

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

ORIGINAL APPLICATION NO. 620/2024

IN THE MATTER OF:

Bashir Ahmed Bhat & Ors.

.... Applicants

Versus

National Highways Authority of India & Ors.

.... Respondents

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NDOH- 05.01.2026

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RESPONDENT NO.1

THROUGH

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Place: New Delhi

Date: 22.12.2025

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 620/2024

IN THE MATTER OF:

Bashir Ahmed Bhat & Ors.

.... Applicants

Versus

National Highways Authority of India & Ors.

.... Respondents

**OBJECTIONS ON BEHALF OF RESPONDENT NO.1/NHAI TO THE
REPORT OF CHIEF HORTICULTURE OFFICER, BUDGAM, JAMMU &
KASHMIR DATED 22.10.2025**

MOST RESPECTFULLY SHOWETH:

1. That the present objection is being filed by the Answering Respondent No.1/NHAI in response to the report of the Chief Horticulture Officer Budgam, J&K dated 22.10.2025 filed along with the rejoinder dated 29.10.2025.
2. The Answering Respondent has filed a detailed reply to OA No.620/2024 and relies upon the submissions, documents and annexures filed along with the aforesaid reply. The submissions stated therein shall be read as part and parcel of the present reply and the same are not repeated herein to avoid prolixity.
3. The Applicant by way of the present Rejoinder has alleged as under –
 - a. Due to the constant water retention in the apple orchards, the fruit production was less than 50% and it also caused lots of diseases in the trees like fungal infection/scab etc.



- b. The area has witnessed massive Dust Pollution from June, 2024 onwards due to which the air quality in the area is very bad.
- c. The office of Chief Horticulture Officer, Budgam, J&K vide report dated 22.10.2025 has stated that due to extensive earth filling for the elevated construction of ring road, the natural drainage system of orchards have become clogged.
- d. The Environmental Damage has occurred due to construction of the Srinagar Ring Road passing through Village Wathoora, Tehsil, Chadoora in District Budgam in the Territory of Jammu.
- e. The Environment Impact Assessment (EIA) and Environmental Management Plan (EMP) got done by NHAI through its consultant Louis Berger Consulting Pvt. Ltd. in 2015 is deficient.
4. It is submitted that the averments/allegations made by the Applicant in the present IA are completely baseless, without any substantiation. The submissions of the Answering Respondent to each of the allegations are as under-
- 4.1. **Due to the constant water retention in the apple orchards the fruit production was less than 50% and it also caused lots of diseases in the trees like fungal infection/scab etc.**
- 4.1.1. It is submitted that the said averment is completely baseless and without any substantiation. The Applicant has not filed any document regarding the production of fruits and how the production has been less than 50%. Moreover, there is absolutely no document filed to prove that the trees have fungal infection/scab.
- 4.1.2. Thus, the said averment in para 5 of the Rejoinder is completely bald and the same is liable to be rejected.



- 4.2. *The area has witnessed massive Dust Pollution from June, 2024 onwards due to which the air quality in the area is very bad.*
- 4.2.1. It is submitted that the said averment is completely baseless and an afterthought. The Applicant has miserably failed to substantiate that the air quality near the orchard of the Applicant has been affected only due to the construction of the present project, nor has substantiated how the orchard has been damaged, how many fruits have been damaged. There is absolutely no proof that the same occurred due to the said alleged dust pollution.
- 4.2.2. It is reiterated that the Answering Respondent through its Contractor is taking all the measures to stabilize any dust pollution emitting from the construction of the project. The Answering Respondent through its Contractor carries out water sprinkling on the entire project corridor on the alternate days. Reliance is placed upon the photographs placed on record by the Answering Respondent filed along with the Reply dated 05.09.2024. **(Pg.177-182)**
- 4.2.3. The Contractor i.e. Respondent No.2 has conducted different tests including Air Ambient Quality test on the project corridor in order to carry out periodic checks, environmental monitoring and if any parament is found above the acceptable standards, mitigation measures is to be adopted in consultation with the Independent Engineer. Accordingly, the Respondent No.2 has submitted Environment Monitoring Reports dated 27.06.2024 and 23.05.2025. A perusal of the said reports makes it clear that the air sample collected from site is below the conforming limits for industrial, residential, rural and other areas except for the ecological sensitive areas. Thus, the averments made by the Applicant is completely baseless and is liable to be rejected. True copies of the letters dated 27.06.2024 and 23.05.2025 along with the Environment Monitoring



Reports for the month of May 2025, November 2025 are annexed and marked as **Annexure R-1/10**(Colly).

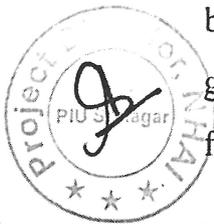
4.2.4. It is pertinent to note that the orchard of the Applicant is in a close proximity i.e. approx. 20-30 meters with the existing link road. The said link road is owned and governed by the State Government. It is submitted that there is heavy traffic on the said link road and no water sprinkling is being done by the State Government in order to stabilize the dust pollution generating from the link road. True copies of the photographs of the existing link road are annexed herewith and marked as **Annexure R-1/11**.

4.3. *The office of Chief Horticulture Officer, Budgam, J&K vide report dated 22.10.2025 has stated that due to extensive earth filling for the elevated construction of ring road, the natural drainage system of orchards have become clogged.*

4.3.1. The Applicant has placed its reliance upon the report dated 22.10.2025 submitted by the Chief Horticulture Officer, Budgam, J&K. The Horticulture Department in its report has stated as under:

“The plum and apple orchards are situated in close proximity to the under construction ring road. Due to the extensive earth filling for the elevated construction of ring road, the natural drainage system of the orchards has become clogged, and the soil pores beneath the surface which plays a vital role in percolation and drainage of the water have also been clogged as a result of compaction caused by heavy machinery used for levelling operations.”

4.3.2. It is submitted that the said report has been prepared at the behest of the Applicant, and in the absence of the Respondents. It is pertinent to note that none of the Respondents were informed regarding any inspection being done by the Horticulture Department. Moreover, the Applicant's grievance pertains to the flooding of water in its Orchard in the year 2024 for which there is absolutely no proof or any evidence.



4.3.3. Moreover, the Horticulture Department in its report has observed regarding “extensive earth filling”, inspite of the fact that the said department has no expertise in the construction of road. Thus, the said observations cannot be made without any designated Engineer who has expertise in the same field. It appears that the said report has been prepared in cahoots with the Applicant and the department. Therefore, the same cannot be relied upon.

4.4. *The Environmental Damage has occurred due to construction of the Srinagar Ring Road passing through Village Wathoora, Tehsil, Chadoora in District Budgam in the Territory of Jammu.*

4.4.1. The Applicant in the OA as well in the present rejoinder has alleged that due to the construction of the Srinagar Ring Road, the environmental damage has occurred.

4.4.2. It is submitted that Applicant has only made bald assertions without there being any document on record. There is absolutely no proof that any environmental damage has occurred due to the construction of the Ring Road. The Applicant has now placed reliance upon the report dated 22.10.2025 by the Horticulture Department which has been prepared after one year from the filing of the present OA. Thus, the averment made by the Applicant is liable to be rejected.

4.5. *The Environment Impact Assessment (EIA) and Environmental Management Plan (EMP) got done by NHAI through it's consultant Louis Berger Consulting Pvt. Ltd. in 2015 is deficient.*

4.5.1. The Applicant in the OA as well in the present rejoinder has alleged that the EIA and the EMP is deficient in taking care of the actual impact on the Environment and Management Measures.

4.5.2. It is submitted that the said averment is wholly bald and devoid of any substantiation. There is no violation by the Answering Respondent to get the EIA done. The study of the EIA and EMP was duly carried out and final



report was submitted in July 2016 as per the Terms of Reference granted by the MoEF&CC. Thus, the averments made by the Applicant are liable to be dismissed.

PARA-WISE REPLY:

- 1-4. Contents of para 1 which are matter of record need no reply.
- 5-6. Contents of paras 5-6 which are matter of record need no reply. The remaining averments are denied as false and untenable. It is denied that due to constant water retention in the apple orchards, the fruit production was less than 50% and it also caused lots of diseases in the trees like fungal infection/scab. It is submitted that the Applicant has made wholly bald statements without there being any substantiation.
7. Contents of para 7 which are matter of record need no reply. The remaining averments are denied as false and untenable.
8. Contents of para 8 which are matter of record need no reply.
9. Contents of para 9 are denied being wrong, incorrect, misleading and without any substantiation. It is denied that the outflow of the drains has been directed towards the adjoining plum and apple orchards, which has aggravated the problem of water logging in these orchards. In response to the para under reply, the Answering Respondent seeks to place reliance upon the Reply filed by the Respondent No.2 and the same is not repeated herein for the sake of brevity.
- 10-12. Contents of paras 10-12 which are matter of record need no reply. The remaining averments are denied as false and untenable. It is denied that due to the construction of the Srinagar Ring Road, the environmental damage has occurred. It is denied that due to constant water retention in the apple orchards, the fruit production was less than 50% and it also caused lots of



diseases in the trees like fungal infection/scab etc. The Applicant has made only baseless averment and there is absolutely no substantiation by the Applicant to the averments made in the paras under reply.

13-18. Contents of paras 13-18 which are matter of record need no reply. The remaining averments are denied as false and untenable. In response to the paras under reply, the Answering Respondent craves leave of the Hon'ble Tribunal to refer and rely upon the submissions made hereinabove which are not repeated for the sake of brevity.

19-22. Contents of paras 19-22 are wrong, untenable, frivolous and hence denied *in toto*.

It is submitted that the present OA is devoid of any substantiation and hence, the Applicants are not entitled to any relief of compensation as well as other reliefs as sought in the present application. The present OA deserves dismissal for being fallacious and untenable.

THROUGH

Dated: 22.12.2025
Place: New Delhi


RESPONDENT NO.1

Madhu Arora
Singhania & Partners LLP
Solicitors & Advocates
P-24, Green Park Extension
New Delhi-110016

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AFFIDAVIT

I, Akashdeep Singh, Son of Sh. Paramjit Singh, aged 37 years, working as Project Director at National Highways Authority of India, having office at Lasjan, Near Lasjan Flyover (LHS) on NH-44, Srinagar, do hereby on solemn affirmation state and submit as under:

1. I say that I am the authorized representative of the Respondent No.1 abovenamed and as such am conversant with the facts and circumstances of the present reply. I have been duly authorized by the Respondent No.1 to initiate and pursue the present proceedings for and on behalf of the Respondent No.1 and hence, I am competent to swear the present affidavit on the basis of the records being maintained by the Respondent No.1 in the ordinary course of its business.
2. I say that the accompanying additional reply to the rejoinder has been drafted by my counsel on my instructions and I have read and understood the contents of the same. The contents of the additional reply are true and correct, which are reiterated herein and are not being repeated for the sake of brevity.
3. I say that the annexures filed along with the present reply are true copies of their respective originals.



VERIFICATION:

Verified at Pampore on this 19th day of December, 2025 that the contents of the above affidavit are true and correct to the best of my knowledge. No part of it is wrong and nothing material has concealed there from.



Certified that the above contents are declared on oath before me by the deponent today on 19/12/25 who is identified by Mansoor Ali
S/o. Ab. Saad Saad
Chandw. Tehsil Pampore.



Signature
ABDUL AHMAD BHAT
As Notary
Pub. Notary Pampore

Signature

Environment Monitoring Report

for

Construction of four lane Ring Road/Bypass around Srinagar city from Km 0+000 to Km 42+100 (Phase-I) on Engineering, Procurement and Construction (EPC) mode under NHDP Phase VII in the Union Territory of Jammu and Kashmir under Bharatmala Pariyojana.

Package No.	: Km 0+000 to Km 42+100 (Phase – I)
Client	: National Highway Authority of India
Concessionaire	: UT of Jammu and Kashmir (NHDP Phase VII)
Consultant	: M/s RODIC Consultants Pvt Ltd JV with MSV International Inc.
EPC Contractor	: NKC Projects Pvt. Ltd.
Chainage No.	: 14+860
Camp No.	: 1

Report Submitted By



Star Wire (India)
Laboratories Pvt. Ltd.

INTRODUCTION

For the effective implementation, a time bound monitoring plan for environmental management including all aspects is prepared by the Lab Star wire (India) Laboratories Pvt. Ltd. Samples for study of Air quality, Stack Emission, Water quality, Soil and Noise level are collected from strategic places representing all the categories of location. The laboratory is guided and advised by NKC Projects Pvt. Ltd, Gurugram, for data obtained from the sites.

Overview of the Road Project:

Construction of four lane Ring Road/Bypass around Srinagar city from Km 0+000 to Km 42+100 (Phase-I) on Engineering, Procurement and Construction (EPC) mode under NHDP Phase VII in the Union Territory of Jammu and Kashmir under Bharatmala Pariyojana.

Purpose of the Environmental Monitoring:

In order to carry out periodic checks, environmental monitoring is carried out by the Laboratory as per schedule and if any parameter is found above the acceptable standards, mitigation measures / control measures shall be adopted in consultation with the Independent Engineer.

Activities Involved In The Project:

a) Pre-Construction Stage:

Pre-construction stage involves mobilization of the project requirement, planning of logistics and site preparation necessary for commencing construction activities. The activities include:

- Joint field verification of EMP with the Environment Specialist IE and of the NKC officials.
- Identification and selection of material sources (quarry and borrow material, water, sand etc.).
- Procurement of construction equipment / machinery such as hot mix plants, batching plants and other construction equipment and machinery.
- Selection, design and layout of construction areas, hot mix and batching plants, labour camps etc.
- Apply for and obtain all the necessary clearances from the agencies concerned.
- Planning traffic diversions and detours including arrangements for temporary land if required.
- Monitoring environmental conditions (Baseline data) through approved monitoring agency

b) Construction Stage:

Construction stage is the most crucial stage in terms of activities that require careful management to avoid environmental impacts. Environmental impact mitigation measures as per CA will be taken to control the impact on environment. There are several other environmental issues that have been addressed as part of good engineering practices. They include providing roadside drainage provision of cross drainage structures and Toe wall etc.

c) Operational Stage:

Regular monitoring of environmental conditions (Air, Water, Noise etc.) will be carried out through an approved pollution monitoring agency. During operation stage IE and KRDCCL will be responsible for Monitoring of operational performance of the various mitigation/enhancement measures carried out by the Concessionaire.

d) Mitigation Measures to counter Pollutants:

Mitigation measures as per the contract specifications are taken.
The feasible remedial measures include avoidance, mitigation and enhancements.

Parameters to be Monitored (Regulatory Framework)

Ambient air quality, Stack emissions (DG & Hot Mix Plant), water quality (Batch Mix plant discharge, ground water and drinking water samples), noise level and soil quality are monitored for standard parameters as per National Ambient Air Quality standards (NAAQS-2009), MoEF & CC guidelines, CPCB/SPCB rules and Indian Standards. The drinking water samples are compared with IS: 10500 standard and Batching plant water samples are compared with MoEF & CC Schedule-VI standard.

Monitoring Locations and Frequency

The following number of stations have been fixed for monitoring of the environment for the present project.

<u>Sl. No.</u>	<u>Description</u>	<u>Camp-1</u>
1.	Ambient Air	1
2.	DG Stack Emission	1
3.	Water (Waste & Ground)	2
4.	Ambient Noise	1
5.	DG Noise	1
6.	Soil	1

Monitoring frequency for Ambient air quality: Air quality monitoring at stipulated locations including construction activities operation areas is done at a frequency of 2 times a year @ 24 hrs./ sampling.

Monitoring frequency for DG Stack emission and Noise: DG stack monitoring at stipulated locations including short term Noise monitoring 2 times a year in the months of March and September in each year.

Monitoring frequency for water quality: Batching Plant discharge water sample from the operational plan, potable water samples from residential areas are monitored at a frequency of half yearly for all the parameters as per MoEF & CC guidelines / Indian Standard. The drinking water samples are compared with IS: 10500 standard and Batching plant water samples are compared with MoEF & CC Schedule-VI standard.

Monitoring frequency for ground water quality: Ground water level and ground water quality monitoring is undertaken 2 times a year in the months of March and September each year on a long-term basis. The ground water samples are compared with IS: 10500 standards.

Monitoring frequency for noise level: The noise level observations are made as per Environment Protection Act GSR 1063(E) Schedule III at all the ambient air quality stations. The noise level will be monitored once every half year during daytime (6 AM to 10 PM) and nighttime (10 PM to 6 AM).

INSTRUMENTS AND METHODOLOGIES**Ambient Air Quality:**

The Fine Particulate Matter (PM_{2.5}), Respirable Particulate Matter (PM₁₀), Sulphur dioxide (SO₂), Oxides of Nitrogen (NO₂) and Carbon monoxide (CO) concentration in down wind direction considering predominant wind direction, at a distance of approx. 50 meters from the dust generating sources is measured in the manner indicated below:

<u>Sl.No.</u>	<u>Parameter</u>	<u>Technique</u>	<u>Technical Protocol</u>
1	Fine Particulate Matter PM _{2.5}	Fine Particulate Sampler (Gravimetric Method)	IS:5182 (Part-XXIV)
2	Respirable Particulate Matter PM ₁₀	Respirable Dust Sampler (Gravimetric Method)	IS:5182 (Part-XXIII)
3	Sulphur Dioxide	Modified West & Gaeke	IS:5182 (Part-II)
4	Oxides of Nitrogen	Jacob & Hochheiser	IS:5182 (Part-VI)
5	Carbon Monoxide	Iodine Pentoxide	IS:5182 (Part-X)

Stack Emission Air Quality:

The Particulate Matter (PM), Oxides of Nitrogen (NO_x) and Carbon monoxide (CO) concentration in stack emissions, the following pollution generating sources is measured in the manner indicated below:

<u>Sl.No.</u>	<u>Parameter</u>	<u>Technique</u>	<u>Technical Protocol</u>
1	Particulate Matter PM	Fine Particulate Sampler (Gravimetric Method)	IS:11255 (Part-I)
2	Oxides of Nitrogen	Jacob & Hochheiser	IS:11255 (Part-VII)
3	Carbon Monoxide	Orsat Analysis	IS:13270

Water Quality:

Representative water samples are collected in a plastic container and transported to the laboratory for physico-chemical analysis. For determination of BOD and bacteriological analysis, 250 ml pre-sterilized bottles are used, and care is taken to maintain cool temperature by keeping the bottles in ice boxes during transportation to the laboratory for analysis. Physico-chemical and bacteriological parameters for drinking water samples are compared with IS: 10500 standard and Batching plant discharge water samples are compared with MoEF & CC Schedule-VI standard.

Noise Level:

Guidelines prescribed by the CPCB are complied with the noise level meter capable of measuring equivalent sound pressure level is used for noise level measurement.

In addition to the general laboratory and analytical facilities, the following sampling and analytical equipment are used.

<u>Sl.No</u>	<u>Name of the Equipment</u>	<u>Make/Model</u>
1	Fine particulate air samplers	Envirotech, New Delhi
2	Respirable Dust Samplers	Envirotech, New Delhi
3	Multi gas air samplers.	Envirotech, New Delhi
4	Stack Monitoring Kit VSS-1	Vayubodhan Upkaran, New Delhi
5	Sound Level Meters	Envirotech / Baseline, New Delhi
6	Thermometers	Zeal
7	Spectrophotometer.	Lesani
8	Analytical balances	Shimadzu (Acc. 0.00001mg)
9	pH meter	Toshniwal
10	Conductivity Meter	Toshniwal
11	Heating Ovens and Incubators	Universal / Narang Scientific

Calibration And Quality Assurance:

All the equipments used in sampling and subsequent testing in the laboratory are well maintained and calibrated with National / International traceability.

Team for Managing the Environmental Monitoring

Environmental pollutant sampling team at the site and laboratory level take all necessary care to collect and monitor the environmental samples and for overall environmental management.

It will look after the following aspects of environmental management-

- Generation of environmental sampling data.
- Monitoring of project activities Noise.
- Co-ordination for timely implementation of project environment monitoring plan.

Site Level:

Environmental Monitoring headed by DGM lab, provide necessary support required for environmental monitoring of project. Measures including environmental quality monitoring in consultation with the site Staff Officer (Environment sampling and testing) gets the necessary staffs and other facilities for effective implementation of sampling procedures from the office of the Area.

Laboratory Level:

The environmental monitoring program is implemented having suitable manpower and well-equipped laboratory and other infrastructure in a competent manner.

TEST REPORTS CAMP-1

(CHAINAGE – KM 0+000 TO KM 42+100)

for

- Ambient Air
- Ambient Noise
- DG Stack Emission
- DG Noise
- Water &
- Soil

Camp – 1

Photographs – Ambient Air, Ambient Noise, DG Set, Water and Soil Sample



Ambient Air Sample Collection
(Batching Plant)



Ambient Noise Monitoring



DG Noise Monitoring



Borewell Water Sample Collection



Waste Water Sample Collection



Soil Sample Collection

TEST REPORT

Issue To:

NKC Projects Private Limited
 Srinagar Ring Road Project Near Panzan Bridge Village-
 Gudsathu,
 Budgam,
 Jammu & Kashmir
 India

Test Report No.	: 121721
Issue Date	: 08-04-2025
Reference No.	: SAMPLE REQUEST LETTER
Reference Date.	: 31-03-2025
Job Order No.	: 0000521770-1
Job Order Date	: 31-03-2025
Date of Sample Received	: 31-03-2025
Sample drawn by	: Star Wire
ULR No.	: TC152602500003846F

Sample Particulars : Sample of Ambient Air, Loc: Base Camp (Ch: 14+860) Concrete Batching Plant Construction of Four Lane ring road/by pass around Srinagar city from 0+000 to km 42+100 (Phase-I) under NHDP Phase VII in the Union Territory of Jammu & Kashmir under Bharatmala Pariyojana on EPC Mode.

CHEMICAL TESTING	:	ATMOSPHERIC POLLUTION & ENVIRONMENT
DATE OF TESTING	:	01.04.2025 to 07.04.2025

Sampling Details

1.	DATE OF SAMPLING	:	25.03.2025 to 26.03.2025
2.	LOCATION OF THE SAMPLING POINT	:	Base Camp (CH:14+860) Concrete Batching Plant
3.	SAMPLING STARTED AT	:	9:15 AM on 25.03.2025
4.	SAMPLING COMPLETED AT	:	9:15 AM on 26.03.2025
5.	ACTUAL TIME OF SAMPLING	Min.	1440
6.	AVERAGE AMBIENT TEMP.	°C	18

RESULTS

Sl.No.	Test Parameter (Pollutants)	Units	Test Method	Results	Conforming Limits for Industrial, Residential, Rural and other areas except Ecological sensitive area (NAAQS: 2009) Max. (24 hrs.)
(a)	Particulate Matter as PM 2.5	µg/m ³	IS:5182 (Pt. 24):2019	45.0	60
(b)	Particulate Matter as PM 10	µg/m ³	IS 5182 (Pt 23):2006 (RA 2022)	86.0	100
(c)	Sulphur Dioxide as SO ₂	µg/m ³	IS 5182 (Pt 2):2001 (RA 2022)	6.9	80
(d)	Nitrogen Dioxide as NO ₂	µg/m ³	IS 5182 (Pt 6):2006 (RA 2022)	24.0	80
(e)	Carbon Monoxide as CO	µg/m ³	IS 5182 (Pt 10):1999 (RA 2019)	1140(<1ppm)	4000 (1 hr.)

END OF REPORT


Terms & Conditions :

- 1) Remnant / additional samples, if any, after testing will be retained for one month (15 days in case of water and air samples)
- 2) The results listed (reported) refer only to the tested sample and applicable parameters, Endorsement of product is neither inferred nor implied.
- 3) Total liability of our works is limited to the invoiced amount only.
- 4) This report cannot be used as evidence in a court of law without the written approval of the lab.
- 5) Report shall not be reproduced except in full, without the written approval of the laboratory.
- 6) Any sort of play by the customer with the data of this report shall be illegal.

Report Status Enquiry : Landline : +91-129 4094247, 4094280, Mob. : 83769 08258, Email : acro@starwire.in
 Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in

TEST REPORT

Issue To:

NKC Projects Private Limited
 Srinagar Ring Road Project Near Panzan Bridge Village-
 Gudsathu,
 Budgam,
 Jammu & Kashmir
 India

Test Report No.	: 121724
Issue Date	: 08-04-2025
Reference No.	: SAMPLE REQUEST LETTER
Reference Date.	: 31-03-2025
Job Order No.	: 0000521770-205
Job Order Date	: 31-03-2025
Date of Sample Received	: 31-03-2025
Sample drawn by	: Star Wire
ULR No.	: TC152602500003849F

Sample Particulars : Sample of Ambient Noise Monitoring, Loc: Base Camp (Ch: 14+860) Concrete Batching Plant Construction of Four Lane ring road/by pass around Srinagar city from 0+000 to km 42+100 (Phase-I) under NHDP Phase VII in the Union Territory of Jammu & Kashmir under Bharatmala Pariyojana on EPC Mode.

CHEMICAL TESTING	:	ATMOSPHERIC POLLUTION & ENVIRONMENT
TEST METHOD	:	IS 9989:1981 (RA 2020)

AMBIENT NOISE REPORT

DATE OF TESTING	:	25.03.2025 to 26.03.2025
SOURCE OF NOISE	:	Construction Activities & Vehicle Movement
BACKGROUND AMBIENT NOISE , (In the case where the source noise is higher than the Ambient Noise)	:	N.A
TYPE OF NOISE MONITORING	:	24 HOURLY
PURPOSE OF MONITORING	:	To comply EPA 1986

RESULTS

Sl. No.	Location	Unit	L _{eq}		L _{Min}		L _{Max}	
			Day	Night	Day	Night	Day	Night
1.	Base Camp (CH:14+860) Concrete Batching Plant	dB (A)	67.7	60.1	59.6	55.4	80.0	72.7

Ambient Standards in Respect of Noise

AREA CODE	CATEGORY OF AREA	Limits in dB(A) L _{eq}	
		Day Time (06.00 am – 10.00 pm)	Night Time (10.00 pm – 06.00 am)
A	Industrial Area	75	70
B	Commercial	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

As per factory act (chapter 104, section 102(1), maximum permissible exposure of sound level should be 85 dB (A) over an 8 hrs. workday.

END OF REPORT


 Harish Garg
 Deputy Manager
 Authorised Signatory

Terms & Conditions :

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- 2) The results listed (reported) refer only to the tested sample and applicable parameters, Endorsement of product is neither inferred nor implied.
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- 5) Report shall not be reproduced except in full, without the written approval of the laboratory.
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Report Status Enquiry : Landline : +91-129 4094247, 4094280, Mob. : 83769 08258, Email : acro@starwire.in
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TEST REPORT

Issue To:

NKC Projects Private Limited
 Srinagar Ring Road Project Near Panzan Bridge Village-
 Gudsathu,
 Budgam,
 Jammu & Kashmir
 India

Test Report No.	: 121728
Issue Date	: 08-04-2025
Reference No.	: SAMPLE REQUEST LETTER
Reference Date.	: 31-03-2025
Job Order No.	: 0000521770-249
Job Order Date	: 31-03-2025
Date of Sample Received	: 31-03-2025
Sample drawn by	: Star Wire
ULR No.	: TC152602500003853F

Sample Particulars : Sample of Stack Emission of DG Set 250 KVA, Loc: Base Camp (Ch: 14+860) Near Concrete Batching Plant Construction of Four Lane ring road/by pass around Srinagar city from 0+000 to km 42+100 (Phase-I) under NHDP Phase VII in the Union Territory of Jammu & Kashmir under Bharatmala Pariyojana on EPC Mode.

CHEMICAL TESTING	: ATMOSPHERIC POLLUTION & ENVIRONMENT
DATE OF TESTING	: 01.04.2025 to 07.04.2025

1.	Date of Sampling	: 25.03.2025
2.	Area of the Emission Source	: DG SECTION, Base Camp (CH:14+860) Concrete Batching Plant
3.	Source of Emission	: HSD Fired DG Set 250 KVA
4.	Stack Identification / Details	: STACK ATTACHED TO ABOVE
5.	Location of the Sampling Port (Emission regulations Pt-3, CPCB- CL2.5.0)	: AS PER STANDARD
6.	Stack Height From	Ground (Mtr.) : 6.0
		Roof (Mtr.) : --
		Source (Mtr.) : --
7.	Stack Dimensions	: 12.5cm
8.	Sampling Duration	: 60.0min
9.	Purpose of Monitoring	: To comply EPA 1986/ To Assess Pollution Load.
10.	Details of APCD, if any	: Nil
11.	Fugitive Emissions if any	: Nil
12.	General Observations	: SATISFACTORY
13.	Stack Temperature (°C)	: 156.0
14.	Ambient Temp. (°C)	: 18.0
15.	Average Stack Velocity (m/Sec.)	: 12.53
16.	Quantity of Emission (Nm ³ /Hr)	: 384.36

RESULTS

Sl. No.	Test Parameter	Units	Test Method	Results	Conforming Limits Max. (EPA :1986)
(a)	Particulate Matter as PM	g/kWh	IS 11255 (Pt 1):1985 (RA 2019)	0.099	0.3
(b)	Sulphur Dioxide as SO ₂	g/kWh	IS:11255 (Pt 2):1985 (RA 2019)	0.04	--
(c)	Oxides of Nitrogen as NOx	g/kWh	IS 11255 (Pt 7):2005 (RA 2022)	0.14	9.2
(d)	Carbon Monoxide as CO	g/kWh	IS 13270:1992 (RA 2019)	0.07	3.5

END OF REPORT


 Harish Garg
 Authorised Signatory

Terms & Conditions :

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TEST REPORT

Issue To:

NKC Projects Private Limited
 Srinagar Ring Road Project Near Panzan Bridge Village-
 Gudsathu,
 Budgam,
 Jammu & Kashmir
 India

Test Report No.	: 121731
Issue Date	: 08-04-2025
Reference No.	: SAMPLE REQUEST LETTER
Reference Date.	: 31-03-2025
Job Order No.	: 0000521770-372
Job Order Date	: 31-03-2025
Date of Sample Received	: 31-03-2025
Sample drawn by	: Star Wire
ULR No.	: TC152602500003856F

Sample Particulars : Sample of Noise of DG Set 250 KVA, Loc: Base Camp (Ch: 14+860) Near Concrete Batching Plant Construction of Four Lane ring road/by pass around Srinagar city from 0+000 to km 42+100 (Phase-I) under NHDP Phase VII in the Union Territory of Jammu & Kashmir under Bharatmala Pariyojana on EPC Mode.

CHEMICAL TESTING	:	ATMOSPHERIC POLLUTION & ENVIRONMENT
TEST METHOD	:	IS 9989:1981 (RA 2020)

D.G SET NOISE REPORT

DATE & TIME OF TESTING	:	25.03.2025 & 2:30 PM to 3:00 PM
IDENTIFICATION OF NOISE SOURCE (CAPACITY/MAKE etc.)	:	DG Section, DG Set 250 KVA
BACKGROUND AMBIENT NOISE , (In the case where the source noise is higher than the Ambient Noise)	:	68.2 dB(A)
PURPOSE OF MONITORING	:	To comply EPA 1986
TYPE OF NOISE MONITORING	:	SHORT TERM

RESULTS

Sl.No.	Acoustic Enclosure condition	UNITS	RESULTS			AVG.
1	SPL with acoustic enclosure surface (Tested at 1.0 m distance)	dB (A)	70.2	71.3	72.8	71.4

DG set Standards in Respect of Noise

Sound Pressure Level (SPL) for DG sets manufactured on or after the 1st Jan 2005, measured at 1.0 m distance away from acoustic enclosure surface, Maximum permissible limit.	75 dB (A)
Insertion loss (measured at 0.5m distance) for DG sets (upto & Above 1000 KVA) manufactured before the 1st Jan 2005, Min and DG sets(Above 1000 KVA) manufactured on or after the 1st Jan 2005, Min.	25 dB (A)
AS per Factory act (Chapter 104, sec 102(1), Max. permissible exposure of sound over an 8 hrs. workday	85 dB (A)

END OF REPORT


 Authorised Signatory

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Report Status Enquiry : Landline : +91-129 4094247, 4094280, Mob. : 83769 08258, Email : acro@starwire.in
 Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in

TEST REPORT

Issue To:

NKC Projects Private Limited
 Srinagar Ring Road Project Near Panzan Bridge Village-
 Gudsathu,
 Budgam,
 Jammu & Kashmir
 India

Test Report No. : 121704
 Issue Date : 08-04-2025
 Reference No. : SAMPLE REQUEST LETTER
 Reference Date : 31-03-2025
 Job Order No. : 0000521769-1
 Job Order Date : 31-03-2025
 Date of Sample Received : 31-03-2025
 Sample drawn by : Customer
 ULR No. : TC152602500003833F

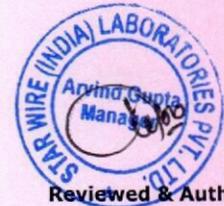
Sample Particulars: Sample of Borewell Water, Loc: Base Camp (CH:14+860) Concrete Batching Plant, Construction of Four Lane ring road/by pass around Srinagar city from 0+000 to km 42+100 (Phase-I) under NHDP Phase VII in the Union Territory of Jammu & Kashmir under Bharatmala Pariyojana on EPC Mode.

Date of testing from: 31-03-2025 to 08-04-2025

S.No.	Test Parameter	Unit	Test Method/ Equipment Used	Results
Discipline: Chemical Group: Water				
1	B.O.D for 3 days @ 27°C	mg/l	IS 3025 (Pt 44):2023	< 5.0
2	Chemical Oxygen Demand	mg/l	IS 3025 (Pt 58):2023	8.0
3	Nitrate nitrogen as NO3	mg/l	IS 3025 (Pt 34):1988 (RA 2019)	6.0
4	pH Value @ 25°C	--	IS 3025 (Pt 11):2022	6.81
5	Turbidity	NTU	IS 3025 (Pt 10):2023	< 1.0
6	Total hardness as CaCO3	mg/l	IS 3025 (Pt 21):2009 (RA 2023)	258.0
7	Total dissolved solids @ 180°C	mg/l	IS 3025 (Pt 16):2023	372.0
8	Sulphate as SO4	mg/l	IS 3025 (Pt 24/Sec 1):2022	12.0
9	Oil & Greases	mg/l	IS 3025 (Pt 39):2021	< 2.0
10	Odour	--	IS 3025 (Pt 5):2018	Agreeable
11	Iron as Fe	mg/l	IS 3025 (Pt 53):2024	< 0.05
12	Fluoride as F	mg/l	IS 3025 (Pt 60/Sec 1):2023	0.9
13	E. Conductivity	micromhos/cm	IS 3025 (Pt 14):2013 (RA 2023)	612.0
14	Colour	Hazen	IS 3025 (Pt 4):2021	< 5.0
15	Chloride as Cl	mg/l	IS 3025 (Pt 32):1988 (RA 2019)	16.0

Remark:

****End of Report****



Reviewed & Authorised By

Print Id: 18

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TEST REPORT

Issue To:

NKC Projects Private Limited
 Srinagar Ring Road Project Near Panzan Bridge Village-
 Gudsathu,
 Budgam,
 Jammu & Kashmir
 India

Test Report No. : 121707
 Issue Date : 08-04-2025
 Reference No. : SAMPLE REQUEST LETTER
 Reference Date : 31-03-2025
 Job Order No. : 0000521769-454
 Job Order Date : 31-03-2025
 Date of Sample Received : 31-03-2025
 Sample drawn by : Customer
 ULR No. : TC152602500003836F

Sample Particulars: Sample of Waste Water, Loc: Base Camp (CH:114+860) Concrete Batching Plant, Construction of Four Lane ring road/by pass around Srinagar city from 0+000 to km 42+100 (Phase-I) under NHDP Phase VII in the Union Territory of Jammu & Kashmir under Bharatmala Pariyojana on EPC Mode.

Date of testing from: 31-03-2025 to 08-04-2025

S.No.	Test Parameter	Unit	Test Method/ Equipment Used	Results	Requirement	Conformity
Discipline: Chemical Group: Pollution & Environment						
1	B.O.D for 3 days @ 27°C	mg/l	IS 3025 (Pt 44) :2023	24.0	Max.30.0000	Yes
2	Chemical Oxygen Demand	mg/l	IS 3025 (Pt 58) :2023	213.0	Max.250.0000	Yes
3	pH Value @ 25°C	--	IS 3025 (Pt 11) :2022	8.72	5.5000-9.0000	Yes
4	Total Suspended Solids @ 103°C to 105°C	mg/l	IS 3025 (Pt 17) :2022	88.0	Max.100.0000	Yes
5	Oil & Greases	mg/l	IS 3025 (Pt 39) :2021	< 2.0	Max.10.0000	Yes

Remark: The sample conforms to general standards for discharge of Environmental Pollutants as per Schedule VI of Environment (Protection) Rules, 1986.

****End of Report****



Arvind Gupta
 Manager

Reviewed & Authorised By

Print Id : 18

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TEST REPORT

Issue To:

NKC Projects Private Limited
 Srinagar Ring Road Project Near Panzan Bridge Village-
 Gudsathu,
 Budgam,
 Jammu & Kashmir
 India

Test Report No. : 121710
 Issue Date : 08-04-2025
 Reference No. : SAMPLE REQUEST LETTER
 Reference Date : 31-03-2025
 Job Order No. : 0000521769-607
 Job Order Date : 31-03-2025
 Date of Sample Received : 31-03-2025
 Sample drawn by : Customer
 ULR No. : TC152602500003839F

Sample Particulars: Sample of Soil, Loc: Base Camp (Ch: 114+860) Concrete Batching Plant, Construction of Four Lane ring road/by pass around Srinagar city from 0+000 to km 42+100 (Phase-I) under NHDP Phase VII in the Union Territory of Jammu & Kashmir under Bharatmala Pariyojana on EPC Mode.

Date of testing from: 31-03-2025 to 08-04-2025

S.No.	Test Parameter	Unit	Test Method/ Equipment Used	Results
Discipline: Chemical Group: Building Material				
1	Sulphate as SO ₄ /SO ₃	%	IS 2720 (Pt 27):1977 (RA 2020)	0.014
2	pH Value @ 25°C	--	IS 2720 (Pt 26):1987 (RA 2021)	8.69
3	Organic matter	%	IS 2720 (Pt 22):1972 (RA 2020)	0.32
4	Chloride as Cl	%	BS EN 1744 (Pt 5):2006	< 0.01

Remark:

****End of Report****



Print Id: 18

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Envirotech Calibration Laboratory



CC-2799

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Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927

Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER		CALIBRATION DATE		DATE OF ISSUE		RECOMMENDED DATE FOR NEXT CALIBRATION												
ECL/SWL/2024-25/FLOW/4174A		17/10/2024		18/10/2024		17/10/2025												
ULR -	C	C	2	7	9	9	2	4	0	0	0	0	1	2	4	8	3	F

Customer Name and Address:
M/s Star Wire (India) Ltd.
21/4, Mathura Road, Ballabgarh
Haryana

Page 1 of 1

Job Card No:- 2024-25/4174

SUMMARY

Date of Receipt	17/10/2024	Dates of Measurement	17/10/2024
Unit Under Calibration	Flow Rate of Rotameter	Adjustment/Repair done in UUC	No
Location Installed at	Stack Monitoring Kit	Calibration Parameter	Flow Rate
Make	Vayubodhan	Range of U.U.C	(0-3)LPM
Model No.	VSS1	Reference equipment used	Piston Flow Calibrator
Serial No.	404-DTI-07	Calibration Medium	Air
ID No.	13 E	Calibration Method	ASTM D5337-11
Rotameter No.	PGJ232678	Procedure	ECL/P-09
Calibrated at	ECL	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	52	Barometric Pressure(mbar)	981.8
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Piston Flow Calibrator Calibrated at NPL New Delhi	BIOS	Definder 530+M S.No. 177227	23111228/D1.08/C-091 Dt. 11/12/2023	Dt. 11/12/2024
Differential Pressure Meter Calibrated at ECL New Delhi	Testo	510 51468336/812	ECL/ECL/2024-25/MECH/2078 Dt:06/07/2024	Dt:05/07/2025
Digital Temperature Indicator With Sensor Calibrated at ECL New Delhi	Autonix	PP45, 180330/2700	ECL/ECL/2024-25/THERMAL/2070 Dt: 05/07/2024	Dt:04/07/2025

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION

Sl. No	UUC		Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± LPM)
	Set Point (LPM)	Avg.Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)			
1	0.5	0.484	0.496	-0.012	1.025	0.024
2	1.0	0.968	1.029	-0.061	1.063	0.024
3	1.5	1.452	1.479	-0.027	1.019	0.059
4	2.0	1.936	1.958	-0.022	1.011	0.059
5	3.0	2.903	3.070	-0.167	1.058	0.059

Calibrated By:

Purshottam Kumar
 (Purshottam Kumar)
 (Calibration Engineer)

Authorised/Reviewed By:

Dr. Balbir Singh
 (Dr. Balbir Singh)
 (Quality Manager)



Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
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CC-2799

Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2024-25/FLOW/4174B	17/10/2024	18/10/2024	17/10/2025
ULR - C C 2 7 9 9	2 4 0 0	0 0 0	1 2 4 8 4 F

Customer Name and Address:

M/s Star Wire (India) Ltd.
 21/4, Mathura Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2024-25/4174

SUMMARY

Date of Receipt	17/10/2024	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Rotameter	Calibration Parameter	Flow Rate
Location Installed at	Stack Monitoring Kit	Range of U.U.C	(0-30.0)LPM
Make	Vayubodhan	Reference equipment used	Piston Flow Calibrator
Model No.	VSS1	Calibration Medium	Air
Serial No.	404-DTI-07	Calibration Method	ASTM D5337-11
ID No./Asset No.	13 E	Procedure	ECL/P-09
Rotameter no	PGI161160	Condition on Receipt	O.K
Calibrated at	ECL		
Dates of Measurement	17/10/2024		

Environmental Conditions of Measurements

Temperature (°C)	25	Relative Humidity (%)	52	Barometric Pressure(mbar)	980.7
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All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Flow Meter Calibrated at FCRI Palakkad Kerala	Mesa Labs	FlexCal-H S.No. 177030	CA 1917 2312 597 Issue Dt. 29/12/2023	21/12/2024
Differential Pressure Meter Calibrated at ECL New Delhi	Testo	510 51468336/812	ECL/ECL/2024-25/MECH/2078 Dt:06/07/2024	Dt:05/07/2025
Digital Temperature Indicator With Sensor Calibrated at ECL New Delhi	Autonix	PP45, 180330/2700	ECL/ECL/2024-25/THERMAL/2070 Dt: 05/07/2024	Dt:04/07/2025

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC		Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± LPM)
	Set Point (LPM)	Avg.Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)			
1	5	4.844	5.126	-0.282	1.058	0.290
2	10	9.669	9.731	-0.062	1.006	0.300
3	15	14.463	14.734	-0.271	1.019	0.300
4	20	19.261	19.645	-0.384	1.020	0.300
5	30	28.589	29.166	-0.577	1.020	0.750

Calibrated By:

(Purshottam Kumar)
 (Calibration Engineer)

Authorised/Reviewed By:

(Dr. Balbir Singh)
 (Quality Manager)



Notes:

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Envirotech Calibration Laboratory



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CC-2799

Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2024-25/FLOW/2243	10/07/2024	11/07/2024	10/07/2025
ULR- C C 2 7 9 9 2 4 0		0 0 0	0 8 4 3 6 F
Customer Name and Address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1	
		Job Card No:- 2024-25/2243	

SUMMARY

Dates of Receipt	10/07/2024	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Fine Particulate Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	15-18 (LPM)
Model No.	APM 550	Reference Equipment Used	Low Flow Calibrator
Serial No.	167-DTA-2010	Calibration Medium	Air
D.G.M. No.	070308870	Calibration Method	40 CFR Part 50 Appendix L
ID No.	15 E	Procedure	ECL/P-10
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	10/07/2024		

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	52	Barometric Pressure(mbar)	980
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No.& Issue Date	Valid Up to
Low Flow Calibrator Calibrated at ECL Lab Delhi	Envirotech	APM 523 B 04 E B 24	ECL/ECL/2024-25/FLOW/742 Dt. 08/05/2024	07/05/2025

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	UUC				Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± %)
	Set Point (LPM)	Inlet Temp. (°C)	Inlet Press. (mmHg)	Avg. Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)			
1	16.7	25.0	0.00	16.34	15.71	0.626	0.962	1.10

Calibrated By:

(Sanjay Chauhan)
(Calibration Engineer)

Authorised/Reviewed By:

(Dr. Balbir Singh)
(Quality Manager)



Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927

Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2024-25/FLOW/4173	17/10/2024	18/10/2024	17/10/2025
ULR - C C 2 7 9 9	2 4 0	0 0 0	1 2 4 7 4 F
Customer Name and Address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1	
		Job Card No:- 2024-25/4173	

SUMMARY

Dates of Receipt	17/10/2024	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Fine Particulate Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	16.7 (LPM)
Model No.	APM550 MINI	Reference Equipment Used	Low Flow Calibrator
Serial No.	439-DTD-2014	Calibration Medium	Air
Rotameter S. No.	AG14C3719-1459	Calibration Method	40 CFR Part 50 Appendix L
ID No.	17E	Procedure	ECL/P-10
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	17/10/2024		

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	54	Barometric Pressure(mbar)	1018.4
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No.&Issue Date	Valid Up to
Low Flow Calibrator Calibrated at ECL Lab Delhi	Envirotech	APM 523 M 26 B 22	ECL/ECL/2023-24/FLOW/5432 Dt. 17/02/2024	16/02/2025

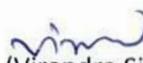
Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	UUC		Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) ± %
	Set Point (LPM)	Avg. Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)			
1	16.7	17.09	17.67	-0.583	1.034	2.46

Calibrated By:


(Virendra Singh)
(Calibration Engineer)

Authorised/Reviewed By:


(Dr. Balbir Singh)
(Quality Manager)



Notes:

1. All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
2. Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
3. This Calibration Certificate shall not be reproduced except in full without written approval of Envirotech Calibration Laboratory.
4. The uncertainties are for a confidence probability not less than 95%, unless or otherwise specified



Envirotech Calibration Laboratory



CC-2799

A Division of Envirotech Instruments Pvt. Ltd.

Regd. Office : A-271, Okhla Industrial Area, Phase-I, New Delhi-110020, India Tel: 011-26812607, 26813887
Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927

Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2024-25/FLOW/2240	10/07/2024	11/07/2024	10/07/2025
ULR -	C C 2 7 9 9 2 4	0 0 0 0	0 8 4 3 0 F

Customer Name and Address:
M/s Star Wire (India) Ltd.
21/4, Mathura Road, Ballabgarh
Haryana

Page 1 of 1
Job Card No:- 2024-25/2240

SUMMARY

Date of Receipt	10/07/2024	Dates of Measurement	10/07/2024
Unit Under Calibration	Rotameter	Adjustment/Repair done in	No
Location/Installed at	Gaseous Pollutant Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	(0-3.0)LPM
Model No.	APM 433	Reference equipment used	Piston Flow Calibrator
Serial No.	22-DTB-2010	Calibration Medium	Air
ID No.	18 E	Calibration Method	ASTM D5337-11
Rotameter no	10/0124	Procedure	ECL/P-09
Calibrated at	Customer Site	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	26	Relative Humidity (%)	53	Barometric Pressure(mbar)	980
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All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No.& Issue Date	Valid Up to
Low Flow Calibrator Calibrated at ECL Lab Delhi	Envirotech	APM 523 B 04 E B 24	ECL/ECL/2024-25/FLOW/742 Dt. 08/05/2024	07/05/2025
Differential Pressure meter Calibrated at ECL New Delhi	Testo	510 51576468/1023	ECL/ECL/2024-25/FLOW/356 Dt. 23/04/2024	Dt. 22/04/2025
Digital Temperature Indicator With Sensor Calibrated at ECL	Autonix	PP45, 180330/2700	ECL/ECL/2024-25/THERMAL/2070 Dt: 05/07/2024	Dt:04/07/2025

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC		Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± LPM)
	Set Point (LPM)	Avg.Flow Rate in (SLPM)	Avg.Flow Rate in (SLPM)			
1	0.5	0.481	0.544	-0.063	1.131	0.044
2	1.0	0.962	1.028	-0.066	1.068	0.044
3	1.5	1.443	1.548	-0.106	1.073	0.044
4	2.0	1.923	2.121	-0.199	1.103	0.044
5	3.0	2.883	2.821	0.062	0.978	0.044

Calibrated By:

(Signature)
(Sanjay Chauhan)
(Calibration Engineer)

Authorised/Reviewed By:

(Signature)
(Dr. Balbir Singh)
(Quality Manager)



Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927

Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2024-25/FLOW/2241	10/07/2024	11/07/2024	10/07/2025
ULR -	C C 2 7 9 9 2 4	0 0 0 0	0 0 8 4 3 2 F

Customer Name and Address:
M/s Star Wire (India) Ltd.
21/4, Mathura Road, Ballabgarh
Haryana

Page 1 of 1
Job Card No:- 2024-25/2241

SUMMARY

Date of Receipt	10/07/2024	Dates of Measurement	10/07/2024
Unit Under Calibration	Rotameter	Adjustment/Repair done in	No
Location/Installed at	Gaseous Pollutant Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	(0-3.0)LPM
Model No.	APM 433	Reference equipment used	Piston Flow Calibrator
Serial No.	231-DTD-2011	Calibration Medium	Air
ID No.	19 E	Calibration Method	ASTM D5337-11
Rotameter no	11/0423	Procedure	ECL/P-09
Calibrated at	Customer Site	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	26	Relative Humidity (%)	52	Barometric Pressure(mbar)	980
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All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No.& Issue Date	Valid Up to
Low Flow Calibrator Calibrated at ECL Lab Delhi	Envirotech	APM 523 B 04 E B 24	ECL/ECL/2024-25/FLOW/742 Dt. 08/05/2024	07/05/2025
Differential Pressure meter Calibrated at ECL New Delhi	Testo	510 51576468/1023	ECL/ECL/2024-25/FLOW/356 Dt. 23/04/2024	Dt. 22/04/2025
Digital Temperature Indicator With Sensor Calibrated at ECL	Autonix	PP45, 180330/2700	ECL/ECL/2024-25/THERMAL/2070 Dt: 05/07/2024	Dt:04/07/2025

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC		Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± LPM)
	Set Point (LPM)	Avg.Flow Rate in (SLPM)	Avg.Flow Rate in (SLPM)			
1	0.5	0.481	0.526	-0.045	1.094	0.044
2	1.0	0.962	1.046	-0.084	1.088	0.044
3	1.5	1.442	1.538	-0.095	1.066	0.044
4	2.0	1.923	2.120	-0.198	1.103	0.044
5	3.0	2.883	2.815	0.068	0.976	0.044

Calibrated By:

Sanjay Chauhan
(Sanjay Chauhan)
(Calibration Engineer)

Authorised/Reviewed By:

Dr. Balbir Singh
(Dr. Balbir Singh)
(Quality Manager)



Notes:

- 1.All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927

Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWLPL/2024-25/FLOW/7577	21/03/2025	22/03/2025	21/03/2026
ULR - C C 2 7 9 9 2 5 0 0 0 0 0 0 3 6 2 1 F	Page 1 of 1		
Customer Name and Address: M/s Star Wire (India) Laboratories Private Limited 21/4, Mathura Road, Ballabgarh Haryana		Job Card No:- 2024-25/7577	

SUMMARY

Date of Receipt	21/03/2025	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Respirable Dust Sampler	Calibration Parameters	Flow Rate
Make	Envirotech	Range of U.U.C	0.6 to 1.5 (m ³ /min)
Model No.	APM 460	Reference Equipment Used	Top Loading Calibrator
Serial No.	816-DTE-2000	Calibration Medium	Air
ID No.	20 E	Calibration Method	USEPA IO 2.1 Method
Calibrated at	customer site	Procedure	ECL/P-12
Dates of Measurement	21/03/2025	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	26	Relative Humidity (%)	52	Barometric Pressure(mbar)	979
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Top Loading Calibrator Calibrated at ECL, NEW DELHI	Envirotech	APM 421,269	ECL/ECL/2024-25/FLOW/352 Dt. 23/04/2024	Dt:22/04/2025
Differential Pressure meter Calibrated at ECL New Delhi	Testo	510 51577190/1023	ECL/ECL/2024-25/FLOW/357 Dt. 23/04/2024	Dt. 22/04/2025

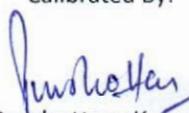
Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC		Reference	Error (UUC-Ref.)	Calibration Factor (Reference/UUC)	Expanded Uncertainty for (k=2) (± %)
	Set Point (m ³ /min)	Avg. Measured Flow Rate (Sm ³ /min)	Avg. Flow Rate in (Sm ³ /min)			
1	0.80	0.771	0.800	-0.029	1.038	1.724
2	0.90	0.867	0.892	-0.026	1.029	1.600
3	1.00	0.963	0.964	-0.001	1.001	1.600
4	1.10	1.059	1.145	-0.086	1.081	1.600
5	1.20	1.156	1.217	-0.061	1.053	1.600

Calibrated By:


(Purshottam Kumar)
(Calibration Engineer)

Authorised/Reviewed By:


(Dr. Balbir Singh)
(Quality Manager)



Notes:

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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWLPL/2024-25/ET/7577	21/03/2025	22/03/2025	21/03/2026
ULR - C C 2 7 9 9 2 5 0 0	0 0	0 3 6 2 2	F
Customers Name and address: M/s Star Wire (India) Laboratories Private Limited 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1 Job Card No:- 2024-25/7577	

SUMMARY

Date of Receipt	21/03/2025	Adjustment/Repair done in UUC	No
Unit Under Calibration	Time Totalizer of Respirable Dust Sampler	Calibration Parameter	Time Interval
Make	Envirotech	Range of U.U.C	0 to 99999.99 hrs
Model No.	APM 460	Reference Equipment Used	Digital Time Calibrator
Serial No.	816-DTE-2000	Calibration Medium	Air
ID No.	20 E	Calibration Method	Comparison
Calibrated at	Customer site	Procedure	ECL/P-05
Dates of Measurement	21/03/2025	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	52	Barometric Pressure(mbar)	978
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Digital Time Calibrator Calibrated at ECL New Delhi	Envirotech	07-DTI-2016	ECL/ECL/2024-25/ET/5667 Dt. 04/01/2025	Dt: 01/01/2026

Discipline: Electro-Technical Calibration

Discipline Group: Elapsed Time

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC	Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for k=2 (± min)
	Avg. Time(min)	Avg. Time (min)			
1	60	60	0.000	1.000	0.35

Calibrated By:

(Signature)
(Purshottam Kumar)
(Calibration Engineer)

Authorised/Reviewed By:

(Signature)
(Dr. Balbir Singh)
(Quality Manager)



Notes:

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 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927

Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2024-25/FLOW/2239	10/07/2024	11/07/2024	10/07/2025
ULR - C C 2 7 9 9 2 4 0 0 0 0 0 8 4 2 8 F			
Customer Name and Address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1 Job Card No:- 2024-25/2239	

SUMMARY

Date of Receipt	10/07/2024	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Respirable Dust Sampler	Calibration Parameters	Flow Rate
Make	Envirotech	Range of U.U.C	0.6 to 1.5 (m ³ /min)
Model No.	APM 460 DXNL	Reference Equipment Used	Top Loading Calibrator
Serial No.	208 D 23	Calibration Medium	Air
ID No.	23 E	Calibration Method	USEPA IO 2.1 Method
Calibrated at	customer site	Procedure	ECL/P-12
Dates of Measurement	10/07/2024	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	26.0	Relative Humidity (%)	53	Barometric Pressure(mbar)	981
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Top Loading Calibrator Calibrated at ECL New Delhi	Envirotech	APM 421,199	ECL/ECL/2023-24/FLOW/3917 Dt. 02/12/2023	Dt:02/12/2024
Differential Pressure Meter Calibrated at ECL New Delhi	Testo	510 51468336/812	ECL/ECL/2024-25/MECH/2078 Dt:06/07/2024	Dt:05/07/2025

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC		Reference	Error (UUC-Ref.)	Calibration Factor (Reference/UUC)	Expanded Uncertainty for (k=2) (± %)
	Set Point (m ³ /min)	Avg. Measured Flow Rate (Sm ³ /min)	Avg. Flow Rate in (Sm ³ /min)			
1	0.80	0.878	0.832	0.046	0.947	1.355
2	0.90	0.975	0.903	0.072	0.926	1.128
3	1.00	1.073	1.000	0.073	0.932	1.025
4	1.10	1.122	1.060	0.062	0.945	1.020
5	1.20	1.170	1.210	-0.039	1.034	1.020

Calibrated By:

(Signature)
 (Sanjay Chauhan)
 (Calibration Engineer)

Authorised/Reviewed By:

(Signature)
 (Dr. Balbir Singh)
 (Quality Manager)



Notes:

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CALIBRATION CERTIFICATE

Customer name And Address	M/S: Star Wire (India) Ltd. 21/4, Mathura Road Faridabad.- 121004	Service request No. & date	A/02/01/06/24&01/06/2024
		ULR no.	CC223924000002103F
		Cert. No.	AT24000002103
		Date of Receipt of DUC	01/06/2024
		Date of calibration	03/06/2024
		Date of issue	03/06/2024
		Suggested due date	02/06/2025

Instrument Details			
Instrument name	Sound Level Meter	S.No.	478F22
Make / Model No.	Envirotech /SLM 100	Location	Environment Lab
Range / Size	34 to 134dB	Accuracy	-----
Least Count	0.1dB	Visual Inspection	OK
I.D. No.	25E		

Detail of reference standards & Major equipment's used			
Equipment Name	Sound Level Calibrator		
Make	Lutron		
Model / SR No.	SC-942 / I312893		
Certificate No.	ME01302		
Calibration Validity	05/03/2025		
Calibration by	Ecotech Instruments		

Environmental Condition	Temperature	20±2 °C	Calibration Reference	-----
	Relative Humidity	50±10%	Calibration Procedure	CP-41

Calibration Results			
Serial No.	Standard Value in (dB)	Measured Value in (dB)	Uncertainty At 95% C.L. (coverage factor k=2)
01.	94	93.5	±1.3 dB
02.	114	113.2	

Remarks :

- ❖ (1) Standard equipment use for calibration are traceable to national/ international standards.
- ❖ (2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by coverage factor = 2 such that the coverage probability corresponds to approximately 95% (3) The above results are valid at the time of and under the stated conditions measurement. (4) This certificate is refers only to the particular item submitted for calibration. (5) Next calibration due date given as requested by the customer.

Calibrated By
(MATHPAL)
Form No.- QF-47



Approved By
(NEERAJTYAGI)
Page No. 1 of 1

---END OF REPORT---



CALIBRATION CERTIFICATE

Customer name And Address	M/S: Star Wire (India) Ltd. 21/4, Mathura Road Faridabad.- 121004	Service request No. & date	A/02/01/06/24&01/06/2024
		ULR no.	CC223924000002102F
		Cert. No.	AT24000002102
		Date of Receipt of DUC	01/06/2024
		Date of calibration	03/06/2024
		Date of issue	03/06/2024
		Suggested due date	02/06/2025

Instrument Details			
Instrument name	Sound Level Meter	S.No.	A0403121
Make / Model No.	Cygnat	Location	Environment Lab
Range / Size	30 to 134dB	Accuracy	-----
Least Count	0.1dB	Visual Inspection	OK
I.D. No.	26 E		

Detail of reference standards & Major equipment's used			
Equipment Name	Sound Level Calibrator		
Make	Lutron		
Model / SR No.	SC-942 / I312893		
Certificate No.	ME01302		
Calibration Validity	05/03/2025		
Calibration by	Ecotech Instruments		

Environmental Condition	Temperature	20±2 °C	Calibration Reference	-----
	Relative Humidity	50±10%	Calibration Procedure	CP-41

Calibration Results			
Serial No.	Standard Value in (dB)	Measured Value in (dB)	Uncertainty At 95% C.L. (coverage factor k=2)
01.	94	93.6	±1.3 dB
02.	114	113.8	

Remarks :

- ❖ (1) Standard equipment use for calibration are traceable to national/ international standards.
- ❖ (2)The reported expended uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by coverage factork = 2 such that the coverage probability corresponds to approximately 95%. (3)The above results are valid at the time of and under the stated conditions measurement. (4)This certificate is refers only to the particular item submitted for calibration. (5) Next calibration due date given as requested by the customer.

Calibrated By
(Mahipal)
Form No.- QF-47



---END OF REPORT---

Approved By
(Neeraj Tyagi)
Page No. 1 of 1



NKC PROJECTS PVT. LTD.

(An ISO 9001 : 20015 Certified Co.)

NKCPPL/Site/Srinagar/2024-25/1345

Date: 27.06.2024

To,

The Authority's Engineer
RODIC Consultants Pvt. Ltd. In JV with
M/s MSV International Inc.
Ring Road Project Office
House No. 248, Near Chinar Apartments
Astanpora Road, Rawalpora,
Srinagar, (J&K)-190005

Project: Construction of four lane Ring road /bypass around Srinagar city from Km 0+000 to km 42+100 (Phase-I) under NHDP phase VII in the union territory of Jammu and Kashmir under Bharatmala Pariyojana on EPC Mode-

Subject: Reg. Submission of Environment Monitoring Report.

Dear Sir,

With reference to above mentioned subject, we are hereby submitting the Environment Monitoring Report of the project corridor for your review and approval.

The EPC contractor has conducted the tests at three different locations in the project corridor (Copy Attached).

Thanking you and assuring of our best attention at all times,

Yours Faithfully,
for NKC Projects Pvt. Ltd.

(E Chidambaram)
Chief Project Manager

Enclosure: As mentioned above.

CC: 1. The Project Director, National Highway Authority of India, PIU Srinagar.

Site Office : NKC Base Camp Gudsathu, Tehsil & District Budgam Jammu & Kashmir-191111

E-mail : planning.srinagar@nkcproject.com

Regd. Office: 154 First Floor, Vardhman Crown Mall, Plot No. 2, Sector-19, Dwarka, New Delhi-110075

Corporate Office : Plot No. 872, Phase - V, Udyog Vihar, Gurugram-122016 (Haryana)

Ph.: +91-124-6902630, **E-mail :** info@nkcproject.com, **Website :** www.nkcproject.com

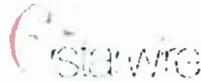
Environment Monitoring Report

for

Construction of four lane Ring Road/Bypass around Srinagar city from Km 0.000 to Km 42.100 (Phase-I) on Engineering, Procurement and Construction (EPC) mode under NHDP Phase VII in the Union Territory of Jammu and Kashmir under Bharatmala Pariyojana.

Package No.	: Km 0.000 to Km 42.100 (Phase – I)
Client	: National Highway Authority of India
Concessionaire	: UT of Jammu and Kashmir (NHDP Phase VII)
Consultant	: M/s RODIC Consultants Pvt Ltd JV with MSV International Inc.
EPC Contractor	: NKC Projects Pvt. Ltd.
Chainage No.	: 14+860
Camp No.	: 1

Report Submitted By



Star Wire (India) Ltd,
Testing Division

INTRODUCTION

For the effective implementation, a time bound monitoring plan for environmental management including all aspects is prepared by the Lab Star wire (India) Ltd, Testing Division.

Samples for study of Air quality, Stack Emission, Water quality, Soil and Noise level are collected from strategic places representing all the categories of location. The laboratory is guided and advised by NKC Projects Pvt. Ltd, Gurugram, for data obtained from the sites.

Overview of the Road Project:

Construction of four lane Ring Road/Bypass around Srinagar city from Km 0.000 to Km 42.100 (Phase-I) on Engineering, Procurement and Construction (EPC) mode under NHDP Phase VII in the Union Territory of Jammu and Kashmir under Bharatmala Pariyojana.

Purpose of the Environmental Monitoring:

In order to carry out periodic checks, environmental monitoring is carried out by the Laboratory as per schedule and if any parameter is found above the acceptable standards, mitigation measures / control measures shall be adopted in consultation with the Independent Engineer.

Activities Involved In The Project:

a) Pre-Construction Stage:

Pre-construction stage involves mobilization of the project requirement, planning of logistics and site preparation necessary for commencing construction activities. The activities include:

- Joint field verification of EMP with the Environment Specialist IE and of the NKC officials.
- Identification and selection of material sources (quarry and borrow material, water, sand etc.).
- Procurement of construction equipment / machinery such as hot mix plants, batching plants and other construction equipment and machinery.
- Selection, design and layout of construction areas, hot mix and batching plants, labour camps etc.
- Apply for and obtain all the necessary clearances from the agencies concerned.
- Planning traffic diversions and detours including arrangements for temporary land if required.
- Monitoring environmental conditions (Baseline data) through approved monitoring agency

b) Construction Stage:

Construction stage is the most crucial stage in terms of activities that require careful management to avoid environmental impacts. Environmental impact mitigation measures as per CA will be taken to control the impact on environment. There are several other environmental issues that have been addressed as part of good engineering practices. They include providing roadside drainage provision of cross drainage structures and Toe wall etc.

c) Operational Stage:

Regular monitoring of environmental conditions (Air, Water, Noise etc.) will be carried out through an approved pollution monitoring agency. During operation stage IE and KRDCCL will be responsible for Monitoring of operational performance of the various mitigation/enhancement measures carried out by the Concessionaire.

d) Mitigation Measures to counter Pollutants:

Mitigation measures as per the contract specifications are taken.

The feasible remedial measures include avoidance, mitigation and enhancements.

Parameters to be Monitored (Regulatory Framework)

Ambient air quality, Stack emissions (DG & Hot Mix Plant), water quality (Batch Mix plant discharge, ground water and drinking water samples), noise level and soil quality are monitored for standard parameters as per National Ambient Air Quality standards (NAAQS-2009), MoEF & CC guidelines, CPCB/SPCB rules and Indian Standards. The drinking water samples are compared with IS: 10500 standard and Batching plant water samples are compared with MoEF & CC Schedule-VI standard.

Monitoring Locations and Frequency

The following number of stations have been fixed for monitoring of the environment for the present project.

<u>Sl. No.</u>	<u>Description</u>	<u>Camp-1</u>	<u>Camp-2</u>	<u>Camp-3</u>
1	Ambient Air	2	1	1
2	DG Stack Emission	1	1	1
3	Water (Waste & Ground)	2	2	2
4.	Ambient Noise	2	1	1
5.	DG Noise	1	1	1
6	Soil	1	1	1

Monitoring frequency for Ambient air quality: Air quality monitoring at stipulated locations including construction activities operation areas is done at a frequency of 2 times a year @ 24 hrs./ sampling.

Monitoring frequency for DG Stack emission and Noise: DG stack monitoring at stipulated locations including short term Noise monitoring 2 times a year in the months of March and September in each year.

Monitoring frequency for water quality: Batching Plant discharge water sample from the operational plant, potable water samples from residential areas are monitored at a frequency of half yearly for all the parameters as per MoEF & CC guidelines / Indian Standard. The drinking water samples are compared with IS: 10500 standard and Batching plant water samples are compared with MoEF & CC Schedule-VI standard.

Monitoring frequency for ground water quality: Ground water level and ground water quality monitoring is undertaken 2 times a year in the months of March and September each year on a long-term basis. The ground water samples are compared with IS: 10500 standards.

Monitoring frequency for noise level: The noise level observations are made as per Environment Protection Act GSR 1063(E) Schedule III at all the ambient air quality stations. The noise level will be monitored once every half year during daytime (6 AM to 10 PM) and nighttime (10 PM to 6 AM).

INSTRUMENTS AND METHODOLOGIES**Ambient Air Quality:**

The Fine Particulate Matter (PM_{2.5}), Respirable Particulate Matter (PM₁₀), Sulphur dioxide (SO₂), Oxides of Nitrogen (NO₂) and Carbon monoxide (CO) concentration in down wind direction considering predominant wind direction, at a distance of approx. 50 meters from the dust generating sources is measured in the manner indicated below:

<u>Sl.No.</u>	<u>Parameter</u>	<u>Technique</u>	<u>Technical Protocol</u>
1	Fine Particulate Matter PM _{2.5}	Fine Particulate Sampler (Gravimetric Method)	IS:5182 (Part-XXIV)
2	Respirable Particulate Matter PM ₁₀	Respirable Dust Sampler (Gravimetric Method)	IS:5182 (Part-XXIII)
3	Sulphur Dioxide	Modified West & Gaeke	IS:5182 (Part-II)
4	Oxides of Nitrogen	Jacob & Hochheiser	IS:5182 (Part-VI)
5	Carbon Monoxide	Iodine Pentoxide	IS:5182 (Part-X)

Stack Emission Air Quality:

The Particulate Matter (PM), Oxides of Nitrogen (NO_x) and Carbon monoxide (CO) concentration in stack emissions, the following pollution generating sources is measured in the manner indicated below:

<u>Sl.No.</u>	<u>Parameter</u>	<u>Technique</u>	<u>Technical Protocol</u>
1	Particulate Matter PM	Fine Particulate Sampler (Gravimetric Method)	IS:11255 (Part-I)
2	Oxides of Nitrogen	Jacob & Hochheiser	IS:11255 (Part-VII)
3	Carbon Monoxide	Orsat Analysis	IS:13270

Water Quality:

Representative water samples are collected in a plastic container and transported to the laboratory for physico-chemical analysis. For determination of BOD and bacteriological analysis, 250 ml pre-sterilized bottles are used, and care is taken to maintain cool temperature by keeping the bottles in ice boxes during transportation to the laboratory for analysis. Physico-chemical and bacteriological parameters for drinking water samples are compared with IS: 10500 standard and Batching plant discharge water samples are compared with MoEF & CC Schedule-VI standard.

Noise Level:

Guidelines prescribed by the CPCB are complied with the noise level meter capable of measuring equivalent sound pressure level is used for noise level measurement.

In addition to the general laboratory and analytical facilities, the following sampling and analytical equipment are used.

<u>Sl.No</u>	<u>Name of the Equipment</u>	<u>Make/Model</u>
1	Fine particulate air samplers	Envirotech, New Delhi
2	Respirable Dust Samplers	Envirotech, New Delhi
3	Multi gas air samplers.	Envirotech, New Delhi
4	Stack Monitoring Kit VSS-1	Vayubodhan Upkaran, New Delhi
5	Sound Level Meters	Envirotech / Baseline, New Delhi
6	Thermometers	Zeal
7	Spectrophotometer.	Lesani
8	Analytical balances	Shimadzu (Acc. 0.00001mg)
9	pH meter	Toshniwal
10	Conductivity Meter	Toshniwal
11	Heating Ovens and Incubators	Universal / Narang Scientific

Calibration And Quality Assurance:

All the equipments used in sampling and subsequent testing in the laboratory are well maintained and calibrated with National / International traceability.

Team for Managing the Environmental Monitoring

Environmental pollutant sampling team at the site and laboratory level take all necessary care to collect and monitor the environmental samples and for overall environmental management.

It will look after the following aspects of environmental management-

- Generation of environmental sampling data.
- Monitoring of project activities Noise.
- Co-ordination for timely implementation of project environment monitoring plan.

Site Level:

Environmental Monitoring headed by DGM lab, provide necessary support required for environmental monitoring of project. Measures including environmental quality monitoring in consultation with the site Staff Officer (Environment sampling and testing) gets the necessary staffs and other facilities for effective implementation of sampling procedures from the office of the Area.

Laboratory Level:

The environmental monitoring program is implemented having suitable manpower and well-equipped laboratory and other infrastructure in a competent manner.

TEST REPORTS CAMP-1

(CHAINAGE – KM 0.000 TO KM 42.100)

for

- Ambient Air
 - Ambient Noise
 - DG Stack Emission
 - DG Noise
 - Water &
 - Soil
-

Camp – 1

Photographs – Ambient Air, Ambient Noise, DG Stack Emission, DG Noise, Water, Soil Sample Collection



Air Sample Collection



Ambient Noise Monitoring



DG Noise Monitoring



Borewell Water Sample Collection

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Waste Water Sample Collection



Soil Sample Collection



STAR WIRE (INDIA) LIMITED

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SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
 Srinagar Ring Road Project, Near Panzan Bridge, Village-
 Gudsathu,
 Budgam
 Jammu & Kashmir
 India

Test Report No. : 103208
 Issue Date : 06-04-2024
 Reference No. : Sample Test Request
 Reference Date. : 23-03-2024
 Job Order No. : 0000439849-1
 Job Order Date : 23-03-2024
 Date of Sample Received : 23-03-2024
 Sample drawn by : Star Wire
 ULR No. : TC516424000005747F

Sample Particulars : Sample of Ambient Air, Loc: Base Camp (CH: 14+860) Concrete Batching Plant .

CHEMICAL TESTING	:	ATMOSPHERIC POLLUTION & ENVIRONMENT
DATE OF TESTING	:	26/03/2024 to 05/04/2024

Sampling Details

1.	DATE OF SAMPLING	:	19/03/2024 to 20/03/2024
2.	LOCATION OF THE SAMPLING POINT	:	Base Camp (CH:14+860) Concrete Batching plant
3.	SAMPLING STARTED AT	:	10:00 AM on 19/03/2024
4.	SAMPLING COMPLETED AT	:	10:00 AM on 20/03/2024
5.	ACTUAL TIME OF SAMPLING	Min.	1440
6.	AVERAGE AMBIENT TEMP.	°C	13.0

RESULTS

Sl.No.	Test Parameter (Pollutants)	Units	Test Method	Results	Conforming Limits for Industrial, Residential, Rural and other areas except Ecological sensitive area (NAAQS: 2009) Max. (24 hrs.)
(a)	Particulate Matter as PM 2.5	µg/m ³	IS:5182 (Pt. 24):2019	45.0	60
(b)	Particulate Matter as PM 10	µg/m ³	IS 5182 (Pt 23):2006 (RA 2022)	78.0	100
(c)	Sulphur Dioxide as SO ₂	µg/m ³	IS 5182 (Pt 2):2001 (RA 2022)	7.2	80
(d)	Nitrogen Dioxide as NO ₂	µg/m ³	IS 5182 (Pt 6):2006 (RA 2022)	24.0	80
(e)	Carbon Monoxide as CO	µg/m ³	IS 5182 (Pt 10):1999 (RA 2019)	1140 (<1ppm)	4000 (1 hr.)

END OF REPORT

Authorised Signatory

 SUBRAT KHEL
 D.G.M

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 Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in



STAR WIRE (INDIA) LIMITED

(TESTING DIVISION)

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TC-5164

SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103221
Issue Date : 06-04-2024
Reference No. : Sample Test Request
Reference Date. : 23-03-2024
Job Order No. : 0000439849-52
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Star Wire
ULR No. : TC51642400005760F

Sample Particulars : Sample of Ambient Air, Loc: Base Camp (CH: 14+860) Hot Mix & Crusher Plant .

CHEMICAL TESTING	:	ATMOSPHERIC POLLUTION & ENVIRONMENT
DATE OF TESTING	:	26/03/2024 to 05/04/2024

Sampling Details

1.	DATE OF SAMPLING	:	19/03/2024 to 20/03/2024
2.	LOCATION OF THE SAMPLING POINT	:	Base Camp (CH:14+860) Hot Mix & Crusher Plant
3.	SAMPLING STARTED AT	:	10:20 AM on 19/03/2024
4.	SAMPLING COMPLETED AT	:	10:20 AM on 20/03/2024
5.	ACTUAL TIME OF SAMPLING	Min.	1440
6.	AVERAGE AMBIENT TEMP.	°C	13.0

RESULTS

Sl.No.	Test Parameter (Pollutants)	Units	Test Method	Results	Conforming Limits for Industrial, Residential, Rural and other areas except Ecological sensitive area (NAAQS: 2009) Max. (24 hrs.)
(a)	Particulate Matter as PM 2.5	µg/m ³	IS:5182 (Pt. 24):2019	49.0	60
(b)	Particulate Matter as PM 10	µg/m ³	IS 5182 (Pt 23):2006 (RA 2022)	84.0	100
(c)	Sulphur Dioxide as SO ₂	µg/m ³	IS 5182 (Pt 2):2001 (RA 2022)	8.7	80
(d)	Nitrogen Dioxide as NO ₂	µg/m ³	IS 5182 (Pt 6):2006 (RA 2022)	28.0	80
(e)	Carbon Monoxide as CO	µg/m ³	IS 5182 (Pt 10):1999 (RA 2019)	1140 (<1ppm)	4000 (1 hr.)

END OF REPORT

Subratpal Singh
Authorised Signatory
SUBRATPAL SINGH
D.07.11

Terms & Conditions :

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Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in



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(TESTING DIVISION)

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TC-5164

SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103211
Issue Date : 06-04-2024
Reference No. : Sample Test Request
Reference Date. : 23-03-2024
Job Order No. : 0000439849-205
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Star Wire
ULR No. : TC516424000005750F

Sample Particulars : Sample of Ambient Noise Monitoring, Loc: Base Camp (CH: 14+860) Concrete Batching Plant .

CHEMICAL TESTING	:	ATMOSPHERIC POLLUTION & ENVIRONMENT
TEST METHOD	:	IS 9989:1981 (RA 2020)

AMBIENT NOISE REPORT

DATE OF TESTING	:	19/03/2024 -20/03/2024
SOURCE OF NOISE	:	Construction activities & Vehicle movement
BACKGROUND AMBIENT NOISE , (In the case where the source noise is higher than the Ambient Noise)	:	N. A
TYPE OF NOISE MONITORING	:	24 HOURLY
PURPOSE OF MONITORING	:	To comply EPA 1986

RESULTS

Sl. No.	Location	Unit	L _{eq}		L _{Min}		L _{Max}	
			Day	Night	Day	Night	Day	Night
1.	Base Camp (CH:14+860) Concrete Batching plant	dB (A)	68.7	61.4	64.2	59.1	79.6	62.3

Ambient Standards in Respect of Noise

AREA CODE	CATEGORY OF AREA	Limits in dB(A) Leq	
		Day Time (06.00 am – 10.00 pm)	Night Time (10.00 pm – 06.00 am)
A	Industrial Area	75	70
B	Commercial	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

As per factory act (chapter 104, section 102(1), maximum permissible exposure of sound level should be 85 dB (A) over an 8 hrs. workday.

****END OF REPORT****

Authorised Signatory

Terms & Conditions :

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TC-5164

SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103212
Issue Date : 06-04-2024
Reference No. : Sample Test Request
Reference Date. : 23-03-2024
Job Order No. : 0000439849-216
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Star Wire
ULR No. : TC51642400005751F

Sample Particulars : Sample of Ambient Noise Monitoring, Loc: Base Camp (CH: 14+860) Hot Mix & Crusher Plant .

CHEMICAL TESTING	:	ATMOSPHERIC POLLUTION & ENVIRONMENT
TEST METHOD	:	IS 9989:1981 (RA 2020)

AMBIENT NOISE REPORT

DATE OF TESTING	:	19/03/2024 -20/03/2024
SOURCE OF NOISE	:	Construction activities & Vehicle movement
BACKGROUND AMBIENT NOISE, (In the case where the source noise is higher than the Ambient Noise)	:	N. A
TYPE OF NOISE MONITORING	:	24 HOURLY
PURPOSE OF MONITORING	:	To comply EPA 1986

RESULTS

Sl. No.	Location	Unit	L _{eq}		L _{Min}		L _{Max}	
			Day	Night	Day	Night	Day	Night
1.	Base Camp (CH:14+860) Hot Mix & Crusher Plant	dB (A)	71.4	56.8	58.8	51.0	77.2	64.3

Ambient Standards in Respect of Noise

AREA CODE	CATEGORY OF AREA	Limits in dB(A) Leq	
		Day Time (06.00 am – 10.00 pm)	Night Time (10.00 pm – 06.00 am)
A	Industrial Area	75	70
B	Commercial	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

As per factory act (chapter 104, section 102(1), maximum permissible exposure of sound level should be 85 dB (A) over an 8 hrs. workday.

****END OF REPORT****

Authorised Signatory

SUBRATAPAL

Terms & Conditions :

- 1) Remnant / additional samples, if any, after testing will be retained for one month (15 days in case of water and air samples)
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E-mail : swdc06@starwire.in

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TC-5164

SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103215
Issue Date : 06-04-2024
Reference No. : Sample Test Request
Reference Date. : 23-03-2024
Job Order No. : 0000439849-249
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Star Wire
ULR No. : TC516424000005754F

Sample Particulars : Sample of Stack Emission of DG Set 250 KVA, Loc: Base Camp (CH: 14+860) Near Concrete Batching Plant .

CHEMICAL TESTING	:	ATMOSPHERIC POLLUTION & ENVIRONMENT
DATE OF TESTING	:	26/03/2024 to 05/04/2024
1.	Date of Sampling	: 19/03/2024
2.	Area of the Emission Source	: DG Section, Base Camp (CH:14+860) Concrete Batching plant
3.	Source of Emission	: HSD Fired DG Set 250 KVA
4.	Stack Identification / Details	: STACK ATTACHED TO ABOVE
5.	Location of the Sampling Port (Emission regulations Pt-3, CPCB- Cl.2.5.0)	: AS PER STANDARD
6.	Stack Height From	
	Ground (Mtr.)	: 6.0
	Roof (Mtr.)	: --
	Source (Mtr.)	: --
7.	Stack Dimensions	: 12.5 cm
8.	Sampling Duration	: 65 min
9.	Purpose of Monitoring	: To comply EPA 1986/ To Assess Pollution Load.
10.	Details of APCD, if any	: Nil
11.	Fugitive Emissions if any	: Nil
12.	General Observations	: SATISFACTORY
13.	Stack Temperature (°C)	: 149.0
14.	Ambient Temp. (°C)	: 13.0
15.	Average Stack Velocity (m/Sec.)	: 11.76
16.	Quantity of Emission (Nm ³ /Hr)	: 366.81

RESULTS

Sl. No.	Test Parameter	Units	Test Method	Results	Conforming Limits Max. (EPA:1986)
(a)	Particulate Matter as PM	g/kWh	IS 11255 (Pt 1):1985 (RA 2019)	0.107	0.3
(b)	Oxides of Nitrogen as NOx	g/kWh	IS 11255 (Pt 7):2005 (RA 2022)	0.16	9.2
(c)	Carbon Monoxide as CO	g/kWh	IS 13270:1992 (RA 2019)	0.07	3.5

END OF REPORT

Sudratpal
Authorised Signatory



Terms & Conditions :

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SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103218
Issue Date : 06-04-2024
Reference No. : Sample Test Request
Reference Date. : 23-03-2024
Job Order No. : 0000439849-352
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Star Wire
ULR No. : TC516424000005757F

Sample Particulars : Sample of Noise of DG Set 250 KVA, Loc: Base Camp (CH: 14+860) Near Concrete Batching Plant .

CHEMICAL TESTING	:	ATMOSPHERIC POLLUTION & ENVIRONMENT
TEST METHOD	:	IS 9989:1981 (RA 2020)

D.G. SET NOISE REPORT

DATE & TIME OF TESTING	:	19/03/2024 and 2:00 PM to 3:00 PM
IDENTIFICATION OF NOISE SOURCE (CAPACITY/MAKE etc.)	:	DG Section, DG Set 250 KVA Base Camp (CH:14+860) Concrete Batching plant
BACKGROUND AMBIENT NOISE, (In the case where the source noise is higher than the Ambient Noise)	:	71.2 dB(A)
PURPOSE OF MONITORING	:	To comply EPA 1986
TYPE OF NOISE MONITORING	:	SHORT TERM

RESULTS

Sl.No.	Acoustic Enclosure condition	UNITS	RESULTS			AVG.
1	SPL with acoustic enclosure surface (Tested at 1.0 m distance)	dB (A)	64.5	65.6	67.2	65.8

DG set Standards in Respect of Noise

Sound Pressure Level (SPL) for DG sets manufactured on or after the 1st Jan 2005, measured at 1.0 m distance away from acoustic enclosure surface, Maximum permissible limit.	75 dB (A)
Insertion loss (measured at 0.5m distance) for DG sets manufactured before the 1st Jan 2005, Min.	25 dB (A)
AS per Factory act (Chapter 104, sec 102(1), Max. permissible exposure of sound over an 8 hrs. workday	85 dB (A)

****END OF REPORT****

Subrata Pal
Authorised Signatory
SUBRATA PAL
D.G.IL.

Terms & Conditions :

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Report Status Enquiry : Landline : +91-129 4094247, 4094280, Mob. : 83769 08258, Email : acro@starwire.in
Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in



STAR WIRE (INDIA) LIMITED
(TESTING DIVISION)

21/4, Mathura Road, Ballabgarh-121004, Haryana
Telephone : +91-129 4094247, 4094280
E-mail : swdc06@starwire.in

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SWTD/7.8F/01

TEST REPORT

Issue To:
NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103229
Issue Date : 08-04-2024
Reference No. : Sample Test Request
Reference Date : 23-03-2024
Job Order No. : 0000439850-124
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Customer/Star Wire
ULR No. : TC516424000005764F

Sample Particulars: Sample of Drinking Water, Loc: Base Camp (CH: 14+860) Canteen

Date of testing from: 23-03-2024 to 08-04-2024

S.No.	Test Parameter	Unit	Test Method/ Equipment Used	Results	Requirement	Conformity
Discipline: Chemical Group: Water						
1	Colour	Hazen	IS 3025 (Pt 4): 2021	< 5.0	Max.15.0000	Yes
2	Odour	--	IS 3025 (Pt 5): 2018	Agreeable	Agreeable	Yes
3	pH Value @ 25°C	--	IS 3025 (Pt 11) :2022	6.79	6.5000-8.5000	Yes
4	Turbidity	NTU	IS 3025 (Pt 10) :2023	< 1.0	Max.5.0000	Yes
5	Total dissolved solids @ 180°C	mg/l	IS 3025 (Pt 16) :2023	224.0	Max.2000.0000	Yes
6	Chloride as Cl	mg/l	IS 3025 (Pt 32) :1988 (RA 2019)	12.0	Max.1000.0000	Yes
7	Fluoride as F	mg/l	APHA 4500F 4-82 :2012	0.6	Max.1.5000	Yes
8	Iron as Fe	mg/l	IS 3025 (Pt 53) :2003 (RA 2019)	< 0.05	Max.1.0000	Yes
9	Total hardness as CaCO3	mg/l	IS 3025 (Pt 21) :2009 (RA 2019)	147.0	Max.600.0000	Yes

Remark: The sample conforms to IS:10500-2012 (RA 2018) (Acceptable limits) w.r.t above test parameters only.

End of Report



Authorised Signatory

Terms & Conditions :

Page No 1/1

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Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in



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(TESTING DIVISION)

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21/4, Mathura Road, Ballabgarh-121004, Haryana
Telephone : +91-129 4094247, 4094280
E-mail : swdc06@starwire.in

SWTD/7.8F/01

TEST REPORT

Issue To:
NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103228
Issue Date : 08-04-2024
Reference No. : Sample Test Request
Reference Date : 23-03-2024
Job Order No. : 0000439850-124
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Customer/Star Wire

Sample Particulars: Sample of Drinking Water, Loc: Base Camp (CH: 14+860) Canteen

Date of testing from: 23-03-2024 to 08-04-2024

<u>S.No.</u>	<u>Test Parameter</u>	<u>Unit</u>	<u>Test Method/ Equipment Used</u>	<u>Results</u>	<u>Requirement</u>	<u>Conformity</u>
Discipline: Chemical Group: Water						
1	Taste	--	IS 3025 (Pt 7): 2017 & (Pt 8):2023	Agreeable	Agreeable	Yes
2	E. Coll	MPN/100ml	IS 1622:1981 (R A 2019)	Not detectable	Not detectable	Yes
3	Total collform bacteria	MPN/100ml	IS 1622:1981 (R A 2019)	Not detectable	Not detectable	Yes

Remark: The sample conforms to IS:10500-2012 (RA 2018) (Acceptable limits) w.r.t above test parameters only.

End of Report



Terms & Conditions :

Page No 1/1

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Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in



STAR WIRE (INDIA) LIMITED

(TESTING DIVISION)

21/4, Mathura Road, Ballabgarh-121004, Haryana
Telephone : +91-129 4094247, 4094280
E-mail : swdc06@starwire.in

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TC-5164

SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103230
Issue Date : 08-04-2024
Reference No. : Sample Test Request
Reference Date : 23-03-2024
Job Order No. : 0000439850-245
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Customer/Star Wire
ULR No. : TC516424000005765F

Sample Particulars: Sample of Borewell Water, Loc: Base Camp (CH: 14+860) Concrete BatchingPlant

Date of testing from: 23-03-2024 to 08-04-2024

S.No.	Test Parameter	Unit	Test Method/ Equipment Used	Results
Discipline: Chemical Group: Water				
1	Colour	Hazen	IS 3025 (Pt 4):2021	< 5.0
2	Odour	--	IS 3025 (Pt 5):2018	Agreeable
3	pH Value @ 25°C	--	IS 3025 (Pt 11):2022	6.79
4	E. Conductivity	micromhos/cm	IS 3025 (Pt 14):2013 (RA 2019)	512.0
5	Turbidity	NTU	IS 3025 (Pt 10):2023	< 1.0
6	Total dissolved solids @ 180°C	mg/l	IS 3025 (Pt 16):2023	326.0
7	B.O.D for 3 days @ 27°C	mg/l	IS 3025 (Pt 44):2023	< 5.0
8	Chemical Oxygen Demand	mg/l	IS 3025 (Pt 58):2023	9.0
9	Chloride as Cl	mg/l	IS 3025 (Pt 32):1988 (RA 2019)	14.0
10	Dissolved Phosphate	mg/l	IS 3025 (Pt. 31):2022	0.02
11	Fluoride as F	mg/l	APHA 4500F 4-82:2012	0.7
12	Iron as Fe	mg/l	IS 3025 (Pt 53):2003 (RA 2019)	< 0.05
13	Nitrate nitrogen as NO3	mg/l	IS 3025 (Pt 34/Sec 1):2023	5.0
14	Sulphate as SO4	mg/l	IS 3025 (Pt 24/Sec 1):2022	8.0
15	Total hardness as CaCO3	mg/l	IS 3025 (Pt 21):2009 (RA 2019)	233.0

Remark:

****End of Report****



Authorized Signatory

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Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in



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STAR WIRE (INDIA) LIMITED
(TESTING DIVISION)

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21/4, Mathura Road, Ballabgarh-121004, Haryana
Telephone : +91-129 4094247, 4094280
E-mail : swdc06@starwire.in

SWTD/7.8F/01

TEST REPORT

Issue To:
NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No.	: 103231
Issue Date	: 08-04-2024
Reference No.	: Sample Test Request
Reference Date	: 23-03-2024
Job Order No.	: 0000439850-245
Job Order Date	: 23-03-2024
Date of Sample Received	: 23-03-2024
Sample drawn by	: Customer/Star Wire

Sample Particulars: Sample of Borewell Water, Loc: Base Camp (CH: 14+860) Concrete Batching Plant

Date of testing from: 23-03-2024 to 08-04-2024

<u>S.No.</u>	<u>Test Parameter</u>	<u>Unit</u>	<u>Test Method/ Equipment Used</u>	<u>Results</u>
1	Oil & Greases	mg/l	IS 3025 (Pt 39):2021	< 2.0

Remark:

End of Report



Authorised Signatory

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SWTD/7.8F/01

TEST REPORT

Issue To:
NKC Projects Private Limited
 Srinagar Ring Road Project, Near Panzan Bridge, Village-
 Gudsathu,
 Budgam
 Jammu & Kashmir
 Indla

Test Report No. : 103232
 Issue Date : 08-04-2024
 Reference No. : Sample Test Request
 Reference Date : 23-03-2024
 Job Order No. : 0000439850-406
 Job Order Date : 23-03-2024
 Date of Sample Received : 23-03-2024
 Sample drawn by : Customer/Star Wire
 ULR No. : TC516424000005766F

Sample Particulars: Sample of Waste Water, Loc: Base Camp (CH: 14+860) Concrete Batching Plant

Date of testing from: 23-03-2024 to 08-04-2024

S.No.	Test Parameter	Unit	Test Method/ Equipment Used	Results	Requirement	Conformity
Discipline: Chemical Group: Pollution & Environment						
1	pH Value @ 25°C	--	IS 3025 (Pt 11) :2022	8.82	5.5000-9.0000	Yes
2	B.O.D for 3 days @ 27°C	mg/l	IS 3025 (Pt 44) :2023	20.0	Max.30.0000	Yes
3	Chemical Oxygen Demand	mg/l	IS 3025 (Pt 58) :2023	215.0	Max.250.0000	Yes
4	Oil & Greases	mg/l	IS 3025 (Pt 39) :2021	< 2.0	Max.10.0000	Yes
5	Total Suspended Solids @ 103°C to 105°C	mg/l	IS 3025 (Pt 17) :2022	89.0	Max.100.0000	Yes

Remark: The sample conforms to general standards for discharge of Environmental Pollutants as per Schedule VI of Environment (Protection) Rules, 1986.

End of Report



Authorised Signatory

Terms & Conditions :

Page No 1/1

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STAR WIRE (INDIA) LIMITED
(TESTING DIVISION)

21/4, Mathura Road, Ballabgarh-121004, Haryana
Telephone : +91-129 4094247, 4094280
E-mail : swdc06@starwire.in

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TC-5164

SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103227
Issue Date : 08-04-2024
Reference No. : Sample Test Request
Reference Date : 23-03-2024
Job Order No. : 0000439850-1
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Customer/~~Star-Wire~~
ULR No. : TC516424000005763F

Sample Particulars: Sample of Soil, Loc: Base Camp (CH: 14+860)

Date of testing from: 27-03-2024 to 08-04-2024

S.No.	Test Parameter	Unit	Test Method/ Equipment Used	Results
Discipline: Chemical Group: Building Materials				
1	pH Value @ 25°C	--	IS 2720 (Pt 26):1987 (RA 2021)	8.91
2	Chloride as Cl	%	BS EN 1744 (Pt 5):2006	< 0.01
3	Organic matter	%	IS 2720 (Pt 22):1972 (RA 2020)	0.32
4	Sulphate as SO4/SO3	%	IS 2720 (Pt 27):1977 (RA 2020)	0.024

Remark:

End of Report



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Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in

Star Wire (India) Ltd, Testing Division								
Air Sampling Equipment List								
Sl. No.	Unique ID	Instrument Name	Make/Model / Type/SI. No.	Date of Calibration	Due Date of Calibration	Calibration Agency	Metrology / Traceability	Maintenance Plan (Jan to Dec)
1	13E	Stack Monitoring Kit, VSS-1, with Pitot Tube	Vayubodhan 404 dt.107	16.10.2023	16.10.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
2	15E	Fine Particulate Sampler	Envirotech, APM-550-(SNo 167 DTA-2010)	11.07.2023	11.07.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
3	17E	Fine Particulate Sampler Mini	Envirotech, APM-550 Mini, 439DTD-2014	16.10.2023	16.10.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
4	18E	Gaseous Pollutant Sampler, Rotameter	Envirotech, APM-433, No. 22-DTB-2010, 10/0124	11.07.2023	11.07.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
5	19E	Gaseous Pollutant Sampler, Rotameter	Envirotech, APM-433, No. 231-DTD-2011, 11/0423	11.07.2023	11.07.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
6	20E	Respirable Dust Sampler with Gas sampler	Envirotech, APM-460-411(SNo 816 dt-E-2000-180DTD.00	13.03.2024	13.03.2025	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
7	23E	Respirable Dust Sampler with Gas sampler	Envirotech, APM-460-411DXNL (SNo 208 D 23), APM 411 TE (SNo 477 F 23)	22.07.2023	22.07.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
8	25E	Sound Level Meter	Envirotech, SLM 100, Sl. No. 478 F 22	13.07.2023	12.07.2024	Asian Technology	NABL accredited lab	4th Saturday of the month
9	26E	Sound Level Meter	Cygnat 2001, SNo A0403121, Baseline Technologies	13.07.2023	12.07.2024	Asian Technology	NABL accredited lab	4th Saturday of the month





Envirotech Calibration Laboratory

A Division of Envirotech Instruments Pvt. Ltd.



Regd. Office : A-271, Okhla Industrial Area, Phase-I, New Delhi-110020, India Tel: 011-26812607, 26813887
 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTCO16927

Format No. ECL/QMS/F.31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/3252A	16/10/2023	17/10/2023	16/10/2024
ULR - C C 2 7 9 9 2 3 0 0 0 0 0 8 9 1 2 F			

Customer Name and Address:

M/s Star Wire (India) Ltd.
 121/4, Mathura Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2023-24/3252

SUMMARY

Date of Receipt	16/10/2023	Date of Measurement	16/10/2023
Unit Under Calibration	Rotameter	Adjustment/Repair done in	No
Location/Installed at	Stack Monitoring Kit	Calibration Parameter	Flow Rate
Make	Vayubodhan	Range of U.U.C	(0-3.0)LPM
Model No	VSS1	Reference equipment used	Piston Flow Calibrator
Serial No.	404 DII-07	Calibration Medium	Air
Lot No.	13E	Calibration Method	ASTM D5337-11
Rotameter no	F70887	Procedure	ECL/P-09
Calibrated at	ECL	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	24.27	Relative Humidity (%)	51	Barometric Pressure (mbar)	989.1
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All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Piston Flow Calibrator Calibrated at PCB Pune Maharashtra	PCIS	Discal Delta S No. 107219	CA1954 2212 679 Dt. 28/12/2022	27/12/2023
Differential Pressure Meter Calibrated at ECL New Delhi	Testo	510 51468136/812	ECL/ECL/2023-24/MECH/1881 Dt: 08/07/2023	08/07/2024
Standard Temperature Indicator Calibrated at ECL New Delhi	Auteck	PP45, 189530/2700	ECL/ECL/2023-24/THERMAL/1868 Dt: 08/07/2023	08/07/2023

Discipline: Fluid Flow
 Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	Set Point (LPM)	Reference		Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (±LPM)
		Avg. Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)			
1	0.5	0.487	0.490	0.003	1.006	0.032
2	1.0	0.974	0.985	0.011	1.011	0.032
3	1.5	1.460	1.490	0.030	1.020	0.032
4	2.0	1.946	1.984	0.038	1.019	0.032
5	3.0	2.918	2.979	0.061	1.021	0.032

Calibrated By:

(Signature)
 (Sanjeev Kumar)
 (Calibration Engineer)

Reviewed & Checked
(Signature)

Authorised/Reviewed By:

(Signature)
 (Ashish Gupta)
 (Technical Manager)

Notes:

- All the instruments/Reference Calibrators used are traceable to national standards through reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
- This Calibration Certificate shall not be reproduced except in full without written approval of Envirotech Calibration Laboratory.
- The uncertainties are for a confidence probability not less than 95%, unless otherwise specified



Envirotech Calibration Laboratory



A Division of Envirotech Instruments Pvt. Ltd.

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 Fax: 011 26811833 E-mail: cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927

CC-2799

Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/1928	11/07/2023	12/07/2023	11/07/2024
ULR- C C 2 7 9 9 2 3 0		0 0 0	0 6 4 9 6 F
Customer Name and Address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1	
Job Card No:- 2023-24/1928			

SUMMARY

Dates of Receipt	11/07/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Fine Particulate Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	15-18 (LPM)
Model No.	APM 550	Reference Equipment Used	Low Flow Calibrator
Serial No.	167-DTA-2010	Calibration Medium	Air
D.G.M. No.	070308870	Calibration Method	40 CFR Part 50 Appendix L
ID No.	15E	Procedure	ECL/P-10
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	11/07/2023		

Environmental Condition of Measurements

Temperature (°C)	27	Relative Humidity (%)	65	Barometric Pressure (mbar)	973.5
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Low Flow Calibrator Calibrated at ECL Lab New Delhi	Envirotech	APM 523M 29-B-22	ECL/ECL/2022-23/FLOW/5490 Dt:17/02/2023	Dt: 16/02/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	UUC				Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (±%)
	Set Point (LPM)	Inlet Temp. (°C)	Inlet Press. (mmHg)	Avg. Flow Rate In (SLPM)	Avg. Flow Rate in (SLPM)			
1	16.7	25.0	0.00	16.63	15.91	0.722	0.957	1.10

Calibrated By:

Dhambir Singh
 (Dhambir Singh)
 (Calibration Engineer)

Authorised/Reviewed By:

Dr. Balbir Singh
 (Dr. Balbir Singh)
 (Quality Manager)



Notes:

- All the instruments/Reference Calibrators used are traceable to national standards through reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
- This Calibration Certificate shall not be reproduced except in full without written approval of Envirotech Calibration Laboratory.
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Envirotech Calibration Laboratory

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Format No: ECL/QMS/f-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
FCL/SWL/2023-24/FLOW/3256	16/10/2023	17/10/2023	16/10/2024
ULR - C C 2 7 9 9 2 3 0	0 0 0	0 8 9 2 4 F	

Customer Name and Address:

M/s Star Wire (India) Ltd.
 21/4, Mathura Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2023-24/3256

SUMMARY

Dates of Receipt	16/10/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Fine Particulate Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	16.7 (LPM)
Model No.	APM550 MINI	Reference Equipment Used	Low Flow Calibrator
Serial No.	439-DTD-2014	Calibration Medium	Air
Rotameter S. No.	AG14C3719-1469	Calibration Method	40 CFR Part 50 Appendix L
ID No.	17 E	Procedure	ECL/P-10
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	16/10/2023		

Environmental Condition of Measurements

Temperature (°C) : 25.12, Relative Humidity (%) : 54 Barometric Pressure(mbar) : 979

Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Low Flow Calibrator Calibrated at ECL New Delhi	Envirotech	APM 523M 017-DTL-2018	ECL/ECL/2023-24/FLOW/2310 Issue Dt. 16/08/2023	13/08/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	Set Point (LPM)	UUC Avg. Flow Rate In (SLPM)	Reference Avg. Flow Rate in (SLPM)	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) ± %
1	16.7	16.42	16.32	0.101	0.994	1.16

Calibrated By:

Satish Kumar
 (Satish Kumar)
 (Calibration Engineer)

Reviewed & checked
(Signature)

Authorised/Reviewed By:

(Signature)
 (Ashish Gupta)
 (Technical Manager)

Notes:

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Envirotech Calibration Laboratory



A Division of Envirotech Instruments Pvt. Ltd.

Regd. Office : A-271, Okhla Industrial Area, Phase-I, New Delhi-110020, India Tel: 011-26812607, 26813687
 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927

Format No: ECL/QMS/F-31

Calibration Certificate																		
CERTIFICATE NUMBER			CALIBRATION DATE			DATE OF ISSUE			RECOMMENDED DATE FOR NEXT CALIBRATION									
ECL/SWL/2023-24/FLOW/1930			11/07/2023			12/07/2023			11/07/2024									
ULR -	C	C	2	7	9	9	2	3	0	0	0	0	0	6	5	0	0	F
Customer Name and Address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana										Page 1 of 1			Job Card No:- 2023-24/1930					

SUMMARY

Date of Receipt	11/07/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Rotameter Of Gaseous Pollutant Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	0 to 3.0 LPM
Model No.	APM 433	Reference equipment used	Diaphragm Gas Meter
Serial No.	22-DTB-2010	Calibration Medium	Air
ID No.	18E	Calibration Method	Comparison
Rotameter no	10/0124	Procedure	ECL/P-11
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	11/07/2023		

Environmental Condition of Measurements

Temperature (°C)	27	Relative Humidity (%)	65	Barometric Pressure(mbar)	973.5
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Diaphragm Gas Meter Calibrated at ECL, NEW DELHI	Qinchaun	G1.6.2322159	ECL/ECL/2022-23/FLOW/2799 Dt: 16/09/2022	Dt: 15/09/2023
Stop Watch Calibrated at ECL, NEW DELHI	Racer	396, ECL/ELE-TECH/13	ECL/ECL/2022-23/ET/1429 Dt: 10/06/2023	Dt: 09/06/2024
Differential Pressure meter Calibrated at Wika Pune	Testo	510 43466397/410	WP271/1099 Dt: 16/09/2022	Dt: 15/09/2023
Digital Temperature Indicator Calibrated at ECL New Delhi	Autonix	PP 45, 180330/2698	ECL/ECL/2023-24/THERMAL/1866 Dt: 08/07/2023	Dt: 07/07/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	UUC		Reference	Error	Calibration Factor (Ref./UUC)	Expanded Uncertainty for (k=2) (± LPM)
	Set Point (LPM)	Avg. Flow Rate In (SLPM)	Avg. Flow Rate In (SLPM)	(UUC-Ref.)		
1	0.5	0.475	0.474	0.001	0.998	0.054
2	1.0	0.947	0.943	0.004	0.996	0.054
3	1.5	1.417	1.511	-0.094	1.066	0.054
4	2.0	1.837	1.889	-0.002	1.001	0.054
5	3.0	2.822	2.829	-0.007	1.002	0.054

Calibrated By:

 (Dharambir Singh)
 (Calibration Engineer)

Authorised/Reviewed By:

 (Dr. Balbir Singh)
 (Quality Manager)

Notes:

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 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTCD16927

Calibration Certificate												Format No: ECL/QMS/F-31								
CERTIFICATE NUMBER				CALIBRATION DATE				DATE OF ISSUE				RECOMMENDED DATE FOR NEXT CALIBRATION								
ECL/SWL/2023-24/FLOW/1931				11/07/2023				12/07/2023				11/07/2024								
U	L	R	-	C	C	2	7	9	9	2	3	0	0	0	0	6	5	0	2	F
Customer Name and Address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana												Page 1 of 1								
Job Card No:- 2023-24/1931																				

SUMMARY			
Date of Receipt	11/07/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Rotameter Of Gaseous Pollutant Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	0 to 3.0 LPM
Model No	APM 433	Reference equipment used	Diaphragm Gas Meter
Serial No.	231-DTD-2011	Calibration Medium	Air
ID No.	19E	Calibration Method	Comparison
Rotameter no	11/0423	Procedure	ECL/P-11
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	11/07/2023		

Environmental Condition of Measurements			
Temperature (°C)	27	Relative Humidity (%)	65
Barometric Pressure(mbar)			973.5

Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Diaphragm Gas Meter Calibrated at ECL, NEW DELHI	Qinchaun	G1 6.2322159	ECL/ECL/2022-23/FLOW/1799 Dt: 16/09/2022	Dt: 15/09/2023
Stop Watch Calibrated at ECL, NEW DELHI	Racer	396, ECL/ELE-TECH/13	ECL/ECL/2022-23/ET/1429 Dt: 10/06/2023	Dt: 09/06/2024
Differential Pressure meter Calibrated at Wika Pune	Testo	510 51466387/410	WP27/1039 Dt: 16/09/2022	Dt: 15/09/2023
Digital Temperature Indicator Calibrated at ECL New Delhi	Autonix	PP 45, 180330/2698	ECL/ECL/2023-24/THERMAL/1866 Dt: 08/07/2023	Dt: 07/07/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)						
Sl. No	Set Point (LPM)	UUC Avg. Flow Rate In (SLPM)	Reference Avg. Flow Rate In (SLPM)	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for (k=2) (± LPM)
1	0.5	0.474	0.467	0.007	0.985	0.054
2	1.0	0.946	0.938	0.008	0.992	0.054
3	1.5	1.415	1.413	0.002	0.999	0.054
4	2.0	1.881	1.896	-0.015	1.008	0.054
5	3.0	2.814	2.839	-0.025	1.009	0.054

Calibrated By:

 (Dharambir Singh)
 (Calibration Engineer)

Authorised/Reviewed By:

 (Dr. Balbir Singh)
 (Quality Manager)

Notes:

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Format No: FCL/QMS/F-31

Calibration Certificate											
CERTIFICATE NUMBER			CALIBRATION DATE			DATE OF ISSUE			RECOMMENDED DATE FOR NEXT CALIBRATION		
ECL/SWL/2023-24/FLOW/6148			13/03/2024			14/03/2024			13/03/2025		
ULR - C C 2 7 9 9 2 4 0 0 0 0 0									0 2 7 9 6 F		
Customer Name and Address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana						Page 1 of 1			Job Card No:- 2023-24/6148		

SUMMARY			
Date of Receipt	13/03/2024	Adjustment/Repair done in	Na
Unit Under Calibration	Flow Rate of Respirable Dust Sampler	UUC Calibration Parameters	Flow Rate
Make	Envirotech	Range of U.U.C	0.6 to 1.5 (m ³ /min)
Model No.	APM 460	Reference Equipment Used	Top Loading Calibrator
Serial No.	816-DTE-2000	Calibration Medium	Air
ID No.	-20E	Calibration Method	USEPA IO 2.1 Method
Calibrated at	customer site	Procedure	ECL/P-12
Dates of Measurement	13/03/2024	Condition on Receipt	O.K

Environmental Condition of Measurements			
Temperature (°C)	25	Relative Humidity (%)	50
Barometric Pressure(mbar)			980

Details of reference equipment used for calibration
 All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Top Loading Calibrator Calibrated at ECL, NEW DELHI	Envirotech	APM 421,85	ECL/ECL/2023-24/FLOW/5043 Dt: 25/01/2024	Dt: 25/01/2025
Differential Pressure meter Calibrated at Wika Pune	Wika	510 43466387/410	WP23/1211 Dt: 25/09/2023	Dt: 24/09/2024

Discipline: Fluid Flow Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)						
Sl. No	UUC Set Point (m ³ /min)	Reference Avg. Measured Flow Rate (Sm ³ /min)	Avg. Flow Rate in (Sm ³ /min)	Error (UUC-Ref.)	Calibration Factor (Reference/UUC)	Expanded Uncertainty for (k=2) (± %)
1	0.60	0.580	0.586	-0.006	1.010	1.601
2	0.70	0.677	0.682	-0.005	1.007	1.772
3	0.75	0.726	0.722	0.003	0.995	1.516
4	0.80	0.774	0.782	-0.008	1.010	1.421
5	1.06	1.025	1.039	-0.014	1.014	1.020

Calibrated By: *Kailash Balodi*
 (Kailash Balodi)
 (Calibration Engineer)

Authorised/Reviewed By: *Dr. Balbir Singh*
 (Dr. Balbir Singh)
 (Quality Manager)

Notes:
 1. All the Instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
 2. Results presented in this Calibration Certificate relate only to the items mentioned & calibrated at Envirotech Calibration Laboratory.
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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/2139	22/07/2023	24/07/2023	22/07/2024
ULR - C C 2 7 9 9 2 3 0 0 0 0 0 6 8 6 9 F			

Customer Name and Address:
 M/s Star Wire (India) Ltd.
 21/4, Mathura Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2023-24/2139

SUMMARY

Date of Receipt	21/07/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Respirable Dust Sampler	Calibration Parameters	Flow Rate
Make	Envirotech	Range of U.U.C	0.6 to 1.5 (m ³ /min)
Model No.	APM 460 DXNL	Reference Equipment Used	Top Loading Calibrator
Serial No.	208 D 23	Calibration Medium	Air
ID No.	- 23E	Calibration Method	USEPA IO 2.1 Method
Calibrated at	ECL	Procedure	ECL/P-12
Dates of Measurement	22/07/2023	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C) 25 Relative Humidity (%) 54 Barometric Pressure(mbar) 979

Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Top Loading Calibrator Calibrated at ECL Lab New Delhi	Envirotech	APM 421, 259	ECL/ECL/2022-23/FLOW/3487 Dt. 09/11/2022	Dt:08/11/2023
Differential Pressure Meter, Calibrated at Wika Pune	WIKA	Testo 510-43466387/410	WP22/1099 Dt. 16/09/2022	15/09/2023

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC Avg. Flow Rate (m ³ /min)	Reference Avg. True Flow Rate (m ³ /min)	Error (UUC-Ref.) (m ³ /min)	Calibration Factor (Reference/ UUC)	Expanded Uncertainty for (k=2) (± %)
1	0.90	0.889	0.011	0.998	1.333
2	1.03	1.022	0.008	0.992	1.165
3	1.05	1.044	0.006	0.994	1.143
4	1.15	1.146	0.004	0.996	1.020
5	1.24	1.234	0.006	0.995	1.020

Calibrated By:

Rajendra Nigam
 (Rajendra Nigam)
 (Calibration Engineer)

Authorised/Reviewed By:

Dr. Balbir Singh
 (Dr. Balbir Singh)
 (Quality Manager)

Notes:

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ASIAN TECHNOLOGY

(A HOUSE OF CALIBRATION)



CALIBRATION CERTIFICATE

Customer name And Address	M/S: Star Wire (India) Ltd. 21/4, Mathura Road Faridabad.- 121004	Service request No. & date	A/01/11/07/23&11/07/2023
		ULR no.	CC223923000001031F
		Cert. No.	AT23000001031
		Date of Receipt of DUC	11/07/2023
		Date of calibration	13/07/2023
		Date of issue	13/07/2023
		Suggested due date	12/07/2024

Instrument Details			
Instrument name	Sound Level Meter	S. No.	478 F 22
Make / Model No.	Envirotech /SLM 100	Location	Environment Lab
Range / Size	34 to 134dB	Accuracy	-----
Least Count	0.1dB	Visual Inspection	OK
I.D. No.	25E		

Detail of reference standards & Major equipment's used			
Equipment Name	Sound Level Calibrator		
Make	Lutron		
Model / SR No.	SC-942 / 1.158201		
Certificate No.	ME01302		
Calibration Validity	27/01/2024		
Calibration by	Ecotech Instruments		

Environmental Condition	Temperature	20±2 °C	Calibration Reference	----
	Relative Humidity	50±10%	Calibration Procedure	CP-4I

Calibration Results			
Serial No.	Standard Value in (dB)	Measured Value in (dB)	Uncertainty At 95% C.I., (coverage factor k=2)
01.	94	93.7	±1.3 dB
02.	114	113.6	

Remarks :

❖	(1) Standard equipment use for calibration are traceable to national/ international standards
❖	(2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by coverage factor, = 2 such that the coverage probability corresponds to approximately 95% (3) The above results are valid at the time of and under the stated conditions measurement (4) This certificate is refers only to the particular item submitted for calibration (5) Next calibration due date given as requested by the customer

Calibrated By
(Calibration Engg./TM)
MAHIPAL
Form No.- QF-47

Approved By
(DM/TM)
(NEERAJ T/AGI)
Page No. 1 of 1

---END OF REPORT---



ASIAN TECHNOLOGY

(A HOUSE OF CALIBRATION)



CALIBRATION CERTIFICATE

Customer name And Address	M/S: Star Wire (India) Ltd. 21/4, Mathura Road Faridabad.- 121004	Service request No. & date	A/01/11/07/23&11/07/2023
		ULR no.	CC223923000001030F
		Cert. No.	AT23000001030
		Date of Receipt of DUC	11/07/2023
		Date of calibration	13/07/2023
		Date of issue	13/07/2023
		Suggested due date	12/07/2024

Instrument Details			
Instrument name	Sound Level Meter	S. No.	A0403121
Make / Model No.	Cygnat	Location	Environment Lab
Range / Size	34 to 134dB	Accuracy	-----
Least Count	0.1dB	Visual Inspection	OK
I.D. No.	26 E		

Detail of reference standards & Major equipment's used			
Equipment Name	Sound Level Calibrator		
Make	Lutron		
Model / SR No.	SC-942 / L158201		
Certificate No.	ME01302		
Calibration Validity	27/01/2024		
Calibration by	Ecotech Instruments		

Environmental Condition	Temperature	20±2 °C	Calibration Reference	-----
	Relative Humidity	50±10%	Calibration Procedure	CP-41

Calibration Results			
Serial No.	Standard Value in (dB)	Measured Value in (dB)	Uncertainty At 95% C.L. (coverage factor $k=2$)
01.	94	93.4	±1.3 dB
02.	114	113.6	

Remarks :

❖	(1) Standard equipment use for calibration are traceable to national/ international standards.
❖	(2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by coverage factor $k=2$ such that the coverage probability corresponds to approximately 95%. (3) The above results are valid at the time of and under the stated conditions measurement. (4) This certificate is refers only to the particular item submitted for calibration. (5) Next calibration due date given as requested by the customer.

Calibrated By
(Calibration Engg./TM)
(MATHIPAL)
Form No.- QF-47

Approved By
(QM/TM)
(NEERAJ TIYAGI)
Page No. 1 of 1

---END OF REPORT---

Environment Monitoring Report

for

Construction of four lane Ring Road/Bypass around Srinagar city from Km 0.000 to Km 42.100 (Phase-I) on Engineering, Procurement and Construction (EPC) mode under NHDP Phase VII in the Union Territory of Jammu and Kashmir under Bharatmala Pariyojana.

Package No.	: Km 0.000 to Km 42.100 (Phase – I)
Client	: National Highway Authority of India
Concessionaire	: UT of Jammu and Kashmir (NHDP Phase VII)
Consultant	: M/s RODIC Consultants Pvt Ltd JV with MSV International Inc.
EPC Contractor	: NKC Projects Pvt. Ltd.
Chainage No.	: 2+400
Camp No.	: 2

Report Submitted By



Star Wire (India) Ltd,
Testing Division

INTRODUCTION

For the effective implementation, a time bound monitoring plan for environmental management including all aspects is prepared by the Lab Star wire (India) Ltd, Testing Division.

Samples for study of Air quality, Stack Emission, Water quality, Soil and Noise level are collected from strategic places representing all the categories of location. The laboratory is guided and advised by NKC Projects Pvt. Ltd, Gurugram, for data obtained from the sites.

Overview of the Road Project:

Construction of four lane Ring Road/Bypass around Srinagar city from Km 0.000 to Km 42.100 (Phase-I) on Engineering, Procurement and Construction (EPC) mode under NHDP Phase VII in the Union Territory of Jammu and Kashmir under Bharatmala Pariyojana.

Purpose of the Environmental Monitoring:

In order to carry out periodic checks, environmental monitoring is carried out by the Laboratory as per schedule and if any parameter is found above the acceptable standards, mitigation measures / control measures shall be adopted in consultation with the Independent Engineer.

Activities Involved In The Project:**a) Pre-Construction Stage:**

Pre-construction stage involves mobilization of the project requirement, planning of logistics and site preparation necessary for commencing construction activities. The activities include:

- Joint field verification of EMP with the Environment Specialist IE and of the NKC officials.
- Identification and selection of material sources (quarry and borrow material, water, sand etc.).
- Procurement of construction equipment / machinery such as hot mix plants, batching plants and other construction equipment and machinery.
- Selection, design and layout of construction areas, hot mix and batching plants, labour camps etc.
- Apply for and obtain all the necessary clearances from the agencies concerned.
- Planning traffic diversions and detours including arrangements for temporary land if required.
- Monitoring environmental conditions (Baseline data) through approved monitoring agency

b) Construction Stage:

Construction stage is the most crucial stage in terms of activities that require careful management to avoid environmental impacts. Environmental impact mitigation measures as per CA will be taken to control the impact on environment. There are several other environmental issues that have been addressed as part of good engineering practices. They include providing roadside drainage provision of cross drainage structures and Toe wall etc.

c) Operational Stage:

Regular monitoring of environmental conditions (Air, Water, Noise etc.) will be carried out through an approved pollution monitoring agency. During operation stage IE and KRDCCL will be responsible for Monitoring of operational performance of the various mitigation/enhancement measures carried out by the Concessionaire.

d) Mitigation Measures to counter Pollutants:

Mitigation measures as per the contract specifications are taken.

The feasible remedial measures include avoidance, mitigation and enhancements.

Parameters to be Monitored (Regulatory Framework)

Ambient air quality, Stack emissions (DG & Hot Mix Plant), water quality (Batch Mix plant discharge, ground water and drinking water samples), noise level and soil quality are monitored for standard parameters as per National Ambient Air Quality standards (NAAQS-2009), MoEF & CC guidelines, CPCB/SPCB rules and Indian Standards. The drinking water samples are compared with IS: 10500 standard and Batching plant water samples are compared with MoEF & CC Schedule-VI standard.

Monitoring Locations and Frequency

The following number of stations have been fixed for monitoring of the environment for the present project.

<u>Sl. No.</u>	<u>Description</u>	<u>Camp-1</u>	<u>Camp-2</u>	<u>Camp-3</u>
1.	Ambient Air	2	1	1
2.	DG Stack Emission	1	1	1
3.	Water (Waste & Ground)	2	2	2
4.	Ambient Noise	2	1	1
5.	DG Noise	1	1	1
6.	Soil	1	1	1

Monitoring frequency for Ambient air quality: Air quality monitoring at stipulated locations including construction activities operation areas is done at a frequency of 2 times a year @ 24 hrs./ sampling.

Monitoring frequency for DG Stack emission and Noise: DG stack monitoring at stipulated locations including short term Noise monitoring 2 times a year in the months of March and September in each year.

Monitoring frequency for water quality: Batching Plant discharge water sample from the operational plant, potable water samples from residential areas are monitored at a frequency of half yearly for all the parameters as per MoEF & CC guidelines / Indian Standard. The drinking water samples are compared with IS: 10500 standard and Batching plant water samples are compared with MoEF & CC Schedule-VI standard.

Monitoring frequency for ground water quality: Ground water level and ground water quality monitoring is undertaken 2 times a year in the months of March and September each year on a long-term basis. The ground water samples are compared with IS: 10500 standards.

Monitoring frequency for noise level: The noise level observations are made as per Environment Protection Act GSR 1063(E) Schedule III at all the ambient air quality stations. The noise level will be monitored once every half year during daytime (6 AM to 10 PM) and nighttime (10 PM to 6 AM).

INSTRUMENTS AND METHODOLOGIES**Ambient Air Quality:**

The Fine Particulate Matter (PM_{2.5}), Respirable Particulate Matter (PM₁₀), Sulphur dioxide (SO₂), Oxides of Nitrogen (NO₂) and Carbon monoxide (CO) concentration in down wind direction considering predominant wind direction, at a distance of approx. 50 meters from the dust generating sources is measured in the manner indicated below:

<u>Sl.No.</u>	<u>Parameter</u>	<u>Technique</u>	<u>Technical Protocol</u>
1	Fine Particulate Matter PM _{2.5}	Fine Particulate Sampler (Gravimetric Method)	IS:5182 (Part-XXIV)
2	Respirable Particulate Matter PM ₁₀	Respirable Dust Sampler (Gravimetric Method)	IS:5182 (Part-XXIII)
3	Sulphur Dioxide	Modified West & Gaeke	IS:5182 (Part-II)
4	Oxides of Nitrogen	Jacob & Hochheiser	IS:5182 (Part-VI)
5	Carbon Monoxide	Iodine Pentoxide	IS:5182 (Part-X)

In addition to the general laboratory and analytical facilities, the following sampling and analytical equipment are used.

<u>Sl.No</u>	<u>Name of the Equipment</u>	<u>Make/Model</u>
1	Fine particulate air samplers	Envirotech, New Delhi
2	Respirable Dust Samplers	Envirotech, New Delhi
3	Multi gas air samplers.	Envirotech, New Delhi
4	Stack Monitoring Kit VSS-1	Vayubodhan Upkaran, New Delhi
5	Sound Level Meters	Envirotech / Baseline, New Delhi
6	Thermometers	Zeal
7	Spectrophotometer.	Lesani
8	Analytical balances	Shimadzu (Acc. 0.00001mg)
9	pH meter	Toshniwal
10	Conductivity Meter	Toshniwal
11	Heating Ovens and Incubators	Universal / Narang Scientific

Calibration And Quality Assurance:

All the equipments used in sampling and subsequent testing in the laboratory are well maintained and calibrated with National / International traceability.

Stack Emission Air Quality:

The Particulate Matter (PM), Oxides of Nitrogen (NO_x) and Carbon monoxide (CO) concentration in stack emissions, the following pollution generating sources is measured in the manner indicated below:

<u>Sl.No.</u>	<u>Parameter</u>	<u>Technique</u>	<u>Technical Protocol</u>
1	Particulate Matter PM	Fine Particulate Sampler (Gravimetric Method)	IS:11255 (Part-I)
2	Oxides of Nitrogen	Jacob & Hochheiser	IS:11255 (Part-VII)
3	Carbon Monoxide	Orsat Analysis	IS:13270

Water Quality:

Representative water samples are collected in a plastic container and transported to the laboratory for physico-chemical analysis. For determination of BOD and bacteriological analysis, 250 ml pre-sterilized bottles are used, and care is taken to maintain cool temperature by keeping the bottles in ice boxes during transportation to the laboratory for analysis. Physico-chemical and bacteriological parameters for drinking water samples are compared with IS: 10500 standard and Batching plant discharge water samples are compared with MoEF & CC Schedule-VI standard.

Noise Level:

Guidelines prescribed by the CPCB are complied with the noise level meter capable of measuring equivalent sound pressure level is used for noise level measurement.

Team for Managing the Environmental Monitoring

Environmental pollutant sampling team at the site and laboratory level take all necessary care to collect and monitor the environmental samples and for overall environmental management. It will look after the following aspects of environmental management-

- Generation of environmental sampling data.
- Monitoring of project activities Noise.
- Co-ordination for timely implementation of project environment monitoring plan.

Site Level:

Environmental Monitoring headed by DGM lab, provide necessary support required for environmental monitoring of project. Measures including environmental quality monitoring in consultation with the site Staff Officer (Environment sampling and testing) gets the necessary staffs and other facilities for effective implementation of sampling procedures from the office of the Area.

Laboratory Level:

The environmental monitoring program is implemented having suitable manpower and well-equipped laboratory and other infrastructure in a competent manner.

TEST REPORTS CAMP-2

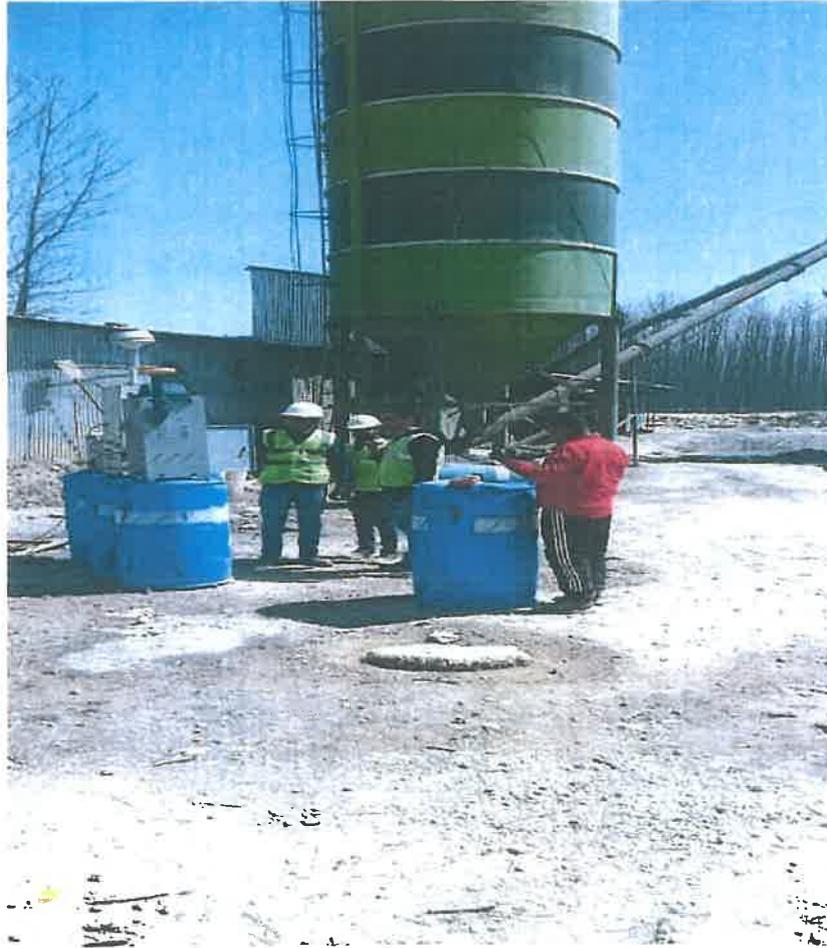
(CHAINAGE – KM 0.000 TO KM 42.100)

for

- Ambient Air
 - Ambient Noise
 - DG Stack Emission
 - DG Noise
 - Water &
 - Soil
-

Camp – 2

Photographs – Ambient Air, Ambient Noise, DG Stack Emission, DG Noise, Water, Soil Sample Collection



Air Sample Collection



Ambient Noise Monitoring



DG Noise Monitoring



Borewell Water Sample Collection



Waste Water Sample Collection

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Soil Sample Collection



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SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103209
Issue Date : 06-04-2024
Reference No. : Sample Test Request
Reference Date. : 23-03-2024
Job Order No. : 0000439849-103
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Star Wire
ULR No. : TC516424000005748F

Sample Particulars : Sample of Ambient Air, Loc: Camp 2 (CH: 2+400) Concrete Batching Plant .

CHEMICAL TESTING	:	ATMOSPHERIC POLLUTION & ENVIRONMENT
DATE OF TESTING	:	26/03/2024 to 05/04/2024

Sampling Details

1.	DATE OF SAMPLING	:	20/03/2024 to 21/03/2024
2.	LOCATION OF THE SAMPLING POINT	:	Camp-2 (CH:2+400) Concrete Batching plant
3.	SAMPLING STARTED AT	:	12:15 PM on 20/03/2024
4.	SAMPLING COMPLETED AT	:	12:20 PM on 21/03/2024
5.	ACTUAL TIME OF SAMPLING	Min.	1445
6.	AVERAGE AMBIENT TEMP.	°C	17.0

RESULTS

SL.No.	Test Parameter (Pollutants)	Units	Test Method	Results	Conforming Limits for Industrial, Residential, Rural and other areas except Ecological sensitive area (NAAQS: 2009) Max. (24 hrs.)
(a)	Particulate Matter as PM 2.5	µg/m ³	IS:5182 (Pt. 24):2019	52.0	60
(b)	Particulate Matter as PM 10	µg/m ³	IS 5182 (Pt 23):2006 (RA 2022)	88.0	100
(c)	Sulphur Dioxide as SO ₂	µg/m ³	IS 5182 (Pt 2):2001 (RA 2022)	11.5	80
(d)	Nitrogen Dioxide as NO ₂	µg/m ³	IS 5182 (Pt 6):2006 (RA 2022)	31.0	80
(e)	Carbon Monoxide as CO	µg/m ³	IS 5182 (Pt 10):1999 (RA 2019)	1140 (<1ppm)	4000 (1 hr.)

END OF REPORT

Authorised Signatory

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Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in



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SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103213
Issue Date : 06-04-2024
Reference No. : Sample Test Request
Reference Date. : 23-03-2024
Job Order No. : 0000439849-227
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Star Wire
ULR No. : TC516424000005752F

Sample Particulars : Sample of Ambient Noise Monitoring, Loc: Camp 2 (CH: 2+400) Concrete Batching Plant .

CHEMICAL TESTING	:	ATMOSPHERIC POLLUTION & ENVIRONMENT
TEST METHOD	:	IS 9989:1981 (RA 2020)

AMBIENT NOISE REPORT

DATE OF TESTING	:	20/03/2024 -21/03/2024
SOURCE OF NOISE	:	Construction activities & Vehicle movement
BACKGROUND AMBIENT NOISE, (In the case where the source noise is higher than the Ambient Noise)	:	N. A
TYPE OF NOISE MONITORING	:	24 HOURLY
PURPOSE OF MONITORING	:	To comply EPA 1986

RESULTS

Sl. No.	Location	Unit	L _{eq}		L _{Min}		L _{Max}	
			Day	Night	Day	Night	Day	Night
1.	Camp-2 (CH:2+400) Concrete Batching plant	dB (A)	66.6	58.3	62.2	57.2	77.6	60.7

Ambient Standards in Respect of Noise

AREA CODE	CATEGORY OF AREA	Limits in dB(A) Leq	
		Day Time (06.00 am – 10.00 pm)	Night Time (10.00 pm – 06.00 am)
A	Industrial Area	75	70
B	Commercial	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

As per factory act (chapter 104, section 102(1), maximum permissible exposure of sound level should be 85 dB (A) over an 8 hrs. workday.

****END OF REPORT****

Sunita Dhillon
Authorised Signatory
D.G.M.

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TC-5164

SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103216
Issue Date : 06-04-2024
Reference No. : Sample Test Request
Reference Date. : 23-03-2024
Job Order No. : 0000439849-290
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Star Wire
ULR No. : TC516424000005755F

Sample Particulars : Sample of Stack Emission of DG Set 250 KVA, Loc: Camp 2 (CH: 2+400) Near Concrete Batching Plant .

CHEMICAL TESTING	: ATMOSPHERIC POLLUTION & ENVIRONMENT
DATE OF TESTING	: 26/03/2024 to 05/04/2024

1.	Date of Sampling	: 20/03/2024
2.	Area of the Emission Source	: DG Section, Camp-2 (CH:2+400) Concrete Batching plant
3.	Source of Emission	: HSD Fired DG Set 250 KVA
4.	Stack Identification / Details	: STACK ATTACHED TO ABOVE
5.	Location of the Sampling Port (Emission regulations Pt-3, CPCB- CI.2.5.0)	: AS PER STANDARD
6.	Stack Height From	Ground (Mtr.) : 8.0
		Roof (Mtr.) : --
		Source (Mtr.) : --
7.	Stack Dimensions	: 12.5 cm
8.	Sampling Duration	: 65 min
9.	Purpose of Monitoring	: To comply EPA 1986/ To Assess Pollution Load.
10.	Details of APCD, if any	: Nil
11.	Fugitive Emissions if any	: Nil
12.	General Observations	: SATISFACTORY
13.	Stack Temperature (°C)	: 157.0
14.	Ambient Temp. (°C)	: 17.0
15.	Average Stack Velocity (m/Sec.)	: 11.01
16.	Quantity of Emission (Nm ³ /Hr)	: 337.06

RESULTS

Sl. No.	Test Parameter	Units	Test Method	Results	Conforming Limits Max. (EPA :1986)
(a)	Particulate Matter as PM	g/kWh	IS 11255 (Pt 1):1985 (RA 2019)	0.12	0.3
(b)	Oxides of Nitrogen as NOx	g/kWh	IS 11255 (Pt 7):2005 (RA 2022)	0.15	9.2
(c)	Carbon Monoxide as CO	g/kWh	IS 13270:1992 (RA 2019)	0.06	3.5

END OF REPORT

Authorised Signatory



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SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103219
Issue Date : 06-04-2024
Reference No. : Sample Test Request
Reference Date. : 23-03-2024
Job Order No. : 0000439849-363
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Star Wire
ULR No. : TC51642400005758F

Sample Particulars : Sample of Noise of DG Set 250 KVA, Loc: Camp 2 (CH: 2+400) Near Concrete Batching Plant .

CHEMICAL TESTING	:	ATMOSPHERIC POLLUTION & ENVIRONMENT
TEST METHOD	:	IS 9989:1981 (RA 2020)

D.G. SET NOISE REPORT

DATE & TIME OF TESTING	:	20/03/2024 and 4:00 PM to 5:00 PM
IDENTIFICATION OF NOISE SOURCE (CAPACITY/MAKE etc.)	:	DG Section, DG Set 250 KVA Camp 2 (CH:2+400) Concrete Batching plant
BACKGROUND AMBIENT NOISE, (In the case where the source noise is higher than the Ambient Noise)	:	70.8 dB(A)
PURPOSE OF MONITORING	:	To comply EPA 1986
TYPE OF NOISE MONITORING	:	SHORT TERM

RESULTS

Sl.No.	Acoustic Enclosure condition	UNITS	RESULTS			AVG.
1	SPL with acoustic enclosure surface (Tested at 1.0 m distance)	dB (A)	66.6	68.2	69.7	68.2

DG set Standards in Respect of Noise

Sound Pressure Level (SPL) for DG sets manufactured on or after the 1st Jan 2005, measured at 1.0 m distance away from acoustic enclosure surface, Maximum permissible limit.	75 dB (A)
Insertion loss (measured at 0.5m distance) for DG sets manufactured before the 1st Jan 2005, Min.	25 dB (A)
AS per Factory act (Chapter 104, sec 102(1), Max. permissible exposure of sound over an 8 hrs. workday	85 dB (A)

END OF REPORT

Sugratalpal D.G.M.
Authorized Signatory
SUGRATAPAL
D.G.M.
TESTING DIVISION

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TC-5164

SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103238
Issue Date : 08-04-2024
Reference No. : Sample Test Request
Reference Date : 23-03-2024
Job Order No. : 0000439850-669
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Customer/Star Wire
ULR No. : TC516424000005770F

Sample Particulars: Sample of Drinking Water, Loc: Camp 2 (CH: 2+400) Canteen

Date of testing from:23-03-2024 to 08-04-2024

S.No.	Test Parameter	Unit	Test Method/ Equipment Used	Results	Requirement	Conformity
Discipline: Chemical Group: Water						
1	Colour	Hazen	IS 3025 (Pt 4): 2021	< 5.0	Max.15.0000	Yes
2	Odour	--	IS 3025 (Pt 5): 2018	Agreeable	Agreeable	Yes
3	pH Value @ 25°C	--	IS 3025 (Pt 11): 2022	7.02	6.5000-8.5000	Yes
4	Turbidity	NTU	IS 3025 (Pt 10): 2023	< 1.0	Max.5.0000	Yes
5	Total dissolved solids @ 180°C	mg/l	IS 3025 (Pt 16): 2023	378.0	Max.2000.0000	Yes
6	Chloride as Cl	mg/l	IS 3025 (Pt 32): 1988 (RA 2019)	21.0	Max.1000.0000	Yes
7	Fluoride as F	mg/l	APHA 4500F 4-82: 2012	0.5	Max.1.5000	Yes
8	Iron as Fe	mg/l	IS 3025 (Pt 53): 2003 (RA 2019)	< 0.05	Max.1.0000	Yes
9	Total hardness as CaCO3	mg/l	IS 3025 (Pt 21): 2009 (RA 2019)	190.0	Max.600.0000	Yes

Remark: The sample conforms to IS:10500-2012 (RA 2018) (Acceptable limits) w.r.t above test parameters only.

****End of Report****



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Page No 1/1

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SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srnagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103237
Issue Date : 08-04-2024
Reference No. : Sample Test Request
Reference Date : 23-03-2024
Job Order No. : 0000439850-669
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Customer/Star Wire

Sample Particulars: Sample of Drinking Water, Loc: Camp 2 (CH: 2+400) Canteen

Date of testing from: 23-03-2024 to 08-04-2024

<u>S.No.</u>	<u>Test Parameter</u>	<u>Unit</u>	<u>Test Method/ Equipment Used</u>	<u>Results</u>	<u>Requirement</u>	<u>Conformity</u>
Discipline: Chemical Group: Water						
1	Taste	--	IS 3025 (Pt 7): 2017 & (Pt 8):2023	Agreeable	Agreeable	Yes
2	E. Coll	MPN/100ml	IS 1622:1981 (R A 2019)	Not detectable	Not detectable	Yes
3	Total coliform bacteria	MPN/100ml	IS 1622:1981 (R A 2019)	Not detectable	Not detectable	Yes

Remark: The sample conforms to IS:10500-2012 (RA 2018) (Acceptable limits) w.r.t above test parameters only.

****End of Report****



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Page No 1/1

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TC-5164

SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
 Srinagar Ring Road Project, Near Panzan Bridge, Village-
 Gudsathu,
 Budgam
 Jammu & Kashmir
 India

Test Report No. : 103234
 Issue Date : 08-04-2024
 Reference No. : Sample Test Request
 Reference Date : 23-03-2024
 Job Order No. : 0000439850-457
 Job Order Date : 23-03-2024
 Date of Sample Received : 23-03-2024
 Sample drawn by : Customer/Star Wire
 ULR No. : TC516424000005768F

Sample Particulars: Sample of Borewell Water, Loc: Camp 2 (CH: 2+400) Concrete Batching Plant

Date of testing from: 23-03-2024 to 08-04-2024

S.No.	Test Parameter	Unit	Test Method/ Equipment Used	Results
Discipline: Chemical Group: Water				
1	Colour	Hazen	IS 3025 (Pt 4):2021	< 5.0
2	E. Conductivity	micromhos/cm	IS 3025 (Pt 14):2013 (RA 2019)	751.0
3	Odour	--	IS 3025 (Pt 5):2018	Agreeable
4	pH Value @ 25°C	--	IS 3025 (Pt 11):2022	7.28
5	Turbidity	NTU	IS 3025 (Pt 10):2023	< 1.0
6	Total dissolved solids @ 180°C	mg/l	IS 3025 (Pt 16):2023	458.0
7	B.O.D for 3 days @ 27°C	mg/l	IS 3025 (Pt 44):2023	< 5.0
8	Chemical Oxygen Demand	mg/l	IS 3025 (Pt 58):2023	47.0
9	Chloride as Cl	mg/l	IS 3025 (Pt 32):1988 (RA 2019)	14.0
10	Dissolved Phosphate	mg/l	IS 3025 (Pt. 31):2022	1.0
11	Fluoride as F	mg/l	APHA 4500F 4-82:2012	0.8
12	Iron as Fe	mg/l	IS 3025 (Pt 53):2003 (RA 2019)	< 0.05
13	Nitrate nitrogen as NO3	mg/l	IS 3025 (Pt 34/Sec 1):2023	6.0
14	Sulphate as SO4	mg/l	IS 3025 (Pt 24/Sec 1):2022	3.0
15	Total hardness as CaCO3	mg/l	IS 3025 (Pt 21):2009 (RA 2019)	304.0

Remark:

****End of Report****



Authorised Signatory

Terms & Conditions :

Page No 1/1

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SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103235
Issue Date : 08-04-2024
Reference No. : Sample Test Request
Reference Date : 23-03-2024
Job Order No. : 0000439850-457
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Customer/Star Wire

Sample Particulars: Sample of Borewell Water, Loc: Camp 2 (CH: 2+400) Concrete Batching Plant

Date of testing from: 23-03-2024 to 08-04-2024

<u>S.No.</u>	<u>Test Parameter</u>	<u>Unit</u>	<u>Test Method/ Equipment Used</u>	<u>Results</u>
1	Oil & Greases	mg/l	IS 3025 (Pt 39):2021	< 2.0

Remark:

End of Report



Authorised Signatory

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TC-5164

SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103236
Issue Date : 08-04-2024
Reference No. : Sample Test Request
Reference Date : 23-03-2024
Job Order No. : 0000439850-618
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Customer/Star-Wire
ULR No. : TC516424000005769F

Sample Particulars: Sample of Waste Water, Loc: Camp 2 (CH: 2+400) Concrete Batching Plant

Date of testing from: 23-03-2024 to 08-04-2024

S.No.	Test Parameter	Unit	Test Method/ Equipment Used	Results	Requirement	Conformity
Discipline: Chemical Group: Pollution & Environment						
1	pH Value @ 25°C	--	IS 3025 (Pt 11) :2022	8.91	5.5000-9.0000	Yes
2	B.O.D for 3 days @ 27°C	mg/l	IS 3025 (Pt 44) :2023	23.0	Max.30.0000	Yes
3	Chemical Oxygen Demand	mg/l	IS 3025 (Pt 58) :2023	224.0	Max.250.0000	Yes
4	Oil & Greases	mg/l	IS 3025 (Pt 39) :2021	< 2.0	Max.10.0000	Yes
5	Total Suspended Solids @ 103°C to 105°C	mg/l	IS 3025 (Pt 17) :2022	77.0	Max.100.0000	Yes

Remark: The sample conforms to general standards for discharge of Environmental Pollutants as per Schedule VI of Environment (Protection) Rules, 1986.

****End of Report****



Terms & Conditions :

- 1) Remnant / additional samples, if any, after testing will be retained for one month (15 days in case of water and air samples)
- 2) The results listed (reported) refer only to the tested sample and applicable parameters, Endorsement of product is neither inferred nor implied.
- 3) Total liability of our works is limited to the invoiced amount only.
- 4) This report cannot be used as evidence in a court of law without the written approval of the lab.
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Report Status Enquiry : Landline : +91-129 4094247, 4094280, Mob. : 83769 08258, Email : acro@starwire.in
Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in



STAR WIRE (INDIA) LIMITED (TESTING DIVISION)

21/4, Mathura Road, Ballabgarh-121004, Haryana
Telephone : +91-129 4094247, 4094280
E-mail : swdc06@starwire.in

106



TC-5164

SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103233
Issue Date : 08-04-2024
Reference No. : Sample Test Request
Reference Date : 23-03-2024
Job Order No. : 0000439850-42
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Customer/Star Wire
ULR No. : TC516424000005767F

Sample Particulars: Sample of Soil, Loc: Camp 2 (CH: 2+400)

Date of testing from: 27-03-2024 to 08-04-2024

S.No.	Test Parameter	Unit	Test Method/ Equipment Used	Results
Discipline: Chemical Group: Building Materials				
1	pH Value @ 25°C	--	IS 2720 (Pt 26):1987 (RA 2021)	8.53
2	Chloride as Cl	%	BS EN 1744 (Pt 5):2006	< 0.01
3	Organic matter	%	IS 2720 (Pt 22):1972 (RA 2020)	0.25
4	Sulphate as SO4/SO3	%	IS 2720 (Pt 27):1977 (RA 2020)	0.020

Remark:

****End of Report****



Authorised Signatory

Terms & Conditions :

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Page No 1/1

Report Status Enquiry : Landline : +91-129 4094247, 4094280, Mob. : 83769 08258, Email : acro@starwire.in
Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in

Star Wire (India) Ltd, Testing Division								
Air Sampling Equipment List								
Sl. No.	Unique ID	Instrument Name	Make/Model / Type/SI. No.	Date of Calibration	Due Date of Calibration	Callibration Agency	Metrology / Traceability	Maintenance Plan (Jan to Dec)
1	13E	Stack Monitoring Kit, VSS-1, with Pitot Tube	Vayubodhan 404 dt.107	16.10.2023	16.10.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
2	15E	Fine Particulate Sampler	Envirotech, APM-550-(SNo 167 DTA-2010)	11.07.2023	11.07.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
3	17E	Fine Particulate Sampler Mini	Envirotech, APM-550 Mini, 439DTD-2014	16.10.2023	16.10.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
4	18E	Gaseous Pollutant Sampler, Rotameter	Envirotech, APM-433, No. 22-DTB-2010, 10/0124	11.07.2023	11.07.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
5	19E	Gaseous Pollutant Sampler, Rotameter	Envirotech, APM-433, No. 231-DTD-2011, 11/0423	11.07.2023	11.07.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
6	20E	Respirable Dust Sampler with Gas sampler	Envirotech, APM-460-411(SNo 816 dt-E-2000-180DTD.00	13.03.2024	13.03.2025	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
7	23E	Respirable Dust Sampler with Gas sampler	Envirotech, APM-460-411DXNL (SNo 208 D 23), APM 411 TE (SNo 477 F 23)	22.07.2023	22.07.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
8	25E	Sound Level Meter	Envirotech, SLM 100, SI. No. 478 F 22	13.07.2023	12.07.2024	Asian Technology	NABL accredited lab	4th Saturday of the month
9	26E	Sound Level Meter	Cygnat 2001, SNo A0403121, Baseline Technologies	13.07.2023	12.07.2024	Asian Technology	NABL accredited lab	4th Saturday of the month





Envirotech Calibration Laboratory

A Division of Envirotech Instruments Pvt. Ltd.

Regd. Office : A-271, Okhla Industrial Area, Phase-I, New Delhi-110020, India Tel: 011-26812607, 26813887
 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927



Formal No: ECL/QM5/F_31

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
FCL/SWL/2023-24/FLOW/3252A	16/10/2023	17/10/2023	16/10/2024
ULR - C C 2 7 9 9 2 3 0 0 0 0			0 8 9 1 2 F

Customer Name and Address:

M/s Star Wire (India) Ltd.
 21/4, Mathura Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2023-24/3252

SUMMARY

Date of Receipt	16/10/2023	Dates of Measurement	16/10/2023
Unit Under Calibration	Rotameter	Adjustment/Repair done in	No
Location/Installed at	Stack Monitoring Kit	Calibration Parameter	Flow Rate
Make	Vayubadhan	Range of U.U.C	(0-3.0)LPM
Model No.	V551	Reference equipment used	Piston Flow Calibrator
Serial No.	404-DTI-07	Calibration Medium	Air
ID No	13E	Calibration Method	ASTM D5337-11
Rotameter no	F7D887	Procedure	ECL/P-09
Calibrated at	ECL	Condition on Receipt	:O.K

Environmental Condition of Measurements

Temperature (°C) 24.27 Relative Humidity (%) 54 Barometric Pressure(mbar) 985.4

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Piston Flow Calibrator Calibrated at FCRI Palakkad Kerala	BIOS	Drycal-Delite S No. 107219	CA1894 2212 679 Dt. 28/12/2022	22/12/2023
Differential Pressure Meter Calibrated at ECL New Delhi	Testo	510 S1468336/812	ECL/ECL/2023-24/MECH/1881 Dt: 08/07/2023	Dt: 07/07/2024
Digital Temperature Indicator Calibrated at ECL New Delhi Discipline: Fluid Flow	Autonix	PP45, 180330/2700	ECL/ECL/2023-24/THERMAL/1868 Dt: 08/07/2023	Dt: 07/07/2024

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	Set Point (LPM)	Avg. Flow Rate In (SLPM)	Reference Avg. Flow Rate In (SLPM)	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± LPM)
1	0.5	0.487	0.490	0.003	1.006	0.032
2	1.0	0.974	0.985	-0.011	1.011	0.032
3	1.5	1.460	1.490	0.030	1.020	0.032
4	2.0	1.946	1.984	0.038	1.019	0.032
5	3.0	2.918	2.979	-0.061	1.021	0.032

Calibrated By:

(Signature)
 (Sanjeev Kumar)
 (Calibration Engineer)

Authorised/Reviewed By:

Reviewers checked
(Signature)

(Signature)
 (Ashish Gupta)
 (Technical Manager)

- 1 All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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Format No.: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/3252B	16/10/2023	17/10/2023	16/10/2024
ULR - C C 2 7 9 9	2 3 0	0 0 0	0 8 9 1 3 F

Customer Name and Address:

M/s Star Wire (India) Ltd.
 21/4, Mathura Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2023-24/3252

SUMMARY

Date of Receipt	16/10/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Rotameter	Calibration Parameter	Flow Rate
Location Installed at	Stack Monitoring Kit	Range of U.U.C.	(0-30.0)LPM
Make	Vayubodhan	Reference equipment used	Piston Flow Calibrator
Model No.	VSS1	Calibration Medium	Air
Serial No.	404-DTI-07	Calibration Method	ASTM D5337-11
RI No.	-13E	Procedure	ECL/P-09
Rotameter no.	H7E093	Condition on Receipt	O.K
Calibrated at	ECL		
Dates of Measurement	16/10/2023		

Environmental Condition of Measurements

Temperature (°C) 24.27 Relative Humidity (%) 54 Barometric Pressure(mbar) 985.4

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Flow Meter Calibrated at FCRI Palakkad Kerala	Mesa Labs	Herbal II S.No. 177030	CA 1894 7212 678 Issue Dt. 28/12/2022	28/12/2023
Differential Pressure Meter Calibrated at ECL New Delhi	Teco	510 51468330/812	ECL/ECL/2023-24/MECH/1891 Dt: 08/07/2023	Dt: 07/07/2024
Digital Temperature Indicator Calibrated at ECL New Delhi	Autonix	PP45, 180330/2700	ECL/ECL/2023-24/THERMAL/1868 Dt: 08/07/2023	Dt: 07/07/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	Set Point (LPM)	UUC Avg. Flow Rate In (SLPM)	Reference Avg. Flow Rate In (SLPM)	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± LPM)
1	5	4.856	4.868	-0.012	1.002	0.250
2	10	9.680	9.645	-0.165	1.017	0.300
3	15	14.466	14.722	0.256	1.016	0.300
4	20	19.230	19.700	0.470	1.024	0.300
5	30	28.749	29.559	0.810	1.028	0.320

Calibrated By:

(Sanjeev Kumar)
 (Calibration Engineer)

Authorised/Reviewed By:

(Ashish Gupta)
 (Technical Manager)

- All the instruments/Reference Calibrators used are traceable to national standards through reference standards and their calibrations are valid.
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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/1928	11/07/2023	12/07/2023	11/07/2024
ULR- C C 2 7 9 9 2 3 0		0 0 0	0 6 4 9 6 F
Customer Name and Address: M/s Star Wire (India) Ltd. 21/A, Mathura Road, Ballabgarh Haryana		Page 1 of 1	
Job Card No:- 2023-24/1928			

SUMMARY

Dates of Receipt	11/07/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Fine Particulate Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	15-18 (LPM)
Model No.	APM 550	Reference Equipment Used	Low Flow Calibrator
Serial No.	167-DTA-2010	Calibration Medium	Air
D.G.M. No.	070308870	Calibration Method	40 CFR Part 50 Appendix L
JD No.	15E	Procedure	ECL/P-10
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	11/07/2023		

Environmental Condition of Measurements

Temperature (°C)	27	Relative Humidity (%)	65	Barometric Pressure(mbar)	973.5
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Low Flow Calibrator Calibrated at ECL Lab New Delhi	Envirotech	APM 523M 29-B-22	ECL/ECL/2022-23/FLOW/5490 Dt.17/02/2023	Dt: 16/02/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	UUC				Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (±%)
	Set Point (LPM)	Inlet Temp. (°C)	Inlet Press. (mmHg)	Avg. Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)			
1	16.7	25.0	0.00	16.63	15.91	0.722	0.957	1.10

Calibrated By:

Dhambir Singh
 (Dhambir Singh)
 (Calibration Engineer)

Authorised/Reviewed By:

Dr. Balbir Singh
 (Dr. Balbir Singh)
 (Quality Manager)



Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/3256	16/10/2023	17/10/2023	16/10/2024
ULR - C C 2 7 9 9 2 3 0		0 0 0	0 8 9 2 4 F

Customer Name and Address:

M/s Star Wire (India) Ltd.
 21/4, Mathura Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2023-24/3256

SUMMARY

Dates of Receipt	16/10/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Fine Particulate Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	16.7 (LPM)
Model No.	APM550 MINI	Reference Equipment Used	Low Flow Calibrator
Serial No.	439-DTD-2014	Calibration Medium	Air
Rotameter S. No.	AG14C3719-1469	Calibration Method	40 CFR Part 50 Appendix L
ID No.	17E	Procedure	ECL/P-10
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	16/10/2023		

Environmental Condition of Measurements

Temperature (°C) 25.12 Relative Humidity (%) 54 Barometric Pressure(mbar) 979

Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No.&Issue Date	Valid Up to
Low Flow Calibrator Calibrated at ECL New Delhi	Envirotech	APM 523M 017-DTL-2018	ECL/ECL/2023-24/FLOW/2310 Issue Dt. 16/08/2023	13/08/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	Set Point (LPM)	UUC		Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) ±%
		Avg. Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)				
1	16.7	16.42	16.37		0.101	0.994	1.16

Calibrated By:

Satish Kumar

(Satish Kumar)
 (Calibration Engineer)

Reviewed & checked

Authorised/Reviewed By:

Ashish Gupta

(Ashish Gupta)
 (Technical Manager)

Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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Format No: ECL/QMS/F-31

Calibration Certificate			
CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/1930	11/07/2023	12/07/2023	11/07/2024
ULR - C C 2 7 9 9 2 3 0 0		0 0	0 6 5 0 0 F
Customer Name and Address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1	
		Job Card No:- 2023-24/1930	

SUMMARY

Date of Receipt	11/07/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Rotameter Of Gaseous Pollutant Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	0 to 3.0 LPM
Model No.	APM 433	Reference equipment used	Diaphragm Gas Meter
Serial No.	22-DTB-2010	Calibration Medium	Air
ID No.	18E	Calibration Method	Comparison
Rotameter no.	10/0124	Procedure	ECL/P-11
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	11/07/2023		

Environmental Condition of Measurements

Temperature (°C) 27 Relative Humidity (%) 65 Barometric Pressure(mbar) 973.5

Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Diaphragm Gas Meter Calibrated at ECL, NEW DELHI	Qinchaun	G1.6.2322159	ECL/ECL/2022-23/FLOW/2799 Dt: 16/09/2022	Dt: 15/09/2023
Stop Watch Calibrated at ECL, NEW DELHI	Racer	396, ECL/ELE-TECH/13	ECL/ECL/2022-23/ET/1429 Dt: 10/06/2023	Dt: 09/06/2024
Differential Pressure meter Calibrated at Wika Pune	Testo	510 43466387/810	WP22/1099 Dt: 16/09/2022	Dt: 15/09/2023
Digital Temperature Indicator Calibrated at ECL, New Delhi	Autonix	PP 45, 180330/2698	ECL/ECL/2023-24/THERMAL/1866 Dt: 08/07/2023	Dt: 07/07/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	Set Point (LPM)	UUC Avg. Flow Rate in (SLPM)	Reference Avg. Flow Rate In (SLPM)	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for (k=2) (± LPM)
1	0.5	0.475	0.474	0.001	0.998	0.054
2	1.0	0.947	0.943	0.004	0.996	0.054
3	1.5	1.417	1.511	-0.094	1.066	0.054
4	2.0	1.887	1.889	-0.002	1.001	0.054
5	3.0	2.822	2.829	-0.007	1.002	0.054

Calibrated By:

(Dharambir Singh)
(Calibration Engineer)

Authorised/Reviewed By:

(Dr. Balbir Singh)
(Quality Manager)

Notes:

- All the Instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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CC-2799

Format No: ECL/QMS/F-31

Calibration Certificate			
CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/1931	11/07/2023	12/07/2023	11/07/2024
ULR - C C 2 7 9 9 2 3 0 0		0 0	0 6 5 0 2 F
Customer Name and Address: M/s Star Wire (India) Ltd. 71/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1	
		Job Card No:- 2023-24/1931	

SUMMARY

Date of Receipt	11/07/2023	Adjustment/Repair done In UUC	No
Unit Under Calibration	Rotameter Of Gaseous Pollutant Samplers	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	0 to 3.0 LPM
Model No.	APM 433	Reference equipment used	Diaphragm Gas Meter
Serial No.	231-DTD-2011	Calibration Medium	Air
ID No.	19E	Calibration Method	Comparison
Rotameter no	11/0423	Procedure	ECL/P-11
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	11/07/2023		

Environmental Condition of Measurements

Temperature (°C) | 27 | Relative Humidity (%) | 65 | Barometric Pressure(mbar) | 973.5

Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Diaphragm Gas Meter Calibrated at ECL, NEW DELHI	Qinchaun	G1.6,2322159	ECL/ECL/2022-23/FLOW/2799 Dt. 16/09/2022	Dt: 15/09/2023
Stop Watch Calibrated at ECL, NEW DELHI	Hacer	396, ECL/ELE-TECH/13	ECL/ECL/2022-23/ET/3429 DL 10/06/2023	Dt: 09/06/2024
Differential Pressure meter Calibrated at Wika Pune	Testo	510 43466387/410	WP22/1099 Dt: 16/09/2022	Dt: 15/09/2023
Digital Temperature Indicator Calibrated at ECL New Delhi	Autonix	PP 45, 180330/2698	ECL/ECL/2023-24/THERMAL/1866 Dt. 08/07/2023	Dt: 07/07/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	Set Point (LPM)	UUC	Reference	Error	Calibration Factor (Ref./UUC)	Expanded Uncertainty for (k=2) (± LPM)
		Avg. Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)	(UUC-Ref.)		
1	0.5	0.474	0.467	0.007	0.985	0.054
2	1.0	0.946	0.938	0.008	0.992	0.054
3	1.5	1.415	1.413	0.002	0.999	0.054
4	2.0	1.881	1.896	-0.015	1.008	0.054
5	3.0	2.814	2.839	-0.025	1.009	0.054

Calibrated By:

Dharambir Singh
(Dharambir Singh)
(Calibration Engineer)

Authorised/Reviewed By:

Dr. Balbir Singh
(Dr. Balbir Singh)
(Quality Manager)

Notes:

- All the Instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
- This Calibration Certificate shall not be reproduced except in full without written approval of Envirotech Calibration Laboratory.
- The uncertainties are for a confidence probability not less than 95%, unless or otherwise specified



Envirotech Calibration Laboratory

A Division of Envirotech Instruments Pvt. Ltd.

Regd. Office : A-271, Okhla Industrial Area, Phase-I, New Delhi-110020, India Tel: 011-26812607, 26813887
 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927



Format No: ECL/QMS/F-31

Calibration Certificate			
CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/6148	13/03/2024	14/03/2024	13/03/2025
ULR - C C 2 : 7 9 0 2 4 0 0 0 0 0 2 7 9 6 F			
Customer Name and Address: M/s Star Wire (India) Ltd 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1 Job Card No:- 2023-24/6148	

SUMMARY

Date of Receipt	13/03/2024	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Respirable Dust Sampler	Calibration Parameters	Flow Rate
Make	Envirotech	Range of U.U.C	0.6 to 1.5 (m ³ /min)
Model No.	APM 460	Reference Equipment Used	Top Loading Calibrator
Serial No.	816-DTE-2000	Calibration Medium	Air
ID No.	20E	Calibration Method	USEPA IO 2.1 Method
Calibrated at	customer site	Procedure	ECL/P-12
Dates of Measurement	13/03/2024	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	50	Barometric Pressure(mbar)	980
------------------	----	-----------------------	----	---------------------------	-----

Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Top Loading Calibrator Calibrated at ECL, NEW DELHI	Envirotech	APM 421,86	ECL/ECL/2023-24/FLOW/5043 Dt. 25/01/2024	Dt:25/01/2025
Differential Pressure meter Calibrated at Wika Pune	Testo	510 43466387/410	WP23/1211 Dt. 25/09/2023	Dt. 24/09/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC Set Point (m ³ /min)	Avg. Measured Flow Rate (Sm ³ /min)	Reference		Error (UUC-Ref.)	Calibration Factor (Reference/UUC)	Expanded Uncertainty for (k=2) (± %)
			Avg. Flow Rate in (Sm ³ /min)				
1	0.60	0.580	0.586		-0.006	1.010	1.601
2	0.70	0.677	0.682		-0.005	1.007	1.772
3	0.75	0.726	0.722		0.003	0.995	1.516
4	0.80	0.774	0.782		-0.008	1.010	1.421
5	1.06	1.025	1.039		-0.014	1.014	1.020

Calibrated By:

Authorised/Reviewed By:

(Signature)
 (Kailash Balodi)
 (Calibration Engineer)

(Signature)
 (Dr. Balbir Singh)
 (Quality Manager)

Notes:

- All the Instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
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Envirotech Calibration Laboratory

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Regd. Office : A-271, Okhla Industrial Area, Phase-I, New Delhi-110020, India Tel: 011-26812607, 26813887
 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927



CC-2799

Format No: ECL/QMS/F-31

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/2139	22/07/2023	24/07/2023	22/07/2024
UUR - C C 2 7 9 9 2 3 0 0 0 0 0 0 6 8 6 9 F			

Customer Name and Address:
 M/s Star Wire (India) Ltd.
 21/4, Mathura Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2023-24/2139

SUMMARY

Date of Receipt	21/07/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Respirable Dust Sampler	Calibration Parameters	Flow Rate
Make	Envirotech	Range of U.U.C	0.6 to 1.5 (m ³ /min)
Model No.	APM 460 DXNL	Reference Equipment Used	Top Loading Calibrator
Serial No.	208 D 23	Calibration Medium	Air
ID No.	23E	Calibration Method	USEPA IO 2.1 Method
Calibrated at	ECL	Procedure	ECL/P-12
Dates of Measurement	22/07/2023	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C) 25 Relative Humidity (%) 54 Barometric Pressure(mbar) 979

Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Top Loading Calibrator Calibrated at ECL Lab New Delhi	Envirotech	APM 421, 259	ECL/ECL/2022-23/FLOW/3487 Dt: 09/11/2022	08/11/2023
Differential Pressure Meter, Calibrated at Wika Pune	WIKA	Testo 510-43466387/410	WP22/1099 Dt: 16/09/2022	15/09/2023

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC		Error (UUC-Ref.) (m ³ /min)	Calibration Factor (Reference/ UUC)	Expanded Uncertainty for (k=2) (± %)
	Avg. Flow Rate (m ³ /min)	Avg. True Flow Rate (m ³ /min)			
1	0.90	0.889	0.011	0.938	1.333
2	1.03	1.022	0.008	0.992	1.165
3	1.05	1.044	0.006	0.994	1.143
4	1.15	1.146	0.004	0.996	1.020
5	1.24	1.234	0.006	0.995	1.020

Calibrated By:

Rajendra Nigam
 (Rajendra Nigam)
 (Calibration Engineer)

Authorised/Reviewed By:

Dr. Balbir Singh
 (Dr. Balbir Singh)
 (Quality Manager)

Notes

- All the instruments/Reference Calibrators used are traceable to national standards through reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
- This Calibration Certificate shall not be reproduced except in full without written approval of Envirotech Calibration Laboratory.
- The uncertainties are for a confidence probability not less than 95% unless otherwise specified.



ASIAN TECHNOLOGY

(A HOUSE OF CALIBRATION)



CC-2239

CALIBRATION CERTIFICATE

Customer name And Address	M/S: Star Wire (India) Ltd. 21/4, Mathura Road Faridabad.- 121004	Service request No. & date	A/01/11/07/23&11/07/2023
		ULR no.	CC223923000001031F
		Cert. No.	AT23000001031
		Date of Receipt of DUC	11/07/2023
		Date of calibration	13/07/2023
		Date of issue	13/07/2023
		Suggested due date	12/07/2024

Instrument Details			
Instrument name	Sound Level Meter	S. No.	478 F 22
Make / Model No.	Envirotech /SLM 100	Location	Environment Lab
Range / Size	34 to 134dB	Accuracy	-----
Least Count	0.1dB	Visual Inspection	OK
I.D. No.	25E		

Detail of reference standards & Major equipment's used			
Equipment Name	Sound Level Calibrator		
Make	Lutron		
Model / SR No.	SC-942 / I.158201		
Certificate No.	ME01302		
Calibration Validity	27/01/2024		
Calibration by	Ecotech Instruments		

Environmental Condition	Temperature	20±2 °C	Calibration Reference	-----
	Relative Humidity	50±10%	Calibration Procedure	CP-41

Calibration Results			
Serial No.	Standard Value in (dB)	Measured Value in (dB)	Uncertainty At 95% C.I. (coverage factor k=2)
01.	94	93.7	±1.3 dB
02	114	113.6	

Remarks :

❖	(1) Standard equipment use for calibration are traceable to national/ international standards
❖	(2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by coverage factor k = 2 such that the coverage probability corresponds to approximately 95% (3) The above results are valid at the time of and under the stated conditions measurement (4) This certificate is refers only to the particular item submitted for calibration (5) Next calibration due date given as requested by the customer

Calibrated By
(Calibration Engg./TM)
MAHIPAL)
Form No.- QF-47

Approved By
(DM/TM)
(NEERAJ TIYAGI)
Page No. 1 of 1

---END OF REPORT---



ASIAN TECHNOLOGY

(A HOUSE OF CALIBRATION)



CALIBRATION CERTIFICATE

Customer name And Address	M/S: Star Wire (India) Ltd. 21/4, Mathura Road Faridabad.- 121004	Service request No. & date	A/01/11/07/23&11/07/2023
		ULR no.	CC223923000001030F
		Cert. No.	AT23000001030
		Date of Receipt of DUC	11/07/2023
		Date of calibration	13/07/2023
		Date of issue	13/07/2023
		Suggested due date	12/07/2024

Instrument Details			
Instrument name	Sound Level Meter	S. No.	A0403121
Make / Model No.	Cygnet	Location	Environment Lab
Range / Size	34 to 134dB	Accuracy	-----
Least Count	0.1dB	Visual Inspection	OK
I.D. No.	26 E		

Detail of reference standards & Major equipment's used			
Equipment Name	Sound Level Calibrator		
Make	Lutron		
Model / SR No.	SC-942 / L158201		
Certificate No.	ME01302		
Calibration Validity	27/01/2024		
Calibration by	Ecotech Instruments		

Environmental Condition	Temperature	20±2 °C	Calibration Reference	----
	Relative Humidity	50±10%	Calibration Procedure	CP-41

Calibration Results			
Serial No.	Standard Value in (dB)	Measured Value in (dB)	Uncertainty At 95% C.L. (coverage factor k=2)
01.	94	93.4	±1.3 dB
02.	114	113.6	

Remarks :

❖	(1) Standard equipment use for calibration are traceable to national/ international standards.
❖	(2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by coverage factor k = 2 such that the coverage probability corresponds to approximately 95% (3) The above results are valid at the time of and under the stated conditions measurement (4) This certificate is refers only to the particular item submitted for calibration. (5) Next calibration due date given as requested by the customer.

Calibrated By
(Calibration Engg./TM)
(MAHIPAL)
Fprm No.- QF-47

Approved By
(QM/TM)
(NEERAJ TYAGI)
Page No. 1 of 1

---END OF REPORT---

Environment Monitoring Report

for

Construction of four lane Ring Road/Bypass around Srinagar city from Km 0.000 to Km 42.100 (Phase-I) on Engineering, Procurement and Construction (EPC) mode under NHDP Phase VII in the Union Territory of Jammu and Kashmir under Bharatmala Pariyojana.

Package No.	: Km 0.000 to Km 42.100 (Phase – I)
Client	: National Highway Authority of India
Concessionaire	: UT of Jammu and Kashmir (NHDP Phase VII)
Consultant	: M/s RODIC Consultants Pvt Ltd JV with MSV International Inc.
EPC Contractor	: NKC Projects Pvt. Ltd.
Chainage No.	: 36+120
Camp No.	: 3

Report Submitted By



Star Wire (India) Ltd,
Testing Division

INTRODUCTION

For the effective implementation, a time bound monitoring plan for environmental management including all aspects is prepared by the Lab Star wire (India) Ltd, Testing Division.

Samples for study of Air quality, Stack Emission, Water quality, Soil and Noise level are collected from strategic places representing all the categories of location. The laboratory is guided and advised by NKC Projects Pvt. Ltd, Gurugram, for data obtained from the sites.

Overview of the Road Project:

Construction of four lane Ring Road/Bypass around Srinagar city from Km 0.000 to Km 42.100 (Phase-I) on Engineering, Procurement and Construction (EPC) mode under NHDP Phase VII in the Union Territory of Jammu and Kashmir under Bharatmala Pariyojana.

Purpose of the Environmental Monitoring:

In order to carry out periodic checks, environmental monitoring is carried out by the Laboratory as per schedule and if any parameter is found above the acceptable standards, mitigation measures / control measures shall be adopted in consultation with the Independent Engineer.

Activities Involved In The Project:

a) Pre-Construction Stage:

Pre-construction stage involves mobilization of the project requirement, planning of logistics and site preparation necessary for commencing construction activities. The activities include:

- Joint field verification of EMP with the Environment Specialist IE and of the NKC officials.
- Identification and selection of material sources (quarry and borrow material, water, sand etc.).
- Procurement of construction equipment / machinery such as hot mix plants, batching plants and other construction equipment and machinery.
- Selection, design and layout of construction areas, hot mix and batching plants, labour camps etc.
- Apply for and obtain all the necessary clearances from the agencies concerned.
- Planning traffic diversions and detours including arrangements for temporary land if required.
- Monitoring environmental conditions (Baseline data) through approved monitoring agency

b) Construction Stage:

Construction stage is the most crucial stage in terms of activities that require careful management to avoid environmental impacts. Environmental impact mitigation measures as per CA will be taken to control the impact on environment. There are several other environmental issues that have been addressed as part of good engineering practices. They include providing roadside drainage provision of cross drainage structures and Toe wall etc.

c) Operational Stage:

Regular monitoring of environmental conditions (Air, Water, Noise etc.) will be carried out through an approved pollution monitoring agency. During operation stage IE and KRDCCL will be responsible for Monitoring of operational performance of the various mitigation/enhancement measures carried out by the Concessionaire.

d) Mitigation Measures to counter Pollutants:

Mitigation measures as per the contract specifications are taken.

The feasible remedial measures include avoidance, mitigation and enhancements.

Parameters to be Monitored (Regulatory Framework)

Ambient air quality, Stack emissions (DG & Hot Mix Plant), water quality (Batch Mix plant discharge, ground water and drinking water samples), noise level and soil quality are monitored for standard parameters as per National Ambient Air Quality standards (NAAQS-2009), MoEF & CC guidelines, CPCB/SPCB rules and Indian Standards. The drinking water samples are compared with IS: 10500 standard and Batching plant water samples are compared with MoEF & CC Schedule-VI standard.

Monitoring Locations and Frequency

The following number of stations have been fixed for monitoring of the environment for the present project.

<u>Sl. No.</u>	<u>Description</u>	<u>Camp-1</u>	<u>Camp-2</u>	<u>Camp-3</u>
1.	Ambient Air	2	1	1
2.	DG Stack Emission	1	1	1
3.	Water (Waste & Ground)	2	2	2
4.	Ambient Noise	2	1	1
5.	DG Noise	1	1	1
6.	Soil	1	1	1

Monitoring frequency for Ambient air quality: Air quality monitoring at stipulated locations including construction activities operation areas is done at a frequency of 2 times a year @ 24 hrs./ sampling.

Monitoring frequency for DG Stack emission and Noise: DG stack monitoring at stipulated locations including short term Noise monitoring 2 times a year in the months of March and September in each year.

Monitoring frequency for water quality: Batching Plant discharge water sample from the operational plan, potable water samples from residential areas are monitored at a frequency of half yearly for all the parameters as per MoEF & CC guidelines / Indian Standard. The drinking water samples are compared with IS: 10500 standard and Batching plant water samples are compared with MoEF & CC Schedule-VI standard.

Monitoring frequency for ground water quality: Ground water level and ground water quality monitoring is undertaken 2 times a year in the months of March and September each year on a long-term basis. The ground water samples are compared with IS: 10500 standards.

Monitoring frequency for noise level: The noise level observations are made as per Environment Protection Act GSR 1063(E) Schedule III at all the ambient air quality stations. The noise level will be monitored once every half year during daytime (6 AM to 10 PM) and nighttime (10 PM to 6 AM).

INSTRUMENTS AND METHODOLOGIES**Ambient Air Quality:**

The Fine Particulate Matter (PM_{2.5}), Respirable Particulate Matter (PM₁₀), Sulphur dioxide (SO₂), Oxides of Nitrogen (NO₂) and Carbon monoxide (CO) concentration in down wind direction considering predominant wind direction, at a distance of approx. 50 meters from the dust generating sources is measured in the manner indicated below:

<u>Sl.No.</u>	<u>Parameter</u>	<u>Technique</u>	<u>Technical Protocol</u>
1	Fine Particulate Matter PM _{2.5}	Fine Particulate Sampler (Gravimetric Method)	IS:5182 (Part-XXIV)
2	Respirable Particulate Matter PM ₁₀	Respirable Dust Sampler (Gravimetric Method)	IS:5182 (Part-XXIII)
3	Sulphur Dioxide	Modified West & Gaeke	IS:5182 (Part-II)
4	Oxides of Nitrogen	Jacob & Hochheiser	IS:5182 (Part-VI)
5	Carbon Monoxide	Iodine Pentoxide	IS:5182 (Part-X)

Stack Emission Air Quality:

The Particulate Matter (PM), Oxides of Nitrogen (NO_x) and Carbon monoxide (CO) concentration in stack emissions, the following pollution generating sources is measured in the manner indicated below:

<u>Sl.No.</u>	<u>Parameter</u>	<u>Technique</u>	<u>Technical Protocol</u>
1	Particulate Matter PM	Fine Particulate Sampler (Gravimetric Method)	IS:11255 (Part-I)
2	Oxides of Nitrogen	Jacob & Hochheiser	IS:11255 (Part-VII)
3	Carbon Monoxide	Orsat Analysis	IS:13270

Water Quality:

Representative water samples are collected in a plastic container and transported to the laboratory for physico-chemical analysis. For determination of BOD and bacteriological analysis, 250 ml pre-sterilized bottles are used, and care is taken to maintain cool temperature by keeping the bottles in ice boxes during transportation to the laboratory for analysis. Physico-chemical and bacteriological parameters for drinking water samples are compared with IS: 10500 standard and Batching plant discharge water samples are compared with MoEF & CC Schedule-VI standard.

Noise Level:

Guidelines prescribed by the CPCB are complied with the noise level meter capable of measuring equivalent sound pressure level is used for noise level measurement.

In addition to the general laboratory and analytical facilities, the following sampling and analytical equipment are used.

<u>Sl.No</u>	<u>Name of the Equipment</u>	<u>Make/Model</u>
1	Fine particulate air samplers	Envirotech, New Delhi
2	Respirable Dust Samplers	Envirotech, New Delhi
3	Multi gas air samplers.	Envirotech, New Delhi
4	Stack Monitoring Kit VSS-1	Vayubodhan Upkaran, New Delhi
5	Sound Level Meters	Envirotech / Baseline, New Delhi
6	Thermometers	Zeal
7	Spectrophotometer.	Lesani
8	Analytical balances	Shimadzu (Acc. 0.00001mg)
9	pH meter	Toshniwal
10	Conductivity Meter	Toshniwal
11	Heating Ovens and Incubators	Universal / Narang Scientific

Calibration And Quality Assurance:

All the equipments used in sampling and subsequent testing in the laboratory are well maintained and calibrated with National / International traceability.

Team for Managing the Environmental Monitoring

Environmental pollutant sampling team at the site and laboratory level take all necessary care to collect and monitor the environmental samples and for overall environmental management.

It will look after the following aspects of environmental management-

- Generation of environmental sampling data.
- Monitoring of project activities Noise.
- Co-ordination for timely implementation of project environment monitoring plan.

Site Level:

Environmental Monitoring headed by DGM lab, provide necessary support required for environmental monitoring of project. Measures including environmental quality monitoring in consultation with the site Staff Officer (Environment sampling and testing) gets the necessary staffs and other facilities for effective implementation of sampling procedures from the office of the Area.

Laboratory Level:

The environmental monitoring program is implemented having suitable manpower and well-equipped laboratory and other infrastructure in a competent manner.

TEST REPORTS CAMP-3

(CHAINAGE – KM 0.000 TO KM 42.100)

for

- Ambient Air
 - Ambient Noise
 - DG Stack Emission
 - DG Noise
 - Water &
 - Soil
-

Camp – 3

Photographs – Ambient Air, Ambient Noise, DG Stack Emission, DG Noise, Water, Soil Sample Collection



Air Sample Collection



Ambient Noise Monitoring



DG Noise Monitoring

Handwritten text in Arabic script running vertically along the left margin of the page.



Borewell Water Sample Collection



Waste Water Sample Collection



Soil Sample Collection

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103210
Issue Date : 06-04-2024
Reference No. : Sample Test Request
Reference Date. : 23-03-2024
Job Order No. : 0000439849-154
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Star Wire
ULR No. : TC516424000005749F

Sample Particulars : Sample of Ambient Air, Loc: Camp 3 (CH:36+120) Concrete Batching Plant .

CHEMICAL TESTING	:	ATMOSPHERIC POLLUTION & ENVIRONMENT
DATE OF TESTING	:	26/03/2024 to 05/04/2024

Sampling Details

1.	DATE OF SAMPLING	:	20/03/2024 to 21/03/2024
2.	LOCATION OF THE SAMPLING POINT	:	Camp-3 (CH:36+120) Concrete Batching plant
3.	SAMPLING STARTED AT	:	2:00 PM on 20/03/2024
4.	SAMPLING COMPLETED AT	:	2:00 PM on 21/03/2024
5.	ACTUAL TIME OF SAMPLING	Min.	1440
6.	AVERAGE AMBIENT TEMP.	°C	16.0

RESULTS

Sl.No.	Test Parameter (Pollutants)	Units	Test Method	Results	Conforming Limits for Industrial, Residential, Rural and other areas except Ecological sensitive area (NAAQS: 2009) Max. (24 hrs.)
(a)	Particulate Matter as PM 2.5	µg/m ³	IS:5182 (Pt. 24):2019	54.0	60
(b)	Particulate Matter as PM 10	µg/m ³	IS 5182 (Pt 23):2006 (RA 2022)	91.0	100
(c)	Sulphur Dioxide as SO ₂	µg/m ³	IS 5182 (Pt 2):2001 (RA 2022)	14.0	80
(d)	Nitrogen Dioxide as NO ₂	µg/m ³	IS 5182 (Pt 6):2006 (RA 2022)	34.0	80
(e)	Carbon Monoxide as CO	µg/m ³	IS 5182 (Pt 10):1999 (RA 2019)	1140 (<1ppm)	4000 (1 hr.)

END OF REPORT

Authorised Signatory



Terms & Conditions :

- 1) Remnant / additional samples, if any, after testing will be retained for one month (15 days in case of water and air samples)
- 2) The results listed (reported) refer only to the tested sample and applicable parameters, Endorsement of product is neither inferred nor implied.
- 3) Total liability of our works is limited to the invoiced amount only.
- 4) This report cannot be used as evidence in a court of law without the written approval of the lab.
- 5) Report shall not be reproduced except in full, without the written approval of the laboratory.
- 6) Any sort of play by the customer with the data of this report shall be illegal.

Report Status Enquiry : Landline : +91-129 4094247, 4094280, Mob. : 83769 08258, Email : acro@starwire.in
Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in



497
STAR WIRE (INDIA) LIMITED
(TESTING DIVISION)

21/4, Mathura Road, Ballabgarh-121004, Haryana
Telephone : +91-129 4094247, 4094280
E-mail : swdc06@starwire.in

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SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No.	: 103214
Issue Date	: 06-04-2024
Reference No.	: Sample Test Request
Reference Date.	: 23-03-2024
Job Order No.	: 0000439849-238
Job Order Date	: 23-03-2024
Date of Sample Received	: 23-03-2024
Sample drawn by	: Star Wire
ULR No.	: TC516424000005753F

Sample Particulars : Sample of Ambient Noise Monitoring, Loc: Camp 3 (CH: 36+120) Concrete Batching Plant .

CHEMICAL TESTING	: ATMOSPHERIC POLLUTION & ENVIRONMENT
TEST METHOD	: IS 9989:1981 (RA 2020)

AMBIENT NOISE REPORT

DATE OF TESTING	: 20/03/2024 -21/03/2024
SOURCE OF NOISE	: Construction activities & Vehicle movement
BACKGROUND AMBIENT NOISE, (In the case where the source noise is higher than the Ambient Noise)	: N. A
TYPE OF NOISE MONITORING	: 24 HOURLY
PURPOSE OF MONITORING	: To comply EPA 1986

RESULTS

Sl. No.	Location	Unit	L _{eq}		L _{Min}		L _{Max}	
			Day	Night	Day	Night	Day	Night
1.	Camp-3 (CH:36+120) Concrete Batching plant	dB (A)	65.2	55.1	58.7	50.4	70.9	62.7

Ambient Standards in Respect of Noise

AREA CODE	CATEGORY OF AREA	Limits in dB(A) Leq	
		Day Time (06.00 am – 10.00 pm)	Night Time (10.00 pm – 06.00 am)
A	Industrial Area	75	70
B	Commercial	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

As per factory act (chapter 104, section 102(1), maximum permissible exposure of sound level should be 85 dB (A) over an 8 hrs. workday.

END OF REPORT


 Authorised Signatory


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Report Status Enquiry : Landline : +91-129 4094247, 4094280, Mob. : 83769 08258, Email : acro@starwire.in
Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in



498 STAR WIRE (INDIA) LIMITED (TESTING DIVISION)

21/4, Mathura Road, Ballabgarh-121004, Haryana
Telephone : +91-129 4094247, 4094280
E-mail : swdc06@starwire.in

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TC-5164

SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No.	: 103217
Issue Date	: 06-04-2024
Reference No.	: Sample Test Request
Reference Date.	: 23-03-2024
Job Order No.	: 0000439849-321
Job Order Date	: 23-03-2024
Date of Sample Received	: 23-03-2024
Sample drawn by	: Star Wire
ULR No.	: TC516424000005756F

Sample Particulars : Sample of Stack Emission of DG Set 125 KVA, Loc: Camp 3 (CH: 36+120) Near Concrete Batching Plant .

CHEMICAL TESTING		: ATMOSPHERIC POLLUTION & ENVIRONMENT	
DATE OF TESTING		: 26/03/2024 to 05/04/2024	
1.	Date of Sampling	:	21/03/2024
2.	Area of the Emission Source	:	DG Section, Camp-3 (CH:36+120) Concrete Batching plant
3.	Source of Emission	:	HSD Fired DG Set 125 KVA
4.	Stack Identification / Details	:	STACK ATTACHED TO ABOVE
5.	Location of the Sampling Port (Emission regulations Pt-3, CPCB- CL2.5.0)	:	AS PER STANDARD
6.	Stack Height From	Ground (Mtr.)	: 6.0
		Roof (Mtr.)	: --
		Source (Mtr.)	: --
7.	Stack Dimensions	:	12.7 cm
8.	Sampling Duration	:	70 min
9.	Purpose of Monitoring	:	To comply EPA 1986/ To Assess Pollution Load.
10.	Details of APCD, if any	:	Nil
11.	Fugitive Emissions if any	:	Nil
12.	General Observations	:	SATISFACTORY
13.	Stack Temperature (°C)	:	123.0
14.	Ambient Temp. (°C)	:	16.0
15.	Average Stack Velocity (m/Sec.)	:	9.97
16.	Quantity of Emission (Nm ³ /Hr)	:	342.03

RESULTS

Sl. No.	Test Parameter	Units	Test Method	Results	Conforming Limits Max. (EPA:1986)
(a)	Particulate Matter as PM	g/kWh	IS 11255 (Pt 1):1985 (RA 2019)	0.14	0.3
(b)	Oxides of Nitrogen as NOx	g/kWh	IS 11255 (Pt 7):2005 (RA 2022)	0.24	9.2
(c)	Carbon Monoxide as CO	g/kWh	IS 13270:1992 (RA 2019)	0.06	3.5

END OF REPORT

Authorised Signatory
 SUBRATPAL
 D.G.M.

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Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in



STAR WIRE (INDIA) LIMITED
(TESTING DIVISION)

21/4, Mathura Road, Ballabgarh-121004, Haryana
Telephone : +91-129 4094247, 4094280
E-mail : swdc06@starwire.in

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SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103220
Issue Date : 06-04-2024
Reference No. : Sample Test Request
Reference Date. : 23-03-2024
Job Order No. : 0000439849-374
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Star Wire
ULR No. : TC516424000005759F

Sample Particulars : Sample of Noise of DG Set 125 KVA, Loc: Camp 3 (CH: 36+120) Near Concrete Batching Plant

CHEMICAL TESTING	: ATMOSPHERIC POLLUTION & ENVIRONMENT
TEST METHOD	: IS 9989:1981 (RA 2020)

D.G. SET NOISE REPORT

DATE & TIME OF TESTING	: 21/03/2024 and 3:00 PM to 4:00 PM
IDENTIFICATION OF NOISE SOURCE (CAPACITY/MAKE etc.)	: DG Section, DG Set 125 KVA Camp 3 (CH:36+120) Concrete Batching plant
BACKGROUND AMBIENT NOISE, (In the case where the source noise is higher than the Ambient Noise)	: 71.0 dB(A)
PURPOSE OF MONITORING	: To comply EPA 1986
TYPE OF NOISE MONITORING	: SHORT TERM

RESULTS

Sl.No.	Acoustic Enclosure condition	UNITS	RESULTS			AVG.
1	SPL with acoustic enclosure surface (Tested at 1.0 m distance)	dB (A)	63.2	65.4	67.1	65.2

DG set Standards in Respect of Noise

Sound Pressure Level (SPL) for DG sets manufactured on or after the 1st Jan 2005, measured at 1.0 m distance away from acoustic enclosure surface, Maximum permissible limit.	75 dB (A)
Insertion loss (measured at 0.5m distance) for DG sets manufactured before the 1st Jan 2005, Min.	25 dB (A)
AS per Factory act (Chapter 104, sec 102(1), Max. permissible exposure of sound over an 8 hrs. workday	85 dB (A)

END OF REPORT

Authorised Signatory

 SUBRATAPAL
 D.G.M.

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Report Status Enquiry : Landline : +91-129 4094247, 4094280, Mob. : 83769 08258, Email : acro@starwire.in
Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in



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STAR WIRE (INDIA) LIMITED
(TESTING DIVISION)

21/4, Mathura Road, Ballabgarh-121004, Haryana
Telephone : +91-129 4094247, 4094280
E-mail : swdc06@starwire.in

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TC-5164

SWTD/7.8F/01

TEST REPORT

Issue To:
NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No. : 103239
Issue Date : 08-04-2024
Reference No. : Sample Test Request
Reference Date : 23-03-2024
Job Order No. : 0000439850-790
Job Order Date : 23-03-2024
Date of Sample Received : 23-03-2024
Sample drawn by : Customer/~~Star-Wire~~
ULR No. : TC516424000005771F

Sample Particulars: Sample of Borewell Water, Loc: Camp 3 (CH: 36+120) Concrete Batching Water

Date of testing from: 23-03-2024 to 08-04-2024

<u>S.No.</u>	<u>Test Parameter</u>	<u>Unit</u>	<u>Test Method/ Equipment Used</u>	<u>Results</u>
Discipline: Chemical Group: Water				
1	Colour	Hazen	IS 3025 (Pt 4):2021	< 5.0
2	E. Conductivity	micromhos/cm	IS 3025 (Pt 14):2013 (RA 2019)	829.0
3	Odour	--	IS 3025 (Pt 5):2018	Agreeable
4	pH Value @ 25°C	--	IS 3025 (Pt 11):2022	7.29
5	Turbidity	NTU	IS 3025 (Pt 10):2023	< 1.0
6	Total dissolved solids @ 180°C	mg/l	IS 3025 (Pt 16):2023	534.0
7	B.O.D for 3 days @ 27°C	mg/l	IS 3025 (Pt 44):2023	< 5.0
8	Chemical Oxygen Demand	mg/l	IS 3025 (Pt 58):2023	9.0
9	Chloride as Cl	mg/l	IS 3025 (Pt 32):1988 (RA 2019)	44.0
10	Dissolved Phosphate	mg/l	IS 3025 (Pt. 31):2022	< 0.01
11	Fluoride as F	mg/l	APHA 4500F 4-82:2012	1.0
12	Iron as Fe	mg/l	IS 3025 (Pt 53):2003 (RA 2019)	< 0.05
13	Nitrate nitrogen as NO3	mg/l	IS 3025 (Pt 34/Sec 1):2023	8.0
14	Sulphate as SO4	mg/l	IS 3025 (Pt 24/Sec 1):2022	23.0
15	Total hardness as CaCO3	mg/l	IS 3025 (Pt 21):2009 (RA 2019)	399.0

Remark:

End of Report



Authorised Signatory

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Page No 1/1

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Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in



SWTD/7.8F/01

TEST REPORT

Issue To:
NKC Projects Private Limited
 Srinagar Ring Road Project, Near Panzan Bridge, Village-
 Gudsathu,
 Budgam
 Jammu & Kashmir
 India

Test Report No. : 103254
 Issue Date : 08-04-2024
 Reference No. : Sample Test Request
 Reference Date : 23-03-2024
 Job Order No. : 0000439850-790
 Job Order Date : 23-03-2024
 Date of Sample Received : 23-03-2024
 Sample drawn by : Customer/~~Star-Wire~~

Sample Particulars: Sample of Borewell Water, Loc: Camp 3 (CH: 36+120) Concrete Batching Water

Date of testing from: 23-03-2024 to 08-04-2024

<u>S.No.</u>	<u>Test Parameter</u>	<u>Unit</u>	<u>Test Method/ Equipment Used</u>	<u>Results</u>
1	Oil & Greases	mg/l	IS 3025 (Pt 39):2021	< 2.0

Remark:

End of Report



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TEST REPORT

Issue To:

NKC Projects Private Limited
Srinagar Ring Road Project, Near Panzan Bridge, Village-
Gudsathu,
Budgam
Jammu & Kashmir
India

Test Report No.	: 103240
Issue Date	: 08-04-2024
Reference No.	: Sample Test Request
Reference Date	: 23-03-2024
Job Order No.	: 0000439850-961
Job Order Date	: 23-03-2024
Date of Sample Received	: 23-03-2024
Sample drawn by	: Customer/Star Wire
ULR No.	: TC516424000005772F

Sample Particulars: Sample of Waste Water, Loc: Camp 3 (CH: 36+120) Concrete Batching Water

Date of testing from: 23-03-2024 to 08-04-2024

<u>S.No.</u>	<u>Test Parameter</u>	<u>Unit</u>	<u>Test Method/ Equipment Used</u>	<u>Results</u>	<u>Requirement</u>	<u>Conformity</u>
Discipline: Chemical Group: Pollution & Environment						
1	pH Value @ 25°C	--	IS 3025 (Pt 11) :2022	8.64	5.5000-9.0000	Yes
2	B.O.D for 3 days @ 27°C	mg/l	IS 3025 (Pt 44) :2023	26.0	Max.30.0000	Yes
3	Chemical Oxygen Demand	mg/l	IS 3025 (Pt 58) :2023	234.0	Max.250.0000	Yes
4	Oil & Greases	mg/l	IS 3025 (Pt 39) :2021	4.0	Max.10.0000	Yes
5	Total Suspended Solids @ 103°C to 105°C	mg/l	IS 3025 (Pt 17) :2022	56.0	Max.100.0000	Yes

Remark: The sample conforms to general standards for discharge of Environmental Pollutants as per Schedule VI of Environment (Protection) Rules, 1986.

End of Report



Authorised Signatory

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STAR WIRE (INDIA) LIMITED
(TESTING DIVISION)

21/4, Mathura Road, Ballabgarh-121004, Haryana
 Telephone : +91-129 4094247, 4094280
 E-mail : swdc06@starwire.in

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SWTD/7.8F/01

TEST REPORT

Issue To:

NKC Projects Private Limited
 Srinagar Ring Road Project, Near Panzan Bridge, Village-
 Gudsathu,
 Budgam
 Jammu & Kashmir
 India

Test Report No. : 103255
 Issue Date : 08-04-2024
 Reference No. : Sample Test Request
 Reference Date : 23-03-2024
 Job Order No. : 0000439850-83
 Job Order Date : 23-03-2024
 Date of Sample Received : 23-03-2024
 Sample drawn by : Customer/~~Star Wire~~
 ULR No. : TC51642400005780F

Sample Particulars: Sample of Soil, Loc: Camp 3 (CH: 36+120)

Date of testing from: 27-03-2024 to 08-04-2024

<u>S.No.</u>	<u>Test Parameter</u>	<u>Unit</u>	<u>Test Method/ Equipment Used</u>	<u>Results</u>
Discipline: Chemical Group: Building Materials				
1	pH Value @ 25°C	--	IS 2720 (Pt 26):1987 (RA 2021)	9.02
2	Chloride as Cl	%	BS EN 1744 (Pt 5):2006	< 0.01
3	Organic matter	%	IS 2720 (Pt 22):1972 (RA 2020)	0.27
4	Sulphate as SO4/SO3	%	IS 2720 (Pt 27):1977 (RA 2020)	0.021

Remark:

End of Report



Authorised Signatory

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Feedback & Complaints : E-mail : customercare@starwire.in, harishgarg@starwire.in

Star Wire (India) Ltd, Testing Division								
Air Sampling Equipment List								
Sl. No.	Unique ID	Instrument Name	Make/Model / Type/SI. No.	Date of Calibration	Due Date of Calibration	Calibration Agency	Metrology / Traceability	Maintenance Plan (Jan to Dec)
1	13E	Stack Monitoring Kit, VSS-1, with Pitot Tube	Vayubodhan 404 dt.107	16.10.2023	16.10.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
2	15E	Fine Particulate Sampler	Envirotech, APM-550-(SNo 167 DTA-2010)	11.07.2023	11.07.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
3	17E	Fine Particulate Sampler Mini	Envirotech, APM-550 Mini, 439DTD-2014	16.10.2023	16.10.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
4	18E	Gaseous Pollutant Sampler, Rotameter	Envirotech, APM-433, No. 22-DTB-2010, 10/0124	11.07.2023	11.07.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
5	19E	Gaseous Pollutant Sampler, Rotameter	Envirotech, APM-433, No. 231-DTD-2011, 11/0423	11.07.2023	11.07.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
6	20E	Respirable Dust Sampler with Gas sampler	Envirotech, APM-460-411(SNo 816 dt-E-2000-180DTD.00	13.03.2024	13.03.2025	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
7	23E	Respirable Dust Sampler with Gas sampler	Envirotech, APM-460-411DXNL (SNo 208 D 23), APM 411 TE (SNo 477 F 23)	22.07.2023	22.07.2024	Envirotech Calibration Laboratory	NABL accredited lab	4th Saturday of the month
8	25E	Sound Level Meter	Envirotech, SLM 100, SI. No. 478 F 22	13.07.2023	12.07.2024	Asian Technology	NABL accredited lab	4th Saturday of the month
9	26E	Sound Level Meter	Cygnat 2001, SNo A0403121, Baseline Technologies	13.07.2023	12.07.2024	Asian Technology	NABL accredited lab	4th Saturday of the month





Envirotech Calibration Laboratory

A Division of Envirotech Instruments Pvt. Ltd.

Regd. Office : A-271, Okhla Industrial Area, Phase-I, New Delhi-110020, India Tel: 011-26812607, 26813887
 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927



Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/3252A	16/10/2023	17/10/2023	16/10/2024
ULR - C C 2 7 9 9 2 3 0 0 0 0 0 8 9 1 2 F			

Customer Name and Address:

M/s Star Wire (India) Ltd.
 2, 4, Mathure Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2023-24/3252

SUMMARY

Date of Receipt	16/10/2023	Dates of Measurement	16/10/2023
Unit Under Calibration	Rotameter	Adjustment/Repair done in	No
Location/Installed at	Stack Monitoring Kit	Calibration Parameter	Flow Rate
Make	Vayubodhan	Range of U.U.C	{0-3.0}LPM
Model No.	V551	Reference equipment used	Piston Flow Calibrator
Serial No.	404-DT1-07	Calibration Medium	Air
ID No.	138	Calibration Method	ASTM D5337-11
Rotameter no	F7D887	Procedure	ECL/P-09
Calibrated at	ECL	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C) 24.27 Relative Humidity (%) 54 Barometric Pressure(mbar) 985.4

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Piston Flow Calibrator Calibrated at FCRI Palakkad Kerala	BIOS	Drycal-DcLite S.No. 107219	CA1894 2212 679 Dt. 28/12/2022	22/12/2023
Differential Pressure Meter Calibrated at ECL New Delhi	Testo	510 51468336/812	ECL/ECL/2023-24/MECH/1881 Dt:08/07/2023	Dt:07/07/2024
Digital Temperature Indicator Calibrated at ECL New Delhi	Autonix	PP45, 180330/2700	ECL/ECL/2023-24/THERMAL/1868 Dt: 08/07/2023	Dt:07/07/2024

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	Set Point (LPM)	Avg. Flow Rate In (SLPM)	Reference Avg. Flow Rate In (SLPM)	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± LPM)
1	0.5	0.487	0.490	-0.003	1.006	0.032
2	1.0	0.974	0.985	-0.011	1.011	0.032
3	1.5	1.460	1.490	0.030	1.020	0.032
4	2.0	1.946	1.984	-0.038	1.019	0.032
5	3.0	2.918	2.979	-0.061	1.021	0.032

Calibrated By:

(Signature)
 (Sanjeev Kumar)
 (Calibration Engineer)

Reviewed & Checked
(Signature)

Authorised/Reviewed By:

(Signature)
 (Ashish Gupta)
 (Technical Manager)

1 All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
 2 Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
 3 This Calibration Certificate shall not be reproduced except in full without written approval of Envirotech Calibration Laboratory.
 4 The uncertainties are for a confidence probability not less than 95%, unless or otherwise specified



Envirotech Calibration Laboratory

A Division of Envirotech Instruments Pvt. Ltd.



Regd. Office : A-271, Okhla Industrial Area, Phase-I, New Delhi-110020, India Tel: 011-26812607, 26813887
 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927

Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/3252B	16/10/2023	17/10/2023	16/10/2024
UIC - C C 2 7 9 9 2 3 0 0 0 0 0 0 8 9 1 3 F			

Customer Name and Address:

M/s Star Wire (India) Ltd.
 21/4, Mathura Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2023-24/3252

SUMMARY

Date of Receipt	16/10/2023	Adjustment/Repair done in UUC	No
Item under Calibration	Rotameter	Calibration Parameter	Flow Rate
Location installed at	Stack Monitoring Kit	Range of UUC	(0-30.0)LPM
Usage	Vayubodhan	Reference equipment used	Piston Flow Calibrator
Model No.	VSS1	Calibration Medium	Air
Serial No	404 -DTI-07	Calibration Method	ASTM D5337-11
ID No	- 13E	Procedure	ECL/P-09
Rotameter no	H7E093	Condition on Receipt	O.K
Calibrated at	ECL		
Dates of Measurement	16/10/2023		

Environmental Condition of Measurements

Temperature (°C)	24.27	Relative Humidity (%)	54	Barometric Pressure(mbar)	985.4
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All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Flow Meter Calibrated at FCR Palakkad Kerala	Mesa Labs	HexCal-H S.No. 177030	CA 1894 2212 678 Issue Dt. 28/12/2022	20/12/2023
Differential Pressure Meter Calibrated at ECL New Delhi	Tesco	510 51403316/812	ECL/ECL/2023-24/THERMAL/1881 Dt: 08/07/2023	Dt: 07/07/2024
Digital Temperature Indicator Calibrated at ECL New Delhi	Astoria	PP45, 190330/2730	ECL/ECL/2023-24/THERMAL/1858 Dt: 08/07/2023	Dt: 07/07/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	Set Point (LPM)	UUC Avg. Flow Rate In (SLPM)	Reference Avg. Flow Rate In (SLPM)	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± LPM)
1	5	4.856	4.868	-0.012	1.002	0.290
2	10	9.680	9.845	-0.165	1.017	0.300
3	15	14.466	14.722	-0.256	1.018	0.300
4	20	19.230	19.709	-0.479	1.024	0.300
5	30	28.749	29.559	-0.810	1.028	0.320

Calibrated By:

(Sanjeev Kumar)
 (Calibration Engineer)

Authorised/Reviewed By:

(Ashish Gupta)
 (Technical Manager)

Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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Envirotech Calibration Laboratory

A Division of Envirotech Instruments Pvt. Ltd.

Regd. Office : A-271, Okhla Industrial Area, Phase-I, New Delhi-110020, India Tel: 011-26812607, 26813887
 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927



CC-2799

Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/1928	11/07/2023	12/07/2023	11/07/2024
ULR- C C 2 7 9 9 2 3 0		0 0 0	0 6 4 9 6 F
Customer Name and Address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1	
Job Card No:- 2023-24/1928			

SUMMARY

Dates of Receipt	11/07/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Fine Particulate Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	15-18 (LPM)
Model No.	APM 550	Reference Equipment Used	Low Flow Calibrator
Serial No.	167-DTA-2010	Calibration Medium	Air
D.G.M. No.	070308870	Calibration Method	40 CFR Part 50 Appendix L
ID No.	- 15 E	Procedure	ECL/P-10
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	11/07/2023		

Environmental Condition of Measurements

Temperature (°C)	27	Relative Humidity (%)	65	Barometric Pressure(mbar)	973.5
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Low Flow Calibrator Calibrated at ECL Lab New Delhi	Envirotech	APM 523M 29-B-22	ECL/ECL/2022-23/FLOW/5490 Dt.17/02/2023	Dt: 16/02/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	UUC				Reference		Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± %)
	Set Point (LPM)	Inlet Temp. (°C)	Inlet Press. (mmHg)	Avg. Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)				
1	16.7	25.0	0.00	16.63	15.91	0.722	0.957	1.10	

Calibrated By:

Dharambir Singh
 (Dharambir Singh)
 (Calibration Engineer)

Authorised/Reviewed By:

Dr. Balbir Singh
 (Dr. Balbir Singh)
 (Quality Manager)



Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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CC-2789

Format No: ECL/OIS/f-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/3256	16/10/2023	17/10/2023	16/10/2024
ULR : C C 2 7 9 9 2 3 0	0 0 0	0 8 9 2 4 F	

Customer Name and Address:

M/s Star Wire (India) Ltd.
 21/4, Mathura Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2023-24/3256

SUMMARY

Dates of Receipt	16/10/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Fine Particulate Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	16.7 (LPM)
Model No.	APM550 MINI	Reference Equipment Used	Low Flow Calibrator
Serial No.	439-DTD-2014	Calibration Medium	Air
Rotameter S. No.	AG14C3719-1469	Calibration Method	40 CFR Part 50 Appendix L
ID No.	17E	Procedure	ECL/P-10
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	16/10/2023		

Environmental Condition of Measurements

Temperature (°C) 25.12 ; Relative Humidity (%) 54 ; Barometric Pressure(mbar) 979

Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Low Flow Calibrator Calibrated at ECL New Delhi	Envirotech	APM 523M 017-DTL-2018	ECL/ECL/2023-24/FLOW/2310 Issue Dt. 16/08/2023	13/08/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	UUC Set Point (LPM)	Reference Avg. Flow Rate in (SLPM)	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) ±%
1	16.7	16.42	0.101	0.994	1.16

Calibrated By:

Satish Kumar
 (Satish Kumar)
 (Calibration Engineer)

Reviewed & checked
(Signature)

Authorised/Reviewed By:

(Signature)
 (Ashish Gupta)
 (Technical Manager)

Notes:

- All the Instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
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Format No: ECL/QMS/F-31

Calibration Certificate																		
CERTIFICATE NUMBER			CALIBRATION DATE			DATE OF ISSUE			RECOMMENDED DATE FOR NEXT CALIBRATION									
ECL/SWL/2023-24/FLOW/1930			11/07/2023			12/07/2023			11/07/2024									
ULR -	C	C	2	7	9	9	2	3	0	0	0	0	0	6	5	0	0	F
Customer Name and Address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana										Page 1 of 1		Job Card No:- 2023-24/1930						

SUMMARY

Date of Receipt	11/07/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Rotameter Of Gaseous Pollutant Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	0 to 3.0 LPM
Model No.	APM 433	Reference equipment used	Diaphragm Gas Meter
Serial No	22-DTB-2010	Calibration Medium	Air
ID No.	- 18E	Calibration Method	Comparison
Rotameter no	10/0124	Procedure	ECL/P-11
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	11/07/2023		

Environmental Condition of Measurements

Temperature (°C)	27	Relative Humidity (%)	65	Barometric Pressure(mbar)	973.5
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Diaphragm Gas Meter Calibrated at ECL, NEW DELHI	Qinchaun	G16,2322159	ECL/ECL/2022-23/FLOW/2799 Dt. 16/09/2022	Dt. 15/09/2023
Stop Watch Calibrated at ECL, NEW DELHI	Racer	395, ECL/ELE-TECH/13	ECL/ECL/2022-23/ET/1429 Dt. 10/06/2023	Dt. 09/06/2024
Differential Pressure meter Calibrated at Wika Pune	Testo	510 43466387/410	WP22/1099 Dt. 16/09/2022	Dt. 15/09/2023
Digital Temperature Indicator Calibrated at ECL New Delhi	Autonix	PP 45, 180330/2698	ECL/ECL/2023-24/THERMAL/1866 Dt. 05/07/2023	Dt. 07/07/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	Set Point (LPM)	UUC Avg. Flow Rate In (SLPM)	Reference Avg. Flow Rate In (SLPM)	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for (k=2) (± LPM)
1	0.5	0.475	0.474	0.001	0.998	0.054
2	1.0	0.947	0.943	0.004	0.996	0.054
3	1.5	1.417	1.511	-0.094	1.066	0.054
4	2.0	1.887	1.889	-0.002	1.001	0.054
5	3.0	2.822	2.829	-0.007	1.002	0.054

Calibrated By:

 (Dharambir Singh)
 (Calibration Engineer)

Authorised/Reviewed By:

 (Dr. Balbir Singh)
 (Quality Manager)

Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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CG-2799

Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/1931	11/07/2023	12/07/2023	11/07/2024
ULR - C C 2 7 9 9 2 3 0 0		0 0	0 6 5 0 2 F

Customer Name and Address:
 M/s Star Wire (India) Ltd.
 21/4, Mathura Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2023-24/1931

SUMMARY

Date of Receipt	11/07/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Rotameter Of Gaseous Pollutant Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	0 to 3.0 LPM
Model No.	APM 433	Reference equipment used	Diaphragm Gas Meter
Serial No.	231-DTD-2011	Calibration Medium	Air
ID No.	19E	Calibration Method	Comparison
Rotameter no	11/0423	Procedure	ECL/P-11
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	11/07/2023		

Environmental Condition of Measurements

Temperature (°C)	27	Relative Humidity (%)	65	Barometric Pressure(mbar)	973.5
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Diaphragm Gas Meter Calibrated at ECL, NEW DELHI	Ginchaun	G1.6,2322159	ECL/ECL/2022-23/FLOW/2799 Dt: 16/09/2022	Dt: 15/09/2023
Stop Watch Calibrated at ECL, NEW DELHI	Racer	896, ECL/ELE-TECH/13	ECL/ECL/2022-23/ET/1429 Dt: 10/06/2023	Dt: 09/06/2024
Differential Pressure meter Calibrated at Wika Pune	Testo	510 43466387/410	WP22/1099 Dt: 16/09/2022	Dt: 15/09/2023
Digital Temperature Indicator Calibrated at ECL New Delhi	Autonix	PP 45, 180330/2698	ECL/ECL/2023-24/THERMAL/1866 Dt: 08/07/2023	Dt: 07/07/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	Set Point (LPM)	UUC	Reference	Error	Calibration Factor (Ref./UUC)	Expanded Uncertainty for (k=2) (± LPM)
		Avg. Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)	(UUC-Ref.)		
1	0.5	0.474	0.467	0.007	0.985	0.054
2	1.0	0.946	0.938	0.008	0.992	0.054
3	1.5	1.415	1.413	0.002	0.999	0.054
4	2.0	1.881	1.896	-0.015	1.008	0.054
5	3.0	2.814	2.839	-0.025	1.009	0.054

Calibrated By:

Dharambir Singh
 (Dharambir Singh)
 (Calibration Engineer)

Authorised/Reviewed By:

Dr. Balbir Singh
 (Dr. Balbir Singh)
 (Quality Manager)

Notes:

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Format No: ECL/QMS/E-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/6148	13/03/2024	14/03/2024	13/03/2025

ULR - C C 2 7 9 9 2 4 0 0 0 0 0 2 7 9 6 F

Customer Name and Address:

M/s Star Wire (India) Ltd.
 21/4, Mathura Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2023-24/6148

SUMMARY

Date of Receipt	13/03/2024	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Respirable Dust Sampler	Calibration Parameters	Flow Rate
Make	Envirotech	Range of U.U.C	0.6 to 1.5 (m ³ /min)
Model No.	APM 460	Reference Equipment Used	Top Loading Calibrator
Serial No.	816-DTE-2000	Calibration Medium	Air
ID No.	-20E	Calibration Method	USEPA 10.2.1 Method
Calibrated at	customer site	Procedure	ECL/P-12
Dates of Measurement	13/03/2024	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C) 25 Relative Humidity (%) 50 Barometric Pressure(mbar) 980

Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Top Loading Calibrator Calibrated at ECL, NEW DELHI	Envirotech	APM 421.86	ECL/ECL/2023-24/FLOW/5043 Dt. 25/01/2024	Dt:25/01/2025
Differential Pressure meter Calibrated at Wika Pune	Testo	510 43466387/510	WP23/1211 Dt. 25/09/2023	Dt: 24/09/2024

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC		Reference		Calibration Factor (Reference/UUC)	Expanded Uncertainty for (k=2) (± %)
	Set Point (m ³ /min)	Avg. Measured Flow Rate (Sm ³ /min)	Avg. Flow Rate in (Sm ³ /min)	Error (UUC-Ref.)		
1	0.60	0.580	0.586	-0.006	1.010	1.601
2	0.70	0.677	0.682	-0.005	1.007	1.772
3	0.75	0.726	0.722	0.003	0.995	1.516
4	0.80	0.774	0.782	-0.008	1.010	1.421
5	1.06	1.025	1.039	-0.014	1.014	1.020

Calibrated By:

(Kailash Balodi)
 (Calibration Engineer)

Authorised/Reviewed By:

(Dr. Balbir Singh)
 (Quality Manager)

Notes:

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Format No: ECL/QMS/F-31

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2023-24/FLOW/2139	22/07/2023	24/07/2023	22/07/2024
ULR - C C 2 7 9 9 2 3 0 0 0 0 0 6 8 6 9 F			

Customer Name and Address:
 M/s Star Wire (India) Ltd.
 21/4, Mathura Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2023-24/2139

SUMMARY

Date of Receipt	21/07/2023	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Respirable Dust Sampler	Calibration Parameters	Flow Rate
Make	Envirotech	Range of U.U.C	0.6 to 1.5 (m ³ /min)
Model No.	APM 460 DXNL	Reference Equipment Used	Top Loading Calibrator
Serial No.	208 D 23	Calibration Medium	Air
ID No.	- 23E	Calibration Method	USEPA IO 2.1 Method
Calibrated at	ECL	Procedure	ECL/P-12
Dates of Measurement	22/07/2023	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	54	Barometric Pressure(mbar)	979
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Top Loading Calibrator Calibrated at ECL Lab New Delhi	Envirotech	APM 421, 259	ECL/ECL/2022-23/FLOW/3487 Dt. 09/11/2022	Dt. 08/11/2023
Differential Pressure Meter, Calibrated at Wika Pune	WIKA	Testo 510-43466387/410	WP22/1099 Dt: 16/09/2022	15/09/2023

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	UUC		Reference	Error (UUC-Ref.) (m ³ /min)	Calibration Factor (Reference/ UUC)	Expanded Uncertainty for (k=2) (± %)
	Avg. Flow Rate (m ³ /min)	Avg. True Flow Rate (m ³ /min)				
1	0.90	0.889	0.011	0.938	1.333	
2	1.03	1.022	0.008	0.992	1.165	
3	1.05	1.044	0.006	0.994	1.143	
4	1.15	1.146	0.004	0.996	1.020	
5	1.24	1.234	0.006	0.995	1.020	

Calibrated By:

 (Rajendra Nigam)
 (Calibration Engineer)

Authorised/Reviewed By:

 (Dr. Balbir Singh)
 (Quality Manager)

Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
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ASIAN TECHNOLOGY

(A HOUSE OF CALIBRATION)



CALIBRATION CERTIFICATE

Customer name And Address	M/S: Star Wire (India) Ltd. 21/4, Mathura Road Faridabad.- 121004	Service request No. & date	A/01/11/07/23&11/07/2023
		ULR no.	CC223923000001031F
		Cert. No.	AT23000001031
		Date of Receipt of DUC	11/07/2023
		Date of calibration	13/07/2023
		Date of issue	13/07/2023
		Suggested due date	12/07/2024

Instrument Details			
Instrument name	Sound Level Meter	S. No.	478 F 22
Make / Model No.	Envirotech /SLM 100	Location	Environment Lab
Range / Size	34 to 134dB	Accuracy	-----
Least Count	0.1dB	Visual Inspection	OK
I.D. No.	25E		

Detail of reference standards & Major equipment's used			
Equipment Name	Sound Level Calibrator		
Make	Lutron		
Model / SR No.	SC-942 / 1.158201		
Certificate No.	ME01302		
Calibration Validity	27/01/2024		
Calibration by	Ecotech Instruments		

Environmental Condition	Temperature	20±2 °C	Calibration Reference	-----
	Relative Humidity	50±10%	Calibration Procedure	CP-41

Calibration Results			
Serial No.	Standard Value in (dB)	Measured Value in (dB)	Uncertainty At 95% C.I. (coverage factor k=2)
01.	94	93.7	±1.3 dB
02.	114	113.6	

Remarks :

❖	(1) Standard equipment use for calibration are traceable to national/ international standards.
❖	(2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by coverage factor k = 2 such that the coverage probability corresponds to approximately 95%. (3) The above results are valid at the time of and under the stated conditions measurement. (4) This certificate is refers only to the particular item submitted for calibration. (5) Next calibration due date given as requested by the customer.

Calibrated By
(Calibration Engg./TM)
(MAHIPAL)
Form No.- QF-47

Approved By
(QM/TM)
(NEERAJ TIWARI)
Page No. 1 of 1

---END OF REPORT---



ASIAN TECHNOLOGY

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CALIBRATION CERTIFICATE

Customer name And Address	M/S: Star Wire (India) Ltd. 21/4, Mathura Road Faridabad.- 121004	Service request No. & date	A/01/11/07/23&11/07/2023
		ULR no.	CC223923000001030F
		Cert. No.	AT23000001030
		Date of Receipt of DUC	11/07/2023
		Date of calibration	13/07/2023
		Date of issue	13/07/2023
		Suggested due date	12/07/2024

Instrument Details			
Instrument name	Sound Level Meter	S. No.	A0403121
Make / Model No.	Cygnat	Location	Environment Lab
Range / Size	34 to 134dB	Accuracy	-----
Least Count	0.1dB	Visual Inspection	OK
I.D. No.	26 E		

Detail of reference standards & Major equipment's used			
Equipment Name	Sound Level Calibrator		
Make	Lutron		
Model / SR No.	SC-942 / L158201		
Certificate No.	ME01302		
Calibration Validity	27/01/2024		
Calibration by	Ecotech Instruments		

Environmental Condition	Temperature	20±2 °C	Calibration Reference	-----
	Relative Humidity	50±10%	Calibration Procedure	CP-41

Calibration Results			
Serial No.	Standard Value in (dB)	Measured Value in (dB)	Uncertainty At 95% C.L. (coverage factor $k=2$)
01.	94	93.4	±1.3 dB
02.	114	113.6	

Remarks :

<ul style="list-style-type: none"> ❖ (1) Standard equipment use for calibration are traceable to national/ international standards ❖ (2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by coverage factor $k=2$ such that the coverage probability corresponds to approximately 95% (3) The above results are valid at the time of and under the stated conditions measurement (4) This certificate is refers only to the particular item submitted for calibration. (5) Next calibration due date given as requested by the customer.
--

Calibrated By
(Calibration Engg./TM)
(MAHIPAL)
Form No.- QF-47

Approved By
(QM/TM)
(NEERAJ TYAGI)
Page No. 1 of 1

---END OF REPORT---

Environment Monitoring Report

for

Construction of four lane Ring Road/Bypass around Srinagar city from Km 0+000 to Km 42+100 (Phase-I) on Engineering, Procurement and Construction (EPC) mode under NHDP Phase VII in the Union Territory of Jammu and Kashmir under Bharatmala Pariyojana.

Package No.	: Km 0+000 to Km 42+100 (Phase – I)
Client	: National Highway Authority of India
Concessionaire	: UT of Jammu and Kashmir (NHDP Phase VII)
Consultant	: M/s RODIC Consultants Pvt Ltd JV with MSV International Inc.
EPC Contractor	: NKC Projects Pvt. Ltd.
Chainage No.	: 14+860
Camp No.	1

Report Submitted By



Star Wire (India)
Laboratories Pvt. Ltd.

INTRODUCTION

For the effective implementation, a time bound monitoring plan for environmental management including all aspects is prepared by the Lab Star wire (India) Laboratories Pvt. Ltd. Samples for study of Air quality, Stack Emission, Water quality, Soil and Noise level are collected from strategic places representing all the categories of location. The laboratory is guided and advised by NKC Projects Pvt. Ltd, Gurugram, for data obtained from the sites.

Overview of the Road Project:

Construction of four lane Ring Road/Bypass around Srinagar city from Km 0+000 to Km 42+100 (Phase-I) on Engineering, Procurement and Construction (EPC) mode under NHDP Phase VII in the Union Territory of Jammu and Kashmir under Bharatmala Pariyojana.

Purpose of the Environmental Monitoring:

In order to carry out periodic checks, environmental monitoring is carried out by the Laboratory as per schedule and if any parameter is found above the acceptable standards, mitigation measures / control measures shall be adopted in consultation with the Independent Engineer.

Activities Involved In The Project:

a) Pre-Construction Stage:

Pre-construction stage involves mobilization of the project requirement, planning of logistics and site preparation necessary for commencing construction activities. The activities include:

- Joint field verification of EMP with the Environment Specialist IE and of the NKC officials.
- Identification and selection of material sources (quarry and borrow material, water, sand etc.).
- Procurement of construction equipment / machinery such as hot mix plants, batching plants and other construction equipment and machinery.
- Selection, design and layout of construction areas, hot mix and batching plants, labour camps etc.
- Apply for and obtain all the necessary clearances from the agencies concerned.
- Planning traffic diversions and detours including arrangements for temporary land if required.
- Monitoring environmental conditions (Baseline data) through approved monitoring agency

b) Construction Stage:

Construction stage is the most crucial stage in terms of activities that require careful management to avoid environmental impacts. Environmental impact mitigation measures as per CA will be taken to control the impact on environment. There are several other environmental issues that have been addressed as part of good engineering practices. They include providing roadside drainage provision of cross drainage structures and Toe wall etc.

c) Operational Stage:

Regular monitoring of environmental conditions (Air, Water, Noise etc.) will be carried out through an approved pollution monitoring agency. During operation stage IE and KRDCCL will be responsible for Monitoring of operational performance of the various mitigation/enhancement measures carried out by the Concessionaire.

d) Mitigation Measures to counter Pollutants:

Mitigation measures as per the contract specifications are taken.
The feasible remedial measures include avoidance, mitigation and enhancements.

Parameters to be Monitored (Regulatory Framework)

Ambient air quality, Stack emissions (DG & Hot Mix Plant), water quality (Batch Mix plant discharge, ground water and drinking water samples), noise level and soil quality are monitored for standard parameters as per National Ambient Air Quality standards (NAAQS-2009), MoEF & CC guidelines, CPCB/SPCB rules and Indian Standards. The drinking water samples are compared with IS: 10500 standard and Batching plant water samples are compared with MoEF & CC Schedule-VI standard.

Monitoring Locations and Frequency

The following number of stations have been fixed for monitoring of the environment for the present project.

<u>Sl. No.</u>	<u>Description</u>	<u>Camp-1 (HM Plant)</u>
1.	Ambient Air	1
2.	Ambient Noise	1

Monitoring frequency for Ambient air quality: Air quality monitoring at stipulated locations including construction activities operation areas is done at a frequency of 2 times a year @ 24 hrs./ sampling.

Monitoring frequency for DG Stack emission and Noise: DG stack monitoring at stipulated locations including short term Noise monitoring 2 times a year in the months of March and September in each year.

Monitoring frequency for water quality: Batching Plant discharge water sample from the operational plan, potable water samples from residential areas are monitored at a frequency of half yearly for all the parameters as per MoEF & CC guidelines / Indian Standard. The drinking water samples are compared with IS: 10500 standard and Batching plant water samples are compared with MoEF & CC Schedule-VI standard.

Monitoring frequency for ground water quality: Ground water level and ground water quality monitoring is undertaken 2 times a year in the months of March and September each year on a long-term basis. The ground water samples are compared with IS: 10500 standards.

Monitoring frequency for noise level: The noise level observations are made as per Environment Protection Act GSR 1063(E) Schedule III at all the ambient air quality stations. The noise level will be monitored once every half year during daytime (6 AM to 10 PM) and nighttime (10 PM to 6 AM).

INSTRUMENTS AND METHODOLOGIES**Ambient Air Quality:**

The Fine Particulate Matter (PM_{2.5}), Respirable Particulate Matter (PM₁₀), Sulphur dioxide (SO₂), Oxides of Nitrogen (NO₂) and Carbon monoxide (CO) concentration in down wind direction considering predominant wind direction, at a distance of approx. 50 meters from the dust generating sources is measured in the manner indicated below:

<u>Sl.No.</u>	<u>Parameter</u>	<u>Technique</u>	<u>Technical Protocol</u>
1	Fine Particulate Matter PM _{2.5}	Fine Particulate Sampler (Gravimetric Method)	IS:5182 (Part-XXIV)
2	Respirable Particulate Matter PM ₁₀	Respirable Dust Sampler (Gravimetric Method)	IS:5182 (Part-XXIII)
3	Sulphur Dioxide	Modified West & Gaeke	IS:5182 (Part-II)
4	Oxides of Nitrogen	Jacob & Hochheiser	IS:5182 (Part-VI)
5	Carbon Monoxide	Iodine Pentoxide	IS:5182 (Part-X)

Stack Emission Air Quality:

The Particulate Matter (PM), Oxides of Nitrogen (NO_x) and Carbon monoxide (CO) concentration in stack emissions, the following pollution generating sources is measured in the manner indicated below:

<u>Sl.No.</u>	<u>Parameter</u>	<u>Technique</u>	<u>Technical Protocol</u>
1	Particulate Matter PM	Fine Particulate Sampler (Gravimetric Method)	IS:11255 (Part-I)
2	Oxides of Nitrogen	Jacob & Hochheiser	IS:11255 (Part-VII)
3	Carbon Monoxide	Orsat Analysis	IS:13270

Water Quality:

Representative water samples are collected in a plastic container and transported to the laboratory for physico-chemical analysis. For determination of BOD and bacteriological analysis, 250 ml pre-sterilized bottles are used, and care is taken to maintain cool temperature by keeping the bottles in ice boxes during transportation to the laboratory for analysis. Physico-chemical and bacteriological parameters for drinking water samples are compared with IS: 10500 standard and Batching plant discharge water samples are compared with MoEF & CC Schedule-VI standard.

Noise Level:

Guidelines prescribed by the CPCB are complied with the noise level meter capable of measuring equivalent sound pressure level is used for noise level measurement.

In addition to the general laboratory and analytical facilities, the following sampling and analytical equipment are used.

<u>Sl.No</u>	<u>Name of the Equipment</u>	<u>Make/Model</u>
1	Fine particulate air samplers	Envirotech, New Delhi
2	Respirable Dust Samplers	Envirotech, New Delhi
3	Multi gas air samplers.	Envirotech, New Delhi
4	Stack Monitoring Kit VSS-1	Vayubodhan Upkaran, New Delhi
5	Sound Level Meters	Envirotech / Baseline, New Delhi
6	Thermometers	Zeal
7	Spectrophotometer.	Lesani
8	Analytical balances	Shimadzu (Acc. 0.00001mg)
9	pH meter	Toshniwal
10	Conductivity Meter	Toshniwal
11	Heating Ovens and Incubators	Universal / Narang Scientific

Calibration And Quality Assurance:

All the equipments used in sampling and subsequent testing in the laboratory are well maintained and calibrated with National / International traceability.

Team for Managing the Environmental Monitoring

Environmental pollutant sampling team at the site and laboratory level take all necessary care to collect and monitor the environmental samples and for overall environmental management.

It will look after the following aspects of environmental management-

- Generation of environmental sampling data.
- Monitoring of project activities Noise.
- Co-ordination for timely implementation of project environment monitoring plan.

Site Level:

Environmental Monitoring headed by DGM lab, provide necessary support required for environmental monitoring of project. Measures including environmental quality monitoring in consultation with the site Staff Officer (Environment sampling and testing) gets the necessary staffs and other facilities for effective implementation of sampling procedures from the office of the Area.

Laboratory Level:

The environmental monitoring program is implemented having suitable manpower and well-equipped laboratory and other infrastructure in a competent manner.

TEST REPORTS CAMP-1

(CHAINAGE – KM 0+000 TO KM 42+100)

for

- Ambient Air
- Ambient Noise

Camp – 1

Photographs – Ambient Air and Ambient Noise



Photographs – Ambient Air and Ambient
Noise



TEST REPORT

Issue To:

NKC Projects Private Limited
 Srinagar Ring Road Project Near Panzan Bridge Village
 Gudsathu
 Budgam
 Jammu & Kashmir
 India

Test Report No. : 132211
 Issue Date : 29-10-2025
 Reference No. : SAMPLE REQUEST LETTER
 Reference Date. : 18-10-2025
 Job Order No. : 0000525530-52
 Job Order Date : 18-10-2025
 Date of Sample Received : 18-10-2025
 Sample drawn by : Star Wire
 ULR No. : TC152602500012382F

Sample Particulars : Sample of Ambient Air, Loc: Base Camp (Ch: 14+860) Hot Mix & Crusher Plant Construction of Four Lane ring road/by pass around Srinagar city from 0+000 to km 42+100 (Phase-I) under NHDP Phase VII in the Union Territory of Jammu & Kashmir under Bharatmala Pariyojana on EPC Mode.

CHEMICAL TESTING	:	Atmospheric Pollution & Environment
DATE OF TESTING	:	18.10.2025 to 29.10.2025

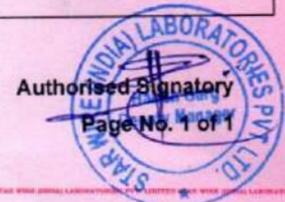
Sampling Details

1.	Date of Sampling	:	16/10/2025 TO 17/10/2025
2.	Location of the Sampling Point	:	Base camp CH: - 14 +860 Hot Mix and Crusher Plant
3.	Sampling Started At	:	16/10/2025
4.	Sampling Completed At	:	17/10/2025
5.	Time of Sampling	Min.	1440
6.	Average Ambient Temp.	°C	15

RESULTS

Sl.No.	Test Parameter (Pollutants)	Units	Test Method	Results	Conforming Limits for Industrial, Residential, Rural and other areas except Ecological sensitive area (NAAQS: 2009) Max. (24 hrs.)
(a)	Particulate Matter as PM 2.5	µg/m ³	IS:5182 (Pt 24):2019	44.6	60
(b)	Particulate Matter as PM 10	µg/m ³	IS 5182 (Pt 23):2006 (RA 2022)	83.44	100
(c)	Sulphur Dioxide as SO ₂	µg/m ³	IS 5182 (Pt 2):2001 (RA 2022)	47.6	80
(d)	Nitrogen Dioxide as NO ₂	µg/m ³	IS 5182 (Pt 6):2006 (RA 2022)	21.4	80
(e)	Carbon Monoxide as CO	µg/m ³	IS 5182 (Pt 10):1999 (RA 2019)	<1250	4000 (1 hr.)

END OF REPORT


 Authorised Signatory
 Page No. 1 of 1

Terms & Conditions :

- 1) Remnant / additional samples, if any, after testing will be retained for one month (15 days in case of water and air samples)
- 2) The results listed (reported) refer only to the tested sample and applicable parameters, Endorsement of product is neither inferred nor implied.
- 3) Total liability of our works is limited to the invoiced amount only.
- 4) This report cannot be used as evidence in a court of law without the written approval of the lab.
- 5) Report shall not be reproduced except in full, without the written approval of the laboratory.
- 6) Any sort of play by the customer with the data of this report shall be illegal.

TEST REPORT

Issue To:

NKC Projects Private Limited
 Srinagar Ring Road Project Near Panzan Bridge Village
 Gudsathu
 Budgam
 Jammu & Kashmir
 India

Test Report No. : 132200
 Issue Date : 29-10-2025
 Reference No. : SAMPLE REQUEST LETTER
 Reference Date. : 18-10-2025
 Job Order No. : 0000525530-216
 Job Order Date : 18-10-2025
 Date of Sample Received : 18-10-2025
 Sample drawn by : Star Wire
 ULR No. : TC152602500012374F

Sample Particulars : Sample of Ambient Noise Monitoring, Loc: Base Camp (Ch: 14+860) Hot Mix & Crusher Plant Construction of Four Lane ring road/by pass around Srinagar city from 0+000 to km 42+100 (Phase-I) under NHDP Phase VII in the Union Territory of Jammu & Kashmir under Bharatmala Pariyojana on EPC Mode.

CHEMICAL TESTING	:	ATMOSPHERIC POLLUTION & ENVIRONMENT
TEST METHOD	:	IS 9989:1981 (RA 2020)

AMBIENT NOISE REPORT

DATE OF TESTING	:	16-10-2025 TO 17-10-2025
SOURCE OF NOISE	:	Construction Activities & Vehicle Movement
TYPE OF NOISE MONITORING	:	24 HOURLY
PURPOSE OF MONITORING	:	To Assess pollution load

RESULTS

Sl. No.	Location	Unit	L _{eq}	
			Day	Night
1.	Base camp CH :- 14 + 860 Hot Mix and Crusher plant	dB (A)	69.5	57.6

Ambient Standards in Respect of Noise

AREA CODE	CATEGORY OF AREA	Limits in dB(A) Leq	
		Day Time (06.00 am – 10.00 pm)	Night Time (10.00 pm – 06.00 am)
A	Industrial Area	75	70
B	Commercial	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

As per factory act (chapter 104, section 102(1)), maximum permissible exposure of sound level should be 85 dB (A) over an 8 hrs. workday.

END OF REPORT


 Authorised Signatory
 Deputy Manager
 Page No. 1 of 1

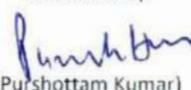
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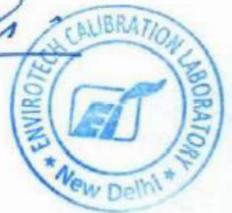
Regd. Office : A-271, Okhla Industrial Area, Phase-I, New Delhi-110020, India Tel: 011-26812607, 26813887
 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927

Format No: ECL/QMS/F-31																		
Calibration Certificate																		
CERTIFICATE NUMBER						CALIBRATION DATE						DATE OF ISSUE			RECOMMENDED DATE FOR NEXT CALIBRATION			
ECL/SWL/2024-25/FLOW/4174A						17/10/2024						18/10/2024			17/10/2025			
ULR -	C	C	2	7	9	9	2	4	0	0	0	0	1	2	4	8	3	F
Customer Name and Address:												Page 1 of 1						
M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana												Job Card No:- 2024-25/4174						
SUMMARY																		
Date of Receipt			17/10/2024			Dates of Measurement			17/10/2024									
Unit Under Calibration			Flow Rate of Rotameter			Adjustment/Repair done in UUC			No									
Location Installed at			Stack Monitoring Kit			Calibration Parameter			Flow Rate									
Make			Vayubodhan			Range of U.U.C			(0-3)LPM									
Model No.			VSS1			Reference equipment used			Piston Flow Calibrator									
Serial No.			404-DTI-07			Calibration Medium			Air									
ID No.			13 E			Calibration Method			ASTM D5337-11									
Rotameter No.			PGJ232678			Procedure			ECL/P-09									
Calibrated at			ECL			Condition on Receipt			O.K									
Environmental Condition of Measurements																		
Temperature (°C)			25			Relative Humidity (%)			52			Barometric Pressure(mbar)			981.8			
Details of reference equipment used for calibration																		
All the following Reference Equipment used to calibrate UUC, are traceable to National standard																		
Calibrators Details			Make			Model & Serial No.			Certificate No. & Issue Date			Valid Up to						
Piston Flow Calibrator Calibrated at NPL New Delhi			BIOS			Definder 530+M S.No. 177227			2311228/D1.08/C-091 Dt. 11/12/2023			Dt. 11/12/2024						
Differential Pressure Meter Calibrated at ECL New Delhi			Testo			510 51468336/812			ECL/ECL/2024-25/MECH/2078 Dt:06/07/2024			Dt:05/07/2025						
Digital Temperature Indicator With Sensor Calibrated at ECL New Delhi			Autonix			PP45, 180330/2700			ECL/EC/2024-25/THERMAL/2070 Dt: 05/07/2024			Dt:04/07/2025						
Discipline: Fluid Flow									Discipline Group: Air Flow Rate									
RESULTS OF CALIBRATION																		
Sl. No	UUC		Reference		Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± LPM)											
	Set Point (LPM)	Avg. Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)															
1	0.5	0.484	0.496		-0.012	1.025	0.024											
2	1.0	0.968	1.029		-0.061	1.063	0.024											
3	1.5	1.452	1.479		-0.027	1.019	0.059											
4	2.0	1.936	1.958		-0.022	1.011	0.059											
5	3.0	2.903	3.070		-0.167	1.058	0.059											

Calibrated By:

 (Purshottam Kumar)
 (Calibration Engineer)

Authorised/Reviewed By:

 (Dr. Balbir Singh)
 (Quality Manager)



Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
- This Calibration Certificate shall not be reproduced except in full without written approval of Envirotech Calibration Laboratory.
- The uncertainties are for a confidence probability not less than 95%, unless or otherwise specified



Envirotech Calibration Laboratory



CC-2799

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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2024-25/FLOW/4174B	17/10/2024	18/10/2024	17/10/2025
ULR - C C 2 7 9 9	2 4 0 0	0 0	1 2 4 8 4 F
Customer Name and Address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1 Job Card No:- 2024-25/4174	

SUMMARY

Date of Receipt	17/10/2024	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Rotameter	Calibration Parameter	Flow Rate
Location Installed at	Stack Monitoring Kit	Range of U.U.C	(0-30.0)LPM
Make	Vayubodhan	Reference equipment used	Piston Flow Calibrator
Model No.	VSS1	Calibration Medium	Air
Serial No.	404-DTI-07	Calibration Method	ASTM D5337-11
ID No./Asset No.	13 E	Procedure	ECL/P-09
Rotameter no	PGI161160	Condition on Receipt	O.K
Calibrated at	ECL		
Dates of Measurement	17/10/2024		

Environmental Conditions of Measurements

Temperature (°C)	25	Relative Humidity (%)	52	Barometric Pressure(mbar)	980.7
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All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Flow Meter Calibrated at FCRI Palakkad Kerala	Mesa Labs	FlexCal-H S.No. 177030	CA 1917 2312 597 Issue Dt. 29/12/2023	21/12/2024
Differential Pressure Meter Calibrated at ECL New Delhi	Testo	510 51468336/812	ECL/ECL/2024-25/MECH/2078 Dt:06/07/2024	Dt:05/07/2025
Digital Temperature Indicator With Sensor Calibrated at ECL New Delhi	Autonix	PP45, 180330/2700	ECL/ECL/2024-25/THERMAL/2070 Dt: 05/07/2024	Dt:04/07/2025

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC		Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± LPM)
	Set Point (LPM)	Avg.Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)			
1	5	4.844	5.126	-0.282	1.053	0.290
2	10	9.669	9.731	-0.062	1.006	0.300
3	15	14.463	14.734	-0.271	1.019	0.300
4	20	19.261	19.645	-0.384	1.020	0.300
5	30	28.589	29.166	-0.577	1.020	0.750

Calibrated By:

Purshottam Kumar
(Purshottam Kumar)
(Calibration Engineer)

Authorised/Reviewed By:

Dr. Balbir Singh
(Dr. Balbir Singh)
(Quality Manager)



Notes:

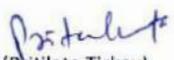
- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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Calibration Certificate																									
CERTIFICATE NUMBER												CALIBRATION DATE				DATE OF ISSUE			RECOMMENDED DATE FOR NEXT CALIBRATION						
ECL/SWL/2024-25/ET/4174C												17/10/2024				18/10/2024			17/10/2025						
ULR-	C	C	2	4	9	9	2	4	0	0	0	0	1	2	4	7	6	F							
Customers Name and address:												Page 1 of 1				Job Card No:- 2024-25/4174									
M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana																									
SUMMARY																									
Date of Receipt	17/10/2024				Adjustment/Repair done in UUC				No																
Unit Under Calibration	Stop Watch				Calibration Parameter				Time																
Location/installed at	Stack Monitoring Kit				Range of U.U.C				0 to 60 min																
Make	Vayubodhan				Reference Equipment Used				Digital Time Calibrator																
Model No.	VSS1				Calibration Medium				Air																
Serial No.	404-DTI-07				Calibration Method				Comparison																
ID No.	13 E				Procedure				ECL/P-05																
Calibrated at	ECL				Condition on Receipt				O.K																
Dates of Measurement	17/10/2024																								
Environmental Condition of Measurements																									
Temperature (°C)	27				Relative Humidity (%)	55				Barometric Pressure(mbar)	989														
Details of reference equipment used for calibration																									
All the following Reference Equipment used to calibrate UUC, are traceable to National standard																									
Calibrators Details				Make	Model & Serial No.				Certificate No. & Issue Date				Valid Up to												
Digital Time Calibrator Calibrated at C and I Calibrations Pvt. Ltd. Jaipur				Megtronics	TCS 102 35220G20				C&I/CAL/24-08/035 Dt: 21/08/2024				Dt: 14/08/2025												
Discipline: Electro-Technical Calibration												Discipline Group: Time													
RESULTS OF CALIBRATION																									
Sl. No	UUC		Reference		Error (UUC-Ref.)	Calibration Factor (Ref./UUC)		Expanded Uncertainty For (k=2) ± Sec																	
	Avg. Time(Sec)		Avg. Time (sec)																						
1	10.106		10.003		0.103	0.990		0.17																	
2	600.206		600.006		0.200	1.000		1.10																	
3	1800.200		1800.008		0.192	1.000		1.10																	
4	3600.200		3600.009		0.191	1.000		1.10																	

Calibrated By:


 (Phitilata Turkey)
 (Calibration Engineer)

Authorised/Reviewed By:


 (Dr. Balbir Singh)
 (Quality Manager)



Notes:

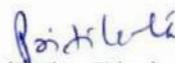
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Calibration Certificate																		
Format No: ECL/QMS/F-31																		
CERTIFICATE NUMBER				CALIBRATION DATE				DATE OF ISSUE				RECOMMENDED DATE FOR NEXT CALIBRATION						
ECL/SWL/2024-25/THERMAL/4174D				17/10/2024				18/10/2024				17/10/2025						
ULR -	C	C	2	7	9	9	2	4	0	0	0	0	1	2	4	7	7	F
Customers Name and address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana												Page 1 of 1						
												Job Card No:- 2024-25/4174						
SUMMARY																		
Date of Receipt	17/10/2024				Adjustment/Repair done in UUC				NO									
Unit Under Calibration	Temperature Sensor with Indicator('K' Type Thermocouple)				Calibration Parameters				Temperature									
Location/installed at	Stack Monitoring Kit				Range of U.U.C				0 to 600 (°C)									
Make	Vayubodhan				Reference Equipment Used				'S' Type Thermocouple with indicator									
Model No.	VSS1				Calibration Medium				Dry Block Furnace									
Instrument Serial No.	404-DTI-07				Calibration Method				Comparison Method									
ID No.	13 E				Procedure				ECL/P-18									
Calibrated at	ECL				Condition on Receipt				O.K									
Date Of Measurement	17/10/2024																	
Environmental Condition During Calibration																		
Temperature (°C)	27				Relative Humidity (%)	55				Barometric Pressure (mbar)	985.6							
Details of reference equipment used for calibration																		
All the following Reference Equipment used to calibrate UUC, are traceable to National standard																		
Calibrators Details		Make	Model & Serial No.		Certificate No. & Issue Date		Valid Up to											
"S" Type Thermocouple with indicator, Belz Lab Fraidabad		Tempens	1691/17C120836		30082403 Dt. 15/06/2024		Dt. 14/06/2025											
Discipline: Thermal								Discipline Group: Temperature Sensor with Indicator										
RESULTS OF CALIBRATION																		
Sl. No	Set Point	U.U.C		Reference	Error (UUC-Ref) (°C)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for (k=2) (°C)											
	Temperature (°C)	Temperature (°C)		Temperature (°C)														
1	100	99.9		100.78	-0.88	1.009	1.60											
2	300	299.1		301.65	-2.55	1.009	1.60											
3	600	598.1		601.88	-3.78	1.006	1.70											

Calibrated By:


 (Pritilata Turkey)
 (Calibration Engineer)

Authorised/Reviewed By:


 (Dr. Balbir Singh)
 (Quality Manager)

Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
- This Calibration Certificate shall not be reproduced except in full without written approval of Envirotech Calibration Laboratory.
- The uncertainties are for a confidence probability not less than 95%, unless or otherwise specified

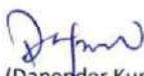


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Format No: ECL/QMS/F-31																		
Calibration Certificate																		
CERTIFICATE NUMBER				CALIBRATION DATE				DATE OF ISSUE				RECOMMENDED DATE FOR NEXT CALIBRATION						
ECL/SWL/2024-25/MECH/4174E				17/10/2024				18/10/2024				17/10/2025						
URL-	C	C	2	7	9	9	2	4	0	0	0	0	1	2	4	7	8	F
Customers Name and address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana											Page 1 of 1							
											Job Card No:- 2024-25/4174							
SUMMARY																		
Date of Receipt		17/10/2024				Adjustment/Repair done in UUC				No								
Unit Under Calibration		Differential Pressure Meter				Calibration Parameter				Pressure								
Located/installed at		Stack Monitoring Kit				Range of U.U.C				0 to 1200 (mmH2O)								
Make		Vayubodhan				Reference Equipment Used				Process Calibrator								
Model No.		VSS1				Calibration Medium				Air								
Serial No.		404-DTI-07				Calibration Method				DKD-R 6-1								
ID. No.		13 E				Procedure				ECL/P-15								
Calibrated at		ECL				Condition on Receipt				O.K								
Dates of Measurement		17/10/2024																
Environmental Condition During Calibration																		
Temperature (°C)		27				Relative Humidity (%)				55				Barometric Pressure(mbar)		984.4		
Details of reference equipment used for calibration																		
All the following Reference Equipment used to calibrate UUC, are traceable to National standard																		
Calibrators Details		Make		Model & Serial No.		Certificate No.& Issue Date				Valid Up to								
Digital Pressure Gauge Calibrated at Wika Pune		WIKA		CPG 1000 3346183		WP23/1323 Dt: 09/11/2023				Dt: 08/11/2024								
Discipline: Mechanical								Discipline Group: Pressure										
RESULTS OF CALIBRATION																		
Sl. No	Set UUC Reading		Reference Reading		Error (UUC-Ref.) (mmH2O)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for (k=2) (± mbar)											
	mmH2O	(mbar)	mmH2O	(mbar)														
1	0.0	0.0	0.05	0.00	-0.05	#DIV/0!	0.37											
2	10.9	1.1	10.48	1.13	0.43	0.96	0.37											
3	50.9	5.0	50.20	5.02	0.71	0.99	0.37											
4	100.1	9.8	100.53	9.95	-0.41	1.00	0.37											
5	200.1	19.6	200.73	19.77	-0.62	1.00	0.37											
6	400.1	39.2	400.30	39.33	-0.18	1.00	0.37											
7	600.1	58.8	600.65	58.97	-0.55	1.00	0.37											
8	800.1	78.4	800.73	78.58	-0.61	1.00	0.37											
9	1000.1	98.0	1000.20	98.13	-0.13	1.00	0.37											

Calibrated By:


 (Dapender Kumar)
 (Calibration Engineer)

Authorised/Reviewed By:


 (Dr. Balbir Singh)
 (Quality Manager)

Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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CC-2799

Format No: ECL/QMS/F-31																		
Calibration Certificate																		
CERTIFICATE NUMBER				CALIBRATION DATE				DATE OF ISSUE				RECOMMENDED DATE FOR NEXT CALIBRATION						
ECL/SWL/2024-25/MECH/4174F				17/10/2024				18/10/2024				17/10/2025						
URL-	C	C	2	7	9	9	2	4	0	0	0	0	1	2	4	7	9	F
Customers Name and address:											Page 1 of 1							
M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana											Job Card No:- 2024-25/4174							
SUMMARY																		
Date of Receipt	17/10/2024				Adjustment/Repair done in UUC				No									
Unit Under Calibration	Pressure Gauge - 01				Calibration Parameter				Pressure									
Located/installed at	Stack Monitoring Kit				Range of U.U.C				(0 to -760 (mmHg)									
Make	Vayubodhan				Reference Equipment Used				Process Calibrator									
Model No.	VSS1				Calibration Medium				Air									
Serial No.	404-DTI-07				Calibration Method				DKD-R 6-1									
ID. No.	13 E				Procedure				ECL/P-21									
Calibrated at	ECL				Condition on Receipt				O.K									
Dates of Measurement	17/10/2024																	
Environmental Condition During Calibration																		
Temperature (°C)	25				Relative Humidity (%)	55				Barometric Pressure(mbar)	989							
Details of reference equipment used for calibration																		
All the following Reference Equipment used to calibrate UUC, are traceable to National standard																		
Calibrators Details		Make		Model & Serial No.		Certificate No. & Issue Date		Valid Up to										
Digital Pressure Gauge		WIKA		CPG 1000		WP23/1323		Dt: 08/11/2024										
Calibrated at Wika Pune				3346183		Dt: 09/11/2023												
Discipline: Mechanical								Discipline Group: Pressure										
RESULTS OF CALIBRATION																		
Sl. No	Set UUC Reading		Reference Reading		Error (UUC-Ref.) (mmHg)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for (k=2) (± mbar)											
	mmHg	(mbar)	mmhg	(mbar)														
1	0.0	0.0	0.00	0.00	0.00	#DIV/0!	0.67											
2	-50.0	-66.6	-56.15	-74.86	6.15	1.12	0.67											
3	-100.0	-133.2	-103.40	-137.85	3.40	1.03	0.67											
4	-150.0	-199.9	-154.95	-206.58	4.95	1.03	0.67											
5	-200.0	-266.5	-213.68	-284.88	13.68	1.07	0.67											
6	-300.0	-400.0	-321.00	-427.96	21.00	1.07	0.67											
7	-400.0	-533.3	-414.70	-552.89	14.70	1.04	0.67											
8	-500.0	-666.6	-505.60	-674.08	5.60	1.01	0.67											
9	-600.0	-799.9	-613.20	-817.53	13.20	1.02	0.67											

Calibrated By:

Authorised/Reviewed By:


 (Dapender Kumar)
 (Calibration Engineer)


 (Dr. Balbir Singh)
 (Quality Manager)

Notes:

1. All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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4. The uncertainties are for a confidence probability not less than 95%, unless or otherwise specified





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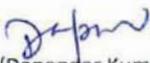
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Format No: ECL/QMS/F-31																		
Calibration Certificate																		
CERTIFICATE NUMBER				CALIBRATION DATE				DATE OF ISSUE				RECOMMENDED DATE FOR NEXT CALIBRATION						
ECL/SWL/2024-25/MECH/4174G				17/10/2024				18/10/2024				17/10/2025						
URL-	C	C	2	7	9	9	2	4	0	0	0	0	1	2	4	8	1	F
Customers Name and address:											Page 1 of 1							
M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana											Job Card No:- 2024-25/4174							
SUMMARY																		
Date of Receipt		17/10/2024				Adjustment/Repair done in UUC.				No								
Unit Under Calibration		Pressure Gauge - 02				Calibration Parameter				Pressure								
Located/installed at		Stack Monitoring Kit				Range of U.U.C				(0 to -760 (mmHg))								
Make		Vayubodhan				Reference Equipment Used				Process Calibrator								
Model No.		VSS1				Calibration Medium				Air								
Serial No.		404-DTI-07				Calibration Method				DKD-R 6-1								
ID. No.		13 E				Procedure				ECL/P-21								
Calibrated at		ECL				Condition on Receipt				O.K								
Dates of Measurement		17/10/2024																
Environmental Condition During Calibration																		
Temperature (°C)		25		Relative Humidity (%)		55		Barometric Pressure(mbar)				989						
Details of reference equipment used for calibration																		
All the following Reference Equipment used to calibrate UUC, are traceable to National standard																		
Calibrators Details		Make		Model & Serial No.				Certificate No.& Issue Date				Valid Up to						
Digital Pressure Gauge		WIKA		CPG 1000 3346183				WP23/1323 Dt: 09/11/2023				Dt: 08/11/2024						
Discipline: Mechanical									Discipline Group: Pressure									
RESULTS OF CALIBRATION																		
Sl. No	Set UUC Reading		Reference Reading		Error (UUC-Ref.) (mmHg)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for (k=2) (± mbar)											
	mmHg	(mbar)	mmhg	(mbar)														
1	0.0	0.0	0.00	0.00	0.00	#DIV/0!	0.67											
2	-50.0	-66.6	-55.45	-73.93	5.45	1.11	0.67											
3	-100.0	-133.2	-111.15	-148.19	11.15	1.11	0.67											
4	-150.0	-199.9	-155.73	-207.62	5.72	1.04	0.67											
5	-200.0	-266.5	-210.05	-280.04	10.05	1.05	0.67											
6	-300.0	-400.0	-309.85	-413.10	9.85	1.03	0.67											
7	-400.0	-533.3	-405.05	-540.02	5.05	1.01	0.67											
8	-500.0	-666.6	-509.00	-678.61	9.00	1.02	0.67											
9	-600.0	-799.9	-605.80	-807.66	5.80	1.01	0.67											

Calibrated By:

Authorised/Reviewed By:


 (Dapender Kumar)
 (Calibration Engineer)


 (Dr. Balbir Singh)
 (Quality Manager)

Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2024-25/FLOW/4175	17/10/2024	18/10/2024	17/10/2025
ULR - C C 2 7 9 9 2 4 0 0 0 0 1 2 4 8 2 F			
Customer Name and Address:		Page 1 of 1	
M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana		Job Card No:- 2024-25/4175	

SUMMARY

Date of Receipt	17/10/2024	Adjustment/Repair done in UUC	No
Unit Under Calibration	Pitot tube	Calibration Parameter	Flow Rate
Make	Vayubodhan	Range of U.U.C	3 to 60 (m/sec)
Model No.	'S' Type	Reference Equipment Used	'L' Type Pitot Tube
Serial No.	V-459	Calibration Medium	Air
ID No.	13 E	Calibration Method	IS 14973 : 2012
Length	0.6 Meter	Procedure	ECL/P-22
Calibrated at	ECL	Condition on Receipt	O.K
Dates of Measurement	17/10/2024		

Environmental Condition of Measurements

Temperature (°C)	28	Relative Humidity (%)	55	Barometric Pressure(mbar)	987.2
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Pitot Static Tube Calibrated at FCRI, Palakkad, Kerala	Envirotech	'L' Type 447	CAW 1918 2312 142 Dt: 26/12/2023	Dt:22/12/2024
Differential Pressure Gauge (A) Calibrated at ECL New Delhi	Testo	Testo 506 30648174	ECL/ECL/2024-25/MECH/2076 Dt:06/07/2024	Dt:05/07/2025
Differential Pressure Gauge (B) Calibrated at ECL New Delhi	Testo	Testo 506 30648181	ECL/ECL/2024-25/MECH/2077 Dt:06/07/2024	Dt:05/07/2025
Digital Temperature Indicator With Sensor Calibrated at ECL New Delhi	Autonix	PP 45 180330/2697	ECL/ECL/2024-25/Thermal/2067 Dt: 05/07/2024	Dt:04/07/2025

Discipline: Fluid Flow

Discipline Group: Velocity

RESULTS OF CALIBRATION(TABLE 1)

S. No.	U.U.C	REFERENCE PITOT TUBE		Calibration Coefficient	Expanded uncertainty(k=2) (± %)
	Avg. Differential Pressure (mmH ₂ O)	Avg. Differential Pressure (mmH ₂ O)	Velocity (m/s)		
1	4.48	3.46	7.77	0.881	1.24
2	26.28	19.84	18.60	0.871	1.24
3	72.08	54.70	30.88	0.873	1.24

Calibration Coefficient for Unit Under Calibration is 0.875

Calibrated By:


(Rajendra Nigam)

(Calibration Engineer)

Authorised/Reviewed By:


(Dr. Balbir Singh)

(Quality Manager)



Notes:

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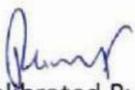
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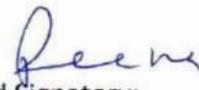
ISO 9001:2015 certified company.

Manufacturers of Air Quality Monitoring Instruments

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 Fax: 91 11 26811833 E-mail : sales@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927

Calibration Certificate								
CERTIFICATE NUMBER		CALIBRATION DATE		DATE OF ISSUE		VALID UP TO		
EIPL/SMK/2024-25/370		17/10/2024		18/10/2024		17/10/2025		
Customer Name and Address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana							Page 1 of 1	
SUMMARY								
Unit Under Calibration				Stack Sampler				
Make				Vayubodhan				
Model No.				VSS1				
Serial No.				404-DTI-07				
ID No.				13 E				
Nozzel No.				-				
Environmental Condition of Measurements								
Temperature (°C)		25		Relative Humidity (%)		50		
				Barometric Pressure(mbar)		977		
Tracebilty of Reference Calibrators								
Calibrators Details		Make		Model & Serial No.		Certificate No.& Issue Date		Valid Up to
Digital Caliper, Calibrated at Belz Calibration Lab Faridabad		Iasize		1604162567		10047392 Dt 20/06/2024		20/06/2025
RESULTS OF CALIBRATION								
Sl. No	Nozzle No.	UUC		Reference		Error (UUC-Ref.) (mm)	Calibration Factor (Ref./UUC)	Type A Uncertainty (± mm)
		Internal Dia		Internal Dia				
		(Inches)	mm	mm				
1	-	(1/8)"	3.380	3.338		0.042	0.988	0.557
2	-	(1/4)"	6.380	6.360		0.020	0.997	0.557
3	-	(3/8)"	9.380	9.450		-0.070	1.007	0.557


 Calibrated By:


 Authorised Signatory:

CALIBRATION CERTIFICATE

Format No.: DMT/F49, Rev.No. 00

Receipt Date 01-03-2025	Service Reuest-Job No. & Date DMTI/010325-003-1 / 01-03-2025	ULR No. CC203025000002430F	Calibration Certificate of Gas Flow Meter
Calibration Date 01-03-2025	Sugg. Calibration Due Date 28-02-2026	Cert. Issue Date 04-03-2025	W.I. No./ IS Standard WI:01F

Customer Name & Address	M/s: Star Wire (India) Laboratories Private Limited 21/4, Mathura Road, Ballabgarh, Faridabad.- 121004 (HR)
------------------------------------	---

Description & Identification of Item

Make/Model	Qinchuan / G1.6	Location	----
Sr. No./Id. No.	8338218/14E	Environment Conditions	27.3°C/52%Rh
Least Count	0.1LPM	Visual Inspection	Ok
Range/Size	0.5 to 40LPM	Calibration Perform At	Site

Details of Reference Standard & Major Equipment Used

Nomenclature	ID No. / Sr. No.	Certificate No.	Validity	Calibrated By
Gas Flow Meter	DMTI-137/4919	TSC/24-25/11652-2	29-09-2025	Transcal
Gas Flow Meter	DMTI-138/1120	TSC/24-25/11652-3	29-09-2025	Transcal

Fluid Flow>>Flow Measuring Device

Calibration Results

Values of DUC	Avg. Observed Value in Std	Error	Expanded Uncertainty (±)
LPM	LPM	%	%
0.5	0.503	-0.52	4.40
2	2.016	-0.78	4.40
10	10.1	-0.69	4.40
20	20.1	-0.74	4.40
40	40.4	-0.90	2.80

Expanded Uncertainty Expressed at approximately 95% confidence level with coverage factor 'k=2'

Remarks:- Constant Air Pressure- 205 mbar & Air Temp. 22.4°C

*****END OF CALIBRATION CERTIFICATE*****

- The results are valid only for this calibrated item.
- Results reported are valid at the time of and under the stated condition of measurement.
- The Calibration certificate shall not be reproduced except in full, without the written approval of the Laboratory.
- CC-2030 (Mechanical)(Electro-Technical) (Thermal)(Mass & Volume)(Fluid & Flow)
- This certificate is for industrial and scientific purpose and can not be used in legal matters.
- Medium of calibration Dry Air



Calibrated by:

Designation: Calibration Engineer

Approved By:

Rajesh Sharma

Designation: Quality/Tech Manager



Envirotech Calibration Laboratory

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CC-2799

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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWLPL/2025-26/FLOW/1991	09/07/2025	10/07/2025	09/07/2026
ULR- C C 2 7 9 9	2 5 0	0 0 0	0 8 0 8 6 F

Customer Name and Address:

M/s Star Wire (India) Laboratories Private Ltd.
 21/4, Mathura Road, Ballabgarh
 Haryana

Page 1 of 1

Job Card No:- 2025-26/1991

SUMMARY

Dates of Receipt	09/07/2025	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Fine Particulate Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	0-16.7 (LPM)
Model No.	APM 550	Reference Equipment Used	Low Flow Calibrator
Serial No.	167-DTA-2010	Calibration Medium	Air
D.G.M. No.	070308870	Calibration Method	40 CFR Part 50 Appendix L
ID No.	15 E	Procedure	ECL/P-10
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	09/07/2025		

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	58	Barometric Pressure(mbar)	980
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No.& Issue Date	Valid Up to
Low Flow Calibrator Calibrated at ECL Lab Delhi	Envirotech	APM 523 B 02 E B 24	ECL/ECL/2025-26/FLOW/552 Dt. 07/05/2025	05/05/2026

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	UUC				Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± %)
	Set Point (LPM)	Inlet Temp. (°C)	Inlet Press. (mmHg)	Avg. Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)			
1	16.7	25.0	0.00	16.16	16.72	-0.557	1.034	1.37

Checked By:

(Dinesh Kr. Pandey)

Authorised/Reviewed By:

(Dr. Balbir Singh)



Notes:

- All the instruments/Reference Calibrators used are traceable to national standards through reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
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Envirotech Calibration Laboratory

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 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927

CERTIFICATE NUMBER													CALIBRATION DATE				DATE OF ISSUE		RECOMMENDED DATE FOR NEXT CALIBRATION			
ECL/SWLPL/2025-26/ET/1991													09/07/2025				10/07/2025		09/07/2026			
ULR -	C	C	2	7	9	9	2	5	0	0	0	0	0	8	0	8	7	F				
Customers Name and address: M/s Star Wire (India) Laboratories Private Ltd. 21/4, Mathura Road, Ballabgarh Haryana											Page 1 of 1											
											Job Card No:- 2025-26/1991											
SUMMARY																						
Date of Receipt	09/07/2025										Adjustment/Repair done in UUC	No										
Unit Under Calibration	Time Totalizer of Fine Particulate Sampler										Calibration Parameter	Time Interval										
Make	Envirotech										Range of U.U.C	0 to 99999.99 hrs										
Model No.	APM 550										Reference Equipment Used	Digital Time Calibrator										
Serial No.	167-DTA-2010										Calibration Medium	Air										
ID No.	15 E										Calibration Method	Comparison										
Calibrated at	Customer site										Procedure	ECL/P-05										
Dates of Measurement	09/07/2025										Condition on Receipt	O.K										
Environmental Condition of Measurements																						
Temperature (°C)	24			Relative Humidity (%)	58			Barometric Pressure(mbar)	980													
Details of reference equipment used for calibration																						
All the following Reference Equipment used to calibrate UUC, are traceable to National standard																						
Calibrators Details			Make	Model & Serial No.			Certificate No. & Issue Date			Valid Up to												
Digital Time Calibrator Calibrated at ECL New Delhi			Envirotech	07-DTI-2016			ECL/ECL/2024-25/ET/5667 Dt. 04/01/2025			Dt: 01/01/2026												
Discipline: Electro-Technical Calibration											Discipline Group: Elapsed Time											
RESULTS OF CALIBRATION(TABLE 1)																						
Sl. No	UUC		Reference		Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for k=2 (± min)															
	Avg. Time(min)		Avg. Time (min)																			
1	60		60		0.000	1.000			0.35													

Checked By:

(Dinesh Kr. Pandey)

Authorised/Reviewed By:

(Dr. Balbir Singh)



Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWLPL/2025-26/FLOW/1992	09/07/2025	10/07/2025	09/07/2026
ULR- C C 2 7 9 9 2 5 0		0 0 0	0 8 0 8 8 F
Customer Name and Address: M/s Star Wire (India) Laboratories Private Ltd. 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1	
		Job Card No:- 2025-26/1992	

SUMMARY

Dates of Receipt	09/07/2025	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Fine Particulate Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	0-16.7 (LPM)
Model No.	APM 550	Reference Equipment Used	Low Flow Calibrator
Serial No.	725-DTC-2011	Calibration Medium	Air
D.G.M. No.	110121378	Calibration Method	40 CFR Part 50 Appendix L
ID No.	16 E	Procedure	ECL/P-10
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	09/07/2025		

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	54	Barometric Pressure(mbar)	979
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No.& Issue Date	Valid Up to
Low Flow Calibrator Calibrated at ECL Lab Delhi	Envirotech	APM 523 B 02 E B 24	ECL/ECL/2025-26/FLOW/552 Dt. 07/05/2025	05/05/2026

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION (TABLE 1)

Sl. No	UUC				Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± %)
	Set Point (LPM)	Inlet Temp. (°C)	Inlet Press. (mmHg)	Avg. Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)			
1	16.7	25.0	0.00	16.12	16.70	-0.578	1.036	1.37

Checked By:

(Dinesh Kr. Pandey)

Authorised/Reviewed By:

(Dr. Balbir Singh)



Notes:

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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER		CALIBRATION DATE		DATE OF ISSUE		RECOMMENDED DATE FOR NEXT CALIBRATION												
ECL/SWLPL/2025-26/ET/1992		09/07/2025		10/07/2025		09/07/2026												
ULR -	C	C	2	7	9	9	2	5	0	0	0	0	0	8	0	8	9	F
Customers Name and address:										Page 1 of 1								
M/s Star Wire (India) Laboratories Private Ltd. 21/4, Mathura Road, Ballabgarh Haryana										Job Card No:- 2025-26/1992								

SUMMARY

Date of Receipt	09/07/2025	Adjustment/Repair done in UUC	No
Unit Under Calibration	Time Totalizer of Fine Particulate Sampler	Calibration Parameter	Time Interval
Make	Envirotech	Range of U.U.C	0 to 99999.99 hrs
Model No.	APM 550	Reference Equipment Used	Digital Time Calibrator
Serial No.	725-DTC-2011	Calibration Medium	Air
ID No.	16 E	Calibration Method	Comparison
Calibrated at	Customer site	Procedure	ECL/P-05
Dates of Measurement	09/07/2025	Condition on Reciept	O.K

Environmental Condition of Measurements

Temperature (°C)	24	Relative Humidity (%)	58	Barometric Pressure(mbar)	980
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Digital Time Calibrator Calibrated at ECL New Delhi	Envirotech	07-DTI-2016	ECL/ECL/2024-25/ET/5667 Dt. 04/01/2025	Dt: 01/01/2026

Discipline: Electro-Technical Calibration

Discipline Group: Elapsed Time

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC	Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for k=2 (± min)
	Avg. Time(min)	Avg. Time (min)			
1	60	60	0.000	1.000	0.35

Checked By:

(Dinesh Kr. Pandey)

Authorised/Reviewed By:

(Dr. Balbir Singh)



Notes:

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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2024-25/FLOW/4173	17/10/2024	18/10/2024	17/10/2025
ULR - C C 2 7 9 9 2 4 0		0 0 0	1 2 4 7 4 F
Customer Name and Address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1	
		Job Card No:- 2024-25/4173	

SUMMARY

Dates of Receipt	17/10/2024	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Fine Particulate Sampler	Calibration Parameter	Flow Rate
Make	Envirotech	Range of U.U.C	16.7 (LPM)
Model No.	APM550 MINI	Reference Equipment Used	Low Flow Calibrator
Serial No.	439-DTD-2014	Calibration Medium	Air
Rotameter S. No.	AG14C3719-1459	Calibration Method	40 CFR Part 50 Appendix L
ID No.	17E	Procedure	ECL/P-10
Calibrated at	Customer Site	Condition on Receipt	O.K
Dates of Measurement	17/10/2024		

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	54	Barometric Pressure(mbar)	1018.4
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No.&Issue Date	Valid Up to
Low Flow Calibrator Calibrated at ECL Lab Delhi	Envirotech	APM 523 M 26 B 22	ECL/ECL/2023-24/FLOW/5432 Dt. 17/02/2024	16/02/2025

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC		Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) ± %
	Set Point (LPM)	Avg. Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)			
1	16.7	17.09	17.67	-0.583	1.034	2.46

Calibrated By:


(Virendra Singh)
(Calibration Engineer)

Authorised/Reviewed By:


(Dr. Balbir Singh)
(Quality Manager)



Notes:

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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2024-25/ET/4173	17/10/2024	18/10/2024	17/10/2025
ULR - C C 2 7 9 9 2 4 0 0		0 0	1 2 4 7 5 F
Customers Name and address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1 Job Card No:- 2024-25/4173	

SUMMARY

Date of Receipt	17/10/2024	Adjustment/Repair done in UUC	No
Unit Under Calibration	Time Totalizer of Fine Particulate Sampler	Calibration Parameter	Time Interval
Make	Envirotech	Range of U.U.C	0 to 99999.99 hrs
Model No.	APM 550 MINI	Reference Equipment Used	Digital Time Calibrator
Serial No.	439-DTD-2014	Calibration Medium	Air
ID No.	47E	Calibration Method	Comparison
Calibrated at	Customer site	Procedure	ECL/P-05
Dates of Measurement	17/10/2024	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	54	Barometric Pressure(mbar)	1018.4
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Digital Time Calibrator Calibrated at ECL New Delhi	Envirotech	08-DT1-2017	ECL/ECL/2024-25/ET/3549 Dt. 28/09/2024	Dt: 23/09/2025

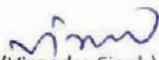
Discipline: Electro-Technical Calibration

Discipline Group: Elapsed Time

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC	Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for k=2 (± min)
	Avg. Time(min)	Avg. Time (min)			
1	60	60	0.000	1.000	0.35

Calibrated By:


(Virendra Singh)
(Calibration Engineer)

Authorised/Reviewed By:


(Dr. Balbir Singh)
(Quality Manager)



Notes:

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Calibration Certificate																		
CERTIFICATE NUMBER			CALIBRATION DATE				DATE OF ISSUE			RECOMMENDED DATE FOR NEXT CALIBRATION								
ECL/SWLPL/2025-26/FLOW/1994			09/07/2025				10/07/2025			09/07/2026								
ULR -	C	C	2	7	9	9	2	5	0	0	0	0	0	8	0	9	2	F
Customer Name and Address: M/s Star Wire (India) Laboratories Private Ltd. 21/4, Mathura Road, Ballabgarh Haryana										Page 1 of 1			Job Card No:- 2025-26/1994					
SUMMARY																		
Date of Receipt	09/07/2025						Dates of Measurement	09/07/2025										
Unit Under Calibration	Rotameter						Adjustment/Repair done in	No										
Location/Installed at	Gaseous Pollutant Sampler						Calibration Parameter	Flow Rate										
Make	Envirotech						Range of U.U.C	(0-3.0)LPM										
Model No.	APM 433						Reference equipment used	Low Flow Calibrator										
Serial No.	22-DTB-2010						Calibration Medium	Air										
ID No.	18 E						Calibration Method	ASTM D5337-11										
Rotameter no	10/0124						Procedure	ECL/P-09										
Calibrated at	Customer Site						Condition on Receipt	O.K										
Environmental Condition of Measurements																		
Temperature (°C)	25			Relative Humidity (%)	52			Barometric Pressure(mbar)	985									
All the following Reference Equipment used to calibrate UUC, are traceable to National standard																		
Calibrators Details		Make		Model & Serial No.			Certificate No.& Issue Date			Valid Up to								
Low Flow Calibrator Calibrated at ECL Lab Delhi		Envirotech		APM 523 B 02 E B 24			ECL/ECL/2025-26/FLOW/552 Dt. 07/05/2025			05/05/2026								
Differential Pressure meter Calibrated at ECL New Delhi		Testo		510 51577190/1023			ECL/ECL/2025-26/FLOW/321 Dt. 22/04/2025			Dt. 20/04/2026								
Digital Temperature Indicator With Sensor Calibrated at ECL New Delhi		Autonix		PP45, 180330/2700			ECL/ECL/2025-26/THERMAL/1765 Dt: 04/07/2025			Dt:02/07/2026								
Discipline: Fluid Flow									Discipline Group: Air Flow Rate									
RESULTS OF CALIBRATION(TABLE 1)																		
Sl. No	UUC		Reference		Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± LPM)											
	Set Point (LPM)	Avg.Flow Rate in (SLPM)	Avg.Flow Rate in (SLPM)															
1	0.5	0.486	0.490	-0.004	1.009	0.068												
2	1.0	0.971	0.999	-0.028	1.029	0.068												
3	1.5	1.456	1.523	-0.067	1.046	0.068												
4	2.0	1.940	2.077	-0.136	1.070	0.068												
5	3.0	2.910	2.802	0.108	0.963	0.068												

Checked By:

(Dinesh Kr. Pandey)

Authorised/Reviewed By:

(Dr. Balbir Singh)

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CERTIFICATE NUMBER													CALIBRATION DATE				DATE OF ISSUE		RECOMMENDED DATE FOR NEXT CALIBRATION			
ECL/SWLPL/2025-26/ET/1994													09/07/2025				10/07/2025		09/07/2026			
U	L	R	-	C	C	2	7	9	9	2	5	0	0	0	0	0	8	0	9	3	F	
Customers Name and address: M/s Star Wire (India) Laboratories Private Ltd. 21/4, Mathura Road, Ballabgarh Haryana													Page 1 of 1				Job Card No:- 2025-26/1994					
SUMMARY																						
Date of Receipt		09/07/2025						Adjustment/Repair done in UUC				No										
Unit Under Calibration		Time Totalizer of Gaseous Pollutant Sampler						Calibration Parameter				Time Interval										
Make		Envirotech						Range of U.U.C				0 to 99999.99 hrs										
Model No.		APM 433						Reference Equipment Used				Digital Time Calibrator										
Serial No.		22-DTB-2010						Calibration Medium				Air										
ID No.		18 E						Calibration Method				Comparison										
Calibrated at		Customer site						Procedure				ECL/P-05										
Dates of Measurement		09/07/2025						Condition on Receipt				O.K										
Environmental Condition of Measurements																						
Temperature (°C)		25		Relative Humidity (%)		58		Barometric Pressure(mbar)				980										
Details of reference equipment used for calibration																						
All the following Reference Equipment used to calibrate UUC, are traceable to National standard																						
Calibrators Details		Make		Model & Serial No.				Certificate No. & Issue Date				Valid Up to										
Digital Time Calibrator Calibrated at ECL New Delhi		Envirotech		07-DTI-2016				ECL/ECL/2024-25/ET/5667 Dt. 04/01/2025				Dt: 01/01/2026										
Discipline: Electro-Technical Calibration											Discipline Group: Elapsed Time											
RESULTS OF CALIBRATION(TABLE 1)																						
Sl. No	UUC		Reference		Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for k=2 (± min)															
	Avg. Time(min)		Avg. Time (min)																			
1	60		60		0.000	1.000	0.35															

Checked By:


(Dinesh Kr. Pandey)

Authorised/Reviewed By:


(Dr. Balbir Singh)



Notes:

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Calibration Certificate																		
CERTIFICATE NUMBER				CALIBRATION DATE				DATE OF ISSUE				RECOMMENDED DATE FOR NEXT CALIBRATION						
ECL/SWLPL/2025-26/FLOW/1993				09/07/2025				10/07/2025				09/07/2026						
ULR -	C	C	2	7	9	9	2	5	0	0	0	0	0	8	0	9	0	F
Customer Name and Address: M/s Star Wire (India) Laboratories Private Ltd. 21/4, Mathura Road, Ballabgarh Haryana										Page 1 of 1				Job Card No:- 2025-26/1993				
SUMMARY																		
Date of Receipt	09/07/2025				Dates of Measurement	09/07/2025												
Unit Under Calibration	Rotameter				Adjustment/Repair done in	No												
Location/Installed at	Gaseous Pollutant Sampler				Calibration Parameter	Flow Rate												
Make	Envirotech				Range of U.U.C	[0-3.0]LPM												
Model No.	APM 433				Reference equipment used	Low Flow Calibrator												
Serial No.	231-DTD-2011				Calibration Medium	Air												
ID No.	19 E				Calibration Method	ASTM D5337-11												
Rotameter no	11/0423				Procedure	ECL/P-09												
Calibrated at	Customer Site				Condition on Receipt	O.K												
Environmental Condition of Measurements																		
Temperature (°C)	25				Relative Humidity (%)	52				Barometric Pressure(mbar)	985							
All the following Reference Equipment used to calibrate UUC, are traceable to National standard																		
Calibrators Details		Make		Model & Serial No.		Certificate No. & Issue Date				Valid Up to								
Low Flow Calibrator Calibrated at ECL Lab Delhi		Envirotech		APM 523 B 02 E B 24		ECL/ECL/2025-26/FLOW/552 Dt. 07/05/2025				05/05/2026								
Differential Pressure meter Calibrated at ECL New Delhi		Testo		510 51577190/1023		ECL/ECL/2025-26/FLOW/321 Dt. 22/04/2025				Dt. 20/04/2026								
Digital Temperature Indicator With Sensor Calibrated at ECL New Delhi		Autonix		PP45, 180330/2700		ECL/ECL/2025-26/THERMAL/1765 Dt: 04/07/2025				Dt:02/07/2026								
Discipline: Fluid Flow									Discipline Group: Air Flow Rate									
RESULTS OF CALIBRATION(TABLE 1)																		
Sl. No	UUC		Reference		Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty For (k=2) (± LPM)											
	Set Point (LPM)	Avg. Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)	Avg. Flow Rate in (SLPM)														
1	0.5	0.486	0.492	0.492	-0.006	1.013	0.068											
2	1.0	0.971	0.997	0.997	-0.026	1.027	0.068											
3	1.5	1.456	1.526	1.526	-0.070	1.048	0.058											
4	2.0	1.940	2.076	2.076	-0.135	1.070	0.068											
5	3.0	2.910	2.810	2.810	0.100	0.966	0.068											

Checked By:

(Dinesh Kr. Pandey)

Authorised/Reviewed By:

(Dr. Balbir Singh)

Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
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- The uncertainties are for a confidence probability not less than 95%, unless or otherwise specified





Envirotech Calibration Laboratory

A Division of Envirotech Instruments Pvt. Ltd.



Regd. Office : A-271, Okhla Industrial Area, Phase-I, New Delhi-110020, India Tel: 011-26812607, 26813887
 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927

CERTIFICATE NUMBER														CALIBRATION DATE										DATE OF ISSUE				RECOMMENDED DATE FOR NEXT CALIBRATION													
ECL/SWLPL/2025-26/ET/1993														09/07/2025										10/07/2025				09/07/2026													
U	L	R	-	C	C	2	7	9	9	2	5	0	0	0	0	0	0	8	0	9	1	F																			
Customers Name and address:														Page 1 of 1														Job Card No:- 2025-26/1993													
M/s Star Wire (India) Laboratories Private Ltd. 21/4, Mathura Road, Ballabgarh Haryana																																									
SUMMARY																																									
Date of Receipt														09/07/2025										Adjustment/Repair done in UUC				No													
Unit Under Calibration														Time Totalizer of Gaseous Pollutant Sampler										Calibration Parameter				Time Interval													
Make														Envirotech										Range of U.U.C				0 to 99999.99 hrs													
Model No.														APM 433										Reference Equipment Used				Digital Time Calibrator													
Serial No.														231-DTD-2011										Calibration Medium				Air													
ID No.														19 E										Calibration Method				Comparison													
Calibrated at														Customer site										Procedure				ECL/P-05													
Dates of Measurement														09/07/2025										Condition on Receipt				O.K													
Environmental Condition of Measurements																																									
Temperature (°C)							25							Relative Humidity (%)							58							Barometric Pressure(mbar)							980						
Details of reference equipment used for calibration																																									
All the following Reference Equipment used to calibrate UUC, are traceable to National standard																																									
Calibrators Details							Make							Model & Serial No.							Certificate No. & Issue Date							Valid Up to													
Digital Time Calibrator Calibrated at ECL New Delhi							Envirotech							07-DTI-2016							ECL/ECL/2024-25/ET/5667 Dt. 04/01/2025							Dt: 01/01/2026													
Discipline: Electro-Technical Calibration														Discipline Group: Elapsed Time																											
RESULTS OF CALIBRATION(TABLE 1)																																									
Sl. No	UUC			Reference			Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for k=2 (± min)																																
	Avg. Time(min)			Avg. Time (min)																																					
1	60			60			0.000	1.000			0.35																														

Checked By:

(Dinesh Kr. Pandey)

Authorised/Reviewed By:

(Dr. Baibir Singh)



Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
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Envirotech Calibration Laboratory

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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWLPL/2024-25/FLOW/7577	21/03/2025	22/03/2025	21/03/2026
ULR - C C 2 7 9 9 2 5 0 0 0 0 0 0 3 6 2 1 F			
Customer Name and Address: M/s Star Wire (India) Laboratories Private Limited 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1 Job Card No:- 2024-25/7577	

SUMMARY

Date of Receipt	21/03/2025	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Respirable Dust Sampler	Calibration Parameters	Flow Rate
Make	Envirotech	Range of U.U.C	0.6 to 1.5 (m ³ /min)
Model No.	APM 460	Reference Equipment Used	Top Loading Calibrator
Serial No.	816-DTE-2000	Calibration Medium	Air
ID No.	20 E	Calibration Method	USEPA IO 2.1 Method
Calibrated at	customer site	Procedure	ECL/P-12
Dates of Measurement	21/03/2025	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	26	Relative Humidity (%)	52	Barometric Pressure(mbar)	979
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Top Loading Calibrator Calibrated at ECL, NEW DELHI	Envirotech	APM 421,269	ECL/ECL/2024-25/FLOW/352 Dt. 23/04/2024	Dt:22/04/2025
Differential Pressure meter Calibrated at ECL New Delhi	Testo	510 51577190/1023	ECL/ECL/2024-25/FLOW/357 Dt. 23/04/2024	Dt. 22/04/2025

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC		Reference	Error (UUC-Ref.)	Calibration Factor (Reference/UUC)	Expanded Uncertainty for (k=2) (± %)
	Set Point (m ³ /min)	Avg. Measured Flow Rate (Sm ³ /min)	Avg. Flow Rate in (Sm ³ /min)			
1	0.80	0.771	0.800	-0.029	1.038	1.724
2	0.90	0.867	0.892	-0.026	1.029	1.600
3	1.00	0.963	0.964	-0.001	1.001	1.600
4	1.10	1.059	1.145	-0.086	1.081	1.600
5	1.20	1.156	1.217	-0.061	1.053	1.600

Calibrated By:

(Purshottam Kumar)
(Calibration Engineer)

Authorised/Reviewed By:

(Dr. Balbir Singh)
(Quality Manager)



Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
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Envirotech Calibration Laboratory

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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWLPL/2024-25/ET/7577	21/03/2025	22/03/2025	21/03/2026
ULR - C C 2 7 9 9 2 5 0 0	0 0	0 3 6 2 2	F

Customers Name and address:

Page 1 of 1

M/s Star Wire (India) Laboratories Private Limited
21/4, Mathura Road, Ballabgarh
Haryana

Job Card No:- 2024-25/7577

SUMMARY

Date of Receipt	21/03/2025	Adjustment/Repair done in UUC	No
Unit Under Calibration	Time Totalizer of Respirable Dust Sampler	Calibration Parameter	Time Interval
Make	Envirotech	Range of U.U.C	0 to 99999.99 hrs
Model No.	APM 460	Reference Equipment Used	Digital Time Calibrator
Serial No.	816-DTE-2000	Calibration Medium	Air
ID No.	20 E	Calibration Method	Comparison
Calibrated at	Customer site	Procedure	ECL/P-05
Dates of Measurement	21/03/2025	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	52	Barometric Pressure(mbar)	978
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Digital Time Calibrator Calibrated at ECL New Delhi	Envirotech	07-DTI-2016	ECL/ECL/2024-25/ET/5667 Dt. 04/01/2025	Dt: 01/01/2026

Discipline: Electro-Technical Calibration

Discipline Group: Elapsed Time

RESULTS OF CALIBRATION(TABLE 1)

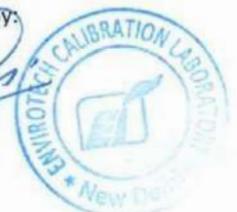
Sl. No	UUC	Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for k=2 (± min)
	Avg. Time(min)	Avg. Time (min)			
1	60	60	0.000	1.000	0.35

Calibrated By:

(Purshottam Kumar)
(Calibration Engineer)

Authorised/Reviewed By:

(Dr. Balbir Singh)
(Quality Manager)



Notes:

- All the instruments/Reference Calibrators used are traceable to national standards through reference standards and their calibrations are valid.
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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2024-25/FLOW/4171	17/10/2024	18/10/2024	17/10/2025
ULR - C C 2 7 9 9 2 4 0 0 0 0			1 2 4 7 0 F

Customer Name and Address: M/s Star Wire (India) Ltd.
 21/4, Mathura Road, Ballabgarh Haryana

Page 1 of 1

Job Card No:- 2024-25/4171

SUMMARY

Date of Receipt	17/10/2024	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of High Volume Sampler	Calibration Parameters	Flow Rate
Make	Envirotech	Range of U.U.C	0.6 to 1.5 (m ³ /min)
Model No.	APM 430	Reference Equipment Used	Top Loading Calibrator
Serial No.	517-DTA-05	Calibration Medium	Air
ID No.	21E	Calibration Method	USEPA IO 2.1 Method
Calibrated at	customer site	Procedure	ECL/P-12
Dates of Measurement	17/10/2024	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	54	Barometric Pressure(mbar)	1018.4
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Top Loading Calibrator Calibrated at ECL New Delhi	Envirotech	APM 421,123	ECL/ECL/2024-25/FLOW/1559 Dt. 07/06/2024	Dt:06/06/2025
Differential Pressure meter Calibrated at ECL New Delhi	Testo	510 51577190/1023	ECL/ECL/2024-25/FLOW/357 Dt. 23/04/2024	Dt. 22/04/2025

Discipline: Fluid Flow

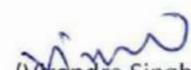
Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC		Reference	Error (UUC-Ref.)	Calibration Factor (Reference/UUC)	Expanded Uncertainty for (k=2) (±%)
	Set Point (m ³ /min)	Avg. Measured Flow Rate (Sm ³ /min)	Avg. Flow Rate in (Sm ³ /min)			
1	0.76	0.764	0.825	-0.061	1.079	1.600
2	0.88	0.885	0.923	-0.039	1.044	1.600
3	0.96	0.965	1.015	-0.050	1.052	1.600
4	1.06	1.066	1.103	-0.037	1.035	1.600
5	1.14	1.146	1.200	-0.054	1.047	1.600

Calibrated By:

Authorised/Reviewed By:


 (Vinendra Singh)
 (Calibration Engineer)


 (Dr. Balbir Singh)
 (Quality Manager)



Notes:

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Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927

Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2024-25/ET/4171	17/10/2024	18/10/2024	17/10/2025
ULR - C C 2 7 9 9 2 4 0 0	0 0	1 2 4 7 1	F
Customers Name and address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1 Job Card No:- 2024-25/4171	

SUMMARY

Date of Receipt	17/10/2024	Adjustment/Repair done in UUC	No
Unit Under Calibration	Time Totalizer of High Volume Sampler	Calibration Parameter	Time Interval
Make	Envirotech	Range of U.U.C	0 to 99999.99 hrs
Model No.	APM 430	Reference Equipment Used	Digital Time Calibrator
Serial No.	517-DTA-05	Calibration Medium	Air
ID No.	21E	Calibration Method	Comparison
Calibrated at	Customer site	Procedure	ECL/P-05
Dates of Measurement	17/10/2024	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	54	Barometric Pressure(mbar)	1018.4
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Digital Time Calibrator Calibrated at ECL New Delhi	Envirotech	08-DTI-2017	ECL/ECL/2024-25/ET/3549 Dt. 28/09/2024	Dt: 23/09/2025

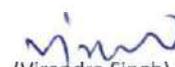
Discipline: Electro-Technical Calibration

Discipline Group: Elapsed Time

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC	Reference	Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for k=2 (± min)
	Avg. Time(min)	Avg. Time (min)			
1	60	60	0.000	1.000	0.35

Calibrated By:


(Virendra Singh)
(Calibration Engineer)

Authorised/Reviewed By:


(Dr. Balbir Singh)
(Quality Manager)



Notes:

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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWL/2024-25/FLOW/4172	17/10/2024	18/10/2024	17/10/2025
ULR - C C 2 7 9 9 2 4 0 0 0 0 1 2 4 7 2 F			

Customer Name and Address:

M/s Star Wire (India) Ltd.
21/4, Mathura Road, Ballabgarh
Haryana

Page 1 of 1

Job Card No:- 2024-25/4172

SUMMARY

Date of Receipt	17/10/2024	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of High Volume Sampler	Calibration Parameters	Flow Rate
Make	Envirotech	Range of U.U.C	0.6 to 1.5 (m ³ /min)
Model No.	APM 430	Reference Equipment Used	Top Loading Calibrator
Serial No.	518-DTA-05	Calibration Medium	Air
ID No.	22E	Calibration Method	USEPA IO 2.1 Method
Calibrated at	customer site	Procedure	ECL/P-12
Dates of Measurement	17/10/2024	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	54	Barometric Pressure(mbar)	1018.4
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Top Loading Calibrator Calibrated at ECL New Delhi	Envirotech	APM 421,123	ECL/ECL/2024-25/FLOW/1559 Dt. 07/06/2024	Dt:06/06/2025
Differential Pressure meter Calibrated at ECL New Delhi	Testo	510 51577190/1023	ECL/ECL/2024-25/FLOW/357 Dt. 23/04/2024	Dt. 22/04/2025

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC		Reference	Error (UUC-Ref.)	Calibration Factor (Reference/UUC)	Expanded Uncertainty for (k=2) (± %)
	Set Point (m ³ /min)	Avg. Measured Flow Rate (Sm ³ /min)	Avg. Flow Rate in (Sm ³ /min)			
1	0.70	0.704	0.784	-0.080	1.114	1.600
2	0.82	0.824	0.864	-0.039	1.048	1.600
3	0.90	0.905	0.956	-0.051	1.056	1.600
4	1.00	1.005	1.077	-0.072	1.072	1.600
5	1.11	1.116	1.161	-0.045	1.040	1.600

Calibrated By:

Authorised/Reviewed By:


(Virendra Singh)
(Calibration Engineer)


(Dr. Balbir Singh)
(Quality Manager)



Notes:

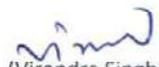
- All the instruments/Reference Calibrators used are traceable to national standards through reference standards and their calibrations are valid.
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Calibration Certificate													Format No: ECL/QMS/F-31					
CERTIFICATE NUMBER				CALIBRATION DATE				DATE OF ISSUE				RECOMMENDED DATE FOR NEXT CALIBRATION						
ECL/SWL/2024-25/ET/4172				17/10/2024				18/10/2024				17/10/2025						
ULR -	C	C	2	7	9	9	2	4	0	0	0	0	1	2	4	7	3	F
Customers Name and address: M/s Star Wire (India) Ltd. 21/4, Mathura Road, Ballabgarh Haryana											Page 1 of 1							
											Job Card No:- 2024-25/4172							
SUMMARY																		
Date of Receipt	17/10/2024				Adjustment/Repair done in UUC				No									
Unit Under Calibration	Time Totalizer of High Volume Sampler				Calibration Parameter				Time Interval									
Make	Envirotech				Range of U.U.C				0 to 99999.99 hrs									
Model No.	APM 430				Reference Equipment Used				Digital Time Calibrator									
Serial No.	518-DTA-05				Calibration Medium				Air									
ID No.	22E				Calibration Method				Comparison									
Calibrated at	Customer site				Procedure				ECL/P-05									
Dates of Measurement	17/10/2024				Condition on Receipt				O.K									
Environmental Condition of Measurements																		
Temperature (°C)	25		Relative Humidity (%)		54		Barometric Pressure(mbar)		1018.4									
Details of reference equipment used for calibration																		
All the following Reference Equipment used to calibrate UUC, are traceable to National standard																		
Calibrators Details			Make		Model & Serial No.			Certificate No. & Issue Date			Valid Up to							
Digital Time Calibrator Calibrated at ECL New Delhi			Envirotech		08-DTI-2017			ECL/ECL/2024-25/ET/3549 Dt. 28/09/2024			Dt: 23/09/2025							
Discipline: Electro-Technical Calibration											Discipline Group: Elapsed Time							
RESULTS OF CALIBRATION(TABLE 1)																		
Sl. No	UUC		Reference		Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for k=2 (± min)											
	Avg. Time(min)		Avg. Time (min)															
1	60		60		0.000	1.000		0.35										

Calibrated By:


(Virendra Singh)
(Calibration Engineer)

Authorised/Reviewed By:


(Dr. Balbir Singh)
(Quality Manager)



Notes:

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Format No: ECL/QMS/F-31

Calibration Certificate

CERTIFICATE NUMBER	CALIBRATION DATE	DATE OF ISSUE	RECOMMENDED DATE FOR NEXT CALIBRATION
ECL/SWLPL/2025-26/FLOW/1990	09/07/2025	10/07/2025	09/07/2026
ULR - C C 2 7 9 9 2 5 0 0 0 0 0 8 0 8 4 F			
Customer Name and Address: M/s Star Wire (India) Laboratories Private Ltd. 21/4, Mathura Road, Ballabgarh Haryana		Page 1 of 1	
		Job Card No:- 2025-26/1990	

SUMMARY

Date of Receipt	09/07/2025	Adjustment/Repair done in UUC	No
Unit Under Calibration	Flow Rate of Respirable Dust Sampler	Calibration Parameters	Flow Rate
Make	Envirotech	Range of U.U.C	0.6 to 1.5 (m ³ /min)
Model No.	APM 460 DXNL	Reference Equipment Used	Top Loading Calibrator
Serial No.	208 D 23	Calibration Medium	Air
ID No.	23 E	Calibration Method	USEPA IO 2.1 Method
Calibrated at	customer site	Procedure	ECL/P-12
Dates of Measurement	09/07/2025	Condition on Receipt	O.K

Environmental Condition of Measurements

Temperature (°C)	25	Relative Humidity (%)	52	Barometric Pressure(mbar)	979
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Details of reference equipment used for calibration

All the following Reference Equipment used to calibrate UUC, are traceable to National standard

Calibrators Details	Make	Model & Serial No.	Certificate No. & Issue Date	Valid Up to
Top Loading Calibrator Calibrated at ECL, NEW DELHI	Envirotech	APM 421,199	ECL/ECL/2024-25/FLOW/5006 Dt. 03/12/2024	Dt:01/12/2025
Differential Pressure meter Calibrated at ECL New Delhi	Testo	510 51577190/1023	ECL/ECL/2025-26/FLOW/321 Dt. 22/04/2025	Dt. 20/04/2026

Discipline: Fluid Flow

Discipline Group: Air Flow Rate

RESULTS OF CALIBRATION(TABLE 1)

Sl. No	UUC		Reference	Error (UUC-Ref.)	Calibration Factor (Reference/UUC)	Expanded Uncertainty for (k=2) (± %)
	Set Point (m ³ /min)	Avg. Measured Flow Rate (Sm ³ /min)	Avg. Flow Rate in (Sm ³ /min)			
1	0.80	0.773	0.804	-0.031	1.040	1.724
2	0.90	0.850	0.909	-0.058	1.069	1.646
3	1.00	0.947	1.007	-0.060	1.063	1.600
4	1.10	1.044	1.105	-0.061	1.059	1.600
5	1.20	1.150	1.207	-0.057	1.049	1.600

Checked By:


(Dinesh Kr. Pandey)

Authorised/Reviewed By:


(Dr. Balbir Singh)



Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
- This Calibration Certificate shall not be reproduced except in full without written approval of Envirotech Calibration Laboratory.
- The uncertainties are for a confidence probability not less than 95%, unless or otherwise specified



Envirotech Calibration Laboratory

A Division of Envirotech Instruments Pvt. Ltd.

Regd. Office : A-271, Okhla Industrial Area, Phase-I, New Delhi-110020, India Tel: 011-26812607, 26813887
 Fax: 011 26811833 E-mail : cal@envirotechindia.com Website : www.envirotechindia.com CIN: U74899DL1983PTC016927



CC-2799

Calibration Certificate												Format No: ECL/QMS/F-31						
CERTIFICATE NUMBER				CALIBRATION DATE				DATE OF ISSUE				RECOMMENDED DATE FOR NEXT CALIBRATION						
ECL/SWLPL/2025-26/ET/1990				09/07/2025				10/07/2025				09/07/2026						
ULR -	C	C	2	7	9	9	2	5	0	0	0	0	0	8	0	8	5	F
Customers Name and address:												Page 1 of 1						
M/s Star Wire (India) Laboratories Private Ltd. 21/4, Mathura Road, Ballabgarh Haryana												Job Card No:- 2025-26/1990						
SUMMARY																		
Date of Receipt			09/07/2025			Adjustment/Repair done in UUC			No									
Unit Under Calibration			Time Totalizer of Respirable Dust Sampler			Calibration Parameter			Time Interval									
Make			Envirotech			Range of U.U.C			0 to 99999.99 hrs									
Model No.			APM 460 DXNL			Reference Equipment Used			Digital Time Calibrator									
Serial No.			208 D 23			Calibration Medium			Air									
ID No.			23 E			Calibration Method			Comparison									
Calibrated at			Customer site			Procedure			ECL/P-05									
Dates of Measurement			09/07/2025			Condition on Receipt			O.K									
Environmental Condition of Measurements																		
Temperature (°C)			24			Relative Humidity (%)			58			Barometric Pressure(mbar)			980			
Details of reference equipment used for calibration																		
All the following Reference Equipment used to calibrate UUC, are traceable to National standard																		
Calibrators Details		Make		Model & Serial No.		Certificate No. & Issue Date		Valid Up to										
Digital Time Calibrator Calibrated at ECL New Delhi		Envirotech		07-DTI-2016		ECL/ECL/2024-25/ET/5667 Dt. 04/01/2025		Dt: 01/01/2026										
Discipline: Electro-Technical Calibration									Discipline Group: Elapsed Time									
RESULTS OF CALIBRATION(TABLE 1)																		
Sl. No	UUC		Reference		Error (UUC-Ref.)	Calibration Factor (Ref./UUC)	Expanded Uncertainty for k=2 (± min)											
	Avg. Time(min)		Avg. Time (min)															
1	60		60		0.000	1.000		0.35										

Checked By:

(Dinesh Kr. Pandey)

Authorised/Reviewed By:

(Dr. Balbir Singh)



Notes:

- All the instruments/Reference Calibrators used are traceable to national standards though reference standards and their calibrations are valid.
- Results presented in this Calibration Certificate relate only to the item/s mentioned & calibrated at Envirotech Calibration Laboratory.
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- The uncertainties are for a confidence probability not less than 95%, unless or otherwise specified



CALIBRATION CERTIFICATE

Customer name And Address	M/S: Star Wire (India) Laboratories Private Limited 21/4, Mathura Road Faridabad.- 121004	Service request No. & date	A/02/02/06/25&02/06/2025
		ULR no.	CC401225000000970F
		Cert. No.	AT25000000970
		Date of Receipt of DUC	02/06/2025
		Date of calibration	02/06/2025
		Date of issue	03/06/2025
		Suggested due date	01/06/2026

Instrument Details

Instrument name	Sound Level Meter	Location	Environment Lab
Make / Model No.	Cygnat	Accuracy	-----
Range / Size	30 to 134dB	Visual Inspection	OK
Least Count	0.1dB	Calibration Performed at	Lab
I.D. No. / Sr. no.	26E / A0403121		

Detail of reference standards & Major equipments used

Equipment Name	Sound Level Calibrator		
Make	Lutron		
Model / SR No.	SC-942 / Q697938		
Certificate No.	ME03376		
Calibration Validity	25/03/2026		
Calibration by	EI Centre		

Environmental Condition	Temperature	(20±2)°C	Calibration Reference	-----
	Relative Humidity	(50±10) %	Work Instruction	AT/WI-27M

Calibration Results

Serial No.	Standard Value in (dB)	Measured Value in (dB)	Uncertainty At 95% C.L. (coverage factor k=2)
01.	94	93.8	±1.3 dB
02.	114	113.7	..

Remarks :

- ❖ (1) Standard equipment use for calibration are traceable to national/ international standards.
- ❖ (2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by coverage factor k = 2 such that the coverage probability corresponds to approximately 95%. (3) The above results are valid at the time of and under the stated conditions measurement. (4) This certificate is refers only to the particular item submitted for calibration. (5) Next calibration due date given as requested by the customer.

Calibrated By
(Signature)
(MAHIPAL)
Form No.- QF-47



Approved By
(Signature)
(NEERAJ TYAGI)
Page No. 1 of 1

End of report



CALIBRATION CERTIFICATE

Customer name And Address	M/S: Star Wire (India) Laboratories Private Limited 21/4, Mathura Road Faridabad.- 121004	Service request No. & date	A/02/02/06/25&02/06/2025
		ULR no.	CC401225000000969F
		Cert. No.	AT25000000969
		Date of Receipt of DUC	02/06/2025
		Date of calibration	02/06/2025
		Date of issue	03/06/2025
		Suggested due date	01/06/2026

Instrument Details

Instrument name	Sound Level Meter	Location	Environment Lab
Make / Model No.	Envirotech / SLM 100	Accuracy	-----
Range / Size	34 to 134dB	Visual Inspection	OK
Least Count	0.1dB	Calibration Performed at	Lab
I.D. No. / Sr. no.	25E / 478F22		

Detail of reference standards & Major equipments used

Equipment Name	Sound Level Calibrator		
Make	Lutron		
Model / SR No.	SC-942 / Q697938		
Certificate No.	ME03376		
Calibration Validity	25/03/2026		
Calibration by	EI Centre		

Environmental Condition	Temperature	(20±2) °C	Calibration Reference	-----
	Relative Humidity	(50±10) %	Work Instruction	AT/WI-27M

Calibration Results

Serial No.	Standard Value in (dB)	Measured Value in (dB)	Uncertainty At 95% C.L. (coverage factor k=2)
01.	94	93.7	±1.3 dB
02.	114	113.5	..

Remarks :

- ❖ (1) Standard equipment use for calibration are traceable to national/ international standards.
- ❖ (2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by coverage factor k = 2 such that the coverage probability corresponds to approximately 95%. (3) The above results are valid at the time of and under the stated conditions measurement. (4) This certificate is refers only to the particular item submitted for calibration. (5) Next calibration due date given as requested by the customer.

Calibrated By
(Signature)
(M. HIPAL)
Form No.- QF-47



Approved By
(Signature)
(NEERAJ TYAGI)
Page No. 1 of 1

End of report

















Rajesh Kumar

From: Rajesh Kumar
Sent: Monday, December 22, 2025 6:36 PM
To: saurabh.envirolawyer@gmail.com
Cc: membersecy.pcb@jk.gov.in; info@nkcproject.com; cs-jandk@nic.in; Yash Kapoor
Subject: RE: In a matter of O A No. 620/2024, Bashir Ahmed Bhat & Ors. Vs. NHAI & Ors, before National Green Tribunal - reg. Filing of Objection

Dear Sir,

Please find attached the Objections on behalf of Respondent No.1/NHAI to the Report of Chief Horticulture Officer, Budgam, Jammu & Kashmir dated 22.10.2025, being filed in the subject matter. The same can be downloaded from the Dropbox link given below-

<https://www.dropbox.com/scl/fi/27u210lwwba9oaepe3uhj/Objection-by-NHAI.pdf?rlkey=y7vru7mmfj14hzuxi6d3xr52m&dl=0>

Kindly accept the same as advance service.

Best Regards,

Rajesh | Executive Assistant



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SOLICITORS AND ADVOCATES

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2022 Guide

RECOMMENDED BY

From: Rajesh Kumar
Sent: Tuesday, February 11, 2025 12:14 PM
To: saurabh.envirolawyer@gmail.com
Cc: membersecy.pcb@jk.gov.in; info@nkcproject.com; cs-jandk@nic.in; Madhu Sweta <madhu@singhania.in>; Astha Dhawan <astha@singhania.in>