



15<sup>th</sup> June, 2021.

To,  
The Director,  
Ministry of Environment, Forest and Climate Change,  
Regional Office (SEZ),  
1st and 2nd Floor, Handloom Export Promotion Council,  
34, Cathedral Garden Road, Nungambakkam,  
Chennai – 34

Sub: Berger Paints India Limited – Half Yearly Compliance Report.


Dear Sir,

Please find our Half - Yearly report (October'20 to March '21) on compliance as per the requirement given.

We would be pleased to provide you with additional information if required.

Kindly acknowledge the receipt.

With Regards,  
For Berger Paints India Ltd

  
Venkata Apparao.D  
Factory Manager.

Copy to:

1. The Joint Chief Environmental Engineer UH4, D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamvari Street, Kasturibaipet, Vijayawada – 520 008.

2. The EE, AP Pollution Control Board, Plot No.15, Door. No: 4-2-740-15, BLT Villas, Tirumala Nagar, Tapovanam, Anantapur – 515001, Andhra Pradesh

# Berger Paints India Limited, Hindupur

## Point-Wise Six Month Compliance Report Oct '20 to Mar '21

Sl. No	Conditions	Compliance Status(under construction stage)	Remarks
<b>A</b>	<b>SPECIFIC CONDITIONS:</b>		
i)	Only water Paint shall be manufactured. No solvent paint shall be manufactured without prior permission obtained from ministry.	Complied	
ii)	No lead and chromium based [paint shall be manufactured.	Complied	
iii)	Adequate stack height shall be provided to HSD/LDO fired steam boilers (5 Nos) to control air emissions. As proposed adequate dust extraction system shall be provided to capture fugitive emissions of fine particles from mixers during powder charging.	Currently we are not operating HSD/LDO fire stream Boiler. For Mixers the plant has a dedicated dust extraction system.	
iv)	The gaseous emissions (SO <sub>2</sub> , NO <sub>x</sub> , CO and HC) and particulate matter from boiler stack shall conform to the norms prescribed by the CPCB/AP pollution Control Board (APPCB) from time to time. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measure are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.	Currently we are not operating HSD/LDO fire steam Boiler	
v)	The levels of PM <sub>2.5</sub> , NO <sub>x</sub> CO HC (Methane and Non-methane) and VOCs shall be monitored in the ambient air and displayed at a convenient location near the main gate of the company and at important public places. The company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office MOEF, the respective Zonal office of CPCB and APPCB.	The applicable parameters are displayed at a convenient location near the main gate of the company for display to public.	
vi)	In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals /materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions	Adequate dust extraction system and water sprinkler system and Process system to control the fugitive emissions	

## Berger Paints India Limited, Hindupur

	in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emission shall confirm to the limits stipulated by the APPCB.		
vii)	VOCs detectors shall be installed in the work zone. When monitoring results indicate above the permissible limits, effective measures shall be taken immediately.	It is not applicable for our case since we are not using any solvent. However, we have procured portable VOC digital meter and are using it to check the VOC as per the requirement	
viii)	For further control of fugitive emissions, following steps shall be followed	.	
a	Closed handling system shall be provided for chemicals	Raw material (powder & liquids) are being charged through closed pipelines from storage area to process area	
b	Reflux condenser shall be provided over reactor.	NA	
c	System of leak detection and repair of pump/pipeline based on preventive maintenance.	PM being carried out	
d	The acid shall be taken form storage tanks to reactor through closed pipeline. Storage tanks shall be vented through trap receiver and condenser operated on chilled water.	NA	
e	Cathodic protection shall be provided to the underground solvent storage tanks.	NA	No underground tanks for solvents
ix)	The gaseous emission from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.	Complied	
x)	Total fresh water requirement from APIIC water supply shall not exceed 524 cum/day and prior permission shall be obtained from the concerned authority and a copy submitted to the ministry Regional office at Bangalore. No ground water shall be used.	Will not be using water more than 524 cum/day.	
xi)	Total industrial waste water generation shall not exceed 84 cum/day. Industrial effluent shall be treated in ETP comprising physiochemical treatment facility, biological treatment and tertiary treatment. Treated effluent shall be recycled/reused with in factory premises after	Complied	

## Berger Paints India Limited, Hindupur

	achieving desired water quality for various purposes.		
xii)	No effluent shall be discharged outside the factory premises and Zero discharge concept shall be adopted.	Complied	
xiii)	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arrestors shall be provided on tank farm. Solvent transfer shall be by pumps.	Solvents are not being used in process.	
xiv)	The company shall obtain Authorization for collection, storage and disposal of hazardous waste under hazardous Waste (management, Handling and Transboundary Movement) rules, 2016 and amended as on date for management of Hazardous wastes and prior permission from APPCB shall be obtained for disposal of solid /hazardous wastes in the TSDF. Measures shall be taken from for firefighting facilities in case of emergency.	The solid waste will be disposed to M/s. Coastal Waste Management Project, Nellore (dst) and M/s GM Eco services. Water Sprinkler system has been installed in Scrap Yard.	
xv)	The company shall strictly comply with the rules and guidelines under manufacture, Storage and Import of hazardous chemicals (MSIHC) Rules 1989 as amended time to time. All Transportation of hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.	Complied.	
xvi)	The company shall undertake following waste minimization measures :		
a	Metering and control of quantities of active ingredients to minimize waste.	All the powder and liquid ingredients will be taken from pneumatic conveying system with load cell and flow meter which automatically decreases the wastage.	
b	Reuse of by – products from the process as raw materials or as raw material substitute in other processes.	There is no by product in our process.	
c	Use of automated filling to minimize spillage.	Complied	
d	Use of close feed system into batch reactor.	Closed feeding system for TSD's & mixers is being used	
e	Venting equipment through vapor recovery system	It is not applicable as currently we are not using any solvents	

## Berger Paints India Limited, Hindupur

f	Use of high pressure hoses for equipment cleaning to reduce waste water generation.	Complied	
xvii)	Proper spillage management plan shall be prepared and implemented. A copy of spillage management plan shall be submitted to the Ministry's regional office at Bangalore.	Complied	
xviii)	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the OISD 117 norms. Fire hydrant system shall be provided along with fire monitor and flame detection system in the process as well as storage areas.	Complied	
xix)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Complied	
xx)	Green belt shall be developed in 80,617 sqm out of total land 1, 92, 831 sqm. Thick green belt with suitable plant species shall be developed around the unit to mitigate the odor problem.	Complied More than 16 Acres	
xxi)	Provision shall be made for the housing for the construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.	Complied	
<b>B.</b>	<b>GENERAL CONDITIONS:</b>		
i	The project authorities shall strictly adhere to the stipulations made by the AP Pollution Control Board.	Shall be adhered.	
ii	No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environment protection measures required if any.	Will comply in those circumstances	
iii	The locations of ambient air quality monitoring stations shall be decided in consultation with the State pollution Control Board and it shall be ensured that at least one stations is installed in the up wind and downwind direction as well as where maximum ground level concentrations are anticipated.	Complied	Annexure Attached

## Berger Paints India Limited, Hindupur

iv	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall confirm to the standards prescribed under environment (protection) Act 1986 rules viz. 75 dBA (day time) and 70 dBA (night time)	Compiled.	Annexure Attached
v	The company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.	Storm water in plant are directed towards rain water harvesting pits	
vi	Training shall be imparted to the employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for the all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Complied	Regular Training is given to all employees, Pre-employment and routine medical examination to all employees is under taken
vii	Usage of Personnel protection equipment (PPEs) by all employees/ workers shall be ensured.	Complied	
viii	The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.	Complied	
ix	The company shall undertake all relevant measures for improving the socio economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administrations.	Compiled.	
x	The company shall undertake eco developmental measures including community welfare in the project area for the overall improvement of the environment.	Compiled.	
xi	A separate environmental Management cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Compiled.	
xii	The company shall earmark sufficient funds to implement the conditions stipulated by the Ministry of Environment and Forests as well as state Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment	Adhered.	

## Berger Paints India Limited, Hindupur

	management/pollution control measures shall not be diverted for any other purposes.		
xiii	A copy of the clearance letter shall be sent by the project proponent to concerned panchayat, Zilla parishad/Municipal corporation, union local body and the local NGO, if any from who suggestions representations, if any, were received while processing the proposal.	Noted and will be complied	



Signature

Name: Venkata Apparao.D

Address: Berger Paints India Ltd

Plot No: 262, Industrial Area,

Hindupur,

Anantapur District.



# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No. 1 a

## ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Project	: Berger Paints India Limited, Industrial Park, Thumakunta village, Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.
Location	: DG Set Back Side (250KVA & 1250KVA)
Barometric pressure	: 703 mm of Hg
Temperature	: Min 29.0°C Max 35.0°C
Relative Humidity	: Min 50% Max 71%
Duration	: 24 Hrs.
Date of Report	: 07.06.2021
Report No	: MES/SS/ARN/259

Date of Sampling	Concentration					
	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	Ammonia (NH <sub>3</sub> ), µg/m <sup>3</sup>	Benzene (C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup>
01.06.2021 to 02.06.2021	8	12	49	35	<20	<1
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Concentration					
	Lead (Pb), µg/m <sup>3</sup>	Nickel (Ni), ng/m <sup>3</sup>	Arsenic (As), ng/m <sup>3</sup>	Benzo(a)Pyrene (BaP), ng/m <sup>3</sup>	Carbon Monoxide* (CO), mg/m <sup>3</sup>	Ozone* (O <sub>3</sub> ), µg/m <sup>3</sup>
01.06.2021 to 02.06.2021	0.19	<0.5	<0.5	<0.5	0.33	27
Limits for Industrial , Residential, Rural and other Areas	1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : \* Parameters monitored for period of 1 hr

(M.R. DURGA PRASAD)  
GOVT. ANALYST

(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envtest.com





# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No. 1 b

## ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Project	: Berger Paints India Limited, Industrial Park, Thumakunta village, Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.
Location	: Near ETP Area
Barometric pressure	: 703 mm of Hg
Temperature	: Min 29.0°C Max 35.0°C
Relative Humidity	: Min 50% Max 71%
Duration	: 24 Hrs.
Date of Report	: 07.06.2021
Report No	: MES/SS/ARN/260

Date of Sampling	Concentration					
	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	Ammonia (NH <sub>3</sub> ), µg/m <sup>3</sup>	Benzene (C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup>
01.06.2021 to 02.06.2021	9	11	47	33	<20	<1
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Concentration					
	Lead (Pb), µg/m <sup>3</sup>	Nickel (Ni), ng/m <sup>3</sup>	Arsenic (As), ng/m <sup>3</sup>	Benzo(a)Pyrene (BaP), ng/m <sup>3</sup>	Carbon Monoxide* (CO), mg/m <sup>3</sup>	Ozone* (O <sub>3</sub> ), µg/m <sup>3</sup>
01.06.2021 to 02.06.2021	0.11	<0.5	<0.5	<0.5	0.22	23
Limits for Industrial , Residential, Rural and other Areas	1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : \* Parameters monitored for period of 1 hr

(M.R. DURGA PRASAD)  
GOVT. ANALYST

(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envtest.com



# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No. 1 c

## ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Project	: Berger Paints India Limited, Industrial Park, Thumakunta village, Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.
Location	: Near Admin (U/G Water Tank)
Barometric pressure	: 703 mm of Hg
Temperature	: Min 29.0°C Max 35.0°C
Relative Humidity	: Min 50% Max 71%
Duration	: 24 Hrs.
Date of Report	: 07.06.2021
Report No	: MES/SS/ARN/261

Date of Sampling	Concentration					
	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	Ammonia (NH <sub>3</sub> ), µg/m <sup>3</sup>	Benzene (C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup>
01.06.2021 to 02.06.2021	7	16	49	25	<20	<1
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Concentration					
	Lead (Pb), µg/m <sup>3</sup>	Nickel (Ni), ng/m <sup>3</sup>	Arsenic (As), ng/m <sup>3</sup>	Benzo(a)Pyrene (BaP), ng/m <sup>3</sup>	Carbon Monoxide* (CO), mg/m <sup>3</sup>	Ozone* (O <sub>3</sub> ), µg/m <sup>3</sup>
01.06.2021 to 02.06.2021	0.19	<0.5	<0.5	<0.5	0.25	23
Limits for Industrial , Residential, Rural and other Areas	1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : \* Parameters monitored for period of 1 hr

(M.R. DURGA PRASAD)  
GOVT. ANALYST

(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envttest.com



# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No. 1 d

## ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Project	: Berger Paints India Limited, Industrial Park, Thumakunta village, Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.
Location	: Near Green Belt Area
Barometric pressure	: 703 mm of Hg
Temperature	: Min 29.0°C Max 35.0°C
Relative Humidity	: Min 50% Max 71%
Duration	: 24 Hrs.
Date of Report	: 07.06.2021
Report No	: MES/SS/ARN/262

Date of Sampling	Concentration					
	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	Ammonia (NH <sub>3</sub> ), µg/m <sup>3</sup>	Benzene (C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup>
01.06.2021 to 02.06.2021	8	12	49	33	<20	<1
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Concentration					
	Lead (Pb), µg/m <sup>3</sup>	Nickel (Ni), ng/m <sup>3</sup>	Arsenic (As), ng/m <sup>3</sup>	Benzo(a)Pyrene (BaP), ng/m <sup>3</sup>	Carbon Monoxide* (CO), mg/m <sup>3</sup>	Ozone* (O <sub>3</sub> ), µg/m <sup>3</sup>
01.06.2021 to 02.06.2021	0.16	<0.5	<0.5	<0.5	0.24	22
Limits for Industrial , Residential, Rural and other Areas	1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : \* Parameters monitored for period of 1 hr

(M.R. DURGA PRASAD)  
GOVT. ANALYST

(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envtest.com



# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No.1 e

## ANALYSIS REPORT OF FUGITIVE AIR QUALITY

MES/AQ/FTR/08/00

Project	: Berger Paints India Limited, Industrial Park, Thumakunta (V), Hindupuram (M), Anantapuram Dist, AP			
Locatuon	: 1st Floor water Base			
Barometric pressure	: 703 mm of Hg			
Temperature	: Min 29.0°C Max 35.0°C			
Relative Humidity	: Min 50% Max 71%			
Date of Report	: 07.06.2021			
Report No	: MES/SS/ARN/263			
		Duration		: 8 Hrs
Monitoring Date	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter	
			SPM µg/m <sup>3</sup>	RPM µg/m <sup>3</sup>
02.06.2021	14	22	244	125
Methods of Measuremant	Improved West & Gaeke	Modified Jacob & Hochheiser	Gravimetric	Gravimetric
Ref : EPA Notification :GSR176 (E)				
Permissible limits for Industrial Area, (Max)				
	SO <sub>2</sub>	NO <sub>2</sub>	SPM	RPM
	120	120	500	150

(M.R. DURGA PRASAD)  
GOVT. ANALYST

(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envtest.com



# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No.1 f

## ANALYSIS REPORT OF FUGITIVE AIR QUALITY

MES/AQ/FTR/08/00

Project	: Berger Paints India Limited, Industrial Park, Thumakunta (V), Hindupuram (M), Anantapuram Dist, AP			
Locatuon	: Raw Materal Area Ground Floor			
Barometric pressure	: 686 mm of Hg			
Temperature	: Min 20.0°C Max 30°C			
Relative Humidity	: Min 38% Max 75%			
Date of Report	: 07.06.2021			
Report No	: MES/SS/ARN/264			
Duration : 8 Hrs				
Monitoring Date	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter	
			SPM µg/m <sup>3</sup>	RPM µg/m <sup>3</sup>
02.06.2021	7	10	245	115
Methods of Measuremant	Improved West & Gaeke	Modified Jacob & Hochheiser	Gravimetric	Gravimetric
Ref : EPA Notification :GSR176 (E)				
Permissible limits for Industrial Area, (Max)				
	SO <sub>2</sub>	NO <sub>2</sub>	SPM	RPM
		120	120	500
				150

(M.R. DURGA PRASAD)  
GOVT. ANALYST

(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envtest.com



# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No. 2 a

## WATER ANALYSIS REPORT

MES/W/FTR/11/00

Name of the Project	: Berger Paints India Limited, Industrial Park, Thumakunta village, Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.
Location of Sampling	: Raw Effluent water
Date of sampling	: 02.06.2021
Date of Report	: 07.06.2021
Report No	: MES/SS/WR/73
Ref	: Environmental (P) Rules, 1986 SCHEDULE I,- 01.01.2016

Sl. No.	Parameters	Method of Testing	Result
			Raw Effluent water
1	Suspended Solids (mg/l), Max	IS 3025 (Part-17)	433
2	Dissolved Solids (inorganic) mg/l, Max.	APHA 21 <sup>st</sup> Edition	2860
3	pH	IS 3025 (Part-11)	8.15
4	Oil & Grease (mg/l), Max	IS 3025 (Part-39)	14
5	BOD [3 days at 27°C] (mg/l), Max	IS 3025 (Part-44)	344.8
6	COD (mg/l), Max	IS 3025 (Part-58)	2720
7	Lead as Pb (mg/l), Max	IS 3025 (Part-47)	<0.005
8	Hexavalent Chromium as Cr <sup>+6</sup> (mg/l), Max	IS 3025 (Part-52)	<0.03
9	Total Chromium as Cr(mg/l), Max	IS 3025 (Part-52)	<0.03
10	Copper as Cu (mg/l), Max	IS 3025 (Part-42)	<0.01
11	Zinc as Zn (mg/l), Max	IS 3025 (Part-49)	0.156
12	Nickel as Ni (mg/l), Max	IS 3025 (Part-54)	<0.01
13	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH (mg/l), Max	IS 3025 (Part-43)	0.021
14	Bio-assay test	IS 6582 (Part-1)	10% survival of fish after 96 hrs in 100% effluent

Samples Collected & Analysed by Mineral Engineering Services, Ballari

  
(M.R. DURGA PRASAD)  
GOVT. ANALYST

  
(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envtest.com



# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No. 2 b

## WATER ANALYSIS REPORT

MES/W/FTR/11/00

Name of the Project : Berger Paints India Limited, Industrial Park, Thumakunta village, Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.  
 Location of Sampling : Effluent Treated Plant water  
 Date of sampling : 02.06.2021  
 Date of Report : 07.06.2021  
 Report No : MES/SS/WR/74  
 Ref : Environmental (P) Rules, 1986 SCHEDULE I,- 01.01.2016

Sl. No.	Parameters	Method of Testing	Result	General Standards For Effluent Discharge of Environmental Pollutants
			Effluent Treated Plant water	
1	Suspended Solids (mg/l), Max	IS 3025 (Part-17)	22	100
2	Dissolved Solids (inorganic) mg/l, Max	APHA 21 <sup>st</sup> Edition	1560	2100
3	pH	IS 3025 (Part-11)	7.48	6.0 to 8.5
4	Oil & Grease (mg/l), Max	IS 3025 (Part-39)	3	10
5	BOD [3 days at 27 <sup>o</sup> C] (mg/l), Max	IS 3025 (Part-44)	14.40	50
6	COD (mg/l), Max	IS 3025 (Part-58)	152	250
7	Lead as Pb (mg/l), Max	IS 3025 (Part-47)	<0.005	0.1
8	Hexavalent Chromium as Cr <sup>+6</sup> (mg/l), Max	IS 3025 (Part-52)	<0.03	0.1
9	Total Chromium as Cr(mg/l), Max	IS 3025 (Part-52)	<0.03	2.0
10	Copper as Cu (mg/l), Max	IS 3025 (Part-42)	<0.01	3.0
11	Zinc as Zn (mg/l), Max	IS 3025 (Part-49)	0.012	5.0
12	Nickel as Ni (mg/l), Max	IS 3025 (Part-54)	<0.01	3.0
13	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH (mg/l), Max	IS 3025 (Part-43)	<0.001	1.0
14	Bio-assay test	IS 6582 (Part-1)	90% survival of fish after 96 hrs in 100% effluent	90% survival of fish after 96 hrs in 100% effluent

Samples Collected & Analysed by Mineral Engineering Services, Ballari

  
 (M.R. DURGA PRASAD)  
 GOVT. ANALYST

  
 (M.S. RAJU)  
 HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envtest.com



# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No. 4 a

## GROUND WATER ANALYSIS REPORT

MES/W/FTR/13/00

Name of the Project : Berger Paints India Limited, Industrial Park, Thumakunta village,  
Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.

Location of Sampling : GW1- Green belt area

Date of sampling : 01.06.2021.

Date of Report : 07.06.2021

Report No : MES/SS/WR/75

Sl. No.	Parameters	Method of Testing	Result
i	Copper (as Cu),mg/l	IS:3025 (Part-42)	0.08
ii	Zinc (as Zn),mg/l	IS:3025 (Part-49)	0.06
iii	Lead (as Pb),mg/l	IS:3025 (Part-47)	<0.005
iv	Nickel (as Ni),mg/l	IS:3025 (Part-54)	<0.01
v	Total Chromium (as Cr),mg/l	IS:3025 (Part-52)	<0.03
vi	Hexavalent Chromium as Cr <sup>+6</sup> (mg/l)	IS 3025 (Part-52)	<0.03

Samples Collected & Analysed by Mineral Engineering Services, Ballari

  
(M.R. DURGA PRASAD)  
GOVT. ANALYST

  
(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envtest.com





# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No. 4 b

## GROUND WATER ANALYSIS REPORT

MES/W/FTR/13/00


Name of the Project : Berger Paints India Limited, Industrial Park, Thumakunta village,  
Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.  
Location of Sampling : GW2- U/G Tank Near Parking Area  
Date of sampling : 01.06.2021.  
Date of Report : 07.06.2021  
Report No : MES/SS/WR/76

Ref : IS:10500-2012 Norms (Drinking Water Standards)

Sl. No.	Parameters	Method of Testing	Result
i	Copper (as Cu),mg/l	IS:3025 (Part-42)	0.09
ii	Zinc (as Zn),mg/l	IS:3025 (Part-49)	0.08
iii	Lead (as Pb),mg/l	IS:3025 (Part-47)	<0.005
iv	Nickel (as Ni),mg/l	IS:3025 (Part-54)	<0.01
v	Total Chromium (as Cr),mg/l	IS:3025 (Part-52)	<0.03
vi	Hexavalent Chromium as Cr <sup>+6</sup> (mg/l)	IS 3025 (Part-52)	<0.03

Samples Collected & Analysed by Mineral Engineering Services, Ballari

  
(M.R. DURGA PRASAD)  
GOVT. ANALYST

  
(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envtest.com



# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No. 4 c

## GROUND WATER ANALYSIS REPORT

MES/W/FTR/13/00

Name of the Project : Berger Paints India Limited, Industrial Park, Thumakunta village,  
Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.  
Location of Sampling : GW3- Pump house  
Date of sampling : 01.06.2021.  
Date of Report : 07.06.2021  
Report No : MES/SS/WR/77

Ref : IS:10500-2012 Norms (Drinking Water Standards)

Sl. No.	Parameters	Method of Testing	Result
i	Copper (as Cu),mg/l	IS:3025 (Part-42)	0.08
ii	Zinc (as Zn),mg/l	IS:3025 (Part-49)	0.11
iii	Lead (as Pb),mg/l	IS:3025 (Part-47)	<0.005
iv	Nickel (as Ni),mg/l	IS:3025 (Part-54)	<0.01
v	Total Chromium (as Cr),mg/l	IS:3025 (Part-52)	<0.03
vi	Hexavalent Chromium as Cr <sup>+6</sup> (mg/l)	IS 3025 (Part-52)	<0.03

Samples Collected & Analysed by Mineral Engineering Services, Ballari

  
(M.R. DURGA PRASAD)  
GOVT. ANALYST

  
(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envtest.com



# MINERAL ENGINEERING SERVICES



(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023

ISO9001:2015  
OHSAS (ISO 45001:2018)

## DRINKING WATER ANALYSIS REPORT

Table No. 5 a

MES/W/FTR/13/00

Name of the Project : Berger Paints India Limited, Industrial Park, Thumakunta village,  
Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.  
Location of Sampling : DW1- Drinking water first floor  
Date of sampling : 01.06.2021  
Date of Report : 07.06.2021  
Report No : MES/SS/WR/78  
Ref : IS:10500-2012 Norms (Drinking Water Standards)

Sl. No.	Parameters	Method of Testing	Desirable Limits	Permissible Limits	Sample
i	Colour (Hazen Units), Max	IS:3025 (Part-4)	5	15	<1
ii	Odour	IS:3025 (Part-5)	Agreeable	Agreeable	Agreeable
iii	pH	IS:3025 (Part-11)	6.5 to 8.5	6.5 - 8.5	7.18
iv	Taste	IS:3025 (Part- 8)	Agreeable	Agreeable	Agreeable
v	Turbidity,NTU, Max	IS:3025 (Part-10)	1	5	0.33
vi	Total Dissolved Solids,mg/l, Max	IS:3025 (Part-16)	500	2000	128
vii	Aluminium (as Al), Max	IS:3025 (Part-55)	0.03	0.2	<0.01
viii	Ammonia (as total Ammonia -N),mg/l, Max	IS:3025 (Part-34)	0.5	0.5	<0.1
ix	Anionic Detergents (as MBAS),mg/l , Max	Annex K of Is:13428	0.2	1.0	<0.1
x	Barium (as Ba), mg/l, Max	IS:15302 & APHA 21 <sup>st</sup>	0.7	0.7	<0.05
xi	Boron (as B), mg/l, Max	IS:3025 (Part-57)	0.5	1	<0.1
xii	Calcium (as Ca),mg/l, Max	IS:3025 (Part-40)	75	200	18.6
xiii	Chloramines (as Cl <sub>2</sub> ), mg/l, Max	APHA 21 <sup>st</sup>	4.0	4.0	NA
xiv	Chloride as Cl (mg/l),mg/l, Max	IS:3025 (Part-32)	250	1000	38
xv	Copper (as Cu),mg/l, Max	IS:3025 (Part-42)	0.05	1.5	<0.01
xvi	Fluoride (as F),mg/l, Max	IS:3025 (Part-60)	1	1.5	<0.1
xvii	Residual, Free Chlorine,mg/l, Max	IS:3025 (Part-26)	0.2	1	<0.1
xviii	Iron (as Fe),mg/l, Max	IS:3025 (Part-53)	0.3	0.3	<0.05
xix	Magnesium (as Mg)mg/l, Max	IS:3025 (Part-46)	30	100	6.8
xx	Manganese (as Mn),mg/l, Max	IS:3025 (Part-59)	0.1	0.3	<0.03
xxi	Mineral Oil,mg/l, Max	Clause 6 of IS 3025 (part -39)	0.5	0.5	<0.01
xxii	Nitrates (as NO <sub>3</sub> ),mg/l, Max	IS:3025 (Part-34)	45	45	2.9
xxiii	Phenolics (as C <sub>6</sub> H <sub>5</sub> OH),mg/l, Max	IS:3025 (Part-43)	0.001	0.002	<0.001
xxiv	Selenium (as Se),mg/l, Max	IS:3025 (Part-56)	0.01	0.01	<0.005
xxv	Silver (as Ag), mg/l, Max	Annex J of Is:13428	0.1	0.1	<0.002
xxvi	Sulphates (as SO <sub>4</sub> ),mg/l, Max	IS:3025 (Part-24)	200	400	<1.0
xxvii	Sulphide (as H <sub>2</sub> S) , mg/l, Max	IS:3025 (Part-29)	0.05	0.05	<0.01
xxviii	Alkalinity (as CaCO <sub>3</sub> ) mg/l, Max	IS:3025 (Part-23)	200	600	68
xxix	Total Hardness (as CaCO <sub>3</sub> ),mg/l, Max	IS:3025 (Part-21)	200	600	74
xxx	Zinc (as Zn),mg/l, Max	IS:3025 (Part-49)	5	15	<0.005
xxxi	Cadmium (as Cd),mg/l, Max	IS:3025 (Part-41)	0.003	0.003	<0.002
xxxii	Cyanide (as CN),mg/l, Max	IS:3025 (Part-27)	0.05	0.05	<0.01
xxxiii	Lead (as Pb),mg/l, Max	IS:3025 (Part-47)	0.01	0.01	<0.005
xxxiv	Molybdenum (as Mo), mg/l, Max	APHA 21 <sup>st</sup>	0.07	0.07	NA
xxxv	Mercury (as Hg),mg/l, Max	IS:3025 (Part-48)	0.001	0.001	<0.0005
xxxvi	Nickel (as Ni),mg/l, Max	IS:3025 (Part-54)	0.02	0.02	<0.01
xxxvii	Pesticides,mg/l, Max	APHA 21 <sup>st</sup>	Absent	0.001	NA
xxxviii	Polychlorinated biphenyls mg/l, Max	APHA 21 <sup>st</sup> Edition	0.0005	0.0005	NA
xxxix	Polynuclear Aromatic Hydrocarbons (as PAH),mg/l, Max	APHA 21 <sup>st</sup> Edition	0.0001	0.0001	NA
XL	Arsenic (as As),mg/l, Max	IS:3025 (Part-37)	0.01	0.05	<0.002
XLI	Total Chromium (as Cr),mg/l, Max	IS:3025 (Part-52)	0.05	0.05	<0.03
XLii	Trihalomethanes,mg/l, Max	APHA 21 <sup>st</sup>	--	--	NA
XLiii	Radioactive materials,Bq/l,mg/l	APHA 21 <sup>st</sup>	--	--	NA
XLiv	Total Coliform (/100ml)	IS:1622	Absent	Absent	Absent
XLv	E-Coli (cfu/100ml)	IS:1622	Absent	Absent	Absent

Samples Collected & Analysed by Mineral Engineering Services, Ballari

Note : NA - Not Analysed

(M.R. DURGA PRASAD)  
GOVT. ANALYST

(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envttest.com



# MINERAL ENGINEERING SERVICES



(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023

ISO9001:2015  
OHSAS (ISO 45001:2018)

## DRINKING WATER ANALYSIS REPORT

Table No. 5 b

MES/WFTR/13/00

Name of the Project : Berger Paints India Limited, Industrial Park, Thumakunta village,  
Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.

Location of Sampling : Drinking water canteen parking area

Date of sampling : 13.11.2020

Date of Report : 30.11.2020

Report No : MES/SS/WR/79

Ref : IS:10500-2012 Norms (Drinking Water Standards)

Sl. No.	Parameters	Method of Testing	Desirable Limits	Permissible Limits	Result
i	Colour (Hazen Units), Max	IS:3025 (Part-4)	5	15	1
ii	Odour	IS:3025 (Part-5)	Agreeable	Agreeable	Agreeable
iii	pH	IS:3025 (Part-11)	6.5 to 8.5	6.5 - 8.5	7.44
iv	Taste	IS:3025 (Part- 8)	Agreeable	Agreeable	Agreeable
v	Turbidity,NTU, Max	IS:3025 (Part-10)	1	5	1.08
vi	Total Dissolved Solids,mg/l, Max	IS:3025 (Part-16)	500	2000	168
vii	Aluminium (as Al), Max	IS:3025 (Part-55)	0.03	0.2	<0.01
viii	Ammonia (as total Ammonia -N),mg/l, Max	IS:3025 (Part-34)	0.5	0.5	<0.1
ix	Anionic Detergents (as MBAS),mg/l , Max	Annex K of Is:13428	0.2	1.0	<0.1
x	Barium (as Ba), mg/l, Max	IS:15302 & APHA 21 <sup>st</sup>	0.7	0.7	<0.05
xi	Boron (as B), mg/l, Max	IS:3025 (Part-57)	0.5	1	<0.1
xii	Calcium (as Ca),mg/l, Max	IS:3025 (Part-40)	75	200	26.0
xiii	Chloramines (as Cl <sub>2</sub> ), mg/l. Max	APHA 21 <sup>st</sup>	4.0	4.0	NA
xiv	Chloride as Cl (mg/l),mg/l, Max	IS:3025 (Part-32)	250	1000	59
xv	Copper (as Cu),mg/l, Max	IS:3025 (Part-12)	0.05	1.5	<0.01
xvi	Fluoride (as F),mg/l, Max	IS:3025 (Part-60)	1	1.5	<0.1
xvii	Residual, Free Chlorine,mg/l, Max	IS:3025 (Part-26)	0.2	1	<0.1
xviii	Iron (as Fe),mg/l, Max	IS:3025 (Part-53)	0.3	0.3	<0.05
xix	Magnesium (as Mg)mg/l, Max	IS:3025 (Part-46)	30	100	7.5
xx	Manganese (as Mn),mg/l, Max	IS:3025 (Part-59)	0.1	0.3	<0.03
xxi	Mineral Oil,mg/l, Max	Clause 6 of IS 3025 (part-39)	0.5	0.5	<0.01
xxii	Nitrates (as NO <sub>3</sub> ),mg/l, Max	IS:3025 (Part-34)	45	45	2.6
xxiii	Phenolics (as C <sub>6</sub> H <sub>5</sub> OH),mg/l, Max	IS:3025 (Part-43)	0.001	0.002	<0.001
xxiv	Selenium (as Se),mg/l, Max	IS:3025 (Part-56)	0.01	0.01	<0.005
xxv	Silver (as Ag), mg/l, Max	Annex J of Is:13428	0.1	0.1	<0.002
xxvi	Sulphates (as SO <sub>4</sub> ),mg/l, Max	IS:3025 (Part-24)	200	400	5.8
xxvii	Sulphide (as H <sub>2</sub> S), mg/l, Max	IS:3025 (Part-29)	0.05	0.05	<0.01
xxviii	Alkalinity (as CaCO <sub>3</sub> ) mg/l, Max	IS:3025 (Part-23)	200	600	80
xxix	Total Hardness (as CaCO <sub>3</sub> ),mg/l, Max	IS:3025 (Part-21)	200	600	96
xxx	Zinc (as Zn),mg/l, Max	IS:3025 (Part-49)	5	15	<0.005
xxxI	Cadmium (as Cd),mg/l, Max	IS:3025 (Part-41)	0.003	0.003	<0.002
xxxii	Cyanide (as CN),mg/l, Max	IS:3025 (Part-27)	0.05	0.05	<0.01
xxxiii	Lead (as Pb),mg/l, Max	IS:3025 (Part-47)	0.01	0.01	<0.005
xxxiv	Molybdenum (as Mo), mg/l, Max	APHA 21 <sup>st</sup>	0.07	0.07	NA
xxxv	Mercury (as Hg),mg/l, Max	IS:3025 (Part-48)	0.001	0.001	<0.0005
xxxvi	Nickel (as Ni),mg/l, Max	IS:3025 (Part-54)	0.02	0.02	<0.01
xxxvii	Pesticides,mg/l, Max	APHA 21 <sup>st</sup>	Absent	0.001	NA
xxxviii	Polychlorinated biphenyls mg/l, Max	APHA 21 <sup>st</sup> Edition	0.0005	0.0005	NA
xxxix	Polynuclear Aromatic Hydrocarbons (as PAH),mg/l, Max	APHA 21 <sup>st</sup> Edition	0.0001	0.0001	NA
XL	Arsenic (as As),mg/l, Max	IS:3025 (Part-37)	0.01	0.05	<0.002
XLI	Total Chromium (as Cr),mg/l, Max	IS:3025 (Part-52)	0.05	0.05	<0.03
XLii	Trihalomethanes,mg/l, Max	APHA 21 <sup>st</sup>	--	--	NA
XLiii	Radioactive materials,Bq/l,mg/l	APHA 21 <sup>st</sup>	--	--	NA
XLiv	Total Coliform (/100ml)	IS:1622	Absent	Absent	Absent
XLv	E-Coli (cfu/100ml)	IS:1622	Absent	Absent	Absent

Samples Collected & Analysed by Mineral Engineering Services, Ballari

Note : NA - Not Analysed

(M.R. DURGA PRASAD)  
GOVT. ANALYST

(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envttest.com



# MINERAL ENGINEERING SERVICES



(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023

ISO9001:2015  
OHSAS (ISO 45001:2018)

## DRINKING WATER ANALYSIS REPORT

Table No. 5 b

MES/WFTR/13/00

Name of the Project : Berger Paints India Limited, Industrial Park, Thumakunta village,  
Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.

Location of Sampling : Drinking water canteen parking area

Date of sampling : 01.06.2021

Date of Report : 07.06.2021

Report No : MES/SS/WR/79

Ref : IS:10500-2012 Norms (Drinking Water Standards)

Sl. No.	Parameters	Method of Testing	Desirable Limits	Permissible Limits	Result
i	Colour (Hazen Units), Max	IS:3025 (Part-4)	5	15	1
ii	Odour	IS:3025 (Part-5)	Agreeable	Agreeable	Agreeable
iii	pH	IS:3025 (Part-11)	6.5 to 8.5	6.5 - 8.5	7.44
iv	Taste	IS:3025 (Part- 8)	Agreeable	Agreeable	Agreeable
v	Turbidity,NTU, Max	IS:3025 (Part-10)	1	5	1.08
vi	Total Dissolved Solids,mg/l, Max	IS:3025 (Part-16)	500	2000	168
vii	Aluminium (as Al), Max	IS:3025 (Part-55)	0.03	0.2	<0.01
viii	Ammonia (as total Ammonia -N),mg/l, Max	IS:3025 (Part-34)	0.5	0.5	<0.1
ix	Anionic Detergents (as MBAS),mg/l , Max	Annex K of Is:13428	0.2	1.0	<0.1
x	Barium (as Ba), mg/l, Max	IS:15302 & APHA 21 <sup>st</sup>	0.7	0.7	<0.05
xi	Boron (as B), mg/l, Max	IS:3025 (Part-57)	0.5	1	<0.1
xii	Calcium (as Ca),mg/l, Max	IS:3025 (Part-40)	75	200	26.0
xiii	Chloramines (as Cl <sub>2</sub> ), mg/l, Max	APHA 21 <sup>st</sup>	4.0	4.0	NA
xiv	Chloride as Cl (mg/l),mg/l, Max	IS:3025 (Part-32)	250	1000	59
xv	Copper (as Cu),mg/l, Max	IS:3025 (Part-42)	0.05	1.5	<0.01
xvi	Fluoride (as F),mg/l, Max	IS:3025 (Part-60)	1	1.5	<0.1
xvii	Residual, Free Chlorine,mg/l, Max	IS:3025 (Part-26)	0.2	1	<0.1
xviii	Iron (as Fe),mg/l, Max	IS:3025 (Part-53)	0.3	0.3	<0.05
xix	Magnesium (as Mg),mg/l, Max	IS:3025 (Part-46)	30	100	7.5
xx	Manganese (as Mn),mg/l, Max	IS:3025 (Part-59)	0.1	0.3	<0.03
xxi	Mineral Oil,mg/l, Max	Clause 6 of IS 3025 (part- 39)	0.5	0.5	<0.01
xxii	Nitrates (as NO <sub>3</sub> ),mg/l, Max	IS:3025 (Part-34)	45	45	2.6
xxiii	Phenolics (as C <sub>6</sub> H <sub>5</sub> OH),mg/l, Max	IS:3025 (Part-43)	0.001	0.002	<0.001
xxiv	Selenium (as Se),mg/l, Max	IS:3025 (Part-56)	0.01	0.01	<0.005
xxv	Silver (as Ag), mg/l, Max	Annex J of Is:13428	0.1	0.1	<0.002
xxvi	Sulphates (as SO <sub>4</sub> ),mg/l, Max	IS:3025 (Part-24)	200	400	5.8
xxvii	Sulphide (as H <sub>2</sub> S) , mg/l, Max	IS:3025 (Part-29)	0.05	0.05	<0.01
xxviii	Alkalinity (as CaCO <sub>3</sub> ) mg/l, Max	IS:3025 (Part-23)	200	600	80
xxix	Total Hardness (as CaCO <sub>3</sub> ),mg/l, Max	IS:3025 (Part-21)	200	600	96
xxx	Zinc (as Zn),mg/l, Max	IS:3025 (Part-49)	5	15	<0.005
xxxi	Cadmium (as Cd),mg/l, Max	IS:3025 (Part-41)	0.003	0.003	<0.002
xxxii	Cyanide (as CN),mg/l, Max	IS:3025 (Part-27)	0.05	0.05	<0.01
xxxiii	Lead (as Pb),mg/l, Max	IS:3025 (Part-47)	0.01	0.01	<0.005
xxxiv	Molybdenum (as Mo), mg/l, Max	APHA 21 <sup>st</sup>	0.07	0.07	NA
xxxv	Mercury (as Hg),mg/l, Max	IS:3025 (Part-48)	0.001	0.001	<0.0005
xxxvi	Nickel (as Ni),mg/l, Max	IS:3025 (Part-54)	0.02	0.02	<0.01
xxxvii	Pesticides,mg/l, Max	APHA 21 <sup>st</sup>	Absent	0.001	NA
xxxviii	Polychlorinated biphenyls mg/l, Max	APHA 21 <sup>st</sup> Edition	0.0005	0.0005	NA
xxxix	Polynuclear Aromatic Hydrocarbons (as PAH),mg/l, Max	APHA 21 <sup>st</sup> Edition	0.0001	0.0001	NA
XL	Arsenic (as As),mg/l, Max	IS:3025 (Part-37)	0.01	0.05	<0.002
XLI	Total Chromium (as Cr),mg/l, Max	IS:3025 (Part-52)	0.05	0.05	<0.03
XLii	Trihalomethanes,mg/l, Max	APHA 21 <sup>st</sup>	--	--	NA
XLiii	Radioactive materials,Bq/l,mg/l	APHA 21 <sup>st</sup>	--	--	NA
XLiv	Total Coliform (/100ml)	IS:1622	Absent	Absent	Absent
XLv	E-Coli (cfu/100ml)	IS:1622	Absent	Absent	Absent

Samples Collected & Analysed by Mineral Engineering Services, Ballari

Note : NA - Not Analysed

(M.R. DURGA PRASAD)  
GOVT. ANALYST

(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envtest.com



# MINERAL ENGINEERING SERVICES



(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023

ISO9001:2015  
OHSAS (ISO 45001:2018)

## DRINKING WATER ANALYSIS REPORT

Table No. 5 c

MES/WFTR/13/00

Name of the Project : Berger Paints India Limited, Industrial Park, Thumakunta village,  
Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.

Location of Sampling : DW- Drinking water Raw Material Area

Date of sampling : 01.06.2021

Date of Report : 07.06.2021

Report No : MES/SSWR/80

Ref : IS:10500-2012 Norms (Drinking Water Standards)

Sl. No.	Parameters	Method of Testing	Desirable Limits	Permissible Limits	Result
i	Colour (Hazen Units), Max	IS:3025 (Part-4)	5	15	<1
ii	Odour	IS:3025 (Part-5)	Agreeable	Agreeable	Agreeable
iii	pH	IS:3025 (Part-11)	6.5 to 8.5	6.5 - 8.5	6.98
iv	Taste	IS:3025 (Part- 8)	Agreeable	Agreeable	Agreeable
v	Turbidity,NTU, Max	IS:3025 (Part-10)	1	5	0.25
vi	Total Dissolved Solids,mg/l, Max	IS:3025 (Part-16)	500	2000	168
vii	Aluminium (as Al), Max	IS:3025 (Part-55)	0.03	0.2	<0.01
viii	Ammonia (as total Ammonia -N),mg/l, Max	IS:3025 (Part-34)	0.5	0.5	<0.1
ix	Anionic Detergents (as MBAS),mg/l , Max	Annex K of Is:13428	0.2	1.0	<0.1
x	Barium (as Ba), mg/l, Max	IS:15302 & APHA 21 <sup>st</sup>	0.7	0.7	<0.05
xi	Boron (as B), mg/l, Max	IS:3025 (Part-57)	0.5	1	<0.1
xii	Calcium (as Ca),mg/l, Max	IS:3025 (Part-40)	75	200	29.6
xiii	Chloramines (as Cl <sub>2</sub> ), mg/l, Max	APHA 21 <sup>st</sup>	4.0	4.0	NA
xiv	Chloride as Cl (mg/l),mg/l, Max	IS:3025 (Part-32)	250	1000	28
xv	Copper (as Cu),mg/l, Max	IS:3025 (Part-42)	0.05	1.5	<0.01
xvi	Fluoride (as F),mg/l, Max	IS:3025 (Part-60)	1	1.5	0.14
xvii	Residual, Free Chlorine,mg/l, Max	IS:3025 (Part-26)	0.2	1	<0.1
xviii	Iron (as Fe),mg/l, Max	IS:3025 (Part-53)	0.3	0.3	<0.05
xix	Magnesium (as Mg)mg/l, Max	IS:3025 (Part-46)	30	100	4.8
xx	Manganese (as Mn),mg/l, Max	IS:3025 (Part-59)	0.1	0.3	<0.03
xxi	Mineral Oil,mg/l, Max	Clause 6 of IS 3025 (part -39)	0.5	0.5	<0.01
xxii	Nitrates (as NO <sub>3</sub> ),mg/l, Max	IS:3025 (Part-34)	45	45	1.8
xxiii	Phenolics (as C <sub>6</sub> H <sub>5</sub> OH),mg/l, Max	IS:3025 (Part-43)	0.001	0.002	<0.001
xxiv	Selenium (as Se),mg/l, Max	IS:3025 (Part-56)	0.01	0.01	<0.005
xxv	Silver (as Ag), mg/l, Max	Annex J of Is:13428	0.1	0.1	<0.002
xxvi	Sulphates (as SO <sub>4</sub> ),mg/l, Max	IS:3025 (Part-24)	200	400	<1.0
xxvii	Sulphide (as H <sub>2</sub> S) , mg/l, Max	IS:3025 (Part-29)	0.05	0.05	<0.01
xxviii	Alkalinity (as CaCO <sub>3</sub> ) mg/l, Max	IS:3025 (Part-23)	200	600	50
xxix	Total Hardness (as CaCO <sub>3</sub> ),mg/l, Max	IS:3025 (Part-21)	200	600	94
xxx	Zinc (as Zn),mg/l, Max	IS:3025 (Part-49)	5	15	<0.005
xxxi	Cadmium (as Cd),mg/l, Max	IS:3025 (Part-41)	0.003	0.003	<0.002
xxxii	Cyanide (as CN),mg/l, Max	IS:3025 (Part-27)	0.05	0.05	<0.01
xxxiii	Lead (as Pb),mg/l, Max	IS:3025 (Part-47)	0.01	0.01	<0.005
xxxiv	Molybdenum (as Mo), mg/l, Max	APHA 21 <sup>st</sup>	0.07	0.07	NA
xxxv	Mercury (as Hg),mg/l, Max	IS:3025 (Part-48)	0.001	0.001	<0.0005
xxxvi	Nickel (as Ni),mg/l, Max	IS:3025 (Part-54)	0.02	0.02	<0.01
xxxvii	Pesticides,mg/l, Max	APHA 21 <sup>st</sup>	Absent	0.001	NA
xxxviii	Polychlorinated biphenyls mg/l, Max	APHA 21 <sup>st</sup> Edition	0.0005	0.0005	NA
xxxix	Polynuclear Aromatic Hydrocarbons (as PAH) mg/l, Max	APHA 21 <sup>st</sup> Edition	0.0001	0.0001	NA
XL	Arsenic (as As),mg/l, Max	IS:3025 (Part-37)	0.01	0.05	<0.002
XLi	Total Chromium (as Cr),mg/l, Max	IS:3025 (Part-52)	0.05	0.05	<0.03
XLii	Trihalomethanes,mg/l, Max	APHA 21 <sup>st</sup>	--	--	NA
XLiii	Radioactive materials,Bq/l,mg/l	APHA 21 <sup>st</sup>	--	--	NA
XLiv	Total Coliform (/100ml)	IS:1622	Absent	Absent	Absent
XLv	E-Coli (cfu/100ml)	IS:1622	Absent	Absent	Absent

Samples Collected & Analysed by Mineral Engineering Services, Ballari

Note : NA - Not Analysed

(M.R. DURGA PRASAD)  
GOVT. ANALYST

(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envttest.com



# MINERAL ENGINEERING SERVICES



(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023

ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No. 6

## NOISE LEVEL DATA

MES/NOISE/FR/02/00

<b>Name of the Project : Berger Paints India Limited, Industrial Park, Thumakunta village, Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.</b>							
<b>Date of monitoring : 01.06.2021</b>							
<b>Date of Report : 07.06.2021</b>							
<b>Report No : MES/SS/NRN/22</b>							
Code No.	Monitoring stations	Day			Nigt		
		L <sub>min</sub>	L <sub>eq</sub>	L <sub>max</sub>	L <sub>min</sub>	L <sub>eq</sub>	L <sub>max</sub>
N1	WB Manufacturing building 1 <sup>st</sup> floors	38.9	56.8	70.8	35.8	52.6	69.5
N2	Near two gates outside	40.3	70.6	86.6	35.5	65.6	79.5
N3	RM Area	44.5	59.6	81.5	40.6	59.8	70.6
N4	DG Set Area	59.6	73.8	86.5	50.6	70.6	81.9
<b>Permissible Limits of Ambient Noise Levels as per CPCB Guidelines</b>							
<b>Leq. Limit dB(A)</b>							
		<b>Day</b>			<b>Night</b>		
	Industrial areas	75			70		
	Commercial area	65			55		
	Residential area	55			45		
<b>Permissible limits as per ILO Code of Practice</b>							
For Unprotected ear - 8 hrs working shift							
Warning limit - 85 dB(A)							
Danger limit - 90 dB(A)							
Worker not to be exposed for more than 115 dB(A)							
With ear protection -							
130 dB(A) 'Impulse' or 120 dB(A) 'Fast'							
No entry when noise level exceeds 140 dB(A)							

**(M.R. DURGA PRASAD)**  
GOVT. ANALYST

**(M.S. RAJU)**  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envtest.com



# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No. 7 a

## STACK MONITORING REPORT

MES/STK/FTR/03/00

Project : Berger Paints India Limited, Industrial Park, Thumakunta village,  
Hindupuram Mandal, Anantapur Dist., Andhra Pradesh.

Date of Monitoring : 01.06.2021

Date of Report : 07.06.2021.

Report No : MES/SS/STR/28

Sl No	Parameters	units	Result	Limits
			DG set 1	
1	Stack height	Mts	5	--
2	Stack diameter	Mts	0.13	--
3	Capacity of DG	KVA	250	--
4	Stack Temperature	(°C)	144	--
5	Velocity	(m/sec)	15.16	--
6	Quantity of Gases	(Nm <sup>3</sup> /hr)	518	--
7	Nox +HC	(g/Kw-Hr)	2.24	≤ 4.0
8	CO		1.150	≤ 3.5
9	PM		0.179	≤ 0.2

  
(M.R. DURGA PRASAD)  
GOVT. ANALYST

  
(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envttest.com





# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No. 7 b

## STACK MONITORING REPORT

MES/STK/FTR/03/00

Project : Berger Paints India Limited, Industrial Park, Thumakunta village,  
Hindupuram Mandal, Anantapur Dist., Andhra Pradesh.

Date of Monitoring : 01.06.2021

Date of Report : 07.06.2021.

Report No : MES/SS/STR/29

Sl No	Parameters	units			DG Limits 0.8MW to 75MW
			DG sets 2	DG sets 3	
1	Stack height	Mts	5	5	--
2	Stack diameter	Mts	0.38	0.38	--
3	Capacity of DG	KVA	1250	1250	--
4	Stack Temperature	(°C)	310	309	--
5	Velocity	(m/sec)	18.7	18.4	--
6	Quantity of Gases	(Nm <sup>3</sup> /hr)	6777	6243	--
7	NO <sub>x</sub> as (NO <sub>2</sub> ) (at 15% O <sub>2</sub> ), Dry basis	PPMV	255	372	710
8	NHC (as C) (at 15% O <sub>2</sub> ),	mg/Nm <sup>3</sup>	33	79	100
9	PM (at 15% O <sub>2</sub> ),	mg/Nm <sup>3</sup>	61	84	75
10	CO (at 15% O <sub>2</sub> ),	mg/Nm <sup>3</sup>	62	84	150

  
(M.R. DURGA PRASAD)  
GOVT. ANALYST

  
(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envttest.com



# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No. 7 c

## STACK MONITORING REPORT

MES/STK/FTR/03/00

Project : Berger Paints India Limited, Industrial Park, Thumakunta village,

Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.

Location : Stack of Dust Collectors

Date of Monitoring : 01.06.2021

Date of Report : 07.06.2021.

Report No : MES/SS/STR/30

Ref ; G.S.K 1214(E)

SI No	Parameters	Result
1	Barometric pressure ( mm of Hg)	73
2	Stack diameter (Mts)	0.74
3	Stack Temperature (°C)	70
4	Velocity (m/sec)	14.64
5	Quantity of Gas flow (Nm <sup>3</sup> /hr)	19595
6	Particulate Matter (PM) (mg/Nm <sup>3</sup> )	39

  
(M.R. DURGA PRASAD)  
GOVT. ANALYST

  
(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envtest.com



# MINERAL ENGINEERING SERVICES

(Recognised by GOI, MoEF&CC under E(P) Act 1986 Vide Gazette Notification  
No. S.O. 857 (E) dated 26.02.2018. Recognition valid upto 25.02.2023



ISO9001:2015  
OHSAS (ISO 45001:2018)

Table No. 8

## SOIL ANALYSIS REPORT

MES/SOIL/FTR/03/00

Project : Berger Paints India Limited, Industrial Park, Thumakunta village,  
Hindupuram Mandal, Anantapuram Dist, Andhra Pradesh.

Location : 1. Near ETP Plant Area, 2. Near Green Belt Area & 3. Near Scrap Yard

Date of Samples : 01.06.2021

Date of Report : 07.06.2021

Report No : MES/SS/SR/02

SL.	PARAMETERS	Result		
		Near ETP Plant Area	Near Green Belt Area	Near Scrap Yard
1	Total Chromium as Cr(mg/Kg)	3.82	2.18	3.15
2	Copper as Cu(mg/Kg)	0.31	0.25	0.44
3	Hexavalent Chromium as Cr+6 (mg/Kg)	0.33	0.44	0.26
4	Lead as Pb (mg/Kg)	0.28	0.36	0.22
5	Zinc as Zn (mg/Kg)	0.22	0.19	0.37
6	Nickel as Ni (mg/Kg)	0.18	0.42	0.29

  
(M.R. DURGA PRASAD)  
GOVT. ANALYST

  
(M.S. RAJU)  
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Landline No. : 08392-267421.

E-mail : mes\_msraju@yahoo.co.uk  
mesbly25@gmail.com

Website : www.envtest.com