



# NABHA POWER LIMITED

**NPL**  
Nabha Power Limited

P.O. Box No -28, Near Nalash, Rajpura-140401, Punjab

Phone: 01762-277252 • Fax: 01762-277251

Email ID: rajiv.bhandari@larsentoubro.com

NPL/HSE/RB/MoEFCC/AD/250524/1

Date 24.05.2025

To,

The Additional Director,  
Ministry of Environment, Forest and Climate Change  
(Northern Region)  
Integrated Regional Office,  
Bays Nos. 24-25, Sector 31-A,  
Chandigarh-160030

Ref: Environmental Clearance No J-13011/44/2008- IA-II (T) dated 3<sup>rd</sup> October 2008 and as Amended on dated 15<sup>th</sup> November 2010 and Extension dated 5<sup>th</sup> February 2014 & Amendment in Environmental Clearance (EC) on dated 04.07.2022.

Sub: Six Monthly Environmental Clearance Compliance Report for the Period of 1<sup>st</sup> October 2024 to 31<sup>st</sup> March 2025.

Dear Sir,

Please find enclosed Six-Monthly Environmental Clearance Compliance Report of M/s Nabha Power Ltd., Vill. Nalash, Distt- Patiala (Punjab) for the period from 1st October 2024 to 31st March 2025.

Thanking you,

Yours Sincerely,

(Rajiv Bhandari)

Authorised Signatory

Nabha Power Limited

Encl: As above.

- CC: 1) The Executive Environment Engineer, Regional Office, Patiala, Ground Floor, Vatavaran Bhawan, Nabha Road, Patiala.  
2) Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar, Delhi.  
3) Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, New Delhi.

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CIN No: U40102PB2007PLC031039

# SIX MONTHLY COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE CONDITIONS

**NABHA POWER LIMITED**  
**2×700 MW THERMAL POWER PLANT**



**VILL. NALASH**

**DISTT. PATIALA**  
**(PUNJAB)**

**Submitted to:**

- Additional Director, Integrated Regional Office (Northern Region), Ministry of Environment, Forests and Climate Change, Chandigarh-160030.
- Ministry of Environment, Forests and Climate Change, New Delhi-110003.
- Central Pollution Control Board, Delhi
- Punjab State Pollution Control Board, Patiala.

*Submitted By:*

**NABHA POWER LIMITED**  
**VILL. NALASH**  
**PATIALA (PUNJAB)**

**Period: 1<sup>st</sup> October-2024 to 31<sup>st</sup> March-2025.**

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## Introduction

Nabha Power Limited (NPL), was established as Special Purpose Vehicle (SPV) by the erstwhile Punjab State Electricity Board (PSEB) to develop the Rajpura Thermal Power Project at a site near village Nalash, Distt Patiala, Punjab. An RfQ/RfP was floated by PSEB in line with the Case 2 competitive bidding guidelines, Govt of India (GoI) and L&T Power Development Limited (a wholly owned subsidiary of L&T) was identified as the lowest bidder. NPL has signed Power Purchase Agreement on 18th January 2010 with PSEB and the NPL was also transferred to L&T Power Development Limited as its wholly owned subsidiary on 18<sup>th</sup> January 2010.

The 1400 MW power plant is constructed as a unit configuration of 2 x 700 MW units, with one steam turbine and one boiler for each unit.

NPL is having two Pulverized Fuel Boilers, generating steam at 25.71MPa at 568 °C with two Condensing Turbo Generator Sets each having generating capacity of 700 MW of power. Installation of associated mechanical and electrical equipment, auxiliary units like coal, ash handling plant, water treatment plant, cooling water system, electrostatic precipitators (ESPs), NOx control equipment etc. are part of the total installation.

## **SALIENT FEATURES OF NABHA POWER LTD.**

<b>Total Capacity</b>	2x700 MW (1400 MW)
Fuel Requirement and Source	5.8 MT/Year, SECL Mines
Water requirement and source	75 Cusec from Bhakra main canal
<b>Status</b>	Unit # 1 Operational since 1 <sup>st</sup> Feb 2014.
	Unit # 2 Operational since 10 <sup>th</sup> July 2014.

**Project Proponent** : Nabha Power Ltd.  
**Project Status** : U # 1 & U# 2 Synchronised on Feb-2014 and July-2014 respectively  
**References** : 1.No.J-13011/44/2008-IA-II(T)DTD 3<sup>rd</sup>Oct2008  
: 2.No.J-13011/44/2008-IA-II(T)DTD 15<sup>th</sup>Nov2010  
: 3.No.J-13011/44/2008-IA-II(T)DTD 5<sup>th</sup>Feb2014  
: 4.No.J-13011/44/2008-IA-II(T)DTD 4<sup>th</sup>July2022

### Compliance Report for the period of October-2024 to March-2025.

#### 1. J-13011/44/2008- IA-II (T) DTD 3<sup>rd</sup>Oct 2008 for 2x660 MW

S. No.	MOEF Conditions	Compliance Status
1.	The total land requirement for the project shall be restricted to 1278 acres.	The land requirement for 1400 MW has been restricted within 1278 acres only.
2.	Prior clearance from the competent authority shall be obtained for locating the proposed power plant in proximity (about 3 kms) of the defence installation. A copy of the same shall be furnished to the ministry and the regional office of this ministry within one month from the date of issue of this clearance letter.	NOC from Ministry of defence & AAI obtained on 25 <sup>th</sup> May 2009, Ref No. 21(7)/2008/D(Coord) and 22 <sup>nd</sup> July,2008, Ref No.: No. AAI/20012/664/ 2008-ARI (NOC) respectively.
3.	Sulphur & ash contents in the coal to be used in the project shall not exceed 0.5% & 34%.	<p>Sulphur in the coal being used is below 0.5 percent. The Testing Report is attached as <b>Annexure 1</b>.</p> <p>The condition of 34 percent Ash in coal does not exist Now. As per MoEF and CC Notification vide S.O.No.1561(E) Dtd.21.05.2020 Use of coal by Thermal Power Plants without stipulations as regards ash content or distance shall be permitted subject to compliance with specified emission norms for particulate matter (PM less than 50 mg/nm<sup>3</sup>).</p> <p>We are maintaining the specified emission norms. The stack emission monitoring reports from MoEF and CC and NABL approved laboratory as well as from PPCB for particulate matter are attached as <b>Annexure-2</b>.</p>
4.	A bi-flue stack of height 275 m shall be provided with continuous online monitoring equipment for Sox, NOx & particulate matter. Exit velocity of flue gas should not be less than 25 m/sec.	<p>Continuous online monitoring equipment are functional at 275 Mtr. stack on both the flues attached to Boiler 1 and Boiler 2 and monitoring of PM, Sox and NOx is being done.</p> <p>As per EC validity extension dated 5.02.2014 exit velocity of flue gases shall not be less than 22 m/s therefore the exit velocity of flue gas is being always maintained more than 22 m/sec in both the stacks.</p> <p>The stack emission monitoring reports from MoEF and CC and NABL approved laboratory as well as from PPCB for particulate matter are attached as <b>Annexure-2</b></p>
5.	High efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure particulate emission doesn't exceed 50 mg/m <sup>3</sup> .	<p>The ESPs attached to Boilers 1 and 2 are functional and have efficiencies more than 99.99 percent. The SPM emissions are less than 50 mg/Nm<sup>3</sup>.</p> <p>The stack emission monitoring reports from MoEF and CC and NABL approved laboratory as well as from PPCB for particulate matter are attached as <b>Annexure-2</b></p>
6.	Space provision shall be kept for retrofitting for FGD, if required at later date.	Complied.
7.	Adequate dust extraction system such as cyclones/bag filters and water spray system in dusty areas such as coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	The Dust extraction system and Dust suppression system (water sprinklers) are operational in the coal handling area ash handling and at all transfer points. The photographs of the same is attached as <b>Annexure-3</b> .
8.	Fly ash to be collected in dry form in storage facility	Fly Ash Silos (3 Nos.) are fully operational. The utilization

	(silos) shall be provided. 100% utilization of fly ash shall be achieved from day one. Unutilized fly ash in emergency and bottom ash shall be disposed in ash pond and bottom ash in conventional slurry mode. Mercury and other heavy metals (Hg, Cr, Pb etc.) will be monitored in bottom ash and fly ash as also in the effluent emanating from ash pond.	report of Fly ash is being submitted to Regional Office PPCB, MoEF and CC, CPCB and CEA on yearly basis. Ash utilization report for the period of 1 <sup>st</sup> April-24 to 31 <sup>st</sup> March-2025 is attached as <b>Annexure-4</b> . Analysis of heavy metals are being done for both Fly and Bottom ash on six monthly basis. Latest reports are attached as <b>Annexure-5</b> .
9.	Ash pond shall be lined with HDPE lining. Adequate safety measures shall also be implemented to protect ash dyke from getting breached.	Ash Pond bed is provided with HDPE lining (500 microns thick) over 50 mm thick sand cushion and top of HDPE liner is protected with 300 mm earth cover.
10.	Closed cycle cooling system with cooling towers shall be provided. Effluents shall be treated as per the prescribed norms.	Closed cycle cooling system with cooling towers is provided. No effluent is generated as the plant is designed for ZLD (Zero Liquid Discharge).
11.	The treated effluents conforming to the prescribed standard shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during Monsoon. Arrangement shall be made that effluent & storm water do not get mix.	The Power plant is based on Zero Discharge (ZLD) concept and the treated effluents conforming to prescribed standards are being re- circulated and reused within the Plant. There is no discharge outside the plant boundary.
12.	A Sewage Treatment Plant shall be provided, and treated sewage shall be used for raising green belt/plantation.	The Sewage treatment plant of 50 KLD capacity is in operation. The treated water is being used for green belt development/Plantation. The STP Treated effluent quality reports from MoEF and CC and NABL approved laboratory as well as from PPCB are attached as <b>Annexure-6</b> .
13.	Rainwater harvesting should be adopted. Central Ground Water Authority/board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of clearance and details shall be furnished.	Rainwater harvesting pits are in place and made as per the Rainwater harvesting scheme approved by CGWA.
14.	Adequate safety measures shall be provided in plant area to check/minimize spontaneous fire in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry at Chandigarh.	The safety measures submitted to MOEF vide letter ref: NPL/SKN/MOEF/1423 dated: 28th June 2012 have been implemented to check/minimize spontaneous fire in coal yard.
15.	Provision shall be made for the housing of construction labour 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 structures to be removed after the completion of project.	Adequate arrangements were made for construction labour such as toilets, STP, safe drinking water, medical health care etc. during project stage.
16.	Storage facilities for liquid fuel such as LDO and HFO/LSHS shall be made in the plant area where risk is minimum to the storage facilities. Onsite and off-site disaster management plan shall be prepared to meet any eventuality in case of an accident taking place. Mock drills shall be conducted regularly and based on the same, modification required, if any shall be incorporated in the DMP.	The Storage tanks for LDO and HFO storage have been made after necessary risk assessment. On-site disaster management plan is prepared, and the adequacy of the plan is being tested on regular basis through conducting mock drills.
17.	Regular monitoring of ground water in and around ash pond area shall be carried out, records maintained, and six-monthly reports shall be furnished to Regional Office, Chandigarh.	Regular monitoring of ground water in and around ash pond is being done and reports are being submitted to the PPCB on monthly basis. The latest reports are attached as <b>Annexure-7</b> .
18.	A green belt of adequate width and density shall be developed around plant periphery covering about 1/3 <sup>rd</sup> of project area preferably with local species.	1/3 <sup>rd</sup> of the total area have been covered under green belt with native species. The Green Belt Development photographs are attached as <b>Annexure-8</b> .

19.	Activities under CSR shall be enhanced with proper financial allocation. Details of these activities shall be submitted to the Regional Office of the Ministry, SPCB and the Ministry.	Annual activities continue across the year as per allocated financial budget to improve the socio-economic status of surrounding areas. Glimpses of the CSR projects and initiatives are attached as <b>Annexure No-9</b> .
20.	First aid & sanitation arrangement shall be made for the drivers and other contract workers during construction phase.	First aid centre (OHC) and adequate sanitation arrangement are available for employees as well as contractual employees.
21.	Noise level emanating from turbines shall be limited to 75 dB (A). For people working in the high noise area, requisite personal protective equipment like Earplug/earmuffs etc. shall be provided. Workers engaged in noisy area such as turbine area, air compressors etc. shall be periodically examined to maintain audiometry record and for any hearing loss including shifting to non-noisy/less noisy areas.	The Noise levels are maintained well below the prescribed standards. PPEs are being provided to all the workers depending upon the task being performed. Medical examination of the workers engaged in high noise area is being done on six monthly basis and records being maintained as per statutory norms.
22.	Regular monitoring of ground level concentration of SO <sub>2</sub> , NO <sub>x</sub> , SPM, RSPM and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of the monitoring shall be decided in consultation with SPCB. Periodic report to be submitted to Regional office of this Ministry.	Being Complied. Monitoring reports are regularly being submitted to regional office of Ministry and PPCB. Monitoring reports are attached as <b>Annexure-10</b> .
23.	The project proponent shall advertise in two local newspaper widely circulated in the region around the project, one of which shall be in the vernacular language of the locality/Municipal area/Gram Panchayat concerned and on the company's website within seven days from the date of clearance letter, informing that the project has been accorded environment clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at website of the ministry of Environment and forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> .	Complied.
24.	A separate Environment Management Cell with qualified staff to be set up for implementation of the stipulated environmental safeguards.	HSE department comprising of qualified staff with adequate experience and knowledge is in place to cater environmental responsibilities and needs.
25.	Half yearly report on status of implementation of the stipulated conditions and environmental safeguards shall be submitted to this Ministry/Regional Office/CPCB/SPCB.	Half year reports are regularly being submitted to ❖ MoEF and CC New Delhi, ❖ MoEF and CC, IRO (North Region), Chandigarh, ❖ CPCB, Delhi and ❖ PPCB Patiala.
26.	Regional office of the Ministry of Environment & Forests located at Chandigarh will monitor implementation of stipulated conditions. A complete set of documents including EIA report & EMP report along with additional information submitted from time to time shall be forwarded to the regional office for their use during monitoring.	Complied.

27.	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These costs shall be included as part of project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes & year wise expenditure should be reported to Ministry.	Separate funds are allocated. Funds spent in the FY 2024-2025 (1 <sup>st</sup> April-24 to 31 <sup>st</sup> March-2025) are attached as <b>Annexure No-11</b> .
28.	The project authorities shall inform the regional office as well as the Ministry regarding the date of financial closure and final approval of project by concerned authorities and the dates of start of land development work and commissioning of plant.	Plant is in operation since 2014 after obtaining all necessary approvals from state/central government.
29.	Full co-operation should be extended to the scientists/officers from the Ministry/Regional office of the Ministry at Chandigarh/the CPCB/the SPCB who would be monitoring compliance of environmental status.	NPL is providing full co-operation and support to the scientists/officers of MoEF and CC/CPCB/SPCB. who are monitoring compliance of environmental status, time to time.

## 2. J-13011/44/2008- IA-II(T) DTD 15<sup>th</sup> Nov 2010 for change in configuration from 2 x 660 MW to 2 x 700 MW.

30.	No additional coal consumption beyond 5.8 MTPA (at 85 % PLF) earlier envisaged for 2 x 660 MW and no additional land for the enhanced capacity shall be permitted.	Being Complied.
31.	The project proponent shall upload the status of compliance of the conditions stipulated in the environmental clearance issued vide Ministry's letter of even no. dated 03.10.2008, in its website and update periodically and also simultaneously send the same by email to regional office of Ministry of Environment and Forests.	NPL website is live and the compliance reports are uploaded periodically on website. Website address: <a href="http://www.ltnabhapower.com">http://www.ltnabhapower.com</a>
32.	Critical pollutants levels including NO <sub>x</sub> , RPSM <sup>10</sup> and 2.5, SO <sub>2</sub> shall be regularly monitored, and results displayed in your website and also at main gate of the power plant.	Monitoring results are uploaded on NPL website as well as displayed at main gate. The Photograph of main gate display is attached as <b>Annexure-12</b> .

## 3. J-13011/44/2008- IA-II(T) DTD 5<sup>th</sup> Feb 2014 for extension of validity of Environmental Clearance.

S. No.	MOEF Conditions	Compliance Status
33	Harnessing solar power within the premises of the plant particularly at the available roof tops shall be undertaken and status of implementation shall be submitted periodically to regional office of ministry	Solar panels are provided on field hostel roof, Clarifier area, CHP and at DM plant area and are functional. The harness report is attached as <b>Annexure No-13</b> .
34	A long-term study on radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Thereafter mechanism for an in-built continuous monitoring for radioactivity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.	Heavy metal and Radioactive contents in coal, fly ash and bottom ash are being analysed on six monthly basis. Latest reports are attached as <b>Annexure-5, 14 and 15</b> .
35	Exit velocity of flue gases shall not be less than 22 m/s. Mercury emissions from stack shall also be monitored on periodic basis.	The exit velocity of flue gases is more than 22 m/s. Mercury emissions from the stacks are regularly monitored and the reports are being submitted to MOEF and CC on periodic basis. The reports are attached as <b>Annexure-2</b> .



36	Fugitive emissions shall be controlled to prevent impact on agriculture or non-agriculture land.	Adequate measures to control fugitive emissions are already in place.
37	No ground water shall be extracted for use in operation of power plant even in lean season.	Complied.
38	Source sustainability of water requirement shall be carried out by an institute of repute. The study shall also specify the source of water for meeting the requirement during lean season. The report shall be submitted to the Regional Office of ministry within six months.	For Nabha Power Limited the source of water is Bhakhra Canal and necessary permission in this regard was taken from Irrigation Department, Punjab and was submitted with your kind office before grant of Environmental Clearance. When we had applied for Extn. of EC, our plant was already Commissioned, and we were having valid Consent to Operate from State Pollution Control Board. <b>Therefore, the said condition is not applicable on us.</b>
39	Hydro geological study of the area shall be reviewed annually, and report submitted to the ministry. No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up/ operation of the power plant.	The Hydrology study of the area was conducted before the grant of EC by MOEF and CC. No groundwater abstraction is being done. We are only using Canal water for the generation of Power. <b>Therefore, the said condition is not applicable on us.</b>
40	Minimum required environment flow suggested by the competent authority of the state government shall be maintained in the Channel / Rivers (as applicable) even in lean season.	Agreed
41	C.O.C of 5.0 shall be adopted	Adopted and being complied.
42	Fly ash shall not be used for agricultural purpose. No mine void filling will be undertaken as an option for fly ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option for mine void filling is to be adopted, prior detailed study of soil characteristics of mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the State Pollution Control Board and implementation done in close coordination with the State Pollution Control Board	Fly ash is being utilized as per the MoEF and CC Notification vide S.O. 5481(E) dated 31.12.2021 and amendments.
43	Green belt consisting of 3 tiers of plantations of native species around the plant and at least 100m width shall be raised. Wherever 100m width is not feasible a 50 m width shall be raised, and adequate justification shall be submitted to Ministry. Tree density shall not be less than 2500 per ha with survival rate not less than 75 %.	Complied. The Green Belt Development photographs are attached as <b>Annexure-8</b>
44	Three tier green belt shall be developed all around ash pond over and above the green belt around the plant boundary.	Complied
45	A common Green Endowment Fund shall be created, and the interest earned out of it shall be used for the development and management of green cover of the area.	Being complied
46	The project proponent shall also adequately contribute in the development of the neighbouring villages. Special package with implementation schedule for free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.	Being Complied
47	CSR scheme should address Public Hearing issues and shall be undertaken based on need-based assessment in and around villages within 5.0 km of the site and in constant consultation with the village Panchayat and District administration. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting	Complied Presently working in 49 villages (5 Km) radius, the schemes are implemented in targeted villages in coordination with village panchayats and District Administration.  The milestones of H2 are as under:

	<p>relevant training shall also be undertaken. Development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such program. Company shall provide separate budget for community development activities and income generating programs. Vocational training program for possible self-employment and jobs shall be imparted to identify villagers free of cost.</p>	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Production Centres- Facilitated external orders worth 47 Lakhs for women artisans (71 No., 6 centres)</li> <li>• Training in beautician and stitching courses - at 4 No. skill centres. 40 have been trained and 117 are undergoing training.</li> </ul> <p><b>Education and Sports</b></p> <ul style="list-style-type: none"> <li>• Learning Enrichment Program – Nearly 500 Students, (14 schools) are being covered.</li> <li>• Contingency Support to Govt. Schools- 19 Schools were provided with infrastructure improvement like BALA Work and classroom construction (Benefits 1500 Students)</li> <li>• NPL Scholarship- 102 (99 girls and 3 boys) under GNM, BSc Post Basic and BCA courses, 35 Scholars were provided Tablets.</li> <li>• Safe Drinking Water – Installation of Water coolers and purifiers in 19 Government Schools (benefitted 2000 children)</li> <li>• NPL Sports Academy – Nearly 80 children and youth are undergoing athletic training in village Dhumman,</li> <li>• Cyclothon under “GO-GREEN initiative and To stop crop residue burning” -500 children participated.</li> <li>• Rural Sports Tournaments-5 Tournaments, 5000 youth</li> </ul> <p><b>Rural Infrastructure</b></p> <ul style="list-style-type: none"> <li>• EWS Housing- Handed over EWS housing projects to 15 families.</li> <li>• Road Repair and Construction- 8 Villages benefited.</li> </ul> <p><b>Health</b></p> <ul style="list-style-type: none"> <li>• Health Camps (21 Nos.) – 2300 villagers benefited from health camps.</li> <li>• Dental Screening Camp: One Camp oral examination of 94 patients</li> <li>• Blood Donation Camps (3 No.) -Over 210 units voluntary donation</li> <li>• Anti Anemia Campaign- 1327 girls from 42 Govt Schools benefited.</li> </ul> <p><b>Water and Environment</b></p> <ul style="list-style-type: none"> <li>• Cleaning of natural drains and ponds <ul style="list-style-type: none"> <li>- In 14 Villages</li> </ul> </li> <li>• Pond Restoration <ul style="list-style-type: none"> <li>- In 14 Villages</li> </ul> </li> </ul>
48	<p>It shall be ensured that in-built monitoring mechanism for the schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time.</p>	<p>Internal Planning and monitoring done by CSR Committee chaired by Senior Plant Officials the committee's meeting is conducted on quarterly basis. Annual social audit was carried out by Population Research Center Panjab University Chandigarh report is attached as <b>Annexure-19</b></p>
49	<p>An Environmental cell shall be created at the project site itself and shall be headed by an officer of the company of appropriate seniority and qualification. It shall be ensured that the head of the cell shall directly report to the Head of the organization.</p>	<p>An Environmental Cell Headed by DGM-HSE is already in place, who directly reports to the Head of Organisation.</p>
50	<p>Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr, As, Pb) and records maintained and submitted to the Regional Office of this ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due</p>	<p>Regular monitoring of ground water quality including heavy metals is being carried out regularly in and around the Ash Dyke. Piezometer wells are established around the ash pond area and being regularly monitored. The latest reports are attached as <b>Annexure-7</b>.</p>

	to the project.	
51	Monitoring of the surface quantity and quality shall also be regularly conducted, and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.	No Ground Water is being abstracted as we are using Bhakra Canal water for generation of Power. The quality and quantity of the canal water is monitored, and records are being maintained. Surface water reports are attached as <b>Annexure-16</b> . We are already monitoring heavy metals in the ground water by taking samples through a piezometer on a monthly basis and submitting the respective reports to the regional office of the PPCB at Patiala. The latest reports are attached as <b>Annexure-7</b> .
52	The environment statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.	Complied.  The last environmental statement report was submitted on 27.09.2024 to the Integrated Regional Office of MoEF and CC at Chandigarh and the PPCB, Patiala.
53	The project proponent shall formulate a well laid Corporate Environment Policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with the conditions stipulated in this clearance letter and other applicable environmental laws and regulations.	HSE Policy has been framed and accordingly officers have been designated for achieving the objectives by adherence to the Policy. The organisation is certified for Integrated Management System requirements comprising of (ISO 9001, 14001 and 45001 and 50001)

#### 4. No -J-13011/44/2008- IA-II (T) dated 4<sup>th</sup> July 2022, Amendment in Environment Clearance.

54	An epidemiology study shall be carried out in every two years and report shall be submitted to Regional Office of MoEF&CC.	Epidemiology study was carried out. The copy of same is attached as <b>Annexure-17</b> .
55	A Public grievances redressal cell to address the social and environmental concerns shall be established under the supervision of project head, regular status of activities of the cell be submitted in six monthly compliance report.	A Public grievances redressal cell has been made under the chairmanship of operation and maintenance to address the social and environmental concerns. The copy of Minutes of Meeting is attached as <b>Annexure-18</b> .



## **Annexure – 1**

### **Test Report of Sulphur % in Coal**

## TEST REPORT

Issued To Nabha Power Limited Near Village: Nalash, P.D. No.28, Rajpura, Distt. Patiala Rajpura, 140401 Punjab, India	Sample Reg. No. : SR01BL-2503210004 Sample Reg. Date. : 21/03/2025 Report Date. : 29/03/2025 Report No. : TR01BL-2503290165 Customer Ref. No. : PO NABL ULR No. : TC1489625000008271F
---	--

Sample Particulars			
Name of Sample <sup>#</sup>	: Coal		
Submitted By <sup>#</sup>	: Nabha Power Limited		
Batch No. <sup>#</sup>	: NA	Batch Size <sup>#</sup>	: NA
Manufactured By <sup>#</sup>	: NA	Mfg. Lic. No. <sup>#</sup>	: NA
Supplied By <sup>#</sup>	: Not Specified		
Date of Manufacture <sup>#</sup>	: NA	Date of Expiry <sup>#</sup>	: NA
Sample Qty <sup>#</sup>	: 100gm	Sample Condition	: Good
Grade <sup>#</sup>	: NA	Brand Name <sup>#</sup>	: NA
Official Seal	: Not Applicable	Official Signature	: Not Applicable
Packaging Details	: Packed in Bag	Declared values(if any)	: Not Specified
Any Other Information	Sample collected by Lab rep. on 20.03.2025		
Test Report as per	: Party Specification	With Amendment No.(s)	: Not Specified

Test Results					
Analysis started on : 24/03/2025			Analysis completed on : 29/03/2025		
Description : Coal					
S. No.	Parameter	Unit	Method	Requirements	Result
	Discipline : Chemical				
	Group : Solid Fuels				
1	Chemical Parameters				
(a)	Sulphur(as S)	NA	IS:1350(P-3)	NA	0.42

# represents Customer Defined Fields

Remarks: Party asked for the above tests only.

\*\*\*\*\*End of Report\*\*\*\*\*

29/03/2025  
Kamal Grover  
Authorised by

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## **Annexure- 2**

### **Stack Emission Monitoring Results and Photograph of Continuous Emission Monitoring System (CEMS).**



## TEST REPORT

Report No. : TR01EN-2504030095  
ULR No. : TC1489625000008978F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503241060

Sample Name : Stack Boiler

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 1 Thimble, 30ml, 25ml

Packaging Mode : Packed in vials

Batch No./QR Code : Date of Sampling: 19.03.2025, Boiler Unit-1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. on: 19.03.2025, Boiler Unit-1

Test Report as per : EPA-1986, PCLS/02/2021

Received On : 24-03-2025

Commenced On : 24-03-2025

Completed On : 31-03-2025

Date of Report : 03-04-2025

Grade : NA

Date of Expiry : NA

### S. No. Sampling Information:

- |     |                                       |                                   |
|-----|---------------------------------------|-----------------------------------|
| (a) | Name of the emission source monitored | : Stack Emission of Boiler Unit-1 |
| (b) | Rated Capacity                        | : 2322 Ton                        |
| (c) | Capacity on sampling day              | : -do-                            |
| (d) | Type of fuel used & its consumption   | : Coal                            |
| (e) | Normal operating schedule             | : 24 hrs                          |
| (f) | Stack Identification                  | : Stack attached to Boiler Unit-1 |
| (g) | Type of Stack/Duct                    | : Metal                           |
| (h) | Stack Height from Ground Level , m    | : 275                             |
| (i) | Diameter of the Stack , cm            | : 750                             |
| (j) | Sampling Duration , minutes           | : 36                              |
| (k) | Purpose of Monitoring                 | : For Self Monitoring             |
| (l) | Air Pollution control measure         | : ESPs                            |
| (m) | Status                                | : Working                         |
| (n) | Recovery of Material                  | : -                               |
| (o) | Fugitive Emission, if any             | : Nil                             |
| (p) | Date of Monitoring                    | : 19-03-2025                      |
| (q) | Time of Monitoring                    | : 15:15 to 15:51 hrs              |

#### Observations:

- |     |   |              |
|-----|---|--------------|
| (r) | Flue Gas Temperature , °C Avg.              | : 117        |
| (s) | Flue Gas Velocity , m/s Avg.                | : 23.49      |
| (t) | Volumetric Flow Rate , Nm <sup>3</sup> /hr. | : 2774343.33 |
| (u) | Ambient Air Temperature , °C                | : 35         |

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 03/04/2025

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## TEST REPORT

Report No. : TR01EN-2504030095  
ULR No. : TC1489625000008978F

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) General Parameters</b>						
1	Carbon Monoxide(CO)	% v/v	Orsat Apparatus	IS:13270	<0.2	Max. 1.0
2	Mercury(as Hg)	mg/Nm <sup>3</sup>	ICPOES	USEPA Method	BLQ(LOQ:0.01)	Max. 0.03
3	Carbon Dioxide (CO <sub>2</sub> )	%	Orsat Apparatus	IS:13270	11.8	Not Specified
4	Particulate Matter(Corrected to 6% O <sub>2</sub> on dry basis)	mg/Nm <sup>3</sup>	Gravimetric	IS:11255(P-1)	48	Max. 50
5	Sulphur Dioxide(SO <sub>2</sub> )(Corrected to 6% O <sub>2</sub> on dry basis)	mg/Nm <sup>3</sup>	Titration	IS:11255(P-2)	982	Max. 200
6	Oxides of Nitrogen (NO <sub>x</sub> )(Corrected to 6% O <sub>2</sub> on dry basis)	mg/Nm <sup>3</sup>	UV-Spectrophotometer	IS:11255(P-7)	301	Max. 450

**NOTE** : NA- Not Applicable. Requirement as per EPA-1986, PCLS/02/2021. LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 19-03-2025.

**REMARKS** : See Note

\*\*\*\*\*End of Report\*\*\*\*\*

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 03/04/2025

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## TEST REPORT

Report No. : TR01EN-2504030093

ULR No. : TC1489625000008976F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : SR01EN-2503241061

Sample Name : Stack Boiler

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 1 Thimble, 30ml, 25ml

Packaging Mode : Packed in vials

Batch No./QR Code : Date of Sampling: 19.03.2025, Boiler Unit-2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. on: 19.03.2025, Boiler Unit-2

Test Report as per : EPA-1986, PCLS/02/2021

Received On : 24-03-2025

Commenced On : 24-03-2025

Completed On : 29-03-2025

Date of Report : 03-04-2025

Grade : NA

Date of Expiry : NA

### S. No. Sampling Information:

- |     |                                       |                                   |
|-----|---------------------------------------|-----------------------------------|
| (a) | Name of the emission source monitored | : Stack Emission of Boiler Unit-2 |
| (b) | Rated Capacity                        | : 2322 Ton                        |
| (c) | Capacity on sampling day              | : -do-                            |
| (d) | Type of fuel used & its consumption   | : Coal                            |
| (e) | Normal operating schedule             | : 24 hrs                          |
| (f) | Stack Identification                  | : Stack attached to Boiler Unit-2 |
| (g) | Type of Stack/Duct                    | : Metal                           |
| (h) | Stack Height from Ground Level , m    | : 275                             |
| (i) | Diameter of the Stack , cm            | : 750                             |
| (j) | Sampling Duration , minutes           | : 36                              |
| (k) | Purpose of Monitoring                 | : For Self Monitoring             |
| (l) | Air Pollution control measure         | : ESPs                            |
| (m) | Status                                | : Working                         |
| (n) | Recovery of Material                  | : -                               |
| (o) | Fugitive Emission, if any             | : Nil                             |
| (p) | Date of Monitoring                    | : 19-03-2025                      |
| (q) | Time of Monitoring                    | : 16:20 to 16:56 hrs              |

#### Observations:

- |     |   |              |
|-----|---|--------------|
| (r) | Flue Gas Temperature , °C Avg.              | : 130        |
| (s) | Flue Gas Velocity , m/s Avg.                | : 23.20      |
| (t) | Volumetric Flow Rate , Nm <sup>3</sup> /hr. | : 2651702.10 |
| (u) | Ambient Air Temperature , °C                | : 35         |

Authorised by

Name : Vikrant Saini

Discipline : Chemical

Date : 03/04/2025

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## TEST REPORT

Report No. : TR01EN-2504030093  
ULR No. : TC1489625000008976F

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) General Parameters</b>						
1	Carbon Monoxide(CO)	% v/v	Orsat Apparatus	IS:13270	<0.2	Max. 1.0
2	Mercury(as Hg)	mg/Nm <sup>3</sup>	ICPOES	USEPA Method	BLQ(LOQ:0.01)	Max. 0.03
3	Carbon Dioxide (CO <sub>2</sub> )	%	Orsat Apparatus	IS:13270	11.6	Not Specified
4	Particulate Matter(Corrected to 6% O <sub>2</sub> on dry basis)	mg/Nm <sup>3</sup>	Gravimetric	IS:11255(P-1)	44	Max. 50
5	Sulphur Dioxide(SO <sub>2</sub> )(Corrected to 6% O <sub>2</sub> on dry basis)	mg/Nm <sup>3</sup>	Titration	IS:11255(P-2)	1009	Max. 200
6	Oxides of Nitrogen (NO <sub>x</sub> )(Corrected to 6% O <sub>2</sub> on dry basis)	mg/Nm <sup>3</sup>	UV-Spectrophotometer	IS:11255(P-7)	232	Max. 450

**NOTE :** NA- Not Applicable. Requirement as per EPA-1986, PCLS/02/2021. LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 20-03-2025.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 03/04/2025

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## TEST REPORT

**Report No.** : TR01DP-12-2501030020

**ULR No.** : TC148962500000518F



### Issued To :

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2412281379

Sample Name : Stack Boiler

Sample Condition : Good

### Sample Details (if any)

Sample Quantity : 1 Thimble, 30ml, 25ml

Packaging Mode : Packed in vials

Batch No./QR Code : Date of Sampling: 28.12.2024, Boiler Unit-1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. on: 28.12.2024, Boiler Unit-1

Test Report as per : EPA-1986, PCLS/02/2021

Received On : 28-12-2024

Commenced On : 28-12-2024

Completed On : 02-01-2025

Date of Report : 03-01-2025

Grade : NA

Date of Expiry : NA

### S. No. Sampling Information:

- |     |                                       |                                   |
|-----|---------------------------------------|-----------------------------------|
| (a) | Name of the emission source monitored | : Stack Emission of Boiler Unit-1 |
| (b) | Rated Capacity                        | : 2322 Ton                        |
| (c) | Capacity on sampling day              | : 670 MW                          |
| (d) | Type of fuel used & its consumption   | : Coal & 365 ton/hr               |
| (e) | Normal operating schedule             | : 24 hrs                          |
| (f) | Stack Identification                  | : Stack attached to Boiler Unit-1 |
| (g) | Type of Stack/Duct                    | : Metal                           |
| (h) | Stack Height from Ground Level , m    | : 275                             |
| (i) | Diameter of the Stack , cm            | : 750                             |
| (j) | Sampling Duration , minutes           | : 30                              |
| (k) | Purpose of Monitoring                 | : For Self Monitoring             |
| (l) | Air Pollution control measure         | : ESPs                            |
| (m) | Status                                | : Working                         |
| (n) | Recovery of Material                  | : -                               |
| (o) | Fugitive Emission, if any             | : Nil                             |
| (p) | Date of Monitoring                    | : 28-12-2024                      |
| (q) | Time of Monitoring                    | : 17:00 to 17:30 hrs              |

### Observations:

- |     |                                |              |
|-----|--------------------------------|--------------|
| (r) | Flue Gas Temperature , °C Avg. | : 119        |
| (s) | Flue Gas Velocity , m/s Avg.   | : 24.00      |
| (t) | Volumetric Flow Rate , Nm3/hr. | : 2820115.98 |
| (u) | Ambient Air Temperature , °C   | : 18         |

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					

03/01/2025

**Vikrant Saini**  
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## TEST REPORT

**Report No.** : TR01DP-12-2501030020

**ULR No.** : TC1489625000000518F



TC-14896

**ORIGINAL**

Page 2 of 2

(I)	General Parameters					
1	Carbon Monoxide(CO)	% v/v	Orsat Apparatus	IS:13270	0.2	Max. 1.0
2	Mercury(as Hg)	mg/Nm3	ICPOES	USEPA Method	BLQ(LOQ:0.01)	Max. 0.03
3	Carbon Dioxide (CO2)	%	Orsat Apparatus	IS:13270	11.2	Not Specified
4	Particulate Matter(Corrected to 6% O2 on dry basis)	mg/Nm3	Gravimetric	IS:11255(P-1)	45	Max. 50
5	Sulphur Dioxide(SO2)(Corrected to 6% O2 on dry basis)	mg/Nm3	Titration	IS:11255(P-2)	1208	Max. 200
6	Oxides of Nitrogen (NOx)(Corrected to 6% O2 on dry basis)	mg/Nm3	UV-Spectrophotometer	IS:11255(P-7)	390	Max. 450

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Requirement as per EPA-1986, PCLS/02/2021. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 28-12-2024.

**REMARKS** : See Note

\*\*\*\*\*End of Report\*\*\*\*\*



03/01/2025

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## TEST REPORT

**Report No.** : TR01DP-12-2501030019

**ULR No.** : TC148962500000517F



### Issued To :

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2412281380

Sample Name : Stack Boiler

Sample Condition : Good

### Sample Details (if any)

Sample Quantity : 1 Thimble, 30ml, 25ml

Packaging Mode : Packed in vials

Batch No./QR Code : Date of Sampling: 28.12.2024, Boiler Unit-2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. on: 28.12.2024, Boiler Unit-2

Test Report as per : EPA-1986, PCLS/02/2021

Received On : 28-12-2024

Commenced On : 28-12-2024

Completed On : 02-01-2025

Date of Report : 03-01-2025

Grade : NA

Date of Expiry : NA

### S. No. Sampling Information:

- |     |                                       |                                   |
|-----|---------------------------------------|-----------------------------------|
| (a) | Name of the emission source monitored | : Stack Emission of Boiler Unit-2 |
| (b) | Rated Capacity                        | : 2322 Ton                        |
| (c) | Capacity on sampling day              | : 682 MW                          |
| (d) | Type of fuel used & its consumption   | : Coal & 356 ton/hr               |
| (e) | Normal operating schedule             | : 24 hrs                          |
| (f) | Stack Identification                  | : Stack attached to Boiler Unit-2 |
| (g) | Type of Stack/Duct                    | : Metal                           |
| (h) | Stack Height from Ground Level , m    | : 275                             |
| (i) | Diameter of the Stack , cm            | : 750                             |
| (j) | Sampling Duration , minutes           | : 30                              |
| (k) | Purpose of Monitoring                 | : For Self Monitoring             |
| (l) | Air Pollution control measure         | : ESPs                            |
| (m) | Status                                | : Working                         |
| (n) | Recovery of Material                  | : -                               |
| (o) | Fugitive Emission, if any             | : Nil                             |
| (p) | Date of Monitoring                    | : 28-12-2024                      |
| (q) | Time of Monitoring                    | : 18:00 to 18:30 hrs              |

### Observations:

- |     |                                |              |
|-----|--------------------------------|--------------|
| (r) | Flue Gas Temperature , °C Avg. | : 115        |
| (s) | Flue Gas Velocity , m/s Avg.   | : 23.60      |
| (t) | Volumetric Flow Rate , Nm3/hr. | : 2801702.85 |
| (u) | Ambient Air Temperature , °C   | : 18         |

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					

03/01/2025

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## TEST REPORT

**Report No.** : TR01DP-12-2501030019

**ULR No.** : TC1489625000000517F



TC-14896  
**ORIGINAL**  
Page 2 of 2

(I)	General Parameters					
1	Carbon Monoxide(CO)	% v/v	Orsat Apparatus	IS:13270	0.2	Max. 1.0
2	Mercury(as Hg)	mg/Nm3	ICPOES	USEPA Method	BLQ(LOQ:0.01)	Max. 0.03
3	Carbon Dioxide (CO2)	%	Orsat Apparatus	IS:13270	11.6	Not Specified
4	Particulate Matter(Corrected to 6% O2 on dry basis)	mg/Nm3	Gravimetric	IS:11255(P-1)	43	Max. 50
5	Sulphur Dioxide(SO2)(Corrected to 6% O2 on dry basis)	mg/Nm3	Titration	IS:11255(P-2)	1188	Max. 200
6	Oxides of Nitrogen (NOx)(Corrected to 6% O2 on dry basis)	mg/Nm3	UV-Spectrophotometer	IS:11255(P-7)	350	Max. 450

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Requirement as per EPA-1986, PCLS/02/2021. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 28-12-2024.

**REMARKS** : See Note

\*\*\*\*\*End of Report\*\*\*\*\*



03/01/2025

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### TEST REPORT FOR STACK EMISSION SAMPLE

1. Test Report No. : SED 05 /I/O/Air Lab/Monitoring/2025-26
2. Date of Issue of Report : 11.04.2025
3. Report Sent to (Designation & Address) : Senior Environmental Engineer PPCB ZO-I, Patiala and Environmental Engineer, RO Patiala
4. Source of Sample : M/s Nabha Power Ltd, Village Nalash, Rajpura, Distt Patiala
5. Sample Registration No. : SER 9 & 10
6. Date of Sample Collection : 04.04.2025
7. Name of Sample Collecting Officer : Er. Mohit Bisht (EE-UP) and Dr. Sonam Dogra (JSO)
8. Date of Sample Receipt : 07.04.2025
9. Sampling Description : Stack Emission
10. Period of Analysis : 07.04.2025 - 11.04.2025
11. Sampling Method : PPCB Lab/SOP/SC/01, Issue No.1 Date-01.08.2023
12. Document attached with Test Report, if any : Data Sheet

### Results

S. N o.	Point of Sample Collection	Test Parameter	Units	Results	Prescribed Standard	Method Reference
1.	Port hole on Stack after APCD Attached with Boiler of Unit I 2322T	Particulate Matter (PM)	mg/Nm <sup>3</sup>	45	50	IS 1125 (Part1):1985, RA 2019
2.	Port hole on Stack after APCD Attached with Boiler of Unit II 2322T	Particulate Matter (PM)	mg/Nm <sup>3</sup>	43		

Note:- If any other limits/specific standard has been prescribed time to time by MoEF&CC, CPCB and PPCB then stringent limits/specific standard would prevail subject to clarification from the concerned Regional Office.

\*\*---End of Report---\*\*

*Rupinder*  
 11/4/25  
 Name: Dr. Rupinder Kaur,  
 Designation: JSO  
 (Signature of Analyst)

*Sh Janak Raj*  
 11/4/25  
 Name: Sh Janak Raj  
 Designation: SO  
 (Seal & Signature of Authorized Signatory)

27400



# PUNJAB POLLUTION CONTROL BOARD CENTRAL LABORATORY

NABL Accredited & ISO 45001: 2018 (OH&S) certified Laboratory  
AIR LAB, HEAD OFFICE, VATAVARAN BHAWAN, PATIALA, PUNJAB  
Email: [ppcbairlab@gmail.com](mailto:ppcbairlab@gmail.com) Website: [www.ppcbonline.org](http://www.ppcbonline.org)



## TEST REPORT FOR STACK EMISSION SAMPLE

: SE 393/H.O. Lab/Air/Monitoring/2024-25  
: 08.01.2025  
(Designation) : Senior Environmental Engineer PPCB ZO-I, Patiala  
and Environmental Engineer, RO Patiala  
: M/s Nabha Power Ltd, Village Nalash, Rajpura,  
Distt Patiala  
: SE 461-463  
: 19.12.2024  
: Er. Gurkaran Singh EE, Er. Mohit Bisht AEE and  
Dr. Sonam Dogra JSO  
: 20.12.2024  
: Stack Emission  
: 20.12.2024 - 08.01.2025  
: PPCB Lab/SOP/SC/01, Issue No.1 Date-01.08.2023  
: Data Sheet

## Results

S.N.	Point of Sample Collection	Test Parameter	Units	Results	Prescribed Standard	Method Reference
1.	Port hole on Stack after APCD Attached with Boiler of Unit I	Particulate Matter (PM)	mg/Nm <sup>3</sup>	45	50	IS 1125 (Part1):1985, RA 2019
2.	Port hole on Stack after APCD Attached with Boiler of Unit II	Particulate Matter (PM)	mg/Nm <sup>3</sup>	46	50	
3.	Port hole on Stack after APCD Attached with Crusher House	Particulate Matter (PM)	mg/Nm <sup>3</sup>	84	-	

Note:- If any other limits/specific standard has been prescribed time to time by MoEF&CC, CPCB and PPCB then stringent limits/specific standard would prevail subject to clarification from the concerned Regional Office.

**\*\*---End of Report---\*\***

*Rupinder*  
8/1/25  
Name: Dr. Rupinder Kaur,  
Designation: JSO  
(Signature of Analyst)

*June*  
08/01/2025  
Name: Sh Janak Raj  
Designation: SO  
(Seal & Signature of Authorized Signatory)

## Annexure-2



**Continuous emission monitoring system installed at main stack for measurement of Particulate Matter & Gaseous Emissions.**

## **Annexure- 3**

### **Measures taken to control fugitive emissions**



### **Annexure-3**



**Dust Extraction System at Crusher House**



**Dust Extraction System at Bunker**



## Annexure-3

### 1. Measures taken to control fugitive emissions during coal handling



**Covered conveyors for transfer of coal from Wagon tippler to coal bunkers for abatement of fugitive emissions**



**Dust suppression (sprinkler system) provided at each coal stockpile to arrest Dust**



**Automated and Mechanized Coal handling System to minimize manual operations**



**Three side covered windscreen to control fugitive emissions due to wind flow**

### Annexure-3



**Dust Suppression System installed at Wagon Tippler Area to control Fugitive Emission During Unloading of Coal.**

# **Annexure-4**

## **Fly Ash Utilization Report**

**NPL 2x700MW, RAJPURA,  
ASH GENERATION AND UTILIZATION REPORT FY 2024-25,**

<b>Month</b>	<b>Total Ash Generated</b>	<b>Total Ash Utilized</b>	<b>% Utilization</b>
Apr-24	2,30,298	2,28,798	<b>99.35%</b>
May-24	2,75,325	2,73,634	<b>99.39%</b>
Jun-24	2,60,893	2,63,785	<b>101.11%</b>
Jul-24	2,07,430	1,59,341	<b>76.82%</b>
Aug-24	1,98,355	1,73,511	<b>87.47%</b>
Sep-24	1,76,700	1,79,137	<b>101.38%</b>
Oct-24	1,82,146	1,90,184	<b>104.41%</b>
Nov-24	1,55,867	1,71,987	<b>110.34%</b>
Dec-24	1,67,016	1,92,986	<b>115.55%</b>
Jan-25	1,65,996	1,76,545	<b>106.35%</b>
Feb-25	1,17,623	1,17,884	<b>100.22%</b>
Mar-25	1,60,965	1,70,824	<b>106.12%</b>
<b>Total</b>	<b>22,98,615</b>	<b>22,98,615</b>	<b>100.00%</b>

## **Annexure-5**

# **Heavy Metal Analysis in Fly Ash & Bottom Ash Report**



## TEST REPORT

ORIGINAL

Page 1 of 1

<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura, 140401 Punjab, India	<b>Sample Reg. No.</b> : SR01BL-2503210006 <b>Sample Reg. Date.</b> : 21/03/2025 <b>Report Date.</b> : 23/04/2025 <b>Report No.</b> : TR01BL-2504230053 <b>Customer Ref. No.</b> : PO
--	---

Sample Particulars			
<b>Name of Sample<sup>#</sup></b>	: Fly Ash		
<b>Submitted By<sup>#</sup></b>	: Nabha Power Limited		
<b>Batch No.<sup>#</sup></b>	: NA	<b>Batch Size<sup>#</sup></b>	: NA
<b>Manufactured By<sup>#</sup></b>	: Not Specified	<b>Mfg. Lic. No.<sup>#</sup></b>	: NA
<b>Supplied By<sup>#</sup></b>	: Not Specified		
<b>Date of Manufacture<sup>#</sup></b>	: NA	<b>Date of Expiry<sup>#</sup></b>	: NA
<b>Sample Qty<sup>#</sup></b>	: 400gm	<b>Sample Condition</b>	: Good
<b>Grade<sup>#</sup></b>	: NA	<b>Brand Name<sup>#</sup></b>	: NA
<b>Official Seal</b>	: Not Applicable	<b>Official Signature</b>	: Not Applicable
<b>Packaging Details</b>	: Packed in Bag	<b>Declared values(if any)</b>	: Not Specified
<b>Any Other Information</b>	: Sample collected by Lab rep. on 20.03.2025		
<b>Test Report as per</b>	: Party Specification	<b>With Amendment No.(s)</b>	: Not Specified

Test Results						
Analysis started on : 19/04/2025			Analysis completed on : 19/04/2025			
Description : Fly Ash						
S. No.	Parameter	Unit	Instrument	Method	Requirements	Result
	Discipline : Chemical					
	Group : Building Material					
1	Heavy Metals					
(a)	Arsenic(as As)	(mg/kg)	ICPOES	STP/ITC/F/INST/008	NA	BLQ(ILOQ:1.0)
(b)	Lead(as Pb)	(mg/kg)	ICPOES	STP/ITC/F/INST/008	NA	2.15
(c)	Chromium(as Cr)	(mg/kg)	ICPOES	STP/ITC/F/INST/008	NA	3.25
(d)	Mercury(as Hg)	(mg/kg)	ICPOES	STP/ITC/F/INST/008	NA	BLQ(ILOQ:1.0)

# represents Customer Defined Fields

**Remarks:** Party asked for the above tests only.

\*\*\*\*\*End of Report\*\*\*\*\*



23/04/2025

**Kamal Grover**  
Authorised by

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## TEST REPORT

ORIGINAL

Page 1 of 1

<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura, 140401 Punjab, India	<b>Sample Reg. No.</b> : SR01BL-2503210003 <b>Sample Reg. Date.</b> : 21/03/2025 <b>Report Date.</b> : 10/04/2025 <b>Report No.</b> : TR01BL-2504100028 <b>Customer Ref. No.</b> : PO
--	---

Sample Particulars			
<b>Name of Sample<sup>#</sup></b>	: Bottom Ash		
<b>Submitted By<sup>#</sup></b>	: Nabha Power Limited		
<b>Batch No.<sup>#</sup></b>	: NA	<b>Batch Size<sup>#</sup></b>	: NA
<b>Manufactured By<sup>#</sup></b>	: NA	<b>Mfg. Lic. No.<sup>#</sup></b>	: NA
<b>Supplied By<sup>#</sup></b>	: Not Specified		
<b>Date of Manufacture<sup>#</sup></b>	: NA	<b>Date of Expiry<sup>#</sup></b>	: NA
<b>Sample Qty<sup>#</sup></b>	: 400gm	<b>Sample Condition</b>	: Good
<b>Grade<sup>#</sup></b>	: NA	<b>Brand Name<sup>#</sup></b>	: NA
<b>Official Seal</b>	: Not Applicable	<b>Official Signature</b>	: Not Applicable
<b>Packaging Details</b>	: Packed in Bag	<b>Declared values(if any)</b>	: Not Specified
<b>Any Other Information</b>	: Sample collected by Lab rep. on 20.03.2025		
<b>Test Report as per</b>	: Party Specification	<b>With Amendment No.(s)</b>	: Not Specified

Test Results						
Analysis started on		: 26/03/2025		Analysis completed on		: 09/04/2025
Description		: Bottom Ash				
S. No.	Parameter	Unit	Instrument	Method	Requirements	Result
	Discipline : Chemical					
	Group : Building Material					
1	Heavy Metals					
(a)	Arsenic(as As)	(mg/kg)	ICPOES	STP/ITC/F/INST/008	NA	BLQ(LOQ:1.0)
(b)	Lead(as Pb)	(mg/kg)	ICPOES	STP/ITC/F/INST/008	NA	BLQ(LOQ:1.0)
(c)	Chromium(as Cr)	(mg/kg)	ICPOES	STP/ITC/F/INST/008	NA	BLQ(LOQ:1.0)
(d)	Mercury(as Hg)	(mg/kg)	ICPOES	STP/ITC/F/INST/008	NA	BLQ(LOQ:1.0)

# represents Customer Defined Fields

**Remarks:** Party asked for the above tests only.

\*\*\*\*\*End of Report\*\*\*\*\*



10/04/2025

**Kamal Grover**  
Authorised by

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## **Annexure-6**

### **Treated Sewage Monitoring Results**



## TEST REPORT

Report No. : TR01EN-2503271670

ULR No. : TC1489625000008056F

### Issued To :

Nubha Power Limited  
Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503190840

Sample Name : STP Outlet Water

Sample Condition : Good

### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : NA

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Anuj Kumar

Customer Reference : FDS/18/03/2025

Any Other Information : Sample Collected by lab rep. on: 18.03.2025

Test Report as per : EPA-1986, PCLS/02/2021

Received On : 19-03-2025

Commenced On : 19-03-2025

Completed On : 26-03-2025

Date of Report : 27-03-2025

Grade : NA

Date of Expiry : NA

Description: STP Outlet Water					
S. No.	Parameter	Measuring Unit	Method	Result	Specification
Discipline : Chemical					
Group : Pollution & Environment					
(I)	General Parameters				
1	pH Value	NA	IS: 3025 (Part-11): 2022	7.09	6.5 - 9
2	Total Suspended Solids	mg/l	IS: 3025 (P-17): 2022	12	Max. 100
3	Chemical Oxygen Demand	mg/l	IS 3025 (Part: 58): 2023	35	Not Specified
4	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	IS 3025 (Part 44): 2023	11	Max. 30
5	Colour	NA	IS 3025 (Part 4): 2021	Colourless	Not Specified
6	Total Kjeldahl Nitrogen(as N)	mg/l	IS:3025 (Part 34):Sec-I:2023	11.1	Max. 100
7	Total Phosphorous(as P)	mg/l	APHA 23rd Edition 4500 - P D: 2017	1.03	Not Specified
Discipline : Biological					
Group : Pollution & Environment					
(II)	Microbiological Tests				

### Authorized Signatory(Microbiology)

Name : Deepika Heera

Discipline : Biological

Date : 27/03/2025

### Authorised by

Name : Vikrant Saini

Discipline : Chemical

Date : 27/03/2025

### Disclaimer :

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## TEST REPORT

Report No. : TR01EN-2503271670

ULR No. : TC1489625000008056F

1	Faecal Coliform	NA	APHA 23rd Edition Chapter 9 9221.E	350 MPN/100ml	Max. 1000 MPN/100ml
---	-----------------	----	--	---------------	---------------------

NOTE : NA- Not Applicable, Requirement as per EPA-1986, PCLS/02/2021. Sampling Procedure: SOP/ITC/EW/030.

REMARKS : See Note

\*\*\*\*\*End of Report\*\*\*\*\*

Authorized Signatory(Microbiology)

Name : Deepika Heera

Discipline : Biological

Date : 27/03/2025

Authorised by

Name : Vikrant Saini

Discipline : Chemical

Date : 27/03/2025

### Disclaimer :

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## TEST REPORT

**Report No. :** TR01EN-2501080223  
**ULR No. :** TC148962500000380F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2412281377

Sample Name : STP Outlet Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : NA

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. on: 28.12.2024

Test Report as per : EPA-1986, PCLS/02/2021

Received On : 28-12-2024

Commenced On : 28-12-2024

Completed On : 06-01-2025

Date of Report : 08-01-2025

Grade : NA

Date of Expiry : NA

#### Description: STP Outlet Water

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Pollution &amp; Environment</b>						
<b>(I) General Parameters</b>						
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.68	6.5 - 9
2	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	8	Max. 100
3	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	25	Not Specified
4	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	9	Max. 30
5	Colour	NA	Visual Examination	IS 3025 (Part 4) : 2021	Colourless	Not Specified
6	Total Kjeldahl Nitrogen(as N)	mg/l	Titration	IS:3025 (Part 34):Sec-1:2023	9.2	Max. 100
7	Total Phosphorous(as P)	mg/l	UV-Spectrophotometer	APHA 23rd Edition 4500 - P D: 2017	1.26	Not Specified
<b>Discipline : Biological</b>						
<b>Group : Pollution &amp; Environment</b>						
<b>(II) Microbiological Tests</b>						
1	Faecal Coliform	NA	Microbiological	APHA 23rd Edition Chapter 9 9221.E	240 MPN/100ml	Max. 1000 MPN/100ml



08/01/2025

**Deepika Heera**

Authorized Signatory(Microbiology)



08/01/2025

**Vikrant Saini**

Authorised by

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**Interstellar Testing Centre PVT. LTD.**

86, Industrial Area, Phase-1, Panchkula-134109 (Haryana)

Panchkula-134109 (Haryana)

Phone : (O) 0172-2561543, 2565825

Email : customersupport@itclabs.com

Visit us : www.itclabs.com



## TEST REPORT

Report No. : TR01EN-2501080223

ULR No. : TC1489625000000380F



TC-14896

**ORIGINAL**

Page 2 of 2

**NOTE** : NA- Not Applicable, Requirement as per EPA-1986, PCLS/02/2021. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS** : See Note

\*\*\*\*\*End of Report\*\*\*\*\*



08/01/2025

**Deepika Heera**

Authorized Signatory(Microbiology)



08/01/2025

**Vikrant Saini**

Authorised by

**Interstellar Testing Centre PVT. LTD.**

86, Industrial Area, Phase-1, Panchkula-134109 (Haryana)

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# PUNJAB POLLUTION CONTROL BOARD CENTRAL LABORATORY



NABL Accredited & ISO 15189:2013 (NABL) certified Laboratory  
NATED LAB HEAD OFFICE: VASAVARAN BHARAT, PATIALA, PUNJAB  
Email: [info@ppcb.org](mailto:info@ppcb.org), Website: [www.ppcb.org](http://www.ppcb.org)

## TEST REPORT

EE(DP)

र.व.वि.-1/2/2025/25/SAAC/CEO

Test Report Code : E-62-63  
Report Issue Date : 15.04.2025  
Report Sent to (Name & Address) : M/s Nabha Power Ltd, Village Nalath, Rajpura  
Date of Sample Receipt : 05.04.2025  
Sample Registration No. : E-62-63  
Sample Description : Effluent Sample  
Type of Sample : Grab  
Analysis Duration : 05.04.2025 to 15.04.2025  
Sampling Location : Inlet of STP(E-62) & Outlet of STP(E-63)  
Date of Sample Collection : 04.04.2025  
Name of Sample Collecting Officer : Er. Gurkaran Singh, EE, Er. Mohit Bisht, EE & Dr. Sonam Dogra, JSO  
Sampling Protocol : IS 17614 (Part-10): 2021  
Sample Quantity : 6.0 L.  
Sample Packing : Plastic Bottle

र.व.वि.-1/2/2025/25/SAAC/CEO

र.व.वि.-1/2/2025/25/SAAC/CEO

## Test Results (Water Quality Analysis)

Sr. No.	Test Parameters	Units	Results		Test Method
			Inlet of STP	Outlet of STP	
1	pH Value	-	7.3	7.8	IS 1025 Part-11
2	Total Suspended Solids (TSS)	mg/l	86	19	IS 1025 Part-17
3	Total Dissolved Solids (TDS)	mg/l	398	375	IS 1025 Part-16
4	Chemical Oxygen Demand (COD)	mg/l	179	56	IS 1025 Part-56
5	Bio-Chemical Oxygen Demand (BOD)	mg/l	88	14	IS 1025 Part-44

Remarks: No specific standards prescribed as per EPA. However, if any stringent/other standards have been imposed by the Board, the same shall prevail.

\*\*—End of Report—\*\*

Name, Designation & Signature of Analyst

Name & Designation of Authorized Signatory

Avtar Singh  
Scientific Officer  
(Seal & Signature)





# PUNJAB POLLUTION CONTROL BOARD CENTRAL LABORATORY



NABL Accredited & ISO 45001: 2018 (OH&S) certified Laboratory  
WATER LAB, HEAD OFFICE, VATAVARAN BHAWAN, PATIALA, PUNJAB  
Email: [waterlab2010@gmail.com](mailto:waterlab2010@gmail.com); Website: [www.ppcbonline.org](http://www.ppcbonline.org)

## TEST REPORT

Test Report Code : E-62-63  
Report Issue Date : 15.04.2025  
Report Sent to (Name & Address) : M/s Nabha Power Ltd, Village Nalash, Rajpura  
Date of Sample Receipt : 05.04.2025  
Sample Registration No. : E-62-63  
Sample Description : Effluent Sample  
Type of Sample : Grab  
Analysis Duration : 05.04.2025 to 15.04.2025  
Sampling Location : Inlet of STP(E-62) & Outlet of STP(E-63)  
Date of Sample Collection : 04.04.2025  
Name of Sample Collecting Officer : Er. Gurkaran Singh, EE, Er. Mohit Bisht, EE & Dr. Sonam Dogra, JSO  
Sampling Protocol : IS 17614 (Part-10): 2021  
Sample Quantity : 6.0 L  
Sample Packing : Plastic Bottle

## Test Results (Water Quality Analysis)

Sr. No.	Test Parameters	Units	Results	
			Inlet of STP	Outlet of STP
1	Oil and Grease	mg/l	9.8	BDL
2	SAR	-	2.8	2.6

Remarks: No specific standards prescribed as per EPA. However, if any stringent/other standards have been imposed by the Board, the same shall prevail.

Note: BDL means Below Method Detection Limit.

**\*\*---End of Report---**

Endst. No: 13418-20

Dt. 16/04/25

A copy of the above is forwarded to the:-

1. The Chief Environmental Engineer (Water), Punjab Pollution Control Board, Ludhiana.
2. The Senior Environment Engineer, Punjab Pollution Control Board, Zonal Office-I, Patiala.
3. The Environment Engineer, Punjab Pollution Control Board, Regional Office, Patiala.

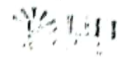
  
Name, Designation & Signature of Analyst

  
Name & Designation of Authorized Signatory  
Avtar Singh  
Scientific Officer  
(Seal & Signature)



# PUNJAB POLLUTION CONTROL BOARD CENTRAL LABORATORY

NABL Accredited & ISO 45001:2018 (OHS) certified Laboratory  
WATER LAB, HEAD OFFICE, VATAVARAN BHAWAN, PATIALA, PUNJAB  
Email: [slab2011@gmail.com](mailto:slab2011@gmail.com); Website: [www.ppcbboard.org](http://www.ppcbboard.org)



**TEST REPORT**

Test Report Code : E-1692-1693  
Report Issue Date : 01.01.2025  
Report Sent to (Name & Address) : M/s Nabha Power Plant Ltd, Rajpura, Patiala  
Date of Sample Receipt : 19.12.2024  
Sample Registration No. : E-1692-1693  
Sample Description : Effluent Sample  
Type of Sample : Grab  
Analysis Duration : 20.12.2024 to 01.01.2025  
Sampling Location : Inlet of STP(E-1692) & Outlet of STP(E-1693)  
Date of Sample Collection : 19.12.2024  
Name of Sample Collecting Officer : Er. Gurkaran Singh, EE, Er. Mohit Singla, AEE & Dr. Sonam Dogra, JSO  
Sampling Protocol : IS 17614 (Part-10): 2021  
Sample Quantity : 8.0 L  
Sample Packing : Plastic Bottle

## Test Results (Water Quality Analysis)

Sr. No.	Test Parameters	Units	Result		Test Method
			Inlet of STP	Outlet of STP	
1	pH Value	-	7.1	7.3	IS 3025 Part-11
2	Total Suspended Solids (TSS)	mg/l	30	16	IS 3025 Part-17
3	Total Dissolved Solids (TDS)	mg/l	341	167	IS 3025 Part-16
4	Chemical Oxygen Demand (COD)	mg/l	146	26	IS 3025 Part-58
5	Bio-Chemical Oxygen Demand (BOD)	mg/l	48	7	IS 3025 Part-44

Remarks: No specific standards prescribed as per EPA. However, if any stringent/other standards have been imposed by the Board, the same shall prevail.

Oil is present

\*\*\*End of Report\*\*\*

Name, Designation & Signature of Analyst  
*H. Singh*  
31/1/25

Name & Designation of Authorized Signatory  
*Avtar Singh*  
31/1/25  
Avtar Singh  
Scientific Officer  
(Seal & Signature)



# PUNJAB POLLUTION CONTROL BOARD CENTRAL LABORATORY

NABL Accredited & ISO 45001: 2018 (OHS) certified Laboratory  
WATER LAB. HEAD OFFICE: VATAVARAN BILAWAN, PATIALA, PUNJAB  
Email: [patlab2010@gmail.com](mailto:patlab2010@gmail.com); Website: [www.ppcbonline.org](http://www.ppcbonline.org)



## TEST REPORT

Test Report Code : E-1692-1693  
Report Issue Date : 01.01.2025  
Report Sent to (Name & Address) : M/s Nabha Power Plant Ltd, Rajpura, Patiala  
Date of Sample Receipt : 19.12.2024  
Sample Registration No. : E-1692-1693  
Sample Description : Effluent Sample  
Type of Sample : Grab  
Analysis Duration : 20.12.2024 to 01.01.2025  
Sampling Location : Inlet of STP(E-1692) & Outlet of STP(E-1693)  
Date of Sample Collection : 19.12.2024  
Name of Sample Collecting Officer : Er. Gurkaran Singh, EE, Er. Mohit Singla, AEE & Dr. Sonam Dogra, JSO  
Sampling Protocol : IS 17614 (Part-10): 2021  
Sample Quantity : 8.0 L  
Sample Packing : Plastic Bottle

## Test Results (Water Quality Analysis)

Sr. No.	Test Parameters	Units	Result	
			Inlet of STP	Outlet of STP
1	Oil & Grease (O&G)	mg/l	10.8	BDL

Remarks: No specific standards prescribed as per EPA. However, if any stringent/other standards have been imposed by the Board, the same shall prevail.

Note: BDL means Below Method Detection Limit.

\*\*\*--End of Report---\*\*

Enclst. No: 763-65

Dt. 7/1/25

A copy of the above is forwarded to the:-

1. The Chief Environmental Engineer (Water), Punjab Pollution Control Board, Ludhiana.
2. The Senior Environment Engineer, Punjab Pollution Control Board, Zonal Office-I Patiala.
3. The Environment Engineer, Punjab Pollution Control Board, Regional Office, Patiala.

Name, Designation & Signature of Analyst

Name & Designation of Authorized Signatory  
Avtar Singh  
Scientific Officer  
(Seal & Signature)

# **Annexure-7**

## **Ground Water Quality Monitoring Results**



# Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No. 86, Industrial Area, Phase-1, Panchkula-134109 (Haryana)  
0172-2561543 ✉ customersupport@itclabs.com 🌐 www.itclabs.com



TC-14896

**ORIGINAL**  
Page 1 of 2

## TEST REPORT

Report No. : TR01EN-2503291881 (1)

ULR No. : TC1489625000008378F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503200913

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 19.03.2025

Test Report as per : IS 10500:2012

Received On : 20-03-2025

Commenced On : 20-03-2025

Completed On : 26-03-2025

Date of Report : 29-03-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
(I)	<b>Organoleptic &amp; Physical Parameter</b>						
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.43	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	486	500 Max.	2000 Max.
(II)	<b>Parameters Concerning Undesirable Substances in excess amount</b>						
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	91	200 Max.	600 Max.
(III)	<b>Parameters Concerning Toxic Substances</b>						
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 29/03/2025

### Disclaimer :

- The test result related only to the items tested.
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- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.



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## TEST REPORT

Report No. : TR01EN-2503291881 (1)

ULR No. : TC1489625000008378F



TC-14896

ORIGINAL

Page 2 of 2

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification, Sampling Procedure: SOP/ITC/EW/030

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 29/03/2025

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## TEST REPORT

**ORIGINAL**  
Page 1 of 1

**Report No. :** TR01EN-2503291881 (2)

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503200913

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 19.03.2025

Test Report as per : IS 10500:2012

Received On : 20-03-2025

Commenced On : 20-03-2025

Completed On : 26-03-2025

Date of Report : 29-03-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04


**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) General Parameters</b>							
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:1.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:4.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification, Sampling Procedure: SOP/ITC/EW/030

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*

  
**Authorised by**  
**Name : Vikrant Saini**  
**Discipline : Chemical**  
**Date : 29/03/2025**

**Disclaimer :**

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## TEST REPORT

Report No. : TR01EN-2503291844 (1)

ULR No. : TC1489625000008342F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503200914

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 19.03.2025

Test Report as per : IS 10500:2012

Received On : 20-03-2025

Commenced On : 20-03-2025

Completed On : 26-03-2025

Date of Report : 29-03-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.42	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	495	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	99	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

Authorised by

Name : Vikrant Saini

Discipline : Chemical

Date : 29/03/2025

### Disclaimer :

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## TEST REPORT

Report No. : TR01EN-2503291844 (1)

ULR No. : TC1489625000008342F



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**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification, Sampling Procedure: SOP/ITC/EW/030

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 29/03/2025

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## TEST REPORT

**ORIGINAL**  
Page 1 of 1

**Report No. :** TR01EN-2503291844 (2)

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503200914

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 19.03.2025

Test Report as per : IS 10500:2012

Received On : 20-03-2025

Commenced On : 20-03-2025

Completed On : 26-03-2025

Date of Report : 29-03-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04


**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) General Parameters</b>							
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:1.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:4.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification, Sampling Procedure: SOP/ITC/EW/030

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*

  
**Authorised by**  
**Name : Vikrant Saini**  
**Discipline : Chemical**  
**Date : 29/03/2025**

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## TEST REPORT

Report No. : TR01EN-2503291843 (1)

ULR No. : TC1489625000008341F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503200915

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.3

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 19.03.2025

Test Report as per : IS 10500:2012

Received On : 20-03-2025

Commenced On : 20-03-2025

Completed On : 26-03-2025

Date of Report : 29-03-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.45	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	485	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	95	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

Authorised by

Name : Vikrant Saini

Discipline : Chemical

Date : 29/03/2025

### Disclaimer :

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**ORIGINAL**  
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## TEST REPORT

**Report No.** : TR01EN-2503291843 (1)

**ULR No.** : TC1489625000008341F

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*



**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 29/03/2025

### Disclaimer :

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## TEST REPORT

**ORIGINAL**  
Page 1 of 1

**Report No. :** TR01EN-2503291843 (2)

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : SR01EN-2503200915

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.3

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 19.03.2025

Test Report as per : IS 10500:2012

Received On : 20-03-2025

Commenced On : 20-03-2025

Completed On : 26-03-2025

Date of Report : 29-03-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	<b>Discipline : Chemical</b>						
	<b>Group : Water</b>						
(I)	<b>General Parameters</b>						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:1.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:4.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*

**Authorised by**  
**Name :** Vikrant Saini  
**Discipline :** Chemical  
**Date :** 29/03/2025

**Disclaimer :**

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## TEST REPORT

**Report No.** : TR01EN-2503291842 (1)

**ULR No.** : TC1489625000008340F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503200916

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.4

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 19.03.2025

Test Report as per : IS 10500:2012

Received On : 20-03-2025

Commenced On : 20-03-2025

Completed On : 26-03-2025

Date of Report : 29-03-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.40	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	480	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	93	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 29/03/2025

### Disclaimer :

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TC-14896

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## TEST REPORT

**Report No.** : TR01EN-2503291842 (1)

**ULR No.** : TC1489625000008340F

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*



**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 29/03/2025

### Disclaimer :

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# Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No. 86, Industrial Area, Phase-1, Panchkula-134109 (Haryana)

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## TEST REPORT

ORIGINAL  
Page 1 of 1

Report No. : TR01EN-2503291842 (2)

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503200916

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.4

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 19.03.2025

Test Report as per : IS 10500:2012

Received On : 20-03-2025

Commenced On : 20-03-2025

Completed On : 26-03-2025

Date of Report : 29-03-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04


Description: Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	Discipline : Chemical						
	Group : Water						
(I)	General Parameters						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:1.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:4.0)		Not Specified

NOTE : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030

REMARKS : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*

  
Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 29/03/2025

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## TEST REPORT

Report No. : TR01EN-2502190758 (1)

ULR No. : TC1489625000004133F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2502130771

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 13.02.2025

Test Report as per : IS 10500:2012

Received On : 13-02-2025

Commenced On : 13-02-2025

Completed On : 17-02-2025

Date of Report : 19-02-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.31	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	480	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	86.2	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

Authorised by

Name : Vikrant Saini

Discipline : Chemical

Date : 19/02/2025

### Disclaimer :

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TC-14896

**ORIGINAL**  
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## TEST REPORT

**Report No.** : TR01EN-2502190758 (1)

**ULR No.** : TC1489625000004133F

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*



**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 19/02/2025

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## TEST REPORT

**ORIGINAL**  
Page 1 of 1

**Report No. :** TR01EN-2502190758 (2)

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2502130771

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 13.02.2025

Test Report as per : IS 10500:2012

Received On : 13-02-2025

Commenced On : 13-02-2025

Completed On : 17-02-2025

Date of Report : 19-02-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04


**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
(I)	<b>General Parameters</b>						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*

  
**Authorised by**  
**Name : Vikrant Saini**  
**Discipline : Chemical**  
**Date : 19/02/2025**

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## TEST REPORT

Report No. : TR01EN-2502190756 (1)

ULR No. : TC1489625000004131F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : SR01EN-2502130772

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 13.02.2025

Test Report as per : IS 10500:2012

Received On : 13-02-2025

Commenced On : 13-02-2025

Completed On : 17-02-2025

Date of Report : 19-02-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.28	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	487	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	82.3	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 19/02/2025

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**ORIGINAL**  
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## TEST REPORT

**Report No.** : TR01EN-2502190756 (1)

**ULR No.** : TC1489625000004131F

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*



**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 19/02/2025

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## TEST REPORT

**ORIGINAL**  
Page 1 of 1

**Report No. :** TR01EN-2502190756 (2)

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : SR01EN-2502130772

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 13.02.2025

Test Report as per : IS 10500:2012

Received On : 13-02-2025

Commenced On : 13-02-2025

Completed On : 17-02-2025

Date of Report : 19-02-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
(I)	<b>General Parameters</b>						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*

**Authorised by**  
**Name :** Vikrant Saini  
**Discipline :** Chemical  
**Date :** 19/02/2025

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## TEST REPORT

Report No. : TR01EN-2502190757 (1)

ULR No. : TC1489625000004132F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2502130773

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.3

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 13.02.2025

Test Report as per : IS 10500:2012

Received On : 13-02-2025

Commenced On : 13-02-2025

Completed On : 17-02-2025

Date of Report : 19-02-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.25	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	482	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	88.2	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 19/02/2025

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TC-14896

**ORIGINAL**  
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## TEST REPORT

**Report No.** : TR01EN-2502190757 (1)

**ULR No.** : TC1489625000004132F

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*



**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 19/02/2025

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## TEST REPORT

ORIGINAL  
Page 1 of 1

Report No. : TR01EN-2502190757 (2)

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : SR01EN-2502130773

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.3

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 13.02.2025

Test Report as per : IS 10500:2012

Received On : 13-02-2025

Commenced On : 13-02-2025

Completed On : 17-02-2025

Date of Report : 19-02-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

Description: Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	Discipline : Chemical						
	Group : Water						
(I)	General Parameters						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

NOTE : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030

REMARKS : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 19/02/2025

### Disclaimer :

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## TEST REPORT

Report No. : TR01EN-2502190755 (1)

ULR No. : TC1489625000004130F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2502130774

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.4

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 13.02.2025

Test Report as per : IS 10500:2012

Received On : 13-02-2025

Commenced On : 13-02-2025

Completed On : 17-02-2025

Date of Report : 19-02-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.30	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	481	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	90.1	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

Authorised by

Name : Vikrant Saini

Discipline : Chemical

Date : 19/02/2025

### Disclaimer :

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**ORIGINAL**  
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## TEST REPORT

**Report No.** : TR01EN-2502190755 (1)

**ULR No.** : TC1489625000004130F

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*



**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 19/02/2025

### Disclaimer :

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## TEST REPORT

ORIGINAL  
Page 1 of 1

Report No. : TR01EN-2502190755 (2)

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2502130774

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.4

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 13.02.2025

Test Report as per : IS 10500:2012

Received On : 13-02-2025

Commenced On : 13-02-2025

Completed On : 17-02-2025

Date of Report : 19-02-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

Description: Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	Discipline : Chemical						
	Group : Water						
(I)	General Parameters						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

NOTE : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030

REMARKS : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 19/02/2025

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## TEST REPORT

Report No. : TR01EN-2502010003 (1)

ULR No. : TC1489625000002675F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : SR01EN-2501270995

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 25.01.2025

Test Report as per : IS 10500:2012

Received On : 27-01-2025

Commenced On : 27-01-2025

Completed On : 01-02-2025

Date of Report : 01-02-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.38	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	475	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	84.2	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

Authorised by

Name : Vikrant Saini

Discipline : Chemical

Date : 01/02/2025

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**ORIGINAL**  
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## TEST REPORT

**Report No.** : TR01EN-2502010003 (1)

**ULR No.** : TC1489625000002675F

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*



**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 01/02/2025

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## TEST REPORT

ORIGINAL  
Page 1 of 1

Report No. : TR01EN-2502010003 (2)

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2501270995

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 25.01.2025

Test Report as per : IS 10500:2012

Received On : 27-01-2025

Commenced On : 27-01-2025

Completed On : 01-02-2025

Date of Report : 01-02-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

Description: Clear Colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	Discipline : Chemical						
	Group : Water						
(I)	General Parameters						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

NOTE : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

REMARKS : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 01/02/2025

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## TEST REPORT

Report No. : TR01EN-2501311365 (1)

ULR No. : TC1489625000002565F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2501270996

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 25.01.2025

Test Report as per : IS 10500:2012

Received On : 27-01-2025

Commenced On : 27-01-2025

Completed On : 30-01-2025

Date of Report : 31-01-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colorless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
(I)	<b>Organoleptic &amp; Physical Parameter</b>						
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.40	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	465	500 Max.	2000 Max.
(II)	<b>Parameters Concerning Undesirable Substances in excess amount</b>						
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	82.3	200 Max.	600 Max.
(III)	<b>Parameters Concerning Toxic Substances</b>						
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 31/01/2025

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## TEST REPORT


Report No. : TR01EN-2501311365 (1)

ULR No. : TC1489625000002565F

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*



Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 31/01/2025

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## TEST REPORT

**ORIGINAL**  
Page 1 of 1

**Report No. :** TR01EN-2501311365 (2)

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2501270996

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 25.01.2025

Test Report as per : IS 10500:2012

Received On : 27-01-2025

Commenced On : 27-01-2025

Completed On : 30-01-2025

Date of Report : 31-01-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04


**Description:** Clear Colorless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) General Parameters</b>							
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*

  
**Authorised by**  
**Name : Vikrant Saini**  
**Discipline : Chemical**  
**Date : 31/01/2025**

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TC-14896

ORIGINAL

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## TEST REPORT

Report No. : TR01EN-2501311364 (1)

ULR No. : TC1489625000002564F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : SR01EN-2501270997

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.3

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 25.01.2025

Test Report as per : IS 10500:2012

Received On : 27-01-2025

Commenced On : 27-01-2025

Completed On : 30-01-2025

Date of Report : 31-01-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

Description: Clear Colorless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
Discipline : Chemical							
Group : Water							
(I)	Organoleptic & Physical Parameter						
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.42	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	480	500 Max.	2000 Max.
(II)	Parameters Concerning Undesirable Substances in excess amount						
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	80.3	200 Max.	600 Max.
(III)	Parameters Concerning Toxic Substances						
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

Authorised by

Name : Vikrant Saini

Discipline : Chemical

Date : 31/01/2025

### Disclaimer :

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TC-14896

**ORIGINAL**  
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## TEST REPORT

**Report No.** : TR01EN-2501311364 (1)

**ULR No.** : TC1489625000002564F

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*



**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 31/01/2025

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## TEST REPORT

**ORIGINAL**  
Page 1 of 1

**Report No. :** TR01EN-2501311364 (2)

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : SR01EN-2501270997

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.3

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 25.01.2025

Test Report as per : IS 10500:2012

Received On : 27-01-2025

Commenced On : 27-01-2025

Completed On : 30-01-2025

Date of Report : 31-01-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04


**Description:** Clear Colorless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	<b>Discipline : Chemical</b>						
	<b>Group : Water</b>						
(I)	<b>General Parameters</b>						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*

  
**Authorised by**  
**Name : Vikrant Saini**  
**Discipline : Chemical**  
**Date : 31/01/2025**

**Disclaimer :**

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## TEST REPORT

**Report No.** : TR01EN-2501311363 (1)

**ULR No.** : TC1489625000002563F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

**Sample Registration No.** : SR01EN-2501270998

**Sample Name** : Ground Water

**Sample Condition** : Good

#### Sample Details (if any)

**Sample Quantity** : 2 Ltr

**Packaging Mode** : Packed in can

**Batch No./QR Code** : Sample from Piezometer No.4

**Date of Manufacture** : NA

**Sample Submission Type** : Sampled by Lab Rep /Ram Gopal

**Customer Reference** : PO/11/12/2024

**Any Other Information** : Sample Collected by lab rep. Mr. Ramgopal on: 25.01.2025

**Test Report as per** : IS 10500:2012

**Received On** : 27-01-2025

**Commenced On** : 27-01-2025

**Completed On** : 30-01-2025

**Date of Report** : 31-01-2025

**Grade** : NA

**Date of Expiry** : NA

**With Amendment No.(s)** : 01 to 04

**Description:** Clear Colorless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.35	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	470	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	88.2	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

Authorised by

**Name** : Vikrant Saini

**Discipline** : Chemical

**Date** : 31/01/2025

### Disclaimer :

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## TEST REPORT

Report No. : TR01EN-2501311363 (1)

ULR No. : TC1489625000002563F



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**ORIGINAL**

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**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*



Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 31/01/2025

### Disclaimer :

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## TEST REPORT

**ORIGINAL**  
Page 1 of 1

**Report No. :** TR01EN-2501311363 (2)

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : SR01EN-2501270998

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in can

Batch No./QR Code : Sample from Piezometer No.4

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 25.01.2025

Test Report as per : IS 10500:2012

Received On : 27-01-2025

Commenced On : 27-01-2025

Completed On : 30-01-2025

Date of Report : 31-01-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colorless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) General Parameters</b>							
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\***End of Report**\*\*\*\*\*

**Authorised by**  
**Name :** Vikrant Saini  
**Discipline :** Chemical  
**Date :** 31/01/2025

**Disclaimer :**

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.





# PUNJAB POLLUTION CONTROL BOARD CENTRAL LABORATORY

NABL Accredited & ISO 45001: 2018 (OHS&S) certified Laboratory  
WATER LAB, HEAD OFFICE, VATAVARAN BHAWAN, PATIALA, PUNJAB  
Email: solub2010@gmail.com; Website: www.ppcbonline.org

## TEST REPORT



Test Report Code	: GW-12-14
Report Issue Date	: 23.04.2025
Report Sent to (Name & Address)	: M/s Nabha Power Plant Ltd, Village Nalash, Rajpura
Date of Sample Receipt	: 05.04.2025
Sample Registration No.	: GW-12-14
Sample Description	: Ground Water Sample
Type of Sample	: Grab
Analysis Duration	: 05.04.2025 to 23.04.2025
Sampling Location	: M/s Nabha Power Plant Ltd, Village Nalash, Rajpura
Date of Sample Collection	: 04.04.2025
Name of Sample Collecting Officer	: Er. Mohit Bisht, AEE
Sampling Protocol	: IS 17614 (Part-10): 2021
Sample Quantity	: 12.0 L
Sample Packing	: Plastic Bottle

## Test Results (Water Quality Analysis)

Sr. No.	Test Parameters	Units	Result			Test Method
			Piezometer-I	Piezometer-II	Piezometer-III	
1	pH Value	-	7.5	6.5	7.9	IS 3025 Part-11
2	Total Suspended Solids (TSS)	mg/l	<5	<5	<5	IS 3025 Part-17
3	Total Dissolved Solids (TDS)	mg/l	57	54	120	IS 3025 Part-16
4	Chloride	mg/l	22	21	61	IS 3025 Part-32
5	Sulphate	mg/l	12	8	25	IS 3025 Part-24, Sec/1
6	Total Hardness	mg/l	40	40	46	IS 3025 Part-21
7	Total Alkalinity	mg/l	8	8	60	IS 3025 Part-23
8	Total Chrome	mg/l	<0.1	<0.1	<0.1	Apha-24 <sup>th</sup> Ed 3111-B
9	Magnesium	mg/l	6.8	4.9	5.8	Apha-24 <sup>th</sup> Ed 3500-Mg B

\*\*\*---End of Report---\*\*

*[Signature]*  
Name, Designation & Signature of Analyst

*[Signature]*  
Name & Designation of Authorized Signatory  
Avtar Singh  
Scientific Officer  
(Seal & Signature)





# PUNJAB POLLUTION CONTROL BOARD

## CENTRAL LABORATORY

NABL Accredited & ISO 45001: 2018 (OHS) certified Laboratory  
WATER LAB, HEAD OFFICE, VATAVARAN BHAHAWAN, PATIALA, PUNJAB  
Email: solab2018@gmail.com; Website: www.ppcbonline.org

### TEST REPORT

Test Report Code : GW-12-14  
Report Issue Date : 23.04.2025  
Report Sent to (Name & Address) : M/s Nabha Power Plant Ltd, Village Nalash, Rajpura  
Date of Sample Receipt : 05.04.2025  
Sample Registration No. : GW-12-14  
Sample Description : Ground Water Sample  
Type of Sample : Grab  
Analysis Duration : 05.04.2025 to 23.04.2025  
Sampling Location : M/s Nabha Power Plant Ltd, Village Nalash, Rajpura  
Date of Sample Collection : 04.04.2025  
Name of Sample Collecting Officer : Er. Mohit Bisht, AEE  
Sampling Protocol : IS 17614 (Part-10): 2021  
Sample Quantity : 12.0 L  
Sample Packing : Plastic Bottle

### Test Results (Water Quality Analysis)

Sr. No.	Test Parameters	Units	Result		
			GW-330	GW-331	GW-332
1	Chemical Oxygen Demand (COD)	mg/l	BDL	BDL	BDL
2	Bio-Chemical Oxygen Demand (BOD)	mg/l	BDL	BDL	BDL
3	Arsenic (As)	mg/l	BDL	BDL	BDL
4	Mercury (Hg)	mg/l	BDL	BDL	BDL
5	Lead(Pb)	mg/l	BDL	BDL	BDL
6	Magnesium Hardness (Mg.H)	mg/l	28	20	24
7	Calcium Hardness (Ca.H)	mg/l	12	20	22

BDL means below method Detection Limit.

\*\*\*--End of Report---\*\*

Endst. No: 14346-48

Dt. 28/4/25

A copy of the above is forwarded to the: -

1. The Chief Environmental Engineer (Water), Punjab Pollution Control Board, Ludhiana.
2. The Senior Environment Engineer, Punjab Pollution Control Board, Zonal Office-I, Patiala.
3. The Environment Engineer, Punjab Pollution Control Board, Regional Office-Patiala.

*[Signature]*  
Name, Designation & Signature of Analyst

*[Signature]*  
Name & Designation of Authorized Signatory  
Avtar Singh  
Scientific Officer  
(Seal & Signature)





# PUNJAB POLLUTION CONTROL BOARD CENTRAL LABORATORY

NABL Accredited & ISO 45001: 2018 (OHS) certified Laboratory  
WATER LAB, HEAD OFFICE, VATAVARAN BHAWAN, PATIALA, PUNJAB  
Email: [safah2010@gmail.com](mailto:safah2010@gmail.com); Website: [www.ppcbonline.org](http://www.ppcbonline.org)

Ground Water No.

## TEST REPORT

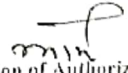
Test Report Code : GW-268-270  
Report Issue Date : 01.01.2025  
Report Sent to (Name & Address) : M/s Nabha Power Plant Ltd, Rajpura Patiala  
Date of Sample Receipt : 20.12.2024  
Sample Registration No. : GW-268-270  
Sample Description : Ground Water Sample  
Type of Sample : Grab  
Analysis Duration : 20.12.2024 to 01.01.2025  
Sampling Location : Piezometer 1(GW-268), Piezometer 2(GW-269) & Piezometer 3(GW-270)  
Date of Sample Collection : 19.12.2024  
Name of Sample Collecting Officer : Er. Gurkaran Singh, EE, Er. Mohit Singla, AEE & Dr. Sonam Dogra, JSO  
Sampling Protocol : IS 17614 (Part-10): 2021  
Sample Quantity : 8.0 L  
Sample Packing : Plastic Bottle

## Test Results (Water Quality Analysis)

Sr. No.	Test Parameters	Units	Result			Test Method
			Piezometer 1	Piezometer 2	Piezometer 3	
1	pH Value	-	7.4	7.5	7.0	IS 3025 Part-11
2	Total Suspended Solids (TSS)	mg/l	<5	<5	<5	IS 3025 Part-17
3	Total Dissolved Solids (TDS)	mg/l	598	490	572	IS 3025 Part-16
4	Chemical Oxygen Demand (COD)	mg/l	<5	<5	<5	IS 3025 Part-58
5	Bio-Chemical Oxygen Demand (BOD)	mg/l	<5	<5	<5	IS 3025 Part-44
6	Chloride	mg/l	64	50	67	IS 3025 Part-32
7	Sulphate	mg/l	52	39	58	IS 3025 Part-24, Sec 1
8	Total Hardness	mg/l	244	177	287	IS 3025 Part-21
9	Total Alkalinity	mg/l	293	248	309	IS 3025 Part-23
10	Total Chrome	mg/l	<0.1	<0.1	<0.1	Apha-24 <sup>th</sup> Ed 3111-B

\*\*\*End of Report\*\*\*

  
Name, Designation & Signature of Analyst

  
Name & Designation of Authorized Signatory  
Avtar Singh  
Scientific Officer  
(Seal & Signature)



# PUNJAB POLLUTION CONTROL BOARD CENTRAL LABORATORY

NABL Accredited & ISO 45001: 2018 (OHS) certified Laboratory  
WATER LAB, HEAD OFFICE, VATAVARAN BHAWAN, PATIALA, PUNJAB  
Email: [slah2010@gmail.com](mailto:slah2010@gmail.com); Website: [www.ppcbonline.org](http://www.ppcbonline.org)

## TEST REPORT

Test Report Code : GW-268-270  
Report Issue Date : 01.01.2025  
Report Sent to (Name & Address) : M/s Nabha Power Plant Ltd, Rajpura Patiala  
Date of Sample Receipt : 20.12.2024  
Sample Registration No. : GW-268-270  
Sample Description : Ground Water Sample  
Type of Sample : Grab  
Analysis Duration : 20.12.2024 to 01.01.2025  
Sampling Location : Piezometer 1(GW-268), Piezometer 2(GW-269) & Piezometer 3(GW-270)  
Date of Sample Collection : 19.12.2024  
Name of Sample Collecting Officer : Er. Gurkaran Singh, EE, Er. Mohit Singla, AEE & Dr. Sonam Dogra, JSO  
Sampling Protocol : IS 17614 (Part-10): 2021  
Sample Quantity : 8.0 L  
Sample Packing : Plastic Bottle

## Test Results (Water Quality Analysis)

Sr. No.	Test Parameters	Units	Result		
			Piezometer 1	Piezometer 2	Piezometer 3
1	Arsenic(As)	mg/l	BDL	BDL	BDL
2	Lead(Pb)	mg/l	BDL	BDL	BDL
3	Mercury (Hg)	mg/l	BDL	BDL	BDL
4	Calcium Hardness (Ca.H)	mg/l	145	115	168
5	Magnesium Hardness (Mg.H)	mg/l	99	62	119

BDL means below method Detection Limit.

\*\*\*End of Report\*\*\*

Ensl. No: 769-71

DI. 07/1/25

A copy of the above is forwarded to the:-

1. The Chief Environmental Engineer (Water), Punjab Pollution Control Board, Ludhiana.
2. The Senior Environment Engineer, Punjab Pollution Control Board, Zonal Office-I, Patiala.
- ✓ 3. The Environment Engineer, Punjab Pollution Control Board, Regional Office-Patiala.

Name, Designation & Signature of Analyst

Name & Designation of Authorized Signatory

Avtar Singh  
Scientific Officer  
(Seal & Signature)

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# **Annexure-8**

## **Green Belt Photographs**



## Annexure-8

NPL is having a complete dedicated team of skilled horticulturists for the forestation and greenery development program at our plant. A green belt are developed inside as well outside plant premises. Also, small patches of gardens are developed inside of the plant premises wherever the open space is available to improve the plant beautification.



**Pic-1 Green belt around coal stockpile area**



**Pic-2 Green belt around plant premises**



**Pic-3 Green belt along boundary**



**Pic-4 Green belt on both sides of road**



**Pic-5 Green belt area railway siding**

## **Annexure-09**

### **CSR Projects and Initiatives**



# **NABHA POWER LIMITED**

## **Corporate Social Responsibility**

**– FY25**



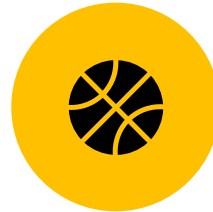
# Thematic Focus Area



Health



Skill &  
Entrepreneurship  
Development



Education & Sports



Water & Environment



Rural Development



Disaster  
Management

## KEY HIGHLIGHTS

### Skills & Entrepreneurship Development

- ❑ **Mehar Welfare Society**
  - Covers 71 women for self-sustainability
  - 6 production centres operative
  - Facilitated external orders worth ~47 Lakhs
- ❑ **Beautician and Stitching Courses training**
  - 4 Centres
  - 40 trained, 117 trainees

### Education & Sports

- ❑ **SAMBHAAVNAA**
  - Theatre Workshop covered 30 Girls
  - Training of Trainers (ToT) on Mathematics for Learning Enrichment Program (LEP) Educators
- ❑ **Learning Enrichment Program (500 Students)**
  - Maths & English teachers; Class: III-V, 14 Schools covered
- ❑ **Construction of Classrooms & School Repair (19 Schools)**
  - 3 Classrooms in 2 Govt Schools
  - 40,000 Sq.ft BALA Work in 19 Govt Schools
  - Toilet Blocks in 3 Govt Schools
- ❑ **NPL Scholarships (121 Scholars)**
  - 35 New Scholars (GNM & BCA), 04 B.Sc Post Basic
- ❑ **Installation of RO purifiers & Water Coolers**
  - 19 Schools during FY25, 100% Schools covered
- ❑ **Sports Tournaments**
  - 5 Tournaments, ~5,000 youth

## KEY HIGHLIGHTS

### Rural Development

- ❑ **Construction/repair of Roads**
  - 1 Km road to benefit 8 villages
- ❑ **Construction of EWS Houses**
  - 15 EWS houses handed over

### Water & Environment

- ❑ **Cleaning of natural drains & ponds**
  - Crop protection in 14 Villages
- ❑ **Pond Rejuvenation**
  - 1 Pond, ~2,500 residents benefited

## KEY HIGHLIGHTS

### Health

- ❑ **Health Camps**
  - 21 Camps, 2300 patients covered
  - Spectacles to 2162 patients
- ❑ **Cancer Screening Camps**
  - 2 Health Mela
  - 1300 cases screened for 6 types of cancer
- ❑ **Anti-Anemia Campaign with District Admin**
  - 1327 girls from 42 Schools
- ❑ **Blood Donation Camps**
  - 3 Camps, 210 Units
- ❑ **Awareness against Drugs**
  - 5 Nukkad Nataks, Over 1200 Youths
  - Distribution of 5,000 brochures in local language

# SKILL & ENTERPRENEURSHIP DEVELOPMENT







# UDYOGINI PRODUCTION CENTRES



**Participated in 4 Consumer Fairs**



**Panjab University - 12 Nov 2024**



**CHESCON Fair- 14 Nov 2024**

**6 Centres  
6 Villages**

## Products Made

School Dresses, Apparel, Jute Products, Paper Bags & Phulkaari

## Active Artisans

**71**

## FY 25 Income

**INR 47 Lakhs**





# SKILL DEVELOPMENT CENTERS

## Cumulative Coverage 5 Villages

### Stitching Course - 2 Centres



### Beautician Course - 2 Centres



40  
Trained

117  
Trainees

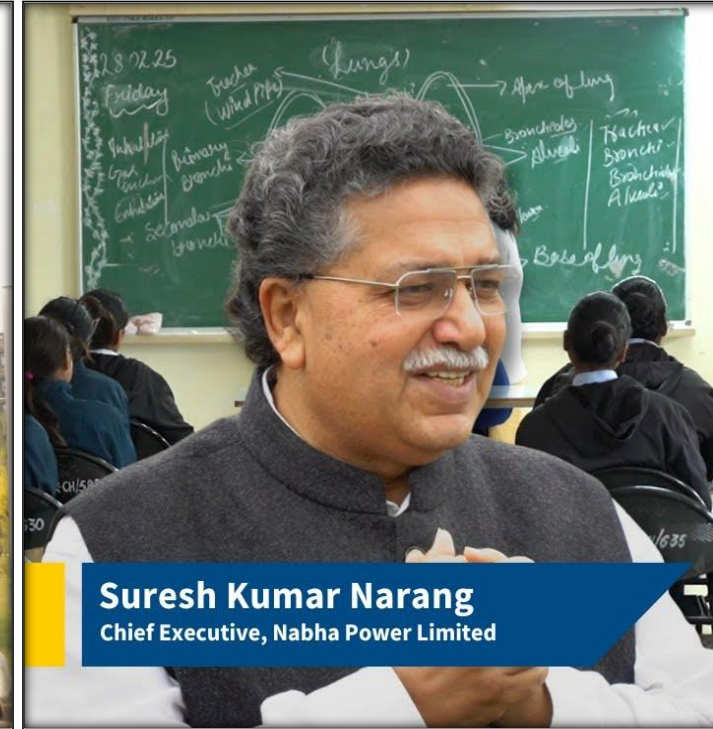


# EDUCATION & SPORTS





## GNM, BCA & B.Sc Post Basic



**Suresh Kumar Narang**  
Chief Executive, Nabha Power Limited

LARSEN & TOUBRO



**Educating Girls:  
A Future Worth  
Embracing**

121 NPL Scholars so far

**GNM SCHOLARS**

73

**B.Sc POST BASIC**

4

**BCA SCHOLARS**

44

**SCHOLARS BY  
GENDER**

118 Girls & 3 Boys

**19 Passed out  
GNMs**





# PERSONALITY DEVELOPMENT TRAINING

## SAMBHAAVNAA (Theater Workshop- 30 Girls Trained & Performed)







# LEARNING ENRICHMENT PROGRAMME (LEP)



**14 Govt. Primary  
Schools**

**500+ Students**

**14 NPL Educators**



Project aiming to improve learning level of Class 3<sup>rd</sup> to 5<sup>th</sup> students in Math and English, in addition to overall development of children through co-curricular activities





(Installation of Water Coolers & Purifiers at Schools)



FY 23  
11 Schools

FY 24  
22 Schools

FY 25  
19 Schools

Total Govt. Schools  
Covered  
**52**



# INTEGRATED SCHOOL DEVELOPMENT

Construction of Classrooms in 2 Govt. Schools and Toilet blocks in 3 Govt. Schools



**Toilet in GES, GHS Mirjapur and GSS School Chandumajra**



**01 Classroom in GSS School Chandumajra**



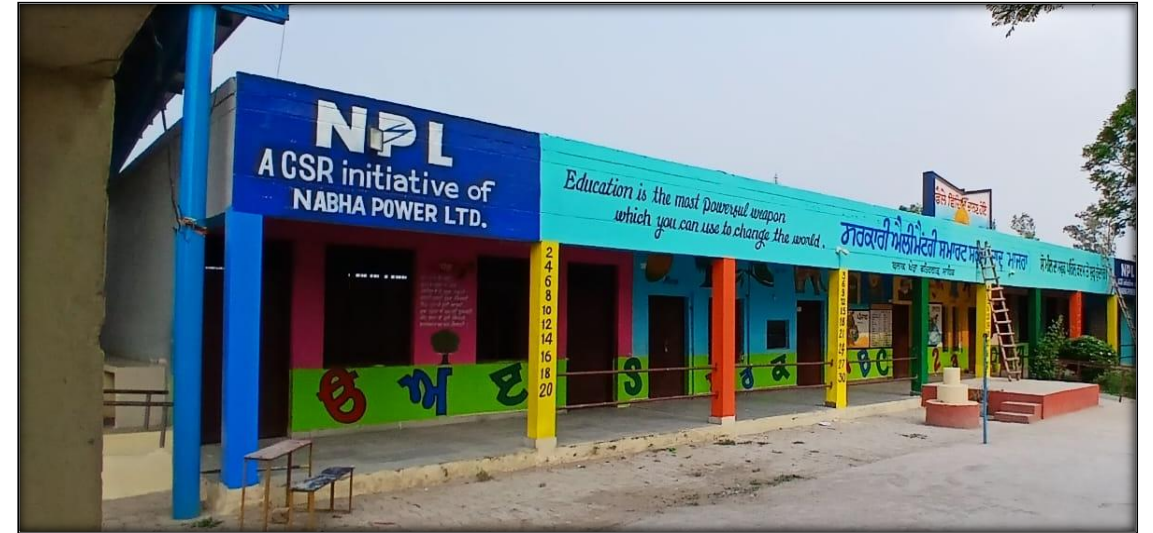
**02 Classrooms in GHS Mirjapur**





# BALA WORK

## Building As a Learning Aid in 19 Govt. Schools





# NPL RURAL SPORTS TOURNAMENT

Nabha Power organized 05 sports events comprising Kabaddi, Volleyball, Cricket, Tug of War, and Girls Kabaddi events, to enhance connection with youth and encourage participation in sports and other curricular activities. Total participation ~5,000.





# HEALTH





# PROJECT SHAKTI

## Anti-anemia Campaign : Know Anemia - Go Anemia



**Covered 1327 Girls from 42 Schools**

**500 Students from 22 Schools were provided with Nutritional Kits for 3 months**







## Vision Detection & Correction Camps



**13 Camps in various Schools: 516 Students were provided with spectacles**



## Health Camps



**8 Health Camps**

Diagnosis of Blood  
Sugar, BP &  
treatment of generic  
ailments

1300 Patients

700 Vision Correction  
of 40+ yrs. and  
above





**Cancer Screening : 2 Camps, 1,300 Benefitted**



# YOUTH AWARENESS DRIVE

## Nukkad Natak



Nabha Power organized 5 Stage plays (Nukkad Natak) in association with Ropar based theatre group to launch drives in surrounding villages to spread awareness on identified social issues like Drugs, environment conservation, girl child, etc.



# BLOOD DONATION CUM YOUTH

## AWARENESS CAMPS- 03 Nos.



To encourage youth participation in social activities, NPL organized 3 Blood donation camps in association with Youth clubs, Village panchayats, and a Blood Bank team from Govt. PGI Hospital Chandigarh.



# RURAL DEVELOPMENT





# RURAL INFRASTRUCTURE

## Construction of Roads



**Construction of 01 km long concrete road. Benefitting the residents of 8 villages namely Kotla, Rai Majra, Nalash Khurd, Nalash Kalan, Dabali, Sadroro, Majri, Haripur**

## EWS HOUSING



15 underprivileged families who were homeless or living in unsafe/dilapidated houses, provided a home comprising a room, kitchen & washroom.



# RURAL INFRASTRUCTURE

## Renovation of Panchayat Building - Jansua



**Renovation of panchayat building in Village Jansua completed including Community Hall (40 X 55 feet) plastering, flooring, fixing of door/windows, and Electrical fitting**



# WATER & ENVIRONMENT





# WATER & ENVIRONMENT

## (Rejuvenation of Pond - Village Mirzapur)



**Rejuvenation of the pond has been completed in Vill. Mirzapur. It included excavation, removal of silt, making side bunds & laying of water inlet pipes**



## Cleaning of Drains/Ponds



**Necessary cleaning of drains and ponds (Flood/Waterlogging prone areas) has been done in 14 villages to avoid flooding and crop damage**





Thank you



# **Annexure-10**

## **Ambient Air Quality Monitoring Results**

## TEST REPORT

**Report No.** : TR01EN-2504030089  
**ULR No.** : TC1489625000008972F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503241065

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 18.03.2025, Location: AAQMS-1  
Near NDTC

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Date of Sampling: 18.03.2025, Location: AAQMS-1 Near NDTC

Test Report as per : NAAQS 2009

Received On : 24-03-2025

Commenced On : 24-03-2025

Completed On : 31-03-2025

Date of Report : 03-04-2025

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                       |
|-----|-------------------------------------|-----------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring |
| (b) | Location of Sampling Point          | : AAQMS-1 Near NDTC   |
| (c) | Date of Monitoring                  | : 18-03-2025          |
| (d) | Duration of Monitoring , minutes    | : 1440                |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.26                |
| (f) | Volume of air sampled , m3          | : 1814.40             |
| (g) | Avg. Ambient Temperature , °C       | : 32                  |
| (h) | Time of Monitoring                  | : 12:30 hrs           |

#### Description: Ambient Air Quality Monitoirng

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	13	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	18	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	83	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	50	60 Max

**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 03/04/2025

#### Disclaimer :

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- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.



## TEST REPORT

Report No. : TR01EN-2504030089  
ULR No. : TC1489625000008972F

5	Lead(As Pb)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-25): 2018	28	400 Max
7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	26	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.4	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 18-03-2025

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 03/04/2025

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## TEST REPORT

**Report No.** : TR01EN-2504030088  
**ULR No.** : TC1489625000008971F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503241066

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 18.03.2025, Location: AAQMS-2  
Near Loco Shed

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Date of Sampling: 18.03.2025, Location: AAQMS-2 Near Loco Shed

Test Report as per : NAAQS 2009

Received On : 24-03-2025

Commenced On : 24-03-2025

Completed On : 31-03-2025

Date of Report : 03-04-2025

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                          |
|-----|-------------------------------------|--------------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring    |
| (b) | Location of Sampling Point          | : AAQMS-1 Near Loco Shed |
| (c) | Date of Monitoring                  | : 18-03-2025             |
| (d) | Duration of Monitoring , minutes    | : 1440                   |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.24                   |
| (f) | Volume of air sampled , m3          | : 1785.60                |
| (g) | Avg. Ambient Temperature , °C       | : 32                     |
| (h) | Time of Monitoring                  | : 12:40 hrs              |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	11	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	20	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	85	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	48	60 Max

**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 03/04/2025

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## TEST REPORT

Report No. : TR01EN-2504030088

ULR No. : TC1489625000008971F

5	Lead(As Pb)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-25): 2018	29	400 Max
7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	25	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.2	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 18-03-2025

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 03/04/2025

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## TEST REPORT

**Report No.** : TR01EN-2504030086  
**ULR No.** : TC1489625000008969F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503241067

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 19.03.2025, Location: AAQMS-3  
Near Storm water Pump

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Suraj Kumar Yadav

Customer Reference : PO/11/12/2024

Any Other Information : Date of Sampling: 19.03.2025, Location: AAQMS-3 Near Storm water Pump

Test Report as per : NAAQS 2009

Received On : 24-03-2025

Commenced On : 24-03-2025

Completed On : 31-03-2025

Date of Report : 03-04-2025

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                                 |
|-----|-------------------------------------|---------------------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring           |
| (b) | Location of Sampling Point          | : AAQMS-3 Near Storm water Pump |
| (c) | Date of Monitoring                  | : 19-03-2025                    |
| (d) | Duration of Monitoring , minutes    | : 1440                          |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.24                          |
| (f) | Volume of air sampled , m3          | : 1785.60                       |
| (g) | Avg. Ambient Temperature , °C       | : 32                            |
| (h) | Time of Monitoring                  | : 13:10 hrs                     |

#### Description: Ambient Air

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	9	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	14	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	80	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	38	60 Max

**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 03/04/2025

#### Disclaimer :

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## TEST REPORT

Report No. : TR01EN-2504030086

ULR No. : TC1489625000008969F

5	Lead(As Pb)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-25): 2018	32	400 Max
7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	22	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.25	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 03/04/2025

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(A Group Company of Qualitek Labs Limited)

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0172-2561543 ✉ customersupport@itclabs.com 🌐 www.itclabs.com



TC-14896

**ORIGINAL**  
Page 1 of 2

## TEST REPORT

**Report No.** : TR01EN-2504030085  
**ULR No.** : TC1489625000008968F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503241068

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 19.03.2025, Location: AAQMS-4  
Near Switch Yard

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Suraj Kumar Yadav

Customer Reference : PO/11/12/2024

Any Other Information : Date of Sampling: 19.03.2025, Location: AAQMS-4 Near Switch Yard

Test Report as per : NAAQS 2009

Received On : 24-03-2025

Commenced On : 24-03-2025

Completed On : 31-03-2025

Date of Report : 03-04-2025

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                            |
|-----|-------------------------------------|----------------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring      |
| (b) | Location of Sampling Point          | : AAQMS-4 Near Switch Yard |
| (c) | Date of Monitoring                  | : 19-03-2025               |
| (d) | Duration of Monitoring , minutes    | : 1440                     |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.25                     |
| (f) | Volume of air sampled , m3          | : 1800.00                  |
| (g) | Avg. Ambient Temperature , °C       | : 32                       |
| (h) | Time of Monitoring                  | : 13:30 hrs                |

#### Description: Ambient Air

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
Discipline : Chemical						
Group : Atmospheric Pollution						
(I)	Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)					
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	7	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	16	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	81	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	40	60 Max

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 03/04/2025

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## TEST REPORT

Report No. : TR01EN-2504030085  
ULR No. : TC1489625000008968F

5	Lead(As Pb)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-25): 2018	25	400 Max
7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	25	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.32	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 19-03-2025.

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 03/04/2025

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TC-14896

**ORIGINAL**  
Page 1 of 2

## TEST REPORT

**Report No.** : TR01EN-2504030084  
**ULR No.** : TC1489625000008967F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

**Sample Registration No.** : SR01EN-2503241069

**Sample Name** : Ambient Air

**Sample Condition** : Good

#### Sample Details (if any)

**Sample Quantity** : 2 FP, 2x30ml, 2x10ml

**Packaging Mode** : Packed in poly pack & in vials

**Batch No./QR Code** : Date of Sampling: 21.03.2025, Location: Salampur

**Date of Manufacture** : NA

**Sample Submission Type** : Sampled by Lab Rep /Ram Gopal

**Customer Reference** : PO/11/12/2024

**Any Other Information** : Date of Sampling: 21.03.2025, Location: Salampur

**Test Report as per** : NAAQS 2009

**Received On** : 24-03-2025

**Commenced On** : 24-03-2025

**Completed On** : 31-03-2025

**Date of Report** : 03-04-2025

**Grade** : NA

**Date of Expiry** : NA

#### S. No. Sampling Information:

- |     |                                     |                       |
|-----|-------------------------------------|-----------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring |
| (b) | Location of Sampling Point          | : Salampur            |
| (c) | Date of Monitoring                  | : 21-03-2025          |
| (d) | Duration of Monitoring , minutes    | : 1440                |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.23                |
| (f) | Volume of air sampled , m3          | : 1771.20             |
| (g) | Avg. Ambient Temperature , °C       | : 33                  |
| (h) | Time of Monitoring                  | : 14:00 hrs           |

**Description:** Ambient Air Quality Monitoirng

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					
(I)	<b>Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>					
1	Sulphur Dioxide(SO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-2): 2017	14	80 Max
2	Nitrogen Dioxide(NO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-6): 2017	18	80 Max
3	Particulate Matter (PM10)	µg/m3	Gravimetric	IS: 5182 (P-23): 2017	74	100 Max
4	Particulate matter (PM 2.5)	µg/m3	Gravimetric	IS: 5182 (P-24)-2019	40	60 Max

**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 03/04/2025

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## TEST REPORT

Report No. : TR01EN-2504030084

ULR No. : TC1489625000008967F

5	Lead(As Pb)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-25): 2018	26	400 Max
7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	22	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.2	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 21-03-2025

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 03/04/2025

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## TEST REPORT

**Report No.** : TR01EN-2504030087  
**ULR No.** : TC1489625000008970F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503241070

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 21.03.2025, Location: Dabhali

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Date of Sampling: 21.03.2025, Location: Dabhali

Test Report as per : NAAQS 2009

Received On : 24-03-2025

Commenced On : 24-03-2025

Completed On : 31-03-2025

Date of Report : 03-04-2025

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

(a)	Purpose of Monitoring	: For Self Monitoring
(b)	Location of Sampling Point	: Dabhali
(c)	Date of Monitoring	: 21-03-2025
(d)	Duration of Monitoring , minutes	: 1440
(e)	Avg. Flow Rate of Sampling , m3/min	: 1.24
(f)	Volume of air sampled , m3	: 1785.60
(g)	Avg. Ambient Temperature , °C	: 33
(h)	Time of Monitoring	: 12:00 hrs

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					
(I)	<b>Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>					
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	10	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	15	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	80	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	48	60 Max

**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 03/04/2025

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## TEST REPORT

Report No. : TR01EN-2504030087

ULR No. : TC1489625000008970F

5	Lead(As Pb)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-25): 2018	28	400 Max
7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	24	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.2	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 21-03-2025

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 03/04/2025

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## TEST REPORT

**Report No.** : TR01EN-2504030083  
**ULR No.** : TC1489625000008966F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503241071

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 21.03.2025, Location: Dadumajra

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Suraj Kumar Yadav

Customer Reference : PO/11/12/2024

Any Other Information : Date of Sampling: 21.03.2025, Location: Dadumajra

Test Report as per : NAAQS 2009

Received On : 24-03-2025

Commenced On : 24-03-2025

Completed On : 31-03-2025

Date of Report : 03-04-2025

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

(a)	Purpose of Monitoring	: For Self Monitoring
(b)	Location of Sampling Point	: Dadumajra
(c)	Date of Monitoring	: 21.-03-2025
(d)	Duration of Monitoring , minutes	: 1440
(e)	Avg. Flow Rate of Sampling , m3/min	: 1.25
(f)	Volume of air sampled , m3	: 1800:00
(g)	Avg. Ambient Temperature , °C	: 33
(h)	Time of Monitoring	: 13:00 hrs

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Method	Result	Specification
<b>Discipline : Chemical</b>					
<b>Group : Atmospheric Pollution</b>					
(I)	<b>Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>				
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	IS: 5182 (P-2): 2017	8	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	IS: 5182 (P-6): 2017	13	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	IS: 5182 (P-23): 2017	78	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	IS: 5182 (P-24)- 2019	43	60 Max

**Authorised by**  
**Name** : Vikrant Saini  
**Discipline** : Chemical  
**Date** : 03/04/2025

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## TEST REPORT

Report No. : TR01EN-2504030083  
ULR No. : TC1489625000008966F

5	Lead(As Pb)	µg/m3	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	IS: 5182 (P-25): 2018	29	400 Max
7	Mercury(as Hg)	µg/m3	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>					
1	Ozone(O3)	µg/m3	IS: 5182 (P-9): 2019	25	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	IS: 5182 (P-10): 2019	1.3	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>					
1	Benzene(C6H6)	µg/m3	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 21-03-2025

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 03/04/2025

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## TEST REPORT

**Report No. :** TR01EN-2501080219  
**ULR No. :** TC148962500000376F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2501040020

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 30.12.2024, Location: Near NDTC (AAQMS-1)

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. on: 30.12.2024, Location: Near NDTC (AAQMS-1)

Test Report as per : NAAQS 2009

Received On : 04-01-2025

Commenced On : 04-01-2025

Completed On : 08-01-2025

Date of Report : 08-01-2025

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                       |
|-----|-------------------------------------|-----------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring |
| (b) | Location of Sampling Point          | : Near NDTC (AAQMS-1) |
| (c) | Date of Monitoring                  | : 30-12-2024          |
| (d) | Duration of Monitoring , minutes    | : 1440                |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.26                |
| (f) | Volume of air sampled , m3          | : 1821.60             |
| (g) | Avg. Ambient Temperature , °C       | : 18                  |
| (h) | Time of Monitoring                  | : 14:00 hrs           |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-2): 2017	7	80 Max
2	Nitrogen Dioxide(NO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-6): 2017	16	80 Max
3	Particulate Matter (PM10)	µg/m3	Gravimetric	IS: 5182 (P-23): 2017	86	100 Max
4	Particulate matter (PM 2.5)	µg/m3	Gravimetric	IS: 5182 (P-24)-2019	49	60 Max
5	Lead(As Pb)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-25): 2018	29	400 Max

08/01/2025

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## TEST REPORT

**Report No.** : TR01EN-2501080219  
**ULR No.** : TC1489625000000376F



TC-14896  
**ORIGINAL**  
Page 2 of 2

7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	26	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.2	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



08/01/2025

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## TEST REPORT

**Report No. :** TR01EN-2501080218  
**ULR No. :** TC148962500000375F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2501040021

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 30.12.2024, Location: Near Loco Shed (AAQMS-2)

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. on: 30.12.2024, Location: Near Loco Shed (AAQMS-2)

Test Report as per : NAAQS 2009

Received On : 04-01-2025

Commenced On : 04-01-2025

Completed On : 08-01-2025

Date of Report : 08-01-2025

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                            |
|-----|-------------------------------------|----------------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring      |
| (b) | Location of Sampling Point          | : Near Loco Shed (AAQMS-2) |
| (c) | Date of Monitoring                  | : 30-12-2024               |
| (d) | Duration of Monitoring , minutes    | : 1440                     |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.25                     |
| (f) | Volume of air sampled , m3          | : 1800.00                  |
| (g) | Avg. Ambient Temperature , °C       | : 18                       |
| (h) | Time of Monitoring                  | : 14:30 hrs                |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-2): 2017	11	80 Max
2	Nitrogen Dioxide(NO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-6): 2017	19	80 Max
3	Particulate Matter (PM10)	µg/m3	Gravimetric	IS: 5182 (P-23): 2017	88	100 Max
4	Particulate matter (PM 2.5)	µg/m3	Gravimetric	IS: 5182 (P-24)-2019	52	60 Max
5	Lead(As Pb)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-25): 2018	32	400 Max

08/01/2025

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## TEST REPORT

**Report No.** : TR01EN-2501080218  
**ULR No.** : TC1489625000000375F



7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	28	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.4	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



08/01/2025

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## TEST REPORT

**Report No. :** TR01EN-2501080217  
**ULR No. :** TC148962500000374F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2501040022

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 30.12.2024, Location: Near Storm Pump (AAQMS-3)

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. on: 30.12.2024, Location: Near Storm Pump (AAQMS-3)

Test Report as per : NAAQS 2009

Received On : 04-01-2025

Commenced On : 04-01-2025

Completed On : 08-01-2025

Date of Report : 08-01-2025

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                             |
|-----|-------------------------------------|-----------------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring       |
| (b) | Location of Sampling Point          | : Near Storm Pump (AAQMS-3) |
| (c) | Date of Monitoring                  | : 30-12-2024                |
| (d) | Duration of Monitoring , minutes    | : 1440                      |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.23                      |
| (f) | Volume of air sampled , m3          | : 1771.20                   |
| (g) | Avg. Ambient Temperature , °C       | : 18                        |
| (h) | Time of Monitoring                  | : 15:10 hrs                 |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-2): 2017	13	80 Max
2	Nitrogen Dioxide(NO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-6): 2017	29	80 Max
3	Particulate Matter (PM10)	µg/m3	Gravimetric	IS: 5182 (P-23): 2017	85	100 Max
4	Particulate matter (PM 2.5)	µg/m3	Gravimetric	IS: 5182 (P-24)-2019	50	60 Max
5	Lead(As Pb)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-25): 2018	30	400 Max

08/01/2025

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## TEST REPORT

**Report No.** : TR01EN-2501080217  
**ULR No.** : TC1489625000000374F



TC-14896  
**ORIGINAL**  
Page 2 of 2

7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	27	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	BLQ(LOQ:1.14)	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



08/01/2025

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## TEST REPORT

**Report No. :** TR01EN-2501080216  
**ULR No. :** TC148962500000373F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2501040023

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 30.12.2024, Location: Near Switch Yard (AAQMS-4)

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. on: 30.12.2024, Location: Near Switch Yard (AAQMS-4)

Test Report as per : NAAQS 2009

Received On : 04-01-2025

Commenced On : 04-01-2025

Completed On : 08-01-2025

Date of Report : 08-01-2025

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                              |
|-----|-------------------------------------|------------------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring        |
| (b) | Location of Sampling Point          | : Near Switch Yard (AAQMS-4) |
| (c) | Date of Monitoring                  | : 30-12-2024                 |
| (d) | Duration of Monitoring , minutes    | : 1440                       |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.24                       |
| (f) | Volume of air sampled , m3          | : 1785.60                    |
| (g) | Avg. Ambient Temperature , °C       | : 18                         |
| (h) | Time of Monitoring                  | : 15:40 hrs                  |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-2): 2017	10	80 Max
2	Nitrogen Dioxide(NO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-6): 2017	18	80 Max
3	Particulate Matter (PM10)	µg/m3	Gravimetric	IS: 5182 (P-23): 2017	82	100 Max
4	Particulate matter (PM 2.5)	µg/m3	Gravimetric	IS: 5182 (P-24)-2019	48	60 Max
5	Lead(As Pb)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-25): 2018	29	400 Max

08/01/2025

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## TEST REPORT

**Report No.** : TR01EN-2501080216

**ULR No.** : TC1489625000000373F



TC-14896  
**ORIGINAL**  
Page 2 of 2

7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	22	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.3	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



08/01/2025

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## TEST REPORT

**Report No.** : TR01EN-2501080215  
**ULR No.** : TC1489625000000372F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2501040024

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 31.12.2024, Location: Salempur

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. on: 31.12.2024, Location: Salempur

Test Report as per : NAAQS 2009

Received On : 04-01-2025

Commenced On : 04-01-2025

Completed On : 08-01-2025

Date of Report : 08-01-2025

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

(a)	Purpose of Monitoring	: For Self Monitoring
(b)	Location of Sampling Point	: Salempur
(c)	Date of Monitoring	: 31-12-2024
(d)	Duration of Monitoring , minutes	: 1440
(e)	Avg. Flow Rate of Sampling , m3/min	: 1.27
(f)	Volume of air sampled , m3	: 1828.80
(g)	Avg. Ambient Temperature , °C	: 18
(h)	Time of Monitoring	: 13:00 hrs

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					
(I)	<b>Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>					
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	10	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	21	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	76	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	42	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	29	400 Max
7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified

08/01/2025

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## TEST REPORT

**Report No.** : TR01EN-2501080215  
**ULR No.** : TC1489625000000372F



(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	24	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.2	2 Max.
(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



08/01/2025

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## TEST REPORT

**Report No.** : TR01EN-2501080213  
**ULR No.** : TC148962500000370F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2501040026

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 31.12.2024, Location: Dabhali

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. on: 31.12.2024, Location: Dabhali

Test Report as per : NAAQS 2009

Received On : 04-01-2025

Commenced On : 04-01-2025

Completed On : 08-01-2025

Date of Report : 08-01-2025

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |   |                       |
|---|-----------------------|
| (a) Purpose of Monitoring               | : For Self Monitoring |
| (b) Location of Sampling Point          | : Dabhali             |
| (c) Date of Monitoring                  | : 31-12-2024          |
| (d) Duration of Monitoring , minutes    | : 1440                |
| (e) Avg. Flow Rate of Sampling , m3/min | : 1.25                |
| (f) Volume of air sampled , m3          | : 1800.00             |
| (g) Avg. Ambient Temperature , °C       | : 18                  |
| (h) Time of Monitoring                  | : 15:00 hrs           |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	6	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	17	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	82	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	47	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	28	400 Max
7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified

08/01/2025

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## TEST REPORT

**Report No. :** TR01EN-2501080213  
**ULR No. :** TC148962500000370F



(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	22	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	BLQ (LOQ:1.14)	2 Max.
(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



08/01/2025

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## TEST REPORT

**Report No. :** TR01EN-2501080214  
**ULR No. :** TC1489625000000371F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2501040025

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 31.12.2024, Location: Dadumajra

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. on: 31.12.2024, Location: Dadumajra

Test Report as per : NAAQS 2009

Received On : 04-01-2025

Commenced On : 04-01-2025

Completed On : 08-01-2025

Date of Report : 08-01-2025

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

(a)	Purpose of Monitoring	: For Self Monitoring
(b)	Location of Sampling Point	: Dadumajra
(c)	Date of Monitoring	: 31-12-2024
(d)	Duration of Monitoring , minutes	: 1440
(e)	Avg. Flow Rate of Sampling , m3/min	: 1.23
(f)	Volume of air sampled , m3	: 1771.20
(g)	Avg. Ambient Temperature , °C	: 18
(h)	Time of Monitoring	: 14:00 hrs

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					
(I)	<b>Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>					
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	8	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	23	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	80	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	45	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	27	400 Max
7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified

08/01/2025

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## TEST REPORT

**Report No. :** TR01EN-2501080214  
**ULR No. :** TC1489625000000371F



(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	23	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.3	2 Max.
(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



08/01/2025

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# **Annexure-11**

## **Expenses Incurred for Environment Protection Measures in FY 24-25**

Details of Expenses Incurred for Environment Protection Measures FY 2024-25					
S.No.	Particulars		April-24 to Sep-24	Oct-24 to March-25	FY 2024-25
A	Air Pollution		Amount (Rs)	Amount (Rs)	Total Amount (Rs)
1	Cost of Energy Consumption in ESPs/Bag Filters	Operation	37854418	35424873	73279291
2	Cost of Maintenance of Ash Silos	AHP	120000	110000	230000
3	Cost of operation of Dust Suppression and Extraction System	CHP	467436	889275	1356711
4	Cost of electrical spares & consumables for ESP maintenance	EMD	337333	297727	635060
5	Cost of electrical services for ESP	EMD	1085012	1083077	2168089
6	AMC Services for ESP	BMD	1515120	1703207	3218327
7	Unit #1 Annual Overhauling Services	BMD	0	0	0
8	Unit#2 Annual Overhauling Services	BMD	0	2148868	2148868
9	ESP Spares & Consumables	BMD	278148	884045	1162193
	<b>Water Pollution</b>				0
10	Cost of Energy Consumption in STP	Chemistry	36717	37178	73895
11	Cost of Energy Consumption in ETP	Chemistry	2884973	3598678	6483651
12	Cost of Chemical used at ETP and STP	Chemistry	2114245	2780000	4894245
	<b>Environment Monitoring Expenses</b>				0
13	Cost of Manpower	HSE	665520	665520	1331040
14	Cost of Consumables	HSE	172000	0	172000
15	Cost of running of Environment monitoring vehicle	ADMIN	319805	207937	527742
16	AMC/Calibration for environment monitoring equipments.	HSE	0	46671	46671
17	AMC/Calibration/ maintenance of online environment monitoring equipments.	C&I	1978000	1638000	3616000
	<b>Third Party MoEF&amp;CC approved laboratory testing charges.</b>				0
18	Third Party MoEF&CC approved laboratory testing charges for AAQ,Stack,Waste Water,Fly Ash, Bottom Ash etc.	HSE	143999	140300	284299
19	PPCB Environment Monitoring charges	HSE	75190	72038	147228
	<b>Infrastructure Development</b>				0
20	Construction of Roads	CIVIL	4920634	18950000	23870634
21	Provision of Wind shields at CHP	CHP	1240713	0	1240713
22	Provision of Wind shields at Silos	Ash Managem	0	0	0
	<b>Green Belt Development &amp; Maintenance</b>				0
23	Development and Maintenance of Green Plants	Horticulture	4156819	4026000	8182819
24	Maintenance of Landscape Area	Horticulture			0
25	Expenses for 'Nanak Bagichi' at Badali Maiki and Cholti Kheri	Horticulture	0	253000	253000
	<b>Solar Harnessing Expenses</b>				0



26	Solar Harnessing and maintenance Expenses	EMD	160000	250000	410000
	<b>Salary &amp; Wages of HSE Professionals</b>				0
27	Salary & Wages of HSE Professionals	HR	3214327	2552751	5767078
	<b>Ash Dyke Management</b>				0
28	Expenses for Ash Dyke Maintenance(Civil)	CIVIL	455000	6700000	7155000
29	Expenses for Ash Dyke Maintenance(Mechanical)	AHP	110000	100000	210000
	<b>Energy Consumption for transportation of Bottom Ash.</b>				0
30	Energy Consumption for transportation of Bottom Ash & Fly Ash	AHP	46478106	43191632	89669738
	<b>Training, Subscription, Studies &amp; Legal Updates and Promotional Activities</b>				0
31	Subscription & Legal Updates	HSE	17700	0	17700
32	World Environment Day Celebration	HSE	12672	0	12672
33	Expenses for Epidemiology Study	HSE	0	472000	472000
	<b>Disposal of Hazardous Waste</b>				0
34	Disposal of Hazardous Waste charges	STORES	65417	162826	228243
35	Bio-Medical Waste disposal charges	Admin	13000	13682	26682
	<b>Housekeeping Expenses</b>				0
36	Housekeeping Expenses	Admin	5682000	4704363	10386363
37	Compliance Audit for Ash disposal	HSE	364373	0	364373
	<b>Total in Rupees(₹)</b>				<b>250042325</b>

## **Annexure-12**

### **The Photograph of Main Gate Display**



# NABHA POWER LIMITED

## 2 X 700 MW RAJPURA SUPER THERMAL POWER STATION



M/s Larsen & Toubro Limited  
Infrastructure Vertical  
C/o Nabha Power Limited  
Rajpura Road, Nallesh, Rajpura  
Distt. Patiala-150451  
PUNJAB  
GSTIN : 03AAACL0140P1Z7

### ENVIRONMENTAL DATA DISPLAY

PARAMETER	UNIT-1	UNIT-2	UOM
PM	44.7	41.7	mg/Nm <sup>3</sup>
SO <sub>2</sub>	1200.6	1445.3	mg/Nm <sup>3</sup>
NOX	205.8	245.8	mg/Nm <sup>3</sup>
CO	4.2	2.2	mg/Nm <sup>3</sup>

20 05 2025

# **Annexure-13**

## **Solar Harness Report**





## Solar Energy Report for the Period

From

1<sup>st</sup> October-2024 to 31<sup>st</sup> March-2025

Sr. No	Month	Numbers of Unit Generated (KWh)
1	October-24	16480.52
2	November-24	10119.43
3	December-24	8541.44
4	January-25	9422.19
5	February-25	12963.93
6	March-25	16833.35
Total generation in KWh		74360.86

## **Annexure-14**

### **Test Report of Heavy Metal Analysis in Coal**



## TEST REPORT

ORIGINAL

Page 1 of 1

<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura, 140401 Punjab, India	<b>Sample Reg. No.</b> : SR01BL-2503210007 <b>Sample Reg. Date.</b> : 21/03/2025 <b>Report Date.</b> : 23/04/2025 <b>Report No.</b> : TR01BL-2504230052 <b>Customer Ref. No.</b> : PO
--	---

Sample Particulars			
<b>Name of Sample<sup>#</sup></b>	: Coal		
<b>Submitted By<sup>#</sup></b>	: Nabha Power Limited		
<b>Batch No.<sup>#</sup></b>	: NA	<b>Batch Size<sup>#</sup></b>	: NA
<b>Manufactured By<sup>#</sup></b>	: Not Specified	<b>Mfg. Lic. No.<sup>#</sup></b>	: NA
<b>Supplied By<sup>#</sup></b>	: Not Specified		
<b>Date of Manufacture<sup>#</sup></b>	: NA	<b>Date of Expiry<sup>#</sup></b>	: NA
<b>Sample Qty<sup>#</sup></b>	: 250gm	<b>Sample Condition</b>	: Good
<b>Grade<sup>#</sup></b>	: NA	<b>Brand Name<sup>#</sup></b>	: NA
<b>Official Seal</b>	: Not Applicable	<b>Official Signature</b>	: Not Applicable
<b>Packaging Details</b>	: Packed in Bag	<b>Declared values(if any)</b>	: Not Specified
<b>Any Other Information</b>	: Sample collected by Lab rep. on 20.03.2025		
<b>Test Report as per</b>	: Party Specification	<b>With Amendment No.(s)</b>	: Not Specified

Test Results						
Analysis started on : 19/04/2025			Analysis completed on : 19/04/2025			
Description : Coal						
S. No.	Parameter	Unit	Instrument	Method	Requirements	Result
	Discipline : Chemical					
	Group : Solid Fuels					
1	Heavy Metals					
(a)	Arsenic(as As)	(mg/kg)	ICPOES	STP/ITC/F/INST/008	NA	BLQ(ILOQ:1.0)
(b)	Lead(as Pb)	(mg/kg)	ICPOES	STP/ITC/F/INST/008	NA	5.35
(c)	Chromium(as Cr)	(mg/kg)	ICPOES	STP/ITC/F/INST/008	NA	6.14
(d)	Mercury(as Hg)	(mg/kg)	ICPOES	STP/ITC/F/INST/008	NA	BLQ(ILOQ:1.0)

# represents Customer Defined Fields

**Remarks:** Party asked for the above tests only.

\*\*\*\*\*End of Report\*\*\*\*\*



23/04/2025

**Kamal Grover**  
Authorised by

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## **Annexure-15**

### **Test Report of Radioactivity in Coal, Fly Ash& Bottom Ash**





**Sophisticated Analytical Instruments Laboratories Society**  
(Registered as Society with Registrar of Firms & Societies, Punjab, Chandigarh)  
Thapar Technology Campus, Bhadson Road, Patiala-147 004 (India)

**TEST REPORT**

TEST REPORT					
ULR No.	NA	Date:	03.04.2025	Serial No.	NA
Service No.	NND2504214 (01-03)	Customer's Ref.	Sample collected by Mr. Amit Kumar on dated 04.04.2025		
Customer's name and address:		Date of Receipt of Job	04.04.2025		
<b>M/s Nabha Power Limited</b> <b>Post Box 28, Near village Nalash</b> <b>Rajpura, Distt. Patiala 140401, Punjab</b> <b>Kind attn.: Mr. Raman Singh</b>		Date of Completion of Job	03.05.2025		
		Total Number of Pages	1		
		Sample Description	Powder		
		Quantity/Number of samples	1kg each (Approx.) / 3		
		Condition of the sample received	O.K.		
Customer's sample identification No. (if any)		<b>01- Fly Ash, 02- Bottom Ash, 03- Coal</b>			
Sampling Procedure (if any), Standard/Specification		--			
Mode of Sampling/ Environmental Condition During Transport		Grab (Drawn)			
Deviations (if any)	--	Documents constituting this report (if any)	--		


**TEST RESULTS**

S. No.	Parameters	Test Method			Results
Discipline	NA	Group (Subgroup)	NA	Unit	01
1	Alpha emitters	EPA-600/4-78-039 July 1978 Followed by Radiation Counting System RC605A A with Alpha Scintillation detector		Bq/Kg	Not detected
2	Beta emitters	EPA-600/4-78-039 July 1978 Followed by Radiation Counting System RC605A A with GM detector Probe		Bq/Kg	Not detected
3	Gamma emitters	EPA-600/4-78-039 July 1978 Followed by Radiation Counting System RC605A A with GM detector Probe		Bq/Kg	Not detected

S. No.	Parameters	Test Method			Results
Discipline	NA	Group (Subgroup)	NA	Unit	02
1	Alpha emitters	EPA-600/4-78-039 July 1978 Followed by Radiation Counting System RC605A A with Alpha Scintillation detector		Bq/Kg	Not detected
2	Beta emitters	EPA-600/4-78-039 July 1978 Followed by Radiation Counting System RC605A A with GM detector Probe		Bq/Kg	Not detected
3	Gamma emitters	EPA-600/4-78-039 July 1978 Followed by Radiation Counting System RC605A A with GM detector Probe		Bq/Kg	Not detected

S. No.	Parameters	Test Method			Results
Discipline	NA	Group (Subgroup)	NA	Unit	03
1	Alpha emitters	EPA-600/4-78-039 July 1978 Followed by Radiation Counting System RC605A A with Alpha Scintillation detector		Bq/Kg	Not detected
2	Beta emitters	EPA-600/4-78-039 July 1978 Followed by Radiation Counting System RC605A A with GM detector Probe		Bq/Kg	Not detected
3	Gamma emitters	EPA-600/4-78-039 July 1978 Followed by Radiation Counting System RC605A A with GM detector Probe		Bq/Kg	Not detected

.....End of the report.....

  
**Mr. Rushil Kapur**  
**Technical Manager**  
(Authorized Signatory)

- Note:
- The results listed refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied
  - Samples will be destroyed after 10 days from the date of issue of the test report unless otherwise specified
  - This report is not to be reproduced wholly or in part and cannot be used as an evidence in the products is neither inferred nor implied. court of law and should not be used in any advertising media without special permission in writing.
  - In case any reconfirmation of contents of the test report is required, please contact the authorized signatory of the test report within 7 days of the issue of test report

## **Annexure-16**

### **Test Report of Surface Water Quality**

## TEST REPORT

Report No. : TR01EN-2503311939  
ULR No. : TC1489625000008539F

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : SR01EN-2503190841	Received On : 19-03-2025
Sample Name : Water Sample (Marked Surface Water)	Commenced On : 19-03-2025
Sample Condition : Good	Completed On : 31-03-2025
	Date of Report : 31-03-2025

#### Sample Details (if any)

Sample Quantity : 2 Ltr	
Packaging Mode : Packed in can	
Batch No./QR Code : NA	Grade : NA
Date of Manufacture : NA	Date of Expiry : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : FDS/18/03/2025

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 18.03.2025

Test Report as per : IS 10500:2012 With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.82	6.5-8.5	No relaxation
2	Odour	NA	Organoleptic	IS: 3025 (P-5)-2018	Agreeable	Agreeable	Agreeable
3	Turbidity	NTU	Turbidity Meter	IS:3025(Part 10):1984(RA:2017)	<0.5	1 Max.	5 Max.
4	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	152	500 Max.	2000 Max.
5	Colour (True Colour)	Hazen	Visual Examination	IS 3025 (Part 4) : 2021	2	5 Max.	15 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Chloride(as Cl)	mg/l	Titration	IS: 3025 (P-32)-1988 (RA2019)	6	250 Max.	1000 Max.
2	Fluoride(as F)	mg/l	Visual Examination	IS: 3025 (P-60)-2008 (RA 2019)	BLQ(LOQ:0.1)	1.0 Max.	1.5 Max.
3	Free Residual Chlorine	mg/l	Titration	IS: 3025 (P-26): 2021	Not Applicable	0.2 Min.	1.0 Max.

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 31/03/2025

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## TEST REPORT

Report No. : TR01EN-2503311939  
ULR No. : TC1489625000008539F

4	Iron(as Fe)	mg/l	UV-Spectrophotometer	IS: 3025 (P-53)-2003 (RA 2019)	BLQ(LOQ:0.08)	1.0 Max.	No relaxation
5	Nitrate(as NO <sub>3</sub> )	mg/l	UV-Spectrophotometer	APHA 24th Edition 2023, 4500 NO <sub>3</sub> , B	BLQ(LOQ:1.0)	45 Max.	No Relaxation
6	Sulphate(as SO <sub>4</sub> )	mg/l	UV-Spectrophotometer	IS : 3025 (Part 24): Sec1:2022	49.2	200 Max.	400 Max.
7	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	117	200 Max.	600 Max.
8	Total Alkalinity(as CaCO <sub>3</sub> )	mg/l	Titration	IS 3025(Part-23): 2023	82	200 Max.	600 Max.

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*

Authorised by  
Name : Vikrant Saini  
Discipline : Chemical  
Date : 31/03/2025

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## TEST REPORT

**Report No. :** TR01EN-2501040018  
**ULR No. :** TC1489625000000093F



TC-14896  
**ORIGINAL**  
Page 1 of 2

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. :	E01-2412281378	Received On :	28-12-2024
Sample Name :	Water Sample (Marked Surface Water)	Commenced On :	28-12-2024
Sample Condition :	Good	Completed On :	02-01-2025
<b>Sample Details (if any)</b>		Date of Report :	04-01-2025
Sample Quantity :	2 Ltr		
Packaging Mode :	Packed in cans		
Batch No./QR Code :	NA	Grade :	NA
Date of Manufacture :	NA	Date of Expiry :	NA
Sample Submission Type :	Sampled by Lab Rep /Ram Gopal		
Customer Reference :	PO/11/12/2024		
Any Other Information :	Sample Collected by lab rep. Mr. Ramgopal on: 28.12.2024		
Test Report as per :	IS 10500:2012	With Amendment No.(s) :	01 to 04

**Description:** Liquid Sample with Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.96	6.5-8.5	No relaxation
2	Odour	NA	Organoleptic	IS: 3025 (P-5)-2018	Agreeable	Agreeable	Agreeable
3	Turbidity	NTU	Turbidity Meter	IS:3025(Part 10):1984(RA:2017)	<0.5	1 Max.	5 Max.
4	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	161	500 Max.	2000 Max.
5	Colour (True Colour)	Hazen	Visual Examination	IS 3025 (Part 4) : 2021	2	5 Max.	15 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Chloride(as Cl)	mg/l	Titration	IS: 3025 (P-32)-1988 (RA2019)	4	250 Max.	1000 Max.
2	Fluoride(as F)	mg/l	Visual Examination	IS: 3025 (P-60)-2008 (RA 2019)	BLQ(LOQ:0.1)	1.0 Max.	1.5 Max.
3	Free Residual Chlorine	mg/l	Titration	IS: 3025 (P-26): 2021	Not Applicable	0.2 Min.	1.0 Max.
4	Iron(as Fe)	mg/l	UV-Spectrophotometer	IS: 3025 (P-53)-2003 (RA 2019)	BLQ(LOQ:0.08)	1.0 Max.	No relaxation
5	Nitrate(as NO3)	mg/l	UV-	APHA 24th Edition	3.6	45 Max.	No



04/01/2025  
**Vikrant Saini**  
Authorised by

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Visit us : www.itclabs.com

## TEST REPORT

**Report No.** : TR01EN-2501040018  
**ULR No.** : TC1489625000000093F



TC-14896  
**ORIGINAL**  
Page 2 of 2

			Spectrophotometer	2023, 4500 NO3, B			Relaxation
6	Sulphate(as SO <sub>4</sub> )	mg/l	UV-Spectrophotometer	IS : 3025 (Part 24): Sec1:2022	31.5	200 Max.	400 Max.
7	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)- 2009 (RA 2019)	118.7	200 Max.	600 Max.
8	Total Alkalinity(as CaCO <sub>3</sub> )	mg/l	Titration	IS 3025(Part-23): 2023	79.1	200 Max.	600 Max.

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



04/01/2025

**Vikrant Saini**  
Authorised by

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# **Annexure-17**

## **Epidemiology Study Report**

# **Epidemiological Study Around Rajpura Power Project**

**Nabha Power Limited Village: Nalash,  
Tehsil: Rajpura, District: Patiala**



Report Prepared by

**EMTRC Consultants LLP**

(Formerly EMTRC Consultants Private Limited)

Plot 13, Block 34, Nehru Nagar West, Bhilai 490020 Dist Durg CG

Website- [www.emtrc.in](http://www.emtrc.in), email- [emtrcijkm@gmail.com](mailto:emtrcijkm@gmail.com)

**JANUARY 2025**



30-01-2025

## ACKNOWLEDGEMENT

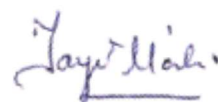
Nabha Power Limited commissioned Epidemiological Study around its 2 x 700 MW Power Limited located at Village Nalash, Tehsil Rajpura, District Patiala.

The primary objective of the Epidemiological Study is to evaluate the nature of environmental pollutants, quantify and assess their effects on human health, generate health data of by collecting representative samples of population residing in the area and suggest corrective measures to improve health status of population under study area.

Five locations were selected for the study; upwind direction which is unaffected by the power plant, downwind location and locations having maximum ground level concentrations with severe impact. Samples of soil, cereals and vegetables were collected from the study area and analysed. Ambient air quality data of the study area was obtained from NPL. Human health survey was done in December 2024 by organizing camps at 5 locations around the power project.

Comparative evaluation of the human health survey data, previously collected in December 2024 by organizing camps at 5 locations around the power project has been done in this report.

We wish to place on record our sincere gratitude and thanks to the Doctors and Interns of Neelam Hospital, Rajpura for carrying out the medical examination of the different cohorts. We are extremely grateful to Mr. Rajiv Bhandari, (DGM – HSE), Mr Vikas, (Manager – HSE) and Mr Nitin Pandey (Manager – CSR) for the cooperation received during the course of the study. Special thanks are to Mr Suresh Kumar Narang, CE for his constant oversight and encouragement during the course of this study.



Dr. JK MOITRA  
Project Coordinator

**ABBREVIATION**

ACGIH - American Conference of Governmental Industrial Hygienists  
CPCB - Central Pollution Control Board  
COPC - Chemical of Potential Concern  
COPD - Chronic Obstructive Pulmonary Disorder  
CADD - Chronic Average Daily Dose (mg/kg-day)  
HSDB - Hazardous Substances Data Bank  
HQ - Hazard Quotient  
HI - Hazard Index  
IRIS - Integrated Risk Information System of USEPA  
LOAEL - Lowest Observable Adverse Effect Level  
LADD - Lifetime Average Daily Dose (mg/kg-day)  
mg/l - Milligram per liter  
µg/m<sup>3</sup> - Milligram per Cubic Meter (of air)  
µg - Microgram (one-millionth of a gram)  
MOEF - Ministry of Environment & Forests (Govt of India)  
NOAEL - No Observable Adverse Effect Level  
NIOSH - National Institute for Occupational Safety and Health  
PM<sub>2.5</sub> - Particulate Matter up to 2.5 micrometer size  
PM<sub>10</sub> - Particulate Matter up to 10 micrometer size  
ppb - Parts per Billion  
ppm - Parts per Million  
RME - Reasonable Maximum Exposure (Upper Percentile)  
RfD - Reference Dose  
STEL - Short Term Exposure Limit  
TWA - Time Weighted Average  
UNEP - United Nations Environment Program  
USEPA - United States Environmental Protection Agency  
WHO - World Health Organization

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## **EXECUTIVE SUMMARY**

Nabha Power Limited operates the 2x700 MW coal based thermal power plant at village Nalash near Rajpura town in Punjab. It is the first power plant to be owned and operated by Larsen & Toubro Limited. The power generated from this plant is contracted with Punjab State Power Corporation Limited for a period of 25 years under a Power Purchase Agreement (PPA). The plant is built on supercritical technology of Mitsubishi Heavy Industries, Japan (now Mitsubishi Hitachi Power Systems).

The plant sources its fuel from South Eastern Coalfields Limited (a subsidiary of Coal India Limited) under a 20-year Fuel Supply Agreement (FSA). Bhakra-Nangal distributary is the perennial source of water for the plant under an allocation by the state irrigation department. The plant is operated by an in-house experienced team of operations and maintenance professionals.

Commercial operation dates for Unit-1 and Unit-2 were February 1 2014 and July 10, 2014, respectively. Hence this plant is now operational for almost 10 years.

The Ministry of Environment, Forests and Climate Change, Govt of India directed Nabha Power Limited to conduct Epidemiology Study, every two years, to identify any adverse health impact on the population residing in the surrounding area due to the operation of coal based power plant. NPL engaged EMTRC Consultants LLP, a reputed firm having experience in doing health impact assessment study to conduct the epidemiology study in December 2022 and December 2024. The objectives of the study is given below:

- Study the trend of air pollutants discharged from the power plant
- Study the trend of physico-chemical characteristics of contaminants in groundwater.
- Study the heavy metal concentration in crops, milk and vegetables
- Generate primary health data of population residing around the power plant for Epidemiological Study
- Recommendations for improving the health of population in the study area.

Coal fired Thermal Power Plants emits several air pollutants that are originally present in coal. Pollutants like particulate matter containing metals, oxides of sulphur, oxides of nitrogen, carbon monoxide, and organic compounds are generated during coal burning. These air pollutants are reported to cause a wide range of adverse health effects. Environmental impacts from the

discharges of coal fired power plant includes bioaccumulation of toxic metals, contamination of water bodies, discomfort due to ash and health issues and reduced visibility due to haze.

Coal is pulverized in coal mills to size less than 200 microns. The pulverized coal is fed to steam generator (Boiler) for combustion and generation of steam. The steam so generated is fed in to turbine, which converts the thermal energy of steam into mechanical energy and drives the generator for producing electricity. Exhaust steam from the turbine is condensed by means of a condenser. Thus the water evaporated in the boiler is conserved in a closed cycle. The products of combustion are exhausted from the boiler through a chimney into the atmosphere after cleaning through ESP. The ash from the boiler furnace bottom is disposed of by means of wet disposal system. The fly ash arrested in the Electrostatic Precipitators is transported pneumatically to fly ash silos. The fly ash is utilized for cement manufacturing and RMC plant in construction activity. Unutilized portion of the fly ash is disposed of in slurry form in ash dyke.

The methodology adopted for the study is described below:

- Identify the plant features (boundary, location of plant equipment, ash pond)
- Identify the 5 km area of study around the power plant boundary
- Study the discharges from the power plant and its dispersion pattern based on local meteorology like wind speed and wind direction.
- Identify 4 villages / human settlements around the power plant, which are severely impacted, moderately impacted and slightly impacted due to the plant discharges. Identify one location within the study area which is not impacted due to the project.
- Characterise the pollutants present in different environmental media to which the people are exposed; namely ambient air, ground water and surface water, soil and food grown on the soil.
- Obtain information on diet, living and working conditions, income, time-activity pattern of the population living in the surrounding area
- Generate health data of representative population (cohorts) to establish the baseline and study the long term health impact.
- Suggest preventive and corrective measures to improve the environment, if any evidence of adverse impact of human population is observed during the study.

Ambient air quality and groundwater quality inside and outside the power plant is routinely monitored by NPL. Soil sample was collected from the agriculture field and analysed for heavy metals. Surface water sample from the Bhakra distributary was collected and analysed for heavy metals. This canal water and ground water is used for irrigation by the farmers of the area. Samples of locally grown cereals and vegetables and milk were collected from the study area and analysed for heavy metals.

**Ambient Air Quality:** Ambient air quality of seven locations were collected. Monitoring is done for 24-hours averaging time by following the standard methods. Following pollutants were monitored: PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>2</sub>, SO<sub>2</sub>, CO, Pb, As, Ni (in PM<sub>10</sub>), NH<sub>3</sub>, O<sub>3</sub>, benzene, Benzo-a-pyrene. The results are well within the prescribed National Ambient Air Quality Standards. No significant variation in the ambient air quality was observed during the two year period.

**Summary of Ambient Air Quality of the Plant Premises and Surrounding Villages**

Sr. No	Date		Parameters				
			PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>
1	2019	Minimum	68	38	8	17	0.58
		Maximum	82	47	17	33	0.95
		<b>Mean</b>	<b>74</b>	<b>42</b>	<b>13</b>	<b>26</b>	<b>0.71</b>
2	2020	Minimum	61	30	6	9	0.55
		Maximum	96	54	15	31	1.4
		<b>Mean</b>	<b>77</b>	<b>42</b>	<b>11</b>	<b>22</b>	<b>0.85</b>
3	2021	Minimum	68	31	6	10	1
		Maximum	97	57	16	33	3.6
		<b>Mean</b>	<b>86</b>	<b>43</b>	<b>10</b>	<b>17</b>	<b>1.65</b>
4	2022	Minimum	80	35	5	10	1.1
		Maximum	90	43	12	22	1.4
		<b>Mean</b>	<b>84</b>	<b>39</b>	<b>8</b>	<b>14</b>	<b>1.26</b>
5	2023	Minimum	82.3	36.7	8.3	18.7	1.2
		Maximum	91.7	48.4	16.3	29.6	1.4
		<b>Mean</b>	<b>88.2</b>	<b>42.3</b>	<b>12.0</b>	<b>24.9</b>	<b>1.27</b>
6	2024	Minimum	61.2	23.1	6.1	13.2	1.2
		Maximum	90.2	49.8	13.2	26.4	1.4
		<b>Mean</b>	<b>80.2</b>	<b>40.2</b>	<b>9.7</b>	<b>19.6</b>	<b>1.3</b>

**Note :** Pb, As, Ni, NH<sub>3</sub>, O<sub>3</sub>, benzene, Benzo-a-pyrene were not detectable.

**Ground Water Quality:** The groundwater quality was found suitable for drinking (within the permissible limit - IS 10500 : 2012). High hardness content (>200 mg/l) at most of the locations was found in the groundwater samples, therefore the quality did not meet the acceptable limit.

Heavy metals like Pb, Cr, Ni, Cd, Hg, As, and Se were not detectable in the groundwater samples. Total coliform was also absent in the groundwater samples. No significant variation in the groundwater quality was observed during the two year period; December 2022 and December 2024.

**Surface Water Quality:** The surface water quality is fit for irrigation purpose. Heavy metals like Pb, Cr, Ni, Cd, Hg, As, and Se were not detectable in the canal water sample. No significant variation in the canal water quality was observed during the two year period.

**Soil Quality:** Heavy metals like Pb, Ni, Cd, Hg and As were found to be within normally acceptable range in the soil sample. No significant variation in the soil quality was observed during the two year period; December 2022 and December 2024.

**Heavy Metals in Food Samples:** Samples of rice, dal, wheat, gram, pulses, milk, potato, onion, tomato and milk were collected from the villagers. Heavy metals like arsenic, mercury, cadmium, chromium, lead and nickel were found to be less than 0.5 mg/kg. No significant variation in the soil quality was observed during the two year period; December 2022 and December 2024.

**Pollution Load from NPL (1-1-2024 to 31-12-2024):** 6014522 metric tons of coal and 19.683764 MCM water were consumed to generate 10413.17 million units of electricity 1818921 metric tons of flyash and 332214 metric tons of bottom ash were generated. 1810115 metric tons of flyash and 320751 metric tons of bottom ash were utilized. The plant is operating on ZLD, entire wastewater is treated and reused. No wastewater was discharged outside the plant premises. The emission trend from the stacks of NPL (2 flues of 275 m, 7.5 m dia) is given below:

Parameters	28-12-2024		11-9-2024		18-6-2024		13-3-2024	
	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
Temperature, °C	119	115	122	124	141	148	118	122
Exit Velocity, m/s	24.0	23.6	22.5	22.9	22.54	22.71	22.45	22.27
PM, mg/Nm <sup>3</sup>	45	43	42.6	45.6	46.2	44.3	45.3	47.5
SO <sub>2</sub> , mg/Nm <sup>3</sup>	1208	1188	1069	1192	1046	1387	933	1245
NO <sub>x</sub> , mg/Nm <sup>3</sup>	390	350	310	285	204	260	256	228
CO <sub>2</sub> , %	11.2	11.6	10.8	11.2	14.4	14.2	11.6	12.2



## Findings of the Health Survey

**Impacted and Unimpacted Areas around the Power Plant:** The names of impacted and non-impacted villages around NPL, where health survey were conducted, are given below:

S. No	Location	Distance & Direction from NPL Stacks	Impacted / Not Impacted	Date of checkup	Persons Checked In 2022	Persons Checked in 2024
1	Sural kalan	1.8 Km, West	Slightly Impacted	08-12-2022	74	-
2	Dabali kalan	3.8 Km, South East	Moderately impacted	07-12-2022 10-12-2024	38	58
3	Dadu majra	3.5 Km, North	Slightly impacted	08-12-2022 11-12-2024	110	77
4	Nalas	2.0 Km, SSE	Severely Impacted	07-12-2022	44	-
5	Bakshiwala	4.5 Km, South West	Not Impacted	09-12-2022 09-12-2024	43	68
6	Rangia	2.3 km SSW	Severely Impacted	10-12-2024	-	51
7	Harna	2.5 km North West	Moderately Impacted	11-12-2024	-	57
	Total				309	311

**Significant Findings:** The results of lung function test in adolescent and adult population (cohort 18 to 40 age group) indicates that the population of the study area did not suffer from adverse respiratory problems. No significant changes were observed during the period 2022 and 2024. None of the people reported cancer, gross neurologic, cardiovascular, hepatic or renal damage/ There was not a single case of congenital abnormality. The number of people having dental problems were found to be more in 2024 compared to 2022. This showed lack of awareness about oral hygiene and rampant use of tobacco products by the villagers. The number of people having eye problems were found to be more in 2024 compared to 2022 mainly because of the fact that an optometrist was engaged during the health survey and free eye medicines and spectacles were distributed by the CSR team of NPL during the camp. The summary of significant findings is given below:

	Name of Location	Over Weight %	Cough %	High BP %	Headache %	Other Noted Health Problems
1	Surkalan Slightly impacted	28	13	35	19	Hypertension in 40+ people Knee joint pain in elderly,

						Dental problems in adults and elderly
2	Dabhali kalan Moderately impacted	29	10	58	23	Hypertension in 40+ people Dental problems in adults and elderly
3	Dadumajra Slightly impacted	16	2	28	10	Hypertension in 40+ people Knee joint pain in elderly Dental problems in adults and elderly
4	Nalash Severely impacted	20	6	61	14	Hypertension in 40+ people Dental problems in adults and elderly
5	Bakshiwala Non-Impacted - Control)	23	7	57	26	Hypertension in 40+ people Dental problems in adults and elderly
6	Rangia Severely impacted					Hypertension in 40+ people Dental problems in adults and elderly
7	Herna Moderately Impacted					Hypertension in 40+ people Dental problems in adults and elderly

## Conclusion

- i. Air Environment: The ambient air quality of the impacted and non-impacted areas is found to meet the prescribed National Ambient Air Quality Standards for all the parameters, namely PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>2</sub>, NH<sub>3</sub>, O<sub>3</sub>, CO, Benzene, Benzo (a) pyrene, Pb, Ni and As.
- ii. Water Environment: The ground water samples were found to meet the drinking water quality standards (BIS 10500-2012) at all the locations.
- iii. The surface water sample was found to meet the Irrigation water quality standards.
- iv. Soil Quality: Lead, nickel, arsenic, mercury, cobalt, cadmium, chromium levels were found to be within the normal level. Organic matter was found to be sufficient, conductivity was found to be normal and pH was found to be moderately alkaline.
- v. Heavy Metal Contamination in Crops, Milk and Vegetables: No heavy metals were detected in the crops, milk and vegetable samples collected from the villages of study area.

- vi. Impact on Human Health: Human health profiling was done for resident population of total seven villages during 2022 and 2024. Health data was collected from the residents who are exposed to the existing environment for more than ten years. High BP, (Hypertension) and Dental problems were found in most of the 40+ adults and elderly population of all the surveyed locations. Joint Pain (Particularly knee joint) was predominant in the residents of Surla kalan and Dadu majra villages.
- vii. No cases of respiratory disorders linked to air pollution like Bronchitis, Asthma or Chronic Obstructive Pulmonary Disorder were found in the people of the study area. No disease or any chronic condition that could be related to air pollution / effluent discharges from coal based power plant has been observed in the population of the study area. None of the people in the study area reported any serious health problem such as Cancer, Gross Neurologic, Hepatic or Renal Damage and Congenital Abnormality.

### **Recommendations**

1. Considering the fact that there is a growing international pressure against coal based thermal power plants because it is perceived that the emission and discharges creates severe health issues, particularly respiratory disorders like Bronchitis, Asthma, COPD, etc. Therefore, it is suggested that similar health study should be done periodically as per the condition stipulated by the regulatory authorities.
2. The serious health concerns identified in the area are Hypertension, Joint pains and Dental Problems. The minor health concerns identified in the area are obesity, cough and headache. NPL may consider to introduce Yoga Training Programs for the nearby villagers under its CSR activity, which will help the people with Hypertension, obesity and persistent cough and headache.
3. NPL may also consider creating “Awareness Programs on Dental Health”, distribute toothpaste and tooth brush and “Campaign Against Tobacco Consumption”, under its CSR activity.

## CHAPTER 1: INTRODUCTION

### 1.1 Introduction of Epidemiological Study

Epidemiological study describes the nature and significance of the potential short-term (i.e., acute) and long-term (i.e., chronic) health risks posed to people exposed to the Chemicals of Potential Concern (COPC). The primary objective of the EPIDEMIOLOGICAL is to describe the nature and significance of potential health risks to humans from COPC. EPIDEMIOLOGICAL Methodology developed by United States Environmental Protection Agency (USEPA) is widely followed all over the world. The main components of the risk assessment methodology include the following:

**Problem Formulation:** Identification of Chemicals of Potential Concern (COPC), characterization of receptors, and identification of exposure pathways. The COPC identified in ambient air around coal fired power plant are BAP, Pb, Ni and As in PM<sub>10</sub>. Profile of the COPCs are given in Appendix.

**Toxicity Assessment:** Identification of potential adverse effects of COPC and determination of the maximum **dose** that are likely to result in adverse health effects (exposure limits, EL);

**Exposure Assessment:** Quantification of the total dose of COPC received by human receptors *via* all relevant exposure pathways;

**Risk Characterization:** Comparison of estimated exposures with Exposure Limits to provide an indication of whether unacceptable risks are likely to exist in defined scenarios.

Exposure pathways describe the routes through which contaminants in the environment (soil, air water etc.) come into contact with receptors of concern. These pathways may require direct contact between receptors and media of concern (e.g., inhalation of air), or may rely on indirect pathways which require movement of the chemical in the environment (e.g., transfer of chemicals from soil into vegetables or meat and then to receptors through food consumption). Although human behavioral and physical characteristics will vary, it was assumed that all human receptors are subjected to the same exposure pathways. COPC present in air emissions can descend to ground level where human receptors can be exposed *via* the direct inhalation exposure pathway. COPC in air emissions may be transported to other media where exposure may occur. Possible



“indirect” exposure pathways include ‘ingestion’ of COPC in soil dust, and consumption of agricultural products, meat, fish, etc. Environmental media that are potentially affected by discharges from power plant includes:

- Ambient air through direct emission and dispersion as vapor or suspended particulate;
- Surface soils, through deposition from the air column;
- Fish through the aquatic food chain;
- Vegetation, including home garden produce, crops, as well as natural vegetation, both through direct deposition, and indirectly *via* uptake from soil;
- Agricultural products through uptake from soils, vegetation and water;
- Drinking groundwater

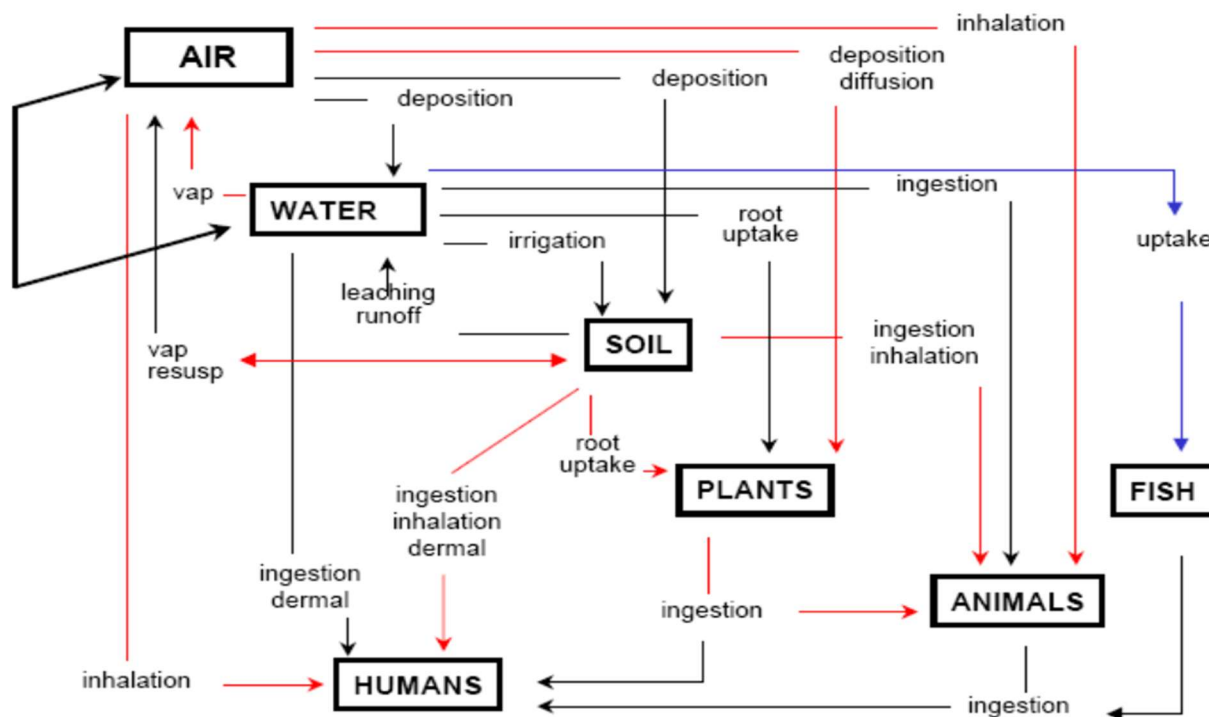


Figure 1: Typical Human Exposure Pathways from Power Plant Emissions

## **1.2 Concept of Epidemiological Study**

Epidemiological is the process to estimate the nature and probability of adverse health effects in humans who may be exposed to chemicals in contaminated environmental media, now or in the future. Epidemiological addresses following things:

- Types of health problems may be caused by environmental stressors
- Chance that people will experience health problems when exposed to different levels of stressors
- The level below which some stressors don't pose a human health risk
- Environmental stressors that people are exposed to and at what levels and for how long
- People who likely to be susceptible to environmental stressors because of factors such as age, genetics, pre-existing health conditions, ethnic practices, gender, etc.
- People more likely to be exposed to environmental stressors because of factors such as where they work, where they play, what they like to eat, etc.

These issues help decision makers to understand the possible human health risks from environmental media. An exposure assessment is the quantitative or qualitative evaluation of that contact; it describes the intensity, frequency, and duration of contact, and often evaluates the rates at which the chemical crosses the boundary (chemical intake or uptake rates), the route by which it crosses the boundary (exposure route; e.g., dermal, oral, or respiratory), and the resulting amount of the chemical that actually crosses the boundary (a dose) and the amount absorbed (internal dose). Planning and scoping is must to make judgments about major risk assessments.

The following structure focuses on Epidemiological:

Who/ What/ Where is at risk?

- Individual
- General population
- Children, teenagers, pregnant/nursing women
- Population subgroups – highly susceptible (for example, due to asthma, genetics, etc.) and/or highly exposed (based on geographic area, gender, racial or ethnic group, or economic status)

What is the environmental hazard of concern?

- Chemicals (single or multiple/cumulative risk)
- Physical (dust, heat)

- Microbiological or biological
- Nutritional (for example, diet, fitness, or metabolic state)
- Socio-Economic (for example, access to health care)

Where do these environmental hazards come from?

- Point sources (for example, smoke or water discharge from a factory);
- Non-point sources (for example, automobile exhaust)

How does exposure occur?

- Pathways (recognizing that one or more may be involved)
  - Air
  - Surface Water
  - Groundwater
  - Soil
  - Food
  - Non-food consumer products, pharmaceuticals

Routes (and related human activities that lead to exposure)

- Ingestion (both food and water)
- Contact with skin
- Inhalation
- Non-dietary ingestion (for example, “hand-to-mouth” behavior)

What does the body do with the environmental hazard and how is this impacted by factors such as age, race, sex, genetics, etc.?)

- Absorption – does the body take up the environmental hazard
- Distribution – does the environmental hazard travel throughout the body or does it stay in one place?
- Metabolism – does the body breakdown the environmental hazard?
- Excretion – how does the body get rid of it?

What are the health effects?

- Example of some health effects include cancer, heart disease, liver disease and nerve disease.

How long does it take for an environmental hazard to cause a toxic effect? Does it matter when in a lifetime exposure occurs?

- How long?
  - Acute – right away or within a few hours to a day
  - Sub chronic – weeks or months (for humans generally less than 10% of their lifespan)
  - Chronic – a significant part of a lifetime or a lifetime (for humans at least seven years)
  - Intermittent
- Timing - Is there a critical time during a lifetime when a chemical is most toxic (e.g., fetal development, childhood, during aging)?

### **1.3 Objectives and Scope of the Study**

The objectives of the study is given below:

- Study the trend of air pollutants discharged from the power plant
- Study the trend of physico-chemical characteristics of contaminants in groundwater.
- Study the heavy metal concentration in crops, milk and vegetables
- Generate primary health data of population residing around the power plant for Epidemiological Study
- Recommendations for improving the health of population in the study area.

### **1.4 Study Methodology**

The methodology adopted for the study is described below:

- Identify the plant features (boundary, location of plant equipment, ash pond)
- Identify the 5 km area of study around the power plant boundary
- Study the discharges from the power plant and its dispersion pattern based on local meteorology like wind speed and wind direction.
- Identify 4 villages / human settlements around the power plant, which are severely impacted, moderately impacted and slightly impacted due to the plant discharges. Identify one location within the study area which is not impacted due to the project.
- Characterise the pollutants present in different environmental media to which the people are exposed; namely ambient air, ground water and surface water, soil and food grown on the soil.



- Obtain information on diet, living and working conditions, income, time-activity pattern of the population living in the surrounding area
- Generate health data of representative population (cohorts) to establish the baseline and study the long term health impact.
- Suggest preventive and corrective measures to improve the environment, if any evidence of adverse impact of human population is observed during the study.

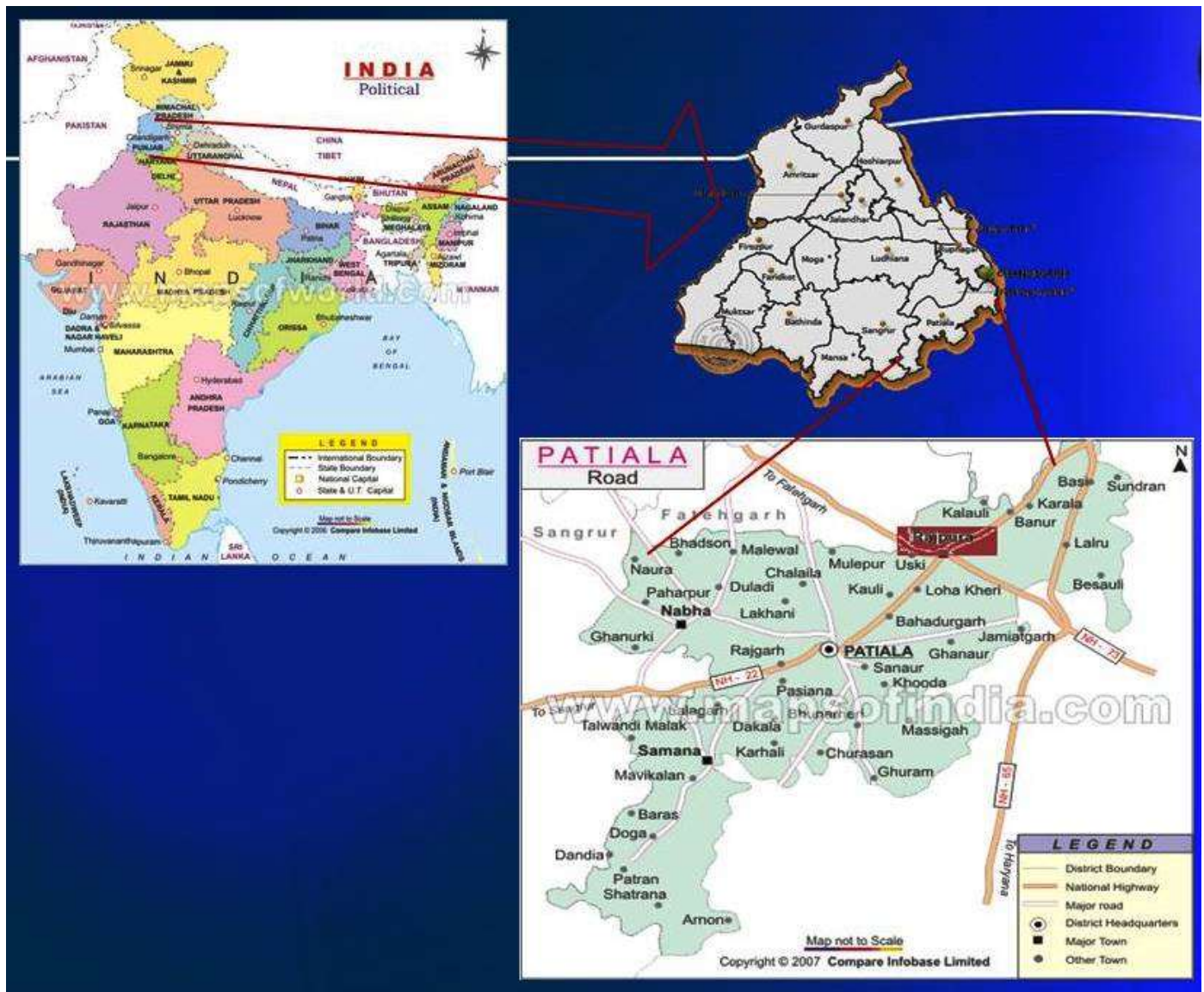


Figure 2: General Location Map



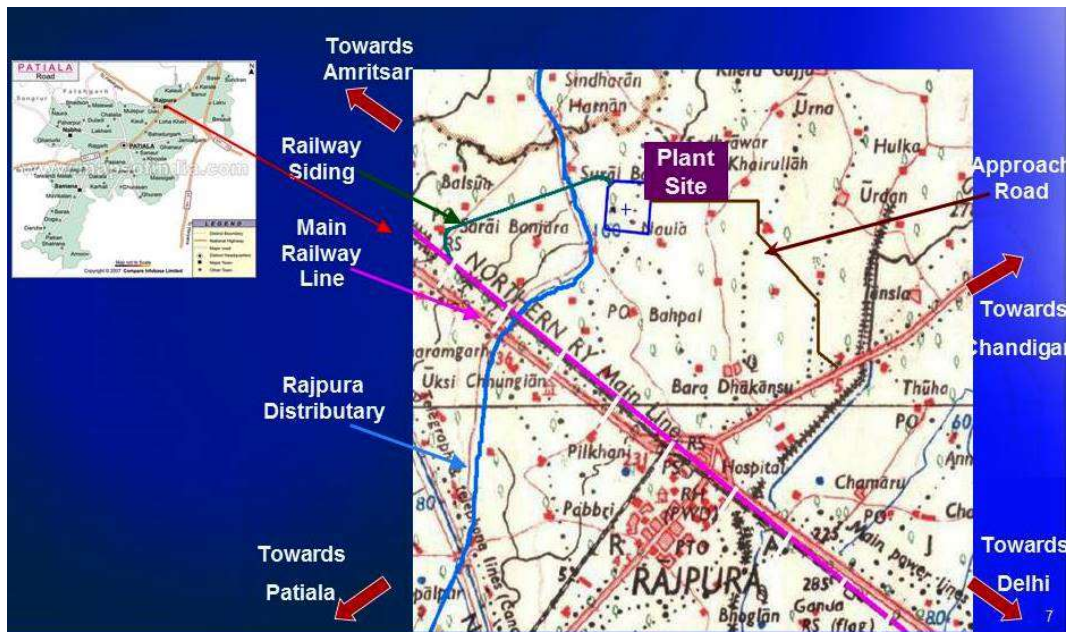


Figure 3 : Specific Location Map

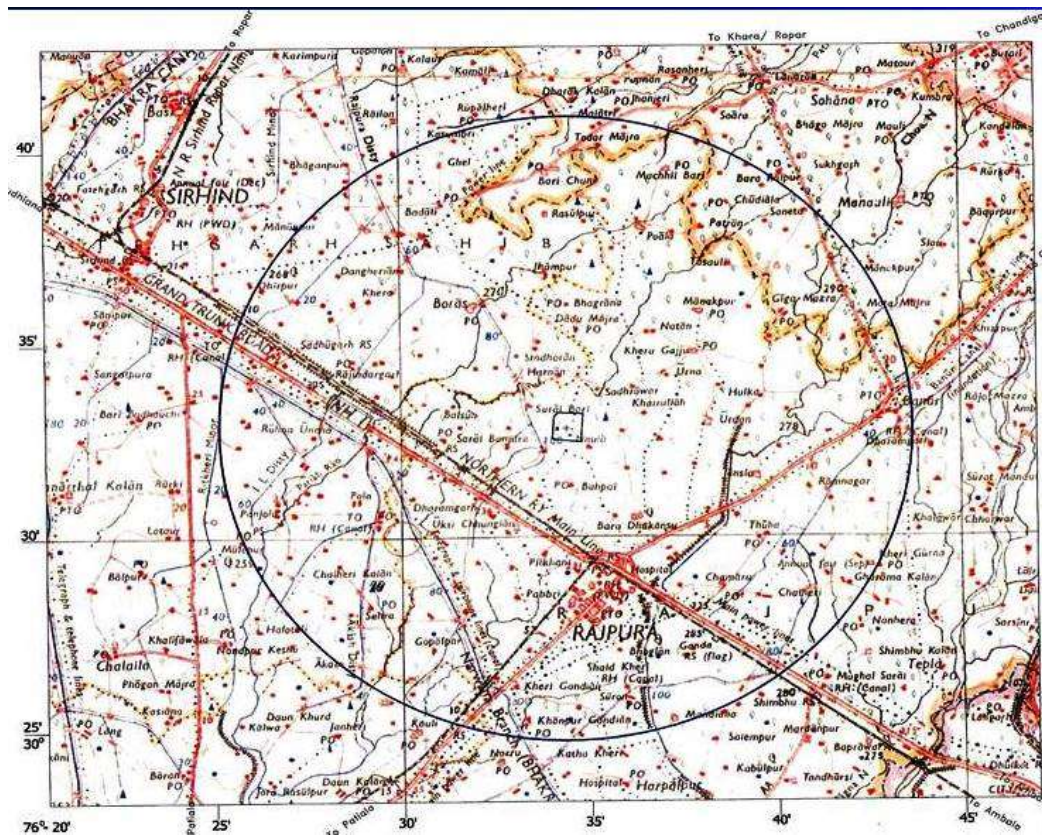
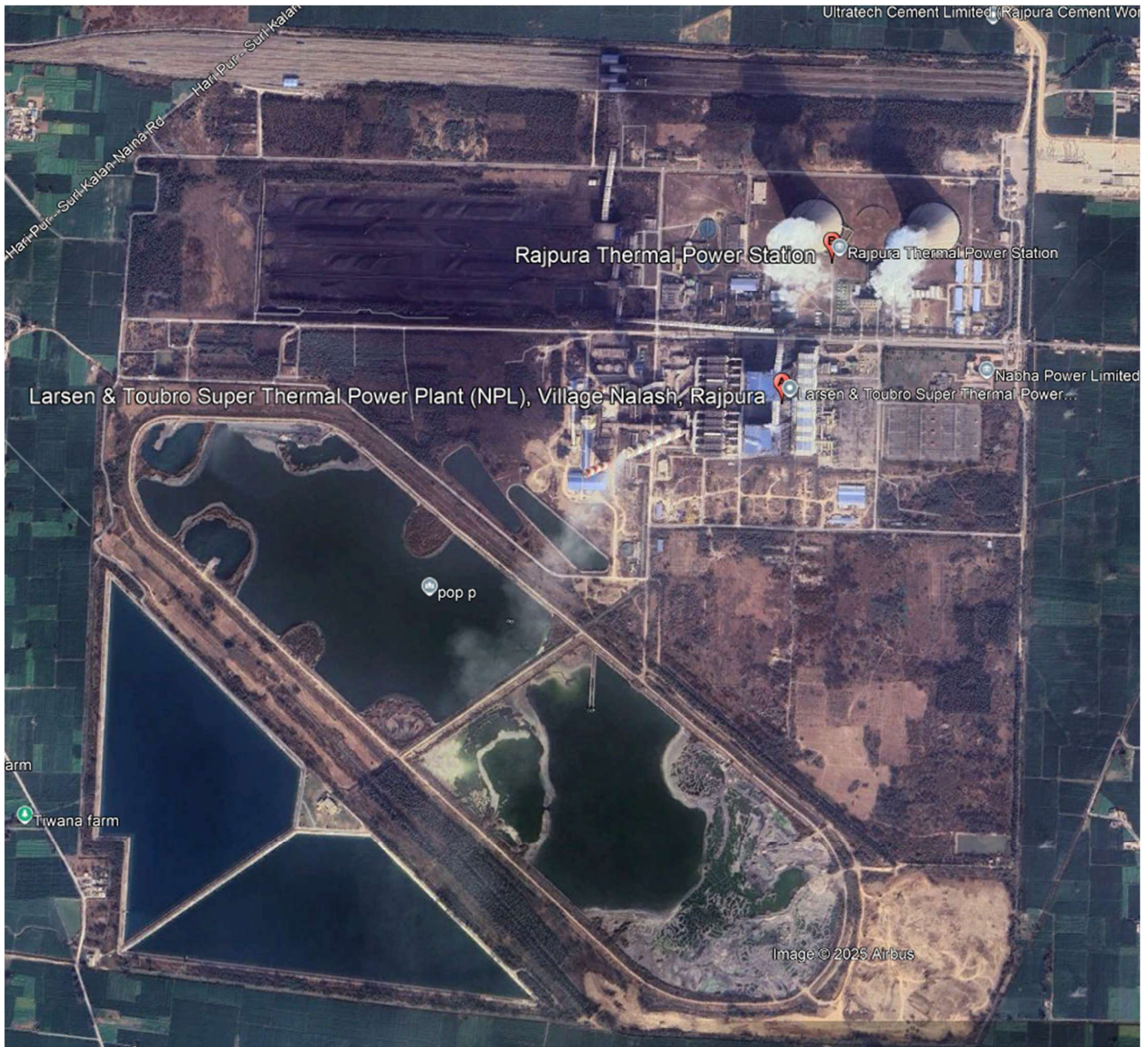


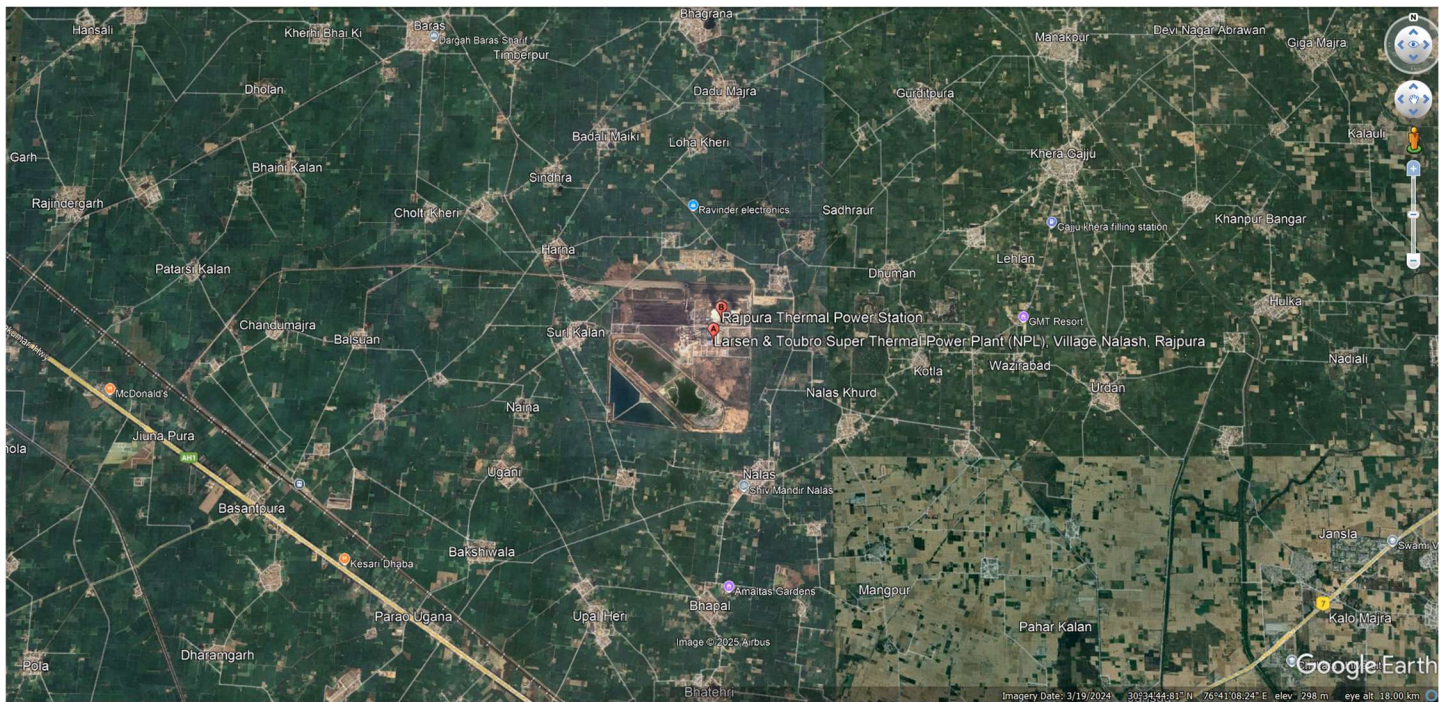
Figure 4: Toposheet Showing the Physical Features around the Power Plant





**Figure 5: Google Image of Rajpura Power Project (Nabha Power Limited)**





**Figure 6 : Google Image Showing Human Habitations Around the Power Project**



## CHAPTER 2 : BASELINE ENVIRONMENTAL STATUS

### 2.1 Meteorology

Dispersion of air emissions from the power plant will depend upon the meteorology of the area. Identification of wind direction pattern of the area will help in identifying the impacted area and non-impacted around the power plant. Maximum impact from an elevated source is observed at a location which is 6 to 10 times the height of the source in downwind direction. This case the stack height is 275 m, therefore the maximum impact will be observed at a distance between 1.65 km to 2.75 km in the downwind direction of the power plant stack. The downwind direction of the area is South East. Therefore villages falling in the south east direction of the power plant stack at a distance between 1.65 km to 2.75 km will be severely impacted area. Moderately impacted area will be the villages falling in Northwest direction of the power plant stack. Slight impacted area will be the villages located in the east, north and south direction of the power plant stack. Villages located in the Southeast side of the power plant stack will be the least impacted area. In order to understand this the Historical Meteorological Data were obtained from the Climatological Tables of IMD (Ambala) and provided below:

**Table 1 Meteorological Data of Ambala (Source-IMD-1950 to 2010)**

Month	Temperature (deg C) daily Max Min		Relative Humidity, % Max Min		Rainfall (mm)	Wind speed kmph	Pre-dominant wind direction (from)	Cloud cover (Oktas)
January	20.4	6.6	80	55	38.5	5.9	NW, W, SE	1.9
February	23.3	9.2	72	48	28.4	6.8	NW, W, SE	1.8
March	29.0	13.9	64	41	29.5	7.9	NW, W, SE	1.6
April	35.8	19.6	47	28	6.1	7.4	NW, W, SE	1.1
May	39.6	23.8	41	26	19.3	7.9	SE, W, NW	1.1
June	39.4	26.6	55	38	73.2	8.6	SE, W, NW	1.8
July	34.8	25.7	80	64	267.2	7.9	SE, W, NW	3.9
August	33.3	25.1	84	70	267.2	6.2	SE, W, NW	3.9
September	34.0	23.6	79	61	161.3	5.4	NW, SE	1.7
October	32.6	18.1	69	46	32.9	5.2	NW, SE	0.6
November	28.0	11.1	70	45	9.3	5.5	NW, SE	0.7
December	22.5	7.4	79	52	13.2	5.1	NW, SE	1.4
Annual	31.1	17.6	68	48	961.4	6.7	NW, SE	1.8

## 2.2 Ambient Air Quality

Ambient air quality monitoring inside & outside the plant boundary were done on routine basis at seven locations, by enagaging a third party accredited laboratory. PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>2</sub>, SO<sub>2</sub>, NH<sub>3</sub>, O<sub>3</sub>, CO, Benzene, Benzo(a)Pyrene, As, Ni and Pb were tested in the air samples. Monitoring was done for 24-hours for all parameters except CO (1 hour) and Ozone (8 hours). NH<sub>3</sub>

The results of critical parameters, namely, PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>2</sub>, SO<sub>2</sub> and CO for 5 year period from 2019 to 2024 are given in Table 2. Benzene, BAP, As, Ni and Pb were not detected in any of the samples. The results of all the parameters were found to be within the national ambient air quality standards.

**Table 2 : Ambient Air Quality inside & outside the Plant Boundary**

Sr. No	Monitoring Location	Date	Parameters				
			PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>
1	Dabhali kalan	20-06-2019	70	38	12	22	0.61
		10-09-2019	72	40	12	25	0.59
		29-11-2019	72	41	10	21	0.95
2	Salempura	20-06-2019	71	40	12	26	0.65
		10-09-2019	70	41	14	27	0.65
		29-11-2019	70	39	8	17	0.93
3	Dadumajra	20-06-2019	73	42	12	23	0.67
		10-09-2019	73	38	13	25	0.62
		29-11-2019	68	38	11	23	0.88
4	Near Storm Water Sump	18-06-2019	71	40	13	24	0.68
		10-09-2019	77	46	17	29	0.73
		28-11-2019	71	39	12	26	0.66
5	Near Loco Shed	18-06-2019	79	47	12	26	0.66
		10-09-2019	77	46	15	31	0.71
		28-11-2019	79	42	14	29	0.71
6	Near Switch Yard	18-06-2019	76	43	15	26	0.69
		10-09-2019	78	46	16	30	0.69
		28-11-2019	75	44	16	33	0.74
7	Near NDCT	18-06-2019	77	43	14	26	0.58
		10-09-2019	74	41	14	27	0.76
		28-11-2019	82	46	15	30	0.70
		Min	68	38	8	17	0.58
		Max	82	47	17	33	0.95
		Mean	74	42	13	26	0.71
National Standard			100 24-h avg	60 24-h avg	80 24-h avg	80 24-h avg	4 1-h avg

Source : Eco Laboratories & Consultants Pvt. Ltd. (Sector-74, Mohali, Punjab-160071)

**Cont.....Ambient Air Quality inside & outside the Plant Boundary**

Sr. No	Monitoring Location	Date	Parameters				
			PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>
1	Dabhali	13-03-2020	66	30	12	23	0.77
		24-06-2020	64	33	9	19	0.56
		11-09-2020	70	38	12	28	0.61
		23-12-2020	93	51	10	16	1.2
2	Salempura	13-03-2020	72	38	9	19	0.73
		24-06-2020	67	36	8	17	0.64
		11-09-2020	77	44	11	26	0.65
		23-12-2020	95	54	13	18	1.3
3	Dadumajra	13-03-2020	70	36	9	25	0.76
		24-06-2020	66	34	7	19	0.60
		11-09-2020	75	43	9	23	0.69
		23-12-2020	96	54	11	19	1.3
4	Near Storm Water Sump	13-03-2020	65	36	11	24	0.60
		24-06-2020	61	30	8	18	0.55
		11-09-2020	75	42	10	23	0.73
		22-12-2020	88	43	8	12	1.2
5	Near Loco Shed	13-03-2020	75	40	12	30	0.68
		24-06-2020	71	39	10	22	0.63
		11-09-2020	79	47	13	26	0.64
		21-12-2020	88	49	11	19	1.3
6	Near Switch Yard	13-03-2020	73	41	15	31	0.68
		24-06-2020	66	35	9	20	0.58
		11-09-2020	72	40	13	27	0.71
		22-12-2020	91	46	6	9	1.3
7	Near NDCT	13-03-2020	78	43	13	28	0.63
		24-06-2020	69	38	11	25	0.61
		11-09-2020	72	40	12	25	0.68
		21-12-2020	89	46	10	14	1.4
		Min	61	30	6	9	0.55
		Max	96	54	15	31	1.4
		Mean	77	42	11	22	0.85
		National Standard	100 24-h avg	60 24-h avg	80 24-h avg	80 24-h avg	4 1-h avg

Source : Eco Laboratories & Consultants Pvt. Ltd. (Sector-74, Mohali, Punjab-160071)  
Inter stellar Testing Centre Pvt. Ltd. (Industrial Area Phase-1, Panchkula-134109, Haryana)

**Cont.....Ambient Air Quality inside & outside the Plant Boundary**

Sr. No	Monitoring Location	Date	Parameters				
			PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>
1	Dabhali	13-03-2021	86	43	10	19	1.3
		19-06-2021	65	34	17	20	1.3
		10-09-2021	82	37	10	17	1.8
		17-12-2021	90	51	8	13	1.0

2	Salempura	13-03-2021	92	48	12	17	1.4
		19-06-2021	73	38	16	19	1.4
		10-09-2021	87	35	9	14	1.4
		17-12-2021	92	48	13	27	1.2
3	Dadumajra	13-03-2021	89	44	10	15	1.2
		19-06-2021	68	31	14	18	1.5
		10-09-2021	93	40	12	18	2.5
		17-12-2021	94	53	12	19	1.1
4	Near Storm Water Sump	10-03-2021	84	43	8	12	1.3
		07-09-2021	86	40	12	17	1.0
		15-12-2021	94	55	12	20	1.3
5	Near Loco Shed	10-03-2021	81	40	9	13	1.3
		07-09-2021	81	37	8	14	2.2
		15-12-2021	89	49	8	13	1.5
6	Near Switch Yard	10-03-2021	88	45	6	10	1.4
		07-09-2021	85	39	6	10	3.6
		15-12-2021	97	57	16	33	1.4
7	Near NDCT	10-03-2021	87	40	6	10	1.2
		07-09-2021	89	42	11	18	2.6
		Min	68	31	6	10	1
		Max	97	57	16	33	3.6
		Mean	86	43	10	17	1.65
National Standard			100 24-h avg	60 24-h avg	80 24-h avg	80 24-h avg	4 1-h avg

Source : Interstellar Testing Centre Pvt. Ltd. (Industrial Area Phase-1, Panchkula-134109, Haryana)

#### Cont.....Ambient Air Quality inside & outside the Plant Boundary

Sr. No	Monitoring Location	Date	Parameters				
			PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>
1	Dabhali	16-06-2022	87	40	12	22	1.3
		10-09-2022	83	35	7	10	1.1
2	Salempura	16-06-2022	83	37	8	15	1.3
		10-09-2022	90	41	10	15	1.3
3	Dadumajra	16-06-2022	83	41	10	19	1.2
		10-09-2022	86	37	5	10	1.2
4	Near Storm Water Sump	13-06-2022	87	43	8	13	1.4
		08-09-2022	81	36	7	10	1.4
5	Near Loco Shed	13-06-2022	84	43	10	15	1.3
		08-09-2022	85	38	6	12	1.3
6	Near Switch Yard	13-06-2022	83	42	6	11	1.3
		08-09-2022	86	39	8	13	1.1
7	Near NDCT	13-06-2022	80	38	12	22	1.4
		08-09-2022	82	37	7	11	1.1
		Min	80	35	5	10	1.1
		Max	90	43	12	22	1.4
		Mean	84	39	8	14	1.26
National Standard			100	60	80	80	4



	24-h avg	24-h avg	24-h avg	24-h avg	1-h avg
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Source : Inter stellar Testing Centre Pvt. Ltd. (Industrial Area Phase-1, Panchkula-134109, Haryana)

**Cont.....Ambient Air Quality inside & outside the Plant Boundary**

Sr. No	Monitoring Location	Date	Parameters				
			PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>
1	Dabhali						
		21-12-2023	90.6	45.5	16.3	29.6	1.2
2	Salempura						
		21-12-2023	86.4	40.4	14.7	21.9	1.4
3	Dadumajra						
		21-12-2023	82.3	39.6	8.3	18.7	1.3
4	Near Storm Water Sump						
		19-12-2023	88.5	41.7	10.3	26.3	1.2
5	Near Loco Shed						
		18-12-2023	87.3	36.7	11.5	26.3	1.3
6	Near Switch Yard						
		19-12-2023	90.6	48.4	13.6	29.4	1.3
7	Near NDCT						
		18-12-2023	91.7	43.8	9.4	22.4	1.2
		Min	82.3	36.7	8.3	18.7	1.2
		Max	91.7	48.4	16.3	29.6	1.4
		Mean	88.2	42.3	12.0	24.9	1.27
National Standard			100 24-h avg	60 24-h avg	80 24-h avg	80 24-h avg	4 1-h avg

**Cont.....Ambient Air Quality inside & outside the Plant Boundary**

Sr. No	Monitoring Location	Date	Parameters				
			PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>
1	Dabhali	14-3-2024	85.6	45.5	13.7	27.5	1.4
		20-6-2024	78.4	46.0	10.2	26.5	1.3
		11-9-2024	72.2	35.4	10.1	17.3	1.4
2	Salempura	14-3-2024	88.4	45.5	9.3	20.4	1.2
		20-6-2024	88.7	49.8	9.9	21.5	1.2
		11-9-2024	70.2	30.3	8.1	15.1	1.2
3	Dadumajra	14-3-2024	79.3	42.5	11.3	23.4	1.3
		20-6-2024	82.3	49.0	8.6	17.5	1.4
		11-9-2024	69.2	23.1	11.1	18.1	1.3
4	Near Storm Water Sump	12-3-2024	86.5	38.7	8.4	19.3	1.3
		18-6-2024	87.0	44.2	8.2	13.6	1.2
		10-9-2024	65.3	29.0	6.1	14.1	1.2
5	Near Loco Shed	11-3-2024	88.6	40.4	12.4	22.5	1.4
		17-6-2024	92.4	50.1	11.2	20.4	1.3
		9-9-2024	68.3	26.1	5.1	13.2	1.2
6		12-3-2024	87.6	37.5	9.7	23.7	1.3

7	Near Switch Yard	18-6-2024	90.2	46.3	13.2	23.5	1.3
		9-9-2024	63.3	32.1	7.1	16.3	1.4
	Near NDCT	11-3-2024	90.3	42.5	10.5	16.4	1.2
		17-6-2024	88.6	48.6	9.3	17.4	1.3
		9-9-2024	61.2	24.4	6.1	18.1	1.2
		Min	61.2	23.1	6.1	13.2	1.2
		Max	90.2	49.8	13.2	26.4	1.4
		Mean	80.2	40.2	9.7	19.6	1.3
	National Standard		100 24-h avg	60 24-h avg	80 24-h avg	80 24-h avg	4 1-h avg

## 2.3 Ground Water Quality

Ground water (hand pump / tube well) is the main source of drinking and irrigation in the study area. Ground water samples were collected from villages located around the power plant, where health survey was done. The water samples were analysed for physicochemical and biological parameters as per the Standard Methods (APHA). The results were compared with the drinking water quality standard prescribed by the Bureau of Indian Standards (IS: 10500:2012).

### Comparison of Results 2022 and 2024

	Parameters	Values in 2022	Values in 2024
1	pH	7.41 - 8.18	7.32 - 7.94
2	Total Dissolved Solids	150 - 1380 mg/l	160 - 1400 mg/l
3	Total Hardness as CaCO <sub>3</sub>	52 - 440 mg/l	50 - 420 mg/l
4	Calcium as Ca	16 - 120 mg/l	20 - 110 mg/l
5	Magnesium as Mg	2.9 - 34 mg/l	10 - 40 mg/l
6	Chloride as Cl	2.9 - 34 mg/l	5 - 45 mg/l
7	Fluoride as F	0.4 mg/l to 1.5 mg/l	0.8 mg/l to 1.4 mg/l
8	Total Coliform	Absent	Absent
9	Heavy metals like Pb, Cr, Ni, Cd, Hg, As, and Se	below detectable limit	below detectable limit

## 2.4 Surface Water Quality

One canal water sample was collected. The sample was analyzed for physico-chemical and biological parameters as per Standard Methods (APHA). Hg, As, Pb and Cr were found to be below the detectable limit. The surface water quality is fit for irrigation purpose.

### Comparison of Results 2022 and 2024

	Parameters	Values in 2022	Values in 2024
1	pH	7.63	7.45
2	Total Dissolved Solids	135	124
3	Total Hardness as CaCO <sub>3</sub>	102	97
4	Boron as B	1.2	1.1
5	Free Ammonia	Absent	Absent
6	Residual Chlorine	Absent	Absent
7	Total Coliform	Absent	Absent
8	Heavy metals like Pb, Cr, Ni, Cd, Hg, As, and Se	below detectable limit	below detectable limit

### 2.5 Soil Quality

Soil sample was collected from agriculture field of Herna. The samples were analysed for pH, conductivity, Organic Matter and metallic constituents. pH was found to be moderately alkaline.

### Comparison of Results 2022 and 2024

	Parameters	Values in 2022	Values in 2024
1	pH	7.8	7.9
2	Conductivity	620 µmhos/cm	700 µmhos/cm
3	Organic Matter	0.8%	0.8%
4	Lead	BDL <0.5 mg/kg	BDL <0.5 mg/kg
5	Nickel	6.2 mg/kg	6.3 mg/kg
6	Cadmium	BDL <0.5 mg/kg	BDL <0.5 mg/kg
7	Arsenic	BDL <0.5 mg/kg	BDL <0.5 mg/kg
8	Mercury	BDL <0.4 mg/kg	BDL <0.5 mg/kg

### 2.6 Heavy Metals in Food Samples

Rice, dal, wheat and maize and locally grown vegetables are the staple food of the people of this area. Samples of rice, dal, wheat, gram, pulses, milk, potato, onion, tomato, were collected from the villagers on 11-12-2024. No heavy metals were detected in any of the food samples (heavy metals like Arsenic, mercury, cadmium, chromium, lead and nickel were found to be less than 0.1 mg/kg). In the food samples collected on 12-12- 2022, no heavy metals were detected.

## 2.7 Pollution Discharges from NPL

- i. 6014522 metric tons of coal and 19.683764 MCM water were consumed to generate 10413.17 million units of electricity during the period 1-1-2024 to 31-12-2024 (1 year).
- ii. 1818921 metric tons of flyash and 332214 metric tons of bottom ash were generated during the period 1-1-2024 to 31-12-2024 (1 year).
- iii. 1810115 metric tons of flyash and 320751 metric tons of bottom ash were utilized during the period 1-1-2024 to 31-12-2024 (1 year). Flyash was used in cement making industries, RMC plant in construction industry, brick and flyash based products manufacturing. Bottom ash was transported to ash dyke in slurry form and further utilized in ecofriendly manner, etc.
- iv. The plant is operating on ZLD, entire wastewater is treated and reused. No wastewater was discharged outside the plant premises during the period 1-1-2024 to 31-12-2024.
- v. The emission trend from the stacks of NPL (2 flues of 275 m, 7.5 m dia) is given below:

Parameters	28-12-2024		11-9-2024		18-6-2024		13-3-2024	
	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
Temperature, °C	119	115	122	124	141	148	118	122
Exit Velocity, m/s	24.0	23.6	22.5	22.9	22.54	22.71	22.45	22.27
PM, mg/Nm <sup>3</sup>	45	43	42.6	45.6	46.2	44.3	45.3	47.5
SO <sub>2</sub> , mg/Nm <sup>3</sup>	1208	1188	1069	1192	1046	1387	933	1245
NO <sub>x</sub> , mg/Nm <sup>3</sup>	390	350	310	285	204	260	256	228
CO <sub>2</sub> , %	11.2	11.6	12.2	11.2	14.4	14.2	11.6	12.2

Note: There is an increase in NO<sub>x</sub> generation from March to December 2024. The flue gas exit velocity increased during December 2024.



## **CHAPTER 3: BASELINE HEALTH STATUS**

### **3.1 Pre-Project Data of Human Health**

Village-wise or Taluka-wise health data/records of human population of the study area were not available with the Health Department of State Government. NPL got an epidemiology study done in December 2022, covering 5 villages around the thermal power plant, which now forms the baseline data for future comparison of project related impact on the human population. .

### **3.2 Primary Health Survey**

Principally two issues were focused during the health survey of residents from three categories of impacted locations: i) the types of health problems likely to be caused by discharges from coal based thermal power plant and ii) the spectrum of health problems that the residents living in the study area might experience when exposed to different environmental media namely air, drinking water, irrigation water and soil. The three categories of impacted locations are as follows: i) Severely impacted area, ii) Moderately impacted area and iii) Slightly impacted area. In order to compare the data of the impacted area, survey was also carried out at one Control Area, Insignificantly impacted due to the discharges from the thermal power plant.

A cross-sectional study is an observational one. The defining feature of a cross-sectional study is that it can compare different population groups at a single point in time. This is like taking a snapshot. Findings are drawn from whatever fits into the frame. This is because such studies offer a snapshot of a single moment in time; they do not considered what happens before or after the snapshot is taken. The benefits of a cross-sectional study design are as follows: a) the results allows comparing different variables at the same time, b) the results can be compared over a period of time, if done at regular intervals, c) the results collected over a long period of time covering the residential exposed population, would provide definite information about cause-and-effect relationships / epidemiological impact.

Random sampling of residents living in the impact and non-impact area were done by organizing “Health Camps”. The residents live, eat and work in similar microenvironment and are likely to be exposed to similar environmental pollutants. For completing the exercise designed questionnaire was used. The design of the questionnaire was “Interviewer Administered”.

Primary health survey were carried out by organizing health camps at five (5) locations during the period 07-12-2022 to 09-12-2022 and again after a gap of two years, on the 09-12-2024 to 11-12-2024.

The selected locations represented the highest and to slight impact area and control area due to the boiler emissions from 275 m tall stacks and the ash dyke of NPL. Cross-sectional residents of the area, who are exposed for more than 10 years were screened for detailed health check-up. Preliminary information of each person was collected through the questionnaire, which were filled up by the survey team. Thereafter, the health checkup of each person was done by a qualified Medical Practitioner.

309 persons were checked in 2022 and 311 persons were checked in 2024. Out of the 5 surveyed villages of 2022, two villages were substituted with the neighboring villages on account of logistical reasons (Sural kalan with Harna and Nalas with Rangia). The samples includes adolescent children, adults and elderly, who were exposed in the existing environment for more than 10 years. The names and other details of selected locations for carrying out health survey is provided in Table 6 and marked in Figure 6.

**Table 3: Name of Locations Selected for Carrying out Health Survey in 2022 and 2024**

S. No	Location	Distance & Direction from NPL Stacks	Impacted / Not Impacted	Date of checkup	Persons Checked In 2022	Persons Checked in 2024
1	Sural kalan	1.8 Km, West	Slightly Impacted	08-12-2022	74	-
2	Dabali kalan	3.8 Km, South East	Moderately impacted	07-12-2022 10-12-2024	38	58
3	Dadu majra	3.5 Km, North	Slightly impacted	08-12-2022 11-12-2024	110	77
4	Nalas	2.0 Km, SSE	Severely Impacted	07-12-2022	44	-
5	Bakshiwala	4.5 Km, South West	Not Impacted	09-12-2022 09-12-2024	43	68
6	Rangia	2.3 km SSW	Severele Impacted	10-12-2024	-	51
7	Harna	2.5 km North West	Moderately Impacted	11-12-2024	-	57
	Total				309	311



**Figure 7 Health Survey Locations Marked on Google Image**

### **3.3 Findings of Primary Health Survey**

Five vital parameters were observed for each person; namely height, weight, temperature, blood pressure and pulse rate. General appearance of each subject like development and nutrition status, body habits, deformities, attention to grooming, cleanliness of nail, skin, hair, ear, eye and tongue were also noted. Lung Function test was done for the willing persons capable of understanding and using the instrument properly. The physical examination included the following parameters:

**HEENT** (Head, Eyes, Ears, Nose, Throat)

**Head:** Size and shape

**Eyes:** Inspection of conjunctivae and lids, Examination of pupils and irises (e.g., reaction to light and accommodation, size and symmetry).

**Ears, Nose and Throat:** External inspection of ears and nose (e.g., overall appearance, scars, lesions, masses), Otoscopic examination of external auditory canals and tympanic membranes, Assessment of hearing (e.g., whispered voice, finger rub, tuning fork), Inspection of nasal mucosa, septum and turbinate, Inspection of lips, teeth and gums, Examination of pharynx, oral mucosa, salivary glands, hard and soft palates, tongue, tonsils and posterior pharynx.

**Neck:** Examination of neck (e.g., masses, overall appearance, symmetry, tracheal position, crepitus), Examination of thyroid (e.g., enlargement, tenderness, mass)

**Respiratory System:** Assessment of respiratory effort (e.g., intercostal retractions, use of accessory muscles, diaphragmatic movement), Percussion of chest (e.g., dullness, flatness, hyper-resonance), Palpation of chest (e.g., tactile fremitus), Auscultation of lungs (e.g., breath sounds, adventitious sounds, rubs), Lung Function using Peak Expiratory Function Meter.

**Cardiovascular System:** Palpation of heart (e.g., location, size, thrills), Auscultation of heart with notation of abnormal sounds and murmurs, examination of carotid arteries (e.g., pulse amplitude, bruits), abdominal aorta (e.g., size, bruits), femoral arteries (e.g., pulse amplitude, bruits), pedal pulses (e.g., pulse amplitude) and extremities for edema and/or varicosities

### 3.4 Body Mass Index (BMI)

BMI is calculated using the weight and height of the people. Normal BMI ranges from 18.5 kg/m<sup>2</sup> – 24.9 kg/m<sup>2</sup>. Person with BMI below 18.5 kg/m<sup>2</sup> is termed underweight and above 25 kg/m<sup>2</sup> is overweight. People with BMI greater than 30 kg/m<sup>2</sup> are termed obese.

**Table 4 : BMI Results of the Residents Checked during 2022 and 2024 (in %)**

	Name of Location	Normal Weight	Normal Weight	Over weight	Over weight	Obese	Obese	Under weight	Under weight
		2022	2024	2022	2024	2022	2024	2022	2024
1	Sural kalan	37.8	-	28.4	-	8.1	-	25.6	-
2	Dabhali kalan	31.6	35.0	28.9	30.5	34.2	35.5	5.3	5.5
3	Dadu majra	45.5	42.0	16.4	15.5	5.4	6.0	32.7	32.5
4	Nalas	59.1	-	20.45	-	20.4	-	0	-
5	Bakshiwala	65.1	60.0	23.25	24.0	11.6	11.5	0	0



6	Rangia	-	51.5	-	15.5	-	10.0	-	2.5
7	Harna	-	42.5	-	14.0	-	8.5	-	4.5

**Significant findings:** People with normal weight was found mostly in Bakshiwala. Overweight people were more in Dabhali kalan and Sural kalan. Underweight people were mostly seen in Dadu majra and obese people in Dabhali kalan. No significant changes were observed during the period 2022 and 2024.

### 3.5 Lung Function Test

The peak expiratory flow rate (PEFR) is a test that measures how fast a person can exhale (breathe out). This test checks lung functioning, and is often used by patients who have asthma. Asthma is a chronic condition characterized by ongoing inflammation of the airways. Common asthma symptoms include shortness of breath that worsens with activity, wheezing, and cough. The flow of exhaled air from the lungs may be restricted due to inflammation or congestion from excess mucus.

The basic pulmonary function as per the standard prescribed by the American Thoracic Society was conducted [including the equipment that met the specifications so as to have reproducible and reliable measurements of lung functions]. Each subject was educated before the Spirometry that was undertaken by a trained person in a comfortable and sitting posture so as to get the best value. Out of the three attempts made by each subject, best value is selected.

**Table 5: Normal PEF Values for Males (l / min)**

Age in years	PEF Values of People of Specified Height and Years				
	60"	65"	70"	75"	80"
20	554	602	649	693	740
25	543	590	636	679	725
30	532	577	622	664	710
35	521	565	609	651	695
40	509	552	596	636	680
45	498	540	583	622	665
50	486	527	569	607	649
55	475	515	556	593	634
60	463	502	542	578	618
65	452	490	529	564	603
70	440	477	515	550	587

**Table 6: Normal PEF Values for Females (l / min)**

Age in years	PEF Values of People of Specified Height and Years				
	60"	65"	70"	75"	80"
20	390	423	460	496	529
25	385	418	454	490	523
30	380	413	448	483	516
35	375	408	442	476	509
40	370	402	436	470	502
45	365	397	430	464	495
50	360	391	424	457	488
55	355	386	418	451	482
60	350	380	412	445	475
65	345	375	406	439	468
70	340	369	400	432	461

**Table 7: Normal PEF Values for Adolescents (l / min)**

Height (Inches)	Males & Females
43"	147
44"	160
45"	173
46"	187
47"	200
48"	214
49"	227
50"	240
51"	254
52"	267
53"	280
54"	293
55"	307
56"	320
57"	334
58"	347
59"	360
60"	373
61"	387
62"	400
63"	413
64"	427
65"	440
66"	454

**Table 8: Results of Lung Function Test during 2022 and 2024 (in %)**

Location	Males		Females	
	Normal PEF 2022	Normal PEF 2024	Normal PEF 2022	Normal PEF 2024
Sural kalan	90	-	93	-
Dabhali kalan	91	87	92	90
Dadu majra	92	90	92	88
Nalas	90	-	90	-
Bakshiwala	93	95	95	95
Rangia	-	89	-	91
Harna	-	88	-	90

**Observation:** The test results of normal lung function indicates that the population of the study area did not suffer from adverse respiratory problems. No significant changes were observed during the period 2022 and 2024.

### 3.6. General Health Parameters

Majority of subjects were from good to moderate socio economic background but their health was not under any stress due to environmental factors, nutritional factors, or availability of primary health care, etc. The general hygiene related to nails, skin and teeth of the people were found to be good. Malnutrition was absent. No disease or any chronic condition that could be related to environmental pollution has been observed in the population of study area.

**Table 9 General Health Disorders Found in 2022 and 2024 (in %)**

S. No	Disorders	2022	2024
<b>Cardiovascular Disorders</b>			
1	Persistent chest pain	2	5
2	Abnormal pulse rate	1	4
3	Hypertension	7	10
<b>Respiratory Disorders</b>			
1	Cough	6	4
2	Headache	11	0
3	Breathlessness	3	5
4	Asthma	0	0
5	Chronic Obstructive Pulmonary Disease (COPD)	0	0

		Other Health Disorders		
1		Dental problems	10	35
2		Joint pain	26	30
2		Diabetes Mellitus	14	20
3		Eye Disorder	8	30
4		Low hemoglobin in Females	15	22
5		Low hemoglobin in Males	10	12

**Table 10: Specific Cases of Health Disorders Found in 2022 and 2024 (in %)**

Name of Disorders	2022	2024	Name of Disorders	2022	2024
<b>Eye Checkup</b>			<b>Dental Checkup</b>		
Corneal clouding	0.8	6	Fluorosis	0.6	0.5
Conjunctival Xerosis	1	2	Leadline	0.4	0.2
Muddy conjunctiva	0.8	2	Bleeding gums	1.2	15
Cataract	4	12	Dental caries	2	12
<b>Ear Check up</b>			Pyorrhea	3	8
Ear ache	0.4	0.5	<b>Skin check up</b>		
Ear discharge	0	0	Dermatitis	2	3
Deafness	0.4	0.5	Rash	1	5
Ear Infection	0.4	5	Fungal or Bacterial Infection	1	6
<b>Tongue check up</b>			Oedema (Present)	0.4	0.5
Desquamation	0	0	Tonsils (Enlarged)	0.4	0.5
Protruded	1	0	Neck lymph nodes engorged	0.4	0.5

**Significant Findings:** None of the people reported cancer, gross neurologic, cardiovascular, hepatic or renal damage/ There was not a single case of congenital abnormality. The number of people having dental problems were found to be more in 2024 compared to 2022. This showed lack of awareness about oral hygiene and rampant use of tobacco products by the villagers. The number of people having eye problems were found to be more in 2024 compared to 2022 mainly because of the fact that an optometrist was engaged during the health survey and free eye medicines and spectacles were distributed by the CSR team of NPL during the camp.

**Table 11- Results of Health Survey: Category of Disease Vs. Age Group (2022 & 2024)**

LOCATION 1 SURAL KALAN (2022)					
Category of Disease	% of Cases Reported in Following Age Groups				
	Children (5 to 12)	Adolescence (12+ to 18)	Adult (18+ to 40)	Middle Age (40+ to 60)	Elderly Above 60
Addiction	0	0		1	



High BP	0	0	3	15	17
Low BP	0	0	4	1	1
Coughing	0	0	4	4	5
Fever	0	0	3		2
Headache	0	0	8	3	8
Breathlessness	0	0		1	3
Chest Pain	0	0	1		1
<b>LOCATION 2 DABHALI KALAN (2022 / 2024)</b>					
Category of Disease	% of Cases Reported in Following Age Groups				
	Children	Adolescence	Adult	Middle Age	Above 60
Addiction	0	0 / 2	0 / 6	0 / 10	0 / 10
High BP	0	0 / 0	13 / 18	24 / 26	21 / 25
Low BP	0	0 / 1	0 / 6	2 / 0	0 / 0
Coughing	0	4 / 8	2 / 4	0 / 2	4 / 6
Fever	0	4 / 4	1 / 1	0 / 0	0 / 0
Headache	0	0 / 4	10 / 12	5 / 5	8 / 7
Breathlessness	0	0 / 1	3 / 5	0 / 2	0 / 6
Chest Pain	0	0 / 0	0 / 0	2 / 4	0 / 4
<b>LOCATION 3 DADU MAJRA (2022 / 2024)</b>					
Category of Disease	% of Cases Reported in Following Age Groups				
	Children	Adolescence	Adult	Middle Age	Above 60
Addiction	0	0 / 6	0 / 12	1 / 16	0 / 20
High BP	0	0 / 1	3 / 5	11 / 16	14 / 17
Low BP	0	0 / 0	1 / 1	0 / 2	0 / 1
Coughing	0	0 / 2	0 / 5	1 / 5	1 / 7
Fever	0	0 / 0	0 / 0	0 / 0	2 / 1
Headache	0	0 / 1	3 / 6	1 / 5	6 / 5
Breathlessness	0	0 / 2	0 / 2	0 / 2	0 / 6
Chest Pain	0	0 / 0	1 / 0	0 / 1	2 / 5
<b>LOCATION 4 NALASH (2022)</b>					
Category of Disease	% of Cases Reported in Following Age Groups				
	Children	Adolescence	Adult	Middle Age	Above 60
Addiction	0	0	0	1	0
High BP	0	0	6	10	45
Low BP	0	0	0	0	0
Coughing	0	0	2	0	4
Fever	1	1	2	0	6
Headache	0	0	2	2	10
Breathlessness	0	0	0	0	0
Chest Pain	0	0	1	0	2

<b>LOCATION 5 BAKSHIWALA (2022 / 2024)</b>					
<b>Category of Disease</b>	<b>% of Cases Reported in Following Age Groups</b>				
	<b>Children</b>	<b>Adolescence</b>	<b>Adult</b>	<b>Middle Age</b>	<b>Above 60</b>
Addiction	0	0 / 4	0 / 12	0 / 22	0 / 30
High BP	0	0 / 1	9 / 10	25 / 30	23 / 30
Low BP	0	0 / 0	0 / 2	0 / 1	0 / 2
Coughing	0	1 / 2	3 / 7	3 / 8	0 / 8
Headache	0	0 / 6	2 / 4	14 / 10	10 / 12
Breathlessness	0	0 / 2	0 / 2	0 / 2	0 / 2
Chest Pain	0	0 / 2	0 / 2	0 / 1	0 / 2
<b>Location 6 : RANGIA (2024)</b>					
<b>Category of Disease</b>	<b>% of Cases Reported in Following Age Groups</b>				
	<b>Children</b>	<b>Adolescence</b>	<b>Adult</b>	<b>Middle Age</b>	<b>Above 60</b>
Addiction	0	0 / 4	0 / 12	0 / 22	0 / 30
High BP	0	0 / 1	9 / 10	25 / 30	23 / 30
Low BP	0	0 / 0	0 / 2	0 / 1	0 / 2
Coughing	0	1 / 2	3 / 7	3 / 8	0 / 8
Headache	0	0 / 6	2 / 4	14 / 10	10 / 12
Breathlessness	0	0 / 2	0 / 2	0 / 2	0 / 2
Chest Pain	0	0 / 2	0 / 2	0 / 1	0 / 2
<b>Location 7 : HARNA (2024)</b>					
<b>Category of Disease</b>	<b>% of Cases Reported in Following Age Groups</b>				
	<b>Children</b>	<b>Adolescence</b>	<b>Adult</b>	<b>Middle Age</b>	<b>Above 60</b>
Addiction	0	6	8	20	28
High BP	0	0	8	22	26
Low BP	0	0	0	1	1
Coughing	0	1	4	6	6
Headache	0	0	4	10	12
Breathlessness	0	0	2	2	2
Chest Pain	0	0	1	1	2

**Table 12 Summary of Health Status of Population Around NPL**

	<b>Name of Location</b>	<b>Over Weight</b>	<b>Cough</b>	<b>High BP</b>	<b>Headache</b>	<b>Other Noted Health Problems</b>
1	Surkalan Slightly impacted	28	13	35	19	Hypertension in 40+ people Knee joint pain in elderly, Dental problems in adults and elderly
2	Dabhali kalan Moderately impacted	29	10	58	23	Hypertension in 40+ people Dental problems in adults and elderly

3	Dadumajra Slightly impacted	16	2	28	10	Hypertension in 40+ people Knee joint pain in elderly Dental problems in adults and elderly
4	Nalash Severely impacted	20	6	61	14	Hypertension in 40+ people Dental problems in adults and elderly
5	Bakshiwala Non-Impacted -Control)	23	7	57	26	Hypertension in 40+ people Dental problems in adults and elderly
6	Rangia Severely impacted					Hypertension in 40+ people Dental problems in adults and elderly
7	Herna Moderately Impacted					Hypertension in 40+ people Dental problems in adults and elderly

### 3.7 Observation on Each Location

**1. Sural kalan:** Hypertension and joint pain belonging to 40+ and 60+ age group cohort were observed in 2022. None of the sampled population were found to be suffering from asthma and COPD in 2022. In place of Sural kalan, health survey was done at the nearby village - Herna in 2024.

**2. Herna:** Hypertension and dental problems among the sampled population belonging to 40+ and 60+ age groups cohorts were observed in 2024. Joint pain was not observed in 2024. None of the sampled population were suffering from asthma and COPD in 2024.

**3. Dabhali kalan:** Hypertension and dental problems among the sampled population belonging to 40+ and 60+ age groups cohorts were observed in 2022 and 2024. None of the sampled population were suffering from asthma and COPD in 2022 and 2024.

**4. Dadu majra:** Hypertension, joint pain, and dental problems among the sampled population belonging to 40+ and 60+ age groups cohorts were observed in 2022 and 2024. None of the sampled population were suffering from asthma and COPD in 2022 and 2024.

**5. Nalas:** Hypertension and dental problems among the sampled population belonging to 40+ and 60+ age groups were observed in 2022. None of the sampled population were suffering from asthma and COPD in 2022. In place of Nalas, health survey was done at the nearby village – Rangia in 2024.

**6. Rangia:** Hypertension and dental problems among the sampled population belonging to 40+ and 60+ age groups cohorts were observed in 2024. None of the sampled population were suffering from asthma and COPD in 2024.

**5. Bakshiwala:** This is Control area, means not impacted from the emissions of power plant. Hypertension and dental problems among the sampled population belonging to 40+ and 60+ age groups were observed in 2022 and 2024. None of the sampled population were suffering from asthma and COPD in 2022 and 2024.



## **CHAPTER 4 : SUMMARY & RECOMMENDATION**

- i. Air Environment: The ambient air quality of the impacted and non-impacted areas is found to meet the prescribed National Ambient Air Quality Standards for all the parameters, namely PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>2</sub>, NH<sub>3</sub>, O<sub>3</sub>, CO, Benzene, Benzo (a) pyrene, Pb, Ni and As.
- ii. Water Environment: The ground water samples were found to meet the drinking water quality standards (BIS 10500-2012) at all the locations.
- iii. The surface water sample was found to meet the Irrigation water quality standards.
- iv. Soil Quality: Lead, nickel, arsenic, mercury, cobalt, cadmium, chromium levels were found to be within the normal level. Organic matter was found to be suffience, conductivity was found to be normal and pH was found to be moderately alkaline.
- v. Heavy Metal Contamination in Crops, Milk and Vegetables: No heavy metals were detected in the crops, milk and vegetable samples collected from the villages of study area.
- vi. Impact on Human Health: Human health profiling was done for resident population of total seven villages during 2022 and 2024. Health data was collected from the residents who are exposed to the existing environment for more than ten years. High BP, (Hypertension) and Dental problems were found in most of the 40+ adults and elderly population of all the surveyed locations. Joint Pain (Particularly knee joint) was predominant in the residents of Surla kalan and Dadu majra villages.
- vii. No cases of respiratory disorders linked to air pollution like Bronchitis, Asthma or Chronic Obstructive Pulmonary Disorder were found in the people of the study area.
- viii. No disease or any chronic condition that could be related to air pollution / effluent discharges from coal based power plant has been observed in the population of the study area.
- ix. None of the people in the study area reported any serious health problem such as Cancer, Gross Neurologic, Hepatic or Renal Damage and Congenital Abnormality.

## **Recommendations**

1. Considering the fact that there is a growing international pressure against coal based thermal power plants because it is perceived that the emission and discharges creates severe health issues, particularly respiratory disorders like Bronchitis, Asthma, COPD, etc. Therefore, it is suggested that similar health study should be done periodically as per the condition stipulated by the regulatory authorities.
2. The serious health concerns identified in the area are Hypertension, Joint pains and Dental Problems. The minor health concerns identified in the area are obesity, cough and headache. NPL may consider to introduce Yoga Training Programs for the nearby villagers under its CSR activity, which will help the people with Hypertension, obesity and persistent cough and headache.
3. NPL may also consider creating “Awareness Programs on Dental Health”, distribute toothpaste and tooth brush and “Campaign Against Tobacco Consumption”, under its CSR activity.

## **CHAPTER 4 : DISCLOSURE OF CONSULTANT ENGAGED**

Nabha Power Limited engaged the services of EMTRC Consultants LLP (formerly EMTRC Consultants Pvt Ltd) for conducting the Epidemiology Study around the 2x700 MW Rajpura Power Plant. EMTRC was established in 2002 with the objective of providing services in the field of Environmental Monitoring Training and Research. In the past 24 years EMTRC has completed several research projects sponsored by the Central Pollution Control Board, Ministry of Environment and Forests, Asian Development Bank, United Nations, World Bank and many Government and Private Industries. The significant achievements of EMTRC are given below.

### **Completed Human Health Impact Assessment Projects**

1. Epidemiological Study around the Integrated Steel Plant of Jindal Steel & Power Limited, as per TOR prescribed the Ministry of Environment Forests & Climate Change, Govt of India
2. Human Health Risk Assessment Study as per Scope of Work prescribed by NTPC Limited, Govt of India Enterprise, for its following locations
  - i. Singrauli
  - ii. Seepat
  - iii. Farakka
  - iv. Anta
  - v. Kudgi
  - vi. Kayamkulam
  - vii. Bongaigaon
  - viii. Simhadri

### **Completed Research Projects**

- i. GHG Inventory, Carbon Balance, Carbon Intensity and Plan for Decarbonization in Integrated Iron and Steel Plant of MSP Steel & Power Ltd, Raigarh, CG
- ii. Feasibility study of ETP in Micro and Small Dyeing Units in Maniabandha Cluster, Cuttack, Odisha (Sponsored by Sir Ratan Tata Trust, Mumbai)
- iii. Pollution Source Apportionment Study (7 projects completed, all sponsored by NTPC)
- iv. Inventory, Study of Process Technology and Pollution Control from Sponge Iron Industry (for CPCB and MECON)
- v. Scientific investigation of filling flyash and bottom ash in abandoned coal mines (MB Power Limited, Anuppur, MP)

- vi. Preparation of Action Plan for Air Pollution Control of Ahmedabad City (2005-06) (Asian Development Bank)
- vii. Carrying Capacity Study of Raigarh Region (As Per TOR Issued By Ministry Of Environment & Forests, Govt of India (2007-08)
- viii. Carrying Capacity Study of Anuppur Region (As Per TOR Approved By Madhya Pradesh Pollution Control Board (2011-12)
- ix. Environmental Consulting in India - Available Expertise, Demand and Constraints (by Consultancy Development Centre, Dept of Science and Technology, Govt of India (2007-08).
- x. Performance Evaluation Study of 7 ESPs attached to 210 MW and 500 MW Boilers of Thermal Power Plants at NTPC Limited at Kahalgaon (2015)
- xi. Condition Assessment and Feasibility Study for Sewerage / STP Infrastructure for 16 Towns and Cities Along Bank of Ganga River in Bihar – Bhabua, Buxar, Dumraon, Arra, Chhapra, Sonapur, Hazipur, Barauni, Begusarai, Naugachia, Katihar, Munger, Lakhisarai, Bhairaiya, Jamalpur, Bihar Sharif, Ganga Action Plan (2016)
- XII. Status of Biomedical Waste Treatment in India, by United Nations Industrial Development Organization (UNIDO) (2022)
- XIII. Compilation of Emission Inventory Data for Various Sources in India (sponsored by EDF-USA and TERI)

#### **Environmental Monitoring and EIA Studies**

- i. EIA Study of Industrial & Mining Projects (completed study for more than 100 large industrial projects and mining projects)
- ii. Air monitoring, Sampling and Testing of air, water, soil and solid / hazardous wastes samples

#### **Completed Training Programs**

- i. Biomedical Wastes Management (jointly with CPCB)
- ii. Risk Assessment of Storage and Transportation of Hazardous Chemicals (jointly with CPCB)
- iii. EIA Studies for Developmental Projects (jointly with CPCB)
- iv. Marine Pollution Control (jointly with CPCB)
- v. Clean Production Technologies (jointly with CPCB)
- vi. Decarbonization of Steel Industry (with Steel Industry Association of CG)



**Project Coordinator: Dr Jayanta K Moitra is the coordinator for this Epidemiological Study. His brief introduction is given below**

Dr. Jayanta Kumar Moitra did his M.Sc (Chemistry) and PhD (Chemistry) from UTD-Ravishankar University, Raipur (1984-1989). He started his career as Scientist in the Central Pollution Control Board, under Ministry of Environment, Forests & Climate Change, Govt of India (1989-1996). He joined Larsen & Toubro Ltd. as Manager, heading their Environment Division (1996-2001). He joined Environment Monitoring Training & Research Centre (EMTRC Consultants Pvt Ltd), as Director (2002-2022), where he developed the Environmental Laboratory, which was recognised under the Environment (Protection) Act 1986 and Accredited by the NABL ISO:17025 – 2017. He has been designated as Government Analyst from 2004 – 2022 by the Ministry of Environment, Forests & Climate Change, Govt of India.

Dr JK Moitra is Accredited Category 'A' EIA Coordinator by NABET-Quality Council of India for

- i) Metallurgical Industries
- ii) Thermal Power Plants
- iii) Cement Plants,
- iv) Opencast and Underground Mining,
- v) Coal Washery

Dr JK Moitra is Accredited as Category 'A' Functional Area Expert by the NABET-QCI for

- i) Air Pollution Prevention and Control,
- ii) Air Quality Modelling and Meteorology,
- iii) Water Pollution Prevention and Control,
- iv) Industrial Solid and Hazardous Wastes
- v) Risk and Hazard Assessment.

\*Period of Accreditation : 2010 to 2025.

Dr Moitra has in-depth understanding of environmental legislation and development of standards for various industries, ambient air quality and water quality. He has more than 34 years of experience in Environmental Impact Assessment, Sampling & Analysis of Pollutants, Carrying Capacity Study, Social Impact Assessment, Human Health Impact Assessment, Pollutants Source Apportionment, Meteorology, Modelling and Impact Predictions, Biomedical Wastes, Municipal Solid Wastes, Industrial Solid Wastes, Hazardous Wastes, Environmental Management of Industry, GHG Emissions Inventorization and Industrial Decarbonization. He has conducted several training programs on EIA, Risk Assessment, Monitoring & Analysis of Pollutants, Meteorology & Modelling, Industrial Pollution Control Technologies, etc.

He has worked for several International Projects sponsored by UNIDO (Vienna), ADB (Manila), World Bank / IFC, ECGD, JICA, Winrock International (USA), Environment Defence Fund (USA), DST (Govt of India) and Sir Ratan Tata Trust. He is credited with more than 75 research papers and technical documents. He has completed about EIA of about 100 large industrial projects and mining projects.

Dr Moitra worked in Shillong Office Guided the SPCB of 7 states on Stack & Ambient Air Sampling & Testing, Water and Wastewater Sampling & Testing. While working in CPCB HQ, Dr Moitra was involved in compliance monitoring of Industrial Projects (Steel, Aluminium, Cement, Power Plants and Coal Washery) and Comprehensive Industry study on process technology and pollution control systems for Aluminium, Iron & Steel, Cement, Coal Washery, Thermal Power Plants. He contributed to the following documents, published by CPCB (first 10).

- i. Standards for Gas Based Power Plants
- ii. Standards for Hotel Industry
- iii. Standards for Sponge Iron Industry
- iv. Standards for Coal Washery
- v. Guidelines for Conducting Air Quality Dispersion Modeling
- vi. Assessment of Bag Filter and ESP for Thermal Power Plants
- vii. Technology for Control of NO<sub>x</sub> Emissions
- viii. Guidelines for Greenbelt Development
- ix. EIA Study of Developmental Projects
- x. Risk Assessment of Hazardous Chemicals
- xi. Doing Business with India, Publisher - Kogan Page London (2000)
- xii. Metallurgical Coke Making 2022 and Beyond (Collection of Articles by Top Experts), REC Durgapur (2022)
- xiii. Catalogue of Indian Emission Inventory Reports by The Energy & Resources Institute and EDF (2022)
- xiv. Dust Caused Occupational and Environmental Health Problems in India (Book "Dusty Dawn"- Dust at Workplace and Workers Nightmares by Society for Participatory Research in Asia

## **APPENDIX - A**

## **REFERENCES**

## REFERENCES

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## **APPENDIX - B**

### **PHOTOGRAPHS OF HEALTH SURVEY**



Heath Survey Camp at Bakshiwal, 9<sup>th</sup> December 2024





Heath Survey Camp at Dabali Kalan, 10<sup>th</sup> December 2024





Heath Survey Camp at Rangia, 10<sup>th</sup> December 2024





Heath Survey Camp at Dadu Majra, 11<sup>th</sup> December 2024





Heath Survey Camp at Herna, 11<sup>th</sup> December 2024



## **APPENDIX - C**

### **TEST RESULTS**

## Test Report


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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312220855 <b>Sample Reg. Date</b> :22-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291119 <b>NABL ULR No.</b> :TC592623000014674F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
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<b>Test Report as per :</b>	: NAAQS 2009
<b>Sampling Information :</b>	
Location of Sampling Point	: Near NDTC (AAQMS-1)
Date of Monitoring	: 18-12-2023
Time of Monitoring	: 13:40 hrs
Purpose of Monitoring	: For Self Monitoring
Duration of Monitoring,minutes	: 1440
Avg. Flow Rate of Sampling,m3/min	: 1.28
Volume of air sampled,m3	: 1843.20
Avg. Ambient Temperature,°C	: 28

Description					
Description	Ambient Air Quality Monitoring				
S.No.	Parameters	Instrument	Method	Specification	Result
1.	Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)				
a.	Sulphur Dioxide(SO <sub>2</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	80 Max	9.39
b.	Nitrogen Dioxide(NO <sub>2</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	80 Max	22.42
c.	Particulate Matter (PM <sub>10</sub> ),µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	100 Max	91.69
d.	Particulate matter (PM 2.5),µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	60 Max	43.77

  
Ravinder Kumar  
29-12-2023  
Reviewer

  
29-12-2023  
PremKumar  
[Authorized Signatory]

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## Test Report

Document QF : 2501

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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312220855 <b>Sample Reg. Date</b> :22-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291119 <b>NABL ULR No.</b> :TC592623000014674F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
---	--

e.	Ammonia(NH <sub>3</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25):2018	400 Max	32.34
f.	Lead(As Pb),µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	1.0 Max	BLQ (LOQ:0.1)
g.	Mercury(as Hg), µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	Not Specified	BLQ (LOQ:0.1)
<b>2. Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>					
a.	Ozone(O <sub>3</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	100 Max.	23.78
b.	Carbon Monoxide(CO),mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	2 Max.	1.2
<b>3. Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>					
a.	Benzene(C <sub>6</sub> H <sub>6</sub> ),µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	5 Max	BLQ(LOQ:1.0)
b.	Benzo(a) Pyrene Particulate Phase only,ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	1 Max	BLQ(LOQ:0.5)
c.	Arsenic(as As),ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	6 Max.	BLQ (LOQ:1.0)
d.	Nickel(As Ni),ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	20 Max.	BLQ (LOQ:1.0)

'#' represents Customer Defined Fields

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAQQS 2009.  
Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :**\*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End Of Report\*\*\*\*\*



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
PremKumar  
[Authorized Signatory]

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Document QF : 2501

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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312220856 <b>Sample Reg. Date</b> :22-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291123 <b>NABL ULR No.</b> :TC592623000014677F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
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<b>Test Report as per :</b>	: NAAQS 2009
<b>Sampling Information :</b>	
Location of Sampling Point	: Near Loco Shed (AAQMS-2)
Date of Monitoring	: 18-12-2023
Time of Monitoring	: 14:20 hrs
Purpose of Monitoring	: For Self Monitoring
Duration of Monitoring,minutes	: 1440
Avg. Flow Rate of Sampling,m3/min	: 1.25
Volume of air sampled,m3	: 1800.00
Avg. Ambient Temperature,°C	: 28

Description					
Description	Ambient Air Quality Monitoring				
S.No.	Parameters	Instrument	Method	Specification	Result
1.	Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)				
a.	Sulphur Dioxide(SO <sub>2</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	80 Max	11.26
b.	Nitrogen Dioxide(NO <sub>2</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	80 Max	26.31
c.	Particulate Matter (PM <sub>10</sub> ),µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	100 Max	87.33
d.	Particulate matter (PM 2.5),µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	60 Max	46.72



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
PremKumar  
[Authorized Signatory]

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## Test Report

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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312220856 <b>Sample Reg. Date</b> :22-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291123 <b>NABL ULR No.</b> :TC592623000014677F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
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e.	Ammonia(NH <sub>3</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25):2018	400 Max	36.70
f.	Lead(As Pb),µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	1.0 Max	BLQ (LOQ:0.1)
g.	Mercury(as Hg), µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	Not Specified	BLQ (LOQ:0.1)
<b>2. Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>					
a.	Ozone(O <sub>3</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	100 Max.	25.55
b.	Carbon Monoxide(CO),mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	2 Max.	1.3
<b>3. Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>					
a.	Benzene(C <sub>6</sub> H <sub>6</sub> ),µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	5 Max	BLQ(LOQ:1.0)
b.	Benzo(a) Pyrene Particulate Phase only,ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	1 Max	BLQ(LOQ:0.5)
c.	Arsenic(as As),ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	6 Max.	BLQ (LOQ:1.0)
d.	Nickel(As Ni),ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	20 Max.	BLQ (LOQ:1.0)

'#' represents Customer Defined Fields

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAQSS 2009.  
Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :**\*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End Of Report\*\*\*\*\*



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
PremKumar  
[Authorized Signatory]

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## Test Report

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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312220857 <b>Sample Reg. Date</b> :22-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291115 <b>NABL ULR No.</b> :TC592623000014675F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
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<b>Test Report as per :</b>	: NAAQS 2009
<b>Sampling Information :</b>	
Location of Sampling Point	: Near Storm Water Sump (AAQMS-3)
Date of Monitoring	: 19-12-2023
Time of Monitoring	: 15:30 hrs
Purpose of Monitoring	: For Self Monitoring
Duration of Monitoring, minutes	: 1440
Avg. Flow Rate of Sampling, m <sup>3</sup> /min	: 1.27
Volume of air sampled, m <sup>3</sup>	: 1828.80
Avg. Ambient Temperature, °C	: 19

Description					
Description	Ambient Air Quality Monitoring				
S.No.	Parameters	Instrument	Method	Specification	Result
1.	Ambient Air Quality Parameters (Time weighted Avg- 24 Hours)				
a.	Sulphur Dioxide(SO <sub>2</sub> ), µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	80 Max	10.28
b.	Nitrogen Dioxide(NO <sub>2</sub> ), µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	80 Max	20.33
c.	Particulate Matter (PM <sub>10</sub> ), µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	100 Max	88.53
d.	Particulate matter (PM 2.5), µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	60 Max	41.67



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
Prem Kumar  
[Authorized Signatory]

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## Test Report

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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312220857 <b>Sample Reg. Date</b> :22-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291115 <b>NABL ULR No.</b> :TC592623000014675F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
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e.	Ammonia(NH <sub>3</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25):2018	400 Max	31.71
f.	Lead(As Pb),µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	1.0 Max	BLQ (LOQ:0.1)
g.	Mercury(as Hg), µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	Not Specified	BLQ (LOQ:0.1)
<b>2. Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>					
a.	Ozone(O <sub>3</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	100 Max.	22.48
b.	Carbon Monoxide(CO),mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	2 Max.	1.2
<b>3. Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>					
a.	Benzene(C <sub>6</sub> H <sub>6</sub> ),µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	5 Max	BLQ(LOQ:1.0)
b.	Benzo(a) Pyrene Particulate Phase only,ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	1 Max	BLQ(LOQ:0.5)
c.	Arsenic(as As),ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	6 Max.	BLQ (LOQ:1.0)
d.	Nickel(As Ni),ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	20 Max.	BLQ (LOQ:1.0)

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**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAQQS 2009.  
Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :**\*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End Of Report\*\*\*\*\*



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
PremKumar  
[Authorized Signatory]

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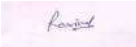
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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312220858 <b>Sample Reg. Date</b> :22-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291124 <b>NABL ULR No.</b> :TC592623000014680F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
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<b>Test Report as per :</b>	: NAAQS 2009
<b>Sampling Information :</b>	
Location of Sampling Point	: Near Switch Yard (AAQMS-4)
Date of Monitoring	: 19-12-2023
Time of Monitoring	: 15:45 hrs
Purpose of Monitoring	: For Self Monitoring
Duration of Monitoring, minutes	: 1440
Avg. Flow Rate of Sampling, m <sup>3</sup> /min	: 1.25
Volume of air sampled, m <sup>3</sup>	: 1800.00
Avg. Ambient Temperature, °C	: 19

Description					
Description		Ambient Air Quality Monitoring			
S.No.	Parameters	Instrument	Method	Specification	Result
1.	Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)				
a.	Sulphur Dioxide(SO <sub>2</sub> ), µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	80 Max	13.62
b.	Nitrogen Dioxide(NO <sub>2</sub> ), µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	80 Max	29.39
c.	Particulate Matter (PM <sub>10</sub> ), µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	100 Max	90.61
d.	Particulate matter (PM 2.5), µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	60 Max	48.40

  
Ravinder Kumar  
29-12-2023  
Reviewer

  
29-12-2023  
Prem Kumar  
[Authorized Signatory]

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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312220858 <b>Sample Reg. Date</b> :22-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291124 <b>NABL ULR No.</b> :TC592623000014680F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
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e.	Ammonia(NH <sub>3</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25):2018	400 Max	30.56
f.	Lead(As Pb),µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	1.0 Max	BLQ (LOQ:0.1)
g.	Mercury(as Hg), µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	Not Specified	BLQ (LOQ:0.1)
<b>2. Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>					
a.	Ozone(O <sub>3</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	100 Max.	26.86
b.	Carbon Monoxide(CO),mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	2 Max.	1.3
<b>3. Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>					
a.	Benzene(C <sub>6</sub> H <sub>6</sub> ),µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	5 Max	BLQ(LOQ:1.0)
b.	Benzo(a) Pyrene Particulate Phase only,ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	1 Max	BLQ(LOQ:0.5)
c.	Arsenic(as As),ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	6 Max.	BLQ (LOQ:1.0)
d.	Nickel(As Ni),ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	20 Max.	BLQ (LOQ:1.0)

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**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAQQS 2009.  
Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :**\*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End Of Report\*\*\*\*\*



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
PremKumar  
[Authorized Signatory]

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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312230879 <b>Sample Reg. Date</b> :23-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291138 <b>NABL ULR No.</b> :TC592623000014729F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
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<b>Test Report as per :</b>	: NAAQS 2009
<b>Sampling Information :</b>	
Location of Sampling Point	: Dadumajra
Date of Monitoring	: 21-12-2023
Time of Monitoring	: 15:35 hrs
Purpose of Monitoring	: For Self Monitoring
Duration of Monitoring,minutes	: 1440
Avg. Flow Rate of Sampling,m3/min	: 1.26
Volume of air sampled,m3	: 1814.40
Avg. Ambient Temperature,°C	: 20

Description					
Description	Ambient Air Quality Monitoring				
S.No.	Parameters	Instrument	Method	Specification	Result
1.	Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)				
a.	Sulphur Dioxide(SO <sub>2</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	80 Max	8.25
b.	Nitrogen Dioxide(NO <sub>2</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	80 Max	18.67
c.	Particulate Matter (PM <sub>10</sub> ),µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	100 Max	82.34
d.	Particulate matter (PM 2.5),µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	60 Max	39.56



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
PremKumar  
[Authorized Signatory]

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Panchkula-134109 (Haryana)  
Phone : (O) 0172-2561543, 2565825  
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## Test Report

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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312230879 <b>Sample Reg. Date</b> :23-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291138 <b>NABL ULR No.</b> :TC592623000014729F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
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e.	Ammonia(NH <sub>3</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25):2018	400 Max	28.93
f.	Lead(As Pb),µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	1.0 Max	BLQ (LOQ:0.1)
g.	Mercury(as Hg), µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	Not Specified	BLQ (LOQ:0.1)
<b>2. Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>					
a.	Ozone(O <sub>3</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	100 Max.	21.76
b.	Carbon Monoxide(CO),mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	2 Max.	1.3
<b>3. Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>					
a.	Benzene(C <sub>6</sub> H <sub>6</sub> ),µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	5 Max	BLQ(LOQ1.0)
b.	Benzo(a) Pyrene Particulate Phase only,ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	1 Max	BLQ(LOQ:0.5)
c.	Arsenic(as As),ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	6 Max.	BLQ (LOQ:1.0)
d.	Nickel(As Ni),ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	20 Max.	BLQ (LOQ:1.0)

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**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAQSS 2009.  
Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :**\*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End Of Report\*\*\*\*\*

  
Ravinder Kumar  
29-12-2023  
Reviewer

  
29-12-2023  
PremKumar  
[Authorized Signatory]

**Interstellar Testing Centre Pvt. Ltd.**  
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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312230880 <b>Sample Reg. Date</b> :23-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291139 <b>NABL ULR No.</b> :TC592623000014724F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
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<b>Test Report as per :</b>	: NAAQS 2009
<b>Sampling Information :</b>	
Location of Sampling Point	: Salempur
Date of Monitoring	: 21-12-2023
Time of Monitoring	: 14:30 hrs
Purpose of Monitoring	: For Self Monitoring
Duration of Monitoring,minutes	: 1440
Avg. Flow Rate of Sampling,m3/min	: 1.28
Volume of air sampled,m3	: 1843.20
Avg. Ambient Temperature,°C	: 20

<b>Description</b>					
Description	Ambient Air Quality Monitoring				
S.No.	Parameters	Instrument	Method	Specification	Result
1.	<b>Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>				
a.	Sulphur Dioxide(SO <sub>2</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	80 Max	14.70
b.	Nitrogen Dioxide(NO <sub>2</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	80 Max	21.89
c.	Particulate Matter (PM <sub>10</sub> ),µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	100 Max	86.37
d.	Particulate matter (PM 2.5),µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	60 Max	40.40



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
PremKumar  
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Panchkula-134109 (Haryana)  
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Email : customersupport@itclabs.com  
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## Test Report

Document QF : 2501

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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312230880 <b>Sample Reg. Date</b> :23-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291139 <b>NABL ULR No.</b> :TC592623000014724F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
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e.	Ammonia(NH <sub>3</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25):2018	400 Max	31.82
f.	Lead(As Pb),µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	1.0 Max	BLQ (LOQ:0.1)
g.	Mercury(as Hg), µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	Not Specified	BLQ (LOQ:0.1)
<b>2. Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>					
a.	Ozone(O <sub>3</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	100 Max.	23.66
b.	Carbon Monoxide(CO),mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	2 Max.	1.4
<b>3. Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>					
a.	Benzene(C <sub>6</sub> H <sub>6</sub> ),µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	5 Max	BLQ(LOQ1.0)
b.	Benzo(a) Pyrene Particulate Phase only,ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	1 Max	BLQ(LOQ:0.5)
c.	Arsenic(as As),ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	6 Max.	BLQ (LOQ:1.0)
d.	Nickel(As Ni),ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	20 Max.	BLQ (LOQ:1.0)


'#' represents Customer Defined Fields

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAQSS 2009.  
Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :**\*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End Of Report\*\*\*\*\*

  
Ravinder Kumar  
29-12-2023  
Reviewer

  
29-12-2023  
PremKumar  
[Authorized Signatory]

**Interstellar Testing Centre Pvt. Ltd.**  
86, Industrial Area, Phase-1, Panchkula-134109 (Haryana)  
Panchkula-134109 (Haryana)  
Phone : (O) 0172-2561543, 2565825  
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## Test Report

Document QF : 2501

Page 1 of 2

<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312230881 <b>Sample Reg. Date</b> :23-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291140 <b>NABL ULR No.</b> :TC592623000014730F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
---	--

<b>Test Report as per :</b>	: NAAQS 2009
<b>Sampling Information :</b>	
Location of Sampling Point	: Dabholi
Date of Monitoring	: 21-12-2023
Time of Monitoring	: 16:25 hrs
Purpose of Monitoring	: For Self Monitoring
Duration of Monitoring, minutes	: 1440
Avg. Flow Rate of Sampling, m <sup>3</sup> /min	: 1.25
Volume of air sampled, m <sup>3</sup>	: 1800.00
Avg. Ambient Temperature, °C	: 20

Description					
Description		Ambient Air Quality Monitoring			
S.No.	Parameters	Instrument	Method	Specification	Result
1.	Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)				
a.	Sulphur Dioxide(SO <sub>2</sub> ), µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	80 Max	16.31
b.	Nitrogen Dioxide(NO <sub>2</sub> ), µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	80 Max	29.57
c.	Particulate Matter (PM <sub>10</sub> ), µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	100 Max	90.56
d.	Particulate matter (PM 2.5), µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	60 Max	45.45



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
Prem Kumar  
[Authorized Signatory]

### Interstellar Testing Centre Pvt. Ltd.

86, Industrial Area, Phase-1, Panchkula-134109 (Haryana)  
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Document QF : 2501

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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312230881 <b>Sample Reg. Date</b> :23-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291140 <b>NABL ULR No.</b> :TC592623000014730F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
---	--

e.	Ammonia(NH <sub>3</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25):2018	400 Max	27.62
f.	Lead(As Pb),µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	1.0 Max	BLQ (LOQ:0.1)
g.	Mercury(as Hg), µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	Not Specified	BLQ (LOQ:0.1)
<b>2. Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>					
a.	Ozone(O <sub>3</sub> ),µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	100 Max.	21.86
b.	Carbon Monoxide(CO),mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	2 Max.	1.2
<b>3. Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>					
a.	Benzene(C <sub>6</sub> H <sub>6</sub> ),µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	5 Max	BLQ(LOQ1.0)
b.	Benzo(a) Pyrene Particulate Phase only,ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	1 Max	BLQ(LOQ:0.5)
c.	Arsenic(as As),ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	6 Max.	BLQ (LOQ:1.0)
d.	Nickel(As Ni),ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	20 Max.	BLQ (LOQ:1.0)

'#' represents Customer Defined Fields

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAQQS 2009.  
Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :**\*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End Of Report\*\*\*\*\*



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
PremKumar  
[Authorized Signatory]

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**Test Report**  
**Report No. :** ICE-2404020073  
**ULR No. :** TC592624000005866F

**ORIGINAL**  
Page 1 of 2

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403150590

Sample Name : Ambient Air

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 11.03.2024, Location: Near NDTC (AAQMS-1)

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /Anand Kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. on Date of Sampling: 11.03.2024, Location: Near NDTC (AAQMS-1)

Test Report as per : NAAQS 2009

Received On : 15-03-2024

Commenced On : 15-03-2024

Completed On : 21-03-2024

Date of Report : 02-04-2024

Grade : NA

Date of Expiry : NA

**S. No. Sampling Information:**

- |     |                                     |                       |
|-----|-------------------------------------|-----------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring |
| (b) | Location of Sampling Point          | : Near NDTC (AAQMS-1) |
| (c) | Date of Monitoring                  | : 11-03-2024          |
| (d) | Duration of Monitoring , minutes    | : 1440                |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.27                |
| (f) | Volume of air sampled , m3          | : 1828.80             |
| (g) | Avg. Ambient Temperature , °C       | : 27                  |
| (h) | Time of Monitoring                  | : 12:30 hrs           |

**Description: Ambient Air Quality Monitoring**

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	10.46	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	16.39	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	90.32	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	42.51	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	26.35	400 Max



02/04/2024  
**Vikrant Saini**  
Verified by



02/04/2024  
**Prem Kumar**  
Authorised by

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## Test Report

Report No. : ICE-2404020073

ULR No. : TC592624000005866F

**ORIGINAL**  
Page 2 of 2



7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	22.35	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.2	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



02/04/2024

**Vikrant Saini**

Verified by



02/04/2024

**Prem Kumar**

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**Test Report**  
**Report No. :** ICE-2404020072  
**ULR No. :** TC592624000005865F

**ORIGINAL**  
Page 1 of 2

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403150591

Sample Name : Ambient Air

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 11.03.2024, Location: Near Loco Shed (AAQMS-2)

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /Anand Kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. on Date of Sampling: 11.03.2024, Location: Near Loco Shed (AAQMS-2)

Test Report as per : NAAQS 2009

Received On : 15-03-2024

Commenced On : 15-03-2024

Completed On : 21-03-2024

Date of Report : 02-04-2024

Grade : NA

Date of Expiry : NA

**S. No. Sampling Information:**

- |   |                            |
|---|----------------------------|
| (a) Purpose of Monitoring               | : For Self Monitoring      |
| (b) Location of Sampling Point          | : Near Loco Shed (AAQMS-2) |
| (c) Date of Monitoring                  | : 11-03-2024               |
| (d) Duration of Monitoring , minutes    | : 1440                     |
| (e) Avg. Flow Rate of Sampling , m3/min | : 1.27                     |
| (f) Volume of air sampled , m3          | : 1828.80                  |
| (g) Avg. Ambient Temperature , °C       | : 27                       |
| (h) Time of Monitoring                  | : 12:45 hrs                |

**Description: Ambient Air Quality Monitoring**

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	12.35	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	22.47	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	88.63	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	40.40	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	27.58	400 Max



02/04/2024  
**Vikrant Saini**  
Verified by



02/04/2024  
**Prem Kumar**  
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## Test Report

Report No. : ICE-2404020072

ULR No. : TC592624000005865F

**ORIGINAL**  
Page 2 of 2



7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	24.57	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.4	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



02/04/2024

Vikrant Saini

Verified by



02/04/2024

Prem Kumar

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**Test Report**  
**Report No. :** ICE-2404020074  
**ULR No. :** TC592624000005867F

**ORIGINAL**  
Page 1 of 2

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403150592

Sample Name : Ambient Air

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 12.03.2024, Location: Near Storm Water Sump (AAQMS-3)

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /Anand Kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. on Date of Sampling: 12.03.2024, Location: Near Storm Water Sump (AAQMS-3)

Test Report as per : NAAQS 2009

Received On : 15-03-2024

Commenced On : 15-03-2024

Completed On : 21-03-2024

Date of Report : 02-04-2024

Grade : NA

Date of Expiry : NA

**S. No. Sampling Information:**

- |   |                                   |
|---|-----------------------------------|
| (a) Purpose of Monitoring               | : For Self Monitoring             |
| (b) Location of Sampling Point          | : Near Storm Water Sump (AAQMS-3) |
| (c) Date of Monitoring                  | : 12-03-2024                      |
| (d) Duration of Monitoring , minutes    | : 1440                            |
| (e) Avg. Flow Rate of Sampling , m3/min | : 1.26                            |
| (f) Volume of air sampled , m3          | : 1814.40                         |
| (g) Avg. Ambient Temperature , °C       | : 27                              |
| (h) Time of Monitoring                  | : 13:30 hrs                       |

**Description: Ambient Air Quality Monitoring**

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	8.36	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	19.33	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	86.49	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	38.72	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	29.28	400 Max



02/04/2024  
**Vikrant Saini**  
Verified by



02/04/2024  
**Prem Kumar**  
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**Interstellar Testing Centre PVT. LTD.**

86, Industrial Area, Phase-1, Panchkula-134109 (Haryana)

Panchkula-134109 (Haryana)

Phone : (O) 0172-2561543, 2565825

Email : customersupport@itclabs.com

Visit us : www.itclabs.com



## Test Report

Report No. : ICE-2404020074

ULR No. : TC592624000005867F

**ORIGINAL**  
Page 2 of 2



7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	25.56	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.3	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



02/04/2024

Vikrant Saini

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Prem Kumar

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**Test Report**  
**Report No. :** ICE-2404020069  
**ULR No. :** TC592624000005862F

**ORIGINAL**  
Page 1 of 2

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403150593

Sample Name : Ambient Air

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 12.03.2024, Location: Near Switch  
Yard (AAQMS-4)

Date of Manufacture : NA

Received On : 15-03-2024

Commenced On : 15-03-2024

Completed On : 21-03-2024

Date of Report : 02-04-2024

Sample Submission Type : Sampled by ITC /Anand Kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. on Date of Sampling: 12.03.2024, Location: Near Switch Yard (AAQMS-4)

Test Report as per : NAAQS 2009

Date of Expiry : NA

**S. No. Sampling Information:**

- |     |                                     |                              |
|-----|-------------------------------------|------------------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring        |
| (b) | Location of Sampling Point          | : Near Switch Yard (AAQMS-4) |
| (c) | Date of Monitoring                  | : 12-03-2024                 |
| (d) | Duration of Monitoring , minutes    | : 1440                       |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.27                       |
| (f) | Volume of air sampled , m3          | : 1828.80                    |
| (g) | Avg. Ambient Temperature , °C       | : 27                         |
| (h) | Time of Monitoring                  | : 13:15 hrs                  |

**Description: Ambient Air Quality Monitoring**

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	9.66	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	23.65	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	87.62	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	37.46	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	28.32	400 Max



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## Test Report

Report No. : ICE-2404020069

ULR No. : TC592624000005862F

**ORIGINAL**  
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7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	23.49	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.3	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



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## Test Report

**Report No. :** ICE-2404020068

**ULR No. :** TC592624000005861F

**ORIGINAL**  
Page 1 of 2



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403190726

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 14.03.2024, Location: Dabhali

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC Lab /Jitesh kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. on Date of Sampling: 14.03.2024, Location: Dabhali

Test Report as per : NAAQS 2009

Received On : 19-03-2024

Commenced On : 19-03-2024

Completed On : 27-03-2024

Date of Report : 02-04-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

(a)	Purpose of Monitoring	: For Self Monitoring
(b)	Location of Sampling Point	: Dabhali
(c)	Date of Monitoring	: 14-03-2024
(d)	Duration of Monitoring , minutes	: 1440
(e)	Avg. Flow Rate of Sampling , m3/min	: 1.27
(f)	Volume of air sampled , m3	: 1828.80
(g)	Avg. Ambient Temperature , °C	: 29
(h)	Time of Monitoring	: 13:30 hrs

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					
(I)	<b>Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>					
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	13.74	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	27.47	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	85.62	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	45.45	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	26.39	400 Max
7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified



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## Test Report

Report No. : ICE-2404020068

ULR No. : TC592624000005861F



TC-5926

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(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	22.47	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.4	2 Max.
(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ: 1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



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## Test Report

**Report No. :** ICE-2404020070

**ULR No. :** TC592624000005863F

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Page 1 of 2



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403190727

Sample Name : Ambient Air

Sample Condition : Good

Received On : 19-03-2024

Commenced On : 19-03-2024

Completed On : 27-03-2024

Date of Report : 02-04-2024

### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 14.03.2024, Location: Dadumajra

Grade : NA

Date of Manufacture : NA

Date of Expiry : NA

Sample Submission Type : Sampled by ITC Lab /Jitesh kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. on Date of Sampling: 14.03.2024, Location: Dadumajra

Test Report as per : NAAQS 2009

### S. No. Sampling Information:

(a)	Purpose of Monitoring	: For Self Monitoring
(b)	Location of Sampling Point	: Dadumajra
(c)	Date of Monitoring	: 14-03-2024
(d)	Duration of Monitoring , minutes	: 1440
(e)	Avg. Flow Rate of Sampling , m3/min	: 1.26
(f)	Volume of air sampled , m3	: 1814.40
(g)	Avg. Ambient Temperature , °C	: 29
(h)	Time of Monitoring	: 12:30 hrs

### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					
(I)	<b>Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>					
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	11.25	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	23.37	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	79.28	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	42.51	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	27.63	400 Max
7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified



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## Test Report

Report No. : ICE-2404020070

ULR No. : TC592624000005863F



TC-5926

**ORIGINAL**  
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(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	23.50	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.3	2 Max.
(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ: 1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

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## Test Report

Report No. : ICE-2404020067

ULR No. : TC592624000005860F

**ORIGINAL**  
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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403190728

Sample Name : Ambient Air

Sample Condition : Good

Received On : 19-03-2024

Commenced On : 18-03-2024

Completed On : 27-03-2024

Date of Report : 02-04-2024

### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 14.03.2024, Location: Salempur

Grade : NA

Date of Manufacture : NA

Date of Expiry : NA

Sample Submission Type : Sampled by ITC Lab /Jitesh kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. on Date of Sampling: 14.03.2024, Location: Salempur

Test Report as per : NAAQS 2009

### S. No. Sampling Information:

(a)	Purpose of Monitoring	: For Self Monitoring
(b)	Location of Sampling Point	: Salempur
(c)	Date of Monitoring	: 14-03-2024
(d)	Duration of Monitoring , minutes	: 1440
(e)	Avg. Flow Rate of Sampling , m3/min	: 1.29
(f)	Volume of air sampled , m3	: 1857.60
(g)	Avg. Ambient Temperature , °C	: 29
(h)	Time of Monitoring	: 14:30 hrs

### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					
(I)	<b>Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>					
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	9.29	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	20.35	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	88.42	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	45.45	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	28.31	400 Max
7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified



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## Test Report

Report No. : ICE-2404020067

ULR No. : TC592624000005860F



**ORIGINAL**  
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(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	26.41	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.2	2 Max.
(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ: 1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

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## Test Report

**Report No. :** ICE-2406291752

**ULR No. :** TC592624000011449F

**ORIGINAL**  
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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2406211506

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 17.06.2024, Location: Near NDTC (AAQMS-1)

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Anand Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Date of Sampling: 17.06.2024, Location: Near NDTC (AAQMS-1)

Test Report as per : NAAQS 2009

Received On : 21-06-2024

Commenced On : 21-06-2024

Completed On : 27-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                       |
|-----|-------------------------------------|-----------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring |
| (b) | Location of Sampling Point          | : Near NDTC (AAQMS-1) |
| (c) | Date of Monitoring                  | : 17-06-24            |
| (d) | Duration of Monitoring , minutes    | : 1440                |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.26                |
| (f) | Volume of air sampled , m3          | : 1814.40             |
| (g) | Avg. Ambient Temperature , °C       | : 40                  |
| (h) | Time of Monitoring                  | : 11:30 hrs           |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	9.25	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	17.44	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	88.56	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	48.61	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	28.99	400 Max



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## Test Report

Report No. : ICE-2406291752

ULR No. : TC592624000011449F

**ORIGINAL**  
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7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	25.33	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.3	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAQPS 2009. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 17-06-2024.

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

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## Test Report

Report No. : ICE-2406291751

ULR No. : TC592624000011448F

**ORIGINAL**  
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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2406211507

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 17.06.2024, Location: Near Loco Shed (AAQMS-2)

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Anand Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Date of Sampling: 17.06.2024, Location: Near Loco Shed (AAQMS-2)

Test Report as per : NAAQS 2009

Received On : 21-06-2024

Commenced On : 21-06-2024

Completed On : 28-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                                 |
|-----|-------------------------------------|---------------------------------|
| (a) | Purpose of Monitoring               | : To assess the pollution level |
| (b) | Location of Sampling Point          | : Near Loco Shed                |
| (c) | Date of Monitoring                  | : 17-06-2024                    |
| (d) | Duration of Monitoring , minutes    | : 1440                          |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.24                          |
| (f) | Volume of air sampled , m3          | : 1785.60                       |
| (g) | Avg. Ambient Temperature , °C       | : 40                            |
| (h) | Time of Monitoring                  | : 11:50 hrs                     |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	11.23	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	20.37	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	92.35	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	50.08	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	27.39	400 Max



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## Test Report

Report No. : ICE-2406291751

ULR No. : TC592624000011448F

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7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	24.57	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.2	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAQQS 2009. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 17-06-2024.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

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**Test Report**  
**Report No. :** ICE-2406291750  
**ULR No. :** TC592624000011447F

**ORIGINAL**  
Page 1 of 2

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2406211508

Sample Name : Ambient Air

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 18.06.2024, Location: Near Storm Water Pump (AAQMS-3)

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Anand Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Date of Sampling: 18.06.2024, Location: Near Storm Water Pump (AAQMS-3)

Test Report as per : NAAQS 2009

Received On : 21-06-2024

Commenced On : 21-06-2024

Completed On : 28-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

**S. No. Sampling Information:**

- |     |                                     |                                 |
|-----|-------------------------------------|---------------------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring           |
| (b) | Location of Sampling Point          | : Near Storm Water Pump (AAQMS) |
| (c) | Date of Monitoring                  | : 18-06-2024                    |
| (d) | Duration of Monitoring , minutes    | : 1440                          |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.25                          |
| (f) | Volume of air sampled , m3          | : 1800.00                       |
| (g) | Avg. Ambient Temperature , °C       | : 41                            |
| (h) | Time of Monitoring                  | : 13:50 hrs                     |

**Description: Ambient Air Quality Monitoring**

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	8.24	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	13.55	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	86.98	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	44.19	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	26.85	400 Max

  
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## Test Report

Report No. : ICE-2406291750

ULR No. : TC592624000011447F

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Page 2 of 2



7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	22.13	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.2	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAQPS 2009. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 18-06-2024.

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

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**Test Report**  
**Report No. :** ICE-2406291749  
**ULR No. :** TC592624000011446F

**ORIGINAL**  
Page 1 of 2

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2406211509

Sample Name : Ambient Air

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 18.06.2024, Location: Near Switch Yard (AAQMS-4)

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Anand Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Date of Sampling: 18.06.2024, Location: Near Switch Yard (AAQMS-4)

Test Report as per : NAAQS 2009

Received On : 21-06-2024

Commenced On : 21-06-2024

Completed On : 28-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

**S. No. Sampling Information:**

- |     |                                     |                            |
|-----|-------------------------------------|----------------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring      |
| (b) | Location of Sampling Point          | : Near Switch Yard (AAQMS) |
| (c) | Date of Monitoring                  | : 18-06-2024               |
| (d) | Duration of Monitoring , minutes    | : 1440                     |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.24                     |
| (f) | Volume of air sampled , m3          | : 1785.60                  |
| (g) | Avg. Ambient Temperature , °C       | : 41                       |
| (h) | Time of Monitoring                  | : 13:05 hrs                |

**Description: Ambient Air Quality Monitoring**

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	13.24	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	23.51	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	90.23	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	46.30	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	32.11	400 Max



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## Test Report

Report No. : ICE-2406291749

ULR No. : TC592624000011446F

**ORIGINAL**  
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7	Mercury(as Hg)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-9): 2019	23.12	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.3	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C6H6)	µg/m3	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m3	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAQPS 2009. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 18-06-2024.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



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## Test Report

**Report No. :** ICE-2406291758

**ULR No. :** TC592624000011455F

**ORIGINAL**  
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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2406241697

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in Poly Pack & in Vials

Batch No./QR Code : Date of Sampling: 20-06-2024, Location: Dabhali

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Date of Sampling: 20-06-2024, Location: Dabhali

Test Report as per : NAAQS 2009

Received On : 24-06-2024

Commenced On : 24-06-2024

Completed On : 29-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                       |
|-----|-------------------------------------|-----------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring |
| (b) | Location of Sampling Point          | : Dabhali             |
| (c) | Date of Monitoring                  | : 20-06-2024          |
| (d) | Duration of Monitoring , minutes    | : 1440                |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.24                |
| (f) | Volume of air sampled , m3          | : 1785.60             |
| (g) | Avg. Ambient Temperature , °C       | : 37                  |
| (h) | Time of Monitoring                  | : 17:00 hrs           |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	10.24	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	26.54	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	78.45	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	46.04	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	29.78	400 Max
7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified



29/06/2024

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## Test Report

Report No. : ICE-2406291758

ULR No. : TC592624000011455F

**ORIGINAL**  
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(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	24.59	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.3	2 Max.
(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1:0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAQPS 2009. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 20-06-2024.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



29/06/2024

Vikrant Saini

Verified by



29/06/2024

Prem Kumar

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## Test Report

**Report No. :** ICE-2406291765

**ULR No. :** TC592624000011476F

**ORIGINAL**  
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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2406241698

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in Poly Pack & in Vials

Batch No./QR Code : Date of Sampling: 20-06-2024, Location: Dadu Majra

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Date of Sampling: 20-06-2024, Location: Dadu Majra

Test Report as per : NAAQS 2009

Received On : 24-06-2024

Commenced On : 24-06-2024

Completed On : 29-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

(a)	Purpose of Monitoring	: For Self Monitoring
(b)	Location of Sampling Point	: Dadu Majra
(c)	Date of Monitoring	: 20-06-2024
(d)	Duration of Monitoring , minutes	: 1440
(e)	Avg. Flow Rate of Sampling , m3/min	: 1.91
(f)	Volume of air sampled , m3	: 2743.20
(g)	Avg. Ambient Temperature , °C	: 37
(h)	Time of Monitoring	: 17:45 hrs

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					
(I)	<b>Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>					
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	8.56	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	17.54	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	82.28	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	48.99	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	23.79	400 Max
7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified



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## Test Report

Report No. : ICE-2406291765

ULR No. : TC592624000011476F



TC-5926

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(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	23.12	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.4	2 Max.
(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1:0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAQSS 2009. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 20-06-2024.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



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## Test Report

**Report No. :** ICE-2406291757

**ULR No. :** TC592624000011454F

**ORIGINAL**  
Page 1 of 2



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2406241699

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in Poly Pack & in Vials

Batch No./QR Code : Date of Sampling: 20-06-2024, Location: Salempur

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Date of Sampling: 20-06-2024, Location: Salempur

Test Report as per : NAAQS 2009

Received On : 24-06-2024

Commenced On : 24-06-2024

Completed On : 29-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

(a)	Purpose of Monitoring	: For Self Monitoring
(b)	Location of Sampling Point	: Salempur
(c)	Date of Monitoring	: 20-06-2024
(d)	Duration of Monitoring , minutes	: 1440
(e)	Avg. Flow Rate of Sampling , m3/min	: 1.26
(f)	Volume of air sampled , m3	: 1814.40
(g)	Avg. Ambient Temperature , °C	: 38
(h)	Time of Monitoring	: 16:10 hrs

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					
(I)	<b>Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>					
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	9.87	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	21.54	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	88.74	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	49.83	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	28.84	400 Max
7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified



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## Test Report

Report No. : ICE-2406291757

ULR No. : TC592624000011454F

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(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	25.54	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.2	2 Max.
(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1:0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAQPS 2009. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 20-06-2024.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



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## TEST REPORT

Report No. : ICE-2409301743

ULR No. : TC592624000018706F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409140530

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 09.09.2024, Location: Near NDTC (AAQMS-1)

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ravi Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. on 09.09.2024, Location: Near NDTC (AAQMS-1)

Test Report as per : NAAQS 2009

Received On : 14-09-2024

Commenced On : 14-09-2024

Completed On : 24-09-2024

Date of Report : 30-09-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                       |
|-----|-------------------------------------|-----------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring |
| (b) | Location of Sampling Point          | : Near NDTC (AAQMS-1) |
| (c) | Date of Monitoring                  | : 09-09-2024          |
| (d) | Duration of Monitoring , minutes    | : 1440                |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.21                |
| (f) | Volume of air sampled , m3          | : 1742.40             |
| (g) | Avg. Ambient Temperature , °C       | : 34                  |
| (h) | Time of Monitoring                  | : 11:20 hrs           |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
Discipline : Chemical						
Group : Atmospheric Pollution						
(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)						
1	Sulphur Dioxide(SO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-2): 2017	6.14	80 Max
2	Nitrogen Dioxide(NO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-6): 2017	18.17	80 Max
3	Particulate Matter (PM10)	µg/m3	Gravimetric	IS: 5182 (P-23): 2017	61.22	100 Max
4	Particulate matter (PM 2.5)	µg/m3	Gravimetric	IS: 5182 (P-24)-2019	24.41	60 Max
5	Lead(As Pb)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-25): 2018	BLQ(LOQ:20)	400 Max

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## TEST REPORT

Report No. : ICE-2409301743

ULR No. : TC592624000018706F

7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	BLQ(LOQ:20)	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.2	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



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## TEST REPORT

Report No. : ICE-2409301755

ULR No. : TC592624000018718F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409140531

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 09.09.2024, Location: Near Loco Shed (AAQMS-2)

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ravi Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. on 09.09.2024, Location: Near Loco Shed (AAQMS-2)

Test Report as per : NAAQS 2009

Received On : 14-09-2024

Commenced On : 14-09-2024

Completed On : 24-09-2024

Date of Report : 30-09-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                            |
|-----|-------------------------------------|----------------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring      |
| (b) | Location of Sampling Point          | : Near Loco Shed (AAQMS-2) |
| (c) | Date of Monitoring                  | : 09-09-2024               |
| (d) | Duration of Monitoring , minutes    | : 1440                     |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.26                     |
| (f) | Volume of air sampled , m3          | : 1814.40                  |
| (g) | Avg. Ambient Temperature , °C       | : 34                       |
| (h) | Time of Monitoring                  | : 11:10 hrs                |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
Discipline : Chemical						
Group : Atmospheric Pollution						
(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)						
1	Sulphur Dioxide(SO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-2): 2017	5.14	80 Max
2	Nitrogen Dioxide(NO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-6): 2017	13.20	80 Max
3	Particulate Matter (PM10)	µg/m3	Gravimetric	IS: 5182 (P-23): 2017	68.26	100 Max
4	Particulate matter (PM 2.5)	µg/m3	Gravimetric	IS: 5182 (P-24)-2019	26.09	60 Max
5	Lead(As Pb)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-25): 2018	BLQ(LOQ:20)	400 Max

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## TEST REPORT

Report No. : ICE-2409301755

ULR No. : TC592624000018718F



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**ORIGINAL**  
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7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	BLQ(LOQ:20)	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.3	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

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## TEST REPORT

Report No. : ICE-2409301759

ULR No. : TC592624000018723F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409140532

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 10.09.2024, Location: Near Storm Water Pump (AAQMS-3)

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ravi Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. on 10.09.2024, Location: Near Storm Water Pump (AAQMS-3)

Test Report as per : NAAQS 2009

Received On : 14-09-2024

Commenced On : 14-09-2024

Completed On : 24-09-2024

Date of Report : 30-09-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                                   |
|-----|-------------------------------------|-----------------------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring             |
| (b) | Location of Sampling Point          | : Near Storm Water Pump (AAQMS-3) |
| (c) | Date of Monitoring                  | : 10-09-2024                      |
| (d) | Duration of Monitoring , minutes    | : 1440                            |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.23                            |
| (f) | Volume of air sampled , m3          | : 1771.20                         |
| (g) | Avg. Ambient Temperature , °C       | : 33                              |
| (h) | Time of Monitoring                  | : 11:58 hrs                       |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
Discipline : Chemical						
Group : Atmospheric Pollution						
(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)						
1	Sulphur Dioxide(SO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-2): 2017	6.16	80 Max
2	Nitrogen Dioxide(NO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-6): 2017	14.23	80 Max
3	Particulate Matter (PM10)	µg/m3	Gravimetric	IS: 5182 (P-23): 2017	65.28	100 Max
4	Particulate matter (PM 2.5)	µg/m3	Gravimetric	IS: 5182 (P-24)-2019	29.04	60 Max
5	Lead(As Pb)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-25): 2018	BLQ(LOQ:20)	400 Max

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## TEST REPORT

Report No. : ICE-2409301759

ULR No. : TC592624000018723F



7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	BLQ(LOQ:20)	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	BLQ(LOQ:1.14)	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



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## TEST REPORT

Report No. : ICE-2409301754

ULR No. : TC592624000018717F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409140533

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 10.09.2024, Location: Near Switch Yard (AAQMS-4)

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ravi Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. on 10.09.2024, Location: Near Switch Yard (AAQMS-4)

Test Report as per : NAAQS 2009

Received On : 14-09-2024

Commenced On : 14-09-2024

Completed On : 24-09-2024

Date of Report : 30-09-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                              |
|-----|-------------------------------------|------------------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring        |
| (b) | Location of Sampling Point          | : Near Switch Yard (AAQMS-4) |
| (c) | Date of Monitoring                  | : 10-09-2024                 |
| (d) | Duration of Monitoring , minutes    | : 1440                       |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.25                       |
| (f) | Volume of air sampled , m3          | : 1800.00                    |
| (g) | Avg. Ambient Temperature , °C       | : 32                         |
| (h) | Time of Monitoring                  | : 11:40 hrs                  |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
Discipline : Chemical						
Group : Atmospheric Pollution						
(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)						
1	Sulphur Dioxide(SO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-2): 2017	7.10	80 Max
2	Nitrogen Dioxide(NO2)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-6): 2017	16.27	80 Max
3	Particulate Matter (PM10)	µg/m3	Gravimetric	IS: 5182 (P-23): 2017	63.28	100 Max
4	Particulate matter (PM 2.5)	µg/m3	Gravimetric	IS: 5182 (P-24)-2019	32.14	60 Max
5	Lead(As Pb)	µg/m3	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH3)	µg/m3	UV-Spectrophotometer	IS: 5182 (P-25): 2018	BLQ(LOQ:20)	400 Max

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## TEST REPORT

Report No. : ICE-2409301754

ULR No. : TC592624000018717F



7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified
<b>(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)</b>						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	BLQ(LOQ:20)	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.4	2 Max.
<b>(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)</b>						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS** : \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

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## TEST REPORT

Report No. : ICE-2409301761

ULR No. : TC592624000018725F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409140534

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 11.09.2024, Location: Salempur

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ravi Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. on 11.09.2024, Location: Salempur

Test Report as per : NAAQS 2009

Received On : 14-09-2024

Commenced On : 14-09-2024

Completed On : 24-09-2024

Date of Report : 30-09-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |   |                       |
|---|-----------------------|
| (a) Purpose of Monitoring               | : For Self Monitoring |
| (b) Location of Sampling Point          | : Salempur            |
| (c) Date of Monitoring                  | : 11-09-2024          |
| (d) Duration of Monitoring , minutes    | : 1440                |
| (e) Avg. Flow Rate of Sampling , m3/min | : 1.24                |
| (f) Volume of air sampled , m3          | : 1785.60             |
| (g) Avg. Ambient Temperature , °C       | : 33                  |
| (h) Time of Monitoring                  | : 14:05 hrs           |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	8.16	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	15.14	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	70.24	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	30.30	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	BLQ(LOQ:20)	400 Max
7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified

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## TEST REPORT

Report No. : ICE-2409301761

ULR No. : TC592624000018725F



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**ORIGINAL**  
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(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	BLQ(LOQ:20)	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.2	2 Max.
(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



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## TEST REPORT

Report No. : ICE-2409301752

ULR No. : TC592624000018715F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2409140535

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 11.09.2024, Location: Dadu Majra

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ravi Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. on 11.09.2024, Location: Dadu Majra

Test Report as per : NAAQS 2009

Received On : 14-09-2024

Commenced On : 14-09-2024

Completed On : 24-09-2024

Date of Report : 30-09-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- |     |                                     |                       |
|-----|-------------------------------------|-----------------------|
| (a) | Purpose of Monitoring               | : For Self Monitoring |
| (b) | Location of Sampling Point          | : Dadu Majra          |
| (c) | Date of Monitoring                  | : 11-09-2024          |
| (d) | Duration of Monitoring , minutes    | : 1440                |
| (e) | Avg. Flow Rate of Sampling , m3/min | : 1.27                |
| (f) | Volume of air sampled , m3          | : 1828.80             |
| (g) | Avg. Ambient Temperature , °C       | : 33                  |
| (h) | Time of Monitoring                  | : 12:15 hrs           |

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Atmospheric Pollution</b>						
<b>(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)</b>						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	11.15	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	18.14	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	69.24	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	23.15	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	BLQ(LOQ:20)	400 Max
7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified

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## TEST REPORT

Report No. : ICE-2409301752

ULR No. : TC592624000018715F



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**ORIGINAL**  
Page 2 of 2

(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	BLQ(LOQ:20)	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.3	2 Max.
(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



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## TEST REPORT

Report No. : ICE-2409301751

ULR No. : TC592624000018714F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409140536

Sample Name : Ambient Air

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 FP, 2x30ml, 2x10ml

Packaging Mode : Packed in poly pack & in vials

Batch No./QR Code : Date of Sampling: 11.09.2024, Location: Dabhali

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ravi Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. on 11.09.2024, Location: Dabhali

Test Report as per : NAAQS 2009

Received On : 14-09-2024

Commenced On : 14-09-2024

Completed On : 24-09-2024

Date of Report : 30-09-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- (a) Purpose of Monitoring : For Self Monitoring  
(b) Location of Sampling Point : Dabhali  
(c) Date of Monitoring : 11-09-2024  
(d) Duration of Monitoring , minutes : 1440  
(e) Avg. Flow Rate of Sampling , m3/min : 1.24  
(f) Volume of air sampled , m3 : 1785.60  
(g) Avg. Ambient Temperature , °C : 33  
(h) Time of Monitoring : 12:30 hrs

#### Description: Ambient Air Quality Monitoring

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
Discipline : Chemical						
Group : Atmospheric Pollution						
(I) Ambient Air Quality Parameters(Time weighted Avg- 24 Hours)						
1	Sulphur Dioxide(SO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-2): 2017	10.09	80 Max
2	Nitrogen Dioxide(NO <sub>2</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-6): 2017	17.25	80 Max
3	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-23): 2017	72.16	100 Max
4	Particulate matter (PM 2.5)	µg/m <sup>3</sup>	Gravimetric	IS: 5182 (P-24)-2019	35.35	60 Max
5	Lead(As Pb)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.1)	1.0 Max
6	Ammonia(NH <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-25): 2018	BLQ(LOQ:20)	400 Max
7	Mercury(as Hg)	µg/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:0.01)	Not Specified

30/09/2024

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## TEST REPORT

Report No. : ICE-2409301751

ULR No. : TC592624000018714F



(II) Ambient Air Quality Parameters(Time weighted Avg- 8 Hours)						
1	Ozone(O <sub>3</sub> )	µg/m <sup>3</sup>	UV-Spectrophotometer	IS: 5182 (P-9): 2019	BLQ(LOQ:20)	100 Max.
2	Carbon Monoxide(CO)	mg/m <sup>3</sup>	GC	IS: 5182 (P-10): 2019	1.4	2 Max.
(III) Ambient Air Quality Parameters(Time weighted Avg- Annual*)						
1	Benzene(C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	GC	IS: 5182 (P-11): 2017	BLQ(LOQ:1.0)	5 Max
2	Benzo(a) Pyrene Particulate Phase only	ng/m <sup>3</sup>	GCMSMS	IS: 5182 (P-12): 2019	BLQ(LOQ:0.5)	1 Max
3	Arsenic(as As)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	6 Max.
4	Nickel(As Ni)	ng/m <sup>3</sup>	ICPOES	STP/ITC/EW/002	BLQ(LOQ:1.0)	20 Max.

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per NAAQS 2009. Sampling Procedure: SOP/ITC/EW/056.

**REMARKS :** \*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

\*\*\*\*\*End of Report\*\*\*\*\*



30/09/2024  
Vikrant Saini  
Verified by



30/09/2024  
Prem Kumar  
Authorised by

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86, Industrial Area, Phase-1, Panchkula-134109 (Haryana)

Panchkula-134109 (Haryana)

Phone : (O) 0172-2561543, 2565825

Email : customersupport@itclabs.com

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## Test Report

Document QF : 2501

Page 1 of 3

<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312250933 <b>Sample Reg. Date</b> :25-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291122 <b>NABL ULR No.</b> :TC592623000014685F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
---	--

<b>Test Report as per :</b>	: EPA-1986, PCLS/02/2021
<b>Sampling Information :</b>	
Date of Monitoring	: 20-12-2023
Time of Monitoring	: 14:20 to 15:08 hrs
Name of the emission source monitored	: Stack Emission of Boiler
Rated Capacity	: 2322 Ton
Capacity on sampling day	: -do-
Type of fuel used & its consumption	: Coal
Normal operating schedule	: 24 hrs
Stack Identification	: Stack attached to Boiler Unit-1 (2322 Ton)
Type of Stack/Duct	: Metal
Stack Height from Ground Level(m)	: 275
Diameter of the Stack(cm)	: 750
Sampling Duration(minutes)	: 48
Purpose of Monitoring	: For Self Monitoring
Air Pollution control measure	: ESPs
Status	: Working
Recovery of Material	: -
Fugitive Emission,if any	: Nil
<b>Observations :</b>	



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
PremKumar  
[Authorized Signatory]

### Interstellar Testing Centre Pvt. Ltd.

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## Test Report

Document QF : 2501

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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312250933 <b>Sample Reg. Date</b> :25-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291122 <b>NABL ULR No.</b> :TC592623000014685F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
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Flue Gas Temperature, °C,Avg.	: 113
Flue Gas Velocity(m/s),Avg.	: 23.13
Volumetric Flow Rate(Nm <sup>3</sup> /hr.)	: 2752663.80
Ambient Air Temperature, °C	: 20

S.No.	Parameters	Instrument	Method	Specification	Result
	<b>Discipline : Chemical</b>				
	<b>Group : Atmospheric Pollution</b>				
<b>1.</b>	<b>General Parameters</b>				
a.	Particulate Matter, mg/Nm <sup>3</sup> (Corrected to 6% O <sub>2</sub> on dry basis)	Gravimetric	IS:11255(P-1)	Max. 50	44.36
b.	Sulphur Dioxide (SO <sub>2</sub> ), mg/Nm <sup>3</sup> (Corrected to 6% O <sub>2</sub> on dry basis)	Titration	IS:11255(P-2)	Max. 200	887.64
c.	Oxides of Nitrogen (NO <sub>x</sub> ), mg/Nm <sup>3</sup> (Corrected to 6% O <sub>2</sub> on dry basis)	UV-Spectrophotometer	IS:11255(P-7)	Max. 450	264.17
d.	Mercury(As Hg),mg/Nm <sup>3</sup>	ICPOES	USEPA Method	Max. 0.03	BLQ(LOQ:0.01)
e.	Carbon Monoxide(CO),% v/v	Orsat Apparatus	IS:13270	Max. 1.0	0.2
f.	Carbon Dioxide (CO <sub>2</sub> ), %	Orsat Apparatus	IS:13270	Not Specified	11.4

'#' represents Customer Defined Fields

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per EPA ACT 1986/PCLS/02/2021, Sample Collected by lab rep. on dated 20-12-2023, Sampling Procedure : SOP/ITC/EW/056.

**REMARKS :**N/A



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
Prem Kumar  
[Authorized Signatory]

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## Test Report

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---	--

\*\*\*\*\*End Of Report\*\*\*\*\*



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
Prem Kumar  
[Authorized Signatory]

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## Test Report

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<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312250934 <b>Sample Reg. Date</b> :25-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291108 <b>NABL ULR No.</b> :TC592623000014678F <b>Customer Ref. No.:</b> PO <b>Letter Dated</b> :25.11.2022
---	--

<b>Test Report as per :</b>	: EPA-1986, PCLS/02/2021
<b>Sampling Information :</b>	
Date of Monitoring	: 20-12-2023
Time of Monitoring	: 15:15 to 16:03 hrs
Name of the emission source monitored	: Stack Emission of Boiler
Rated Capacity	: 2322 Ton
Capacity on sampling day	: -do-
Type of fuel used & its consumption	: Coal
Normal operating schedule	: 24 hrs
Stack Identification	: Stack attached to Boiler Unit-2 (2322 Ton)
Type of Stack/Duct	: Metal
Stack Height from Ground Level(m)	: 275
Diameter of the Stack(cm)	: 750
Sampling Duration(minutes)	: 48
Purpose of Monitoring	: For Self Monitoring
Air Pollution control measure	: ESPs
Status	: Working
Recovery of Material	: -
Fugitive Emission,if any	: Nil
<b>Observations :</b>	



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
PremKumar  
[Authorized Signatory]

### Interstellar Testing Centre Pvt. Ltd.

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## Test Report

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---	--

Flue Gas Temperature, °C,Avg.	: 115
Flue Gas Velocity(m/s),Avg.	: 22.25
Volumetric Flow Rate(Nm <sup>3</sup> /hr.)	: 2634287.27
Ambient Air Temperature, °C	: 20

S.No.	Parameters	Instrument	Method	Specification	Result
	<b>Discipline : Chemical</b>				
	<b>Group : Atmospheric Pollution</b>				
<b>1.</b>	<b>General Parameters</b>				
a.	Particulate Matter, mg/Nm <sup>3</sup> (Corrected to 6% O <sub>2</sub> on dry basis)	Gravimetric	IS:11255(P-1)	Max. 50	42.19
b.	Sulphur Dioxide (SO <sub>2</sub> ), mg/Nm <sup>3</sup> (Corrected to 6% O <sub>2</sub> on dry basis)	Titration	IS:11255(P-2)	Max. 200	1090.43
c.	Oxides of Nitrogen (NO <sub>x</sub> ), mg/Nm <sup>3</sup> (Corrected to 6% O <sub>2</sub> on dry basis)	UV-Spectrophotometer	IS:11255(P-7)	Max. 450	291.02
d.	Mercury(As Hg),mg/Nm <sup>3</sup>	ICPOES	USEPA Method	Max. 0.03	BLQ(LOQ:0.01)
e.	Carbon Monoxide(CO),% v/v	Orsat Apparatus	IS:13270	Max. 1.0	0.2
f.	Carbon Dioxide (CO <sub>2</sub> ), %	Orsat Apparatus	IS:13270	Not Specified	10.8

'#' represents Customer Defined Fields

**NOTE :** NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per EPA ACT 1986/PCLS/02/2021, Sample Collected by lab rep. on dated 20-12-2023, Sampling Procedure : SOP/ITC/EW/056.

**REMARKS :**N/A



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
Prem Kumar  
[Authorized Signatory]

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## Test Report

Document QF : 2501

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---	--

\*\*\*\*\*End Of Report\*\*\*\*\*



Ravinder Kumar  
29-12-2023  
Reviewer



29-12-2023  
Prem Kumar  
[Authorized Signatory]

### Interstellar Testing Centre Pvt. Ltd.

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**Test Report**  
**Report No. :** ICE-2404090230  
**ULR No. :** TC592624000006180F

**ORIGINAL**  
Page 1 of 2

## Issued To :

### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403190724

Sample Name : Stack Boiler

Sample Condition : Good

### Sample Details (if any)

Sample Quantity : 1 Thimble, 30ml, 25ml

Packaging Mode : Packed in vials

Batch No./QR Code : Date of Sampling: 13.03.2024, Boiler Unit-1

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC Lab /Anand Kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. on Date of Sampling: 13.03.2024, Boiler Unit-1

Test Report as per : EPA-1986, PCLS/02/2021

Received On : 19-03-2024

Commenced On : 19-03-2024

Completed On : 06-04-2024

Date of Report : 09-04-2024

Grade : NA

Date of Expiry : NA

### S. No. Sampling Information:

- |     |                                       |                                     |
|-----|---------------------------------------|-------------------------------------|
| (a) | Name of the emission source monitored | : Stack Emission of Boiler          |
| (b) | Rated Capacity                        | : 2322 Ton                          |
| (c) | Capacity on sampling day              | : -do-                              |
| (d) | Type of fuel used & its consumption   | : Coal                              |
| (e) | Normal operating schedule             | : 24 hrs                            |
| (f) | Stack Identification                  | : Stack attached to Boiler (Unit-1) |
| (g) | Type of Stack/Duct                    | : Metal                             |
| (h) | Stack Height from Ground Level , m    | : 275                               |
| (i) | Diameter of the Stack , cm            | : 750                               |
| (j) | Sampling Duration , minutes           | : 48                                |
| (k) | Purpose of Monitoring                 | : For Self Monitoring               |
| (l) | Air Pollution control measure         | : ESPs                              |
| (m) | Status                                | : Working                           |
| (n) | Recovery of Material                  | : -                                 |
| (o) | Fugitive Emission, if any             | : Nil                               |
| (p) | Date of Monitoring                    | : 13-03-2024                        |
| (q) | Time of Monitoring                    | : 16:05 to 17:53 hrs`               |

### Observations:

- |     |                                |              |
|-----|--------------------------------|--------------|
| (r) | Flue Gas Temperature , °C Avg. | : 118        |
| (s) | Flue Gas Velocity , m/s Avg.   | : 22.46      |
| (t) | Volumetric Flow Rate , Nm3/hr. | : 2610104.40 |
| (u) | Ambient Air Temperature , °C   | : 27         |

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					



09/04/2024

**Vikrant Saini**

Verified by



09/04/2024

**Prem Kumar**

Authorised by

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## Test Report

**Report No.** : ICE-2404090230

**ULR No.** : TC592624000006180F

**ORIGINAL**  
Page 2 of 2



(I)	General Parameters					
1	Carbon Monoxide(CO)	% v/v	Orsat Apparatus	IS:13270	0.2	Max. 1.0
2	Mercury(as Hg)	mg/Nm3	ICPOES	USEPA Method	BLQ(LOQ:0.01)	Max. 0.03
3	Carbon Dioxide (CO2)	%	Orsat Apparatus	IS:13270	11.6	Not Specified
4	Particulate Matter(Corrected to 6% O2 on dry basis)	mg/Nm3	Gravimetric	IS:11255(P-1)	45.26	Max. 50
5	Sulphur Dioxide(SO2)(Corrected to 6% O2 on dry basis)	mg/Nm3	Titration	IS:11255(P-2)	932.84	Max. 200
6	Oxides of Nitrogen (NOx)(Corrected to 6% O2 on dry basis)	mg/Nm3	UV-Spectrophotometer	IS:11255(P-7)	256.25	Max. 450

**NOTE** : NA- Not Applicable. BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per EPA-1986, PCLS/02/2021. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 13-03-2024.

**REMARKS** : See Note

\*\*\*\*\*End of Report\*\*\*\*\*



09/04/2024

**Vikrant Saini**

Verified by



09/04/2024

**Prem Kumar**

Authorised by

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**Test Report**  
**Report No. :** ICE-2404090229  
**ULR No. :** TC592624000006179F

**ORIGINAL**  
Page 1 of 2

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403190725

Sample Name : Stack Boiler

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 1 Thimble, 30ml, 25ml

Packaging Mode : Packed in vials

Batch No./QR Code : Date of Sampling: 13.03.2024, Boiler Unit-2

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC Lab /Anand Kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. on Date of Sampling: 13.03.2024, Boiler Unit-2

Test Report as per : EPA-1986, PCLS/02/2021

Received On : 19-03-2024

Commenced On : 19-03-2024

Completed On : 06-04-2024

Date of Report : 09-04-2024

Grade : NA

Date of Expiry : NA

**S. No. Sampling Information:**

- (a) Name of the emission source monitored : Stack Emission of Boiler  
(b) Rated Capacity : 2322 Ton  
(c) Capacity on sampling day : -do-  
(d) Type of fuel used & its consumption : Coal  
(e) Normal operating schedule : 24 hrs  
(f) Stack Identification : Stack attached to Boiler (Unit-2)  
(g) Type of Stack/Duct : Metal  
(h) Stack Height from Ground Level , m : 275  
(i) Diameter of the Stack , cm : 750  
(j) Sampling Duration , minutes : 48  
(k) Purpose of Monitoring : For Self Monitoring  
(l) Air Pollution control measure : ESPs  
(m) Status : Working  
(n) Recovery of Material : -  
(o) Fugitive Emission, if any : Nil  
(p) Date of Monitoring : 13-03-2024  
(q) Time of Monitoring : 16:55 to 17:43 hrs

**Observations:**

- (r) Flue Gas Temperature , °C Avg. : 122  
(s) Flue Gas Velocity , m/s Avg. : 22.27  
(t) Volumetric Flow Rate , Nm<sup>3</sup>/hr. : 2561816.43  
(u) Ambient Air Temperature , °C : 27

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					



09/04/2024  
**Vikrant Saini**  
Verified by



09/04/2024  
**Prem Kumar**  
Authorised by

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## Test Report

**Report No.** : ICE-2404090229

**ULR No.** : TC592624000006179F

**ORIGINAL**  
Page 2 of 2



(I)	General Parameters					
1	Carbon Monoxide(CO)	% v/v	Orsat Apparatus	IS:13270	0.2	Max. 1.0
2	Mercury(as Hg)	mg/Nm3	ICPOES	USEPA Method	BLQ(LOQ:0.01)	Max. 0.03
3	Carbon Dioxide (CO2)	%	Orsat Apparatus	IS:13270	12.2	Not Specified
4	Particulate Matter(Corrected to 6% O2 on dry basis)	mg/Nm3	Gravimetric	IS:11255(P-1)	47.48	Max. 50
5	Sulphur Dioxide(SO2)(Corrected to 6% O2 on dry basis)	mg/Nm3	Titration	IS:11255(P-2)	1244.69	Max. 200
6	Oxides of Nitrogen (NOx)(Corrected to 6% O2 on dry basis)	mg/Nm3	UV-Spectrophotometer	IS:11255(P-7)	228.26	Max. 450

**NOTE** : NA- Not Applicable. BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per EPA-1986, PCLS/02/2021. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 13-03-2024.

**REMARKS** : See Note

\*\*\*\*\*End of Report\*\*\*\*\*



09/04/2024

**Vikrant Saini**

Verified by



09/04/2024

**Prem Kumar**

Authorised by

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**Test Report**  
**Report No. :** ICE-2406291746  
**ULR No. :** TC592624000011443F

**ORIGINAL**  
Page 1 of 2

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2406241700

Sample Name : Stack Boiler

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 1 Thimble, 30ml, 25ml

Packaging Mode : Packed in Vials

Batch No./QR Code : Date of Sampling: 18-06-2024, Boiler-1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Anand Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Date of Sampling: 18-06-2024, Boiler-1

Test Report as per : EPA-1986, PCLS/02/2021

Received On : 24-06-2024

Commenced On : 24-06-2024

Completed On : 26-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

**S. No. Sampling Information:**

- (a) Name of the emission source monitored : Stack Emission of Boiler-1  
(b) Rated Capacity : 2322 Ton  
(c) Capacity on sampling day : -do-  
(d) Type of fuel used & its consumption : Coal  
(e) Normal operating schedule : 24 hrs  
(f) Stack Identification : Stack Attached to Boiler-1  
(g) Type of Stack/Duct : Metal  
(h) Stack Height from Ground Level , m : 275  
(i) Diameter of the Stack , cm : 750  
(j) Sampling Duration , minutes : 48  
(k) Purpose of Monitoring : For Self Monitoring  
(l) Air Pollution control measure : ESPs  
(m) Status : Working  
(n) Recovery of Material : -  
(o) Fugitive Emission, if any : Nil  
(p) Date of Monitoring : 18-06-2024  
(q) Time of Monitoring : 16:00 hrs

**Observations:**

- (r) Flue Gas Temperature , °C Avg. : 141  
(s) Flue Gas Velocity , m/s Avg. : 22.54  
(t) Volumetric Flow Rate , Nm3/hr. : 2429763.19  
(u) Ambient Air Temperature , °C : 45

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					



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## Test Report

Report No. : ICE-2406291746

ULR No. : TC592624000011443F

**ORIGINAL**  
Page 2 of 2



(I)	General Parameters					
1	Carbon Monoxide(CO)	% v/v	Orsat Apparatus	IS:13270	46.23	Max. 1.0
2	Mercury(as Hg)	mg/Nm3	ICPOES	USEPA Method	BLQ(LOQ:0.01)	Max. 0.03
3	Carbon Dioxide (CO2)	%	Orsat Apparatus	IS:13270	14.4	Not Specified
4	Particulate Matter(Corrected to 6% O2 on dry basis)	mg/Nm3	Gravimetric	IS:11255(P-1)	46.23	Max. 50
5	Sulphur Dioxide(SO2)(Corrected to 6% O2 on dry basis)	mg/Nm3	Titration	IS:11255(P-2)	1046.18	Max. 200
6	Oxides of Nitrogen (NOx)(Corrected to 6% O2 on dry basis)	mg/Nm3	UV-Spectrophotometer	IS:11255(P-7)	204.18	Max. 450

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Requirement as per EPA-1986, PCLS/02/2021. Sampling Procedure : SOP/ITC/EW/056. Sample Collected by lab rep. on 18-06-2024.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



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**Test Report**  
**Report No. :** ICE-2406291745  
**ULR No. :** TC592624000011442F

**ORIGINAL**  
Page 1 of 2

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2406241702

Sample Name : Stack Boiler

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 1 Thimble, 30ml, 25ml

Packaging Mode : Packed in Vials

Batch No./QR Code : Date of Sampling: 18-06-2024, Boiler Unit-2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Anand Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Date of Sampling: 18-06-2024, Boiler Unit-2

Test Report as per : EPA-1986, PCLS/02/2021

Received On : 24-06-2024

Commenced On : 24-06-2024

Completed On : 26-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

**S. No. Sampling Information:**

- (a) Name of the emission source monitored : Stack Emission of Boiler Unit-2  
(b) Rated Capacity : 2322 Ton  
(c) Capacity on sampling day : -do-  
(d) Type of fuel used & its consumption : Coal  
(e) Normal operating schedule : 24 hrs  
(f) Stack Identification : Stack Attached To Boiler Unit-2  
(g) Type of Stack/Duct : Metal  
(h) Stack Height from Ground Level , m : 275  
(i) Diameter of the Stack , cm : 750  
(j) Sampling Duration , minutes : 48  
(k) Purpose of Monitoring : For Self Monitoring  
(l) Air Pollution control measure : ESPs  
(m) Status : Working  
(n) Recovery of Material : -  
(o) Fugitive Emission, if any : Nil  
(p) Date of Monitoring : 18-06-2024  
(q) Time of Monitoring : 17:00 to 17:48 hrs

**Observations:**

- (r) Flue Gas Temperature , °C Avg. : 148  
(s) Flue Gas Velocity , m/s Avg. : 22.71  
(t) Volumetric Flow Rate , Nm3/hr. : 2407384.26  
(u) Ambient Air Temperature , °C : 45

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					



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## Test Report

**Report No.** : ICE-2406291745

**ULR No.** : TC592624000011442F



TC-5926

**ORIGINAL**  
Page 2 of 2

(I)	General Parameters					
1	Carbon Monoxide(CO)	% v/v	Orsat Apparatus	IS:13270	0.2	Max. 1.0
2	Mercury(as Hg)	mg/Nm3	ICPOES	USEPA Method	BLQ(LOQ:0.01)	Max. 0.03
3	Carbon Dioxide (CO2)	%	Orsat Apparatus	IS:13270	14.2	Not Specified
4	Particulate Matter(Corrected to 6% O2 on dry basis)	mg/Nm3	Gravimetric	IS:11255(P-1)	44.23	Max. 50
5	Sulphur Dioxide(SO2)(Corrected to 6% O2 on dry basis)	mg/Nm3	Titration	IS:11255(P-2)	1387.13	Max. 200
6	Oxides of Nitrogen (NOx)(Corrected to 6% O2 on dry basis)	mg/Nm3	UV-Spectrophotometer	IS:11255(P-7)	260.48	Max. 450

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Requirement as per EPA-1986, PCLS/02/2021. Sampling Procedure : SOP/ITC/EW/056. Sample Collected by lab rep. on 18-06-2024.

**REMARKS** : See Note

\*\*\*\*\*End of Report\*\*\*\*\*



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## TEST REPORT

**Report No. :** ICE-2409281705

**ULR No. :** TC592624000018659F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409140522

Sample Name : Stack Boiler

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 1 Thimble, 30ml, 25ml

Packaging Mode : Packed in vials

Batch No./QR Code : Date of Sampling: 11.09.2024, Boiler Unit-1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Anand Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. on 11.09.2024, Boiler Unit-1

Test Report as per : EPA-1986, PCLS/02/2021

Received On : 14-09-2024

Commenced On : 14-09-2024

Completed On : 18-09-2024

Date of Report : 28-09-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- (a) Name of the emission source monitored : Stack Emission of Boiler Unit-1  
(b) Rated Capacity : 2322 Ton  
(c) Capacity on sampling day : -  
(d) Type of fuel used & its consumption : Coal  
(e) Normal operating schedule : 24 hrs  
(f) Stack Identification : Stack attached to Boiler Unit-1  
(g) Type of Stack/Duct : Metal  
(h) Stack Height from Ground Level , m : 275  
(i) Diameter of the Stack , cm : 750  
(j) Sampling Duration , minutes : 24  
(k) Purpose of Monitoring : For Self Monitoring  
(l) Air Pollution control measure : ESPs  
(m) Status : Working  
(n) Recovery of Material : -  
(o) Fugitive Emission, if any : Nil  
(p) Date of Monitoring : 11-09-2024  
(q) Time of Monitoring : 11:40 to 12:14 hrs

#### Observations:

- (r) Flue Gas Temperature , °C Avg. : 122  
(s) Flue Gas Velocity , m/s Avg. : 22.46  
(t) Volumetric Flow Rate , Nm3/hr. : 2555319.90  
(u) Ambient Air Temperature , °C : 34

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					

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## TEST REPORT

Report No. : ICE-2409281705

ULR No. : TC592624000018659F



(I)	General Parameters					
1	Carbon Monoxide(CO)	% v/v	Orsat Apparatus	IS:13270	0.2	Max. 1.0
2	Mercury(as Hg)	mg/Nm3	ICPOES	USEPA Method	BLQ(LOQ:0.01)	Max. 0.03
3	Carbon Dioxide (CO2)	%	Orsat Apparatus	IS:13270	10.8	Not Specified
4	Particulate Matter(Corrected to 6% O2 on dry basis)	mg/Nm3	Gravimetric	IS:11255(P-1)	42.60	Max. 50
5	Sulphur Dioxide(SO2)(Corrected to 6% O2 on dry basis)	mg/Nm3	Titration	IS:11255(P-2)	1068.94	Max. 200
6	Oxides of Nitrogen (NOx)(Corrected to 6% O2 on dry basis)	mg/Nm3	UV-Spectrophotometer	IS:11255(P-7)	310.61	Max. 450

**NOTE :** NA- Not Applicable, , BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per EPA-1986, PCLS/02/2021. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 11-09-2024

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



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## TEST REPORT

**Report No. :** ICE-2409281706

**ULR No. :** TC592624000018660F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409140523

Sample Name : Stack Boiler

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 1 Thimble, 30ml, 25ml

Packaging Mode : Packed in vials

Batch No./QR Code : Date of Sampling: 11.09.2024, Boiler Unit-2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Anand Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Date of Sampling: 11.09.2024, Boiler Unit-2

Test Report as per : EPA-1986, PCLS/02/2021

Received On : 14-09-2024

Commenced On : 14-09-2024

Completed On : 18-09-2024

Date of Report : 28-09-2024

Grade : NA

Date of Expiry : NA

#### S. No. Sampling Information:

- (a) Name of the emission source monitored : Stack Emission of Boiler Unit-2  
(b) Rated Capacity : 2322 Ton  
(c) Capacity on sampling day : -  
(d) Type of fuel used & its consumption : Coal  
(e) Normal operating schedule : 24 hrs  
(f) Stack Identification : Stack attached to Boiler Unit-2  
(g) Type of Stack/Duct : Metal  
(h) Stack Height from Ground Level , m : 275  
(i) Diameter of the Stack , cm : 750  
(j) Sampling Duration , minutes : 24  
(k) Purpose of Monitoring : For Self Monitoring  
(l) Air Pollution control measure : ESPs  
(m) Status : Working  
(n) Recovery of Material : -  
(o) Fugitive Emission, if any : Nil  
(p) Date of Monitoring : 11-09-2024  
(q) Time of Monitoring : 12:30 to 13:04 hrs

#### Observations:

- (r) Flue Gas Temperature , °C Avg. : 124  
(s) Flue Gas Velocity , m/s Avg. : 22.91  
(t) Volumetric Flow Rate , Nm3/hr. : 2589789.32  
(u) Ambient Air Temperature , °C : 34

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					

28/09/2024

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## TEST REPORT

Report No. : ICE-2409281706

ULR No. : TC592624000018660F

(I)	General Parameters					
1	Carbon Monoxide(CO)	% v/v	Orsat Apparatus	IS:13270	0.2	Max. 1.0
2	Mercury(as Hg)	mg/Nm3	ICPOES	USEPA Method	BLQ(LOQ:0.01)	Max. 0.03
3	Carbon Dioxide (CO2)	%	Orsat Apparatus	IS:13270	11.2	Not Specified
4	Particulate Matter(Corrected to 6% O2 on dry basis)	mg/Nm3	Gravimetric	IS:11255(P-1)	45.68	Max. 50
5	Sulphur Dioxide(SO2)(Corrected to 6% O2 on dry basis)	mg/Nm3	Titration	IS:11255(P-2)	1192.31	Max. 200
6	Oxides of Nitrogen (NOx)(Corrected to 6% O2 on dry basis)	mg/Nm3	UV-Spectrophotometer	IS:11255(P-7)	284.92	Max. 450

**NOTE** : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirement as per EPA-1986, PCLS/02/2021. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 11-09-2024.

**REMARKS** : See Note

\*\*\*\*\*End of Report\*\*\*\*\*



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## TEST REPORT

**Report No.** : TR01DP-12-2501030020

**ULR No.** : TC148962500000518F



### Issued To :

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2412281379

Sample Name : Stack Boiler

Sample Condition : Good

### Sample Details (if any)

Sample Quantity : 1 Thimble, 30ml, 25ml

Packaging Mode : Packed in vials

Batch No./QR Code : Date of Sampling: 28.12.2024, Boiler Unit-1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. on: 28.12.2024, Boiler Unit-1

Test Report as per : EPA-1986, PCLS/02/2021

Received On : 28-12-2024

Commenced On : 28-12-2024

Completed On : 02-01-2025

Date of Report : 03-01-2025

Grade : NA

Date of Expiry : NA

### S. No. Sampling Information:

- (a) Name of the emission source monitored : Stack Emission of Boiler Unit-1
- (b) Rated Capacity : 2322 Ton
- (c) Capacity on sampling day : 670 MW
- (d) Type of fuel used & its consumption : Coal & 365 ton/hr
- (e) Normal operating schedule : 24 hrs
- (f) Stack Identification : Stack attached to Boiler Unit-1
- (g) Type of Stack/Duct : Metal
- (h) Stack Height from Ground Level , m : 275
- (i) Diameter of the Stack , cm : 750
- (j) Sampling Duration , minutes : 30
- (k) Purpose of Monitoring : For Self Monitoring
- (l) Air Pollution control measure : ESPs
- (m) Status : Working
- (n) Recovery of Material : -
- (o) Fugitive Emission, if any : Nil
- (p) Date of Monitoring : 28-12-2024
- (q) Time of Monitoring : 17:00 to 17:30 hrs

### Observations:

- (r) Flue Gas Temperature , °C Avg. : 119
- (s) Flue Gas Velocity , m/s Avg. : 24.00
- (t) Volumetric Flow Rate , Nm3/hr. : 2820115.98
- (u) Ambient Air Temperature , °C : 18

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					

03/01/2025

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## TEST REPORT

Report No. : TR01DP-12-2501030020

ULR No. : TC1489625000000518F



TC-14896

**ORIGINAL**

Page 2 of 2

(I)	General Parameters					
1	Carbon Monoxide(CO)	% v/v	Orsat Apparatus	IS:13270	0.2	Max. 1.0
2	Mercury(as Hg)	mg/Nm3	ICPOES	USEPA Method	BLQ(LOQ:0.01)	Max. 0.03
3	Carbon Dioxide (CO2)	%	Orsat Apparatus	IS:13270	11.2	Not Specified
4	Particulate Matter(Corrected to 6% O2 on dry basis)	mg/Nm3	Gravimetric	IS:11255(P-1)	45	Max. 50
5	Sulphur Dioxide(SO2)(Corrected to 6% O2 on dry basis)	mg/Nm3	Titration	IS:11255(P-2)	1208	Max. 200
6	Oxides of Nitrogen (NOx)(Corrected to 6% O2 on dry basis)	mg/Nm3	UV-Spectrophotometer	IS:11255(P-7)	390	Max. 450

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Requirement as per EPA-1986, PCLS/02/2021. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 28-12-2024.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



03/01/2025

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## TEST REPORT

**Report No.** : TR01DP-12-2501030019

**ULR No.** : TC1489625000000517F



### Issued To :

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2412281380

Sample Name : Stack Boiler

Sample Condition : Good

### Sample Details (if any)

Sample Quantity : 1 Thimble, 30ml, 25ml

Packaging Mode : Packed in vials

Batch No./QR Code : Date of Sampling: 28.12.2024, Boiler Unit-2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. on: 28.12.2024, Boiler Unit-2

Test Report as per : EPA-1986, PCLS/02/2021

Received On : 28-12-2024

Commenced On : 28-12-2024

Completed On : 02-01-2025

Date of Report : 03-01-2025

Grade : NA

Date of Expiry : NA

### S. No. Sampling Information:

- |     |                                       |                                   |
|-----|---------------------------------------|-----------------------------------|
| (a) | Name of the emission source monitored | : Stack Emission of Boiler Unit-2 |
| (b) | Rated Capacity                        | : 2322 Ton                        |
| (c) | Capacity on sampling day              | : 682 MW                          |
| (d) | Type of fuel used & its consumption   | : Coal & 356 ton/hr               |
| (e) | Normal operating schedule             | : 24 hrs                          |
| (f) | Stack Identification                  | : Stack attached to Boiler Unit-2 |
| (g) | Type of Stack/Duct                    | : Metal                           |
| (h) | Stack Height from Ground Level , m    | : 275                             |
| (i) | Diameter of the Stack , cm            | : 750                             |
| (j) | Sampling Duration , minutes           | : 30                              |
| (k) | Purpose of Monitoring                 | : For Self Monitoring             |
| (l) | Air Pollution control measure         | : ESPs                            |
| (m) | Status                                | : Working                         |
| (n) | Recovery of Material                  | : -                               |
| (o) | Fugitive Emission, if any             | : Nil                             |
| (p) | Date of Monitoring                    | : 28-12-2024                      |
| (q) | Time of Monitoring                    | : 18:00 to 18:30 hrs              |

### Observations:

- |     |                                |              |
|-----|--------------------------------|--------------|
| (r) | Flue Gas Temperature , °C Avg. | : 115        |
| (s) | Flue Gas Velocity , m/s Avg.   | : 23.60      |
| (t) | Volumetric Flow Rate , Nm3/hr. | : 2801702.85 |
| (u) | Ambient Air Temperature , °C   | : 18         |

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Atmospheric Pollution</b>					

03/01/2025

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## TEST REPORT

Report No. : TR01DP-12-2501030019

ULR No. : TC1489625000000517F



TC-14896  
**ORIGINAL**  
Page 2 of 2

(I)	General Parameters					
1	Carbon Monoxide(CO)	% v/v	Orsat Apparatus	IS:13270	0.2	Max. 1.0
2	Mercury(as Hg)	mg/Nm3	ICPOES	USEPA Method	BLQ(LOQ:0.01)	Max. 0.03
3	Carbon Dioxide (CO2)	%	Orsat Apparatus	IS:13270	11.6	Not Specified
4	Particulate Matter(Corrected to 6% O2 on dry basis)	mg/Nm3	Gravimetric	IS:11255(P-1)	43	Max. 50
5	Sulphur Dioxide(SO2)(Corrected to 6% O2 on dry basis)	mg/Nm3	Titration	IS:11255(P-2)	1188	Max. 200
6	Oxides of Nitrogen (NOx)(Corrected to 6% O2 on dry basis)	mg/Nm3	UV-Spectrophotometer	IS:11255(P-7)	350	Max. 450

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Requirement as per EPA-1986, PCLS/02/2021. Sampling Procedure: SOP/ITC/EW/056. Sample Collected by lab rep. on 28-12-2024.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



03/01/2025

**Vikrant Saini**  
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## Test Report

**Report No.** : ICE-2402270800 (1)

**ULR No.** : TC592624000002990F

**ORIGINAL**  
Page 1 of 1

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2402140805

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-1

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /ravi kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. Mr. Ravi on 13.02.2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-02-2024

Commenced On : 14-02-2024

Completed On : 22-02-2024

Date of Report : 27-02-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

#### Description: Liquid With Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>Organoleptic &amp; Physical Parameter</b>					
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.02	6.5-8.5 - No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16)-1984 (RA 2017)	492	500 Max. - 2000 Max.
(II)	<b>Parameters Concerning Undesirable Substances in excess amount</b>					
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	96	200 Max. - 600 Max.
(III)	<b>Parameters Concerning Toxic Substances</b>					
1	Lead(as Pb)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.002)	0.01 Max. - No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.001)	0.001 Max. - No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.002)	0.01 Max. - No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.002)	0.05 Max. - No Relaxation

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS** : See Note

\*\*\*\*\*End of Report\*\*\*\*\*



27/02/2024

Vikrant Saini

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27/02/2024

Prem Kumar

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## Test Report

Report No. : ICE-2402270800 (2)

**ORIGINAL**  
Page 1 of 1

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2402140805

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-1

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /ravi kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. Mr. Ravi on 13.02.2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-02-2024

Commenced On : 14-02-2024

Completed On : 22-02-2024

Date of Report : 27-02-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

**Description:** Liquid With Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>General Parameters</b>					
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17)-1984 (RA 2017)	2	-
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part 58) : 2017	BLQ(LOQ:4.0)	Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44) : 2019	BLQ(LOQ:1.0)	Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



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## Test Report

**Report No. :** ICE-2402270799 (1)

**ULR No. :** TC592624000002989F

**ORIGINAL**  
Page 1 of 1

### Issued To :

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2402140806

Sample Name : Ground Water

Sample Condition : Good

### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-2

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /ravi kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. Mr. Ravi on 13.02.2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-02-2024

Commenced On : 14-02-2024

Completed On : 22-02-2024

Date of Report : 27-02-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

**Description:** Liquid with Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>Organoleptic &amp; Physical Parameter</b>					
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.06	6.5-8.5 - No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16)-1984 (RA 2017)	489	500 Max. - 2000 Max.
(II)	<b>Parameters Concerning Undesirable Substances in excess amount</b>					
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	92	200 Max. - 600 Max.
(III)	<b>Parameters Concerning Toxic Substances</b>					
1	Lead(as Pb)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.002)	0.01 Max. - No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.001)	0.001 Max. - No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.002)	0.01 Max. - No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.002)	0.05 Max. - No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



27/02/2024

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27/02/2024

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## Test Report

Report No. : ICE-2402270799 (2)

**ORIGINAL**  
Page 1 of 1

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2402140806

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-2

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /ravi kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. Mr. Ravi on 13.02.2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-02-2024

Commenced On : 14-02-2024

Completed On : 22-02-2024

Date of Report : 27-02-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

**Description:** Liquid with Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>General Parameters</b>					
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17)-1984 (RA 2017)	4	-
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part 58) : 2017	BLQ(LOQ:4.0)	Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44) : 2019	BLQ(LOQ:1.0)	Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



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## Test Report

**Report No. :** ICE-2402270798 (1)

**ULR No. :** TC592624000002988F

**ORIGINAL**  
Page 1 of 1

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2402140807

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-3

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /ravi kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. Mr. Ravi on 13.02.2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-02-2024

Commenced On : 14-02-2024

Completed On : 22-02-2024

Date of Report : 27-02-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

#### Description: Liquid with Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>Organoleptic &amp; Physical Parameter</b>					
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.08	6.5-8.5 - No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16)-1984 (RA 2017)	489	500 Max. - 2000 Max.
(II)	<b>Parameters Concerning Undesirable Substances in excess amount</b>					
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	91	200 Max. - 600 Max.
(III)	<b>Parameters Concerning Toxic Substances</b>					
1	Lead(as Pb)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.002)	0.01 Max. - No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.001)	0.001 Max. - No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.002)	0.01 Max. - No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.002)	0.05 Max. - No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



27/02/2024

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27/02/2024

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## Test Report

Report No. : ICE-2402270798 (2)

**ORIGINAL**  
Page 1 of 1

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2402140807

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-3

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /ravi kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. Mr. Ravi on 13.02.2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-02-2024

Commenced On : 14-02-2024

Completed On : 22-02-2024

Date of Report : 27-02-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

**Description:** Liquid with Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>General Parameters</b>					
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17)-1984 (RA 2017)	3	-
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part 58) : 2017	BLQ(LOQ:4.0)	Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44) : 2019	BLQ(LOQ:1.0)	Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



27/02/2024

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## Test Report

**Report No. :** ICE-2402270797 (1)

**ULR No. :** TC592624000002987F

**ORIGINAL**  
Page 1 of 1

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2402140808

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-4

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /ravi kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. Mr. Ravi on 13.02.2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-02-2024

Commenced On : 14-02-2024

Completed On : 22-02-2024

Date of Report : 27-02-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

#### Description: Liquid with Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>Organoleptic &amp; Physical Parameter</b>					
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.07	6.5-8.5 - No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16)-1984 (RA 2017)	488	500 Max. - 2000 Max.
(II)	<b>Parameters Concerning Undesirable Substances in excess amount</b>					
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	90	200 Max. - 600 Max.
(III)	<b>Parameters Concerning Toxic Substances</b>					
1	Lead(as Pb)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.002)	0.01 Max. - No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.001)	0.001 Max. - No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.002)	0.01 Max. - No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ:0.002)	0.05 Max. - No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



27/02/2024

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## Test Report

Report No. : ICE-2402270797 (2)

**ORIGINAL**  
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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2402140808

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-4

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /ravi kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. Mr. Ravi on 13.02.2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-02-2024

Commenced On : 14-02-2024

Completed On : 22-02-2024

Date of Report : 27-02-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

**Description:** Liquid with Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>General Parameters</b>					
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17)-1984 (RA 2017)	5	-
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part 58) : 2017	BLQ(LOQ:4.0)	Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44) : 2019	BLQ(LOQ:1.0)	Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



27/02/2024

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27/02/2024

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## Test Report

**Report No.** : ICE-2404020102 (1)

**ULR No.** : TC592624000005916F

**ORIGINAL**  
Page 1 of 1



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403140541

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in Cans

Batch No./QR Code : Sample from Piezometer-1

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /Jitesh kumar

Customer Reference : NA

Any Other Information : Sample Collected by lab rep. Mr. Jitesh on 13-03-2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-03-2024

Commenced On : 14-03-2024

Completed On : 26-03-2024

Date of Report : 02-04-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

#### Description: Liquid With Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>Organoleptic &amp;Physical Parameter</b>					
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.21	6.5-8.5 - No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16)-1984 (RA 2017)	610	500 Max. - 2000 Max.
(II)	<b>Parameters Concerning Undesirable Substances in excess amount</b>					
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	132	200 Max. - 600 Max.
(III)	<b>Parameters Concerning Toxic Substances</b>					
1	Lead(as Pb)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.002)	0.01 Max. - No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.001)	0.001 Max. - No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.002)	0.01 Max. - No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.002)	0.05 Max. - No Relaxation

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS** : See Note

\*\*\*\*\*End of Report\*\*\*\*\*



02/04/2024

Vikrant Saini

Verified by



02/04/2024

Prem Kumar

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**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2403140541

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in Cans

Batch No./QR Code : Sample from Piezometer-1

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /Jitesh kumar

Customer Reference : NA

Any Other Information : Sample Collected by lab rep. Mr. Jitesh on 13-03-2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-03-2024

Commenced On : 14-03-2024

Completed On : 26-03-2024

Date of Report : 02-04-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

**Description:** Liquid With Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>General Parameters</b>					
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17)-1984 (RA 2017)	2	-
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part 58) : 2017	BLQ(LOQ:4.0)	Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44) : 2019	BLQ(LOQ:1.0)	Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



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## Test Report

Report No. : ICE-2404020097 (1)

ULR No. : TC592624000005911F

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### Issued To :

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2403140542

Sample Name : Ground Water

Sample Condition : Good

Received On : 14-03-2024

Commenced On : 14-03-2024

Completed On : 26-03-2024

Date of Report : 02-04-2024

### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in Cans

Batch No./QR Code : Sample from Piezometer-2

Grade : NA

Date of Manufacture : NA

Date of Expiry : NA

Sample Submission Type : Sampled by ITC /Jitesh kumar

Customer Reference : NA

Any Other Information : Sample Collected by lab rep. Mr. Anand on 13-03-2024

Test Report as per : BIS Specification IS:10500-2012

With Amendent No.(s) : 01 to 04

**Description:** Liquid Sample with Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Water</b>						
<b>(I) Organoleptic &amp; Physical Parameter</b>						
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.23	6.5-8.5 - No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16)-1984 (RA 2017)	595	500 Max. - 2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>						
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	136	200 Max. - 600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>						
1	Lead(as Pb)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.002)	0.01 Max. - No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.001)	0.001 Max. - No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.002)	0.01 Max. - No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.002)	0.05 Max. - No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



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## Test Report

Report No. : ICE-2404020097 (2)

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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403140542

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in Cans

Batch No./QR Code : Sample from Piezometer-2

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /Jitesh kumar

Customer Reference : NA

Any Other Information : Sample Collected by lab rep. Mr. Anand on 13-03-2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-03-2024

Commenced On : 14-03-2024

Completed On : 26-03-2024

Date of Report : 02-04-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

**Description:** Liquid Sample with Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>General Parameters</b>					
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17)-1984 (RA 2017)	3	-
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part 58) : 2017	BLQ(LOQ:4.0)	Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44) : 2019	BLQ(LOQ:1.0)	Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

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02/04/2024

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## Test Report

**Report No.** : ICE-2404020096 (1)  
**ULR No.** : TC592624000005910F

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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403140543

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in Cans

Batch No./QR Code : Sample from Piezometer-3

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /Jitesh kumar

Customer Reference : NA

Any Other Information : Sample Collected by lab rep. Mr. Anand on 13-03-2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-03-2024

Commenced On : 14-03-2024

Completed On : 26-03-2024

Date of Report : 02-04-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

**Description:** Liquid Sample with Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>Organoleptic &amp; Physical Parameter</b>					
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.12	6.5-8.5 - No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16)-1984 (RA 2017)	618	500 Max. - 2000 Max.
(II)	<b>Parameters Concerning Undesirable Substances in excess amount</b>					
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	130	200 Max. - 600 Max.
(III)	<b>Parameters Concerning Toxic Substances</b>					
1	Lead(as Pb)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.002)	0.01 Max. - No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.001)	0.001 Max. - No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.002)	0.01 Max. - No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.002)	0.05 Max. - No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



02/04/2024  
**Vikrant Saini**  
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02/04/2024  
**Prem Kumar**  
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## Test Report

Report No. : ICE-2404020096 (2)



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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403140543

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in Cans

Batch No./QR Code : Sample from Piezometer-3

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /Jitesh kumar

Customer Reference : NA

Any Other Information : Sample Collected by lab rep. Mr. Anand on 13-03-2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-03-2024

Commenced On : 14-03-2024

Completed On : 26-03-2024

Date of Report : 02-04-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

**Description:** Liquid Sample with Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>General Parameters</b>					
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17)-1984 (RA 2017)	2	-
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part 58) : 2017	BLQ(LOQ:4.0)	Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44) : 2019	BLQ(LOQ:1.0)	Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*

02/04/2024

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## Test Report

Report No. : ICE-2404020095 (1)

ULR No. : TC592624000005909F

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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403140544

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in Cnas

Batch No./QR Code : Sample from Piezometer-4

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /Jitesh kumar

Customer Reference : NA

Any Other Information : Sample Collected by lab rep. Mr. Jitesh on 13-03-2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-03-2024

Commenced On : 14-03-2024

Completed On : 26-03-2024

Date of Report : 02-04-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

#### Description: Liquid with Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>Organoleptic &amp; Physical Parameter</b>					
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.22	6.5-8.5 - No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16)-1984 (RA 2017)	686	500 Max. - 2000 Max.
(II)	<b>Parameters Concerning Undesirable Substances in excess amount</b>					
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	126	200 Max. - 600 Max.
(III)	<b>Parameters Concerning Toxic Substances</b>					
1	Lead(as Pb)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.002)	0.01 Max. - No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.001)	0.001 Max. - No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.002)	0.01 Max. - No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS: 3025 (P-65)-2014 (RA 2019)	BLQ(LOQ : 0.002)	0.05 Max. - No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



02/04/2024

Vikrant Saini

Verified by



02/04/2024

Prem Kumar

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**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403140544

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in Cnas

Batch No./QR Code : Sample from Piezometer-4

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /Jitesh kumar

Customer Reference : NA

Any Other Information : Sample Collected by lab rep. Mr. Jitesh on 13-03-2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 14-03-2024

Commenced On : 14-03-2024

Completed On : 26-03-2024

Date of Report : 02-04-2024

Grade : NA

Date of Expiry : NA

With Amendent No.(s) : 01 to 04

**Description:** Liquid with Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
(I)	<b>General Parameters</b>					
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17)-1984 (RA 2017)	4	-
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part 58) : 2017	BLQ(LOQ:4.0)	Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44) : 2019	BLQ(LOQ:1.0)	Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



02/04/2024

**Vikrant Saini**

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02/04/2024

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## Test Report

Report No. : ICE-2406291711 (1)

ULR No. : TC592624000011405F

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### Issued To :

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2406191279

Sample Name : Ground Water

Sample Condition : Good

Received On : 19-06-2024

Commenced On : 19-06-2024

Completed On : 24-06-2024

Date of Report : 29-06-2024

### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-1

Grade : NA

Date of Manufacture : NA

Date of Expiry : NA

Sample Submission Type : Sampled by Lab Rep /Anand Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Anand on 17.06.2024

Test Report as per : IS 10500:2012

With Amendment No.(s) : 01 to 04

**Description:** Clear colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	8.19	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	490	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	95	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ : 0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ : 0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ : 0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ : 0.002)	0.05 Max.	No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



29/06/2024

Vikrant Saini

Verified by



29/06/2024

Prem Kumar

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**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2406191279

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Anand Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Anand on 17.06.2024

Test Report as per : IS 10500:2012

Received On : 19-06-2024

Commenced On : 19-06-2024

Completed On : 24-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	<b>Discipline : Chemical</b>						
	<b>Group : Water</b>						
(I)	<b>General Parameters</b>						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



29/06/2024

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29/06/2024

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## Test Report

Report No. : ICE-2406291712 (1)

ULR No. : TC592624000011406F

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Page 1 of 1



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2406191280

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Anand Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Anand on 17.06.2024

Test Report as per : IS 10500:2012

Received On : 19-06-2024

Commenced On : 19-06-2024

Completed On : 24-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	8.30	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	495	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	97	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ : 0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ : 0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ : 0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ : 0.002)	0.05 Max.	No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



29/06/2024

Vikrant Saini

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29/06/2024

Prem Kumar

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Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2406191280

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Anand Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Anand on 17.06.2024

Test Report as per : IS 10500:2012

Received On : 19-06-2024

Commenced On : 19-06-2024

Completed On : 24-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	<b>Discipline : Chemical</b>						
	<b>Group : Water</b>						
(I)	<b>General Parameters</b>						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



29/06/2024

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## Test Report

Report No. : ICE-2406291709 (1)

ULR No. : TC592624000011403F

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### Issued To :

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2406211503

Sample Name : Ground Water

Sample Condition : Good

### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-3

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Anand on 20.06.2024

Test Report as per : IS 10500:2012

Received On : 21-06-2024

Commenced On : 21-06-2024

Completed On : 27-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	8.42	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	491	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	97	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



29/06/2024

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**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2406211503

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-3

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Anand on 20.06.2024

Test Report as per : IS 10500:2012

Received On : 21-06-2024

Commenced On : 21-06-2024

Completed On : 27-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	<b>Discipline : Chemical</b>						
	<b>Group : Water</b>						
(I)	<b>General Parameters</b>						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



29/06/2024

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## Test Report

Report No. : ICE-2406291708 (1)

ULR No. : TC592624000011402F

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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2406211504

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-4

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Anand on 20.06.2024

Test Report as per : IS 10500:2012

Received On : 21-06-2024

Commenced On : 21-06-2024

Completed On : 27-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

Description: Clear colourless liquid							
S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
(I)	<b>Organoleptic &amp; Physical Parameter</b>						
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	8.12	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	493	500 Max.	2000 Max.
(II)	<b>Parameters Concerning Undesirable Substances in excess amount</b>						
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	99	200 Max.	600 Max.
(III)	<b>Parameters Concerning Toxic Substances</b>						
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS** : See Note

\*\*\*\*\*End of Report\*\*\*\*\*



29/06/2024

Vikrant Saini

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29/06/2024

Prem Kumar

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**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2406211504

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-4

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Anand on 20.06.2024

Test Report as per : IS 10500:2012

Received On : 21-06-2024

Commenced On : 21-06-2024

Completed On : 27-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	<b>Discipline : Chemical</b>						
	<b>Group : Water</b>						
(I)	<b>General Parameters</b>						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** See Note

\*\*\*\*\*End of Report\*\*\*\*\*



29/06/2024

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## TEST REPORT

Report No. : ICE-2409281680 (1)

ULR No. : TC592624000018630F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409110379

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Jitesh on 10.09.2024

Test Report as per : IS 10500:2012

Received On : 11-09-2024

Commenced On : 11-09-2024

Completed On : 16-09-2024

Date of Report : 28-09-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** clear colorless liquid.

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.20	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	490	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	92.1	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



28/09/2024  
Vikrant Saini  
Verified by



28/09/2024  
Prem Kumar  
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## TEST REPORT

Report No. : ICE-2409281680 (2)



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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409110379

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Jitesh on 10.09.2024

Test Report as per : IS 10500:2012

Received On : 11-09-2024

Commenced On : 11-09-2024

Completed On : 16-09-2024

Date of Report : 28-09-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

Description: clear colorless liquid.

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
Discipline : Chemical							
Group : Water							
(I)	General Parameters						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

NOTE : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

REMARKS : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



28/09/2024  
Vikrant Saini  
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28/09/2024  
Prem Kumar  
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Panchkula-134109 (Haryana)

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## TEST REPORT

Report No. : ICE-2409281681 (1)

ULR No. : TC592624000018631F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409110380

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Jitesh on 10.09.2024

Test Report as per : IS 10500:2012

Received On : 11-09-2024

Commenced On : 11-09-2024

Completed On : 16-09-2024

Date of Report : 28-09-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colorless Liquid.

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.18	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	495	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	94	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



28/09/2024

Vikrant Saini

Verified by



28/09/2024

Prem Kumar

Authorised by

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## TEST REPORT

Report No. : ICE-2409281681 (2)



ORIGINAL  
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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409110380

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Jitesh on 10.09.2024

Test Report as per : IS 10500:2012

Received On : 11-09-2024

Commenced On : 11-09-2024

Completed On : 16-09-2024

Date of Report : 28-09-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colorless Liquid.

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	<b>Discipline : Chemical</b>						
	<b>Group : Water</b>						
(I)	<b>General Parameters</b>						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



28/09/2024  
Vikrant Saini  
Verified by



28/09/2024  
Prem Kumar  
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## TEST REPORT

**Report No. :** ICE-2409281679 (1)  
**ULR No. :** TC592624000018629F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409110381

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-3

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Jitesh on 10.09.2024

Test Report as per : IS 10500:2012

Received On : 11-09-2024

Commenced On : 11-09-2024

Completed On : 16-09-2024

Date of Report : 28-09-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colorless Liquid.

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.22	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	498	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	96	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



28/09/2024  
**Vikrant Saini**  
Verified by



28/09/2024  
**Prem Kumar**  
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## TEST REPORT

Report No. : ICE-2409281679 (2)



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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409110381

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-3

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Jitesh on 10.09.2024

Test Report as per : IS 10500:2012

Received On : 11-09-2024

Commenced On : 11-09-2024

Completed On : 16-09-2024

Date of Report : 28-09-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colorless Liquid.

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	<b>Discipline : Chemical</b>						
	<b>Group : Water</b>						
(I)	<b>General Parameters</b>						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



28/09/2024  
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## TEST REPORT

**Report No. :** ICE-2409281677 (1)  
**ULR No. :** TC592624000018627F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409110382

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-4

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Jitesh on 10.09.2024

Test Report as per : IS 10500:2012

Received On : 11-09-2024

Commenced On : 11-09-2024

Completed On : 16-09-2024

Date of Report : 28-09-2024

Grade : NA

Date of Expiry : NA

**Description:** Clear Colorless Liquid.

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
(I)	<b>Organoleptic &amp; Physical Parameter</b>						
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.13	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	489	500 Max.	2000 Max.
(II)	<b>Parameters Concerning Undesirable Substances in excess amount</b>						
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	90.2	200 Max.	600 Max.
(III)	<b>Parameters Concerning Toxic Substances</b>						
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



28/09/2024  
**Vikrant Saini**  
Verified by



28/09/2024  
**Prem Kumar**  
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## TEST REPORT

Report No. : ICE-2409281677 (2)



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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2409110382

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer-4

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Jitesh on 10.09.2024

Test Report as per : IS 10500:2012

Received On : 11-09-2024

Commenced On : 11-09-2024

Completed On : 16-09-2024

Date of Report : 28-09-2024

Grade : NA

Date of Expiry : NA

**Description:** Clear Colorless Liquid.

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	<b>Discipline : Chemical</b>						
	<b>Group : Water</b>						
(I)	<b>General Parameters</b>						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



28/09/2024  
**Vikrant Saini**  
Verified by



28/09/2024  
**Prem Kumar**  
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## TEST REPORT

Report No. : ICE-2412311964 (1)

ULR No. : TC1489624000000408F

TC-14896

ORIGINAL  
Page 1 of 1



### Issued To :

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2412281373

Sample Name : Ground Water

Sample Condition : Good

### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer No.1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 28.12.2024

Test Report as per : IS 10500:2012

Received On : 28-12-2024

Commenced On : 28-12-2024

Completed On : 31-12-2024

Date of Report : 31-12-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.32	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	460	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	87	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



31/12/2024

**Vikrant Saini**  
Authorised by

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## TEST REPORT

Report No. : ICE-2412311964 (2)



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### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2412281373

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer No.1

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 28.12.2024

Test Report as per : IS 10500:2012

Received On : 28-12-2024

Commenced On : 28-12-2024

Completed On : 31-12-2024

Date of Report : 31-12-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) General Parameters</b>							
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



31/12/2024

Vikrant Saini  
Authorised by

### Disclaimer :

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Legal disputes are subjected to Panchkula Jurisdiction only.

Test report in full or parts shall not be used for promotional or publicity purposes.

## TEST REPORT

Report No. : ICE-2412311963 (1)

ULR No. : TC1489624000000407F



TC-14896

ORIGINAL  
Page 1 of 1

### Issued To :

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2412281374

Sample Name : Ground Water

Sample Condition : Good

### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer No.2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 28.12.2024

Test Report as per : IS 10500:2012

Received On : 28-12-2024

Commenced On : 28-12-2024

Completed On : 31-12-2024

Date of Report : 31-12-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
(I)	<b>Organoleptic &amp; Physical Parameter</b>						
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.34	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	490	500 Max.	2000 Max.
(II)	<b>Parameters Concerning Undesirable Substances in excess amount</b>						
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	89	200 Max.	600 Max.
(III)	<b>Parameters Concerning Toxic Substances</b>						
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



31/12/2024

**Vikrant Saini**  
Authorised by

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## TEST REPORT

Report No. : ICE-2412311963 (2)



ORIGINAL  
Page 1 of 1

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2412281374

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer No.2

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 28.12.2024

Test Report as per : IS 10500:2012

Received On : 28-12-2024

Commenced On : 28-12-2024

Completed On : 31-12-2024

Date of Report : 31-12-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	<b>Discipline : Chemical</b>						
	<b>Group : Water</b>						
(I)	<b>General Parameters</b>						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



31/12/2024

Vikrant Saini  
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## TEST REPORT

Report No. : ICE-2412311962 (1)

ULR No. : TC1489624000000406F



TC-14896

ORIGINAL  
Page 1 of 1

### Issued To :

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2412281375

Sample Name : Ground Water

Sample Condition : Good

### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer No.3

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 28.12.2024

Test Report as per : IS 10500:2012

Received On : 28-12-2024

Commenced On : 28-12-2024

Completed On : 31-12-2024

Date of Report : 31-12-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.14	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	482	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	91.1	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



31/12/2024

**Vikrant Saini**  
Authorised by

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## TEST REPORT

Report No. : ICE-2412311962 (2)



**ORIGINAL**  
Page 1 of 1

**Issued To :**

**Nabha Power Limited**

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2412281375

Sample Name : Ground Water

Sample Condition : Good

**Sample Details (if any)**

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer No.3

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 28.12.2024

Test Report as per : IS 10500:2012

Received On : 28-12-2024

Commenced On : 28-12-2024

Completed On : 31-12-2024

Date of Report : 31-12-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) General Parameters</b>							
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



31/12/2024

**Vikrant Saini**  
Authorised by

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## TEST REPORT

**Report No.** : ICE-2412311961 (1)  
**ULR No.** : TC1489624000000405F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2412281376

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer No.4

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 28.12.2024

Test Report as per : IS 10500:2012

Received On : 28-12-2024

Commenced On : 28-12-2024

Completed On : 31-12-2024

Date of Report : 31-12-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.92	6.5-8.5	No relaxation
2	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	484	500 Max.	2000 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	97.5	200 Max.	600 Max.
<b>(III) Parameters Concerning Toxic Substances</b>							
1	Lead(as Pb)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No Relaxation
2	Mercury(as Hg)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.001)	0.001 Max.	No Relaxation
3	Total Arsenic( as As)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.01 Max.	No relaxation
4	Total Chromium(as Cr)	mg/l	ICPMS	IS 3025 (Part 65) : 2022	BLQ(LOQ:0.002)	0.05 Max.	No Relaxation

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



31/12/2024

**Vikrant Saini**  
Authorised by

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## TEST REPORT

Report No. : ICE-2412311961 (2)



ORIGINAL  
Page 1 of 1

### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2412281376

Sample Name : Ground Water

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : Sample from Piezometer No.4

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 28.12.2024

Test Report as per : IS 10500:2012

Received On : 28-12-2024

Commenced On : 28-12-2024

Completed On : 31-12-2024

Date of Report : 31-12-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
	<b>Discipline : Chemical</b>						
	<b>Group : Water</b>						
(I)	<b>General Parameters</b>						
1	Total Suspended Solids	mg/l	Gravimetric	IS: 3025 (P-17): 2022	<1.0		
2	Chemical Oxygen Demand	mg/l	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:4.0)		Not Specified
3	Bio-chemical Oxygen Demand,(3 days at 27°C)	mg/l	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)		Not Specified

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



31/12/2024

Vikrant Saini  
Authorised by

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## Test Report

Document OF : 2501  
Page 1 of 3

<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura	<b>Sample Reg. No.</b> :E01-2312190657 <b>Sample Reg. Date</b> :19-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291109 <b>NABL ULR No.</b> :TC592623000014672F <b>Customer Ref. No.</b> :PO <b>Letter Dated</b> :25-11-2022
<b>Test Report as per IS:</b> BIS Specification IS:10500-2012	<b>With Amendment No.(s):</b> 01 to 04
<b>PART A : PARTICULARS OF SAMPLE SUBMITTED</b>	
a) Nature of Sample #	Water Sample (Marked Surface Water)
b) Sample Condition	Good
c) Grade / Variety / Type / Class / Size etc.	NA
d) Brand Name	NA
e) Declared Values,if any	NA
f) Code No.	
g) Batch Number #	NA
h) D.O.M #	NA
i) Date of Expiry #	NA
j) Sample Quantity #	2 Ltr
k) Batch Size/Location #	NA
l) Mode of Packing	Packed in Cans
m) Date of Receipt	19-12-2023
n) Date of Start	19-12-2023
o) Date of Completion	23-12-2023
p) Seal (Intact/Not Intact/Unsealed)	NA
q) IO'S Signature (Signed/Unsigned)	Unsigned
r) Any Other Information	Sample Collected by lab rep. Mr. Jitesh on 18-12-2023

  
Vikrant  
29-12-2023  
Reviewer

  
29-12-2023  
PremKumar  
[Authorized Signatory]

### Interstellar Testing Centre Pvt. Ltd.

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Panchkula-134109 (Haryana)  
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## Test Report

Document OF : 2501  
Page 2 of 3

<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura		<b>Sample Reg. No.</b> :E01-2312190657 <b>Sample Reg. Date</b> :19-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291109 <b>NABL ULR No.</b> :TC592623000014672F <b>Customer Ref. No.</b> :PO <b>Letter Dated</b> :25-11-2022
s)	Test Request Submitted By	Nabha Power Limited-Rajpura ( Punjab )
t)	Manufactured By #	NA
u)	Supplied By #	NA

### PART B : SUPPLIMENTARY INFORMATIONS

a.	Reference to sampling procedure, whenever applicable	: N/A
b.	Supporting documents for the measurement taken and results derived like graphs, tables, sketches and / or photographs as appropriate to test reports, if any	: N/A
c.	Deviation from the test methods as prescribed in relevant ISS/WORK Instruments, if any	: N/A

### Description

Description	Clear Coilourless Liquid					
S.No.	Parameters	Instrument	Method	Acceptable Limit	Permissible Limit	Result
	<b>Discipline : Chemical</b>					
	<b>Group : Water</b>					
1.	<b>Organoleptic &amp;Physical Parameter</b>					
a.	Colour (True Colour)	Visual	IS 3025 (Part 4) : 2021	5 Max.	15 Max.	2
b.	Odour	Organoleptic	IS: 3025 (P-5)-2018	Agreeable	Agreeable	Agreeable
c.	Turbidity (NTU)	Turbidity Meter	IS:3025(Part 10):1984(RA:2017)	1 Max.	5 Max.	< 0.5
d.	pH Value	pH Meter	IS: 3025 (Part-11): 2022	6.5-8.5	No relaxation	8.30

V Saini

Vikrant  
29-12-2023  
Reviewer

PremKumar

29-12-2023  
PremKumar  
[Authorized Signatory]

### Interstellar Testing Centre Pvt. Ltd.

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## Test Report

Document OF : 2501  
Page 3 of 3

<b>Issued To</b> Nabha Power Limited Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala Rajpura			<b>Sample Reg. No.</b> :E01-2312190657 <b>Sample Reg. Date</b> :19-12-2023 <b>Report Date</b> :29-12-2023 <b>Report No.</b> :ICE-2312291109 <b>NABL ULR No.</b> :TC592623000014672F <b>Customer Ref. No.</b> :PO <b>Letter Dated</b> :25-11-2022			
e.	Total Dissolved Solids,(mg/L)	Gravimetric	IS: 3025 (P-16)-1984 (RA 2017)	500 Max.	2000 Max.	149
2.	<b>Parameters Concerning Undesirable Substances in excess amount</b>					
a.	Chloride(as Cl)(mg/L)	Titration	IS: 3025 (P-32)-1988 (RA2019)	250 Max.	1000 Max.	3
b.	Fluoride as F(mg/L)	Visual	IS: 3025 (P-60)-2008 (RA 2019)	1.0 Max.	1.5 Max.	BLQ(LOQ:0.1)
c.	Free Residual Chlorine, (mg/L)	Titration	IS: 3025 (P-26): 2021	0.2 Min.	1.0 Max.	Not Applicable
d.	Iron (as Fe)(mg/L)	UV-Spectrophotometer	IS: 3025 (P-53)-2003 (RA 2019)	1.0 Max.	No relaxation	BLQ(LOQ:0.08)
e.	Nitrate as NO <sub>3</sub> (mg/L)	UV-Spectrophotometer	APHA 23rd Edition 2017, 4500 NO <sub>3</sub>	45 Max.	No Relaxation	2.4
f.	Sulphate(as SO <sub>4</sub> )(mg/L)	UV-Spectrophotometer	IS: 3025 (P-24/Sec-1)-2022	200 Max.	400 Max.	36.4
g.	Total Alkalinity(as CaCO <sub>3</sub> )(mg/L)	Titration	IS: 3025 (Part 23)-1986 (RA 2019)	200 Max.	600 Max.	40
h.	Total Hardness(as CaCO <sub>3</sub> )(mg/L)	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	200 Max.	600 Max.	105

'#' represents Customer Defined Fields

**NOTE :** NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS :** The above referred sample of Water Sample (Marked Surface Water) conforms to BIS Specification IS:10500-2012 with upto date amdots with respect to the above tests.

\*\*\*\*\*End Of Report\*\*\*\*\*

V Saini

Vikrant  
29-12-2023  
Reviewer

PremKumar

29-12-2023  
PremKumar  
[Authorized Signatory]

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## Test Report

Report No. : ICE-2404020091

ULR No. : TC592624000005905F

**ORIGINAL**  
Page 1 of 2



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2403130525

Sample Name : Water Sample (Marked Surface Water)

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr 100ml

Packaging Mode : Packed in cans & in plastic container

Batch No./QR Code : NA

Date of Manufacture : NA

Sample Submission Type : Sampled by ITC /Jitesh kumar

Customer Reference : PO/25-11-2022

Any Other Information : Sample Collected by lab rep. Mr. Jitesh on 12.03.2024

Test Report as per : BIS Specification IS:10500-2012

Received On : 13-03-2024

Commenced On : 13-03-2024

Completed On : 29-03-2024

Date of Report : 02-04-2024

Grade : NA

Date of Expiry : NA

### Description: Liquid Sample With Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Specification
<b>Discipline : Chemical</b>						
<b>Group : Water</b>						
<b>(I) Organoleptic &amp; Physical Parameter</b>						
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	8.34	6.5-8.5 - No relaxation
2	Odour	NA	Organoleptic	IS: 3025 (P-5)- 2018	Agreeable	Agreeable
3	Turbidity	NTU	Turbidity Meter	IS:3025(Part 10):1984(RA:2017)	1.32	1 Max. - 5 Max.
4	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16)- 1984 (RA 2017)	137	500 Max. - 2000 Max.
5	Colour (True Colour)	Hazen	Visual Examination	IS 3025 (Part 4) : 2021	2	5 Max. - 15 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>						
1	Chloride(as Cl)	mg/l	Titration	IS: 3025 (P-32)- 1988 (RA2019)	4	250 Max. - 1000 Max.
2	Fluoride(as F)	mg/l	Visual Examination	IS: 3025 (P-60)- 2008 (RA 2019)	BLQ(LOQ:0.1)	1.0 Max. - 1.5 Max.
3	Free Residual Chlorine	mg/l	Titration	IS: 3025 (P-26): 2021	Not Applicable	0.2 Min. - 1.0 Max.
4	Iron(as Fe)	mg/l	UV- Spectrophotometer	IS: 3025 (P-53)- 2003 (RA 2019)	BLQ(LOQ:0.08)	1.0 Max. - No relaxation
5	Nitrate(as NO3)	mg/l	UV- Spectrophotometer	APHA 23rd Edition 2017, 4500	2	45 Max. - No Relaxation



02/04/2024

Vikrant Saini

Verified by



02/04/2024

Prem Kumar

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## Test Report

**Report No.** : ICE-2404020091

**ULR No.** : TC592624000005905F



TC-5926

**ORIGINAL**  
Page 2 of 2

				NO3		
6	Sulphate(as SO <sub>4</sub> )	mg/l	UV-Spectrophotometer	IS: 3025 (P-24/Sec-1)-2022	22.7	200 Max. - 400 Max.
7	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	102	200 Max. - 600 Max.
8	Total Alkalinity(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 23)-1986 (RA 2019)	75	200 Max. - 600 Max.

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



02/04/2024

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## Test Report

Report No. : ICE-2406291759

ULR No. : TC592624000011456F

**ORIGINAL**  
Page 1 of 2



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2406191281

Sample Name : Water Sample (Marked Surface Water)

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : NA

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Anand Kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Anand on 17.06.2024

Test Report as per : IS 10500:2012

Received On : 19-06-2024

Commenced On : 19-06-2024

Completed On : 29-06-2024

Date of Report : 29-06-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Clear Colourless Liquid

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.74	6.5-8.5	No relaxation
2	Odour	NA	Organoleptic	IS: 3025 (P-5)-2018	Agreeable	Agreeable	Agreeable
3	Turbidity	NTU	Turbidity Meter	IS:3025(Part 10):1984(RA:2017)	5.80	1 Max.	5 Max.
4	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	164	500 Max.	2000 Max.
5	Colour (True Colour)	Hazen	Visual Examination	IS 3025 (Part 4) : 2021	2	5 Max.	15 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Chloride(as Cl)	mg/l	Titration	IS: 3025 (P-32)-1988 (RA2019)	4.5	250 Max.	1000 Max.
2	Fluoride(as F)	mg/l	Visual Examination	IS: 3025 (P-60)-2008 (RA 2019)	BLQ(LOQ:0.1)	1.0 Max.	1.5 Max.
3	Free Residual Chlorine	mg/l	Titration	IS: 3025 (P-26): 2021	Not Applicable	0.2 Min.	1.0 Max.
4	Iron(as Fe)	mg/l	UV-Spectrophotometer	IS: 3025 (P-53)-2003 (RA 2019)	BLQ(LOQ:0.08)	1.0 Max.	No relaxation
5	Nitrate(as NO3)	mg/l	UV-	APHA 24th Edition	2.5	45 Max.	No



29/06/2024

Vikrant Saini

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29/06/2024

Prem Kumar

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## Test Report

**Report No.** : ICE-2406291759

**ULR No.** : TC592624000011456F

**ORIGINAL**  
Page 2 of 2



			Spectrophotometer	2023, 4500 NO3, B			Relaxation
6	Sulphate(as SO <sub>4</sub> )	mg/l	UV-Spectrophotometer	IS : 3025 (Part 24): Sec1:2022	40	200 Max.	400 Max.
7	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)- 2009 (RA 2019)	120.7	200 Max.	600 Max.
8	Total Alkalinity(as CaCO <sub>3</sub> )	mg/l	Titration	IS 3025(Part-23): 2023	45.2	200 Max.	600 Max.

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS** : See Note

\*\*\*\*\*End of Report\*\*\*\*\*



29/06/2024

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## TEST REPORT

**Report No. :** ICE-2409281690

**ULR No. :** TC592624000018641F



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala

Rajpura, 140401

Punjab, India

Sample Registration No. : E01-2409100289

Sample Name : Water Sample (Marked Surface Water)

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr 100ml

Packaging Mode : Packed in cans & in plastic container

Batch No./QR Code : NA

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Jitesh kumar

Customer Reference : PO/25/11/2022

Any Other Information : Sample Collected by lab rep. Mr. Jitesh on 09.09.2024, Source: River

Test Report as per : IS 10500:2012

Received On : 10-09-2024

Commenced On : 10-09-2024

Completed On : 17-09-2024

Date of Report : 28-09-2024

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Liquid Sample With Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.82	6.5-8.5	No relaxation
2	Odour	NA	Organoleptic	IS: 3025 (P-5)-2018	Agreeable	Agreeable	Agreeable
3	Turbidity	NTU	Turbidity Meter	IS:3025(Part 10):1984(RA:2017)	3.02	1 Max.	5 Max.
4	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	124	500 Max.	2000 Max.
5	Colour (True Colour)	Hazen	Visual Examination	IS 3025 (Part 4) : 2021	2	5 Max.	15 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Chloride(as Cl)	mg/l	Titration	IS: 3025 (P-32)-1988 (RA2019)	4.4	250 Max.	1000 Max.
2	Fluoride(as F)	mg/l	Visual Examination	IS: 3025 (P-60)-2008 (RA 2019)	BLQ(LOQ:0.1)	1.0 Max.	1.5 Max.
3	Free Residual Chlorine	mg/l	Titration	IS: 3025 (P-26): 2021	Not Applicable	0.2 Min.	1.0 Max.
4	Iron(as Fe)	mg/l	UV-Spectrophotometer	IS: 3025 (P-53)-2003 (RA 2019)	BLQ(LOQ:0.08)	1.0 Max.	No relaxation
5	Nitrate(as NO3)	mg/l	UV-	APHA 24th Edition	BLQ(LOQ:1.0)	45 Max.	No



28/09/2024

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28/09/2024

**Prem Kumar**

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## TEST REPORT

Report No. : ICE-2409281690

ULR No. : TC592624000018641F

			Spectrophotometer	2023, 4500 NO3, B			Relaxation
6	Sulphate(as SO <sub>4</sub> )	mg/l	UV-Spectrophotometer	IS : 3025 (Part 24): Sec1:2022	48.4	200 Max.	400 Max.
7	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)- 2009 (RA 2019)	101.7	200 Max.	600 Max.
8	Total Alkalinity(as CaCO <sub>3</sub> )	mg/l	Titration	IS 3025(Part-23): 2023	65.3	200 Max.	600 Max.

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



28/09/2024  
**Vikrant Saini**  
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28/09/2024  
**Prem Kumar**  
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## TEST REPORT

Report No. : TR01EN-2501040018  
ULR No. : TC1489625000000093F



TC-14896

**ORIGINAL**  
Page 1 of 2



### Issued To :

#### Nabha Power Limited

Near Village: Nalash, P.B. No.28, Rajpura, Distt. Patiala  
Rajpura, 140401  
Punjab, India

Sample Registration No. : E01-2412281378

Sample Name : Water Sample (Marked Surface Water)

Sample Condition : Good

#### Sample Details (if any)

Sample Quantity : 2 Ltr

Packaging Mode : Packed in cans

Batch No./QR Code : NA

Date of Manufacture : NA

Sample Submission Type : Sampled by Lab Rep /Ram Gopal

Customer Reference : PO/11/12/2024

Any Other Information : Sample Collected by lab rep. Mr. Ramgopal on: 28.12.2024

Test Report as per : IS 10500:2012

Received On : 28-12-2024

Commenced On : 28-12-2024

Completed On : 02-01-2025

Date of Report : 04-01-2025

Grade : NA

Date of Expiry : NA

With Amendment No.(s) : 01 to 04

**Description:** Liquid Sample with Suspended Particles

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
<b>Discipline : Chemical</b>							
<b>Group : Water</b>							
<b>(I) Organoleptic &amp; Physical Parameter</b>							
1	pH Value	NA	pH Meter	IS: 3025 (Part-11): 2022	7.96	6.5-8.5	No relaxation
2	Odour	NA	Organoleptic	IS: 3025 (P-5)-2018	Agreeable	Agreeable	Agreeable
3	Turbidity	NTU	Turbidity Meter	IS:3025(Part 10):1984(RA:2017)	<0.5	1 Max.	5 Max.
4	Total Dissolved Solids	mg/l	Gravimetric	IS: 3025 (P-16): 2023	161	500 Max.	2000 Max.
5	Colour (True Colour)	Hazen	Visual Examination	IS 3025 (Part 4) : 2021	2	5 Max.	15 Max.
<b>(II) Parameters Concerning Undesirable Substances in excess amount</b>							
1	Chloride(as Cl)	mg/l	Titration	IS: 3025 (P-32)-1988 (RA2019)	4	250 Max.	1000 Max.
2	Fluoride(as F)	mg/l	Visual Examination	IS: 3025 (P-60)-2008 (RA 2019)	BLQ(LOQ:0.1)	1.0 Max.	1.5 Max.
3	Free Residual Chlorine	mg/l	Titration	IS: 3025 (P-26): 2021	Not Applicable	0.2 Min.	1.0 Max.
4	Iron(as Fe)	mg/l	UV-Spectrophotometer	IS: 3025 (P-53)-2003 (RA 2019)	BLQ(LOQ:0.08)	1.0 Max.	No relaxation
5	Nitrate(as NO3)	mg/l	UV-	APHA 24th Edition	3.6	45 Max.	No



04/01/2025

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## TEST REPORT

**Report No.** : TR01EN-2501040018  
**ULR No.** : TC1489625000000093F



			Spectrophotometer	2023, 4500 NO3, B			Relaxation
6	Sulphate(as SO <sub>4</sub> )	mg/l	UV-Spectrophotometer	IS : 3025 (Part 24): Sec1:2022	31.5	200 Max.	400 Max.
7	Total Hardness(as CaCO <sub>3</sub> )	mg/l	Titration	IS: 3025 (Part 21)-2009 (RA 2019)	118.7	200 Max.	600 Max.
8	Total Alkalinity(as CaCO <sub>3</sub> )	mg/l	Titration	IS 3025(Part-23): 2023	79.1	200 Max.	600 Max.

**NOTE** : NA- Not Applicable, LOQ- Limit of Quantification, BLQ- Below limit of Quantification. Sampling Procedure: SOP/ITC/EW/030.

**REMARKS** : The above sample complies to IS 10500 : 2012 drinking water specification with respect to the above tested Parameters

\*\*\*\*\*End of Report\*\*\*\*\*



04/01/2025

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AMBIENT NOISE MONITORING(DAY TIME)																	
Sr. No	Location	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Std Value
1	Near Main Gate	58.2	59.6	60.1	58.7	56.8	58.2	60.2	63.3	64.5	65.1	62.6	59.2	63.3	61.4	63.5	75
2	Near Gate No.2	45.5	53.3	47.6	48.1	54.0	55.1	50.3	53.1	54.5	56.3	49.2	54.3	54.6	53.1	55.0	75
3	Near Wagon Tippler 1	60.2	67.5	59.2	55.6	65.2	67.5	61.2	67.6	69.3	65.9	66.3	58.6	60.2	68.6	66.2	75
4	Near RLBU office	56.5	59	57.3	58.1	58.2	56.2	55.2	53.7	58.4	58.2	55.5	51.5	56.4	49.3	50.4	75
5	Near Gate No. 3	41.3	48.2	45.2	46.5	49.4	50.1	48.8	51.0	51.7	51.0	48.3	52.6	48.5	55.7	49.7	75
6	Near Storm Water Sump-2	49.1	40.2	46.3	47.5	42.6	45.3	50.1	54.1	57.1	52.6	54.2	48.3	49.4	57.4	50.8	75
7	Near Ash water return dyke	54.2	55.8	57.2	56.4	56.6	55.0	52.4	55.2	58.8	52.8	54.6	52.5	54.3	54.1	52.3	75
8	Near Ash Dyke	51.3	55.5	54.7	55.5	57.3	58.6	55.6	54.3	60.1	55.7	57.8	54.3	57.6	56.3	53.7	75
9	Near Storm Water Sump-1	50.4	55.6	52.5	50.8	56.0	47.3	56.3	55.3	59.6	58.8	60.6	49.2	55.3	48.9	50.5	75
10	Near Switch Yard	66.1	67.6	66.4	66.9	66.5	64.0	70.7	68.6	68.3	67.2	69.2	69.8	63.4	69.7	71.6	75

AMBIENT NOISE MONITORING(NIGHT TIME)																	
Sr. No	Location	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Std Value
1	Near Main Gate	55.7	58.6	56.0	55.4	53.6	51.5	53.4	54.1	55.2	53.6	55.3	54.5	56.2	55.3	60.1	70
2	Near Gate No.2	37.7	51.1	44.6	43.3	48.2	47.1	46.2	45.3	47.4	50.2	47.6	49.9	48.7	49.1	51.2	70
3	Near Wagon Tippler 1	52.3	64.5	58.6	52.7	60.5	57.6	56.3	54.6	50.5	56.4	57.1	56.5	55.5	65.2	64.1	70
4	Near RLBU office	50.1	52.5	55.1	52.6	52.3	50.1	50.4	49.5	51.2	55.2	52.4	48.6	50.2	47.0	49.2	70
5	Near Gate No. 3	35.9	44.5	43.3	42.8	46.5	46.0	45.2	46.2	48.4	48.8	46.6	49.2	46.3	48.7	47.0	70
6	Near Storm Water Sump-2	43.3	39.8	40.2	42.6	39.4	40.1	46.6	51.2	52.3	47.6	49.8	46.3	47.2	49.2	48.4	70
7	Near Ash water return dyke	50.2	53.8	54.2	53.9	53.1	51.8	48.1	51.4	52.7	48.8	50.2	47.3	49.1	50.1	49.3	70
8	Near Ash Dyke	47.1	50.5	50.3	51.2	53.5	52.5	50.0	50.0	53.6	50.2	51.5	48.2	52.2	48.5	50.1	70
9	Near Storm Water Sump-1	46.5	51.8	48.8	45.1	51.2	42.9	51.4	51.4	52.0	49.5	56.4	45.5	49.3	45.6	47.6	70
10	Near Switch Yard	64.5	65.4	63.5	64.8	64.1	61.2	65.1	56.0	62.8	65.0	66.3	67.7	59.1	63.2	68.2	70

Standard value : Ind Area- Daytime \_\_ 75 dB, Night time \_\_ 70 dB



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(ISO 9001-2015, 14001-2015, ISO 45001 : 2018)

Certified & NABL Accredited Laboratory)

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E-mail : photron.labs@gmail.com | vermashivendra70@gmail.com | cm.tripathi35@gmail.com

M : 8851624436, 9312566193, 9818282411

## TEST REPORT

Dated: 27.12.2024

Report No. : EMTRC/NPL/Ground Water-1/2024  
Issued To : Nabha Power Limited, Nalash, Rajpura, Punjab  
No. of Pages : 1 of 1  
Type of Sample : Ground Water  
Nature of Sampling : Grab  
Sampling Location : Village- Baksiwala  
Date of Sample Collection : 9-12-2024  
Date of Sample Analysis : 12-12-2024 to 24-12-2024  
Sample Collected by : EMTRC

	Parameters	Unit	Test Methods	RESULTS	Acceptable Limit IS 10500:2012	Permissible Limit IS 10500 2012
1	pH	-	APHA-4500	7.12	6.5 – 8.5	No relaxation
2	Total Dissolved Solids	mg/l	APHA-2540B	310	500	2000
3	Total Hardness as CaCO <sub>3</sub>	mg/l	APHA-2340C	110	200	600
4	Calcium as Ca	mg/l	APHA-4500B	55	75	200
5	Magnesium as Mg	mg/l	APHA-4500B	10	30	100
6	Chlorides as Cl	mg/l	APHA-4500B	54	250	1000
7	Nitrates as NO <sub>3</sub>	mg/l	APHA-4500	12	45	No relaxation
8	Sulphate as SO <sub>4</sub>	mg/l	APHA-4500E	23	200	400
9	Fluoride as F	mg/l	APHA-4500D	1.2	1.0	1.5
10	Iron as Fe	mg/l	APHA-3111B	0.12	0.3	No relaxation
11	Copper as Cu	mg/l	APHA-3111B	0.04	0.05	1.5
12	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01	No relaxation
13	Manganese as Mn	mg/l	APHA-3111B	0.02	0.1	0.3
14	Zinc as Zn	mg/l	APHA-3111 B	2.5	5	15
15	Total Chromium as Cr	mg/l	APHA-3111B	<0.05	0.05	No relaxation
16	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.02	No relaxation
17	Cadmium as Cd	mg/l	APHA-3111B	<0.001	0.003	No relaxation
18	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001	No relaxation
19	Arsenic as As	mg/l	APHA-3111B	<0.01	0.01	0.05
20	Total Coliform	mg/l	APHA-3111B	NIL	Nil	Nil

Authorized Signatory:  
Technical Manager  
(Rahul Kumar)



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E-mail : photron.labs@gmail.com | vermashivendra70@gmail.com | cm.tripathi35@gmail.com

M : 8851624436, 9312566193, 9818282411

## TEST REPORT

Dated: 27.12.2024

Report No. : EMTRC/NPL/Ground Water-2/2024  
Issued To : Nabha Power Limited, Nalash, Rajpura, Punjab  
No. of Pages : 1 of 1  
Type of Sample : Ground Water  
Nature of Sampling : Grab  
Sampling Location : Village- Dabali Kalan  
Date of Sample Collection : 10-12-2024  
Date of Sample Analysis : 12-12-2024 to 24-12-2024  
Sample Collected by : EMTRC

	Parameters	Unit	Test Methods	RESULTS	Acceptable Limit IS 10500:2012	Permissible Limit IS 10500 2012
1	pH	-	APHA-4500	7.12	6.5 – 8.5	No relaxation
2	Total Dissolved Solids	mg/l	APHA-2540B	435	500	2000
3	Total Hardness as CaCO <sub>3</sub>	mg/l	APHA-2340C	210	200	600
4	Calcium as Ca	mg/l	APHA-4500B	80	75	200
5	Magnesium as Mg	mg/l	APHA-4500B	23	30	100
6	Chlorides as Cl	mg/l	APHA-4500B	65	250	1000
7	Nitrates as NO <sub>3</sub>	mg/l	APHA-4500	12	45	No relaxation
8	Sulphate as SO <sub>4</sub>	mg/l	APHA-4500E	32	200	400
9	Fluoride as F	mg/l	APHA-4500D	1.5	1.0	1.5
10	Iron as Fe	mg/l	APHA-3111B	0.18	0.3	No relaxation
11	Copper as Cu	mg/l	APHA-3111B	0.02	0.05	1.5
12	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01	No relaxation
13	Manganese as Mn	mg/l	APHA-3111B	0.04	0.1	0.3
14	Zinc as Zn	mg/l	APHA-3111 B	3.2	5	15
15	Total Chromium as Cr	mg/l	APHA-3111B	<0.05	0.05	No relaxation
16	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.02	No relaxation
17	Cadmium as Cd	mg/l	APHA-3111B	<0.001	0.003	No relaxation
18	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001	No relaxation
19	Arsenic as As	mg/l	APHA-3111B	<0.01	0.01	0.05
20	Total Coliform	mg/l	APHA-3111B	NIL	Nil	Nil

Authorized Signatory:  
Technical Manager  
(Rahul Kumar)



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E-mail : photron.labs@gmail.com | vermashivendra70@gmail.com | cm.tripathi35@gmail.com

M : 8851624436, 9312566193, 9818282411

## TEST REPORT

Dated: 27.12.2024

Report No. : EMTRC/NPL/Ground Water-3/2024  
Issued To : Nabha Power Limited, Nalash, Rajpura, Punjab  
No. of Pages : 1 of 1  
Type of Sample : Ground Water  
Nature of Sampling : Grab  
Sampling Location : Village- Rangia  
Date of Sample Collection : 10-12-2024  
Date of Sample Analysis : 12-12-2024 to 24-12-2024  
Sample Collected by : EMTRC

	Parameters	Unit	Test Methods	RESULTS	Acceptable Limit IS 10500:2012	Permissible Limit IS 10500 2012
1	pH	-	APHA-4500	7.31	6.5 – 8.5	No relaxation
2	Total Dissolved Solids	mg/l	APHA-2540B	625	500	2000
3	Total Hardness as CaCO <sub>3</sub>	mg/l	APHA-2340C	265	200	600
4	Calcium as Ca	mg/l	APHA-4500B	90	75	200
5	Magnesium as Mg	mg/l	APHA-4500B	25	30	100
6	Chlorides as Cl	mg/l	APHA-4500B	75	250	1000
7	Nitrates as NO <sub>3</sub>	mg/l	APHA-4500	16	45	No relaxation
8	Sulphate as SO <sub>4</sub>	mg/l	APHA-4500E	45	200	400
9	Fluoride as F	mg/l	APHA-4500D	1.5	1.0	1.5
10	Iron as Fe	mg/l	APHA-3111B	0.26	0.3	No relaxation
11	Copper as Cu	mg/l	APHA-3111B	0.03	0.05	1.5
12	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01	No relaxation
13	Manganese as Mn	mg/l	APHA-3111B	0.05	0.1	0.3
14	Zinc as Zn	mg/l	APHA-3111 B	4.2	5	15
15	Total Chromium as Cr	mg/l	APHA-3111B	<0.05	0.05	No relaxation
16	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.02	No relaxation
17	Cadmium as Cd	mg/l	APHA-3111B	<0.001	0.003	No relaxation
18	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001	No relaxation
19	Arsenic as As	mg/l	APHA-3111B	<0.01	0.01	0.05
20	Total Coliform	mg/l	APHA-3111B	NIL	Nil	Nil

Authorized Signatory:  
Technical Manager  
(Rahul Kumar)



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E-mail : photron.labs@gmail.com | vermashivendra70@gmail.com | cm.tripathi35@gmail.com

M : 8851624436, 9312566193, 9818282411

## TEST REPORT

Dated: 27.12.2024

Report No. : EMTRC/NPL/Ground Water-4/2024  
Issued To : Nabha Power Limited, Nalash, Rajpura, Punjab  
No. of Pages : 1 of 1  
Type of Sample : Ground Water  
Nature of Sampling : Grab  
Sampling Location : Village- Dadu Majra  
Date of Sample Collection : 11-12-2024  
Date of Sample Analysis : 12-12-2024 to 24-12-2024  
Sample Collected by : EMTRC

	Parameters	Unit	Test Methods	RESULTS	Acceptable Limit IS 10500:2012	Permissible Limit IS 10500 2012
1	pH	-	APHA-4500	7.16	6.5 – 8.5	No relaxation
2	Total Dissolved Solids	mg/l	APHA-2540B	315	500	2000
3	Total Hardness as CaCO <sub>3</sub>	mg/l	APHA-2340C	110	200	600
4	Calcium as Ca	mg/l	APHA-4500B	35	75	200
5	Magnesium as Mg	mg/l	APHA-4500B	14	30	100
6	Chlorides as Cl	mg/l	APHA-4500B	35	250	1000
7	Nitrates as NO <sub>3</sub>	mg/l	APHA-4500	10	45	No relaxation
8	Sulphate as SO <sub>4</sub>	mg/l	APHA-4500E	18	200	400
9	Fluoride as F	mg/l	APHA-4500D	1.2	1.0	1.5
10	Iron as Fe	mg/l	APHA-3111B	0.12	0.3	No relaxation
11	Copper as Cu	mg/l	APHA-3111B	0.02	0.05	1.5
12	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01	No relaxation
13	Manganese as Mn	mg/l	APHA-3111B	0.02	0.1	0.3
14	Zinc as Zn	mg/l	APHA-3111 B	2.6	5	15
15	Total Chromium as Cr	mg/l	APHA-3111B	<0.05	0.05	No relaxation
16	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.02	No relaxation
17	Cadmium as Cd	mg/l	APHA-3111B	<0.001	0.003	No relaxation
18	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001	No relaxation
19	Arsenic as As	mg/l	APHA-3111B	<0.01	0.01	0.05
20	Total Coliform	mg/l	APHA-3111B	NIL	Nil	Nil

Authorized Signatory:  
Technical Manager  
(Rahul Kumar)



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M : 8851624436, 9312566193, 9818282411

## TEST REPORT

Dated: 27.12.2024

Report No. : EMTRC/NPL/Ground Water-5/2024  
Issued To : Nabha Power Limited, Nalash, Rajpura, Punjab  
No. of Pages : 1 of 1  
Type of Sample : Ground Water  
Nature of Sampling : Grab  
Sampling Location : Village- Harna  
Date of Sample Collection : 11-12-2024  
Date of Sample Analysis : 12-12-2024 to 24-12-2024  
Sample Collected by : EMTRC

	Parameters	Unit	Test Methods	RESULTS	Acceptable Limit IS 10500:2012	Permissible Limit IS 10500 2012
1	pH	-	APHA-4500	7.21	6.5 – 8.5	No relaxation
2	Total Dissolved Solids	mg/l	APHA-2540B	320	500	2000
3	Total Hardness as CaCO <sub>3</sub>	mg/l	APHA-2340C	115	200	600
4	Calcium as Ca	mg/l	APHA-4500B	38	75	200
5	Magnesium as Mg	mg/l	APHA-4500B	16	30	100
6	Chlorides as Cl	mg/l	APHA-4500B	68	250	1000
7	Nitrates as NO <sub>3</sub>	mg/l	APHA-4500	14	45	No relaxation
8	Sulphate as SO <sub>4</sub>	mg/l	APHA-4500E	28	200	400
9	Fluoride as F	mg/l	APHA-4500D	1.2	1.0	1.5
10	Iron as Fe	mg/l	APHA-3111B	0.11	0.3	No relaxation
11	Copper as Cu	mg/l	APHA-3111B	0.02	0.05	1.5
12	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01	No relaxation
13	Manganese as Mn	mg/l	APHA-3111B	0.03	0.1	0.3
14	Zinc as Zn	mg/l	APHA-3111 B	2.8	5	15
15	Total Chromium as Cr	mg/l	APHA-3111B	<0.05	0.05	No relaxation
16	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.02	No relaxation
17	Cadmium as Cd	mg/l	APHA-3111B	<0.001	0.003	No relaxation
18	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001	No relaxation
19	Arsenic as As	mg/l	APHA-3111B	<0.01	0.01	0.05
20	Total Coliform	mg/l	APHA-3111B	NIL	Nil	Nil

Authorized Signatory:  
Technical Manager  
(Rahul Kumar)



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E-mail : photron.labs@gmail.com | vermashivendra70@gmail.com | cm.tripathi35@gmail.com

M : 8851624436, 9312566193, 9818282411

## TEST REPORT

Dated: 27.12.2024

Report No. : EMTRC/NPL/Surface Water-1/2024  
Issued To : Nabha Power Limited, Nalash, Rajpura, Punjab  
No. of Pages : 1 of 1  
Type of Sample : Surface Water  
Nature of Sampling : Grab  
Sampling Location : Canal water  
Date of Sample Collection : 11-12-2024  
Date of Sample Analysis : 12-12-2024 to 24-12-2024  
Sample Collected by : EMTRC

	Parameters	Unit	Test Methods	RESULTS	BDU Limit ' C - E ' (Drinking after treatment, Fisheries, Irrigation, Industrial Cooling
1	pH	-	APHA-4500	7.20	6.0 – 8.5
2	Electrical Conductivity	µmhos/cm	APHA-4500	102	2250 or less
3	Total Dissolved Solids	mg/l	APHA-2540B	140	-
4	Dissolved Oxygen	mg/l	4500C	4.5	4 or more
5	BOD	mg/l	IS3025P-44	1.1	3 or less
6	Sodium Absorption Ratio	mg/l	Calculation	7.5	26 or less
7	Boron	mg/l	APHA-4500B	1.2	2 or less
8	Free ammonia	mg/l	APHA-5520D	NIL	1.2 or less
9	Lead as Pb	mg/l	APHA-3111B	<0.01	-
10	Manganese as Mn	mg/l	APHA-3111B	<0.01	-
11	Cobalt as Co	mg/l	APHA-3111 B	2.35	-
12	Total Chromium as Cr	mg/l	APHA-3111B	<0.05	-
13	Nickel as Ni	mg/l	APHA-3111B	<0.01	-
14	Cadmium as Cd	mg/l	APHA-3111B	<0.001	-
15	Mercury as Hg	mg/l	APHA-3111B	<0.001	-
16	Arsenic as As	mg/l	APHA-3111B	<0.01	-
17	Total Coliform	MPN/100 ml	APHA-9230B	90	5000 or less

Authorized Signatory:  
Technical Manager  
(Rahul Kumar)



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M : 8851624436, 9312566193, 9818282411

## TEST REPORT

Dated: 27.12.2024

Report No. : EMTRC/NPL/Soil-1/2024  
Issued To : Nabha Power Limited, Nalash, Rajpura, Punjab  
No. of Pages : 1 of 1  
Type of Sample : Soil  
Nature of Sampling : Grab  
Sampling Location : Agriculture Field of Herna village  
Date of Sample Collection : 11-12-2024  
Date of Sample Analysis : 12-12-2024 to 24-12-2024  
Sample Collected by : EMTRC

	Parameters	RESULTS	Interpretation, IARI
1	Bulk Density, g/cm <sup>3</sup>	1.42	
2	Colour	Light Grey	
3	Organic matter %	1.12	Sufficient
4	Water Holding Capacity, %	24.2	
5	pH 20% slurry	7.25	Neutral
6	Texture	Sandy Clay Loam	
7	Conductivity, $\mu$ mhos/cm	580	Average
8	Available Potassium, kg/ha	168	Medium
9	Available Phosphorus, kg/ha	48	Medium
10	Available Nitrogen, kg/ha	145	Medium
11	Iron as Fe, mg/kg	28.5	-
12	Nickel as Ni, mg/kg	4.5	-
13	Copper as Cu, mg/kg	3.2	-
14	Chromium as Cr, mg/kg	4.5	-
15	Zinc as Zn, mg/kg	84.6	-
16	Manganese, mg/kg	2.8	-
17	Lead as Pb, mg/kg	2.5	-
18	Cadmium as Cd, mg/kg	0.5	-
19	Arsenic as As, mg/kg	<0.5 (BDL)	-
20	Mercury as Hg, mg/kg	<0.5 (BDL)	-

ated: 07.10.2024

Authorized Signatory:  
Technical Manager  
(Rahul Kumar)



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## TEST REPORT

Dated: 27.12.2024

Report No. : EMTRC/NPL/Food-1/2024  
Issued To : Nabha Power Limited, Nalash, Rajpura, Punjab  
No. of Pages : 1 of 1  
Type of Sample : Food Samples  
Nature of Sampling : Grab  
Sampling Location : Villages around NPL (Nalash, Herna, Dadumajra & Baksiwala)  
Date of Sample Collection : 11-12-2024  
Date of Sample Analysis : 12-12-2024 to 24-12-2024  
Sample Collected by : EMTRC

	Parameters	Unit	Test Methods	Paddy	Wheat	Tur Dal	Mung dal
1	Lead as Pb	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
2	Manganese as Mn	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
3	Cobalt as Co	mg/kg	APHA-3111 B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
4	Nickel as Ni	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
5	Cadmium as Cd	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
6	Mercury as Hg	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
7	Arsenic as As	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)

Authorized Signatory:  
Technical Manager  
(Rahul Kumar)



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## TEST REPORT

Dated: 27.12.2024

Report No. : EMTRC/NPL/Food-2/2024  
Issued To : Nabha Power Limited, Nalash, Rajpura, Punjab  
No. of Pages : 1 of 1  
Type of Sample : Food Samples  
Nature of Sampling : Grab  
Sampling Location : Villages around NPL (Nalash, Herna, Dadumajra & Baksiwala)  
Date of Sample Collection : 11-12-2024  
Date of Sample Analysis : 12-12-2024 to 24-12-2024  
Sample Collected by : EMTRC

	Parameters	Unit	Test Methods	Cabbage	Cauliflower	Radish	Carrot
1	Lead as Pb	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
2	Manganese as Mn	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
3	Cobalt as Co	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
4	Nickel as Ni	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
5	Cadmium as Cd	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
6	Mercury as Hg	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
7	Arsenic as As	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)

Authorized Signatory:  
Technical Manager  
(Rahul Kumar)



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Plot No. G-19, Kh. No. 76/7 & 76/14, Laxmi Park Nangloi, West Delhi-110041

E-mail : photron.labs@gmail.com | vermashivendra70@gmail.com | cm.tripathi35@gmail.com

M : 8851624436, 9312566193, 9818282411

## TEST REPORT

Dated: 27.12.2024

Report No. : EMTRC/NPL/Food-3/2024  
Issued To : Nabha Power Limited, Nalash, Rajpura, Punjab  
No. of Pages : 1 of 1  
Type of Sample : Food Samples  
Nature of Sampling : Grab  
Sampling Location : Villages around NPL (Nalash, Herna, Dadumajra & Baksiwala)  
Date of Sample Collection : 11-12-2024  
Date of Sample Analysis : 12-12-2024 to 24-12-2024  
Sample Collected by : EMTRC

	Parameters	Unit	Test Methods	Spinach leaves	Mustard leaves	Bathua Leaves	Milk
1	Lead as Pb	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
2	Manganese as Mn	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
3	Cobalt as Co	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
4	Nickel as Ni	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
5	Cadmium as Cd	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
6	Mercury as Hg	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)
7	Arsenic as As	mg/kg	APHA-3111B	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)	<0.1 (BDL)

Authorized Signatory:  
Technical Manager  
(Rahul Kumar)



### Note:-

1. The result given above are related to the tested sample, for various parameter as observed at the time of sampling.
2. The customer asked for the above tests only.
3. This test report will not be used for any publicity/legal purpose.
4. This test samples will be disposed off after one months from the date of issue of test report, unless until specified by the customer.
5. The Report can not be used as evidence in a court of a law without the written approval of the lab.

## **Annexure-18**

### **Public Grievances Redressal Cell Minutes of Meeting**



Minutes of Meeting			
Date	21-03-2025	Time	16:00
Subject	Public Grievances Redressal Cell		
Venue	Board room		
Participants	1. Mr. Rajesh Kumar, Chairman		
	2. Mr. Prateek Gupta, Member		
	3. Mr. Devdutta Sarma, Member		
	4. Mr. Amit Kumar Garg, Member		
	5. Mr. Gaganvir Singh Cheema, Convener		
Absent	None		

Mr. Gaganvir Singh Cheema apprised the committee members of the action undertaken regarding the issues recorded in the MOM dated 25<sup>th</sup> September 24. Details below.

(A) Issue of Wild Boars

After lifting of soil from area adjoining Ash Pond, wild boar issue was again reported by residents of village Nalash & Rangian.

Action Point: Additional boundary wall to be constructed on top priority. PO released, work to be completed by 20<sup>th</sup> December 2024.

Current Status: Work completed.

(B) Water Logging.

Water logging issue is reported by residents of village Sural & Rangian.

Action Point: Cleaning of plant peripheral drain, specially at water intake area.

Current Status: This was cleaned last year. This shall be taken up before monsoon – 30<sup>th</sup> May 2025.

(C) Road Repair.

Road repair from Mirjapur to Plant: Residents reported that, due to continuous Bulker & Tipper movement, road again damaged at various locations.

Current Status: Road repair is completed up to Vill. Kotla, balance stretch (up to Mirzapur) will be completed by 30<sup>th</sup> March 2025.

**Additional Points taken up for discussions:**

(A) Speed breakers

Village Panchayat Mirjapur and Rai Majra has requested to construct speed breaker at location in front of Mirjapur school and strengthen the speed breakers near Raimajra village.

Action Point: The same shall be completed by 15<sup>th</sup> April 2025.

(B) Issue of Wild Boars.

Village Nalash Khurd farmers have shared the issue of wild boars, as they are still crossing from under the newly constructed precast boundary wall.

Action Point: Gaps below the boundary wall to be plugged by 10<sup>th</sup> April 2025.

(C) Tree Pruning

Village Kotla farmers have requested for pruning of trees as the shadow is suppressing the crop growth, along boundary wall.

Action Point: Site inspection to be carried out and needful shall be done by 05<sup>th</sup> April 2025.

As there were no other open points for discussion and as no other member had any other points for discussion, the meeting was concluded.

# **Annexure-19**

## **Annual Social Audit Report FY-24**



# FY 2022-23 & 2023-24 SOCIAL IMPACT ASSESSMENT REPORT

**PREPARED BY:**

Population Research Center  
Panjab University  
Chandigarh

**SUBMITTED TO:**

Nabha Power Limited  
P.O. Box no. 28, Near Nalash,  
Rajpura, Punjab -140401

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## ACKNOWLEDGEMENT

This report is an outcome of the Impact Assessment undertaken by Population Research Centre Panjab University, Chandigarh. The study was undertaken in peripheral villages of the Nabha Power Limited (NPL) where CSR projects are executed in the fields of health, education, infrastructure, sports, environment conservation and skill development by the NPL officials.

We would like to express our heartfelt gratitude to Nabha Power Limited (NPL) and all of its officials who participated in the study at various levels, as well as for their insightful inputs on Nabha Power Limited's CSR programmes.

The support extended by Mr. Devdutta Sarma Deptt. Head, Mr. Gaganvir Singh Cheema (CSR Head), Mr. Gagandeep Singh Bajwa (Assist. Manager), Nitin Pandey (Sr. Manager) and Field staff for cooperating throughout the study and ensuring that the study sails smoothly. Their support and inputs are deeply appreciated. Therefore, we appreciate the partnership with Nabha Power Limited (NPL) and hope there will be many more upcoming CSR projects. We are grateful to Prof. Renu Vig, Vice-Chancellor, Panjab University, Chandigarh.

We like to express our gratitude to all of the stakeholders who contributed their time and effort to the research and provided unwavering support to ensure that it carried out well. Without the respondents, who were always eager to help, it would not have been possible to do credit to this study and complete it effectively. Their contributions have greatly enhanced the research. We also wish to acknowledge the efforts of the project teams, volunteers, and field workers whose dedication and hard work have been critical in both executing the CSR projects and gathering the data required for this report.

Sincere thanks to the Population Research Centre team for successfully conducting the impact assessment of the projects within the given timeframe.

Dr. Sukhbir Singh (PI)

Dr. Gaurav Gaur (Co-PI)

Prof. Kumool Abbi (Co-PI)

## **EXECUTIVE SUMMARY**

The present evaluation study is an attempt to analyze the implementation of the CSR initiatives taken up by Nabha Power Limited (NPL). The main objectives of the impact assessment study were to:

1. To analyze the impact of the activities implemented by NPL at the individual and village level.
2. To examine the participation of the community in CSR programmes.
3. To highlight best practices, strategies, and initiatives adopted in the project.
4. To give suggestions and recommendations for improving the CSR activities of NPL.

The study is based both on primary and secondary data obtained from the randomly selected 25 villages out of the total 49 villages where the CSR initiatives were taken up by the company. The impact assessment was done for the two years i.e 2022-23 to 2023-24. The secondary data from the village-level officials and the primary data from the beneficiaries obtained from the structured schedules form the basis for the present findings of the study.

The analysis of the implementation of the impact assessment study in the selected areas indicates that the overall social development of the villagers is positively associated with the infrastructure and services provided by the company. Infrastructural developments like the village peripheral road, community shed, Panchayat cum Production Centres, buildings in schools; EWS Housing Scheme; health and education-related initiatives are found to be playing an important role and they are essential for enhancing the level of development in these villages.

However, a certain amount of disparity cannot be ruled out in the level of development among different projects. To lessen the disparities in development among different projects, model projects need to be identified and replicated in the potential targets of development.

## INTRODUCTION

The Sustainable Development Goals (SDGs) were adopted in 2015 to end poverty, protect the planet, and ensure prosperity for all - as part of the new sustainable development agenda. The realization of such goals related to sustainable development for all needs collaboration from the govt., civil society, as well as businesses, which have emerged as huge actors in the social, political, and economic spheres since globalization.

Though some form of CSR can be witnessed during the Industrial Revolution of the 16-17<sup>th</sup> century in Europe, its modern manifestation developed during the 1950s. As a concept, it is a philosophy or vision about the organic relationship of business and society. In practice, CSR encourages organizations to consider the interest of society by taking responsibility for the impact of the organization's activities on customers, employees, shareholders, communities and the environment in all aspects of its operations as well as directly contributing some amount of its profits towards the betterment of the society.

India is one of the first few nations to have rolled out a regulation on CSR, making it compulsory for companies belonging to a certain bracket to contribute 2% of their profits towards society by choosing from a number of initiatives laid down by the govt. Such regulations and policy frameworks help in effectively working towards the achievement of the SDGs, by streamlining the CSR efforts towards pre-decided social goals.

### **NPL and Their Commitment to CSR**

Nabha Power Limited (NPL) is a wholly owned subsidiary of L&T (Larsen and Toubro) Power Development Limited. It has been successfully operating a 2x700 MW supercritical thermal power plant at Rajpura in the state of Punjab since 2014. Efficient and reliable power from NPL forms the backbone of electricity supply to the state. The entire power generated from this plant is contracted with Punjab State Power Corporation Limited (erstwhile PSEB) for a period of 25 years under a Power Purchase Agreement (PPA).

Besides being a leader in its craft, NPL has also acted as a torchbearer through its strong policy on CSR. The objective of CSR in the Company is to improve the quality

of life of the communities residing in its environs by long-term value creation, inclusive growth, and empowerment. NPL integrates Corporate Social Responsibility, or CSR, into its operational framework with great emphasis on social and environmental considerations. These, in culturally sensitive forms with local customs and values, contributed immensely towards the betterment of the local communities. For NPL, CSR goes beyond regulatory compliance; it is an avenue to engage with neighboring communities meaningfully. The company's sustained approach to CSR has fostered goodwill and a collaborative spirit. Local communities actively participate in the CSR planning process, working in conjunction with NPL towards shared goals. Addressing the developmental needs of these villages is a team of professionals, backed by a comprehensive CSR committee.

Nabha Power's initiatives focus on a number of themes stipulated from the Companies Act 2013, like enhancing education, empowering rural women, and equipping the youth for financial self-reliance. Efforts directed towards rural infrastructure development and health promotion have significantly improved the quality of life for the local inhabitants.

NPL continues to expand its engagement with the local communities, consistently adding to its portfolio of impactful projects. The overarching goal remains the promotion of inclusive growth, aligning with Nabha Power's CSR ethos: "Together Towards a Brighter Future."

### **Objectives of the Study**

The overall objective of the study is to examine direct and indirect outcomes, and impacts and to assess the effectiveness of the complete range of NPL's interventions and institutions on the resources, lives and livelihoods of its target communities especially the poor in the program areas. The main objectives of the impact assessment study were to:

1. To analyze the impact of the activities implemented by NPL at the individual and village level.
2. To examine the participation of the community in CSR programmes.
3. To highlight best practices, strategies, and initiatives adopted in the project.
4. To give suggestions and recommendations for improving the CSR activities of NPL.

## Methodology

This research mostly depends on the primary data collected through questionnaires from the beneficiaries availing these services in the catchment villages. Some secondary data was also sourced from the project implementing officials. Their participation was voluntary, confidential, and anonymous and no financial compensation was given for the respondents' time. Informed consent was sought from all the respondents before data collection.

The convenience sampling method has been used to collect information regarding the projects led by NPL and their impacts on the respondents' lives. The respondents belonged to the catchment villages of NPL, which were benefitting from the CSR projects taken up by the NPL, including Nalas Kalan, Nalas Khurd, Harna, Mirjapur, Kotla, Rangian, Akbarpur, Bhagrana, Sural Kalan, Dabali Kalan, Dadu Majra, Basantpura, Badali Mai Ki, Bhappal, Ugani Sahib, Kharola, Rajpura, Sadhror, Sindhran, Gurditpura, Loha Kheri, Cholti Kheri, and Chandu Majra.

## QUANTITATIVE FINDINGS

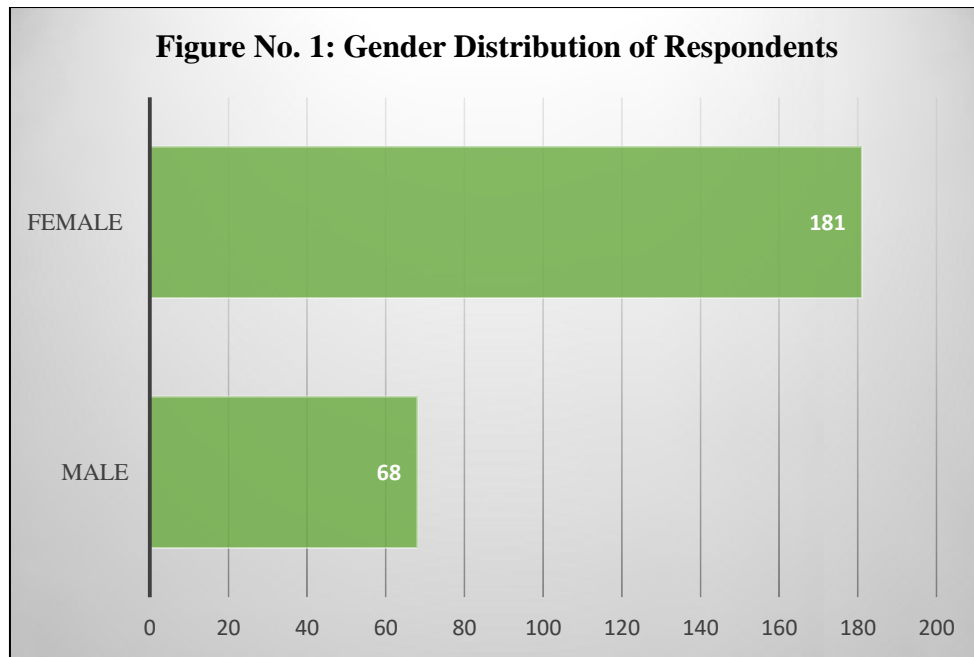
### Demographic Profiling of Respondents

An understanding of the socio-economic profile of the respondents is an indispensable component in any research work; this is more so in the context of assessing social and economic impacts. An in-depth socio-economic profile gives an understanding of demographic features with respect to age, sex, income, educational level, and occupation, among others. Such information enables researchers/planners/social scientists to design and implement more effective and targeted interventions. Such an approach would ensure that the CSR initiatives are objectively assessed with a fair understanding of their effect on various socio-economic groups.

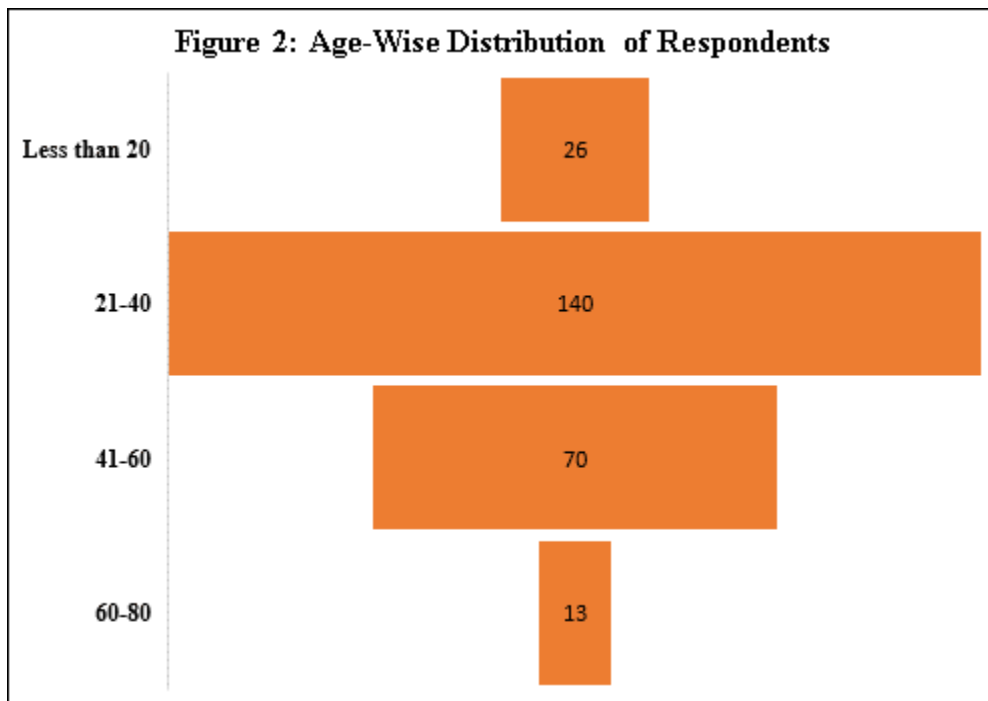
### Gender Distribution

Understanding the distribution by gender is important in understanding the CSR activities to ensure that masculine and feminine perspectives and experiences are taken fully into account for a more balanced and complete evaluation. The gender distribution of the respondents indicates the participation rates of both males and females. Out of the total respondents, 68 are male, whereas a significantly higher number, 181, are female. This distribution suggests a greater engagement or representation of female participants in the survey.





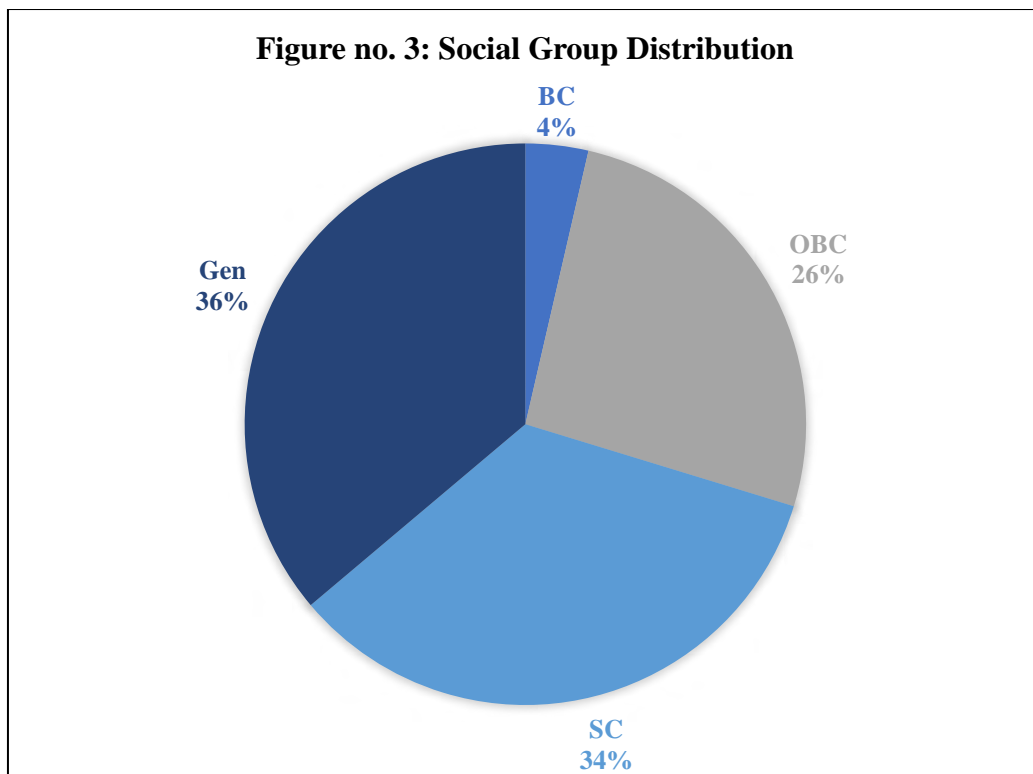
#### Age-Wise Distribution of Respondents



The age-wise distribution of the respondents reveals a diverse demographic spread. The majority of the respondents, accounting for 140 individuals, fall within the 21-40 age bracket, highlighting a significant representation of young to middle-aged adults. This is followed by 70 respondents in the 41-60 age group, indicating a substantial presence of mature adults. The younger demographic, those under 20 years old, comprises 26 respondents, while the elderly segment, aged 60-80, consists of 13 respondents. This

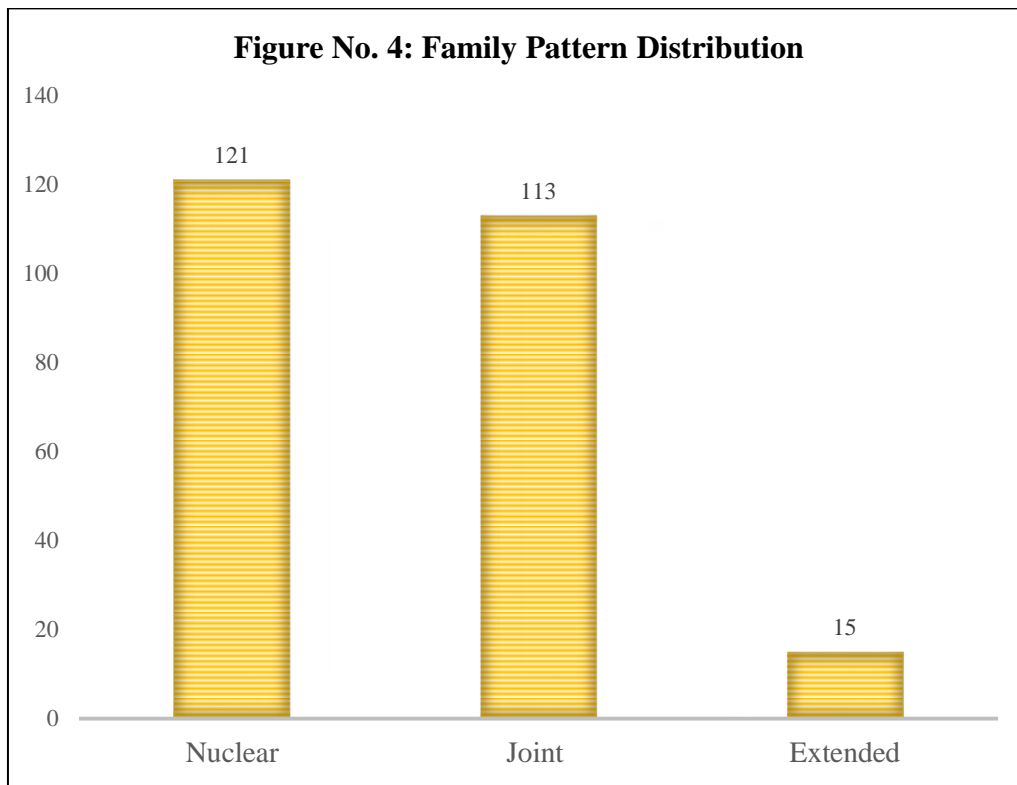
distribution provides a comprehensive overview of the population engaged in the survey, ensuring that the perspectives and needs of various age groups are well-represented in the analysis.

### Social Group Distribution



Analyzing the responses across these diverse social categories is crucial for understanding the differential impacts of CSR activities and ensuring that the developmental programs are equitable and address the needs of all segments of the population. The social group distribution of the respondents showcases a varied representation across different social categories. The data indicates that the largest groups are from the General category with 90 respondents, followed by 85 respondents from the Scheduled Castes (SC) category. The Other Backward Classes (OBC) category accounts for 65 respondents, while the Backward Classes (BC) category has the smallest representation with 9 respondents.

## Family Pattern Distribution

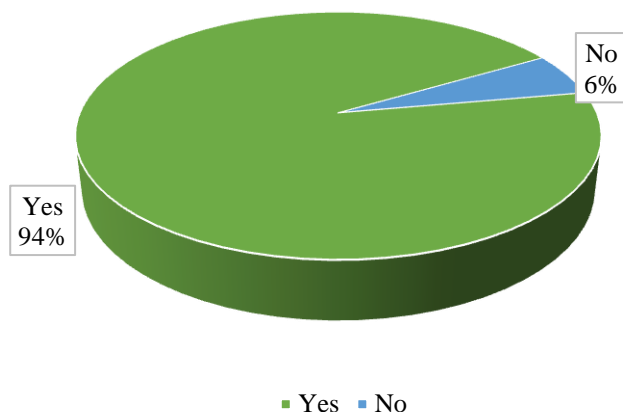


This distribution highlights the variety of family dynamics within the community, providing valuable insights into the social context in which the CSR activities are being evaluated. Understanding these family patterns is essential for assessing how different household structures may influence the impact and effectiveness of developmental programs. The majority of respondents, 121, belong to nuclear families, indicating a prevalent trend of smaller family units. This is closely followed by 113 respondents who are part of joint families, reflecting traditional family arrangements where extended family members live together. Additionally, 15 respondents belong to extended families, which include relatives beyond the immediate family unit.

### Residence in Project Area

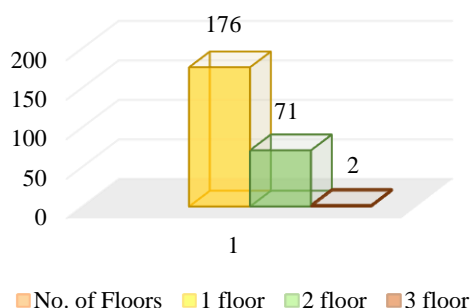
The diagram shows whether respondents' houses fell within the project area. Out of the total respondents, 235 individuals (94%) reported that their houses were within the project area, while 14 respondents (6%) indicated that their houses are not. Moreover, when asked about the type of structure they lived in, nearly all of them reported that they lived in 'residential' structures.

**Figure no. 5: Residence in Project Area**

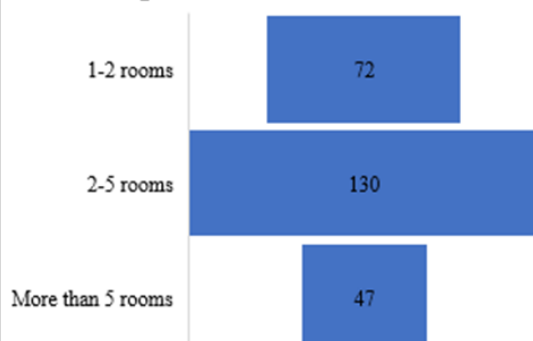


### No. of Floors and Rooms

**Figure no. 6: No. of Floors**



**Figure no. 7: No. of Rooms**



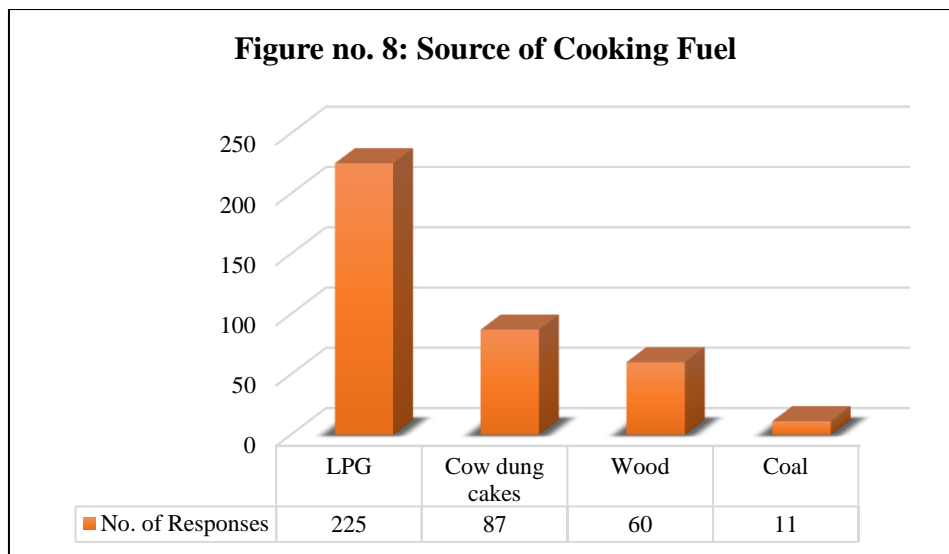
The diagram contains information on the number of floors and rooms in the houses where the respondents live. From the total respondents, 176 respondents (70%) reported living in a one-floor house, while 71 respondents (29%) live in a two-floor house and 2 respondents (1%) reported living in a three-floor house. For the number of rooms, 72 respondents answered that they have 1-2 rooms in their respective homes. A majority of the subjects, 130 respondents, indicated that they have 2-5 rooms, while 47 responded with more than 5 rooms. On the whole, from this data, it emerges that most respondents live in one-floor houses with 2-5 rooms, while a small proportion reside in multi-story and also in homes with fewer/more rooms.

### Electricity, Water, and Sanitation

All the respondents reported that electricity was available in their accommodation. Moreover, toilets were also available, and nearly all toilets were of the Pour Flush style.

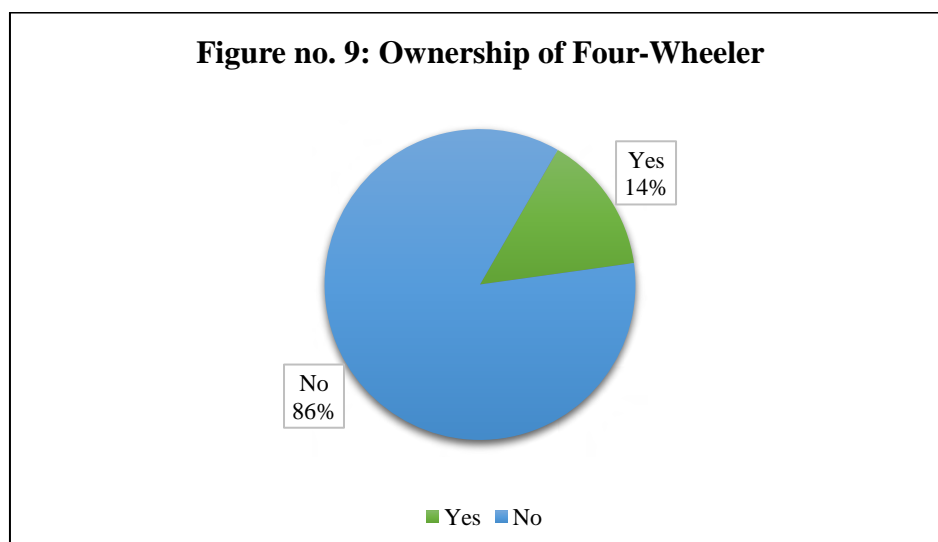
When asked about the source of drinking water, all respondents said that they received piped supply, while some respondents also mentioned supplementary sources like Submersible Borewell, etc.

### Source of Cooking Fuel



The diagram shows the sources of cooking fuel used by respondents. Out of the total respondents, 225 individuals (90%) reported using LPG as their cooking fuel. In addition to LPG, 87 respondents (34%) use cow dung cakes, 60 respondents (24%) use wood, and 11 respondents (4%) rely on coal. This indicates that LPG is the most commonly used cooking fuel among respondents, while cow dung cakes, wood, and coal serve as additional sources of cooking fuel.

### Ownership of Four-Wheeler



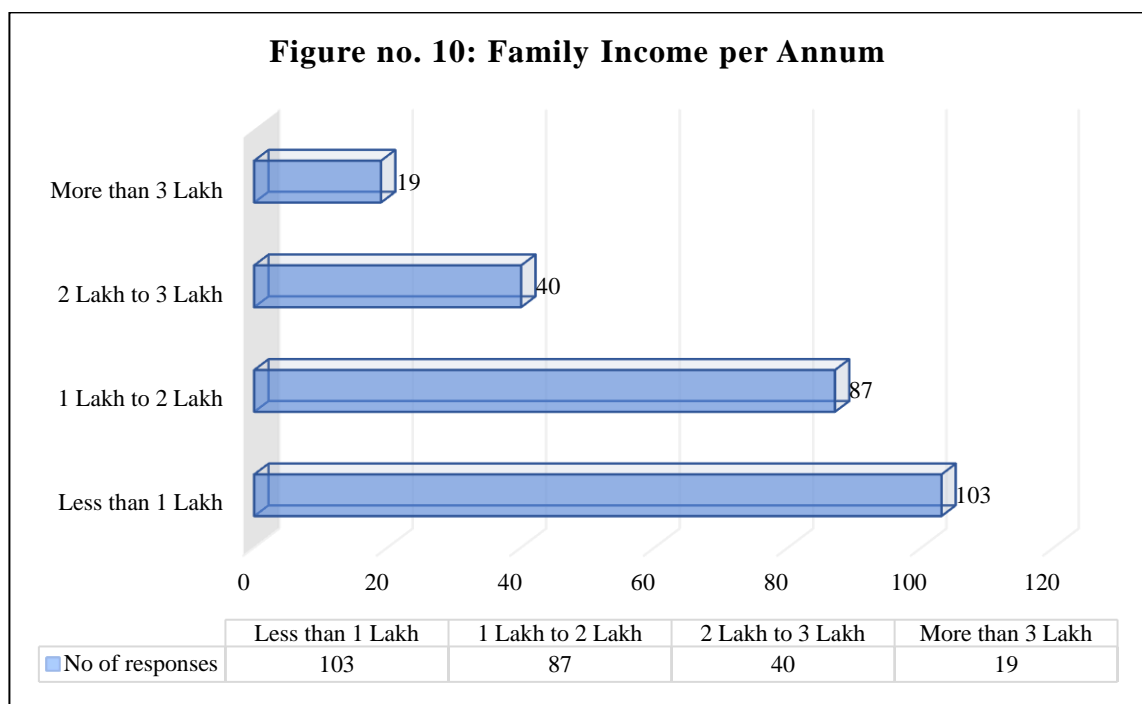


The diagram shows whether respondents own a four-wheeler or not. Out of the total respondents, 36 individuals (14%) reported owning a four-wheeler, while 213 respondents (86%) indicated that they do not. This suggests that the majority of respondents do not own a four-wheeler.

## Occupation

The respondents belonged to diverse occupations, ranging from labourer, farmer, agricultural workers, mason, artisan, vegetable seller to shop owners, school teachers, tailor, beautician, etc.

## Family Income



The diagram shows the annual family income of respondents. Out of the total respondents, 103 individuals responded that they earn less than 1 Lakh per annum. In addition, 87 responded that their income was between 1 Lakh and 2 Lakh annually, 40 between 2 Lakh and 3 Lakh, and 19 responded with an income of more than 3 Lakh. Therefore, it means that most of the respondents earn less than 1 Lakh annually, and few earn in higher income brackets.

## RURAL DEVELOPMENT

NPL has initiated rural infrastructural development activities in the villages of the project area. A baseline study was conducted before the work started, keeping in view the demands and suggestions that originated from the Village Panchayat and the community. These engagements helped ensure that interventions were aligned to actual needs of the communities. The local residents of the village, along with the Panchayat, acted as major stakeholders in this initiative by leading the process of identifying some of the key problem areas and facilitating this project's implementation. The different projects with their objectives and location are as follows:

**Table No. 1: Rural Development Initiatives by NPL, their Objectives and Location**

<b>Rural Development Initiative</b>	<b>Objectives</b>	<b>Location</b>
<b>Construction and Renovation of Roads</b>	Providing better road connectivity to village people and improving basic infrastructure which leads to overall development and ambiance of the community.	Chandu Majra, Khrola, Gurditpura, Majri, Kehargarh, Badali Mai Ki, Cholti Kheri, Harna, Jansua, Badal Colony, Rangian, and Sadhror.
<b>Repair and Renovation of Panchayat Centres (Community Centres)</b>	These can be utilized for common village purposes.	Dabali Khurd, Rangian, Balsuan, and Mirjapur.
<b>Construction of Community Shed</b>	Providing a common facility to village people & panchayats to organize social/family functions.	Rai Majra
<b>Rain Shelter</b>	To address the issue of water logging under the Railway bridge at Vill. Cholti Khedi	Cholti Khedi
<b>Natural Drains and Solid Waste Management Projects</b>	Cleaning of natural drains to prevent water logging in fields and damaged crops.	Various villages of Patiala and Fatehgarh Districts

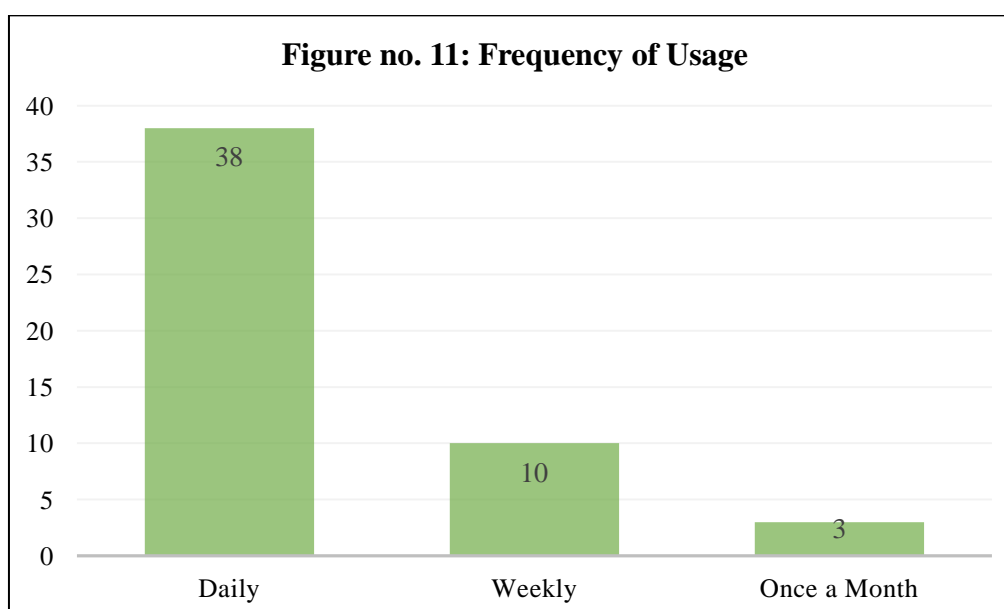
## Awareness of these Structures

The respondents from the following sample villages were aware of the following structures developed by NPL in their villages.

**Table No. 2: Villages Selected in Sample and Awareness of Structures**

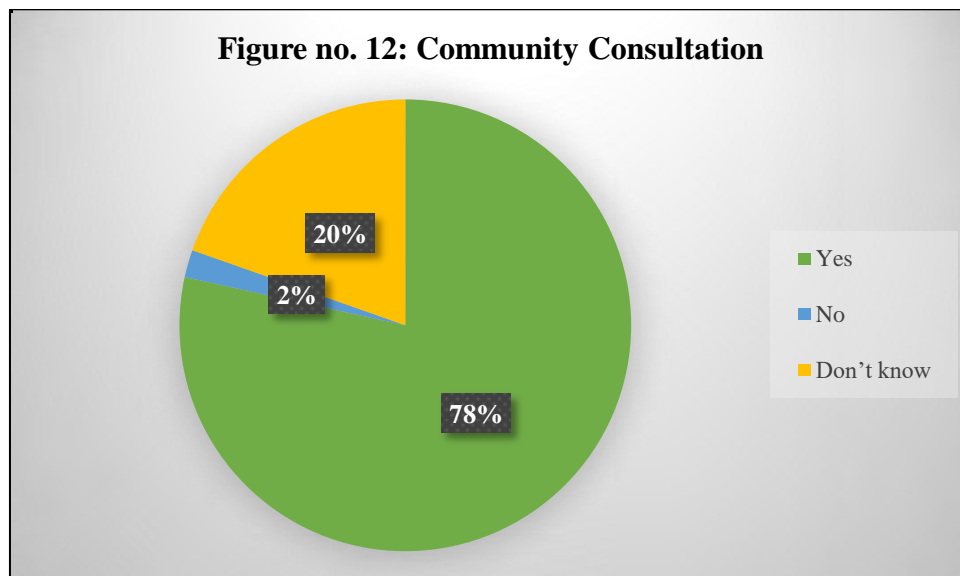
Sample Village	Aware of these structures
<b>Cholti Khedi</b>	Panchayat cum Training Centre, Village Peripheral Road, Sports Ground, Community Shed
<b>Mirjapur</b>	Panchayat cum Training Centre, Village Peripheral Road, Sports Ground
<b>Ugani Sahib</b>	Panchayat cum Training Centre, Village Peripheral Road
<b>Chandu Majra</b>	Village Peripheral Road
<b>Sural Kalan</b>	Village Peripheral Road, Boundary, and Flooring at village Dharamshala
<b>Rangian</b>	Village Peripheral Road, Community Shed
<b>Sindhra</b>	Village Peripheral Road, Community Shed
<b>Gurditpura</b>	Village Peripheral Road, Sports Ground
<b>Kharola</b>	Village Peripheral Road
<b>Harna</b>	Village Peripheral Road
<b>Bhagrana</b>	Village Peripheral Road
<b>Badali Mai Ki</b>	Village Peripheral Road

## Frequency of Usage



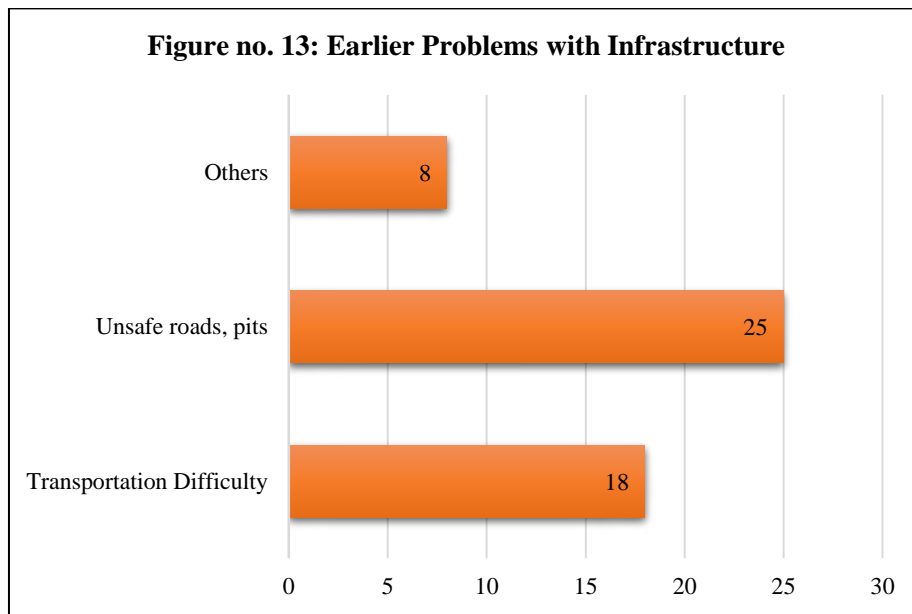
The diagram provides an overview of the frequency of usage of rural infrastructure developed by NPL. Out of a total of 51 respondents, the majority, 38 individuals (74%), reported using the infrastructure daily. This high daily usage indicates that the infrastructure is an integral part of the community's daily activities, significantly contributing to their routine and quality of life. Additionally, 10 respondents (20%) utilize the infrastructure weekly, while 3 individuals (6%) indicated that they use it once a month. The varied frequencies of usage underscore the broad utility and relevance of the infrastructure improvements, catering to both frequent and occasional needs of the community members.

### Community Consultation before Construction



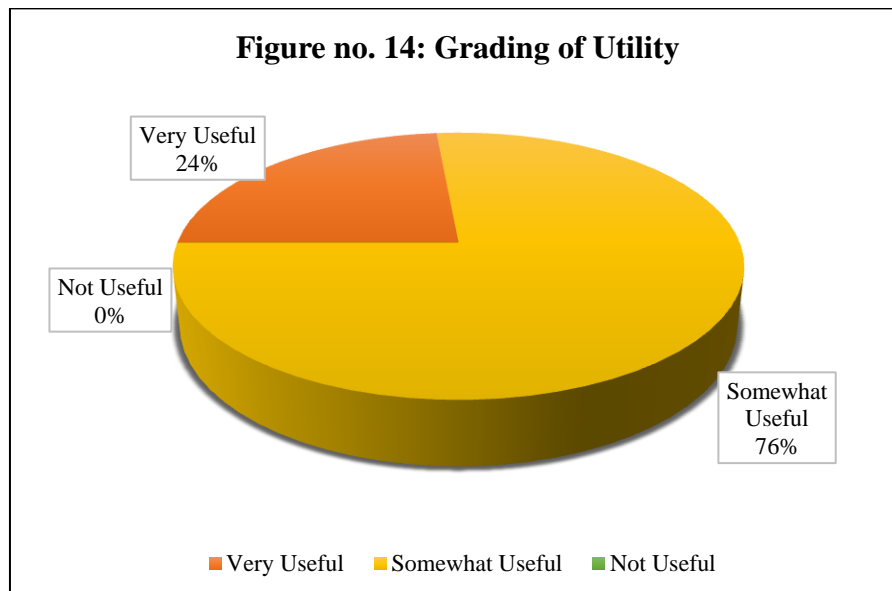
This diagram illustrates the level of community consultation by the Panchayat before the development of structures by NPL. According to the data, a substantial majority of 40 respondents (78%) confirmed that the Panchayat did consult the community before these developments. This indicates a strong participatory approach, ensuring that the needs and opinions of the villagers were considered in the planning process. Only 1 respondent (2%) stated that there was no consultation. Additionally, 10 respondents (20%) were unsure about whether such consultations took place. Overall, the data underscores the importance of community involvement in developmental projects, reflecting a predominantly inclusive and transparent decision-making process.

## Problems Faced by Community before Infrastructural Development



This diagram gives a depiction of the problems faced by the community before the infrastructure improvements by NPL were implemented. The two problems pointed out in the survey, which stand out, were related to construction of peripheral road. 25 respondents (49%) identified unsafe roads and pits as the primary issue. Additionally, 18 respondents (35%) reported transportation difficulties, underscoring the challenges faced by villagers in commuting efficiently and safely. Furthermore, 8 respondents (16%) cited various other problems, like Water Logging, Lack of a common place for socio-cultural gatherings, etc.

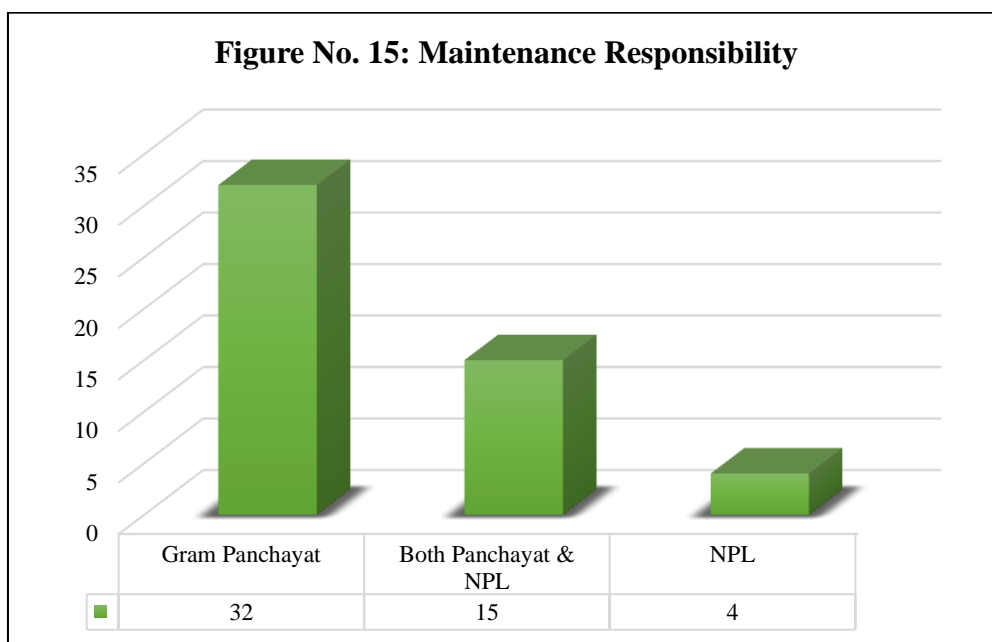
## Grading of Utility of Structures





The table presents the respondents' grading of the utility of the infrastructure developed by NPL. A significant majority, 39 respondents (76%), rated the infrastructure as "Somewhat Useful," indicating that while the improvements have positively impacted their lives, there may still be areas for further enhancement. Additionally, 12 respondents (24%) found the infrastructure to be "Very Useful," reflecting a high level of satisfaction and the tangible benefits experienced by these individuals. Notably, no respondents rated the infrastructure as "Not Useful," suggesting that the developments have had a universally positive impact on the community. This feedback highlights the overall effectiveness of the infrastructure projects while also pointing to the potential for continued improvements to maximize their utility.

### Maintenance Responsibility



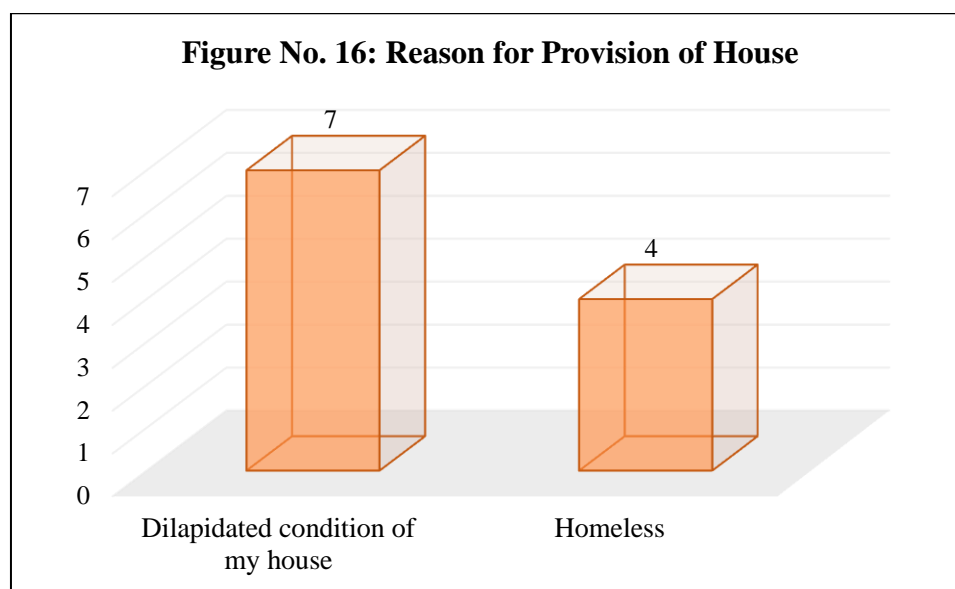
This diagram illustrates the respondents' perceptions regarding the future maintenance responsibility of the infrastructure developed by NPL. According to the data, 32 respondents (63%) reported that the Gram Panchayat is responsible for maintaining the structures. Another 15 (29%) respondents indicate that the maintenance responsibility is shared by both the Panchayat and NPL. A smaller number, 4 respondents (8%), think that NPL alone handles the maintenance.

## EWS HOUSING

As part of their efforts towards rural development, NPL also worked towards providing homes to extremely poor households that don't have shelter or live in unsafe or pathetic conditions. Provision of dignified homes to underprivileged families would give them a life of dignity and safety and enhance their morale to make efforts to fulfill other family survival needs. This work was carried out based on families' or communities' requests covering around 70 beneficiaries. EWS Housing Project was carried out in Bhagrana, Haripur, Loha Khedi, Dabali Khurd, Sural Khurd, Kotla, Bhateri, Urna, Basantpura, Mirzapur, Bhappal, Sarai Banjara Basti, Niamatpur, Harna, Nalash Kalan, Sural Kalan, Sadhror ,Rangian.

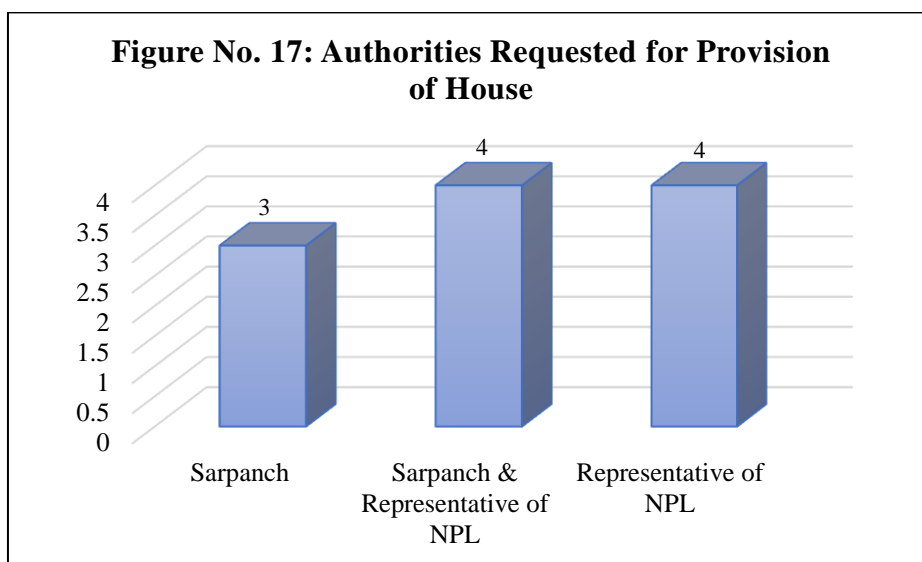
For the purposes of impact assessment, one respondent each was identified from Bhagrana, Chandu Majra, Dadu Majra, Nalas Khurd, and Mirjapur from the people who were given homes under the project.

### Reason for Provision of House



The diagram outlines why respondents were given houses under the EWS Housing Project. Out of the total respondents, 7 individuals (63%) received houses due to the dilapidated condition of their previous homes, highlighting the urgent need for safe and stable housing for these families. Additionally, 4 respondents (37%) were provided houses because they were homeless, underscoring the project's role in addressing homelessness and providing essential shelter to those in need.

## Authorities Requested

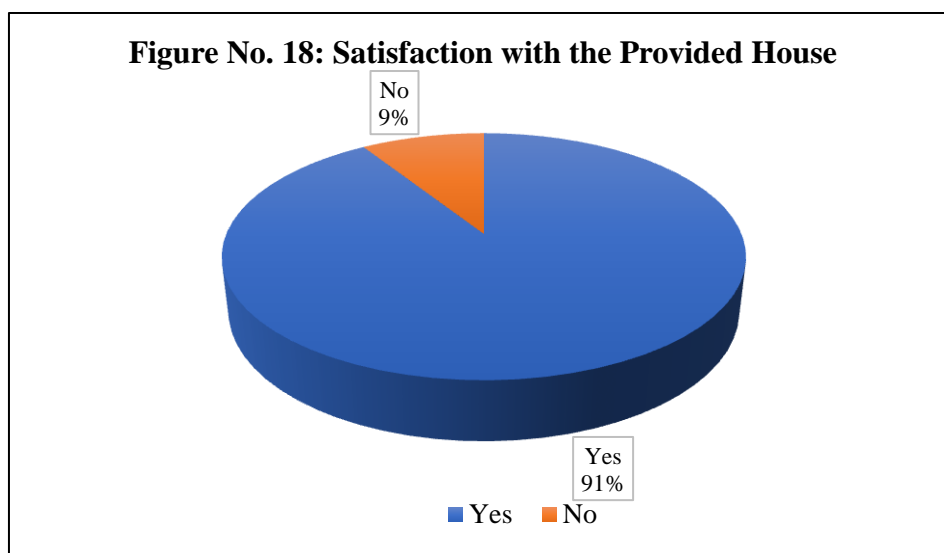


This diagram provides insights into the authorities approached by respondents for the provision of a house under the housing initiative. According to the data, 3 respondents (28%) requested the Sarpanch alone. Additionally, 4 respondents (36%) reached out to both the Sarpanch and a representative of NPL. Another 4 respondents (36%) requested help solely from the NPL representative.

## Financial Contribution by Respondents

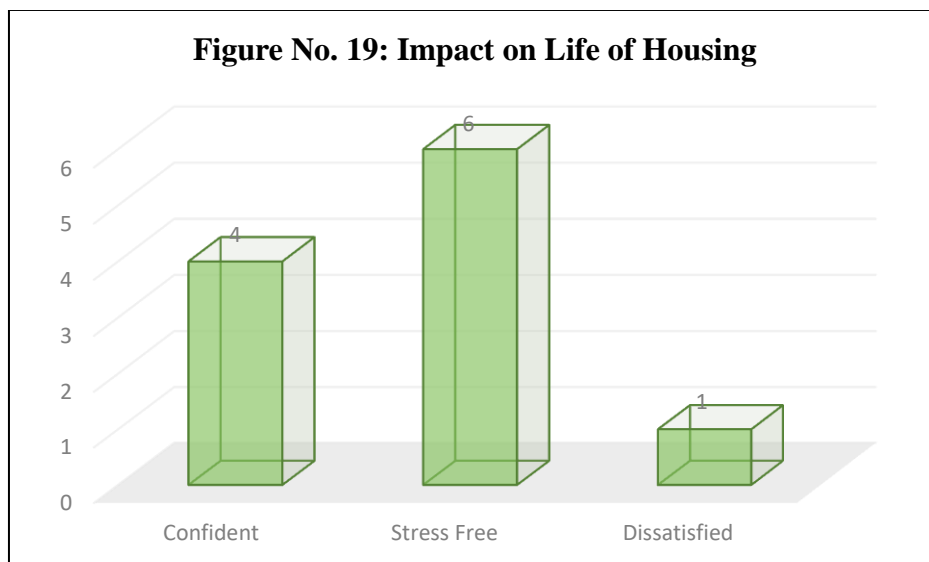
The respondents were asked whether they contributed any amount towards purchasing the house. All the respondents reported that they did not contribute any amount and the total amount they thought to be around 4 Lakhs, was paid by NPL only.

## Satisfaction with the Provided House



The table shows the level of satisfaction among respondents regarding the houses provided to them under the housing initiative. Out of the total respondents, 10 individuals (91%) expressed satisfaction with the provided houses, indicating a positive reception and appreciation for the housing assistance received.

### Impact on Life



This diagram shows the impact of the EWS Housing Project on the lives of respondents. Out of the total respondents, 4 individuals (36%) reported feeling confident and 6 respondents (54%) reported that they felt stress-free, suggesting a positive impact and increased assurance in their lives.

## WATER AND ENVIRONMENT

NPL has undertaken certain projects for environmental conservation in the identified villages. The selection of the projects was based on the requests and inputs from the Village Panchayat and the community to ensure that the interventions were aligned with the actual needs of the communities. The primary stakeholders in this initiative were the village residents and the Panchayat. The different projects with their objectives and estimated number of beneficiaries are as follows:

**Table No. 3: Environment Related Initiatives, their Objectives and Location**

Environmental Initiative	Objectives	Location
<b>Rejuvenation of Ponds</b>	<ul style="list-style-type: none"> <li>• Removing Silt and Vegetation to enhance water storage capacity to prevent flooding.</li> <li>• Improve the quality of ponds for irrigation and fishery</li> <li>• Improving health, hygiene, ground water table, and ecological balance.</li> </ul>	Urna Distt. Patiala, Punjab
<b>Plantation &amp; Afforestation</b>	Contributing towards the environmental as well as social cause, by planting 10000 samplings (setting up Nanak Baghichi)	Cholti Khedi, Badali Mai Ki

### Awareness of these Initiatives

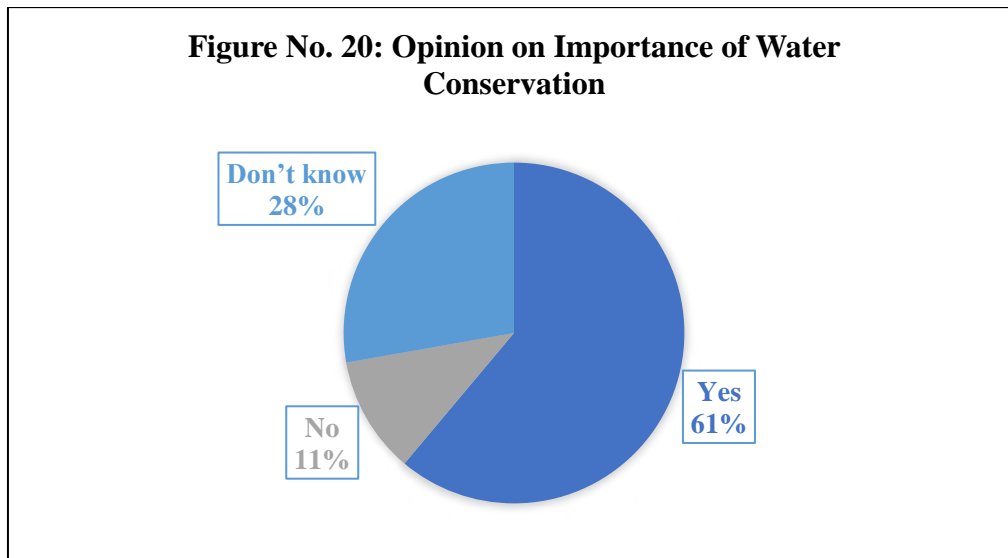
The respondents from the following sample villages were aware of the following initiatives undertaken by NPL in their villages.

**Table No. 4: Sample Villages and Awareness of Initiatives**

Sample Village	Aware of these Initiatives
<b>Cholti Khedi</b>	Plantation
<b>Mirjapur</b>	Pond Cleaning and Development, Plantation
<b>Ugani Sahib</b>	Pond Cleaning and Development
<b>Badali Mai Ki</b>	Plantation

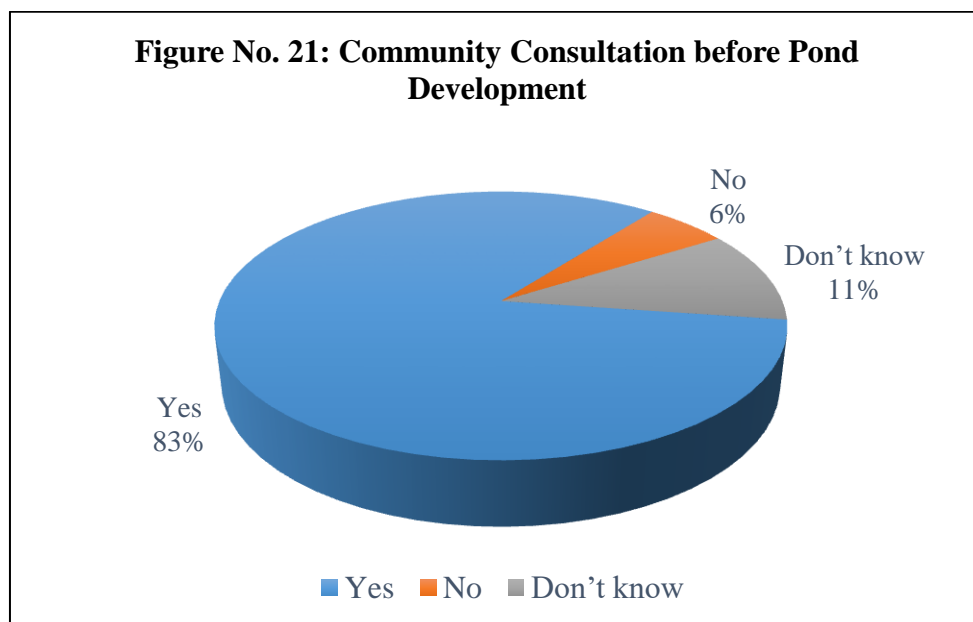


## Opinion on Importance of Water Conservation



The diagram shows respondents' opinions on the importance of water conservation. Out of the total respondents, 11 individuals (61%) affirmed that they believe water conservation is important. In contrast, 2 respondents (11%) expressed that they do not consider water conservation important. Additionally, 5 respondents (28%) were unsure about the importance of water conservation. Overall, the majority view water conservation as significant.

## Community Consultation before Pond Development

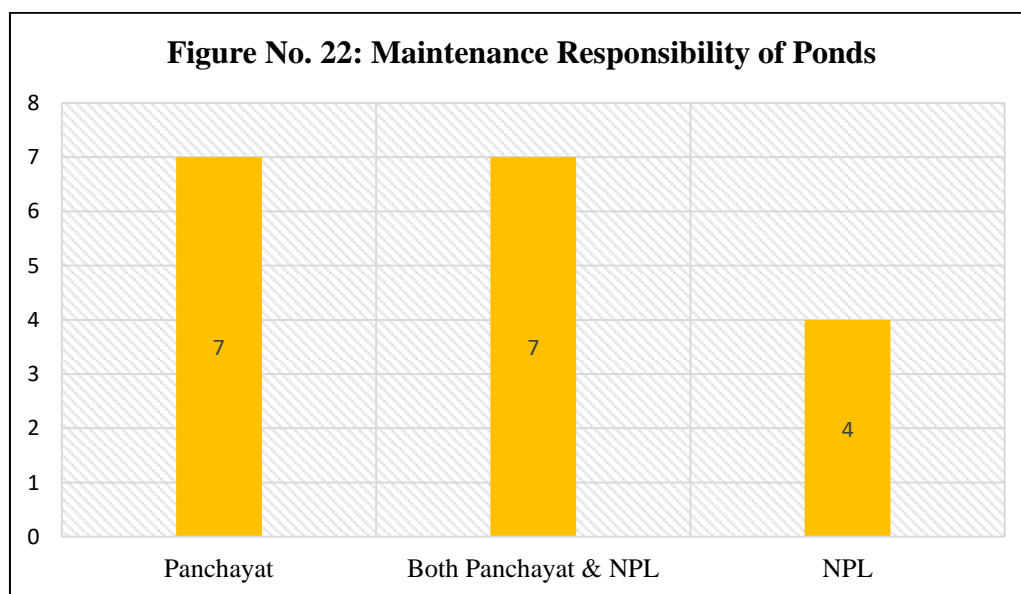


The diagram shows whether the community was consulted before the pond cleaning and development measures. Out of the total respondents, 15 individuals (83%) confirmed that the community was consulted prior to these environmental initiatives, indicating strong community involvement and consideration in the decision-making process. In contrast, 1 respondent (5%) stated that there was no consultation with the community. Additionally, 2 respondents (12%) were unsure about whether consultation took place. Overall, the majority of respondents acknowledged community consultation, reflecting a positive approach to inclusive decision-making.

### Changes in Quality of Pond after Cleaning

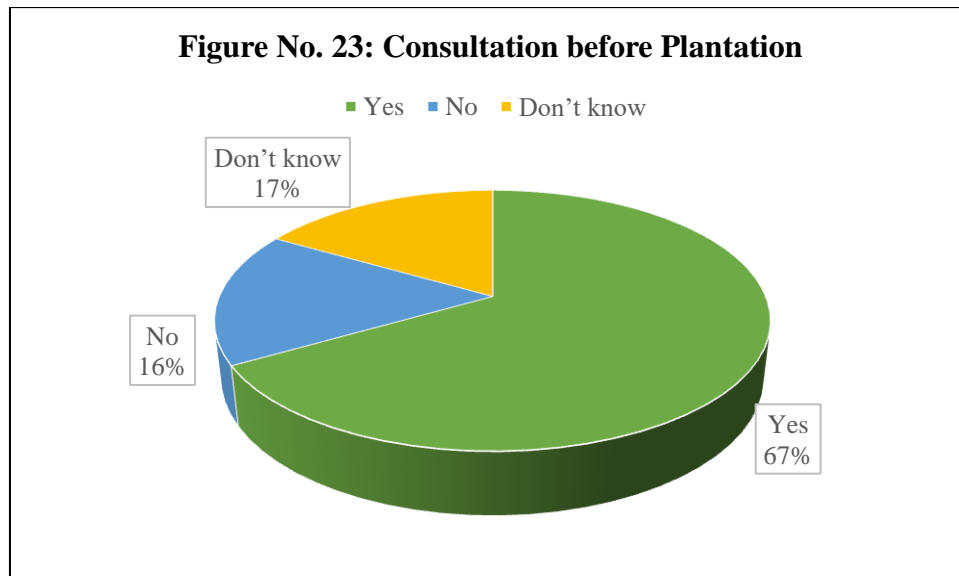
All the respondents reported that the quality of the pond has improved after cleaning and development by the NPL. Additionally, they indicated that the primary use of the pond in their area was irrigation and households don't use it for personal purposes.

### Maintenance Responsibility of Ponds



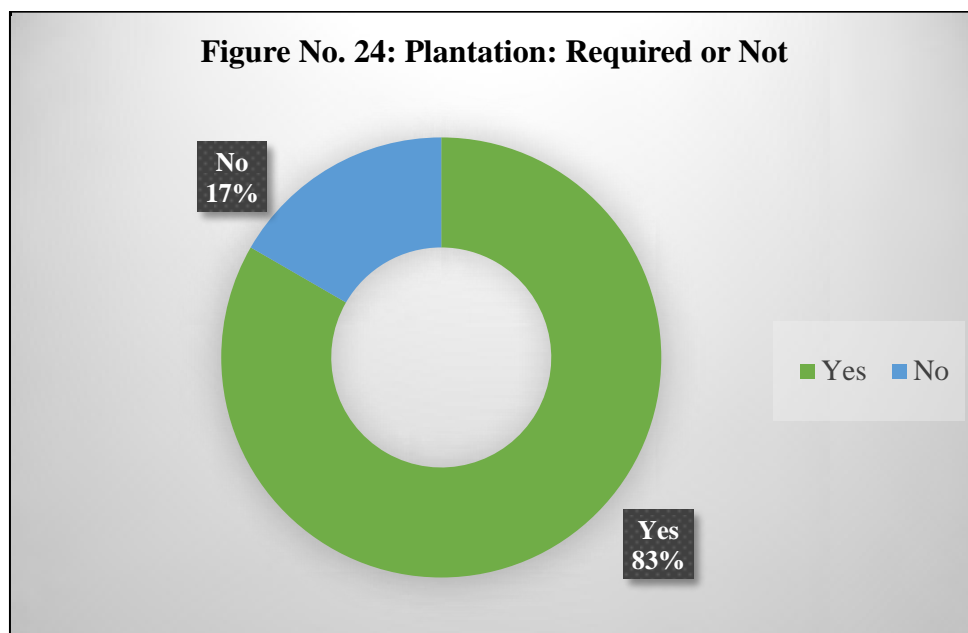
The above diagram shows respondents' perceptions regarding the authority responsible for the maintenance of ponds. Out of the total respondents, 7 individuals (39%) believe that the Panchayat is responsible for pond maintenance. Another 7 respondents (39%) think that both the Panchayat and NPL share this responsibility. Additionally, 4 respondents (22%) feel that NPL alone handles the maintenance of ponds.

## Community Consultation Before Plantation



The diagram shows whether the community was consulted before the plantation activities. Out of the total respondents, 12 individuals (68%) confirmed that the community was consulted prior to the plantation, reflecting a significant level of engagement and consideration for community input in the process.

## Opinion about Requirement of Plantation



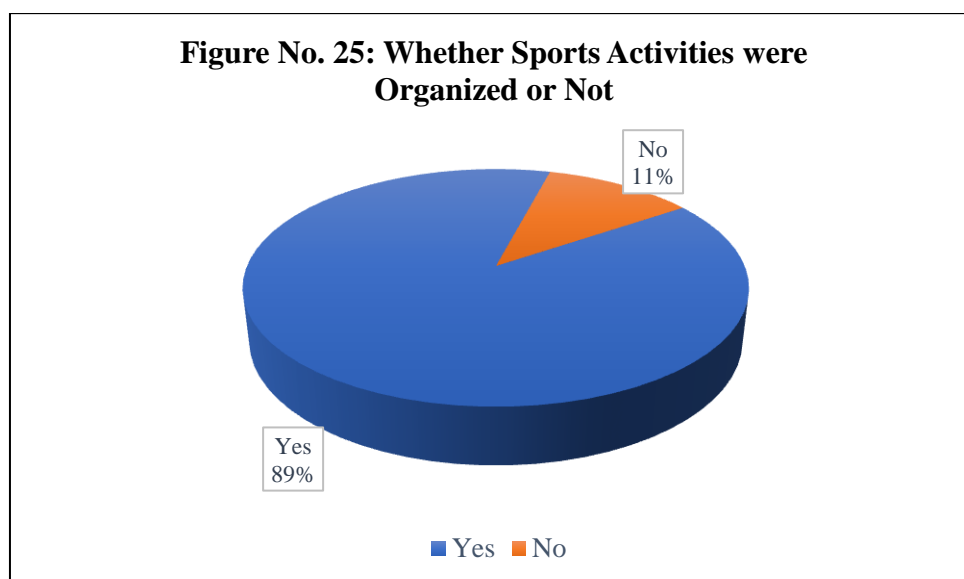
The diagram shows respondents' views on the need for plantation. Out of the total respondents, 15 individuals (83%) expressed that a plantation is required. Overall, the majority supports the need for plantation.

## YOUTH AND SPORTS

NPL also strives to contribute towards the youth through development of sports and physical activity. As such, as part of its CSR initiative, the company undertakes different projects like developing a common sports facility (at Badal Colony), distribution of Sports Kit (various village of Patiala and Fatehgarh Districts), and organizing sports programmes of traditional games like Kabbadi and Tug of War, as well as modern games like Volley Ball and Cricket (Uppalheri, Harna, Mirjapur, Sindhran). These initiatives have been undertaken based on the requests made by Youth and Panchayat.

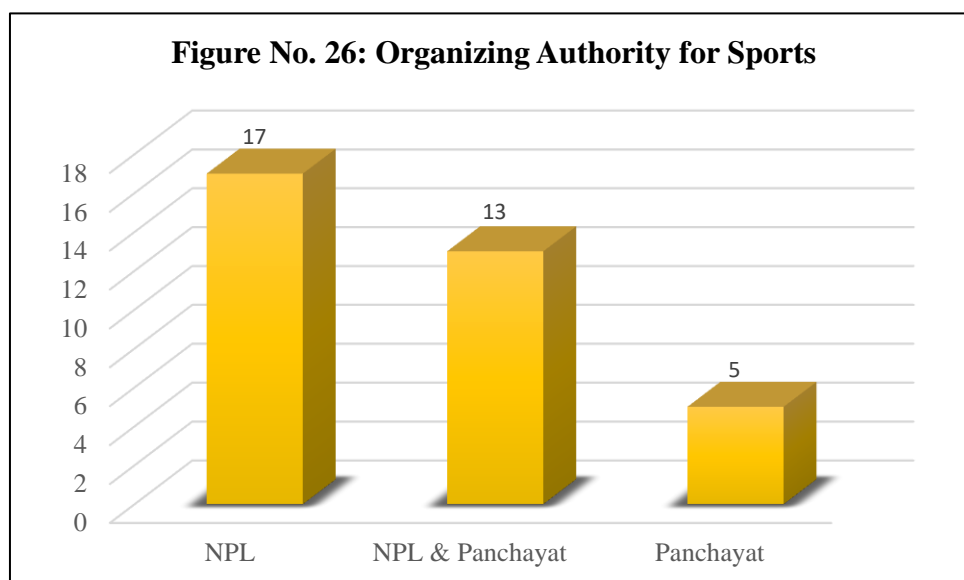
For the purposes of impact assessment, the respondents that participated in the survey related to sports activities belonged to Harna, Cholti Khedi, Bhappal, Sindhran, Mirjapur, Akbarpur, Ugani Sahib, Nalas Kalan, Gurditpura, Dabali Kalan, and Nalas Khurd. Their responses to the questions have been presented below.

### Whether Sports Activities were Organized or Not



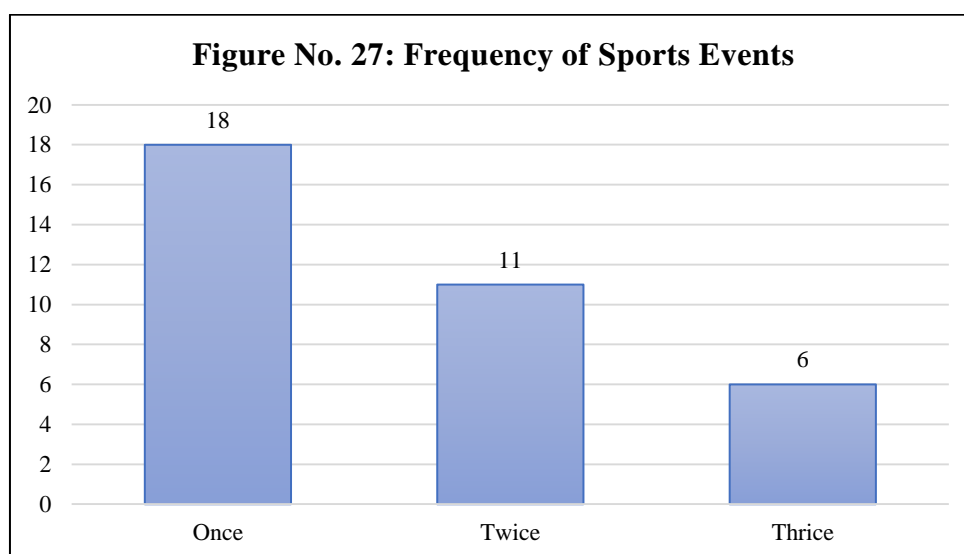
The diagram shows whether sports activities were organized in the respondents' area. Out of the total respondents, 31 individuals (89%) confirmed that sports activities were organized.

## Organizing Authority



The diagram shows respondents' perceptions regarding the organizing authority of the sports activities. Out of the total respondents, 17 individuals (49%) believe that NPL organized the sports activities. Additionally, 13 respondents (37%) think that both NPL and the Panchayat were involved in organizing these activities. Meanwhile, 5 respondents (14%) feel that the Panchayat alone was responsible for organizing the sports activities.

## Frequency of Sports Events

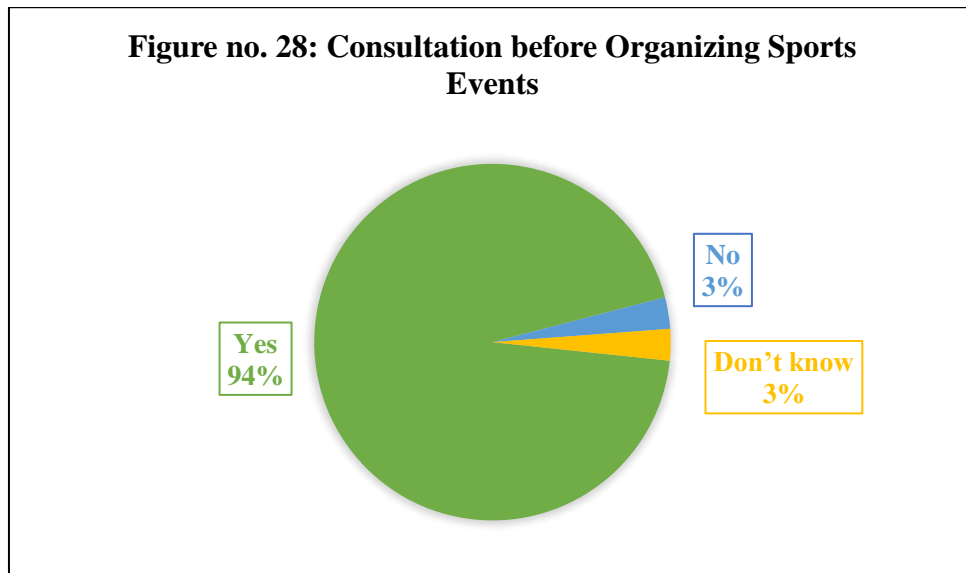


This diagram shows the frequency of sports events per year that occurred in the respondents' villages. Out of the total respondents, 18 individuals (51%) reported that sports events were organized once a year. Additionally, 11 respondents (31%) indicated



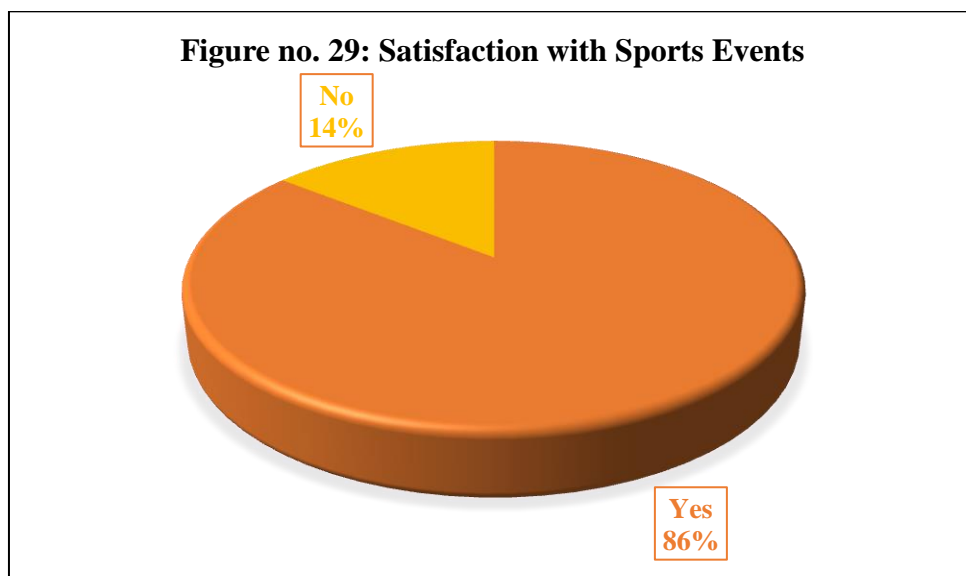
that sports events were held twice a year, while 6 respondents (18%) mentioned that these events occurred three times a year. The data reveals that sports events are regularly organized in the villages, with the majority experiencing at least one event annually.

### Consultation before Organizing Sports Events



This diagram shows respondents' responses to whether the community and Panchayat were consulted before organizing sports events. Out of the total respondents, 33 individuals (94%) confirmed that there was consultation with the community and Panchayat before organizing the sports events.

### Satisfaction with Sports Events



The diagram shows the satisfaction among respondents regarding sports activities. Out of the total respondents, 30 individuals (86%) expressed satisfaction with the sports events, indicating a positive reception and appreciation for these activities.

## HEALTH

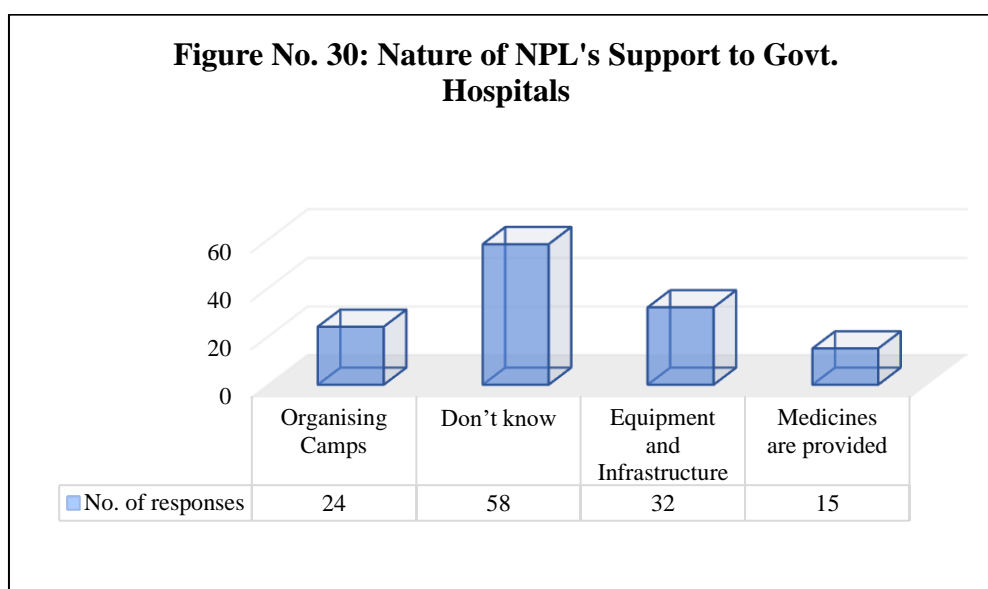
As part of their CSR initiative, NPL also works towards the health sector, to the end of providing quality and affordable healthcare to the residents of identified villages. NPL has different programmes through which it works in this sector. These projects were identified and worked upon based on the inputs and requests made by the community members and the Panchayat.

**Table No. 5: Health-Related Initiatives, their Objectives and Location**

Health-related Initiative	Objectives	Location
<b>Blood Donation Camps</b>	Motivating and encouraging the participation of youth in social activities like Blood Donation.	Uppalheri, Balsuan, Sindran, Gurditpura, Akbarpur
<b>Generalized and Special Health Camps</b>	Promoting preventive and curative health in NPL Catchment Villages.	Salempur, Gurdittpura, Nalash Kalan, Nalash Khurd, Harna, Bakshiwalla, Mirjapur, Rangian, Akbarpur, Bhagrana, Sarai Banjara, Sural Kalan, Bhabali Kalan, Dadu Majra, Basantpura and Badali Mai Ki
<b>Cancer Screening Camps (in association with World Cancer Care Charitable Society)</b>	Enabling early detection through screening camps	Jansua, Bhappal, Urna, Akbarpur and Bhagrana

For the purpose of writing this report, respondents were taken from Harna, Cholti Khedi, Basantpura, Gurditpura, Kharola, Rajpura, Sural Kalan, Rangian, Dadu Majra, Dabali Kalan, Sindhran, Mirjapur, Ugani Sahib, Loha Khedi, Sadhror, Bhagrana, Bhappal, Nalas Khurd, and Akbarpur. People belonging to Bhagrana, Bhappal, and Akbarpur were also asked questions about the Cancer Screening Camps that were organized in their village.

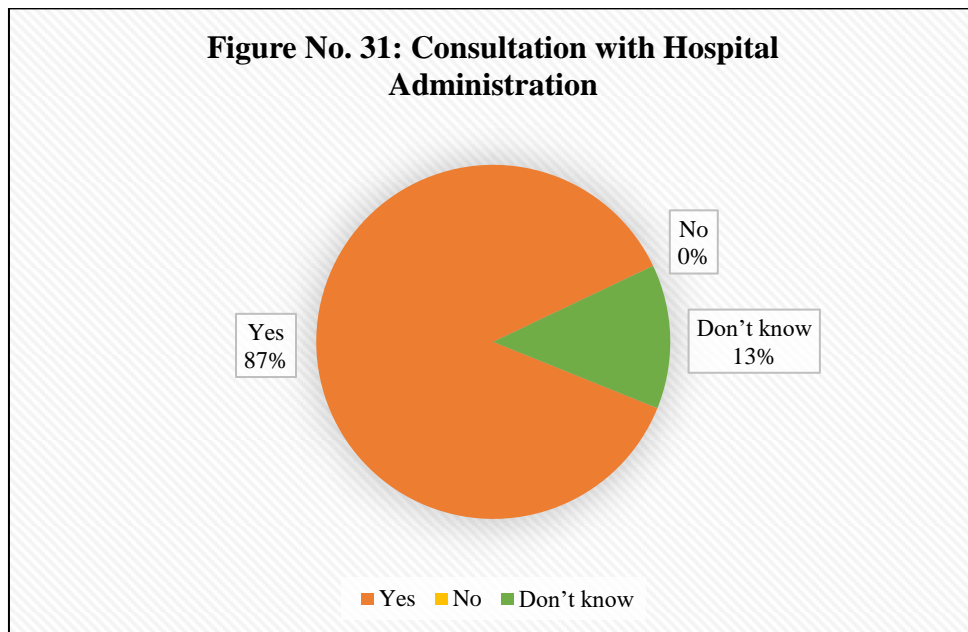
### Nature of NPL's Support



The diagram shows respondents' descriptions of how NPL supports government hospitals in their area. Out of the total respondents, 24 individuals (19%) reported that NPL supports government hospitals by organizing camps. Additionally, 32 respondents (25%) mentioned that NPL contributes through providing equipment and infrastructure, and 15 respondents (12%) stated that NPL supplies medicines to government hospitals. 58 respondents (44%) were unaware of the specific ways NPL provides support. Overall, the responses indicate that NPL's support for government hospitals is multifaceted, including organizing medical camps, providing equipment and infrastructure, and supplying medicines.

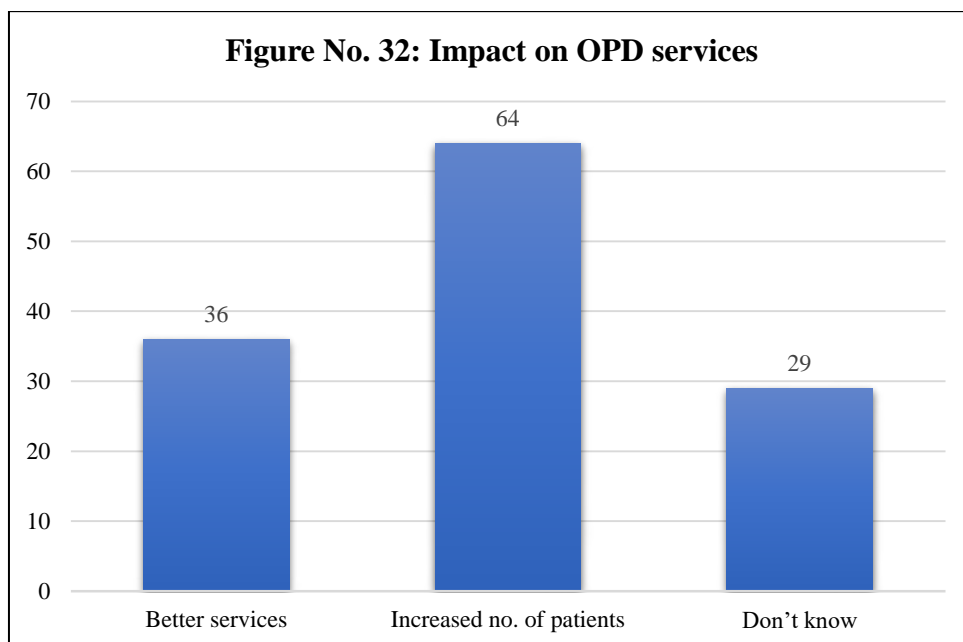
NPL has provided various facilities like big laundry machines, air conditioners, fridges, beds, CCTV cameras, LEDs, chairs, benches, almirahs, tables, medicines, water coolers, weighing machines, BP and Diabetes related apparatus, etc.

### Consultation with Hospital Administration



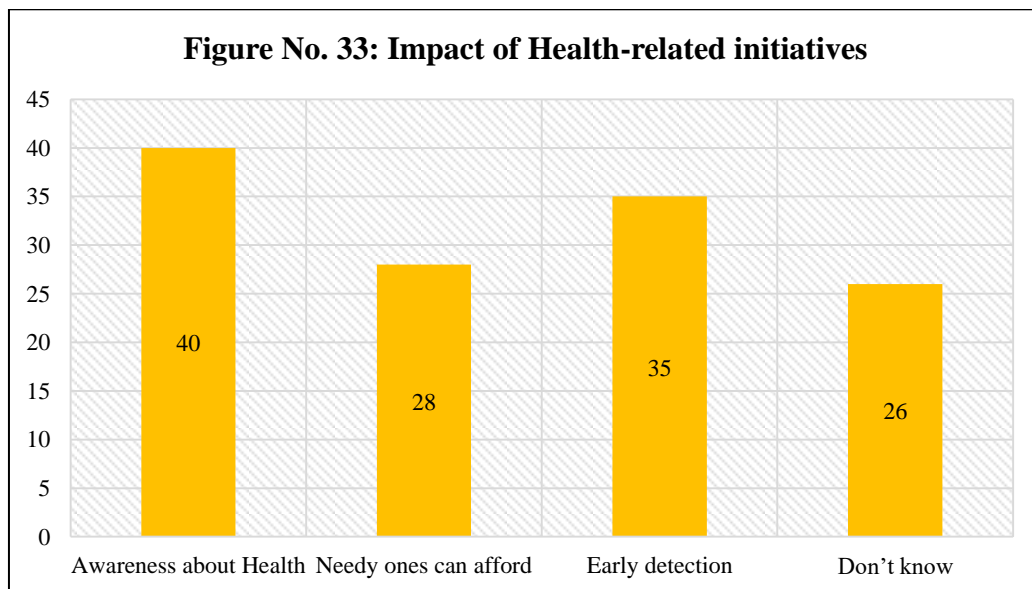
The diagram shows whether the hospital administration was consulted before providing them with the equipment. Out of the total respondents, 112 individuals (87%) confirmed that the hospital administration was consulted. No respondents (0%) reported that the hospital administration was not consulted. Additionally, 17 respondents (13%) were unsure whether the consultation took place or not.

### Impact on OPD Services



This diagram shows respondents' descriptions of the impact of health-related initiatives, such as providing medical professionals with quality infrastructure and equipment, on OPD services. Out of the total respondents, 36 individuals (28%) reported that the initiatives have resulted in better services in the OPD. Additionally, 64 respondents (49%) mentioned that the initiatives have led to an increased number of patients utilizing OPD services, indicating a significant rise in patient turnout. However, 29 respondents (23%) were unsure of the specific impact of these health-related initiatives. Overall, the responses suggest that the initiatives have positively influenced OPD services, particularly by enhancing service quality and increasing patient numbers.

### Impact of Health-related Initiatives

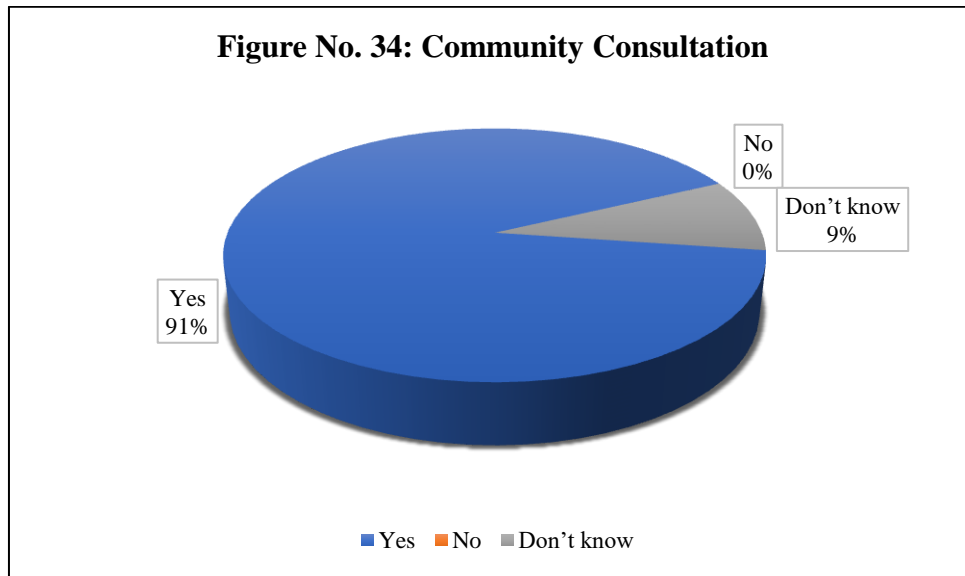


This diagram shows respondents' descriptions of the impact of health-related initiatives on villagers. Out of the total respondents, 40 individuals (31%) reported that these initiatives have increased awareness about health in the community. Additionally, 28 respondents (21%) mentioned that the initiatives have made healthcare more affordable for those in need. Moreover, 35 respondents (27%) stated that the initiatives have contributed to the early detection of health issues. However, 26 respondents (21%) were unsure of the specific impact of these health-related initiatives. The responses indicate that the health-related initiatives have positively influenced the community by raising health awareness, making healthcare more accessible, and promoting early detection of illnesses.

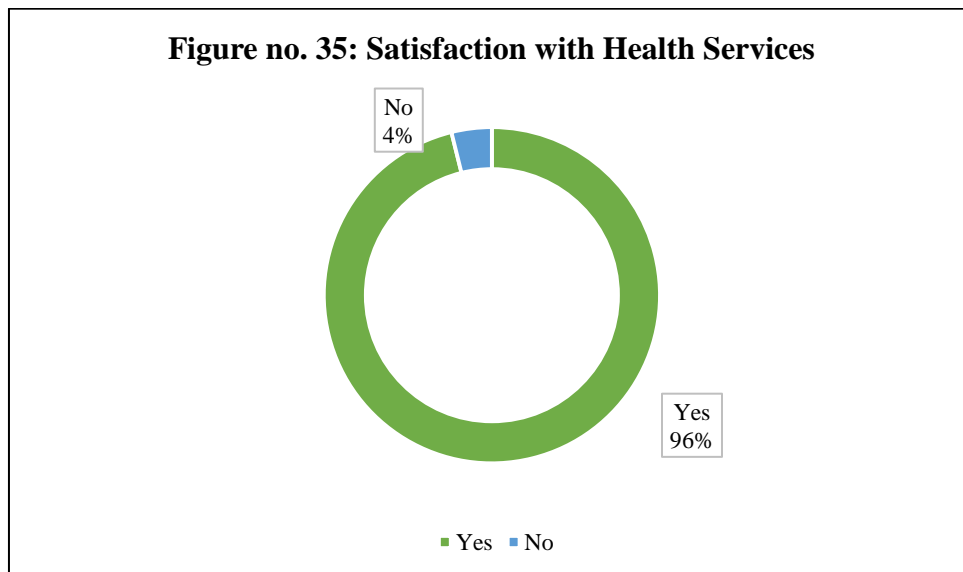


### Consultation with Community

The table shows respondents' accounts on community consultation in the implementation of health-related initiatives. Out of the total respondents, 117 individuals (91%) confirmed that there was consultation with the community during the implementation of these initiatives. Notably, no respondents (0%) indicated a lack of consultation.



### Satisfaction with Services



The diagram shows whether the respondents' felt satisfied with the services provided or not. Out of the total respondents, 124 individuals (96%) expressed satisfaction with the services, indicating a strong positive reception and approval of the services offered.

## SKILL DEVELOPMENT

As part of its CSR activities, NPL has taken the initiative of establishing skill development centres in their catchment villages. These centres play an instrumental role in equipping women with vocational skills and enabling them to secure respectable income opportunities. These skill development centres have been historically rooted in NPL Catchment Villages considering that at least 30 women are available for training. Different projects form a part of the skill development initiative of the NPL, which are as follows:

**Table No. 6: Skill Development Initiatives, their Objectives and Location**

Skill Development Initiative	Objectives	Location
Skill Training	Training women in Stitching- Tailoring and Beautician	Bakshiwala, Kharola, Sadhror, Sural Kalan, Mijrapur, Dhabali Kala, Rangian, Gurdittpur, Loha Khedi, Bhappal, Harna and Kotla
Udyogini: Production Centres	Income generation of women who wish to engage in job work provided in production centres (Stitching of School Dresses, Jute, Paper Bag and Phulkari) in 6 villages	Kharola, Rangian, Nalash, Sural Kalan, Bakshiwala, Sindhran
Udyogini: Entrepreneurship Development	Enterprise scaleup of trainees of NPL's Skill Development Program through in-kind support for setting up their enterprises	Salempur, Dadumajra, Bakshiwala, Balsua, Kotla, Naina, Nalash Khurd

The Udyogini Production Centres were continued in the locations where women were trained in Stitching and Tailoring, the desirous women were enrolled in the centre out of a survey. Similarly, for Udyogini Entrepreneurship, applicants were selected out of the applications received from the survey conducted by NPL Trainers in villages where training was conducted in the past. Certificates are also provided to deserving candidates, which can be used as proof of their skills and will enhance their employability.

For the impact assessment of this initiative, the women enrolled at skill training centres of Harna, Bhappal, Nalas Khurd, Loha Khedi, Mirjapur, Sural Kalan, Dabali Kalan, Rangian, Sindhran, Kharola, and Nalas Kalan were identified as respondents. The details of these skill development centres are as follows:

**Table No. 7: Skill Development Centres and their Details**

Village	Course	No. of Students	Trainer's Name	Trainer's Qualification	Trainer's Work Experience
Harna	Beautician	35	Satnam Kaur	12 <sup>th</sup>	20 years
Bhappal	Beautician	34	Satnam Kaur	12 <sup>th</sup>	20 years
Loha Khedi	Stitching	35	Sita Rani	M.A.	9 years
Mirjapur	Stitching	30+6 (WFH)	Kirna Devi	10 <sup>th</sup>	13 years
Sural Kalan	Production	13	Kirna Devi	10 <sup>th</sup>	13 years
Dabali Kalan	Stitching and Embroidery	30	Balbinder Kaur	B.A.	10 years
Rangian	Stitching	11	Malkit Kaur	12 <sup>th</sup>	5 years
Sindhran	Stitching	12	Anubala	B.A.	12 years
Kharola	Beautician	35	Nancy	B.A.	14 years
Nalas Kalan	Beautician	38	Jagdeep Kaur	B.A.	2 years
Nalas Kalan	Production	13+8 (WFH)	Nancy	B.A.	14 years

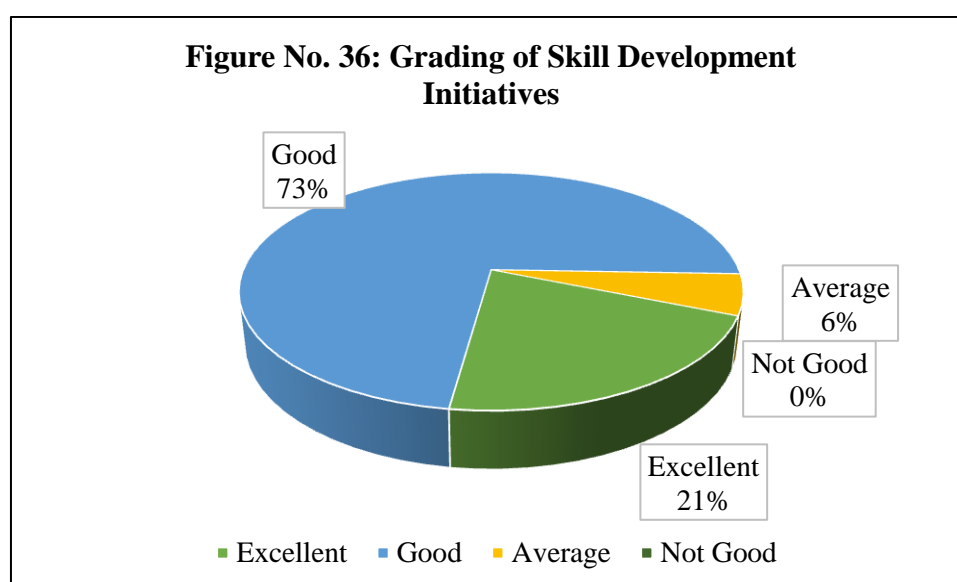
NPL first provides the training and then gives employment to the deserving candidates of the centre. Income source has also been generated for the needy ones. Moreover, NPL also provides work to housewives that can't come to the centre, through the provision of work from home.

Their responses to various questions regarding their experience at these centres are presented below.

### **Availability of Equipment**

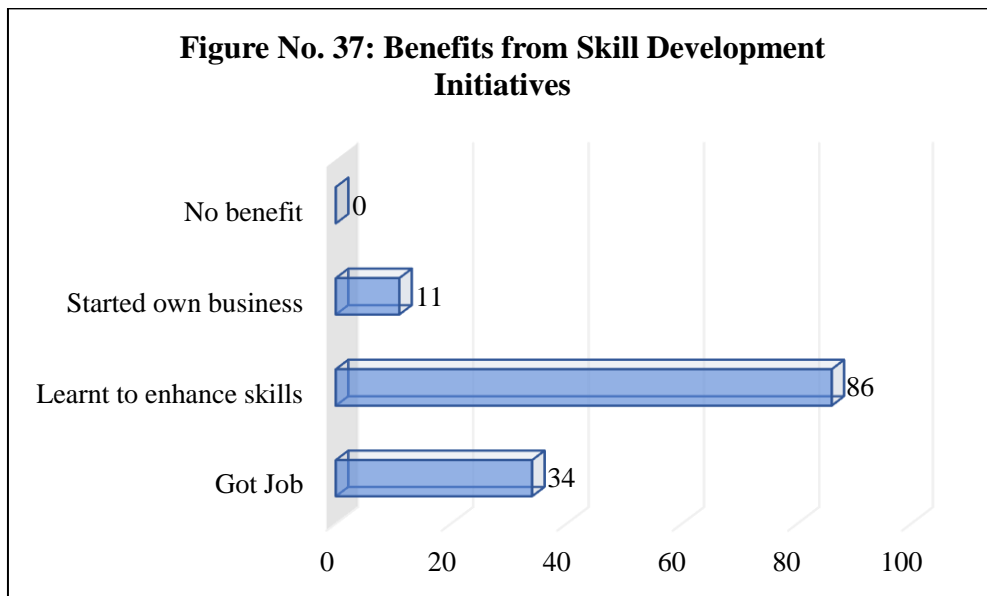
All the respondents reported that the equipment required for their training and working, like sewing machine, interlock machine, embroidery machine, threads, needles, scissors, measuring tape, etc. are provided by NPL. In the Production Centre, raw materials in the form of jute, phulkari dupatta, paper are being provided by NPL for production of bags, pouches, kits, etc. Moreover, the centres are also equipped with desks, stools, white/black boards, proper lighting, ventilation, fans, drinking water, cleanliness, proper toilets.

### **Grading of Skill Development Initiatives**



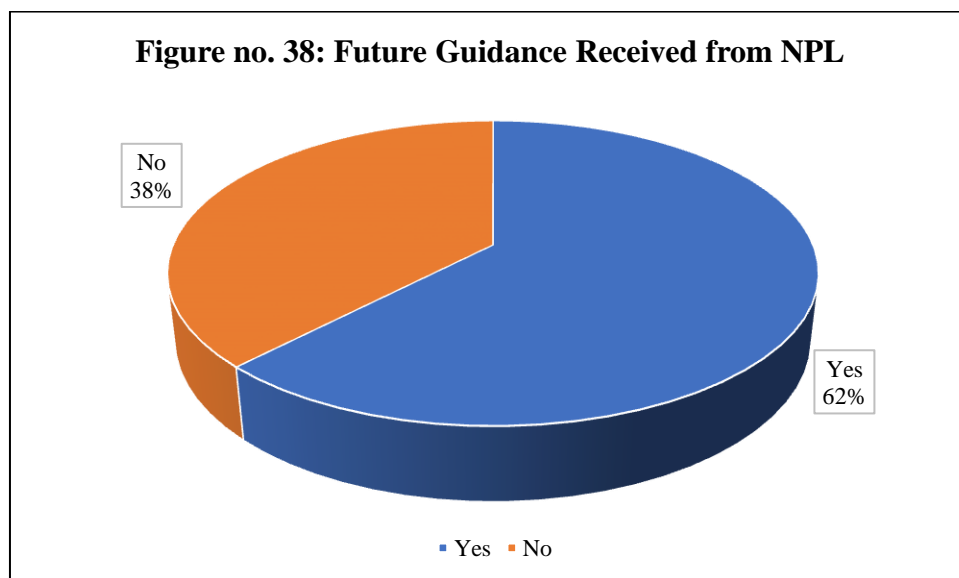
The table shows respondents' evaluations of the skill development initiatives. Out of the total respondents, 19 individuals (21%) rated the initiatives as Excellent. A majority, 66 respondents (73%), considered them Good, while 5 respondents (6%) rated them as Average. No respondents rated the initiatives as Not Good. Overall, the evaluations indicate that the skill development initiatives are generally perceived positively, with most respondents rating them as Good or Excellent.

## Benefits from Skill Development Initiatives



This diagram shows the benefits reported by respondents from the skill development initiatives. In this question, the respondents chose more than one option. Out of the total respondents, 34 individuals (37%) indicated that they benefited by securing a job. A significant majority, 86 respondents (95%), reported learning to enhance their skills. Additionally, 11 respondents (12%) started their own business as a result of the initiatives. No respondents reported receiving no benefit. Overall, the data suggests that the skill development initiatives primarily help individuals enhance their skills, with some also leading to employment or new business ventures.

## Future Guidance Received from NPL





The diagram shows whether respondents received future guidance from NPL. Out of the total respondents, 56 individuals (62%) reported receiving guidance, in the form of placement support or financial support to establish own business. ‘

## **EDUCATION**

Education forms another key area in NPL’s CSR contribution. Since education is one of the most powerful tools that can help a community not only for the present generation but for posterity as well; NPL has chosen to work on supporting access to quality education in the catchment villages. To this end, NPL works through developing educational institutions as well as giving meaningful scholarships to deserving students. The initiatives that NPL has taken are based on need assessment surveys for the development of govt. schools. The different projects and the responses of the respondents related to their experience in these projects are presented below.

### **Integrated School Development Program**

The Integrated School Development Program works towards creating resilient infrastructure in govt. schools of the Catchment Villages. As part of this program, they have built several rooms, playgrounds, etc.

For the impact assessment of these CSR activities, respondents were identified from the concerned schools in Aluna Basantpura, Gurditpura, Sodhrar, Loha Khedi, Badali Maiki, Sindhran, Kotla, Dadu Majra, Basanpura, Bhagrana, Ugani Sahib, and Nalas Kalan.

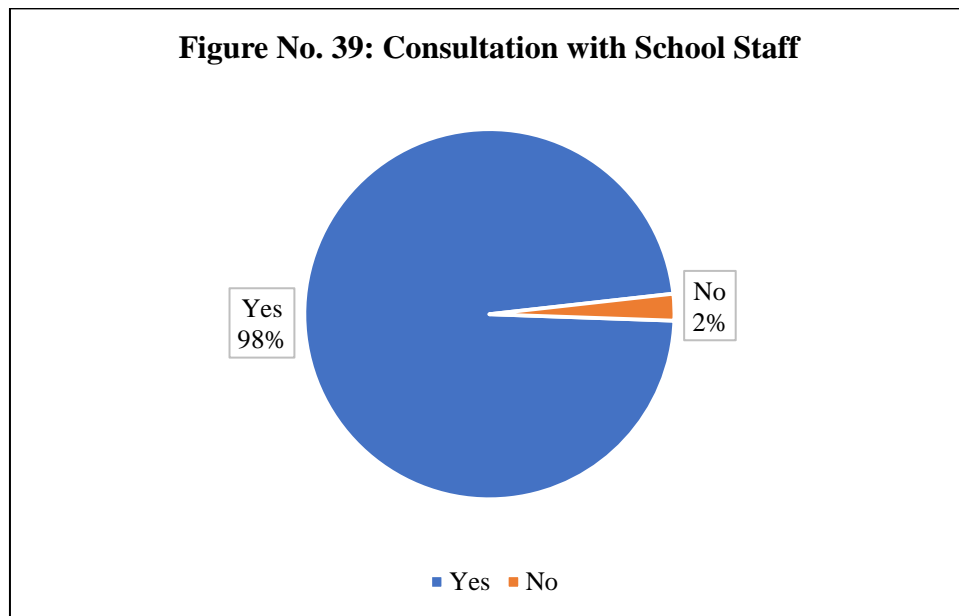
### **Awareness regarding Structures**

The respondents from the govt. schools following villages were aware of the following structures:

**Tables No. 8: Schools and the Respective Structures Built**

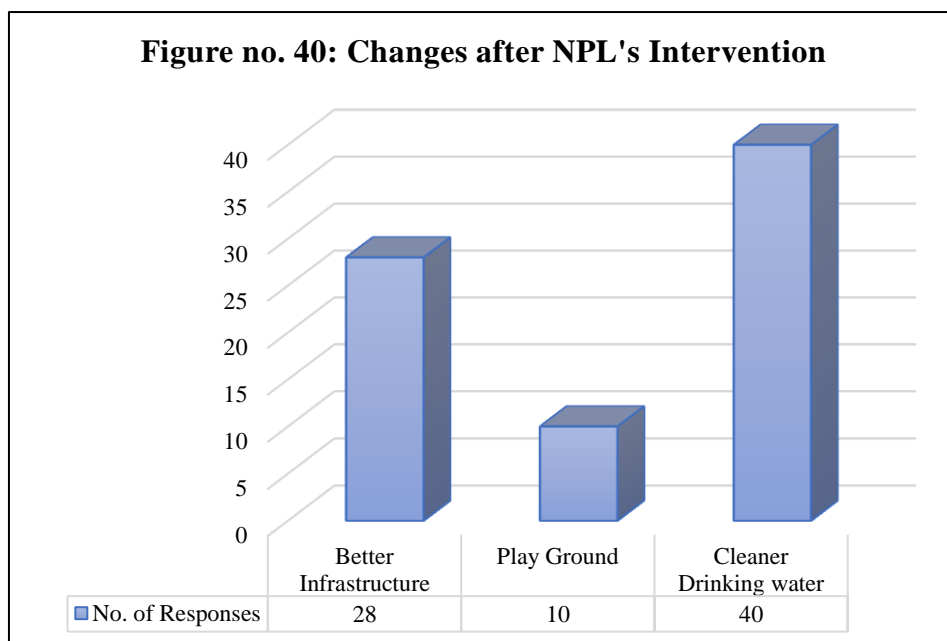
School Name	No. of Students	No. of Teachers	Awareness Regarding Structures
<b>GSSS Aluna Basantpura</b>	135	17	Library and Water Filter
<b>GPS Gurditpura</b>	58	3	Floor Work, Renovation, Repair of Mid-Day Meal Room & Painting, and Water Filter
<b>GES Sadhror</b>	49	2	Renovation and Water Filter
<b>GES Loha Khedi</b>	50	2+1(NPL)	Floor Work, Renovation, Sitting Desk, and Water Filter
<b>GES Badali Maiki</b>	39	1+1(NPL)	Renovation, New Toilets, and Water Filter
<b>Govt. High School Badali Maiki</b>	136	9	Floor Work, Renovation, Repair of Mid-Day Meal Room & Painting, Pathways, and Water Filter
<b>GES Sindhran</b>	35	1+1(NPL)	Water Filter
<b>GPS Kotla</b>	43	2	Floor Work, Renovation, Play Equipment (Swings & Slides, Multiplay Stations for primary sections), Repair of Mid-Day Meal Room & Painting, Pathways, and Water Filter
<b>GPS Dadu Majra</b>	65	2+1(NPL)	Floor Work, Renovation, Sitting Desk, Development of Play Ground, New Toilets, Pathways, Water Filter
<b>GSSS Basantpura</b>		4	Water Filter
<b>GPS Dabali Kalan</b>	64	2	Floor Work, Renovation, Water Filter
<b>GES Bhagrana</b>	77	4	Renovation, Water Filter
<b>Govt. High School, Ugani Sahib</b>	213	14	Floor Work, Renovation, Library, Development of Play Ground, Play Equipment (Swings & Slides, Multiplay Stations for primary sections)
<b>GPS Nalas Kalan</b>	160	6+1(NPL)	Floor Work, Renovation, Development of Play Ground, Play Equipment (Swings & Slides, Multiplay Stations for primary sections), New Toilets, Pathways, Water Filter

## Consultation with Staff



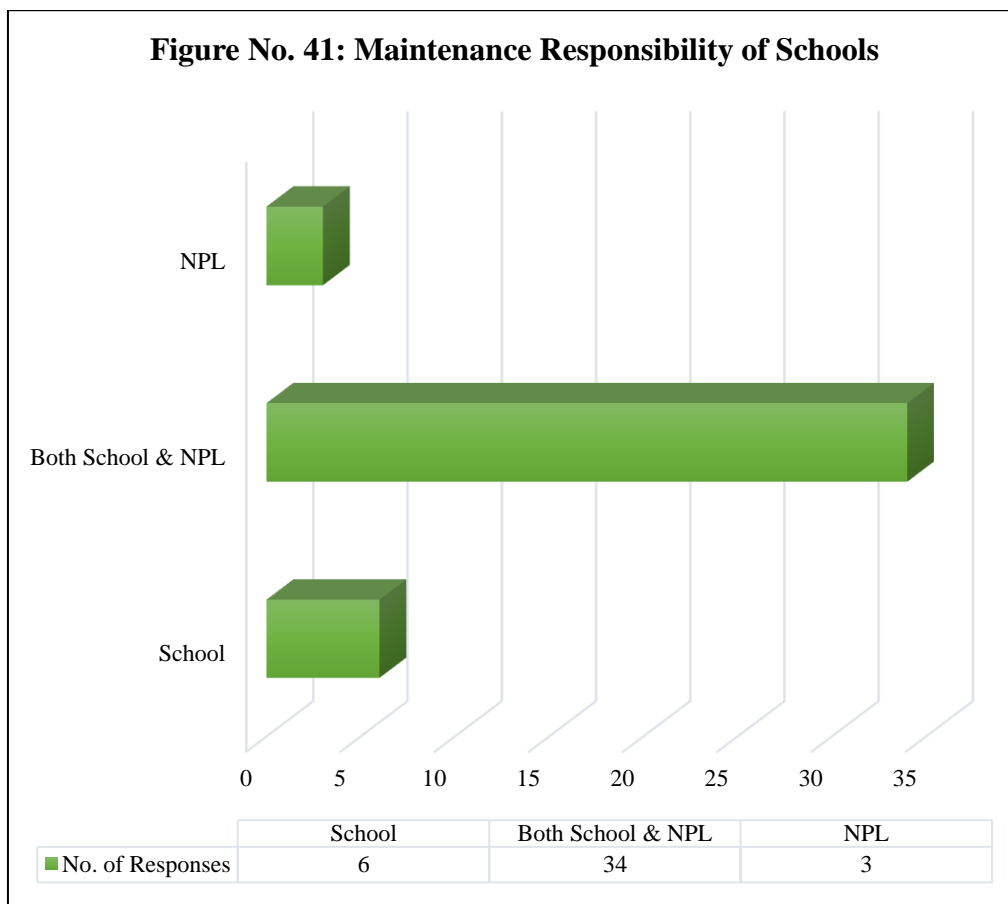
The diagram shows whether staff were involved in consultations regarding education-related initiatives. Out of the total respondents, 42 individuals (98%) reported that staff were part of the consultation process, they also presented proof in the form of minutes of meetings and consultation reports. This suggests that the majority of respondents experienced staff participation in the consultations for education-related initiatives.

## Changes after Intervention



The diagram shows the changes observed after the implementation of education-related initiatives. The respondents could choose more than one option in this question. Out of the total respondents, 28 individuals (65%) reported improvements in infrastructure. Additionally, 10 respondents (23%) noted the establishment of playgrounds, and 40 respondents (93%) observed cleaner drinking water. This data indicates that the most commonly observed change was cleaner drinking water, followed by better infrastructure and playgrounds.

### Maintenance Responsibility



The table shows the perception of respondents regarding responsibility for maintaining education-related initiatives. Out of the total respondents, 6 individuals (15%) indicated that maintenance is the responsibility of the school. A majority, 34 respondents (79%), reported that both the school and NPL share the maintenance responsibilities. 3 respondents (6%) stated that NPL alone is responsible for maintenance.

## **Learning Enrichment Programme at Primary Level**

To enhance the quality of learning and education at the primary level, NPL worked on the following in some of the primary govt. schools of its catchment villages:

- Availability of additional teaching staff for English and Maths
- Getting academic support at home
- Appropriate class timings
- Easy to understand language
- Good teaching pedagogy
- Inclusive of raised concerns
- Building confidence in speaking, reading, and writing
- Enhance mathematical skill

The respondents at GPS Gurditpura, GES Loha Khedi, GES Badali Mai Ki, GPS Kotli, GPS Dadu Majra, GPS Dabali Kalan, GPS Nalas Kalan were aware of the Learning Enrichment Programme which was being carried out at these schools.

## **School Bag Distribution**

The respondents from govt. schools of Aluna Basantpura, Gurditpura, Sodhrar, Loha Khedi, Badali Mai ki, Sindhran, Kotla, Dadu Majra, Basantpura, Bhagrana, Ugani Sahib, and Nalas Kalan reported that the school bags were distributed to all the students in their school, who were present on the day of distribution.

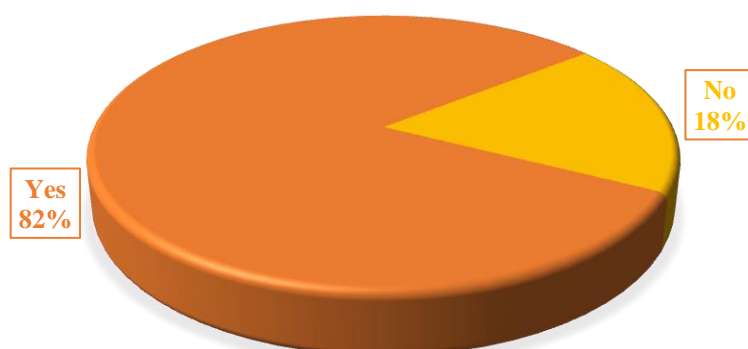
## **School Adoption Programme**

Under the school adoption programme, infrastructure was created by NPL, which was supposed to yield a positive effect on the quality of education and reduce absenteeism. Infrastructure ranging from buildings, furniture, painting, toilets, etc. to drinking water facility improvement, computers, etc. was developed by NPL in the govt. schools of Gurditpura, Sodhrar, Loha Khedi, Badali Mai ki, Sindhran, Kotla, Dadu Majra, Ugani Sahib, and Nalas Kalan. Their responses have been presented below.



## Earlier Condition of Infrastructure

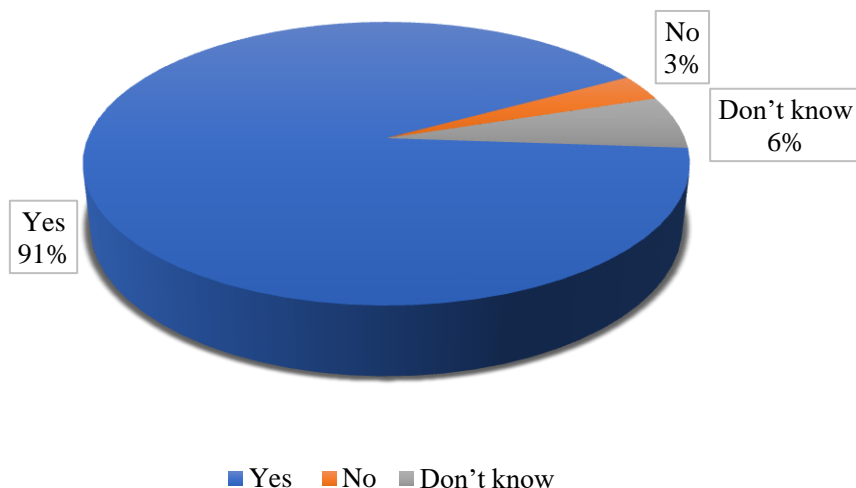
**Figure No. 42: Dilapidated Condition of Structures before NPL's Intervention**



This diagram shows the responses of respondents about the earlier condition of school infrastructure, i.e. whether the infrastructure was previously in a dilapidated condition. Out of the total respondents, 27 individuals (82%) reported that the infrastructure was previously dilapidated, while 6 respondents (18%) stated that it was not. This indicates that a significant majority of respondents observed that the infrastructure was in poor condition before the recent improvements.

## Consultation before Intervention

**Figure No. 43: Consultation before Intervention**



The diagram shows the respondents' views on whether consultation took place before the intervention. Out of the total respondents, 30 individuals (91%) reported that consultation occurred prior to the intervention. They reported that consultation took place with all the stakeholders, i.e. School Staff, Gram Panchayat, and Parents.

**Table No. 9: Infrastructure Created by NPL in Schools**

<b>School Name</b>	<b>Infrastructure Developed by NPL</b>
<b>GSSS Aluna Basantpura</b>	Building Renovation, New construction
<b>GPS Gurditpura</b>	Building Renovation, New Construction, Furniture, Drinking Water Facility
<b>GES Sadhror</b>	Building Renovation, Painting, Drinking Water Facility
<b>GES Loha Khedi</b>	Building Renovation, New Construction, Furniture, Painting, Drinking Water Facility
<b>GES Badali Maiki</b>	Building Renovation, New Construction, Painting, Drinking Water Facility
<b>Govt. High School Badali Maiki</b>	Building Renovation, New Construction, Furniture, Painting, Drinking Water Facility
<b>GPS Kotla</b>	Building Renovation, New Construction, Furniture, Painting, Drinking Water Facility, Books
<b>GPS Dadu Majra</b>	Building Renovation, New Construction, Furniture, Painting, Drinking Water Facility
<b>GPS Dabali Kalan</b>	New Construction, Furniture, Drinking Water Facility
<b>Govt. High School, Ugani Sahib</b>	Building Renovation, Drinking Water Facility
<b>GPS Nalas Kalan</b>	New Construction, Painting, Drinking Water Facility, Books, Notebook, Stationery

### **Permission Before Renovation**

The respondents were asked whether permission was taken from the competent authority before renovation. All the respondents reported that the competent authority was consulted, showing that the stakeholders were included in the decision-making process.

## **Functionality and Impact of Infrastructural Development**

The respondents were asked about the functionality of toilets developed by the NPL. All the respondents have indicated that there was a separate toilet for female students in their respective school and they are completely functional- water is available, flush and taps are working, toilet seats are clean, and doors close properly.

With respect to the impact of infrastructural developments, the respondents have reported that infrastructural development has led to an increase in admissions, less dropout rate, and a reduction in absenteeism. Hence, infrastructural development done by NPL is positively contributing towards increasing the attendance at schools.

## **NPL Scholarships**

NPL also grants scholarships to deserving students, so that they are able to access education. The objective of this scheme is the enrollment of youth in general and girls in particular in career courses namely GNM & BCA so that they can be employed after completion of their degree. The students for this scholarship are selected based on a survey and an eligibility test later.

For this report, 7 students availing this NPL Scholarship became the respondents and answered questions relating to this scholarship. Their answers have been presented below.

## **Criteria for the Scholarship**

This scholarship was granted to students belonging to underprivileged backgrounds, who were enrolled in GNM or BCA course in the Swift College, Ghaggar Sarai. The criteria for scholarship was minimum 70% marks in 10<sup>th</sup> and 12<sup>th</sup> grade, and passing an eligibility test (getting 30-35 questions right out of 100).

## **Amount or Benefits of the Scholarship**

The amount or benefits of the scholarship include whole course fees, which is paid by NPL; transport facility; books and study material; a tablet; and a theatre workshop at Alankaar Theatre.

## **Impact of the Scholarship**

The students have reported that this NPL Scholarship has enabled them to pursue higher studies, gave them confidence, and gave them the belief that they can achieve something.

## **QUALITATIVE IMPACT OF THE PROJECTS**

### **Infrastructure**

The various rural infrastructural development projects that NPL has implemented have demonstrated changes in the lives of the community members in a positive way. These have remained very much based upon extensive baseline studies undertaken in conjunction with the Village Panchayat and the local community, to ensure that the projects would meet the real and pressing needs of the residents. Such inclusiveness helped in generating ownership of the villagers towards the project and to make sure that the projects happen in accordance with the particular difficulties of those people, like inadequate roads, transportation problems, no community space to congregate, etc.

The infrastructure that has been developed like the peripheral road, the community shed, the Panchayat cum Training Agency, the sports ground etc. today are very much a central part of the daily lives of the village. They shared that earlier the road was full of potholes and pits and is very much inconvenient for someone to travel through that road, especially when it rains. Their other necessity was for a sports ground and a community shed. The improvements here have, therefore, become an integral part of their routine activities, upping the quality of life with safer roads, better connectivity, and spaces for community gatherings. The community members have responded that the projects basically address the needs of the community. The respondents also raised the issue of sustainability which in itself is assured to a large extent by a collaboration between the Village Panchayat and the NPL. Therefore, it would not be naive to consider that these infrastructural developments are helping make the residents safer and more connected and engaged.

### **EWS Housing**

The EWS Housing Scheme provided houses to the people from underprivileged sections who were either living in homes with very dilapidated conditions or who had no house at all. They received dignified accommodation, in pursuit of basic amenities like water supply, sanitation, and electricity. Requests coming from people in the village to the Village Panchayat and the NPL authorities became the basis for the identification of beneficiaries for this scheme.

According to reports, beneficiaries of such schemes say they have a feeling of security and safety due to the fact that a house is provided to them.

Since they assure themselves of having a roof above their head, they can now think about taking interest in terms of health and education of their family. This scheme has effectively improved the social and economic life of these beneficiaries, whereby they can think of something else rather than where to spend the night. With the worsening wealth inequalities and poor people's decreasing ability to own a house, NPL's scheme of providing them a decent place to stay in is reducing this inequality for the beneficiaries.

## **WATER & ENVIRONMENT**

In general, the environmental conservation activities of NPL at identified locations have brought in tremendous changes to the livelihoods of the community. The projects have been identified with due consideration, based on the perception and demands of the Village Panchayat and the local community, to address urgent and real environmental concerns in these catchment villages.

The local water resource was a place where silt deposited and where reeds had grown in abundance. This stopped the irrigation use of them and led to the spread of a lot of diseases to any more people. So there was a need that was being felt for managing reclamation activities of the ponds and plantation works on the larger scale. On a direct count of interference of NPL, villagers of the villages have seen the materialistic benefits like the quality of water that was enhanced and information from conserving the environment. The village pond is now looked to be the source input key resource for better irrigation facilities which in return do cause better agricultural productivity and balanced ecology. Further, the activities of the plantation that will help the environment as well as for social improvement are largely supported by the community, with 90% of them perceiving it as necessary. This only underlines quite clearly the community feedback that the efforts are working, and really, this underlines that these efforts need to be maintained: another shimmy with the NPL and the Village Panchayat regarding the upkeep of these efforts will only ensure the bettering of the environment for community well-being, which underscores very enduringly the need for partnership and stewardship. These projects have not only upgraded the ecology but also enhanced the attachment of the community toward their environment, fostering a lifestyle that is more sustainable and involved. This way, very crucial environmental issues have been dealt with while an individual and participative way.



## Youth & Sports

NPL's dedication to the uplift of the young through sports and physical activity is visible through the CSR that the company has engaged in towards a healthy and active way of living in society.

NPL has addressed the needs of the Village Panchayat and the youth that directly came through a common sports facility, distribution of sports kits, and programs of sports consisting both traditional and modern mode of games.

Respondents have stated that the requirement of such development speech critically in this growing trend of drug addiction among the youth of Punjab. These schemes served to promote both health and community cohesion by bringing people together for the sake of sports and are, therefore, important for the divergence of youth energy to more positive causes. In addition to this, the activities provided recreational opportunities and a culture of staying active for the rural youth. In fact, NPL used to organize such games and conducts so much continuity that will allow the young section of the community to frequently be participating in the games regularly to do some exercise in personal as well as social fitness and well-being.

Moreover, the nature of participation that NPL encourages provides a sense of ownership and belongingness among the community members. In fact, events and sports kit distributions benefit many from the poor background having skills and interest to develop a career in sports. The combined work of innovative sports programs at NPL communicates the intended attempts of the management to fill in community recreational needs and enhance the quality of life for the rural youth. With sustained support and magnification along these lines, NPL will go on to enhance effects and leave a broader smile on the aspect ratio, ensuring holistic health and development for the communities it serves. NPL has been addressing the important healthcare needs of the catchment villages by organizing various health-related programs like blood donation camps, general and specialized health camps, and camps for other critical diseases like cancers. These projects were initiated based on the direct input and requests from the community and village panchayats about making interventions very relevant and effective towards addressing specific cases on health concerns of the villagers of concern.

The respondents in many villages reiterated that through health camps, they could access preventive and curative health services for free. Another major benefit was the

care of early diagnosis of the diseases, especially with the help of cancer detection camps. The overall level of consciousness and involvement in such health activities lead towards the positive acceptance of how many actual advantages such programs have provided considering the concerned areas.

The NPL has also supported the government hospitals in many ways: it has organized medical camps, provided the essential equipment and infrastructure, and supplied medicines.

This has gone a long way in changing the condition and services of government hospitals. The provision of such equipment as air conditioners, fridges, CCTV cameras, besides essentials like beds, tables, desks, medicines, medical equipment, among others, has really changed the condition of govt.

This whole support has led to some positive changes in the quality of services offered to OPD. Many villagers noted that more patients were now using the OPD services, which meant that more patients now had faith in the local health infrastructure, possibly because it had better facilities and services brought about by the interventions of NPL. Besides, the health-related initiatives have helped a lot to increase health consciousness in the village. The increased health awareness induces and results in more people being treated for illness, which eventually becomes an important factor for quality living in life. SKILL DEVELOPMENT NPL's commitment to empowering women in its catchment villages has been through skill development centres.

NPL has provided them, through the set-up of these centers, valuable vocational training made accessible to them – stitching, tailoring, as well as beautician training – which the latter has already charted ways to further their dignity in income opportunities.

The organization has studied well the needs of the community for employment generation and has, therefore, implemented these in villages where enough number of women is enthusiasts to take up such training.

The Udyogini Production Centres and Entrepreneurship Development projects go a step further and provide income generation and enterprise support to trained women so they become earners from learners. The success of these centres is predominantly because of the availability of the necessary equipment, including sewing machines, embroidery

machines, and raw materials for their respective trades. Most of the women at the centers are from destitute families, in search of an income, and could not, therefore, afford to procure those materials for themselves. Also, NPL's provision of a conducive environment, together with good lighting, ventilation, and sanitation services, has served to accord the trainees a peaceful atmosphere to develop skills without any distractions.

The structured support, including work-from-home options for those who cannot otherwise access the centres, further underlines NPL's commitment to inclusivity and flexibility in empowering women. Several benefits, for example in skills augmentation and placements into jobs, could be marked as concrete, and some of them found the opportunity to set up their own business ventures. NPL-imparted training has led to the enhancement of women's skills, not only their employability states but also their confidence and self-reliance. The fact that a good number of women have gotten employment or ventured into businesses due to the same programs clearly proves the broad-reaching impact of the NPL's initiative in establishing women's economic power.

The other thing is that NPL also provides a platform for facilitating women with placements and also starting their own businesses, where it equips the women with tools and training. The handholding provision of NPL had made the translation of training received into direct applications gleefully easy, such as utilizing the newly developed skills by the women in their villages for economic gains. The approach made a huge difference in the lives of the participants and is contributing positively to the uplift of the socio-economic status of the society where they belong. In the catchment villages of its area of operation, NPL runs skill development centers that went a long way in transforming the lives of women. It is the conglomeration of full training, support infrastructure, and post-training follow-up that has led these women to be able to achieve such impressive results in becoming financially independent and meaningful contributors to society. Through further change, these projects have the potential to be changers in the empowerment of women to be self-reliant entrepreneurs throughout the region.

## **Education**

NPL has been putting immense efforts into making access and quality of education betterment within its overall catchment villages, which reflects a good spirit towards

developing the communities. Under the aegis of its Integrated School Development Program, many remarkable steps have been taken by NPL to enhance the infrastructure of government schools, like construction of additional classrooms, playgrounds, and facilities essential for every child, such as water filters and libraries. NPL has filled the gap areas in the educational infrastructure.

There are reports by many that the rundown state of the schools in the past has turned to the well-kept and workable conditions of many. It can be directly felt that the provision of new constructions, renovations, and the provision of toilets and drinking water accessibility will indeed affect the arrival of students and the cordial environment in schools. The program has become effectual and highly influential in enhancing impacting the environment of learning. Particularly mentioned major benefits are cleaner drinking water and improved infrastructure that makes the atmosphere friendlier for learning. The Learning Enrichment Programme adds excellently to the dedication that NPL holds in its mission of breeding educational quality at the primary level. Through additional teaching staff, students receive academic support and tailor-made pedagogy. NPL has had considerable impact on students' educational quality. The program's emphasis on the very subjects, such as English and Math, coupled with an attempt to infuse confidence through a change in teaching approach, was well appreciated by the schools concerned. This intervention has to do with the student's shortfall educationally at the primary level, which lays a sound base for a successful life.

This program is intended for the needy students to receive a college education and provides complete sponsorship on the fees, transportation, and even study materials. The success stories from the beneficiary of the scholarship scheme explain the capacity-building faculty of the program in developing the nurtured goals in availing education and the provision of critical inputs, which raises the ability of the beneficiary students in excelling in their respective educational sectors. The education-based effort of NPL has created tremendous positive impacts in the two villages of the catchment areas. The holistic strategy of this includes both infrastructure development and learning enrichment, as well as directly supporting scholarships. The above emerges by way of the feedback of all those involved in this institution. The future of the NPL, with its commitment to education, is bound to create sustainability in all the NPL endeavors with growth and development in its impact further to ensure consequent outcomes reflecting in the lives of the human beings across generations.

## CONCLUSION

The impact assessment of the CSR initiatives of Nabha Power Limited (NPL) comes out with the finding that these programs indeed made a significant positive difference in the lives of the communities they serve. Through well-focused interventions in infrastructure development, housing, environmental conservation, youth and sports, healthcare, skill development, and education, NPL has really been able to address the critical needs of its catchment villages.

The infrastructural works listed in the report have improved community connectivity, safety, and engagement by way of road repairs, formation of common spaces, construction of necessary buildings, etc. In addition, the EWS Housing Scheme has provided safe and dignified accommodation to the underprivileged families, hence promoting social stability and economic progress. The environment-related activities have revived the local water resources and created an environmental awareness; the youth and sports-related activities have encouraged physical fitness and community spirit.

The health initiatives of NPL have improved access to preventive and curative services, which in turn has resulted in better health outcomes within the community. Further, the skill development centers of this organization have empowered women to have better economic independence through vocational skills. The educational programs by NPL transform the school environment, enrich learning experiences, and support the higher education pursuits of students.

While these initiatives, on the whole, have been quite successful in meeting their objectives of addressing the needs of the community, the assessment also brings out a much-needed focus on sustainability and the fact that NPL will remain engaged with local stakeholders, such as the Village Panchayat, over the long term. Only in this manner can such linkages sustain themselves over the long term for the eventual success of the projects and maximization of their positive impacts.

To sum it up, NPL's CSR efforts have improved the lives of many and helped to foster a closer relationship between itself and key communities. Further strengthening these successes and improving on these highlighted weaknesses will propel NPL's social responsibility commitment to even higher levels of contribution to the well-being and development of the larger community.



## RECOMMENDATIONS

### Health Programme

- NPL has made commendable strides in providing essential health services through various health camps, such as eye care and general body check-ups. However, as the health needs of the communities continue to evolve, there is a growing demand for more specialized health camps, particularly those focused on cancer and cardiovascular diseases. Addressing these demands would not only enhance the impact of NPL's health initiatives but also provide much-needed support in areas that are currently underserved.
- Additionally, it is worth noting that some villages lack dedicated health center spaces, with services being provided in makeshift locations such as village gurudwaras and other communal buildings. Exploring opportunities to establish or improve permanent health center facilities in these areas could significantly benefit the local population, offering them a stable and accessible environment for healthcare.

### Educational Programme

- NPL has made significant contributions to education, particularly through the provision of teachers to various schools. However, in certain areas like English & Science subjects, there remains a shortage of teaching staff, which impacts the quality of education. By addressing this gap, NPL can ensure that all schools have the necessary resources to deliver a high standard of education.
- Furthermore, while the initial infrastructure setup in schools has been commendable, there is a growing need for ongoing maintenance and renovation work. Regular upkeep and timely renovations will help sustain the learning environment, ensuring that the facilities remain conducive to education. Focusing on these areas will allow NPL to build on its successes and continue making a meaningful impact in the field of education.

### EWS Housing

- The construction of houses for the economically weaker sections (EWS) by NPL is a significant and impactful initiative. However, there have been some concerns regarding the quality of workmanship, with reports of dissatisfaction

related to the construction and labor work. To address these concerns, increased supervision and quality control measures by NPL staff would be beneficial. This proactive approach will help ensure that the housing provided meets the expected standards and truly serves the needs of the beneficiaries.

### **Skill Development and Production Centre**

- The Skill Development and Production Centre has been instrumental in enhancing the skills of local women, empowering them with valuable capabilities. However, a common challenge expressed by the participants is the difficulty in securing employment after completing their training. To maximize the impact of this project, there could be a stronger focus on job placement and creating pathways to employment for these skilled women.
- Moreover, expanding the production center to engage more women in the production process could provide additional opportunities for income generation and community development. By scaling up these efforts, NPL can further empower women and contribute to sustainable economic growth in the region.

### **Water and Environment**

- Environmental sustainability is a critical area where NPL can make a lasting impact. Feedback from some villages suggests a need for increased emphasis on tree plantation projects. By prioritizing these initiatives, NPL can contribute to the long-term environmental health of the communities it serves, promoting biodiversity and improving the quality of life for residents.
- In addition to tree planting, exploring other environmental projects, such as water conservation and waste management, could further enhance NPL's contributions to creating a sustainable and eco-friendly environment.

### **Project: Youth and Sports**

- Youth engagement in sports activities has been positively received, with many young people expressing satisfaction with the programs organized by NPL and their village panchayat members. However, there is potential to further expand these initiatives, engaging youth from a greater number of CSR villages. By broadening the reach of these sports programs, NPL can foster a more inclusive and active community.

- Additionally, there is a recognized need for improved sports infrastructure, such as the development of sports grounds, installation of proper lighting, and levelling of playing fields. Investing in these areas will not only enhance the quality of the sports programs but also provide a safe and supportive environment for youth to develop their talents and stay active.

### **Infrastructure Development**

- NPL's infrastructure projects, including the development of roads, community sheds, and sports grounds, have been instrumental in improving the quality of life in many communities. However, the maintenance of these projects is crucial to ensure their longevity and continued benefit to the residents. Regular maintenance work, especially for projects launched some time ago, will help preserve these valuable community assets.
- By committing to the upkeep and enhancement of existing infrastructure, NPL can ensure that these projects continue to serve the needs of the communities effectively, contributing to long-term social and economic development.

## GLIMPSE OF CSR ACTIVITIES









## MEDIA COVERAGE

### Socio-economic life in villages around Nabha power plant has seen a positive change over the years, writes Harpreet Bajwa

THE PUNJAB

## GIVING 'POWER', in more ways than one

MORE than a decade ago, villagers living around the 1400 MW power plant in Punjab's Nabha had protested against the acquisition of 1,670 acres of land by the state government, demanding higher compensation and livelihood opportunities. Nabha Power Ltd promised to hire more local people and enable them to stand on their feet.

Today the lives of people in many villages in Patiala and Fatehgarh Sahib districts around the thermal power plant near Rajpura have changed for the better. Investments in education, skill development and infrastructure have made them financially independent.

"We are running various skill development centres here to enable the local youth to learn vocational skills. Besides enhancing the youths'...



"The renovation of our village pond has facilitated irrigation. The gram panchayat also earns money from the fish farming," says Jot Singh of Gagan Sahib village.

"Our village did not have a community centre. The community school erected has come as a big help for not just the residents of the Jambai but it is also used by people living in...



The Nabha Power Plant Ltd is running various programmes to better the lives of villages living in the vicinity.

## Nabha Power organizes Go Green Cycle Marathon



PATIALA, SEPT 6

To promote environmental consciousness and a healthier lifestyle, Nabha Power Limited (NPL), which operates the 2x700MW supercritical thermal power plant at Rajpura, organized a Go Green Cycle Marathon in six villages of the Rajpura block in which more than 70 cycle enthusiasts participated.

The cycle enthusiasts crisscrossed through the six villages covering a total distance of 11km, amidst loud cheers from the residents, who had gathered in great numbers to witness the Cycle Marathon. They raised encouraging slogans all along the route, holding colourful flags in their hands. Commenting on the initiative, SK Narang, the Chief...

Executive of Nabha Power said, "To raise awareness about the current environmental issues and to promote the message of healthier and greener lifestyles, events like this should be conducted more often." He said, "Besides cycling, Nabha Power was encouraging sports in the villages around the plant by organizing sports tournaments and engaging trained coaches to help the local youth realise their sporting dreams."

In the end, the registered participants were awarded medals and mementoes in appreciation of their zeal to promote environmental causes. Senior management of Nabha Power later thanked the district civil as well as police administrations for providing the needed support to make the event impactful and successful.

## NPL PROVIDES SCHOLARSHIPS TO 19 MORE MERITORIOUS GIRLS

DW BUREAU/RAJ PRA

TO BRING a positive change through education, Nabha Power Limited, which operates the 2x700 MW Supercritical Thermal Power Plant at Rajpura NPL will award Merit-cum-Need-Based Meritorious Scholarships to meritorious girls and boys of villages nearby the premises of the power plant.

The programme, first launched in 2020, is open to girls of 19...

as well as the overall strata of the society. We are ensuring that make them future-ready."

Many girls from these villages have benefited since the launch of the programme. Last year, Nabha Power had provided scholarships to 19 meritorious girls who are presently undergoing three years of general nursing and midwifery course at a reputed private institute and are all set for a bright future ahead.

This year too, Nabha Power has sponsored 14 meritorious girls for GNM Degree and 5 for BCA Degree.

## सरकारी औद्योगिक सिखलाई संस्था में पास बच्चों को दिए सर्टिफिकेट



राजपुरा तमनोरी शिक्षा एवं औद्योगिक सिखलाई विभाग के द्वारा 15 नवंबर 2023 को आयोजित कार्यक्रम में 14 बच्चों को सर्टिफिकेट दिए गए।

THU, 16 MARCH 2023  
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## नाभा पावर ने जी.एस.एस. भण्डाल को सौंपा पिलर लेस मल्टी-यूटिलिटी हॉल

पटियाला, 15 मार्च (राजेश पंजौरा, मन्दीप जोस, स.ह.): नाभा पावर लिमिटेड, जो की 2x700 राजपुरा थर्मल पावर प्लांट का संचालन करती है, ने भण्डाल में सरकारी सोनियर सेंकेंडरी स्कूल को बिना पिलर वाला एक बड़ा मल्टी-यूटिलिटी हॉल सौंप दिया है।



हॉल विभिन्न उद्देश्यों की पूर्ति करेगा, जिसमें लाइव वॉइडो स्टूडियो, बॉर्डर प्रीक्षा आयोजित करने, अतिथि शिक्षण और सांस्कृतिक कार्यक्रम शामिल हैं। इससे आसपास के 7 गांवों के लगभग 250 छात्रों के लाभ होगा। जी एस एस भण्डाल के प्राचार्य ने क्षेत्र में शिक्षा को बढ़ावा देने के लिए नाभा पावर का आभार व्यक्त किया।

इस अवसर पर नाभा पावर के मुख्य कार्यकारी, एस.के. नारांग ने कहा कि ग्रामीण क्षेत्रों में औद्योगिक शिक्षा को बढ़ावा देना कंपनी की सीएसआर पहल के तहत प्राथमिक उद्देश्यों में से एक है। कंपनी ने उच्च अध्ययन करने...

## समावेशी शिक्षा को बढ़ावा देने के लिए नाभा पावर ने ग्रामीण छात्रों को स्कूल किट बांटे

15 नवंबर 2023



समावेशी शिक्षा को बढ़ावा देने के लिए नाभा पावर ने ग्रामीण छात्रों को स्कूल किट बांटे

कवर इतर सिंह/अप्रैल 15, 2023

नाभा पावर लिमिटेड, जो राजपुरा में 2x700MW सुपरक्रिटिकल थर्मल पावर प्लांट का संचालन करती है, ने प्लांट के आसपास के ग्रामीण क्षेत्रों में शिक्षा को बढ़ावा देने की अपनी प्रतिबद्धता को दर्शाते हुए ग्रामीण छात्रों को स्कूल किट बांटे।

नाभा पावर स्कूल किट में एक पोर्टेबल टैबल के साथ एक स्कूल बैग, एक पर्यावरण के अनुकूल बोर्डलेस वीडियो की पानी की बोतल और एक पोर्टेबल चार्जर शामिल है। जैसा कि छात्रों के लिए एक उत्कृष्ट माध्यम है, जिसके पास घर पर कक्षा में शामिल होकर शिक्षा प्राप्त करने के लिए एक अभियान शुरू किया, जिसका उद्देश्य बच्चों में प्रतिभा के विकास को प्रोत्साहित करना है।

## एनपीएल के सहयोग से सिविल ने दी छात्रवृत्ति

सर राजपुरा (पटियाला) : लार्सन एंड टबी की एनपीएल की इकाई नाभा पावर प्लांट व सिविल ग्रुप आम कार्यालय द्वारा वर्ष 2020 में हुई एक शुरुआत के तहत दोनों संस्थाओं के प्रबंधकों ने जसदासपुर चरखार की लड़कियों को शिक्षा और प्रतिभा की निम्नप्रति उठाई।



हर वर्ष नवंबर के माह में बच्चों से लगभग 15 जुनै हुए बच्चों सिविल इंस्टीट्यूट आम नर्सिंग में जोएनएस कोर्स में शामिल होते हैं। सभी छात्रों को पाठ्यक्रम दिया जाता है जिसके तहत उनकी प्रीस माफ होती है। इस स्कूल को बढ़ाते हुए इस बार बीसवीं कोर्स में भी छात्रवृत्ति दी गई है। यह सम्प्रेषण एनपीएल में सखा गया था जिसमें सिविल कालेज के प्रबंधक डा. सोपल मूजल, सहायक निदेशक डा. मनिंदर अग्रणी टीम के...

छात्रवृत्ति के लिए एनपीएल को सम्मानित करती एनपीएल व सिविल प्रकाश ० सै. तख्तील साब पहुंचे। एनपीएल को और से उनके चौक एक्जैक्यूटिव सुला नारे, एचआर हेड देवदास शर्मा, इस स्कूल को और बढ़ाते निम्न नए कोर्स शामिल किए जाएंगे जिससे नवीन छात्राएं अपने बचपन अपने पैर पर खड़ी हो सकें। उन्होंने इसके लिए सिविल का भी धन्यवाद किया।