

Choose certainty.
Add value.

Issued To

DRAIPL-ABCI (JV) Infrastructure Pvt. Ltd

Improve.

ment & Upgradation of road section"Thoubal to KassomKullen"Id

No. MN06-CW2, Imphal, Manipur India-795001

Attention

: Mr. Bikel Singh,

Customer Ref. No.

Mail confirmation Dated 10/06/2017

Sample Particulars

1

Sample Name

Ambient Air

Sample Description

Ambient Air sample was collected from 21.06.2017 to 22.06.2017 at Yairipok,

88+560

Sampling Location

: Yairipok, 88+560

**Date of Sampling** 

: 21.06.2017 to 22.06.2017

Sampled by

: Mr. Danvir Singh (TUV Representative)

Client's Representative

: Mr. Sukanta Mandol

Sampling Protocol

LAB\_P(e)\_SOP\_01

Date of Sample Receipt

Received on 05/07/2017 10:52 am

Date of Analysis

05/07/2017

Date of Completion

12/07/2017

Note: The submitted sample is Drawn by the Laboratory

le instiga

Authorised By

Vinay Vikram Singh Authorized Signatory

Priyanka Gupta Report Reviewer

Note: The test report is electronically generated. Hence original signature is not required. For any technical query, please contact V, Muthukumar at IDMuthukumar.V@tuv-sud.in and for any complaint please contact Kohli, Shilpi at Shilpi kohli@tuv-sud.in .

Note: (1) General Terms & Conditions as mentioned overleaf, (2) The results relate only to the items tested, (3) the test report shall not be reproduced except in full without the written approval of the laboratory

Laboratory: TÜV SÜD South Asia Pvt. Ltd. G-11, First Floor, Sector - 11, Gautam Budh Nagar, Noida, Uttar Pradesh 201301 Noida-201301, Uttar Pradesh India.

Phone :0091 120 4073000 Fax :0091 120 4073005 E-Mail :vinay vikrameingh@tuv-sud.in Url : www.tuv-sud.in/Emvironment ControlNe::050717.011 Regd. Office: TUV SUD South Asia Pvt. Ltd. Off Saki Viher Roed, Saki naka, Andheri (East), Mumbal-400072. India





# Test Report No. DEL/E(A)/17/002776 Dated 20/07/2017

S.	PARAMETERS	UNIT	TEST RESULT	SPECIFICATION	TEST METHOD
1	Sulphur Dioxide [as SO2]	hB/m <sub>a</sub>	5.2	80	IS: 5182 (Part -2)
2	Particulate Matter [PM 2.5]	µg/m²	12.4	60	As per CPCB, NAAQS Mannual
3	Carbon monoxide (as CO)	mg/m³	0.274	2.0	IS:5182 (Part 10)
4	Lead [As Pb],	µg/m³	<0.01	1.0	IS: 5182 (Part -22)
5	Nitrogen Dioxide [as NO2]	µg/m³	14.8	80	IS: 5182 (Part -6)
6	Particulate Matter-PM10	µg/m³	28.4	100	IS 5182(Part 23) : 2006

Remark: Above tested sample complies as per CPCB norms for the above tested parameters only.

Authorised By

Vinay Vikram Singh (Asst Lab Manager)

# FORM VI [See rule 25(1)]

# GOVERNMENT OF MANIPUR OFFICE OF THE LICENSING OFFICER

Licence No.13 of 2014.

Dated 26 / 04 / 2014

Fee Rs. 12.50 /-

### LICENCE

- 1. Licence is, hereby, granted to M/S DRAIPL-ABCI (JV), 1/3 Mc Donald Tower, G.S. Road , Guwahati - 781007, under Section 12 (1) of the Contract Labour (Regulation and Abolition ) Act, 1970, subject to the condition specified in ANNEXURE.
- 2. The licence is for doing the work of " Improvement and Up gradation of road Section MNO6-CW 2 Thoubal to Kasom khullen" in the establishment of NESRIP, PWD, Manipur
- 3 The Licence shall remain in force till 25/04/2015

3. The Lacence shall re	mant in rosce un 25/04/201	
THE WALL OF		1 1 2 10000
and a second sec	Signature	7 30 300
26 9 MARIEUR	RENEWAL	Licensing Officer (CL) Govt. of Manipur.

(rule 29)

Me.	(tuic 25)	
Date of renewal	Fee paid for renewal	Date of expiry
29-1-2016	RS 16/-	28-1-2017 Jon 2011/2016
23-03-2017	Ro-1570/-	Govi. of Manipur.
Control of the second		icensine Officer (CL)

Licensing Office Government of Manipur.

Signature and Seal of the Licensing Officer

## FORM VIII GOVERNMENT OF MANIPUR OFFICE OF THE LICENSING OFFICER

# LICENCE

Licence No. 3 of 2014

Dated 26/04/2014

Fee paid Rs. 40.00

- Licence is hereby granted to M/S DRAIPL-ABCI(JV),1/3Mc Donald Tower, GS Road, Guwahati-781007, Imphal under Section 8(2) of the Inter State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979, subject to the conditions specified in the ANNEXURE.
- This licence is for doing the work of "Improvement and Up gradation of Road 2. Section MN06-CW 2 Thoubal to Kasom Khullen" in the establishment of the NESRIP, PWD, Government of Manipur.
- The licence shall remain in force till 25/04/2015. 3.

Licensing Officer (Law W) Department of Labour Government of Manious.

RENEWAL [See Rule 14]

R1 907-

Ro.80).

Date of expiry

28/01/2017

Licensing Officer (ISM Department of Labour vernment of Manipur,

Government of Manipur

Signature and Seal of the Licensing Officer

Vate of renewal
1. 29/01/28/
3. 23/03/2017
man and the man an

Date.....

# OFFICE OF THE DISTRICT TRANSPORT OFFICER IMPHAL MANIPUR

Certify that vehicle no. MZ-01H/	6224	(Boleno)
conforming to provision of rule 115 of (M		
Owner Name	*******************************	

# SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Acen 65 HSU	Full Loads 75 HSU	Remarks
Test - 1			
Test - 2	,		HSU
Test - 3	/		47
Test - 4			

we.f. 25	5/201	7	1	1	
This Certificate	will expire on	24	111	201	7

Inspector (Mechanical)
Motor Vehicle Department
Inspector/Mech



# OFFICE OF THE DISTRICT TRANSPORT OFFICER IMPHAL MANIPUR

Certify that vehicle no. MZ-01H/	6224	(Boleno)
conforming to provision of rule 115 of (M		
Owner Name	*******************************	

# SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Acen 65 HSU	Full Loads 75 HSU	Remarks
Test - 1			
Test - 2	,		HSU
Test - 3	/		47
Test - 4			

we.f. 25	5/201	7	1	1	
This Certificate	will expire on	24	111	201	7

Inspector (Mechanical)
Motor Vehicle Department
Inspector/Mech



# GOVERNMENT OF MANIPUR OFFICE OF THE DISTRICT TRANSPORT OFFICER IMPHAL MANIPUR

Certify that vehicle no. conforming to provision	MNOS PC	- 315-4 (MV rule 199	(0/P) is
COMOTHING to brovision			
Owner Name			

# SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Test - 1	To provide	etion.	
Test - 2		1	HSU
Test - 3			. 70.
Test - 4			
	K	- Avg	

w.e.f. 27 f6/17: This Certificate will expire on 26/12/17:

Inspector (Mechanical)
Motor Vehicle Department
Inspection West

# OFFICE OF THE DISTRICT FRANSPORT OFFICER IMPHAL MANIPUR

Certify that vehicle no	mNO1-9695- (T/Tip)
	of rule 115 of (MV rule 1998).
Owner Name	

# SMOKE EMMISSION TEST REPORT

	Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
No. of the last	Test - 1	1	1	
1	Test - 2			HSU
3	Test - 3			TH
Ì	Test - 4			
		K	- Avg	

wef 29-07-20	117
This Certificate will expire on	23-01-2018

Inspector (Mechanical) Motor Vehicle Department

> Manipur Inspector/Mech Imphal West

# OFFICE OF THE DISTRICT TRANSPORT OFFICER IMPHAL MANIPUR

Certify that vehicle no. MNO1/9693(T/TPPW)
conforming to provision of rule 115 of (MV rule 1998).

Owner Name

#### SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Yest - 1			
Test - 2		/	HSU
Test - 3			75/
Test - 4			/
	К	Avg	

wel 20/7/2017

This Certificate will expire on 19/1/2018.

Inspector (Mecinant Al)\*
Motor Vehicle Department
Inspector Mechanic
Impiral West

# GOVERNMENT OF MANIPUR OFFICE OF THE DISTRICT TRANSPORT OFFICER IMPRAL MANIPUR

Certify that vehicle no. MNO1/9690/7 is conforming to provision of rule 115 of (MV rule 1998).

Owner Name:

#### SMORE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Test - 1			
Test - 2	1	1	HSU
Test - 3			76,
Test - 4			
	K	- Avg	

wei 18/4/14

This Certificate will expire on !.T.

Inspector (Mechanical)
Motor Vehicle Department
Manipur
Inspector Mech
Imphal West

# GOVERNMENT OF MANIPUR OFFICE OF THE DISTRICT TRANSPORT OFFICER IMPHAL MANIPUR

Certify that vehicle no. conforming to provision	MNOS PC	- 315-4 (MV rule 199	(0/P) is
COMOTHING to brovision			
Owner Name			

# SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Test - 1	To provide	etion.	
Test - 2		1	HSU
Test - 3			. 70.
Test - 4			
	K	- Avg	

w.e.f. 27 f6/17: This Certificate will expire on 26/12/17:

Inspector (Mechanical)
Motor Vehicle Department
Inspection West

# GOVERNMENT OF MANIPUR OFFICE OF THE DISTRICT TRANSPORT OFFICER IMPHAL MANIPUR

Certify that vehicle no. MNOIAA-10034 (Tippus) is
Certify that vehicle no
conforming to provision of full 113 of the
Owner Name

# SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Test - 1	1	1	/
Test + 2	/	/	HSU
Test - 3			.74
Test - 4			
	K	- Avg	

w.e.f. 07/03/2017
This Certificate will expire on 06/09/2017

Inspector (Mechanical Motor Vehicle Department Inspector/Mech Imphal West

# OFFICE OF THE DISTRICT FRANSPORT OFFICER IMPHAL MANIPUR

Certify that vehicle no	mNO1-9695- (T/Tip)
	of rule 115 of (MV rule 1998).
Owner Name	

# SMOKE EMMISSION TEST REPORT

-	Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
	Test - 1		1	
	Test - 2			HSU
9	Test - 3			TH
	Test - 4			
	K - Avg			

w.e.f. 29-07-2017

This Certificate will expire on 23-01-2018

Inspector (Mechanical) Motor Vehicle Department

> Manipur Inspector/Mech Imphal West

# OFFICE OF THE DISTRICT TRANSPORT OFFICER IMPHAL MANIPUR

Certify that vehicle no. MNO1/9693(T/TPPW)
conforming to provision of rule 115 of (MV rule 1998).
Owner Name:

#### SMOKE EMMISSION TEST REPORT

Diesel Driven Vehicle	Free Accn 65 HSU	Full Loads 75 HSU	Remarks
Yest - 1			
Test - 2		/	HSU
Test - 3			75/
Test - 4			/
	К	Avg	

wel 20/7/2017

This Certificate will expire on 19/1/2018.

Inspector (Mecinant Al)\*
Motor Vehicle Department
Inspector Mechanic
Impiral West

# NO OBJECTION CERTIFICATE

Dated 15th June 2017

This is to certified that there is no objection to proposed for dumping at chainage 107, Yeasom Village P.O., P.S. - Yairipok, Dist. Ukhrul, Manipur by M/S ABCI Infrastructures Pvt. Ltd. in connection with Improvement and Upgradation of Road Section "Thoubal to Kasom Khullen"

Yeasom Village Ukhrul District.

Winson Slinglai

Village Authority/ Headman Yeasom Village P.O & P.S Yairipok, Dist.Ukhrul, Manipur

# NO OBJECTION CERTIFICATE

Dated 8th June 2017

This is to certified that there is no objection to proposed for dumping at chainage 111, Molen Village P.O, P.S - Yairipok, Dist. Senapati, Manipur by M/S ABCI Infrastructures Pvt. Ltd. in connection with Improvement and Upgradation of Road Section "Thoubal to Kasom Khullen"

Chiaf
N. Mollen Villago
Senapati Dist. Manipur.
Village Authority/ Headman
Molen Village
P.O & P.S Yairipok, Dist Senapati, Manipur

#### NO OBJECTION CERTIFICATE

Dated 17th June 2017

This is to certified that there is no objection for taking water from our Chandrakhong Itok River stream, Chandrakhong Village P.O, P.S - Yairipok, Dist. Thoubal, Manipur by M/S ABCI Infrastructures Pvt. Ltd. in connection with Improvement and Upgradation of Road Section "Thoubal to Kasom Khullen"

Chandrakhong Village
Development Organisation
Y. Guni Singh

Authority Chandrakhong Village P.O & P.S Yairipok, Dist.Thoubal, Manipur