



**HIMACHAL PRADESH POWER CORPORATION LIMITED
(A STATE GOVERNMENT UNDERTAKING)**

Office of General Manager

Ravi & Chenab Projects,

HPPCL, Sundla, Distt. Chamba(H.P.)-176312

Phone & Fax No. 01896-292002, e-mail:- gmrpc12@gmail.com

No. HPPCL/RCP/GM/ G-8 /2025-1386-92

Dated: 21-11-2025

To

Dr. K.K. Garg,
Scientist C,
MoEF&CC, Gol,
MoEF&CC, Gol, Northern Regional Office,
25 Subhash Road, Dehradun-248001.
e-mail : moef.ddn@gov.in

Sub: Chanju-III (48MW) HEP in Churah Tehsil of Distt. Chamba (H.P) by HPPCL Environment clearance –regarding Six monthly progress report.

Ref: Your office letter No. NC-RO/ENV/HEP/HP/02/2017/1484 Dated 23.10.2018.

Sir,

As requisitioned vide your office letter under reference to the subject cited above, the point-wise six monthly progress report for the period 01.04.2025. to 30.09.2025 is being submitted as under please:

1.

Name of the Project Incharge/Address	Er. Sunil Kumar Thakur General Manager, Ravi & Chenab Projects, HPPCL, Sundla, Distt. Chamba -176312.
Telephone No/Mobile No. /E-mail ID	01896-292002 7973158422 gmrpc12@gmail.com
Report No.	15 th
Period of Reporting	01.04.2025. To 30.09.2025

- The copy of Environment Impact Assessment/Environment Management Plan and copy of the Proceedings of Environment Public Hearing has already been submitted to your office vide this office letter No.HPPCL/RCP/GM/G-8/2018-1072-78 Dated 21.11.2018 alongwith 1st six monthly compliance report.
- Techno economic clearance of the project has already been obtained from Directorate of Energy, HP Government during July,2015.
Forest clearance has been accorded. by MoEF&CC, Gol vide letter No. 8B/HP/01/55/2019/FC/1580 Dated 11.10.2019 (ANNEXURE-I)

Registered Office: Himfed Building, BCS, New Shimla. (H.P) -171009

(CIN : U40101HP2006SGC030591)

Web Site: www.hppcl.gov.in, Email: cs_hpjvvn@yahoo.com, Phone Nos: 0177-2807923 Fax No. : 0177-2807923



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4. Pont-wise compliance of the conditions imposed in Environment Clearance letter is enclosed as **ANNEXURE-II**.

The report is also being sent by e-mail at moef.ddn@gov.in

Encl: As above.

Yours faithfully,

[Signature]
2-1/11
**General Manager,
RCP,HPPCL,Sundla,
Distt. Chamba-176312.**

Copy forwarded to the following for kind information please.

1. The Director (Civil), HPPCL, Himfed building, BCS, New Shimla-09 for kind information please.
2. Member Secretary, HP Pollution Control Board,HIMPARIVESH, Below BCS,New Shimla-09 for kind information please.
- 3.Addl. General Manager-cum- EIC,PKG-I, RCP,HPPCL, Paniharika,Tehsil. Churah,Distt. Chamba information please.
- 4.Chief Environment Specialist,HPPCL Himfed building, BCS, New Shimla -09 for kind information please.
5. Dy. General Manager-cum- EIC,PKG-II, RCP,HPPCL, Paniharika,Tehsil Churah,Distt. Chamba for information please.
6. Sr. Manager IT, HPPCL Himfed building, BCS, New Shimla -09 for information with request to upload the compliance status in the HPPCL web portal please.

Registered Office: Himfed Building, BCS, New Shimla. (H.P) -171009

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भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन
मंत्रालय
क्षेत्रीय कार्यालय (उत्तर-मध्य क्षेत्र)
25 सुभाष रोड, देहरादून-248001
दूरभाष: 0135-2650809
फैक्स-0135-2653010
ईमेल - moef.ddn@gov.in



GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST &
CLIMATE CHANGE
REGIONAL OFFICE (NORTH CENTRAL ZONE)
25 SUBHASH ROAD, DEHRADUN-248001
PHONE- 0135-2650809
FAX- 0135-2653010
Email- moef.ddn@gov.in

पत्र सं०. 8बी/एच.पी./01/55/2019/एफ.सी./1580

दिनांक: 11/10/2019

सेवा में,

अतिरिक्त मुख्य सचिव (वन)
हिमाचल प्रदेश सरकार,
आसमंडेल बिल्डिंग, शिमला।

विषय : Diversion of 25.98 ha of forest land in favour of HPPC Ltd. for the construction of Chanju-III (Hydro Electric Project -48 MW), within the jurisdiction of Chamba Forest Division, Distt. Chamba, H.P. (online no. FP/HP/HYD/236945/2017)

सन्दर्भ : नोडल अधिकारी एवं अपर प्रमुख मुख्य वन संरक्षक (एफ.सी.ए.), हिमाचल प्रदेश के पत्र संख्या एफ.टी. 48-3524/2017 (एफ.सी.ए) दिनांक 09.10.2019

महोदय,

उपरोक्त विषय पर नोडल अधिकारी एवं अपर प्रमुख मुख्य वन संरक्षक (एफ.सी.ए.), हि0प्र0 के पत्रांक दिनांक 20.03.2019 का अवलोकन करने का कष्ट करें, जिसके द्वारा विषयवर्तित प्रस्ताव पर केन्द्र सरकार से वन (संरक्षण) अधिनियम, 1980 की धारा-2 के तहत स्वीकृति मांगी थी।

प्रश्नगत प्रकरण में इस कार्यालय के समसंख्यक पत्र दिनांक-05.08.2019 द्वारा प्रस्ताव में सैद्धान्तिक स्वीकृति प्रदान की गयी थी जिसमें उल्लिखित शर्तों की अनुपालन आख्या नोडल अधिकारी एवं अपर प्रमुख मुख्य वन संरक्षक (एफ.सी.ए.), हिमाचल प्रदेश के उपरोक्त संदर्भित पत्र द्वारा प्रस्तुत कर दी गयी है। राज्य सरकार के प्रस्ताव पर ध्यानपूर्वक विचार करने के उपरान्त केन्द्र सरकार Diversion of 25.98 ha of forest land in favour of HPPC Ltd. for the construction of Chanju-III (Hydro Electric Project -48 MW), within the jurisdiction of Chamba Forest Division, Distt. Chamba, H.P. हेतु विधिवत् स्वीकृति निम्नलिखित शर्तों पर प्रदान करती है:-

1. वन भूमि की विधिक परिस्थिति नहीं बदली जाएगी।
2. प्रतिपूर्ति पौधारोपण प्रस्ताव के अनुसार Kunda & Sheru waste land, Range-Tikkrigarh (52-D/2) में प्रयोक्ता एजेंसी से प्राप्त राशि से कुल 52.00 हे० वन भूमि में पौधे लगाकर किया जाएगा। प्रतिपूर्ति पौधारोपण इस पत्र के जारी होने की तिथि से एक से दो वर्षों के अन्दर पूर्ण किया जाना चाहिए।
3. राज्य सरकार धनराशि ₹0 89,21,463/- हेतु संशोधित सी.ए. स्कीम इस कार्यालय में रिकार्ड हेतु प्रेषित करेगी।
4. माननीय उच्चतम न्यायालय, नई दिल्ली द्वारा I A No. 3840 in WP (c) No. 202/1995 में वर्तमान में एफ.सी.ए. के तहत भूमि के प्रत्यावर्तन पर रोक लगाई गई है। अतः राज्य सरकार मा. उच्चतम न्यायालय, नई दिल्ली द्वारा इस निर्णय लिये जाने के उपरान्त ही तदनुसार अपने स्तर पर वन भूमि के प्रत्यावर्तन हेतु जारी किए जाने वाले स्वीकृति आदेश जारी करेगी।
5. Catchment Area Treatment Plan (CATP) for the treatment of micro watersheds of Chanju-III HEP, in consonance with the comprehensive CAT Plan of Ravi Basin, Shall be prepared and implemented in consultation with the State Forest Department at the project cost.
6. एन.पी.वी. की दरो में अगर बढ़ोतरी होती है तो प्रयोक्ता अभिकरण बड़ी दरो पर एन.पी.वी. देने के लिए बाध्य होगा।
7. प्रयोक्ता अभिकरण द्वारा प्रस्तावित वन क्षेत्र के आस-पास मजदूरों/स्टॉफ के लिये किसी भी प्रकार का लेबर कैम्प नहीं लगाया जायेगा।

8. प्रयोक्ता अभिकरण के द्वारा निर्माण कार्य के दौरान स्थल पर कार्यरत मजदूरों एवं स्टॉफ के लिये रसोई गैस/कैरोसिन तेल की आपूर्ति की जायेगी, जिससे निकटवर्ती वनों को क्षति न पहुँचे।
9. परियोजना के निर्माण व रख-रखाव के दौरान आस-पास के क्षेत्र की वनस्पतियों एवं जीव-जन्तुओं को किसी प्रकार की क्षति नहीं पहुँचायी जायेगी।
10. निर्माण कार्यों के पूर्ण होने के पश्चात् जहाँ-जहाँ संभव हो, परियोजना क्षेत्र के रिक्त स्थानों पर प्रयोक्ता अभिकरण द्वारा अपने व्यय पर वन विभाग की देख-रेख में उपयुक्त प्रजाति के पौधों का Plantation किया जायेगा।
11. वन भूमि का प्रयोग प्रस्ताव में दिये गये layout plan में दर्शाये गये उद्देश्य के अलावा अन्य किसी उद्देश्य के लिए नहीं किया जायेगा तथा किसी भी परिस्थिति में इस वन भूमि को किसी अन्य संस्था, विभाग या व्यक्ति के पक्ष में भारत सरकार की पूर्व अनुमति के बिना Transfer नहीं किया जाएगा।
12. कम से कम वृक्षों का कटान/पातन किया जाएगा, जिनकी संख्या प्रस्ताव के अनुसार 2404 trees से अधिक न हो।
13. The User Agency shall obtain the Environment Clearance as per the provisions of the Environment (Protection) act, 1986, if required, as per the provisions of the Environmental (Protection) Act, 1986.
14. The User Agency shall carry out muck disposal at pre-designated sites in such a manner so as to avoid its rolling down.
15. The dumping area for muck disposal shall be stabilized and reclaimed by planting suitable species by the user agency at the cost of project under the supervision of State Forest Department. Retaining walls and terracing shall be carried out to hold the dumping material in place. Stabilization and reclamation of such dumping sites shall be completed before handing over the same to the State Forest Department in a time bound manner as per Plan.
16. State Govt. shall ensure that the user agency shall comply the provisions of the all Rules, Regulations and Guidelines issued for laying transmission line in forest areas the time being in force, as applicable to the project.
17. The boundary of the forest land being diverted shall be demarcated on ground at the project cost, using four feet high RCC pillars, each pillar inscribed with the serial number, DGPS coordinates, forward and backward bearings and distance from pillar to pillar etc.
18. The User Agency and the State Government shall ensure compliance to provisions of the all Acts, Rules, Regulations and Guidelines, for the time being in force, as applicable to the Project.
19. The User Agency shall submit the annual self compliance report on the conditions stipulated in the approval to the State Government and the concerned Regional Office of this Ministry.
20. ऐसी अन्य कोई भी शर्त जो कि भारत सरकार भविष्य में पर्यावरण, वन एवं वन्य जीवों के संरक्षण हेतु आवश्यक समझे।

उपरोक्त शर्तों में से किसी भी शर्त का कार्यान्वयन सन्तोषप्रद नहीं पाए जाने पर मंत्रालय इस स्वीकृति को तत्काल प्रभाव से निरस्त किया जा सकता है। राज्य सरकार वन विभाग के माध्यम से इन शर्तों की अनुपालना सुनिश्चित करेगी।

भवदीय,

(डा० योगेश गैरोला)
तकनीकी अधिकारी

प्रतिलिपि सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित:-

1. अपर वन महानिदेशक (एफ.सी.) पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, इन्दिरा पर्यावरण भवन, जोरबाग रोड़, अलीगंज, नयी दिल्ली - 110003
2. मुख्य वन संरक्षक (एफ.सी.ए.) एम. मोडल अधिकारी, हिमाचल प्रदेश सरकार, वन विभाग, टालैंड, शिमला।
3. आदेश पत्रावली।

(डा० योगेश गैरोला)
तकनीकी अधिकारी

Chanju-III (48MW) HEP

ANNEXURE-II

Sr. No.	Part-A- Specific Conditions	Reply
I- Construction Phase:		
1.	"Consent to Establish" shall be obtained from H.P. State Pollution Control Board under Water (Prevention and Control of Pollution) Act 1974 and Air (Prevention and Control of Pollution) Act 1981 a copy of same shall be submitted to State Environment Impact Assessment Authority (SEIAA) before start of any construction work at the site.	CoE has been accorded by HPSPCB
2.	Provisions shall be made for the housing of 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 the project.	Agreed. Compliance will be made.
3.	All required sanitary and hygienic measures should be taken before, during and after the completion of project.	Agreed. Sanitary and hygienic measures are being taken and will also be taken after the completion of the project.
4.	A First Aid Room will be provided in the project both during construction and operation phase of the project.	Agreed. First Aid Room has been established by the contractor at site.
5.	Adequate arrangements for safe disposal of waste water and solid waste generated during the construction phase shall be ensured.	Necessary measures are being taken for safe disposal of waste water and solid waste generated during the construction phase
6.	All the top soil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.	Agreed
7.	Disposal of muck including excavated material during construction phase should not create any adverse effects on the neighboring communities and disposed-off taking the necessary precautions for general safety and health aspects of public, only in approved sites with the approval of competent authority.	Muck is being disposed off in designated dumping sites only. The muck dumping sites are being protected by suitable RCC/Crate structures.
8.	Soil and ground water samples shall be got tested from authorized agency to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.	Agreed. Testing of the said samples are being taken for testing by the contractor. Report attached as ANNEXURE-IIA
9.	Construction spoils including bituminous material and other hazardous materials including oil from construction equipments must not be allowed to contaminate water courses and the dump sites for such material must be secured so that they should not leach into the ground water. if necessary, oil trap should be installed where there is deployment	Agreed. Needful will be done.

Chanju-III (48MW) HEP

ANNEXURE-II

	of heavy machineries	
10.	Any hazards waste generated during construction phase should be disposed off as per applicable rules and norms with necessary approvals of the competent authority.	Agreed. Hazards waste generated during construction phase are being disposed off as per applicable rules and norms with necessary approvals of the competent authority.
11.	Diesel generator sets during construction phase should have acoustic enclosures and should conform to Environment (Protection) Act, 1986 and Rules framed there under for air and noise emission standards. Low sulphur diesel type should be used	DG sets have been provided with acoustic enclosures. Necessary direction under EPA Act, 1986 are being issued to the contractor time to time.
12.	The diesel required for operating DG set shall be stored in under tanks and if required, clearance from Chief Controller of Implosives shall be taken.	Agreed. Clearance from the competent authority has been obtained.
13.	Vehicles/ Equipment deployed construction phase should be in good condition and should conform to applicable air and noise emission standards, should have vehicle pollution check certificate and should be operated only during non-peak hours.	Proper check is being carried out on Vehicles used during construction phase to meet the air/noise emission standards.
14.	Ambient noise levels should conform to residential standards both during day and night. Only limited necessary construction should be done during night time. Fortnightly monitoring of ambient air quality (SPM, SO ₂ and NO _x) and equivalent noise levels should be ensured during construction phase should be closely monitored during construction phase so as to conform to the stipulated standards fixed by the competent authority.	Agreed. Needful is being done. Monitoring of Ambient Noise Levels is being carried and report is attached as ANNEXURE-IIA
15.	Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 & 2003 in case the project site falls within 100 Km distance of Thermal Power Stations.	Agreed
16.	Use of Ready- Mix concrete is recommended for this project.	Agreed.
17.	Water demand during construction should be reduced by use of pre - mixed concrete, curing agents and other best practices and technologies available.	Agreed
18.	The approval of Competent Authority shall be obtained for structure safety of the buildings due to earthquake, adequacy of fire fighting requirements etc. as per National Building Code including Protection measures from lightning etc.	Agreed.

19.	Regular supervisions of the above and other measure for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.	Needful is being done.
20.	The proponent shall be liable for action under the Environment (Protection) Act, 1986 for the violation of any provision of the said Act.	Agreed
II	Operational Phase	
1.	"Consent to Operate" shall be obtained from H.P. State Pollution Control Board under Water (Prevention and Control of Pollution) Act 1974 and Air (Prevention and Control of Pollution) Act 1981 a copy of same shall be submitted to State Environment impact Assessment Authority (SEIAA) before start of any construction work at the site.	Agreed. Needful will be done.
2.	The Installation of the Effluent Treatment Plant /Sewage Treatment plan (STP) Should be certified by as independent expert and report in this regard should be submitted to the Member Secretary ,HPSEIAA- cum- Director , Department of Environment , Science & Technology before the project is commissioned for operation . Treated effluent emanating from STP shall be recycled /reused to the maximum extent possible. Treatment off 100% grey water by decentralized treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards prescribed .Necessary measures should be made to mitigate the odour problem from STP.	ETP/STP is yet be installed which is under process.
3.	The solid waste generated should be properly collected and segregated . Wet garbage should be composted and dry /inert solid waste should be disposed of to the approved sites for land filling after recovering recyclable materials .	Needful is being done.
4.	Diesel power generating sets proposed as source of backup power for elevators and common area illumination during operation phase should be enclosed type and confirmed to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity for all proposed DG sets .The proponent shall be required to use low sulphur diesel .The location of the DG sets may be decided in consultation with the competent authority .	DG Sets as installed and used as per EPA,1986
5.	Noise should be controlled to ensure that it does not exceed the prescribed standards .During night	Necessary steps are being taken to keep the noise levels within the

	time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply the with the prevalent regulations.	prescribed limits Monitoring of Noise levels is being carried out. Report attached as ANNEXURE-IIA
6.	Necessary arrangements for rain water harvesting for roof run – off and surface run – off should be made.	Agreed. Necessary arrangements for rain water harvesting for roof run – off and surface run – off will be made during construction of the project colony/office.
7.	Traffic congestion near the entry and exit polls from the roads adjoining proposed projects sites must be avoided . parking should be fully internalized as per norms prescribed by the Competent Authority and no public space should be used for this purpose.	Agreed Needful is being done.
8.	A report on the energy conservation measures confirming to energy conservation norms finalized by Bureau of Energy Efficiency should be prepared incorporating details about building materials and technologies, R & U Factors etc. and submitted to the SEIAA.	Needful will be done.
9.	Energy conservation measures like installation of CFLs/TFLs for the lighting the surrounding areas/outside areas the building should be integral part of the project design and should be in place before project commissioning. Used CFLs/TFLs should be properly collected and disposed of/ sent for recycling as per the prevelling guidelines/rules of the regularity authority to avoid mercury contamination. Use of solar panels may be done to the possible extent.	Needful will be done.
10.	Adequate steps should be taken to prevent odour problem from solid based processing site and STP.	Necessuary precautions will be taken after the installation of the STP
11.	Stripling of water etc. be use for air pollution control during construction phase so as to avoid disturbance to the surroundings.	Necessary precautions are being taken by stripling of water for air pollution control.
Part- B	General Conditions:	
1.	The environmental safe guards contained/given in the proposal for management of environmental pollution should be implemented in letter and spirit.	Environmental safe guards contained/given in the proposal for management of environmental pollution are being implemented in letter and spirit.
2.	Bio-monthly Environment Monitoring Reports should be submitted to the SEIAA and MoEF & CC, Regional Office at Dehradun.	Agreed.
3.	Officials from the State Environment Impact Assessment Authority, Regional Office of MoEF, Dehradun and Department of Environment science and technology GoHP who would be monitoring the	Full co -operation will be given to the authorities.

Chanju-III (48MW) HEP

ANNEXURE-II

	implementation of environmental safe guards should be given full co-operation, facilities and documents/data by the project proponents during their inspection.	
4.	A complete set of all the documents submitted to the State Authority Should be forwarded to the Regional Office of MoEF, Dehradun complete set of all the documents submitted to the State Authority should be forwarded to the Regional Office of MoEF and CC, Dehradun.	Needful will be done.
5.	In the case of any change(S) in the scope of the project, the project would required a fresh appraisal by this Authority.	Agreed
6.	The SEIAA reserves right to add additional safe guard measures subsequently, if found necessary, and to take action including revoking of the Environment Clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safe guards and measures in a time bound and satisfactory manner.	Agreed
7.	All other statutory clearances shall be obtained, as applicable by the project proponents.	Statutory clearance such as Forest Clearance, Environment Clearance for installation of Materiel ropeways for the construction of the project, TEC have been obtained from competent authorities
8.	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and Environment Impact Assessment Notification, 2006:	Agreed
9.	Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.	Agreed
Part-C	Special Conditions:	
1.	The Project Proponents shall release 15% minimum water discharge as per State Government policy. The Project Proponent would also install online flow measurement instruments for measuring discharge.	Agreed. Project Proponents shall release 15% minimum water discharge as per State Government policy. The Project Proponent will also install online flow measurement instruments for measuring discharge.
2.	The Project Proponent shall carry out and submit study on Ecological Flows w.r.t. release of water from maintenance of ecological needs for the D/S	Agreed.

Chanju-III (48MW) HEP

ANNEXURE-II

	affected areas of the project within one year period. The Project Proponent would also regulate minimum release of water based on the study but it would not be less than Government of Himachal Pradesh Policy.	
3.	The Project Proponent shall not allow the workers for extraction of fuel wood from nearby by forest land area.	No fuelwood from nearby forest area is allowed. Contractor is supplying the LPG for the workers.
4.	The Project Proponent shall regularly monitor their carbon footprints and would strive to be carbon neutral the carbon balance sheet be submitted to authority from time to time.	Agreed.
5.	It shall be responsibility of the Project Proponent to obtain all the requisite approvals/clearances/NOCs as may be applicable to the project from competent authorities under different Acts/Rules/Regulations/Order etc.	Agreed.
6.	The construction material such as griet/Bajri, sand shall be obtained from the competent authorized dealers/suppliers only and no illegal mining etc. shall be caused/resorted to.	Agreed
7.	The Project Proponent shall not undertake any tree felling without statutory clearance under Forest Conservation Act, 1980 from MoEF & CC, GOI and the tree felling shall be done by the HP State Forest Corporation as per the set procedure/guidelines.	Forest clearance has already been accorded by MoEFCC, GoI. Trees were marked/hammered by the HP Forest Deptt and thereafter Felling of trees has also been completed by the HP Forest Corporation.
8.	The lying of transmission lines shall not be part of present Environment Clearance.	Agreed
9.	He project authorities shall increase the height of retaining structures by at least 1-2 mts. above to filled/dumping line by ensuring the sustainability of retaining structure Engineering i.e. horizontal and vertical stability point of the as well. The angle of reports shall not exceed 30 degrees.	Needful is being done at per site conditions.
10.	No muck disposable sites shall be located near the river/Nallah bank and shall maintain a vertical distance of more than 10 mts. from river bank. The project proponent shall submit an affidavit to this account.	Dumping Sites have already been approved by the HPSPCB. No dumping site is situated near river bank and a suitable distance from river bank has been maintained.
11.	The project proponent shall raise the muck retaining walls on muck disposable sites before start of dumping in those sites.	Needful is being done to avoid spillage of muck.
12.	The project proponent shall submit the details on quantum of generation of muck on monthly basis, its reuse and dumped, on a proper format for all the approved sites separately during construction phase.	Detail is attached as ANNEXURE-IIB

Chanju-III (48MW) HEP

ANNEXURE-II

13.	The project proponent shall also ensure that the reclamation works are under taken immediately after the complete filling of the muck disposable site.	Agreed.
14.	It shall be ensured that disposable of muck including excavated material during construction phase shall not create any adverse effects on the neighboring communities and it would be disposed off only after taking the necessary precautions for general safety and health aspects of public.	Needful will be done to avoid any issues regarding general safety and health aspects of public.
15.	All the topsoil excavated during construction activities shall be stored for use in reclamation works, horticulture, landscape development etc. within the project site.	Agreed.
16.	The project proponent shall develop the muck dumping areas as village utility areas.	Needful will be done.
17.	The diesel generators sets during construction phase shall have proper acoustic enclosures and should conform to the provisions of Environment (Protection) Act, 1986 and Rules framed there under for air and noise emission standards. The low sulphur grade diesel would be used for DG sets.	Necessary precautions are being taken under EPA ,1986. Directions for the compliance are being given to the contractor at time to time.
18.	The developer shall ensure that the vehicles/equipment deployed during construction phase are in good condition and conform to air and noise emission standards and should have vehicle pollution check certificate from authorized agency.	Needful is being done.
19.	The traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided the developer shall ensure that parking is fully internalized as per norms prescribed by the competent authority and no public space is used for this purpose.	Agreed Needful is being done.
20.	It shall be responsibility of project proponent to ensure that the qualitative and quantitative aspects of CAT plan implementation are achieved and documented and to also ensure that CAT plan addresses the issue associated w.r.t. D/S affected areas as well.	Exemption from making CAT Plan has been accorded by H/R Govt. Project proponents have deposited 2.5% of the total project cost as CAT Plan cost. Comprehensive CAT Plan Ravi basin by Forest Deptt. will be implemented.
21.	It is also advised that Bio-Engineering aspects may also be incorporated/exercised during the implementation of the CAT plan.	NA in view of submission made in Sr. NO.20 above.
22.	It disposable from de-silting chambers shall be addressed adequately. No silt flushing shall be done during the lean season.	-
23.	The LADC cost of total project cost shall not be the part of EMP.	LADC is 1.5% of the total project cost and is not a part of EMP. Two installments each of amounting to Rs.1.545 crore has been released to DoE.Total Rs.3.09 crores has been released till yet.

Chanju-III (48MW) HEP

ANNEXURE-II

24.	The PP shall perform to achieve the targets, actions as shown in the EIA Report EIA/EMP matrix w.r.t. base line data, probable incremental pollution load and also as elaborated in the matrix w.r.t. component of activity, resultant pollution, mitigation action plan for during the post construction phases given in EIA/EMP report.	Agreed
25.	The project proponent shall establish effective Environment Monitoring Cell during the construction phase itself.	Agreed.
26.	The Project Proponent shall consult the local office of the Department of Forests of any other such authorized agency, university, institution for types of trees which should be planted for development of the green belt around the project site.	Agreed
27.	The Project Proponent shall provide fuel facility to the labour to avoid any illegal access to the forests by the labourers for fuel wood. Provision should be made for the supply of kerosene or cooking gas/ pressure cooker to the labourers during construction phase.	Needful will be done.
28.	The PP shall construct and provide toilets for use of labourer in the ratio of 1:20 (i.e. one toilet for twenty labourers).	Needful is being done
29.	The PP shall ensure proper handling of the municipal wastes, dispose off the non-biodegradable waste including biomedical wastes, if any, in a scientific manner; dispose hazardous wastes such used CFL etc. at the designated authorized hazardous wastes dumping site at TSDF Nalagarh. The PP shall also explore option for buy back mechanism for the waste CFL.	Needful will be done
30.	The PP shall reduce the number and capacity of DG sets as proposed and shall meet the requirement out of non-conventional sources of energy.	Needful will be done as per site conditions.
31.	The PP shall undertake construction and development of STP during construction period and shall submit progress report of same to the Authority.	Needful will be done
32.	The PP shall undertake air quality monitoring during construction period/ phase on monthly basis besides ensuring that the ambient air quality is maintained and monitored at the project site during the construction phase.	Air quality monitoring is being carried out by the contractor in supervision of PP. Monitoring report is attached as ANNEXURE-IIA
33.	During the construction phase, the PP shall ensure that water sprinkling is done for preventing the dust/air pollution.	Water sprinkling is being carried out on regular basis.
34.	A separate energy meter shall be installed for STP and log book shall be maintained on energy	Needful will be done after installation of STPs.

Chanju-III (48MW) HEP**ANNEXURE-II**

	consumption. Interlocking of electric supply to STP and housing complex shall be ensured by the PP.	
35.	The PP shall submit photographs and video of the project progress during the construction phase at least three times, and once after operational stage.	Agreed
36.	The PP shall make all necessary arrangements for solid waste management viz; collection, segregation, transportation to the site and final disposal. The SWM and waste water management shall be the sole responsibility of the Developer.	Needful will be done as per site conditions.
37.	The design of STP and waste management facilities as proposed by the developer shall be installed as proposed, failing which he shall be liable action. It shall be sole responsibility of Developer to operate and maintain the STP.	Agreed Needful will be done
38.	The PP will plant the species of various types which are endemic to area and have high carbon sequestering potential.	Agreed
39.	Street lighting should be energy efficient-use of High Pressure Sodium Vapour (HPSV) lamps and CFL/LEDs should be promoted. Solar energy may be used for heating and outdoor lighting.	Needful will be done as per site conditions
40.	The solar lights shall be used for the street lighting.	Needful will be done as per site conditions


Manager
Environment
and
Sustainability
(h)



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Doc. No. - ITS/7.8-01, Page No. - 1 of 1

TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-230825-06

Issue Date: 28/08/2025

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name -MFB BHUMI PACKAGE - 1

SAMPLING & ANALYSIS DATA

Sample Description : Ambient Air
Date of Sampling : 21/08/2025 To 22/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Amit Tyagi Ji
Sampling Location : Village - Dehra Near GM Guest House
Sampling Plan & Procedure : IS:5182 & CPCB Guidelines
Average Flow Rate of SPM ($m^3/min.$) : 1.28
Average Flow Rate of Gases (lpm) : 0.2
Sampling Instrument Used : Respirable Dust Sampler (PM_{10}) Fine Particulate Sampler ($PM_{2.5}$) With Gaseous Attachment
Sampling Machine Placed At Height : 2.5 Meter from Ground Level
Ambient Temperature & Humidity : $22^{\circ}C$ & 80%
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025

TEST RESULT

S. No.	Parameter	Test Method	Results	Limits as per CPCB Notification 18 th Nov 2009
1.	Particulate Matter (PM_{10}) ($\mu g/m^3$)	IS:5182 (Part-23)	31.2	100
2.	Particulate Matter ($PM_{2.5}$) ($\mu g/m^3$)	IS:5182 (Part-24)	16.9	60
3.	Sulphur dioxide (as SO_2) ($\mu g/m^3$)	IS:5182 (Part-02/Sec-2)	<5.0	80
4.	Nitrogen dioxide (as NO_2) ($\mu g/m^3$)	IS:5182 (Part-06/Sec-2)	9.46	80
5.	Carbon monoxide (as CO) (mg/m^3)	IS:5182 (Part-10)	<1.0	4.0

Note: - Report shall not be produce except in full without approval of the laboratory.

Reviewed by
Ashish Dubey
(Sr. Analyst)



End of Report



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Doc. No. - ITS/7.8-01, Page No. - 1 of 1

TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-230825-07

Issue Date: 28/08/2025

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - MFB BHUMI PACKAGE - 1

SAMPLING & ANALYSIS DATA

Sample Description : Ambient Air
Date of Sampling : 21/08/2025 To 28/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Amit Tyagi Ji
Sampling Location : Near Chanju Mata Mandir
Sampling Plan & Procedure : IS:5182 & CPCB Guidelines
Average Flow Rate of SPM ($\text{m}^3/\text{min.}$) : 1.29
Average Flow Rate of Gases (lpm) : 0.2
Sampling Instrument Used : Respirable Dust Sampler (PM_{10}) Fine Particulate Sampler ($\text{PM}_{2.5}$) With Gaseous Attachment
Sampling Machine Placed At Height : 2.5 Meter from Ground Level
Ambient Temperature & Humidity : 22°C & 80%
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025

TEST RESULT				
S. No.	Parameter	Test Method	Results	Limits as per CPCB Notification 18 th Nov 2009
1	Particulate Matter (PM_{10}) ($\mu\text{g}/\text{m}^3$)	IS:5182 (Part-23)	22.0	100
2	Particulate Matter ($\text{PM}_{2.5}$) ($\mu\text{g}/\text{m}^3$)	IS:5182 (Part-24)	11.6	60
3	Sulphur dioxide (as SO_2) ($\mu\text{g}/\text{m}^3$)	IS:5182 (Part-02/Sec-2)	<5.0	80
4	Nitrogen dioxide (as NO_2) ($\mu\text{g}/\text{m}^3$)	IS 5182 (Part-06/Sec-2)	6.0	80
5	Carbon monoxide (as CO) (mg/m^3)	IS:5182 (Part-10)	<1.0	4.0

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Reviewed by
Ashish Dubey
(Sr. Analyst)

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Doc. No. - ITS/7.8-01, Page No. - 1 of 1

TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-230825-08

Issue Date: 28/08/2025

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name -MFB BHUMI PACKAGE - 1

SAMPLING & ANALYSIS DATA

Sample Description : Ambient Air
Date of Sampling : 21/08/2025 To 22/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Amit Tyagi Ji
Sampling Location : Near Labour Colony
Sampling Plan & Procedure : IS:5182 & CPCB Guidelines
Average Flow Rate of SPM (m^3/min) : 1.27
Average Flow Rate of Gases (lpm) : 0.2
Sampling Instrument Used : Respirable Dust Sampler (PM_{10}) Fine Particulate Sampler ($\text{PM}_{2.5}$) With Gaseous Attachment
Sampling Machine Placed At Height : 2.5 Meter from Ground Level
Ambient Temperature & Humidity : 22°C & 80%
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025

TEST RESULT

S. No.	Parameter	Test Method	Results	Limits as per CPCB Notification 18 th Nov 2009
1	Particulate Matter (PM_{10}) ($\mu\text{g}/\text{m}^3$)	IS 5182 (Part-23)	30.9	100
2	Particulate Matter ($\text{PM}_{2.5}$) ($\mu\text{g}/\text{m}^3$)	IS 5182 (Part-24)	17.2	60
3	Sulphur dioxide (as SO_2) ($\mu\text{g}/\text{m}^3$)	IS 5182 (Part-02/Sec-2)	<5.0	80
4	Nitrogen dioxide (as NO_2) ($\mu\text{g}/\text{m}^3$)	IS 5182 (Part-06/Sec-2)	15.8	80
5	Carbon monoxide (as CO) (mg/m^3)	IS 5182 (Part-10)	<1.0	4.0

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Reviewed by
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TEST REPORT

Report Code: AAQ-230825-05

Ambient Air Quality Analysis

Issue Date: 28/08/2025

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name -MFB BHUMI PACKAGE - 1

SAMPLING & ANALYSIS DATA

Sample Description : Ambient Air
Date of Sampling : 21/08/2025 To 22/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Amit Tyagi Ji
Sampling Location : Near Kalprai Store Area
Sampling Plan & Procedure : IS:5182 & CPCB Guidelines
Average Flow Rate of SPM ($m^3/min.$) : 1.28
Average Flow Rate of Gases (lpm) : 0.2
Sampling Instrument Used : Respirable Dust Sampler (PM_{10}) Fine Particulate Sampler ($PM_{2.5}$) With Gaseous Attachment
Sampling Machine Placed At Height : 2.5 Meter from Ground Level
Ambient Temperature & Humidity : $22^{\circ}C$ & 80%
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025

TEST RESULT				
S. No.	Parameter	Test Method	Results	Limits as per CPCB Notification 18 th Nov 2009
1.	Particulate Matter (PM_{10}) ($\mu g/m^3$)	IS:5182 (Part-23)	28.6	100
2.	Particulate Matter ($PM_{2.5}$) ($\mu g/m^3$)	IS:5182 (Part-24)	17.8	60
3.	Sulphur dioxide (as SO_2) ($\mu g/m^3$)	IS:5182 (Part-02/Sec-2)	<5.0	80
4.	Nitrogen dioxide (as NO_2) ($\mu g/m^3$)	IS 5182 (Part-06/Sec-2)	10.2	80
5.	Carbon monoxide (as CO) (mg/m^3)	IS:5182 (Part-10)	<1.0	4.0

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Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report



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Doc. No. - ITS/7.8-01, Page No. - 1 of 1

TEST REPORT

Ambient Noise Analysis

Report Code: N-230825-07

Issue Date: 28/08/2025

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju - III HEP (48 MW)
Contractor Name- MFB BHUMI PACKAGE - I

SAMPLING & ANALYSIS DATA

Sample Description : Ambient Noise
Date of Sampling : 21/08/2025 To 22/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Amit Tyagi Ji
Sampling Location : Near Kalprai Store Area
Sampling Plan & Procedure : ITS/LAB/SAMPLING/SOP/02
Sampling Instrument Used : Noise Meter
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025

TEST RESULTS

S. No	Test Parameters	Results	Units	Requirement (as per CPCB Guidelines Limits in dB(A) Leq		
				Category of Area/ Zone	Day Time	Night Time
1.	EQUIVALENT NOISE LEVEL (6.0 AM TO 10.0 PM)	57.9	dB(A)	Industrial Area	75	70
2.	EQUIVALENT NOISE LEVEL (10.0 PM TO 6.0 AM)	41.0	dB(A)	Commercial Area	65	55
				Residential Area	55	45
				Silence Zone	50	40

Remarks: On the basis of above tested parameter, Sample meets with CPCB requirement.

Note: - Report shall not be produce except in full without approval of the laboratory.

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report



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Doc. No. - ITS/7.8-01, Page No. - 1 of 1

TEST REPORT

Ambient Noise Analysis

Issue Date: 28/08/2025

Report Code: N-230825-08

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju - III HEP (48 MW)
Contractor Name- MFB BHUMI PACKAGE - I

SAMPLING & ANALYSIS DATA

Sample Description : Ambient Noise
Date of Sampling : 21/08/2025 To 22/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Amit Tyagi Ji
Sampling Location : Village - Dehra Near GM Guest House
Sampling Plan & Procedure : ITS/LAB/SAMPLING/SOP/02
Sampling Instrument Used : Noise Meter
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025

TEST RESULTS

S. No	Test Parameters	Results	Units	Requirement (as per CPCB Guidelines) Limits in dB(A) Leq		
				Category of Area/ Zone	Day Time	Night Time
1.	EQUIVALENT NOISE LEVEL (6.0 AM TO 10.0 PM)	52.0	dB(A)	Industrial Area	75	70
2.	EQUIVALENT NOISE LEVEL (10.0 PM TO 6.0 AM)	46.9	dB(A)	Commercial Area	65	55
				Residential Area	55	45
				Silence Zone	50	40

Remarks: On the basis of above tested parameter, Sample meets with CPCB requirement.
Note: - Report shall not be produce except in full without approval of the laboratory.

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Doc. No. - ITS/7.8-01, Page No. - 1 of 1

TEST REPORT

Ambient Noise Analysis

Report Code: N-230825-09.

Issue Date: 28/08/2025

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju - III HEP (48 MW)
Contractor Name- MFB BHUMI PACKAGE - I

SAMPLING & ANALYSIS DATA

Sample Description : Ambient Noise
Date of Sampling : 21/08/2025 To 22/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Amit Tyagi Ji
Sampling Location : Near Chanju Mata Mandir
Sampling Plan & Procedure : ITS/LAB/SAMPLING/SOP/02
Sampling Instrument Used : Noise Meter
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025

TEST RESULTS

S. No	Test Parameters	Results	Units	Requirement (as per CPCB Guidelines Limits in dB(A) Leq		
				Category of Area/ Zone	Day Time	Night Time
1.	EQUIVALENT NOISE LEVEL (6.0 AM TO 10.0 PM)	50.7	dB(A)	Industrial Area	75	70
2.	EQUIVALENT NOISE LEVEL (10.0 PM TO 6.0 AM)	36.0	dB(A)	Commercial Area	65	55
				Residential Area	55	45
				Silence Zone	50	40

Remarks: On the basis of above tested parameter, Sample meets with CPCB requirement.
Note: - Report shall not be produce except in full without approval of the laboratory.

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report



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TEST REPORT

Ambient Noise Analysis

Issue Date: 28/08/2025

Report Code: N-230825-10

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju - III HEP (48 MW)
Contractor Name- MFB BHUMI PACKAGE - 1

SAMPLING & ANALYSIS DATA

Sample Description	: Ambient Noise
Date of Sampling	: 21/08/2025 To 28/08/2025
Sample Drawn By	: Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	: Mr. Sahil Ji
Site Representative	: Mr. Amit Tyagi Ji
Sampling Location	: Near Labour Colony
Sampling Plan & Procedure	: ITS/LAB/SAMPLING/SOP/02
Sampling Instrument Used	: Noise Meter
Weather Condition	: Clear
Sample Received On	: 23/08/2025
Analysis Duration	: 23/08/2025 To 28/08/2025

TEST RESULTS

S. No	Test Parameters	Results	Units	Requirement (as per CPCB Guidelines Limits in dB(A) Leq		
				Category of Area/ Zone	Day Time	Night Time
1.	EQUIVALENT NOISE LEVEL (6.0 AM TO 10.0 PM)	55.8	dB(A)	Industrial Area	75	70
2.	EQUIVALENT NOISE LEVEL (10.0 PM TO 6.0 AM)	40.4	dB(A)	Commercial Area	65	55
				Residential Area	55	45
				Silence Zone	50	40

Remarks: On the basis of above tested parameter, Sample meets with CPCB requirement.

Note: - Report shall not be produce except in full without approval of the laboratory.

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report



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TEST REPORT

Stack Emission Sample Analysis

Issue Date: 28/08/2025

Report Code: SE-230825-03

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package - II

SAMPLING & ANALYSIS DATA

Sample Description	: Stack Emission
Date of Sample Drawn	: 21/08/2025
Sample drawn by	: Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	: Mr. Sahil Ji
Site Representative	: Mr. Amit Tyagi Ji
Source of Emission	: Stack Attached To D.G. Set - 250 KVA (200 kW)
Make & Sr.No.	: -
Ambient Temperature (°C)	: 21
Flue Gas Temperature (°C)	: 168
Type of Stack	: MS / Circular
Type of Fuel Used	: HSD
Stack Height from Ground Level (meter)	: 2.5
Sampling Height From Ground Level (meter)	: -
Stack Diameter (meter.)	: 0.10
Average Velocity of Flue Emission(m/s)	: 19.56
Quantity of Emission Discharge(m ³ /hr.)	: 416.28
Parameters to be tested	: As per EPA Act-1986/CPCB/MoEF Guideline
Test Method Used for Monitoring	: APHA-AIR/US EPA/IS-11255
Instrument Used for Monitoring	: Stack Kit/Flue Gas Analyzer
Operating Load	: Full
Sampling Time (Minutes)	: 42.0
Any Pollution Control System, If Any	: Nil
Date Sample Received	: 23/08/2025
Analysis Duration	: 23/08/2025 To 28/08/2025

TEST RESULTS

S. No.	Parameter	Test Method	Results	Limit as per CPCB Notification, 11 th Dec. 2013 Upto 800 kW D.G. Set (Max)
1.	Particulate Matter (as PM) (g/kw-hr)	IS:11255(Part-1)	0.085	≤0.2
2.	Oxides of Nitrogen (as NOx) (g/kw-hr)	IS:11255(Part-7)	0.892	≤4.0
3.	Hydrocarbons (as HC) (g/kw-hr)	IS:11255(Part-13)	0.31	≤3.5
4.	Carbon monoxide (as CO) (g/kw-hr)	IS:13270	0.70	≤3.5

Note: g/Kw-hr:- Gram Per Kilo Watt Hour

Note:- Report shall not be produce except in full without approval of the laboratory

Reviewed by
Ashish Dubey
Sr. Analyst

End of Report



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TEST REPORT

Stack Emission Sample Analysis

Issue Date: 28/08/2025

Report Code: SE-230825-04

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package - II

SAMPLING & ANALYSIS DATA

Sample Description	:	Stack Emission
Date of Sample Drawn	:	21/08/2025
Sample drawn by	:	Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	:	Mr. Sahil Ji
Site Representative	:	Mr. Amit Tyagi Ji
Source of Emission	:	Stack Attached To D.G. Set - 25 KVA (20 kW)
Make & Sr.No.	:	-
Ambient Temperature (°C)	:	21
Flue Gas Temperature (°C)	:	102
Type of Stack	:	MS / Circular
Type of Fuel Used	:	HSD
Stack Height from Ground Level (meter)	:	1.5
Sampling Height From Ground Level (meter)	:	-
Stack Diameter (meter.)	:	0.075
Average Velocity of Flue Emission(m/s)	:	17.36
Quantity of Emission Discharge(m ³ /hr.)	:	206.21
Parameters to be tested	:	As per EPA Act-1986/CPCB/MoEF Guideline
Test Method Used for Monitoring	:	APIA-AIR/US EPA/IS:11255
Instrument Used for Monitoring	:	Stack Kit/Flue Gas Analyzer
Operating Load	:	Full
Sampling Time (Minutes)	:	45.0
Any Pollution Control System, If Any	:	Nil
Date Sample Received	:	18/07/2025
Analysis Duration	:	18/07/2025 To 21/07/2025

TEST RESULTS

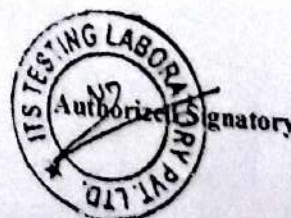
S. No.	Parameter	Test Method	Results	Limit as per CPCB Notification, 11 th Dec. 2013 For 19kW To 75kW D.G. Set (Max)
1.	Particulate Matter (as PM) (g/kw-hr)	IS:11255(Part-1)	0.022	≤0.3
2.	Oxides of Nitrogen (as NOx) (g/kw-hr)	IS:11255(Part-7)	0.258	≤4.7
3.	Hydrocarbons (as HC) (g/kw-hr)	IS:11255(Part-13)	0.20	≤3.5
4.	Carbon monoxide (as CO) (g/kw-hr)	IS 13270	0.40	

Note: g/Kw-hr - Gram Per Kilo Watt Hour

Note: - Report shall not be produce except in full without approval of the laboratory

Reviewed by
Ashish Dubey
Sr. Analyst

End of Report



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TEST REPORT

D.G. Noise Analysis

Report Code: N-230825-11

Issue Date: 28/08/2025

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - MFB BHUMI PACKAGE - I

SAMPLING & ANALYSIS DATA

Sample Description	: D.G. Set Noise
Date of Sample Drawn	: 21/08/2025
Sample drawn by	: Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	: Mr. Sahil Ji
Site Representative	: Mr. Amit Tyagi Ji
Sampling Location	: 1.0 Meter Away from Acoustic Enclosure
Capacity	: D.G. Set - 250 KVA (200 kW)
Sampling Duration	: 10 Minutes (One Minute Interval of Each Point)
Sampling Plan & Procedure	: ITS/LAB/SAMPLING/SOP/02
Sampling Instrument Used	: Noise Meter
Weather Condition	: Clear
Purpose of Monitoring	: Efficacy of D.G. Acoustic Enclosure
Sample Received On	: 23/08/2025
Analysis Duration	: 23/08/2025 To 28/08/2025

TEST RESULT

Location	Noise Level, Cum Leq dB(A)	Protocol followed	Limit as per CPCB Norms
(A). When D.G. Set was in operation			
1. Open D.G. window			
(a) 0.5 mtr. Distance away from DG Set engine	106.9		
(b) 1.0 mtr. Distance away from DG Set engine	105.4	IS 4758	75.0 (Max) from 1.0 meter distance in close window
2. Close DG window			
(a) 0.5 mtr. Distance away from the gate of DG Set engine	73.9		
(b) 1.0 mtr. Distance away from the gate DG Set engine	73.6		

Remark: All doors of acoustic enclosure closed and D.G. Set running at the time of monitoring.

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Reviewed by
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(Sr. Analyst)

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TEST REPORT

D.G. Noise Analysis

Report Code: N-230825-12

Issue Date: 28/08/2025

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - MFB BHUMI PACKAGE - 1

SAMPLING & ANALYSIS DATA

Sample Description : D.G. Set Noise
Date of Sample Drawn : 21/08/2025
Sample drawn by : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Amit Tyagi Ji
Sampling Location : 1.0 Meter Away from Acoustic Enclosure
Capacity : D.G. Set - 25 KVA (20 kW)
Sampling Duration : 10 Minutes (One Minute Interval of Each Point)
Sampling Plan & Procedure : ITS/LAB/SAMPLING/SOP/02
Sampling Instrument Used : Noise Meter
Weather Condition : Clear
Purpose of Monitoring : Efficacy of D.G. Acoustic Enclosure
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025

TEST RESULT

Location	Noise Level, Cum Leq dB(A)	Protocol followed	Limit as per CPCB Norms
(A). When D.G. Set was in operation			
1. Open D.G. window			
(a) 0.5 mtr. Distance away from DG Set engine	100.6		
(b) 1.0 mtr. Distance away from DG Set engine	100.2	IS:4758	75.0 (Max) from 1.0 meter distance in close window
2. Close DG window			
(a) 0.5 mtr. Distance away from the gate of DG Set engine	72.4		
(b) 1.0 mtr. Distance away from the gate DG Set engine	71.8		

Remark: All doors of acoustic enclosure closed and D.G. Set running at the time of monitoring.

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Reviewed by
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(Sr. Analyst)

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TEST REPORT

Water Sample Analysis

Issue Date: 28/08/2025

Report Code: W-230825-45

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju - III HEP (48 MW)
Contractor Name - MFB BHUMI PACKAGE - 1

SAMPLING & ANALYSIS DATA

Sample Description : Drinking Water Sample
Sampling Location : Near Chanju Mata Mandir
Source of Water : -
Sample Drawn On : 21/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Amit Tyagi Ji
Sampling Plan & Procedure : IS:17614 (Part):2021
Sample Quantity : 2.0 Liter in Pet Bottle & 500 ml Glass Sterilized Bottle
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025
Test Specification To Be Used : IS:10500:2012

TEST RESULTS

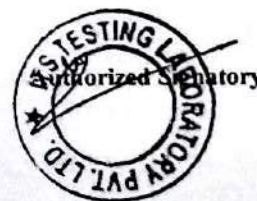
1. MICROBIOLOGICAL REQUIREMENT:

		RESULTS		
S. No.	Parameter	Test Method	Results	Required as per IS-10500:2012
1	Escherichia coli, (MPN/100ml)	IS-15185:2016	Absent	Absent/100 ml
2	Coliform Bacteria, (MPN/100ml)	IS-15185:2016	Absent	Absent/100 ml

2. ORGANOLEPTIC & PHYSICAL PARAMETERS:

S. No.	Parameter	Test method	Results	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1	Colour, (Hazen)	IS-3025(P-04)	<5.0	5	15
2	Odour	IS-3025(P-05)	Agreeable	Agreeable	Agreeable
3	Taste	IS-3025(P-7 & 8)	Agreeable	Agreeable	Agreeable
4	Turbidity, (NTU)	IS-3025(P-10)	<1.0	1	5
5	Temperature, (°C)	IS-3025(P-09)	18	-	-
6	pH value	IS-3025(P-11)	7.36	6.5-8.5	-
7	Total dissolve solid (TDS), (mg/l)	IS-3025(P-16)	77	500	2000

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3. GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
8.	Total Hardness (as CaCO ₃), (mg/l)	IS 3025 (P- 21)	50	200	600
9.	Calcium (as Ca), (mg/l)	IS 3025 (P- 40)	10.6	75	200
10.	Chloride (as Cl), (mg/l)	IS 3025 (P- 32)	7.8	250	1000
11.	Total Alkalinity (as CaCO ₃), (mg/l)	IS 3025 (P- 23)	42	200	600
12.	Magnesium (as Mg), (mg/l)	IS 3025 (P-46)	6.28	30	100
13.	Sulphate (as SO ₄), (mg/l)	IS 3025 (P- 24)	<1.0	200	400
14.	Nitrate (as NO ₃), (mg/l)	IS 3025 (P- 34)	<0.1	45	No Relaxation
15.	Iron (as Fe), (mg/l)	IS 3025 (P-53)	<0.05	1.0	1.5
16.	Fluoride (as F), (mg/l)	IS 3025 (P-60, Sec-1)	<0.1	1.0	1.0
17.	Residual Free Chlorine, (mg/l)	IS 3025 (P-26)	<0.1	0.2	1.0
18.	Anionic surface Detergents (as MBAS), (mg/l)	IS 3025 (P-68)	<0.1	0.2	1.0
19.	Sulphide (as H ₂ S), (mg/l)	IS-3025 (P-29)	<0.05	0.05	No Relaxation
20.	Aluminium (as Al), (mg/l)	IS 3025 (P- 55)	<0.01	0.03	0.2
21.	Total Ammonia, (mg/l)	IS 3025 (P- 34)	<0.1	0.5	No Relaxation
22.	Boron (as B), (mg/l)	IS 3025 (P- 57)	<0.1	0.5	1.0
23.	Chloramines (as Cl ₂), (mg/l)	IS 3025 (P- 26)	<1.0	4.0	No Relaxation
24.	Copper (as Cu), (mg/l)	IS 3025 (P-42)	<0.05	0.05	1.5
25.	Manganese (as Mn), (mg/l)	IS 3025 (P-59)	<0.1	0.1	0.3
26.	Mineral Oil, (mg/l)	IS 3025 (P-39), Clause 6	<0.5	0.5	No Relaxation
27.	Selenium (as Se), (mg/l)	IS 3025 (P- 56)	<0.01	0.01	No Relaxation
28.	Zinc (as Zn), (mg/l)	IS 3025 (P- 49)	<0.01	5.0	15
29.	Phenolic Compound (as C ₆ H ₅ OH), (mg/l)	IS 3025 (P-43)	<0.001	0.001	0.002

4. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Cadmium (as Cd), (mg/l)	IS-3025 (P-41)	<0.001	0.003	No Relaxation
2.	Cyanide (as CN), (mg/l)	IS-3025 (P-27)	<0.01	0.05	No Relaxation
3.	Lead (as Pb), (mg/l)	IS-3025 (P-47)	<0.01	0.01	No Relaxation
4.	Mercury (as Hg), (mg/l)	IS-3025 (P-48)	<0.001	0.001	No Relaxation
5.	Nickel (as Ni), (mg/l)	IS-3025 (P-54)	<0.01	0.02	No Relaxation
6.	Arsenic (as As), (mg/l)	IS-3025 (P-37)	<0.01	0.01	0.05
7.	Total Chromium (as Cr), (mg/l)	IS-3025 (P-52)	<0.05	0.05	No Relaxation

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(Sr. Analyst)



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5. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Aldrin, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.03 max	No Relaxation
2.	Dieldrin, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.03 max	No Relaxation
3.	DDT(o,p & p,p-isomers of DDT, DDE& DDD), (µg/l)	USEPA-Method 8270E	BDL(0.05)	1.0max	No Relaxation
4.	Alpha HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.01max	No Relaxation
5.	Beta HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.04max	No Relaxation
6.	Delta HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.04max	No Relaxation
7.	Gamma-HCH (Lindane), (µg/l)	USEPA-Method 8270E	BDL(0.05)	2.0max	No Relaxation
8.	Endosulfan (α,β and Sulphate), (µg/l)	USEPA-Method 8270E	BDL(0.05)	0.4max	No Relaxation

The detection limit of individual pesticide is 0.01 µg/l

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(Sr. Analyst)



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6. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Molybdenum (as Mo), (mg/l)	IS-3025(P-2)	<0.05	0.07	No Relaxation
2.	Silver (as Ag), (mg/l)	Annex J IS: 13428	<0.05	0.1	No Relaxation
3.	Barium (as Ba), (mg/l)	IS: 15302	<0.1	0.7	No Relaxation
4.	Poly nuclear Aromatic, (mg/l)	APHA 6440	<0.0001	0.0001	No Relaxation
5.	Poly chlorinated biphenyl, (mg/l)	APHA 6630	<0.0001	0.0005	No Relaxation
6.	Uranium (as U), (mg/l)	IS-3025(P-65)	<0.002	-	-
7.	Bromoform, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
8.	Dibromochloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
9.	Bromodichloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.06	No Relaxation
10.	Chloroform, (mg/l)	APHA 6232	BDL(0.01)	0.2	No Relaxation

7. PARAMETERS CONCERNING RADIOACTIVE SUBSTANCES:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Alpha Emitters, (Bq/l)	IS:14194 (P-2)	BDL(0.1)	0.1	No Relaxation
2.	Beta Emitters, (Bq/l)	IS:14194 (P-1)	BDL(1.0)	1.0	No Relaxation

8. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Alachlor, (µg/l)	USEPA-525.2	BDL(0.05)	20 max	No Relaxation
2.	Atrazine, (µg/l)	USEPA-525.2	BDL(0.05)	2 max	No Relaxation
3.	Monocrotophos, (µg/l)	USEPA-8141A	BDL(0.05)	1.0 max	No Relaxation
4.	Ethion, (µg/l)	USEPA-1657A	BDL(0.05)	3.0 max	No Relaxation
5.	Chlorpyrifos, (µg/l)	USEPA-525.2	BDL(0.05)	30 max	No Relaxation
6.	Phorate, (µg/l)	USEPA-8141A	BDL(0.05)	2.0 max	No Relaxation
7.	2,4-Dichlorophenoxy Acetic acid, (µg/l)	USEPA-515.1	BDL(0.05)	30 max	No Relaxation
8.	Butachlor, (µg/l)	USEPA-525.2	BDL(0.05)	125 max	No Relaxation
9.	Isoproturon, (µg/l)	USEPA-532	BDL(0.05)	9.0 max	No Relaxation
10.	Malathion, (µg/l)	USEPA-8141A	BDL(0.05)	190 max	No Relaxation
11.	Methyl parathion, (µg/l)	USEPA-8141A	BDL(0.05)	0.3 max	No Relaxation

Remarks: Based on above tested parameter, Water sample meets as per IS-10500:2012 in Specification.

Hence water is fit for Drinking purpose.

BDL: Below Detection limit

The detection limit of individual pesticide is 0.01 µg/l

Note: - Report shall not be produce except in full without approval of the laboratory

Reviewed by
Ashish Dubey
(Sr. Analyst)



End of Report

Terms & Conditions:

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Doc. No. - ITS/7.8-01

Report Code: W-230825-46, Page No. - 1 of 4

TEST REPORT

Water Sample Analysis

Report Code: W-230825-46

Issue Date: 28/08/2025

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju - III HEP (48 MW)
Contractor Name - MFB BIHUMI PACKAGE - I

SAMPLING & ANALYSIS DATA

Sample Description : Drinking Water Sample
Sampling Location : Near Kalprai Store Area
Source of Water : -
Sample Drawn On : 21/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Amit Tyagi Ji
Sampling Plan & Procedure : IS:17614 (Part):2021
Sample Quantity : 2.0 Liter in Pet Bottle & 500 ml Glass Sterilized Bottle
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025
Test Specification To Be Used : IS:10500:2012

TEST RESULTS

1. MICROBIOLOGICAL REQUIREMENT:

RESULTS				
S. No.	Parameter	Test Method	Results	Required as per IS-10500:2012
1.	Escherichia coli, (MPN/100ml)	IS-15185:2016	Absent	Absent/100 ml
2.	Coliform Bacteria, (MPN/100ml)	IS-15185:2016	Absent	Absent/100 ml

2. ORGANOLEPTIC & PHYSICAL PARAMETERS:

S. No.	Parameter	Test method	Results	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Colour, (Hazen)	IS-3025(P-04)	<5.0	5	15
2.	Odour	IS-3025(P-05)	Agreeable	Agreeable	Agreeable
3.	Taste	IS-3025(P-7 & 8)	Agreeable	Agreeable	Agreeable
4.	Turbidity, (NTU)	IS-3025(P-10)	<1.0	1	5
5.	Temperature, (°C)	IS-3025(P-09)	18	-	-
6.	pH value	IS-3025(P-11)	7.20	6.5-8.5	-
7.	Total dissolve solid (TDS), (mg/l)	IS-3025(P-16)	72	500	2000

Reviewed by
Ashish Dubey
(Sr. Analyst)



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Report Code: W--230825-46, Page No. - 2 of 4

3. GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
8.	Total Hardness (as CaCO ₃), (mg/l)	IS: 3025 (P- 21)	48	200	600
9.	Calcium (as Ca), (mg/l)	IS: 3025 (P- 40)	10.6	75	200
10.	Chloride (as Cl), (mg/l)	IS: 3025 (P- 32)	15	250	1000
11.	Total Alkalinity (as CaCO ₃), (mg/l)	IS: 3025 (P- 23)	42	200	600
12.	Magnesium (as Mg), (mg/l)	IS: 3025 (P-46)	5.35	30	100
13.	Sulphate (as SO ₄), (mg/l)	IS: 3025 (P- 24)	<1.0	200	400
14.	Nitrate (as NO ₃), (mg/l)	IS: 3025 (P- 34)	<0.1	45	No Relaxation
15.	Iron (as Fe), (mg/l)	IS: 3025(P-53)	<0.05	1.0	-
16.	Fluoride (as F), (mg/l)	IS:3025(P-60,Sec-1)	<0.1	1.0	1.5
17.	Residual Free Chlorine, (mg/l)	IS: 3025 (P-26)	<0.1	0.2	1.0
18.	Anionic surface Detergents (as MBAS), (mg/l)	IS: 3025 (P-68)	<0.1	0.2	1.0
19.	Sulphide (as H ₂ S), (mg/l)	IS-3025 (P-29)	<0.05	0.05	No Relaxation
20.	Aluminum (as Al), (mg/l)	IS: 3025 (P- 55)	<0.01	0.03	0.2
21.	Total Ammonia, (mg/l)	IS: 3025 (P- 34)	<0.1	0.5	No Relaxation
22.	Boron (as B), (mg/l)	IS: 3025 (P- 57)	<0.1	0.5	1.0
23.	Chloramines (as Cl ₂), (mg/l)	IS: 3025 (P- 26)	<1.0	4.0	No Relaxation
24.	Copper (as Cu), (mg/l)	IS : 3025 (P-42)	<0.05	0.05	1.5
25.	Manganese (as Mn), (mg/l)	IS : 3025 (P-59)	<0.1	0.1	0.3
26.	Mineral Oil, (mg/l)	IS:3025(P-39), Clause 6	<0.5	0.5	No Relaxation
27.	Selenium (as Se), (mg/l)	IS: 3025 (P- 56)	<0.01	0.01	No Relaxation
28.	Zinc (as Zn), (mg/l)	IS: 3025 (P- 49)	<0.01	6.0	15
29.	Phenolic Compound (as C ₆ H ₅ OH), (mg/l)	IS: 3025 (P-43)	<0.001	0.001	0.002

4. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Cadmium (as Cd), (mg/l)	IS-3025 (P-41)	<0.001	0.003	No Relaxation
2.	Cyanide (as CN), (mg/l)	IS-3025 (P-27)	<0.01	0.05	No Relaxation
3.	Lead (as Pb), (mg/l)	IS-3025 (P-47)	<0.01	0.01	No Relaxation
4.	Mercury (as Hg), (mg/l)	IS-3025 (P-48)	<0.001	0.001	No Relaxation
5.	Nickel (as Ni), (mg/l)	IS-3025 (P-54)	<0.01	0.02	No Relaxation
6.	Arsenic (as As), (mg/l)	IS-3025 (P-37)	<0.01	0.01	0.05
7.	Total Chromium (as Cr), (mg/l)	IS-3025 (P-52)	<0.05	0.05	No Relaxation

Reviewed by
Ashish Dubey
(Sr. Analyst)



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Doc. No. - ITS/7.8-01

Report Code: W--230825-46, Page No. - 3 of 4

5. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Aldrin, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.03 max	No Relaxation
2.	Dieldrin, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.03 max	No Relaxation
3.	DDT(o,p & p,p-isomers of DDT, DDE & DDD), (µg/l)	USEPA-Method 8270E	BDL(0.05)	1.0max	No Relaxation
4.	Alpha HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.01max	No Relaxation
5.	Beta HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.04max	No Relaxation
6.	Delta HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.04max	No Relaxation
7.	Gamma-HCH (Lindane), (µg/l)	USEPA-Method 8270E	BDL(0.05)	2.0max	No Relaxation
8.	Endosulfan (α,β and Sulphate), (µg/l)	USEPA-Method 8270E	BDL(0.05)	0.4max	No Relaxation

The detection limit of individual pesticide is 0.01 µg/l

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report



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Report Code: W-230825-46, Page No. - 4 of 4

6. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Molybdenum (as Mo), (mg/l)	IS-3025(P-2)	<0.05	0.07	No Relaxation
2.	Silver (as Ag), (mg/l)	Annex J IS. 13428	<0.05	0.1	No Relaxation
3.	Barium (as Ba), (mg/l)	IS: 15302	<0.1	0.7	No Relaxation
4.	Poly nuclear Aromatic, (mg/l)	APHA 6440	<0.0001	0.0001	No Relaxation
5.	Poly chlorinated biphenyl, (mg/l)	APHA 6630	<0.0001	0.0005	No Relaxation
6.	Uranium (as U), (mg/l)	IS-3025(P-65)	<0.002	-	-
7.	Bromoform, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
8.	Dibromochloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
9.	Bromodichloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.06	No Relaxation
10.	Chloroform, (mg/l)	APHA 6232	BDL(0.01)	0.2	No Relaxation

7. PARAMETERS CONCERNING RADIOACTIVE SUBSTANCES:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1	Alpha Emitters, (Bq/l)	IS.14194 (P-2)	BDL(0.1)	0.1	No Relaxation
2	Beta Emitters, (Bq/l)	IS.14194 (P-1)	BDL(1.0)	1.0	No Relaxation

8. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Alachlor, (µg/l)	USEPA-525.2	BDL(0.05)	20 max	No Relaxation
2.	Atrazine, (µg/l)	USEPA-525.2	BDL(0.05)	2 max	No Relaxation
3.	Monocrotophos, (µg/l)	USEPA-8141A	BDL(0.05)	1.0 max	No Relaxation
4.	Ethion, (µg/l)	USEPA-1657A	BDL(0.05)	3.0 max	No Relaxation
5.	Chlorpyrifos, (µg/l)	USEPA-525.2	BDL(0.05)	30 max	No Relaxation
6.	Phorate, (µg/l)	USEPA-8141A	BDL(0.05)	2.0 max	No Relaxation
7.	2,4-Dichlorophenoxy Acetic acid, (µg/l)	USEPA-515.1	BDL(0.05)	30 max	No Relaxation
8.	Butachlor, (µg/l)	USEPA-525.2	BDL(0.05)	125 max	No Relaxation
9.	Isoproturon, (µg/l)	USEPA-532	BDL(0.05)	9.0 max	No Relaxation
10.	Malathion, (µg/l)	USEPA-8141A	BDL(0.05)	190 max	No Relaxation
11.	Methyl parathion, (µg/l)	USEPA-8141A	BDL(0.05)	0.3 max	No Relaxation

Remarks: Based on above tested parameter, Water sample meets as per IS-10500:2012 in Specification.
Hence water is fit for Drinking purpose.

BDL: Below Detection limit

The detection limit of individual pesticide is 0.01 µg/l

Note: - Report shall not be produce except in full without approval of the laboratory

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report



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Doc. No. - ITS/7.8-01

Report Code: W-230825-47, Page No. - 1 of 4

TEST REPORT

Water Sample Analysis

Report Code: W-230825-47

Issue Date: 30/08/2025

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju - III HEP (48 MW)
Contractor Name - MFB BHUMI PACKAGE - 1

SAMPLING & ANALYSIS DATA

Sample Description : Ground Water Sample
Sampling Location : Under Ground Water
Source of Water : -
Sample Drawn On : 21/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Amit Tyagi Ji
Sampling Plan & Procedure : IS:17614 (Part):2021
Sample Quantity : 2.0 Liter in Pet Bottle & 500 ml Glass Sterilized Bottle
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 30/08/2025
Test Specification To Be Used : IS:10500:2012

TEST RESULTS

1. MICROBIOLOGICAL REQUIREMENT:

RESULTS				
S. No.	Parameter	Test Method	Results	Required as per IS-10500:2012
1.	Escherichia coli, (MPN/100ml)	IS-1622:1981	Absent	Absent/100 ml
2	Coliform Bacteria, (MPN/100ml)	IS-1622:1981	Absent	Absent/100 ml

2. ORGANOLEPTIC & PHYSICAL PARAMETERS:

S. No.	Parameter	Test method	Results	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Colour, (Hazen)	IS-3025(P-04)	<5.0	5	15
2	Odour	IS-3025(P-05)	Agreeable	Agreeable	Agreeable
3	Taste	IS-3025(P-7 & 8)	Agreeable	Agreeable	Agreeable
4.	Turbidity, (NTU)	IS-3025(P-10)	<1.0	1	5
5.	Temperature, (°C)	IS-3025(P-09)	17.0	-	-
6	pH value	IS-3025(P-11)	7.62	6.5-8.5	-
7.	Total dissolve solid (TDS), (mg/l)	IS-3025(P-16)	403	500	2000

Reviewed by
Ashish Dubey
(Sr. Analyst)



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Report Code: W-230825-47, Page No. - 2 of 4

3. GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS:					
S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
8	Total Hardness (as CaCO ₃), (mg/l)	IS: 3025 (P- 21)	82	200	600
9	Calcium (as Ca), (mg/l)	IS: 3025 (P- 40)	16.0	75	200
10	Chloride (as Cl), (mg/l)	IS: 3025 (P- 32)	16	250	1000
11	Total Alkalinity (as CaCO ₃), (mg/l)	IS: 3025 (P- 23)	62	200	600
12	Magnesium (as Mg), (mg/l)	IS: 3025 (P-46)	10.28	30	100
13	Sulphate (as SO ₄), (mg/l)	IS: 3025 (P- 24)	6.32	200	400
14	Nitrate (as NO ₃), (mg/l)	IS: 3025 (P- 34)	<0.1	45	No Relaxation
15	Nitrate (as NO ₃), (mg/l)	IS: 3025 (P-53)	<0.05	1.0	-
16	Iron (as Fe), (mg/l)	IS: 3025 (P-60, Sec-1)	<0.1	1.0	1.5
17	Fluoride (as F), (mg/l)	IS: 3025 (P-26)	<0.1	0.2	1.0
18	Residual Free Chlorine, (mg/l)	IS: 3025 (P-68)	<0.1	0.2	1.0
19	Anionic surface Detergents (as MBAS), (mg/l)	IS: 3025 (P-29)	<0.05	0.05	No Relaxation
20	Sulphide (as H ₂ S), (mg/l)	IS: 3025 (P- 55)	<0.01	0.03	0.2
21	Aluminum (as Al), (mg/l)	IS: 3025 (P- 34)	<0.1	0.5	No Relaxation
22	Total Ammonia, (mg/l)	IS: 3025 (P- 57)	<0.1	0.5	1.0
23	Boron (as B), (mg/l)	IS: 3025 (P- 26)	<1.0	4.0	No Relaxation
24	Chloramines (as Cl ₂), (mg/l)	IS: 3025 (P-42)	<0.05	0.05	1.5
25	Copper (as Cu), (mg/l)	IS: 3025 (P-59)	<0.1	0.1	0.3
26	Manganese (as Mn), (mg/l)	IS: 3025 (P-39), Clause 6	<0.5	0.5	No Relaxation
27	Mineral Oil, (mg/l)	IS: 3025 (P- 56)	<0.01	0.01	No Relaxation
28	Selenium (as Se), (mg/l)	IS: 3025 (P- 49)	<0.01	5.0	15
29	Zinc (as Zn), (mg/l)	IS: 3025 (P-43)	<0.001	0.001	0.002
29	Phenolic Compound (as C ₆ H ₅ OH), (mg/l)				

4. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Cadmium (as Cd), (mg/l)	IS-3025 (P-41)	<0.001	0.003	No Relaxation
2.	Cyanide (as CN), (mg/l)	IS-3025 (P-27)	<0.01	0.05	No Relaxation
3.	Lead (as Pb), (mg/l)	IS-3025 (P-47)	<0.01	0.01	No Relaxation
4.	Mercury (as Hg), (mg/l)	IS-3025 (P-48)	<0.001	0.001	No Relaxation
5.	Nickel (as Ni), (mg/l)	IS-3025 (P-54)	<0.01	0.02	No Relaxation
6.	Arsenic (as As), (mg/l)	IS-3025 (P-37)	<0.01	0.01	0.05
7.	Total Chromium (as Cr), (mg/l)	IS-3025 (P-52)	<0.05	0.05	No Relaxation

Reviewed by
Ashish Dubey
(Sr. Analyst)



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5. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Aldrin, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.03 max	No Relaxation
2.	Dieldrin, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.03 max	No Relaxation
3.	DDT(α,β & p,p-isomers of DDT, DDE& DDD), (µg/l)	USEPA-Method 8270E	BDL(0.05)	1.0max	No Relaxation
4.	Alpha HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.01max	No Relaxation
5.	Beta HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.04max	No Relaxation
6.	Delta HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.04max	No Relaxation
7.	Gamma-HCH (Lindane), (µg/l)	USEPA-Method 8270E	BDL(0.05)	2.0max	No Relaxation
8.	Endosulfan (α,β and Sulphate), (µg/l)	USEPA-Method 8270E	BDL(0.05)	0.4max	No Relaxation

The detection limit of individual pesticide is 0.01µg/l

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report



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Doc. No. - ITS/7.8-01

Report Code: W-230825-47, Page No. - 4 of 4

6. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Molybdenum (as Mo), (mg/l)	IS-3025(P-2)	<0.05	0.07	No Relaxation
2.	Silver (as Ag), (mg/l)	Annex J IS: 13428	<0.05	0.1	No Relaxation
3.	Barium (as Ba), (mg/l)	IS: 15302	<0.1	0.7	No Relaxation
4.	Poly nuclear Aromatic, (mg/l)	APHA 6440	<0.0001	0.0001	No Relaxation
5.	Poly chlorinated biphenyl, (mg/l)	APHA 6630	<0.0001	0.0005	No Relaxation
6.	Uranium (as U), (mg/l)	IS-3025(P-65)	<0.002	-	-
7.	Bromoform, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
8.	Dibromochloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
9.	Bromodichloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.06	No Relaxation
10.	Chloroform, (mg/l)	APHA 6232	BDL(0.01)	0.2	No Relaxation

7. PARAMETERS CONCERNING RADIOACTIVE SUBSTANCES:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Alpha Emitters, (Bq/l)	IS: 14194 (P-2)	BDL(0.1)	0.1	No Relaxation
2.	Beta Emitters, (Bq/l)	IS: 14194 (P-1)	BDL(1.0)	1.0	No Relaxation

8. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Alachlor, (µg/l)	USEPA-525.2	BDL(0.05)	20 max	No Relaxation
2.	Atrazine, (µg/l)	USEPA-525.2	BDL(0.05)	2 max	No Relaxation
3.	Monocrotophos, (µg/l)	USEPA-8141A	BDL(0.05)	1.0 max	No Relaxation
4.	Ethion, (µg/l)	USEPA-1657A	BDL(0.05)	3.0 max	No Relaxation
5.	Chlorpyrifos, (µg/l)	USEPA-525.2	BDL(0.05)	30 max	No Relaxation
6.	Phorate, (µg/l)	USEPA-8141A	BDL(0.05)	2.0 max	No Relaxation
7.	2,4-Dichlorophenoxy Acetic acid, (µg/l)	USEPA-515.1	BDL(0.05)	30 max	No Relaxation
8.	Butachlor, (µg/l)	USEPA-525.2	BDL(0.05)	125 max	No Relaxation
9.	Isoproturon, (µg/l)	USEPA-532	BDL(0.05)	9.0 max	No Relaxation
10.	Malathion, (µg/l)	USEPA-8141A	BDL(0.05)	190 max	No Relaxation
11.	Methyl parathion, (µg/l)	USEPA-8141A	BDL(0.05)	0.3 max	No Relaxation

Remarks: Based on above tested parameter. Water sample meets as per IS-10500:2012 in Specification.

BDL Below Detection limit.

The detection limit of individual pesticide is 0.01 µg/l

Note: - Report shall not be produce except in full without approval of the laboratory

Reviewed by
Ashish Dubey
(Sr. Analyst)



End of Report

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Doc. No. – ITS/7.8-01

Report Code: W-230825-48, Page No. – 1 of 4

TEST REPORT

Water Sample Analysis

Report Code:W-230825-48

Issue Date: 28/08/2025

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju – III HEP (48 MW)
Contractor Name – MFB BHUMI PACKAGE – 1

SAMPLING & ANALYSIS DATA

Sample Description : Ground Water Sample
Sampling Location : Village – Dehra
Source of Water : -
Sample Drawn On : 21/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Amit Tyagi Ji
Sampling Plan & Procedure : IS:17614 (Part):2021
Sample Quantity : 2.0 Liter in Pet Bottle & 500 ml Glass Sterilized Bottle
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025
Test Specification To Be Used : IS:10500:2012

TEST RESULTS

1. MICROBIOLOGICAL REQUIREMENT:

		RESULTS		
S. No.	Parameter	Test Method	Results	Required as per IS-10500:2012
1.	Escherichia coli, (MPN/100ml)	IS-1622:1981	Absent	Absent/100 ml
2.	Coliform Bacteria, (MPN/100ml)	IS-1622:1981	Absent	Absent/100 ml

2. ORGANOLEPTIC & PHYSICAL PARAMETERS:

S. No.	Parameter	Test method	Results	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Colour, (Hazan)	IS-3025(P-04)	<5 0	5	15
2.	Odour	IS-3025(P-05)	Agreeable	Agreeable	Agreeable
3.	Taste	IS-3025(P-7 & 8)	Agreeable	Agreeable	Agreeable
4.	Turbidity, (NTU)	IS-3025(P-10)	<1 0	1	5
5.	Temperature, (°C)	IS-3025(P-09)	16.0	-	-
6.	pH value	IS-3025(P-11)	7.32	6.5-8.5	-
7.	Total dissolve solid (TDS), (mg/l)	IS-3025(P-16)	43	500	2000

Reviewed by
Ashish Dubey
(Sr. Analyst)



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Report Code: W-230825-48, Page No. - 2 of 4

3. GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS:					
S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
8.	Total Hardness (as CaCO ₃), (mg/l)	IS: 3025 (P- 21)	20	200	600
9.	Calcium (as Ca), (mg/l)	IS: 3025 (P- 40)	6.4	75	200
10.	Chloride (as Cl), (mg/l)	IS: 3025 (P- 32)	6.0	250	1000
11.	Total Alkalinity (as CaCO ₃), (mg/l)	IS: 3025 (P- 23)	16	200	600
12.	Magnesium (as Mg), (mg/l)	IS: 3025 (P-46)	1.90	30	100
13.	Sulphate (as SO ₄), (mg/l)	IS: 3025 (P- 24)	<1.0	200	400
14.	Nitrate (as NO ₃), (mg/l)	IS: 3025 (P- 34)	<0.1	45	No Relaxation
15.	Iron (as Fe), (mg/l)	IS: 3025(P-53)	<0.05	1.0	-
16.	Fluoride (as F), (mg/l)	IS: 3025(P-60,Sec-1)	<0.1	1.0	1.5
17.	Residual Free Chlorine, (mg/l)	IS: 3025 (P-26)	<0.1	0.2	1.0
18.	Anionic surface Detergents (as MBAS), (mg/l)	IS: 3025 (P-68)	<0.1	0.2	1.0
19.	Sulphide (as H ₂ S), (mg/l)	IS-3025 (P-29)	<0.05	0.05	No Relaxation
20.	Aluminum (as Al), (mg/l)	IS: 3025 (P- 55)	<0.01	0.03	0.2
21.	Total Ammonia, (mg/l)	IS: 3025 (P- 34)	<0.1	0.5	No Relaxation
22.	Boron (as B), (mg/l)	IS: 3025 (P- 57)	<0.1	0.5	1.0
23.	Chloramines (as Cl ₂), (mg/l)	IS: 3025 (P- 26)	<1.0	4.0	No Relaxation
24.	Copper (as Cu), (mg/l)	IS: 3025 (P-42)	<0.05	0.05	1.5
25.	Manganese (as Mn), (mg/l)	IS: 3025 (P-59)	<0.1	0.1	0.3
26.	Mineral Oil, (mg/l)	IS: 3025(P-39), Clause 6	<0.5	0.5	No Relaxation
27.	Selenium (as Se), (mg/l)	IS: 3025 (P- 56)	<0.01	0.01	No Relaxation
28.	Zinc (as Zn), (mg/l)	IS: 3025 (P- 49)	<0.01	6.0	15
29.	Phenolic Compound (as C ₆ H ₅ OH), (mg/l)	IS: 3025 (P-43)	<0.001	0.001	0.002

4. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Cadmium (as Cd), (mg/l)	IS-3025 (P-41)	<0.001	0.003	No Relaxation
2.	Cyanide (as CN), (mg/l)	IS-3025 (P-27)	<0.01	0.05	No Relaxation
3.	Lead (as Pb), (mg/l)	IS-3025 (P-47)	<0.01	0.01	No Relaxation
4.	Mercury (as Hg), (mg/l)	IS-3025 (P-48)	<0.001	0.001	No Relaxation
5.	Nickel (as Ni), (mg/l)	IS-3025 (P-54)	<0.01	0.02	No Relaxation
6.	Arsenic (as As), (mg/l)	IS-3025 (P-37)	<0.01	0.01	0.05
7.	Total Chromium (as Cr), (mg/l)	IS-3025 (P-52)	<0.05	0.05	No Relaxation

Reviewed by
Ashish Dubey
(Sr. Analyst)



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Doc. No. - ITS/7.8-01

Report Code: W-230825-48, Page No. - 3 of 4

5. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Aldrin. (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.03 max	No Relaxation
2.	Dieldrin. (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.03 max	No Relaxation
3.	DDT(o.p & p.p-isomers of DDT, DDE& DDD). (µg/l)	USEPA-Method 8270E	BDL(0.05)	1.0max	No Relaxation
4.	Alpha HCH. (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.01max	No Relaxation
5.	Beta HCH. (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.04max	No Relaxation
6.	Delta HCH. (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.04max	No Relaxation
7.	Gamma-HCH (Lindane). (µg/l)	USEPA-Method 8270E	BDL(0.05)	2.0max	No Relaxation
8.	Endosulfan (α,β and Sulphate). (µg/l)	USEPA-Method 8270E	BDL(0.05)	0.4max	No Relaxation

The detection limit of individual pesticide is 0.01µg/l

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report



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Report Code: W-230825-48, Page No. – 4 of 4

6. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Molybdenum (as Mo), (mg/l)	IS-3025(P-2)	<0.05	0.07	No Relaxation
2.	Silver (as Ag), (mg/l)	Annex J IS 13428	<0.05	0.1	No Relaxation
3.	Barium (as Ba), (mg/l)	IS: 15302	<0.1	0.7	No Relaxation
4.	Poly nuclear Aromatic, (mg/l)	APHA 6440	<0.0001	0.0001	No Relaxation
5.	Poly chlorinated biphenyl, (mg/l)	APHA 6630	<0.0001	0.0005	No Relaxation
6.	Uranium (as U), (mg/l)	IS-3025(P-65)	<0.002	-	-
7.	Bromoform, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
8.	Dibromochloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
9.	Bromodichloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.06	No Relaxation
10.	Chloroform, (mg/l)	APHA 6232	BDL(0.01)	0.2	No Relaxation

7. PARAMETERS CONCERNING RADIOACTIVE SUBSTANCES:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Alpha Emitters, (Bq/l)	IS 14194 (P-2)	BDL(0.1)	0.1	No Relaxation
2.	Beta Emitters, (Bq/l)	IS.14194 (P-1)	BDL(1.0)	1.0	No Relaxation

8. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Alachlor, (µg/l)	USEPA-525.2	BDL(0.05)	20 max	No Relaxation
2.	Atrazine, (µg/l)	USEPA-525.2	BDL(0.05)	2 max	No Relaxation
3.	Monocrotophos, (µg/l)	USEPA-8141A	BDL(0.05)	1.0 max	No Relaxation
4.	Ethion, (µg/l)	USEPA-1657A	BDL(0.05)	3.0 max	No Relaxation
5.	Chlorpyrifos, (µg/l)	USEPA-525.2	BDL(0.05)	30 max	No Relaxation
6.	Phorate, (µg/l)	USEPA-8141A	BDL(0.05)	2.0 max	No Relaxation
7.	2,4-Dichlorophenoxy Acetic acid, (µg/l)	USEPA-515.1	BDL(0.05)	30 max	No Relaxation
8.	Butachlor, (µg/l)	USEPA-525.2	BDL(0.05)	125 max	No Relaxation
9.	Isoproturon, (µg/l)	USEPA-532	BDL(0.05)	9.0 max	No Relaxation
10.	Malathion, (µg/l)	USEPA-8141A	BDL(0.05)	190 max	No Relaxation
11.	Methyl parathion, (µg/l)	USEPA-8141A	BDL(0.05)	0.3 max	No Relaxation

Remarks: Based on above tested parameter, Water sample meets as per IS-10500:2012 in Specification.

BDL: Below Detection limit.

The detection limit of individual pesticide is 0.01 µg/l

Note: - Report shall not be produce except in full without approval of the laboratory

Reviewed by
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(Sr. Analyst)

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Doc. No. – ITS/7.8-01

Report Code: SS: 230825-03, Page – 1 of 3

TEST REPORT

Soil Sample Analysis

Report Code: SS: 230835-03

Issue Date: 28/08/2025

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju –III HEP (48 MW)
Contractor Name - MFB BHUMI PACKAGE – 1

Sampling & Particulate Detail

Sample Description	:	Soil Sample
Sampling Location	:	Near – Chanju Mata Mandir
Date of Sampling	:	21/08/2025
Sample Drawn By	:	Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	:	Mr. Sahil Ji
Site Representative	:	Mr. Amit Tyagi Ji
Sampling Procedure	:	ITS/LAB/SAMPLING/STP/05
Sample Quantity	:	2.0 Kg in Zip Poly Bag
Weather Condition	:	Clear Sky
Sample Received On	:	23/08/2025
Analysis Duration	:	23/08/2025 To 28/08/2025

TEST RESULT

S. No.	Parameter	Test Method	Result	Unit
1.	pH @ 25°C	IS: 2720(Part-26)	7.83	-
2.	Electrical Conductivity @25°C	IS: 14767	342	µS/cm
3.	Water Holding Capacity	ITS/STP/SOIL/09	30.6	% by mass
4.	Moisture Content	IS: 2720(Part-02)	14.28	% by mass
5.	Calcium Carbonates (as CaCO ₃)	IS: 2720(Part-23)	4263	% by mass
6.	Available Magnesium (as Mg)	ITS/STP/SOIL/06	811.6	mg/kg
7.	Available Sodium (as Na)	ITS/STP/SOIL/01	312.8	mg/kg
8.	Total Kjeldahl Nitrogen (as TKN)	ITS/STP/SOIL/07	0.084	% by mass
9.	Total Soluble Sulphate (as SO ₄)	IS: 2720 (Part-27)	2205	mg/kg
10.	Total Soluble Salt	ITS/STP/SOIL/08	0.309	mg/kg
11.	Available Nitrogen (as N)	ITS/STP/SOIL/03	221	mg/kg
12.	Available Potassium (as K ₂ O)	ITS/STP/SOIL/02	36.0	mg/kg
13.	Available Phosphorus (as P ₂ O ₅)	ITS/STP/SOIL/04	74.9	mg/kg
14.	Sodium Absorption Ration (SAR)	IS: 11624	1.14	-
15.	Organic Matter	IS: 2720 (Part-22)	0.88	% by mass
16.	Available Iron (as Fe)	ITS/STP/SOIL/05	2.08	% by mass

Reviewed by
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(Sr. Analyst)



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17.	Calcium (as Ca)	ITS/LAB/STP/SOIL	2110	mg/kg
18.	Ammonia (as NH ₃ -N)	ITS/LAB/STP/SOIL	60.14	mg/kg
19.	Bicarbonates	ITS/LAB/STP/SOIL	36.6	meq/kg
20.	Boron (as B)	APHA 24 th Edit	0.42	mg/kg
21.	Iodine (as I ₂)	ITS/LAB/STP/SOIL	BDL	mg/kg
22.	Sand	IS 2720(Part-4)	55.6	% by mass
23.	Clay	IS 2720(Part-4)	29.8	% by mass
24.	Silt	IS 2720(Part-4)	22.2	% by mass
25.	Texture	IS 2720 (Part-4)	Sandy Clay Loam	-
26.	Total Potash (as K)	IS:3025 P-40-1991	16.14	mg/kg
27.	Organic Carbon	IS 2720 (Part-22)	0.50	% by mass
28.	Cation Exchange Capacity	IS 2720(Part-24)	20.66	meq/100gm
29.	Aluminum (as Al)	US EPA-3050B	BDL	mg/kg
30.	Antimony (as Sb)	US EPA-3050B	BDL	mg/kg
31.	Tin (as Sn)	APHA 24 th Edit	BDL	mg/kg
32.	Arsenic (as As)	US EPA-3050B	BDL	mg/kg
33.	Chlorine (as Cl ₂)	IS:3025(Part-32)	9.89	mg/kg
34.	Cobalt (as Co)	US EPA-3050B	BDL	mg/kg
35.	Cadmium (as Cd)	US EPA-3050B	1.82	mg/kg
36.	Chromium (as Cr)	US EPA-3050B	BDL	mg/kg
37.	Copper (as Cu)	US EPA-3050B	72.6	mg/kg
38.	Barium (as Ba)	US EPA-3050B	BDL	mg/kg
39.	Zinc (as Zn)	US EPA-3050B	88.28	mg/kg
40.	Nickel (as Ni)	US EPA-3050B	33.04	mg/kg
41.	Sulphur (as S)	IS 3025 (Part-24)	19.34	mg/kg
42.	Nitrate (as NO ₃)	ITS/LAB/STP/SOIL	5.77	mg/kg
43.	Nitrite (as NO ₂)	ITS/LAB/STP/SOIL	BDL	mg/kg
44.	Poly chlorinated Biphenyl	EPA 610	BDL	mg/kg
45.	Polycyclic Aromatic Hydrocarbon			
A	Nephthalene (NAP)	EPA 610	N D	mg/kg
B	Acenaphthylene (ANY)	EPA 610	N D	mg/kg
C	Acenaphthene (ANA)	EPA 610	N D	mg/kg
D	Fluorene (FLU)	EPA 610	N D	mg/kg
E	Phenanthrene (PHE)	EPA 610	N D	mg/kg

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F.	Anthracene (ANT)	EPA 610	N D.	mg/kg
G	Fluoranthene (FLT)	EPA 610	N D.	mg/kg
H	Pyrene (PYR)	EPA 610	N D.	mg/kg
I	Benzo (a) anthracene (BaA)	EPA 610	N D.	mg/kg
J	Chrysene (CHR)	EPA 610	N D.	mg/kg
K	Benzo (b)fluoranthene (BbF)	EPA 610	N D.	mg/kg
L	Benzo (k)fluoranthene (BkF)	EPA 610	N D.	mg/kg
M	Benzo (a)pyrene (BaP)	EPA 610	N D.	mg/kg
N	Idenol (1,2,3-c,d) pyrene (IPY)	EPA 610	N D.	mg/kg
O	Dibenzo (a,h) anthracene (DBA)	EPA 610	N D.	mg/kg
P.	Benzo (g,h,i) perylene (BPE)	EPA 610	N D.	mg/kg
47.	Total Pesticides			
A.	Heptachlor epoxide	USEPA-525 2	N D.	mg/kg
B	Trans Chlordane	USEPA-525 2	N D.	mg/kg
C.	Endrin	USEPA-508	N D.	mg/kg
D	Dieldrin	USEPA-508	N D.	mg/kg
E	DDT (o,p&p,p-isomers of DDT, DDE& DDD)	USEPA-508	N D.	mg/kg
F.	Cis-chlordane	USEPA-508	N D.	mg/kg
G	Endosulfan I	USEPA-508	N D.	mg/kg
H.	Endosulfan II	USEPA-508	N D.	mg/kg

Remarks: N.D.- Not Detected, Minimum Detection Limit is 0.01 mg/kg.

Note: - Report shall not be produce except in full without approval of the laboratory.

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report



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Doc. No. - ITS/7.8-01

Report Code: SS: 230825-04, Page - 1 of 3

TEST REPORT

Soil Sample Analysis

Report Code: SS: 230825-04

Issue Date: 28/08/2025

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju - III HEP (48 MW)
Contractor Name - MFB BHUMI PACKAGE - I

Sampling & Particulate Detail

Sample Description	:	Soil Sample
Sampling Location	:	Project Site Approach Road Near Intake - 01
Date of Sampling	:	21/08/2025
Sample Drawn By	:	Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	:	Mr. Sahil Ji
Site Representative	:	Mr. Amit Tyagi Ji
Sampling Procedure	:	ITS/LAB/SAMPLING/STP/05
Sample Quantity	:	20 Kg in Zip Poly Bag
Weather Condition	:	Clear Sky
Sample Received On	:	23/08/2025
Analysis Duration	:	23/08/2025 To 28/08/2025

TEST RESULT

S. No.	Parameter	Test Method	Result	Unit
1.	pH @ 25°C	IS:2720(Part-26)	7.72	-
2.	Electrical Conductivity @25°C	IS:14767	286	µS/cm
3.	Water Holding Capacity	ITS/STP/SOIL/09	32.0	% by mass
4.	Moisture Content	IS:2720(Part-02)	23.84	% by mass
5.	Calcium Carbonates (as CaCO ₃)	IS:2720(Part-23)	3628	% by mass
6.	Available Magnesium (as Mg)	ITS/STP/SOIL/06	714.9	mg/kg
7.	Available Sodium (as Na)	ITS/STP/SOIL/01	229.7	mg/kg
8.	Total Kjeldahl Nitrogen (as TKN)	ITS/STP/SOIL/07	0.092	% by mass
9.	Total Soluble Sulphate (as SO ₄)	IS:2720 (Part-27)	1452	mg/kg
10.	Total Soluble Salt	ITS/STP/SOIL/08	0.332	mg/kg
11.	Available Nitrogen (as N)	ITS/STP/SOIL/03	79.28	mg/kg
12.	Available Potassium (as K ₂ O)	ITS/STP/SOIL/02	22.46	mg/kg
13.	Available Phosphorus (as P ₂ O ₅)	ITS/STP/SOIL/04	44.90	mg/kg
14.	Sodium Absorption Ratio (SAR)	IS:11624	1.26	-
15.	Organic Matter	IS:2720 (Part-22)	0.98	% by mass
16.	Available Iron (as Fe)	ITS/STP/SOIL/05	3.04	% by mass

Reviewed by
Ashish Dubey
(Sr. Analyst)



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Report Code: SS: 230825-04, Page - 2 of 3

17.	Calcium (as Ca)	ITS/LAB/STP/SOIL	22.02	mg/kg
18.	Ammonia (as NH ₃ -N)	ITS/LAB/STP/SOIL	46.8	mg/kg
19.	Bicarbonates	ITS/LAB/STP/SOIL	22.0	meq/kg
20.	Boron (as B)	APHA 24 th Edit.	0.55	mg/kg
21.	Iodine (as I ₂)	ITS/LAB/STP/SOIL	BDL	mg/kg
22.	Sand	IS:2720(Part-4)	56.14	% by mass
23.	Clay	IS:2720(Part-4)	25.0	% by mass
24.	Silt	IS:2720(Part-4)	22.8	% by mass
25.	Texture	IS:2720 (Part-4)	Sandy Clay Loam	-
26.	Total Potash (as K)	IS:3025 P-40-1991	22.02	mg/kg
27.	Organic Carbon	IS 2720 (Part-22)	0.56	% by mass
28.	Cation Exchange Capacity	IS:2720(Part-24)	21.8	meq/100gm
29.	Aluminum (as Al)	US EPA-3050B	BDL	mg/kg
30.	Antimony (as Sb)	US EPA-3050B	BDL	mg/kg
31.	Tin (as Sn)	APHA 24 th Edit.	BDL	mg/kg
32.	Arsenic (as As)	US EPA-3050B	BDL	mg/kg
33.	Chlorine (as Cl ₂)	IS 3025(Part-32)	22.04	mg/kg
34.	Cobalt (as Co)	US EPA-3050B	BDL	mg/kg
35.	Cadmium (as Cd)	US EPA-3050B	1.70	mg/kg
36.	Chromium (as Cr)	US EPA-3050B	BDL	mg/kg
37.	Copper (as Cu)	US EPA-3050B	17.8	mg/kg
38.	Barium (as Ba)	US EPA-3050B	BDL	mg/kg
39.	Zinc (as Zn)	US EPA-3050B	60.82	mg/kg
40.	Nickel (as Ni)	US EPA-3050B	25.0	mg/kg
41.	Sulphur (as S)	IS:3025 (Part-24)	15.36	mg/kg
42.	Nitrate (as NO ₃)	ITS/LAB/STP/SOIL	6.28	mg/kg
43.	Nitrite (as NO ₂)	ITS/LAB/STP/SOIL	BDL	mg/kg
44.	Poly chlorinated Biphenyl	EPA 610	BDL	mg/kg
45.	Polycyclic Aromatic Hydrocarbon			
A.	Nephthalene (NAP)	EPA 610	N.D	mg/kg
B.	Accenaphthylenc (ANY)	EPA 610	N.D	mg/kg
C.	Accenaphthene (ANA)	EPA 610	N.D	mg/kg
D.	Fluorene (FLU)	EPA 610	N.D	mg/kg
E.	Phenanthrene (PHE)	EPA 610	N.D	mg/kg

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(Sr. Analyst)



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Report Code: SS: 230825-04, Page - 3 of 3

F	Anthracene (ANT)	EPA 610	N.D.	mg/kg
G	Fluoranthene (FLT)	EPA 610	N.D.	mg/kg
H	Pyrene (PYR)	EPA 610	N.D.	mg/kg
I	Benzo (a) anthracene (BaA)	EPA 610	N.D.	mg/kg
J	Chrysene (CHR)	EPA 610	N.D.	mg/kg
K	Benzo (b)fluoranthene (BbF)	EPA 610	N.D.	mg/kg
L	Benzo (k)fluoranthene (BkF)	EPA 610	N.D.	mg/kg
M	Benzo (a)pyrene (BaP)	EPA 610	N.D.	mg/kg
N	Idenol (1,2,3-c,d) pyrene (IPY)	EPA 610	N.D.	mg/kg
O	Dibenzo (a,h) anthracene (DBA)	EPA 610	N.D.	mg/kg
P	Benzo (g,h,i) perylene (BPE)	EPA 610	N.D.	mg/kg
47	Total Pesticides			
A	Heptachlor epoxide	USEPA-525.2	N.D.	mg/kg
B	Trans Chlordane	USEPA-525.2	N.D.	mg/kg
C	Endrin	USEPA-508	N.D.	mg/kg
D	Dieldrin	USEPA-508	N.D.	mg/kg
E	DDT (o,p&p,p-isomers of DDT, DDE& DDD)	USEPA-508	N.D.	mg/kg
F	Cis-chlordane	USEPA-508	N.D.	mg/kg
G	Endosulfan I	USEPA-508	N.D.	mg/kg
H	Endosulfan II	USEPA-508	N.D.	mg/kg

Remarks: N.D.- Not Detected, Minimum Detection Limit is 0.01 mg/kg.

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Reviewed by
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End of Report

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Doc. No. - ITS/7.8-01

Report Code: W-230825-49, Page No. - 1 of 4

TEST REPORT

Surface Water Sample Analysis

Issue Date: 28/08/2025

Report Code: W-230825-49

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju -III HEP (48 MW)

Contractor Name -MFB BHUMI PACKAGE - 1

SAMPLING & ANALYSIS DATA

Sample Description	: Surface Water Sample
Sampling Location	: Project Site - Up Stream Near Intake
Source of Water	: River Water
Sample Drawn On	: 21/08/2025
Sample Drawn By	: Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	: Mr. Sahil Ji
Site Representative	: Mr. Amit Tyagi Ji
Sampling Plan & Procedure	: IS:17614 (Part):2021
Sample Quantity	: 2.0 Liter in Pet Bottle & 500 ml Glass Sterilized Bottle
Weather Condition	: Clear
Sample Received On	: 23/08/2025
Analysis Duration	: 23/08/2025 To 28/08/2025
Test Specification To Be Used	: IS:10500:2012

TEST RESULTS

1. MICROBIOLOGICAL REQUIREMENT:

		RESULTS		
S. No.	Parameter	Test Method	Results	Required as per IS-10500:2012
1.	Escherichia coli, (MPN/100ml)	IS-1622:1981	Absent	Absent/100 ml
2	Coliform Bacteria, (MPN/100ml)	IS-1622:1981	Absent	Absent/100 ml

2. ORGANOLEPTIC & PHYSICAL PARAMETERS:

S. No.	Parameter	Test method	Results	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1	Colour, (Hazen)	IS-3025(P-04)	<5.0	5	15
2.	Turbidity, (NTU)	IS-3025(P-10)	<1.0	1	5
3.	Temperature, (°C)	IS-3025(P-09)	17.0	-	-
4.	pH value	IS-3025(P-11)	7.62	6.5-8.5	-
5.	Total dissolve solid (TDS), (mg/l)	IS-3025(P-16)	126	500	2000

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Report Code: W-230825-49, Page No. - 2 of 4

3. GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
6.	Total Hardness (as CaCO ₃), (mg/l)	IS 3025 (P- 21)	74.0	200	600
7.	Calcium (as Ca), (mg/l)	IS: 3025 (P- 40)	12.9	75	200
8.	Chloride (as Cl), (mg/l)	IS: 3025 (P- 32)	6.4	250	1000
9.	Magnesium (as Mg), (mg/l)	IS: 3025 (P-46)	12.05	30	100
10.	Sulphate (as SO ₄), (mg/l)	IS: 3025 (P- 24)	5.22	200	400
11.	Nitrate (as NO ₃), (mg/l)	IS: 3025 (P- 34)	<1.0	45	No Relaxation
12.	Iron (as Fe), (mg/l)	IS: 3025(P-53)	<0.05	1.0	-
13.	Fluoride (as F), (mg/l)	IS:3025(P-60,Sec-1)	<0.1	1.0	1.5
14.	Aluminum (as Al), (mg/l)	IS: 3025 (P- 55)	<0.01	0.03	0.2
15.	Boron (as B), (mg/l)	IS: 3025 (P- 57)	<0.1	0.5	1.0
16.	Copper (as Cu), (mg/l)	IS : 3025 (P-42)	<0.05	0.05	1.5
17.	Manganese (as Mn), (mg/l)	IS : 3025 (P-59)	<0.1	0.1	0.3
18.	Selenium (as Se), (mg/l)	IS: 3025 (P- 56)	<0.01	0.01	No Relaxation
19.	Zinc (as Zn), (mg/l)	IS. 3025 (P- 49)	<0.01	5.0	15

4. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Cadmium (as Cd), (mg/l)	IS-3025 (P-41)	<0.001	0.003	No Relaxation
2.	Cyanide (as CN), (mg/l)	IS-3025 (P-27)	<0.01	0.05	No Relaxation
3.	Lead (as Pb), (mg/l)	IS-3025 (P-47)	<0.01	0.01	No Relaxation
4.	Mercury (as Hg), (mg/l)	IS-3025 (P-48)	<0.001	0.001	No Relaxation
5.	Nickel (as Ni), (mg/l)	IS-3025 (P-54)	<0.01	0.02	No Relaxation
6.	Arsenic (as As), (mg/l)	IS-3025 (P-37)	<0.01	0.01	0.05
7.	Total Chromium (as Cr), (mg/l)	IS-3025 (P-52)	<0.05	0.05	No Relaxation

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Doc. No. - ITS/7.8-01
Report Code: W-230825-49, Page No. - 3 of 4

5. ORGANOLEPTIC & PHYSICAL PARAMETERS:

S. No.	Parameter	Test method	Results	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
				Agreeable	Agreeable
1.	Odour	IS-3025(P-05)	Agreeable	Agreeable	-
2.	Taste	IS-3025(P-7 & 8)	Agreeable	Agreeable	600
3.	Total Alkalinity (as CaCO_3), (mg/l)	IS: 3025 (P- 23)	23.08	200	10
4.	Residual Free Chlorine, (mg/l)	IS: 3025 (P-26)	<0.1	0.2	1.0
5.	Anionic surface Detergents (as MBAS), (mg/l)	IS: 3025 (P-68)	<0.1	0.2	No Relaxation
6.	Sulphide (as H_2S), (mg/l)	IS-3025 (P-29)	<0.05	0.05	No Relaxation
7.	Total Ammonia, (mg/l)	IS: 3025 (P- 34)	<0.1	0.5	No Relaxation
8.	Chloramines (as Cl_2), (mg/l)	IS: 3025 (P- 26)	<1.0	4.0	No Relaxation
9.	Mineral Oil, (mg/l)	IS:3025(P-39), Clause 6	<0.5	0.5	No Relaxation
10.	Phenolic Compound (as $\text{C}_6\text{H}_5\text{OH}$), (mg/l)	IS: 3025 (P-43)	<0.001	0.001	0.002

6. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Molybdenum (as Mo), (mg/l)	IS-3025(P-2)	<0.05	0.07	No Relaxation
2.	Silver (as Ag), (mg/l)	Annex J IS: 13428	<0.05	0.1	No Relaxation
3.	Barium (as Ba), (mg/l)	IS: 15302	<0.1	0.7	No Relaxation
4.	Poly nuclear Aromatic, (mg/l)	APHA 6440	<0.0001	0.0001	No Relaxation
5.	Poly chlorinated biphenyl, (mg/l)	APHA 6630	<0.0001	0.0005	No Relaxation
6.	Uranium (as U), (mg/l)	IS-3025(P-65)	<0.002	-	-
7.	Bromoform, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
8.	Dibromochloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
9.	Bromodichloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.06	No Relaxation
10.	Chloroform, (mg/l)	APHA 6232	BDL(0.01)	0.2	No Relaxation

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Report Code: W-230825-49, Page No. - 4 of 4

7. PARAMETERS CONCERNING RADIOACTIVE SUBSTANCES:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1	Alpha Emitters, (Bq/l)	IS 14194 (P-2)	BDL(0.1)	0.1	No Relaxation
2	Beta Emitters, (Bq/l)	IS 14194 (P-1)	BDL(1.0)	1.0	No Relaxation

8. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Aldrin, (µg/l)	USEPA-508	BDL(0.01)	0.03 max	No Relaxation
2.	Dieldrin, (µg/l)	USEPA-508	BDL(0.01)	0.03 max	No Relaxation
3.	Alachlor, (µg/l)	USEPA-525.2	BDL(0.05)	20 max	No Relaxation
4.	Atrazine, (µg/l)	USEPA-525.2	BDL(0.05)	2 max	No Relaxation
5.	DDT(o,p & p,p-isomers of DDT, DDE& DDD), (µg/l)	USEPA-508	BDL(0.05)	1.0max	No Relaxation
6.	Alpha HCH, (µg/l)	USEPA-508	BDL(0.01)	0.01max	No Relaxation
7.	Beta HCH, (µg/l)	USEPA-508	BDL(0.01)	0.04max	No Relaxation
8.	Delta HCH, (µg/l)	USEPA-508	BDL(0.01)	0.04max	No Relaxation
9.	Gamma-HCH (Lindane), (µg/l)	USEPA-508	BDL(0.05)	2.0max	No Relaxation
10.	Endosulfan (α,β and Sulphate), (µg/l)	USEPA-508	BDL(0.05)	0.4max	No Relaxation
11.	Monocrotophos, (µg/l)	USEPA-8141A	BDL(0.05)	1.0max	No Relaxation
12.	Ethion, (µg/l)	USEPA-1657A	BDL(0.05)	3.0 max	No Relaxation
13.	Chlorpyrifos, (µg/l)	USEPA-525.2	BDL(0.05)	30 max	No Relaxation
14.	Phorate, (µg/l)	USEPA-8141A	BDL(0.05)	2.0 max	No Relaxation
15.	2,4-Dichlorophenoxy Acetic acid, (µg/l)	USEPA-515.1	BDL(0.05)	30 max	No Relaxation
16.	Butachlor, (µg/l)	USEPA-525.2	BDL(0.05)	125 max	No Relaxation
17.	Isoproturon, (µg/l)	USEPA-532	BDL(0.05)	9.0max	No Relaxation
18.	Malathion, (µg/l)	USEPA-8141A	BDL(0.05)	190 max	No Relaxation
19.	Methyl parathion, (µg/l)	USEPA-8141A	BDL(0.05)	0.3 max	No Relaxation

Remarks: Based on above tested parameter, Water sample meets as per IS-10500:2012 in Specification.

BDL: Below Detection limit.

The detection limit of individual pesticide is 0.01 µg/l

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Reviewed by
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End of Report



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Doc. No. – ITS/7.8-01

Report Code: W-230825-50, Page No. – 1 of 4

TEST REPORT

Surface Water Sample Analysis

Report Code:W-230825-50

Issue Date: 28/08/2025

Issued To: M/s. Himachal Pradesh Power Corporation Limited
(A State Government under Taking) Chanju –III HEP (48 MW)
Contractor Name -MFB BHUMI PACKAGE – 1

SAMPLING & ANALYSIS DATA

Sample Description	:	Surface Water Sample
Sampling Location	:	Project Site – Down Stream Near Intake
Source of Water	:	River Water
Sample Drawn On	:	21/08/2025
Sample Drawn By	:	Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	:	Mr. Sahil Ji
Site Representative	:	Mr. Amit Tyagi Ji
Sampling Plan & Procedure	:	IS:17614 (Part):2021
Sample Quantity	:	2.0 Liter in Pet Bottle & 500 ml Glass Sterilized Bottle
Weather Condition	:	Clear
Sample Received On	:	23/08/2025
Analysis Duration	:	23/08/2025 To 28/08/2025
Test Specification To Be Used	:	IS:10500:2012

TEST RESULTS

1. MICROBIOLOGICAL REQUIREMENT:

S. No.	Parameter	RESULTS		
		Test Method	Results	Required as per IS-10500:2012
1	Escherichia coli, (MPN/100ml)	IS-1622 1981	Absent	Absent/100 ml
2	Coliform Bacteria, (MPN/100ml)	IS-1622 1981	Absent	Absent/100 ml

2. ORGANOLEPTIC & PHYSICAL PARAMETERS:

S. No.	Parameter	Test method	Results	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1	Colour, (Hazen)	IS-3025(P-04)	< 5.0	5	15
2	Turbidity, (NTU)	IS-3025(P-10)	< 1.0	1	5
3	Temperature, (°C)	IS-3025(P-09)	16.8	-	-
4	pH value	IS-3025(P-11)	7.63	6.5-8.5	-
5	Total dissolve solid (TDS), (mg/l)	IS-3025(P-16)	132	500	2000

Reviewed by
Ashish Dubey
(Sr. Analyst)



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3. GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
6.	Total Hardness (as CaCO ₃), (mg/l)	IS: 3025 (P- 21)	106	200	600
7.	Calcium (as Ca), (mg/l)	IS: 3025 (P- 40)	14.08	75	200
8.	Chloride (as Cl), (mg/l)	IS: 3025 (P- 32)	10.22	250	1000
9.	Magnesium (as Mg), (mg/l)	IS: 3025 (P-46)	16.36	30	100
10.	Sulphate (as SO ₄), (mg/l)	IS: 3025 (P- 24)	8.33	200	400
11.	Nitrate (as NO ₃), (mg/l)	IS: 3025 (P- 34)	<1.0	45	No Relaxation
12.	Iron (as Fe), (mg/l)	IS: 3025(P-53)	<0.05	1.0	-
13.	Fluoride (as F), (mg/l)	IS: 3025(P-60, Sec-1)	<0.1	1.0	1.5
14.	Aluminum (as Al), (mg/l)	IS: 3025 (P- 55)	<0.01	0.03	0.2
15.	Boron (as B), (mg/l)	IS: 3025 (P- 57)	<0.1	0.5	1.0
16.	Copper (as Cu), (mg/l)	IS : 3025 (P-42)	<0.05	0.05	1.5
17.	Manganese (as Mn), (mg/l)	IS : 3025 (P-59)	<0.1	0.1	0.3
18.	Selenium (as Se), (mg/l)	IS: 3025 (P- 56)	<0.01	0.01	No Relaxation
19.	Zinc (as Zn), (mg/l)	IS: 3025 (P- 49)	<0.01	6.0	15

4. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Cadmium (as Cd), (mg/l)	IS-3025 (P-41)	<0.001	0.003	No Relaxation
2.	Cyanide (as CN), (mg/l)	IS-3025 (P-27)	<0.01	0.05	No Relaxation
3.	Lead (as Pb), (mg/l)	IS-3025 (P-47)	<0.01	0.01	No Relaxation
4.	Mercury (as Hg), (mg/l)	IS-3025 (P-48)	<0.001	0.001	No Relaxation
5.	Nickel (as Ni), (mg/l)	IS-3025 (P-54)	<0.01	0.02	No Relaxation
6.	Arsenic (as As), (mg/l)	IS-3025 (P-37)	<0.01	0.01	0.05
7.	Total Chromium (as Cr), (mg/l)	IS-3025 (P-52)	<0.05	0.05	No Relaxation

Reviewed by
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(Sr. Analyst)



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5. ORGANOLEPTIC & PHYSICAL PARAMETERS:

S. No.	Parameter	Test method	Results	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Odour	IS-3025(P-05)	Agreeable	Agreeable	Agreeable
2.	Taste	IS-3025(P-7 & 8)	Agreeable	Agreeable	-
3.	Total Alkalinity (as CaCO_3), (mg/l)	IS: 3025 (P- 23)	66	200	600
4.	Residual Free Chlorine, (mg/l)	IS: 3025 (P-26)	<0.1	0.2	1.0
5.	Anionic surface Detergents (as MBAS), (mg/l)	IS: 3025 (P-68)	<0.1	0.2	1.0
6.	Sulphide (as H_2S), (mg/l)	IS-3025 (P-29)	<0.05	0.05	No Relaxation
7.	Total Ammonia, (mg/l)	IS: 3025 (P- 34)	<0.1	0.5	No Relaxation
8.	Chloramines (as Cl_2), (mg/l)	IS: 3025 (P- 26)	<1.0	4.0	No Relaxation
9.	Mineral Oil, (mg/l)	IS:3025(P-39), Clause 6	<0.5	0.5	No Relaxation
10.	Phenolic Compound (as $\text{C}_6\text{H}_5\text{OH}$), (mg/l)	IS: 3025 (P-43)	<0.001	0.001	0.002

6. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Molybdenum (as Mo), (mg/l)	IS-3025(P-2)	<0.05	0.07	No Relaxation
2.	Silver (as Ag), (mg/l)	Annex J IS: 13428	<0.05	0.1	No Relaxation
3.	Barium (as Ba), (mg/l)	IS: 15302	<0.1	0.7	No Relaxation
4.	Poly nuclear Aromatic, (mg/l)	APHA 6440	<0.0001	0.0001	No Relaxation
5.	Poly chlorinated biphenyl, (mg/l)	APHA 6630	<0.0001	0.0005	No Relaxation
6.	Uranium (as U), (mg/l)	IS-3025(P-65)	<0.002	-	-
7.	Bromoform, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
8.	Dibromochloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
9.	Bromodichloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.06	No Relaxation
10.	Chloroform, (mg/l)	APHA 6232	BDL(0.01)	0.2	No Relaxation

Reviewed by
Ashish Dubey
(Sr. Analyst)



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7. PARAMETERS CONCERNING RADIOACTIVE SUBSTANCES:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1	Alpha Emitters, (Bq/l)	IS-14194 (P-2)	BDL(0.1)	0.1	No Relaxation
2	Beta Emitters, (Bq/l)	IS-14194 (P-1)	BDL(1.0)	1.0	No Relaxation

8. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1	Aldrin, (µg/l)	USEPA-508	BDL (0.01)	0.03 max	No Relaxation
2	Dieldrin, (µg/l)	USEPA-508	BDL(0.01)	0.03 max	No Relaxation
3	Alachlor, (µg/l)	USEPA-525.2	BDL(0.05)	20 max	No Relaxation
4	Atrazine, (µg/l)	USEPA-525.2	BDL(0.05)	2 max	No Relaxation
5	DDT(o,p & p,p-isomers of DDT, DDE& DDD), (µg/l)	USEPA-508	BDL(0.05)	1.0max	No Relaxation
6	Alpha HCH, (µg/l)	USEPA-508	BDL(0.01)	0.01max	No Relaxation
7	Beta HCH, (µg/l)	USEPA-508	BDL(0.01)	0.04max	No Relaxation
8	Delta HCH, (µg/l)	USEPA-508	BDL(0.01)	0.04max	No Relaxation
9	Gamma-HCH (Lindane), (µg/l)	USEPA-508	BDL(0.05)	2.0max	No Relaxation
10	Endosulfan (α,β and Sulphate), (µg/l)	USEPA-508	BDL(0.05)	0.4max	No Relaxation
11	Monocrotophos, (µg/l)	USEPA-8141A	BDL(0.05)	1.0max	No Relaxation
12	Ethion, (µg/l)	USEPA-1657A	BDL(0.05)	3.0 max	No Relaxation
13	Chlorpyrifos, (µg/l)	USEPA-525.2	BDL(0.05)	30 max	No Relaxation
14	Phorate, (µg/l)	USEPA-8141A	BDL(0.05)	2.0 max	No Relaxation
15	2,4-Dichlorophenoxy Acetic acid, (µg/l)	USEPA-515.1	BDL(0.05)	30 max	No Relaxation
16	Butachlor, (µg/l)	USEPA-525.2	BDL(0.05)	125 max	No Relaxation
17	Isoproturon, (µg/l)	USEPA-532	BDL(0.05)	9.0max	No Relaxation
18	Malathion, (µg/l)	USEPA-8141A	BDL(0.05)	190 max	No Relaxation
19	Methyl parathion, (µg/l)	USEPA-8141A	BDL(0.05)	0.3 max	No Relaxation

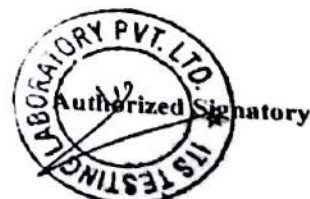
Remarks: Based on above tested parameter, Water sample meets as per IS-10500:2012 in Specification.
BDL: Below Detection limit.

The detection limit of individual pesticide is 0.01 µg/l

Note: - Report shall not be produce except in full without approval of the laboratory

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report



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Doc. No. – ITS/7.8-01

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TEST REPORT

Surface Water Sample Analysis

Report Code: W-230825-43

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju –III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package – II

SAMPLING & ANALYSIS DATA

Sample Description : Surface Water Sample
Sampling Location : Power House Project Site – Upstream
Source of Water : River Water
Sample Drawn On : 21/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Manish Pandey Ji
Sampling Plan & Procedure : IS:17614 (Part):2021
Sample Quantity : 2.0 Liter in Pet Bottle & 200 ml Glass Sterilized Bottle
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025
Test Specification To Be Used : IS:10500:2012

TEST RESULTS

1. MICROBIOLOGICAL REQUIREMENT:

RESULTS				
S. No.	Parameter	Test Method	Results	Required as per IS-10500:2012
1.	Escherichia coli, (CFU/100ml)	IS-1622:1981	Absent	Absent/100 ml
2.	Coliform Bacteria, (CFU/100ml)	IS-1622:1981	Absent	Absent/100 ml

2. ORGANOLEPTIC & PHYSICAL PARAMETERS:

S. No.	Parameter	Test method	Results	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Colour, (Hazan)	IS-3025(P-04)	<5.0	5	15
2.	Turbidity, (NTU)	IS-3025(P-10)	<1.0	1	5
3.	Temperature, (°C)	IS-3025(P-09)	16.0	-	-
4.	pH value	IS-3025(P-11)	7.52	6.5-8.5	-
5.	Total dissolve solid (TDS), (mg/l)	IS-3025(P-16)	132	500	2000

Reviewed by
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(Sr. Analyst)





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3. GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
6.	Total Hardness (as CaCO ₃), (mg/l)	IS: 3025 (P- 21)	88	200	600
7.	Calcium (as Ca), (mg/l)	IS: 3025 (P- 40)	16.4	75	200
8.	Chloride (as Cl), (mg/l)	IS: 3025 (P- 32)	10.9	250	1000
9.	Magnesium (as Mg), (mg/l)	IS: 3025 (P-46)	11.28	30	100
10.	Sulphate (as SO ₄), (mg/l)	IS: 3025 (P- 24)	<1.0	200	400
11.	Nitrate (as NO ₃), (mg/l)	IS: 3025 (P- 34)	<1.0	45	No Relaxation
12.	Iron (as Fe), (mg/l)	IS: 3025(P-53)	<0.05	1.0	-
13.	Fluoride (as F), (mg/l)	IS:3025(P-60.Sec-1)	<0.1	1.0	1.5
14.	Aluminum (as Al), (mg/l)	IS: 3025 (P- 55)	<0.01	0.03	0.2
15.	Boron (as B), (mg/l)	IS: 3025 (P- 57)	<0.1	0.5	1.0
16.	Copper (as Cu), (mg/l)	IS : 3025 (P-42)	<0.05	0.05	1.5
17.	Manganese (as Mn), (mg/l)	IS : 3025 (P-59)	<0.1	0.1	0.3
18.	Selenium (as Se), (mg/l)	IS: 3025 (P- 56)	<0.01	0.01	No Relaxation
19.	Zinc (as Zn), (mg/l)	IS: 3025 (P- 49)	<0.01	5.0	15

4.Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Cadmium (as Cd), (mg/l)	IS-3025 (P-41)	<0.001	0.003	No Relaxation
2.	Cyanide (as CN), (mg/l)	IS-3025 (P-27)	<0.01	0.05	No Relaxation
3.	Lead (as Pb), (mg/l)	IS-3025 (P-47)	<0.01	0.01	No Relaxation
4.	Mercury (as Hg), (mg/l)	IS-3025 (P-48)	<0.001	0.001	No Relaxation
5.	Nickel (as Ni), (mg/l)	IS-3025 (P-54)	<0.01	0.02	No Relaxation
6.	Arsenic (as As), (mg/l)	IS-3025 (P-37)	<0.01	0.01	0.05
7.	Total Chromium (as Cr), (mg/l)	IS-3025 (P-52)	<0.05	0.05	No Relaxation

Reviewed by
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(Sr. Analyst)

[Signature]





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5. ORGANOLEPTIC & PHYSICAL PARAMETERS:

S. No.	Parameter	Test method	Results	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Odour	IS-3025(P-05)	Agreeable	Agreeable	Agreeable
2.	Taste	IS-3025(P-7 & 8)	Agreeable	Agreeable	-
3.	Total Alkalinity (as CaCO ₃), (mg/l)	IS: 3025 (P- 23)	46	200	600
4.	Residual Free Chlorine, (mg/l)	IS: 3025 (P-26)	<0.1	0.2	1.0
5.	Anionic surface Detergents (as MBAS), (mg/l)	IS: 3025 (P-68)	<0.1	0.2	1.0
6.	Sulphide (as H ₂ S), (mg/l)	IS-3025 (P-29)	<0.05	0.05	No Relaxation
7.	Total Ammonia, (mg/l)	IS: 3025 (P- 34)	<0.1	0.5	No Relaxation
8.	Chloramines (as Cl ₂), (mg/l)	IS: 3025 (P- 26)	<1.0	4.0	No Relaxation
9.	Mineral Oil, (mg/l)	IS:3025(P-39), Clause 6	<0.5	0.5	No Relaxation
10.	Phenolic Compound (as C ₆ H ₅ OH), (mg/l)	IS: 3025 (P-43)	<0.001	0.001	0.002

6. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Molybdenum (as Mo), (mg/l)	IS-3025(P-2)	<0.05	0.07	No Relaxation
2.	Silver (as Ag), (mg/l)	Annex J IS: 13428	<0.05	0.1	No Relaxation
3.	Barium (as Ba), (mg/l)	IS: 15302	<0.1	0.7	No Relaxation
4.	Poly nuclear Aromatic, (mg/l)	APHA 6440	<0.0001	0.0001	No Relaxation
5.	Poly chlorinated biphenyl, (mg/l)	APHA 6630	<0.0001	0.0005	No Relaxation
6.	Uranium (as U), (mg/l)	IS-3025(P-65)	<0.002	-	-
7.	Bromoform, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
8.	Dibromochloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
9.	Bromodichloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.06	No Relaxation
10.	Chloroform, (mg/l)	APHA 6232	BDL(0.01)	0.2	No Relaxation

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(Sr. Analyst)





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7. PARAMETERS CONCERNING RADIOACTIVE SUBSTANCES:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Alpha Emitters. (Bq/l)	IS:14194 (P-2)	BDL(0.1)	0.1	No Relaxation
2.	Beta Emitters. (Bq/l)	IS:14194 (P-1)	BDL(1.0)	1.0	No Relaxation

8. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Aldrin, (µg/l)	USEPA-508	BDL(0.01)	0.03 max	No Relaxation
2.	Dieldrin, (µg/l)	USEPA-508	BDL(0.01)	0.03 max	No Relaxation
3.	Alachlor, (µg/l)	USEPA-525.2	BDL(0.05)	20 max	No Relaxation
4.	Atrazine, (µg/l)	USEPA-525.2	BDL(0.05)	2 max	No Relaxation
5.	DDT(o,p & p,p-isomers of DDT, DDE& DDD), (µg/l)	USEPA-508	BDL(0.05)	1.0max	No Relaxation
6.	Alpha HCH, (µg/l)	USEPA-508	BDL(0.01)	0.01max	No Relaxation
7.	Beta HCH, (µg/l)	USEPA-508	BDL(0.01)	0.04max	No Relaxation
8.	Delta HCH, (µg/l)	USEPA-508	BDL(0.01)	0.04max	No Relaxation
9.	Gamma-HCH (Lindane), (µg/l)	USEPA-508	BDL(0.05)	2.0max	No Relaxation
10.	Endosulfan (α,β and Sulphate), (µg/l)	USEPA-508	BDL(0.05)	0.4max	No Relaxation
11.	Monocrotophos, (µg/l)	USEPA-8141A	BDL(0.05)	1.0max	No Relaxation
12.	Ethion, (µg/l)	USEPA-1657A	BDL(0.05)	3.0 max	No Relaxation
13.	Chlorpyrifos, (µg/l)	USEPA-525.2	BDL(0.05)	30 max	No Relaxation
14.	Phorate, (µg/l)	USEPA-8141A	BDL(0.05)	2.0 max	No Relaxation
15.	2,4-Dichlorophenoxy Acetic acid, (µg/l)	USEPA-515.1	BDL(0.05)	30 max	No Relaxation
16.	Butachlor, (µg/l)	USEPA-525.2	BDL(0.05)	125 max	No Relaxation
17.	Isoproturon, (µg/l)	USEPA-532	BDL(0.05)	9.0max	No Relaxation
18.	Malathion, (µg/l)	USEPA-8141A	BDL(0.05)	190 max	No Relaxation
19.	Methyl parathion, (µg/l)	USEPA-8141A	BDL(0.05)	0.3 max	No Relaxation

Remarks: Based on above tested parameter, Water sample meets as per IS-10500:2012 in Specification.

BDL: Below Detection limit.

The detection limit of individual pesticide is 0.01 µg/l

Note: - Report shall not be produce except in full without approval of the laboratory

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report





ITS TESTING LABORATORY PRIVATE LIMITED

Laboratory: A-114, Sector-80, Phase-II Noida, Gautam Budh Nagar - 201305, (U.P.)
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Doc. No. - ITS/7.8-01

Report Code: W-230825-44, Page No. - 1 of 4

TEST REPORT

Surface Water Sample Analysis

Report Code: W-230825-44

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju - III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package - II

SAMPLING & ANALYSIS DATA

Sample Description : Surface Water Sample
Sampling Location : Power House Project Site - Downstream
Source of Water : River Water
Sample Drawn On : 21/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Manish Pandey Ji
Sampling Plan & Procedure : IS:17614 (Part):2021
Sample Quantity : 2.0 Liter in Pet Bottle & 200 ml Glass Sterilized Bottle
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025
Test Specification To Be Used : IS:10500:2012

TEST RESULTS

1. MICROBIOLOGICAL REQUIREMENT:

S. No.	Parameter	RESULTS		
		Test Method	Results	Required as per IS-10500:2012
1.	Escherichia coli, (CFU/100ml)	IS-1622:1981	Absent	Absent/100 ml
2.	Coliform Bacteria, (CFU/100ml)	IS-1622:1981	Absent	Absent/100 ml

2. ORGANOLEPTIC & PHYSICAL PARAMETERS:

S. No.	Parameter	Test method	Results	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Colour, (Hazen)	IS-3025(P-04)	<5.0	5	15
2.	Turbidity, (NTU)	IS-3025(P-10)	<1.0	1	5
3.	Temperature, (°C)	IS-3025(P-09)	16.0	-	-
4.	pH value	IS-3025(P-11)	7.52	6.5-8.5	-
5.	Total dissolve solid (TDS), (mg/l)	IS-3025(P-16)	247	500	2000

Reviewed by
Ashish Dubey
(Sr. Analyst)





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Report Code: W-230825-44, Page No. – 2 of 4

3. GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
6.	Total Hardness (as CaCO ₃), (mg/l)	IS: 3025 (P- 21)	166	200	600
7.	Calcium (as Ca), (mg/l)	IS: 3025 (P- 40)	33.8	75	200
8.	Chloride (as Cl), (mg/l)	IS: 3025 (P- 32)	10.6	250	1000
9.	Magnesium (as Mg), (mg/l)	IS: 3025 (P-46)	17.7	30	100
10.	Sulphate (as SO ₄), (mg/l)	IS: 3025 (P- 24)	15.0	200	400
11.	Nitrate (as NO ₃), (mg/l)	IS: 3025 (P- 34)	1.80	45	No Relaxation
12.	Iron (as Fe), (mg/l)	IS: 3025(P-53)	<0.05	1.0	-
13.	Fluoride (as F), (mg/l)	IS:3025(P-60,Sec-1)	<0.1	1.0	1.5
14.	Aluminum (as Al), (mg/l)	IS: 3025 (P- 55)	<0.01	0.03	0.2
15.	Boron (as B), (mg/l)	IS: 3025 (P- 57)	<0.1	0.5	1.0
16.	Copper (as Cu), (mg/l)	IS : 3025 (P-42)	<0.05	0.05	1.5
17.	Manganese (as Mn), (mg/l)	IS : 3025 (P-59)	<0.1	0.1	0.3
18.	Selenium (as Se), (mg/l)	IS: 3025 (P- 56)	<0.01	0.01	No Relaxation
19.	Zinc (as Zn), (mg/l)	IS: 3025 (P- 49)	<0.01	6.0	15

4. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Cadmium (as Cd), (mg/l)	IS-3025 (P-41)	<0.001	0.003	No Relaxation
2.	Cyanide (as CN), (mg/l)	IS-3025 (P-27)	<0.01	0.05	No Relaxation
3.	Lead (as Pb), (mg/l)	IS-3025 (P-47)	<0.01	0.01	No Relaxation
4.	Mercury (as Hg), (mg/l)	IS-3025 (P-48)	<0.001	0.001	No Relaxation
5.	Nickel (as Ni), (mg/l)	IS-3025 (P-54)	<0.01	0.02	No Relaxation
6.	Arsenic (as As), (mg/l)	IS-3025 (P-37)	<0.01	0.01	0.05
7.	Total Chromium (as Cr), (mg/l)	IS-3025 (P-52)	<0.05	0.05	No Relaxation

Reviewed by
Ashish Dubey
(Sr. Analyst)





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Doc. No. - ITS/7.8-01

Report Code: W-230825-44, Page No. - 3 of 4

5. ORGANOLEPTIC & PHYSICAL PARAMETERS:

S. No.	Parameter	Test method	Results	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Odour	IS-3025(P-05)	Agreeable	Agreeable	Agreeable
2.	Taste	IS-3025(P-7 & 8)	Agreeable	Agreeable	Agreeable
3.	Total Alkalinity (as CaCO_3), (mg/l)	IS: 3025 (P- 23)	116	200	600
4.	Residual Free Chlorine, (mg/l)	IS: 3025 (P-26)	<0.1	0.2	1.0
5.	Anionic surface Detergents (as MBAS), (mg/l)	IS: 3025 (P-68)	<0.1	0.2	1.0
6.	Sulphide (as H_2S), (mg/l)	IS-3025 (P-29)	<0.05	0.05	No Relaxation
7.	Total Ammonia, (mg/l)	IS: 3025 (P- 34)	<0.1	0.5	No Relaxation
8.	Chloramines (as Cl_2), (mg/l)	IS: 3025 (P- 26)	<1.0	4.0	No Relaxation
9.	Mineral Oil, (mg/l)	IS-3025(P-39), Clause 6	<0.5	0.5	No Relaxation
10.	Phenolic Compound (as $\text{C}_6\text{H}_5\text{OH}$), (mg/l)	IS: 3025 (P-43)	<0.001	0.001	0.002

6. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Molybdenum (as Mo), (mg/l)	IS-3025(P-2)	<0.05	0.07	No Relaxation
2.	Silver (as Ag), (mg/l)	Annex I IS: 13428	<0.05	0.1	No Relaxation
3.	Barium (as Ba), (mg/l)	IS: 15302	<0.1	0.7	No Relaxation
4.	Poly nuclear Aromatic, (mg/l)	APHA 6440	<0.0001	0.0001	No Relaxation
5.	Poly chlorinated biphenyl, (mg/l)	APHA 6630	<0.0001	0.0005	No Relaxation
6.	Uranium (as U), (mg/l)	IS-3025(P-65)	<0.002	-	-
7.	Bromoform, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
8.	Dibromochloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
9.	Bromodichloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.06	No Relaxation
10.	Chloroform, (mg/l)	APHA 6232	BDL(0.01)	0.2	No Relaxation

Reviewed by
Ashish Dubey
(Sr. Analyst)





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7. PARAMETERS CONCERNING RADIOACTIVE SUBSTANCES:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Alpha Emitters, (Bq/l)	IS:14194 (P-2)	BDL(0.1)	0.1	No Relaxation
2.	Beta Emitters, (Bq/l)	IS:14194 (P-1)	BDL(1.0)	1.0	No Relaxation

8. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Aldrin, (µg/l)	USEPA-508	BDL(0.01)	0.03 max	No Relaxation
2.	Dieldrin, (µg/l)	USEPA-508	BDL(0.01)	0.03 max	No Relaxation
3.	Alachlor, (µg/l)	USEPA-525.2	BDL(0.05)	20 max	No Relaxation
4.	Atrazine, (µg/l)	USEPA-525.2	BDL(0.05)	2 max	No Relaxation
5.	DDT(o,p & p,p-isomers of DDT, DDE & DDD), (µg/l)	USEPA-508	BDL(0.05)	1.0max	No Relaxation
6.	Alpha HCH, (µg/l)	USEPA-508	BDL(0.01)	0.01max	No Relaxation
7.	Beta HCH, (µg/l)	USEPA-508	BDL(0.01)	0.04max	No Relaxation
8.	Delta HCH, (µg/l)	USEPA-508	BDL(0.01)	0.04max	No Relaxation
9.	Gamma-HCH (Lindane), (µg/l)	USEPA-508	BDL(0.05)	2.0max	No Relaxation
10.	Endosulfan (α,β and Sulphate), (µg/l)	USEPA-508	BDL(0.05)	0.4max	No Relaxation
11.	Monocrotophos, (µg/l)	USEPA-8141A	BDL(0.05)	1.0max	No Relaxation
12.	Ethion, (µg/l)	USEPA-1657A	BDL(0.05)	3.0 max	No Relaxation
13.	Chlorpyrifos, (µg/l)	USEPA-525.2	BDL(0.05)	30 max	No Relaxation
14.	Phorate, (µg/l)	USEPA-8141A	BDL(0.05)	2.0 max	No Relaxation
15.	2,4-Dichlorophenoxy Acetic acid, (µg/l)	USEPA-515.1	BDL(0.05)	30 max	No Relaxation
16.	Butachlor, (µg/l)	USEPA-525.2	BDL(0.05)	125 max	No Relaxation
17.	Isoproturon, (µg/l)	USEPA-532	BDL(0.05)	9.0max	No Relaxation
18.	Malathion, (µg/l)	USEPA-8141A	BDL(0.05)	190 max	No Relaxation
19.	Methyl parathion, (µg/l)	USEPA-8141A	BDL(0.05)	0.3 max	No Relaxation

Remarks: Based on above tested parameter, Water sample meets as per IS-10500:2012 in Specification.

BDL: Below Detection limit.

The detection limit of individual pesticide is 0.01µg/l

Note: - Report shall not be produce except in full without approval of the laboratory.


Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report





ITS TESTING LABORATORY PRIVATE LIMITED

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Doc. No. - ITS/7.8-01

Report Code: W-230825-41, Page No. - 1 of 4

TEST REPORT

Water Sample Analysis

Report Code: W-230825-41

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package - II

SAMPLING & ANALYSIS DATA

Sample Description : Drinking Water Sample
Sampling Location : ACNC Labour Camp.
Source of Water : -
Sample Drawn On : 21/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Manish Pandey Ji
Sampling Plan & Procedure : IS:17614 (Part):2021
Sample Quantity : 2.0 Liter in Pet Bottle & 500 ml Glass Sterilized Bottle
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025
Test Specification To Be Used : IS:10500:2012

TEST RESULTS

1. MICROBIOLOGICAL REQUIREMENT:

S. No.	Parameter	RESULTS		
		Test Method	Results	Required as per IS-10500:2012
1.	Escherichia coli, (CFU/100ml)	IS-15185:2016	Absent	Absent/100 ml
2.	Coliform Bacteria, (CFU/100ml)	IS-15185:2016	Absent	Absent/100 ml

2. ORGANOLEPTIC & PHYSICAL PARAMETERS:

S. No.	Parameter	Test method	Results	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Colour, (Hazen)	IS-3025(P-04)	<5.0	5	15
2.	Odour	IS-3025(P-05)	Agreeable	Agreeable	Agreeable
3.	Taste	IS-3025(P-7 & 8)	Agreeable	Agreeable	Agreeable
4.	Turbidity, (NTU)	IS-3025(P-10)	<1.0	1	5
5.	Temperature, (°C)	IS-3025(P-09)	17.2	-	-
6.	pH value	IS-3025(P-11)	7.46	6.5-8.5	-
7.	Total dissolve solid (TDS), (mg/l)	IS-3025(P-16)	124	500	2000

Reviewed by
Ashish Dubey
(Sr. Analyst)





ITS TESTING LABORATORY PRIVATE LIMITED

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Report Code: W-230825-41, Page No. – 2 of 4

3. GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
8.	Total Hardness (as CaCO ₃), (mg/l)	IS: 3025 (P- 21)	73	200	600
9.	Calcium (as Ca), (mg/l)	IS: 3025 (P- 40)	16.0	75	200
10.	Chloride (as Cl), (mg/l)	IS: 3025 (P- 32)	8.9	250	1000
11.	Total Alkalinity (as CaCO ₃), (mg/l)	IS: 3025 (P- 23)	38	200	600
12.	Magnesium (as Mg), (mg/l)	IS: 3025 (P-46)	7.96	30	100
13.	Sulphate (as SO ₄), (mg/l)	IS: 3025 (P- 24)	2.85	200	400
14.	Nitrate (as NO ₃), (mg/l)	IS: 3025 (P- 34)	<0.1	45	No Relaxation
15.	Iron (as Fe), (mg/l)	IS: 3025(P-53)	<0.05	1.0	-
16.	Fluoride (as F), (mg/l)	IS:3025(P-60,Sec-1)	<0.1	1.0	1.5
17.	Residual Free Chlorine, (mg/l)	IS: 3025 (P-26)	<0.1	0.2	1.0
18.	Anionic surface Detergents (as MBAS), (mg/l)	IS: 3025 (P-68)	<0.1	0.2	1.0
19.	Sulphide (as H ₂ S), (mg/l)	IS-3025 (P-29)	<0.05	0.05	No Relaxation
20.	Aluminum (as Al), (mg/l)	IS: 3025 (P- 55)	<0.01	0.03	0.2
21.	Total Ammonia, (mg/l)	IS: 3025 (P- 34)	<0.1	0.5	No Relaxation
22.	Boron (as B), (mg/l)	IS: 3025 (P- 57)	<0.1	0.5	1.0
23.	Chloramines (as Cl ₂), (mg/l)	IS: 3025 (P- 26)	<1.0	4.0	No Relaxation
24.	Copper (as Cu), (mg/l)	IS : 3025 (P-42)	<0.05	0.05	1.5
25.	Manganese (as Mn), (mg/l)	IS : 3025 (P-59)	<0.1	0.1	0.3
26.	Mineral Oil, (mg/l)	IS:3025(P-39), Clause 6	<0.5	0.5	No Relaxation
27.	Selenium (as Se), (mg/l)	IS: 3025 (P- 56)	<0.01	0.01	No Relaxation
28.	Zinc (as Zn), (mg/l)	IS: 3025 (P- 49)	<0.01	5.0	15
29.	Phenolic Compound (as C ₆ H ₅ OH), (mg/l)	IS: 3025 (P-43)	<0.001	0.001	0.002

4.Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Cadmium (as Cd), (mg/l)	IS-3025 (P-41)	<0.001	0.003	No Relaxation
2.	Cyanide (as CN), (mg/l)	IS-3025 (P-27)	<0.01	0.05	No Relaxation
3.	Lead (as Pb), (mg/l)	IS-3025 (P-47)	<0.01	0.01	No Relaxation
4.	Mercury (as Hg), (mg/l)	IS-3025 (P-48)	<0.001	0.001	No Relaxation
5.	Nickel (as Ni), (mg/l)	IS-3025 (P-54)	<0.01	0.02	No Relaxation
6.	Arsenic (as As), (mg/l)	IS-3025 (P-37)	<0.01	0.01	0.05
7.	Total Chromium (as Cr), (mg/l)	IS-3025 (P-52)	<0.05	0.05	No Relaxation

Ashish Dubey
(Sr. Analyst)





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5. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Aldrin, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.03 max	No Relaxation
2.	Dieldrin, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.03 max	No Relaxation
3.	DDT(o,p & p,p-isomers of DDT, DDE& DDD), (µg/l)	USEPA-Method 8270E	BDL(0.05)	1.0max	No Relaxation
4.	Alpha HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.01max	No Relaxation
5.	Beta HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.04max	No Relaxation
6.	Delta HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.04max	No Relaxation
7.	Gamma-HCH (Lindane), (µg/l)	USEPA-Method 8270E	BDL(0.05)	2.0max	No Relaxation
8.	Endosulfan (α,β and Sulphate), (µg/l)	USEPA-Method 8270E	BDL(0.05)	0.4max	No Relaxation

The detection limit of individual pesticide is 0.01µg/l

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report





ITS TESTING LABORATORY PRIVATE LIMITED

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6. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Molybdenum (as Mo), (mg/l)	IS-3025(P-2)	<0.05	0.07	No Relaxation
2.	Silver (as Ag), (mg/l)	Annex J IS: 13428	<0.05	0.1	No Relaxation
3.	Barium (as Ba), (mg/l)	IS: 15302	<0.1	0.7	No Relaxation
4.	Poly nuclear Aromatic, (mg/l)	APHA 6440	<0.0001	0.0001	No Relaxation
5.	Poly chlorinated biphenyl, (mg/l)	APHA 6630	<0.0001	0.0005	No Relaxation
6.	Uranium (as U), (mg/l)	IS-3025(P-65)	<0.002	-	-
7.	Bromoform, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
8.	Dibromochloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
9.	Bromodichloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.06	No Relaxation
10.	Chloroform, (mg/l)	APHA 6232	BDL(0.01)	0.2	No Relaxation

7. PARAMETERS CONCERNING RADIOACTIVE SUBSTANCES:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Alpha Emitters, (Bq/l)	IS:14194 (P-2)	BDL(0.1)	0.1	No Relaxation
2.	Beta Emitters, (Bq/l)	IS:14194 (P-1)	BDL(1.0)	1.0	No Relaxation

8. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Alachlor, (µg/l)	USEPA-525.2	BDL(0.05)	20 max	No Relaxation
2.	Atrazine, (µg/l)	USEPA-525.2	BDL(0.05)	2 max	No Relaxation
3.	Monocrotophos, (µg/l)	USEPA-8141A	BDL(0.05)	1.0max	No Relaxation
4.	Ethion, (µg/l)	USEPA-1657A	BDL(0.05)	3.0 max	No Relaxation
5.	Chlorpyrifos, (µg/l)	USEPA-525.2	BDL(0.05)	30 max	No Relaxation
6.	Phorate, (µg/l)	USEPA-8141A	BDL(0.05)	2.0 max	No Relaxation
7.	2,4-Dichlorophenoxy Acetic acid, (µg/l)	USEPA-515.1	BDL(0.05)	30 max	No Relaxation
8.	Butachlor, (µg/l)	USEPA-525.2	BDL(0.05)	125 max	No Relaxation
9.	Isoproturon, (µg/l)	USEPA-532	BDL(0.05)	9.0max	No Relaxation
10.	Malathion, (µg/l)	USEPA-8141A	BDL(0.05)	190 max	No Relaxation
11.	Methyl parathion, (µg/l)	USEPA-8141A	BDL(0.05)	0.3 max	No Relaxation

Remarks: Based on above tested parameter, Water sample meets as per IS-10500:2012 in Specification.

BDL: Below Detection limit.

The detection limit of individual pesticide is 0.01 µg/l

Note: - Report shall not be produce except in full without approval of the laboratory

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report





ITS TESTING LABORATORY PRIVATE LIMITED

Laboratory: A-114, Sector-80, Phase-II Noida, Gautam Budh Nagar - 201305, (U.P.)
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Doc. No. - ITS/7.8-01
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TEST REPORT

Report Code: W-230825-42

Water Sample Analysis

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package - II

SAMPLING & ANALYSIS DATA

Sample Description	: Drinking Water Sample
Sampling Location	: ACNC Staff Colony
Source of Water	: -
Sample Drawn On	: 21/08/2025
Sample Drawn By	: Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	: Mr. Sahil Ji
Site Representative	: Mr. Manish Pandey Ji
Sampling Plan & Procedure	: IS:17614 (Part):2021
Sample Quantity	: 2.0 Liter in Pet Bottle & 200 ml Glass Sterilized Bottle
Weather Condition	: Clear
Sample Received On	: 23/08/2025
Analysis Duration	: 23/08/2025 To 28/08/2025
Test Specification To Be Used	: IS:10500:2012

TEST RESULTS

1. MICROBIOLOGICAL REQUIREMENT:

S. No.	Parameter	Test Method	Results	Required as per IS-10500:2012
1.	Escherichia coli, (CFU/100ml)	IS-15185:2016	Absent	Absent/100 ml
2.	Coliform Bacteria, (CFU/100ml)	IS-15185:2016	Absent	Absent/100 ml

2. ORGANOLEPTIC & PHYSICAL PARAMETERS:

S. No.	Parameter	Test method	Results	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Colour, (Hazan)	IS-3025(P-04)	<5.0	5	15
2.	Odour	IS-3025(P-05)	Agreeable	Agreeable	Agreeable
3.	Taste	IS-3025(P-7 & 8)	Agreeable	Agreeable	Agreeable
4.	Turbidity, (NTU)	IS-3025(P-10)	<1.0	1	5
5.	Temperature, (°C)	IS-3025(P-09)	17.3	-	-
6.	pH value	IS-3025(P-11)	7.69	6.5-8.5	-
7.	Total dissolve solid (TDS), (mg/l)	IS-3025(P-16)	299	500	2000

Reviewed by
Ashish Dubey
(Sr. Analyst)





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3. GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
8.	Total Hardness (as CaCO ₃), (mg/l)	IS: 3025 (P- 21)	184	200	600
9.	Calcium (as Ca), (mg/l)	IS: 3025 (P- 40)	42	75	200
10.	Chloride (as Cl), (mg/l)	IS: 3025 (P- 32)	12.9	250	1000
11.	Total Alkalinity (as CaCO ₃), (mg/l)	IS: 3025 (P- 23)	142	200	600
12.	Magnesium (as Mg), (mg/l)	IS: 3025 (P-46)	22.0	30	100
13.	Sulphate (as SO ₄), (mg/l)	IS: 3025 (P- 24)	17.28	200	400
14.	Nitrate (as NO ₃), (mg/l)	IS: 3025 (P- 34)	4.63	45	No Relaxation
15.	Iron (as Fe), (mg/l)	IS: 3025(P-53)	0.152	1.0	-
16.	Fluoride (as F), (mg/l)	IS:3025(P-60,Sec-1)	<0.1	1.0	1.5
17.	Residual Free Chlorine, (mg/l)	IS: 3025 (P-26)	<0.1	0.2	1.0
18.	Anionic surface Detergents (as MBAS), (mg/l)	IS: 3025 (P-68)	<0.1	0.2	1.0
19.	Sulphide (as H ₂ S), (mg/l)	IS-3025 (P-29)	<0.05	0.05	No Relaxation
20.	Aluminum (as Al), (mg/l)	IS: 3025 (P- 55)	<0.01	0.03	0.2
21.	Total Ammonia, (mg/l)	IS: 3025 (P- 34)	<0.1	0.5	No Relaxation
22.	Boron (as B), (mg/l)	IS: 3025 (P- 57)	<0.1	0.5	1.0
23.	Chloramines (as Cl ₂), (mg/l)	IS: 3025 (P- 26)	<1.0	4.0	No Relaxation
24.	Copper (as Cu), (mg/l)	IS : 3025 (P-42)	<0.05	0.05	1.5
25.	Manganese (as Mn), (mg/l)	IS : 3025 (P-59)	<0.1	0.1	0.3
26.	Mineral Oil, (mg/l)	IS:3025(P-39), Clause 6	<0.5	0.5	No Relaxation
27.	Selenium (as Se), (mg/l)	IS: 3025 (P- 56)	<0.01	0.01	No Relaxation
28.	Zinc (as Zn), (mg/l)	IS: 3025 (P- 49)	<0.01	6.0	15
29.	Phenolic Compound (as C ₆ H ₅ OH), (mg/l)	IS: 3025 (P-43)	<0.001	0.001	0.002

4. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Cadmium (as Cd), (mg/l)	IS-3025 (P-41)	<0.001	0.003	No Relaxation
2.	Cyanide (as CN), (mg/l)	IS-3025 (P-27)	<0.01	0.05	No Relaxation
3.	Lead (as Pb), (mg/l)	IS-3025 (P-47)	<0.01	0.01	No Relaxation
4.	Mercury (as Hg), (mg/l)	IS-3025 (P-48)	<0.001	0.001	No Relaxation
5.	Nickel (as Ni), (mg/l)	IS-3025 (P-54)	<0.01	0.02	No Relaxation
6.	Arsenic (as As), (mg/l)	IS-3025 (P-37)	<0.01	0.01	0.05
7.	Total Chromium (as Cr), (mg/l)	IS-3025 (P-52)	<0.05	0.05	No Relaxation


Ashish Dubey
(Sr. Analyst)





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5. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Aldrin, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.03 max	No Relaxation
2.	Dieldrin, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.03 max	No Relaxation
3.	DDT(o,p & p,p-isomers of DDT, DDE & DDD), (µg/l)	USEPA-Method 8270E	BDL(0.05)	1.0max	No Relaxation
4.	Alpha HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.01max	No Relaxation
5.	Beta HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.04max	No Relaxation
6.	Delta HCH, (µg/l)	USEPA-Method 8270E	BDL(0.01)	0.04max	No Relaxation
7.	Gamma-HCH (Lindane), (µg/l)	USEPA-Method 8270E	BDL(0.05)	2.0max	No Relaxation
8.	Endosulfan (α,β and Sulphate), (µg/l)	USEPA-Method 8270E	BDL(0.05)	0.4max	No Relaxation

The detection limit of individual pesticide is 0.01µg/l

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report





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6. Parameters Concerning Toxic Substances:

S. No.	Parameter	Test method	Result	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Molybdenum (as Mo), (mg/l)	IS-3025(P-2)	<0.05	0.07	No Relaxation
2.	Silver (as Ag), (mg/l)	Annex J IS: 13428	<0.05	0.1	No Relaxation
3.	Barium (as Ba), (mg/l)	IS: 15302	<0.1	0.7	No Relaxation
4.	Poly nuclear Aromatic, (mg/l)	APHA 6440	<0.0001	0.0001	No Relaxation
5.	Poly chlorinated biphenyl, (mg/l)	APHA 6630	<0.0001	0.0005	No Relaxation
6.	Uranium (as U), (mg/l)	IS-3025(P-65)	<0.002	-	-
7.	Bromoform, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
8.	Dibromochloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.1	No Relaxation
9.	Bromodichloromethane, (mg/l)	APHA 6232	BDL(0.01)	0.06	No Relaxation
10.	Chloroform, (mg/l)	APHA 6232	BDL(0.01)	0.2	No Relaxation

7. PARAMETERS CONCERNING RADIOACTIVE SUBSTANCES:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Alpha Emitters, (Bq/l)	IS:14194 (P-2)	BDL(0.1)	0.1	No Relaxation
2.	Beta Emitters, (Bq/l)	IS:14194 (P-1)	BDL(1.0)	1.0	No Relaxation

8. PESTICIDE RESIDUAL ANALYSIS:

S.NO.	Parameter	Test Method	Result	Limit (µg/l)	Permissible Limit in absence of alternate source
1.	Alachlor, (µg/l)	USEPA-525.2	BDL(0.05)	20 max	No Relaxation
2.	Atrazine, (µg/l)	USEPA-525.2	BDL(0.05)	2 max	No Relaxation
3.	Monocrotophos, (µg/l)	USEPA-8141A	BDL(0.05)	1.0max	No Relaxation
4.	Ethion, (µg/l)	USEPA-1657A	BDL(0.05)	3.0 max	No Relaxation
5.	Chlorpyrifos, (µg/l)	USEPA-525.2	BDL(0.05)	30 max	No Relaxation
6.	Phorate, (µg/l)	USEPA-8141A	BDL(0.05)	2.0 max	No Relaxation
7.	2,4-Dichlorophenoxy Acetic acid, (µg/l)	USEPA-515.1	BDL(0.05)	30 max	No Relaxation
8.	Butachlor, (µg/l)	USEPA-525.2	BDL(0.05)	125 max	No Relaxation
9.	Isoproturon, (µg/l)	USEPA-532	BDL(0.05)	9.0max	No Relaxation
10.	Malathion, (µg/l)	USEPA-8141A	BDL(0.05)	190 max	No Relaxation
11.	Methyl parathion, (µg/l)	USEPA-8141A	BDL(0.05)	0.3 max	No Relaxation

Remarks: Based on above tested parameter, Water sample meets as per IS-10500:2012 in Specification.

BDL: Below Detection limit.

The detection limit of individual pesticide is 0.01µg/l

Note: - Report shall not be produce except in full without approval of the laboratory

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report





ITS TESTING LABORATORY PRIVATE LIMITED

Laboratory: A-114, Sector-80, Phase-II Noida, Gautam Budh Nagar - 201305, (U.P.)
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Doc. No. - ITS/7.8-01, Page No. - 1 of 1

TEST REPORT

Ambient Noise Analysis

Report Code: N-230825-04

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package - II

SAMPLING & ANALYSIS DATA

Sample Description : Ambient Noise
Date of Sampling : 21/08/2025 To 22/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Manish Pandey Ji
Sampling Location : ACNC Labour Colony
Sampling Plan & Procedure : ITS/LAB/SAMPLING/SOP/02
Sampling Instrument Used : Noise Meter
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025

TEST RESULTS

S. No	Test Parameters	Results	Units	Requirement (as per CPCB Guidelines Limits in dB(A) Leq		
				Category of Area/ Zone	Day Time	Night Time
1.	EQUIVALENT NOISE LEVEL (6.0 AM TO 10.0 PM)	52.9	dB(A)	Industrial Area	75	70
2.	EQUIVALENT NOISE LEVEL (10.0 PM TO 6.0 AM)	42.0	dB(A)	Commercial Area	65	55
				Residential Area	55	45
				Silence Zone	50	40

Remarks: On the basis of above tested parameter, Sample meets with CPCB requirement.
Note: - Report shall not be produce except in full without approval of the laboratory.

Reviewed by
Ashish Dubey
(Sr. Analyst)



End of Report



ITS TESTING LABORATORY PRIVATE LIMITED

Laboratory: A-114, Sector-80, Phase-II Noida, Gautam Budh Nagar - 201305, (U.P.)
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Doc. No. - ITS/7.3-01, Page No. - 1 of 1

TEST REPORT

Ambient Noise Analysis

Report Code: N-230825-05

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package - II

SAMPLING & ANALYSIS DATA

Sample Description : Ambient Noise
Date of Sampling : 21/08/2025 To 22/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Manish Pandey Ji
Sampling Location : ACNC Staff Colony
Sampling Plan & Procedure : ITS/LAB/SAMPLING/SOP/02
Sampling Instrument Used : Noise Meter
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025

TEST RESULTS

S. No	Test Parameters	Results	Units	Requirement (as per CPCB Guidelines Limits in dB(A) Leq		
				Category of Area/ Zone	Day Time	Night Time
1.	EQUIVALENT NOISE LEVEL (6.0 AM TO 10.0 PM)	57.0	dB(A)	Industrial Area	75	70
2.	EQUIVALENT NOISE LEVEL (10.0 PM TO 6.0 AM)	39.4	dB(A)	Commercial Area	65	55
				Residential Area	55	45
				Silence Zone	50	40

Remarks: On the basis of above tested parameter, Sample meets with CPCB requirement.
Note: - Report shall not be produce except in full without approval of the laboratory.

Reviewed by
Ashish Dubey
(Sr. Analyst)



End of Report



ITS TESTING LABORATORY PRIVATE LIMITED

Laboratory: A-114, Sector-89, Phase-II Noida, Gautam Budh Nagar - 201305, (U.P.)

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Doc. No. – ITS/7.8-01, Page No. – 1 of 1

TEST REPORT

Ambient Noise Analysis

Report Code: N-230825-06

Issue Date: 28/08/2025

Issued To:

M/S. Himachal Pradesh Power Corporation Limited

A State Government under Taking) Chanju –III HEP (48 MW)

Contractor Name - Ashok Chauhan & Company (ACNC) Package – II

SAMPLING & ANALYSIS DATA

Sample Description : Ambient Noise
Date of Sampling : 21/08/2025 To 22/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Manish Pandey Ji
Sampling Location : Near Old ACNC Office, Jhakla
Sampling Plan & Procedure : ITS/LAB/SAMPLING/SOP/02
Sampling Instrument Used : Noise Meter
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025

TEST RESULTS						
S. No	Test Parameters	Results	Units	Requirement (as per CPCB Guidelines Limits in dB(A) Leq		
1.	EQUIVALENT NOISE LEVEL (6.0 AM TO 10.0 PM)	53.9	dB(A)	Category of Area/ Zone	Day Time	Night Time
				Industrial Area	75	70
2.	EQUIVALENT NOISE LEVEL (10.0 PM TO 6.0 AM)	36.0	dB(A)	Commercial Area	65	55
				Residential Area	55	45
				Silence Zone	50	40

Remarks: On the basis of above tested parameter, Sample meets with CPCB requirement.

Note: - Report shall not be produce except in full without approval of the laboratory.

Reviewed by
Ashish Dubey
(Sr. Analyst)

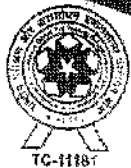


End of Report



ITS TESTING LABORATORY PRIVATE LIMITED

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Doc. No. - ITS/7.8-01, Page No. - 1 of 1

TEST REPORT

D.G. Noise Analysis

Report Code: N-230825-02

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package - II

SAMPLING & ANALYSIS DATA

Sample Description : D.G. Set Noise
Date of Sample Drawn : 21/08/2025
Sample drawn by : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Manish Pandey Ji
Sampling Location : 1.0 Meter Away from Acoustic Enclosure
Capacity : D.G. Set - 500 KVA (400 kW)
Sampling Duration : 10 Minutes (One Minute Interval of Each Point)
Sampling Plan & Procedure : ITS/LAB/SAMPLING/SOP/02
Sampling Instrument Used : Noise Meter
Weather Condition : Clear
Purpose of Monitoring : Efficacy of D.G. Acoustic Enclosure
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025

TEST RESULT			
Location	Noise Level, Cum Leq dB(A)	Protocol followed	Limit as per CPCB Norms
(A). When D.G. Set was in operation			
1. Open D.G. window			
(a) 0.5 mtr. Distance away from DG Set engine	103.6		
(b) 1.0 mtr. Distance away from DG Set engine	102.9	IS:4758	75.0 (Max) from 1.0 meter distance in close window
2. Close DG window			
(a) 0.5 mtr. Distance away from the gate of DG Set engine	73.8		
(b) 1.0 mtr. Distance away from the gate DG Set engine	72.7		

Remark: All doors of acoustic enclosure closed and D.G. Set running at the time of monitoring.
Note: - Report shall not be produce except in full without approval of the Laboratory.

Reviewed by
(Sr. Analyst)



End of Report



ITS TESTING LABORATORY PRIVATE LIMITED

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TEST REPORT

D.G. Noise Analysis

Report Code: N-230825-03

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chauju -III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package - II

SAMPLING & ANALYSIS DATA

Sample Description	: D.G. Set Noise
Date of Sample Drawn	: 21/08/2025
Sample drawn by	: Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	: Mr. Sahil Ji
Site Representative	: Mr. Manish Pandey Ji
Sampling Location	: 1.0 Meter Away from Acoustic Enclosure
Capacity	: D.G. Set - 125 KVA (100 kW)
Sampling Duration	: 10 Minutes (One Minute Interval of Each Point)
Sampling Plan & Procedure	: ITS/LAB/SAMPLING/SOP/02
Sampling Instrument Used	: Noise Meter
Weather Condition	: Clear
Purpose of Monitoring	: Efficacy of D.G. Acoustic Enclosure
Sample Received On	: 23/08/2025
Analysis Duration	: 23/08/2025 To 28/08/2025

TEST RESULT

Location	Noise Level, Cum Leq dB(A)	Protocol followed	Limit as per CPCB Norms
(A). When D.G. Set was in operation			
1. Open D.G. window			
(a) 0.5 mtr. Distance away from DG Set engine	106.2		
(b) 1.0 mtr. Distance away from DG Set engine	106.0	IS:4758	75.0 (Max) from 1.0 meter distance in close window
2. Close DG window			
(a) 0.5 mtr. Distance away from the gate of DG Set engine	73.4		
(b) 1.0 mtr. Distance away from the gate DG Set engine	73.1		

Remark: All doors of acoustic enclosure closed and D.G. Set running at the time of monitoring.
Note: - Report shall not be produce except in full without approval of the laboratory.

Reviewed by
Ashish Dubey
(Sr. Analyst)

End of Report





ITS TESTING LABORATORY PRIVATE LIMITED

Laboratory: A-114, Sector-80, Phase-II Noida, Gautam Budh Nagar - 201305, (U.P.)
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TEST REPORT

Stack Emission Sample Analysis

Report Code: SE-230825-01

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package - II

SAMPLING & ANALYSIS DATA

Sample Description	: Stack Emission
Date of Sample Drawn	: 21/08/2025
Sample drawn by	: Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	: Mr. Sahil Ji
Site Representative	: Mr. Manish Pandey Ji
Source of Emission	: Stack Attached To D.G. Set - 500 KVA (400 kW)
Make & Sr.No.	: -
Ambient Temperature (°C)	: 22.6
Flue Gas Temperature (°C)	: 254
Type of Stack	: MS / Circular
Type of Fuel Used	: HSD
Stack Height from Ground Level (meter)	: 2.5
Sampling Height From Ground Level (meter)	: -
Stack Diameter (meter)	: 0.15
Average Velocity of Flue Emission(m/s)	: 20.11
Quantity of Emission Discharge(m ³ /hr.)	: 807.14
Parameters to be tested	: As per EPA Act-1986/CPCB/MoEF Guideline
Test Method Used for Monitoring	: APHA-AIR/US EPA/IS:11255
Instrument Used for Monitoring	: Stack Kit/Flue Gas Analyzer
Operating Load	: Full
Sampling Time (Minutes)	: 43.0
Any Pollution Control System, If Any	: Nil
Date Sample Received	: 23/08/2025
Analysis Duration	: 23/08/2025 To 28/08/2025

TEST RESULTS

S. No.	Parameter	Test Method	Results	Limit as per CPCB Notification, 11 th Dec. 2013 Upto 800 kW D.G. Set (Max)
1.	Particulate Matter (as PM) (g/kw-hr)	IS:11255(Part-1)	0.126	≤0.2
2.	Oxides of Nitrogen (as NOx) (g/kw-hr)	IS:11255(Part-7)	1.250	≤4.0
3.	Hydrocarbons (as HC) (g/kw-hr)	IS:11255(Part-13)	0.46	≤3.5
4.	Carbon monoxide (as CO) (g/kw-hr)	IS:13270	1.20	

Note: g/Kw-hr:- Gram Per Kilo Watt Hour

Note: - Report shall not be produce except in full without approval of the laboratory

Reviewed by
Ashish Dubey
Sr. Analyst

End of Report





ITS TESTING LABORATORY PRIVATE LIMITED

Laboratory: A-114, Sector-80, Phase-II Noida, Gautam Budh Nagar - 201305, (U.P.)
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Doc. No. - ITS/7.8-01, Page No. - 1 of 1

TEST REPORT

Stack Emission Sample Analysis

Report Code: SE-230825-02

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package - II

SAMPLING & ANALYSIS DATA

Sample Description	:	Stack Emission
Date of Sample Drawn	:	21/08/2025
Sample drawn by	:	Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	:	Mr. Sahil Ji
Site Representative	:	Mr. Manish Pandey Ji
Source of Emission	:	Stack Attached To D.G. Set - 125 KVA (100 kW)
Make & Sr.No.	:	-
Ambient Temperature (°C)	:	22.4
Flue Gas Temperature (°C)	:	152.9
Type of Stack	:	MS / Circular
Type of Fuel Used	:	HSD
Stack Height from Ground Level (meter)	:	2.5
Sampling Height From Ground Level (meter)	:	-
Stack Diameter (meter.)	:	0.10
Average Velocity of Flue Emission(m/s)	:	21.46
Quantity of Emission Discharge(m ³ /hr.)	:	452.10
Parameters to be tested	:	As per EPA Act-1986/CPCB/MoEF Guideline
Test Method Used for Monitoring	:	APHA-AIR/US EPA/IS:11255
Instrument Used for Monitoring	:	Stack Kit/Flue Gas Analyzer
Operating Load	:	Full
Sampling Time (Minutes)	:	40.0
Any Pollution Control System, If Any	:	Nil
Date Sample Received	:	23/08/2025
Analysis Duration	:	23/08/2025 To 28/08/2025

TEST RESULTS

S. No.	Parameter	Test Method	Results	Limit as per CPCB Notification, 11 th Dec. 2013 Upto 800 kW D.G. Set (Max)
1.	Particulate Matter (as PM) (g/kw-hr)	IS:11255(Part-1)	0.096	≤0.2
2.	Oxides of Nitrogen (as NOx) (g/kw-hr)	IS:11255(Part-7)	0.728	≤4.0
3.	Hydrocarbons (as HC) (g/kw-hr)	IS:11255(Part-13)	0.42	≤3.5
4.	Carbon monoxide (as CO) (g/kw-hr)	IS:13270	0.79	

Note: g/Kw-hr:- Gram Per Kilo Watt Hour

Note: - Report shall not be produce except in full without approval of the laboratory

Reviewed by
Ashish Dubey
Sr. Analyst



End of Report



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Doc. No. - ITS/7.8-01, Page No. - 1 of 1

TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-230825-03

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - Ashok Chanhani & Company (ACNC) Package - II

SAMPLING & ANALYSIS DATA

Sample Description : Ambient Air
Date of Sampling : 21/08/2025 To 22/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Manish Pandey Ji
Sampling Location : ACNC Labour Colony
Sampling Plan & Procedure : IS:5182 & CPCB Guidelines
Average Flow Rate of SPM ($m^3/min.$) : 1.26
Average Flow Rate of Gases (lpm) : 0.2
Sampling Instrument Used : Respirable Dust Sampler (PM_{10}) Fine Particulate Sampler ($PM_{2.5}$) With Gaseous Attachment
Sampling Machine Placed At Height : 2.5 Meter from Ground Level
Ambient Temperature & Humidity : $22^\circ C$ & 80%
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025

TEST RESULT				
S. No.	Parameter	Test Method	Results	Limits as per CPCB Notification 18 th Nov 2009
1.	Particulate Matter (PM_{10}) ($\mu g/m^3$)	IS:5182 (Part-23)	38.2	100
2.	Particulate Matter ($PM_{2.5}$) ($\mu g/m^3$)	IS:5182 (Part-24)	19.6	60
3.	Sulphur dioxide (as SO_2) ($\mu g/m^3$)	IS:5182 (Part-02/Sec-2)	<5.0	80
4.	Nitrogen dioxide (as NO_2) ($\mu g/m^3$)	IS 5182 (Part-06/Sec-2)	10.8	80
5.	Carbon monoxide (as CO) (mg/m^3)	IS:5182 (Part-10)	<1.0	4.0

Note: - Report shall not be produce except in full without approval of the laboratory.

Reviewed by
Ashish Dubey
(Sr. Analyst)



Printed at Report No.





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Doc. No. - ITS/7.8-01, Page No. - 1 of 1

TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-230825-04

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package - II

SAMPLING & ANALYSIS DATA

Sample Description	: Ambient Air
Date of Sampling	: 21/08/2025 To 22/08/2025
Sample Drawn By	: Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	: Mr. Sahil Ji
Site Representative	: Mr. Manish Pandey Ji
Sampling Location	: ACNC Staff Colony
Sampling Plan & Procedure	: IS-5182 & CPCB Guidelines
Average Flow Rate of SPM ($m^3/min.$)	: 1.25
Average Flow Rate of Gases (lpm)	: 0.2
Sampling Instrument Used	: Respirable Dust Sampler (PM_{10}) Fine Particulate Sampler ($PM_{2.5}$) With Gaseous Attachment
Sampling Machine Placed At Height	: 2.5 Meter from Ground Level
Ambient Temperature & Humidity	: 22°C & 80%
Weather Condition	: Clear
Sample Received On	: 23/08/2025
Analysis Duration	: 23/08/2025 To 28/08/2025

TEST RESULT				
S. No.	Parameter	Test Method	Results	Limits as per CPCB Notification 18 th Nov 2009
1.	Particulate Matter (PM_{10}) ($\mu g/m^3$)	IS-5182 (Part-23)	35.9	100
2.	Particulate Matter ($PM_{2.5}$) ($\mu g/m^3$)	IS-5182 (Part-24)	19.0	60
3.	Sulphur dioxide (as SO_2) ($\mu g/m^3$)	IS-5182 (Part-02/Sec-2)	<5.0	80
4.	Nitrogen dioxide (as NO_2) ($\mu g/m^3$)	IS-5182 (Part-06/Sec-2)	9.5	80
5.	Carbon monoxide (as CO) (mg/m^3)	IS-5182 (Part-10)	<1.0	4.0

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Reviewed by
Ashish Dubey
(Sr. Analyst)



End of Report



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TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-230825-05

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name -Ashok Chauhan & Company (ACNC) Package - II

SAMPLING & ANALYSIS DATA

Sample Description : Ambient Air
Date of Sampling : 21/08/2025 To 22/08/2025
Sample Drawn By : Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative : Mr. Sahil Ji
Site Representative : Mr. Manish Pandey Ji
Sampling Location : Near Old ACNC Office, Jhakla
Sampling Plan & Procedure : IS:5182 & CPCB Guidelines
Average Flow Rate of SPM ($\text{m}^3/\text{min.}$) : 1.28
Average Flow Rate of Gases (lpm) : 0.2
Sampling Instrument Used : Respirable Dust Sampler (PM_{10}) Fine Particulate Sampler ($\text{PM}_{2.5}$) With Gaseous Attachment
Sampling Machine Placed At Height : 2.5 Meter from Ground Level
Ambient Temperature & Humidity : 22°C & 80%
Weather Condition : Clear
Sample Received On : 23/08/2025
Analysis Duration : 23/08/2025 To 28/08/2025

TEST RESULT				
S. No.	Parameter	Test Method	Results	Limits as per CPCB Notification 18 th Nov 2009
1.	Particulate Matter (PM_{10}) ($\mu\text{g}/\text{m}^3$)	IS:5182 (Part-23)	40.6	100
2.	Particulate Matter ($\text{PM}_{2.5}$) ($\mu\text{g}/\text{m}^3$)	IS:5182 (Part-24)	21.4	60
3.	Sulphur dioxide (as SO_2) ($\mu\text{g}/\text{m}^3$)	IS:5182 (Part-02/Sec-2)	<5.0	80
4.	Nitrogen dioxide (as NO_2) ($\mu\text{g}/\text{m}^3$)	IS 5182 (Part-06/Sec-2)	10.8	80
5.	Carbon monoxide (as CO) (mg/m^3)	IS:5182 (Part-10)	<1.0	4.0

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Reviewed by
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(Sr. Analyst)



End of Report



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Doc. No. - ITS/7.8-01

Report Code: SS: 230825-01, Page - 1 of 3

TEST REPORT

Soil Sample Analysis

Report Code: SS: 230825-01

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking) Chanju -III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package - II

Sampling & Particulate Detail

Sample Description	:	Soil Sample
Sampling Location	:	ACNC Work Shop Area
Date of Sampling	:	21/08/2025
Sample Drawn By	:	Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	:	Mr. Sahil Ji
Site Representative	:	Mr. Manish Pandey Ji
Sampling Procedure	:	ITS/LAB/SAMPLING/STP/05
Sample Quantity	:	2.0 Kg in Zip Poly Bag
Weather Condition	:	Clear Sky
Sample Received On	:	23/08/2025
Analysis Duration	:	23/08/2025 To 28/08/2025

TEST RESULT

S. No.	Parameter	Test Method	Result	Unit
1.	pH @ 25°C	IS:2720(Part-26)	8.19	-
2.	Electrical Conductivity @25°C	IS:14767	1998	µS/cm
3.	Water Holding Capacity	ITS/STP/SOIL/09	27.9	% by mass
4.	Moisture Content	IS:2720(Part-02)	17.96	% by mass
5.	Calcium Carbonates (as CaCO ₃)	IS:2720(Part-23)	0.80	% by mass
6.	Available Magnesium (as Mg)	ITS/STP/SOIL/06	1092	mg/kg
7.	Available Sodium (as Na)	ITS/STP/SOIL/01	219.4	mg/kg
8.	Total Kjeldahl Nitrogen (as TKN)	ITS/STP/SOIL/07	0.062	% by mass
9.	Total Soluble Sulphate (as SO ₄)	IS:2720 (Part-27)	201	mg/kg
10.	Total Soluble Salt	ITS/STP/SOIL/08	0.219	mg/kg
11.	Available Nitrogen (as N)	ITS/STP/SOIL/03	170	mg/kg
12.	Available Potassium (as K ₂ O)	ITS/STP/SOIL/02	44.2	mg/kg
13.	Available Phosphorus (as P ₂ O ₅)	ITS/STP/SOIL/04	83.6	mg/kg
14.	Sodium Absorption Ratio (SAR)	IS:11624	1.34	-
15.	Organic Matter	IS:2720 (Part-22)	0.590	% by mass
16.	Available Iron (as Fe)	ITS/STP/SOIL/05	2.67	% by mass


Ashish Dubey
(Sr. Analyst)





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Doc. No. - ITS/7.8-01

Report Code: SS: 230825-01, Page - 2 of 3

17.	Calcium (as Ca)	ITS/LAB/STP/SOIL	3628	mg/kg
18.	Ammonia (as NH ₃ -N)	ITS/LAB/STP/SOIL	30.40	mg/kg
19.	Bicarbonates	ITS/LAB/STP/SOIL	42.11	meq/kg
20.	Boron (as B)	APHA 24 th Edit.	0.28	mg/kg
21.	Iodine (as I ₂)	ITS/LAB/STP/SOIL	BDL	mg/kg
22.	Sand	IS:2720(Part-4)	52.6	% by mass
23.	Clay	IS:2720(Part-4)	20.8	% by mass
24.	Silt	IS:2720(Part-4)	22.4	% by mass
25.	Texture	IS:2720 (Part-4)	Sandy Clay Loam	-
26.	Total Potash (as K)	IS:3025 P-40-1991	42.88	mg/kg
27.	Organic Carbon	IS:2720 (Part-22)	0.37	% by mass
28.	Cation Exchange Capacity	IS:2720(Part-24)	21.9	meq/100gm
29.	Aluminum (as Al)	US EPA-3050B	BDL	mg/kg
30.	Antimony (as Sb)	US EPA-3050B	BDL	mg/kg
31.	Tin (as Sn)	APHA 24 th Edit.	BDL	mg/kg
32.	Arsenic (as As)	US EPA-3050B	BDL	mg/kg
33.	Chlorine (as Cl ₂)	IS:3025(Part-32)	30.7	mg/kg
34.	Cobalt (as Co)	US EPA-3050B	BDL	mg/kg
35.	Cadmium (as Cd)	US EPA-3050B	1.46	mg/kg
36.	Chromium (as Cr)	US EPA-3050B	BDL	mg/kg
37.	Copper (as Cu)	US EPA-3050B	20.28	mg/kg
38.	Barium (as Ba)	US EPA-3050B	BDL	mg/kg
39.	Zinc (as Zn)	US EPA-3050B	72.22	mg/kg
40.	Nickel (as Ni)	US EPA-3050B	36.20	mg/kg
41.	Sulphur (as S)	IS:3025 (Part-24)	19.22	mg/kg
42.	Nitrate (as NO ₃)	ITS/LAB/STP/SOIL	2.90	mg/kg
43.	Nitrite (as NO ₂)	ITS/LAB/STP/SOIL	BDL	mg/kg
44.	Poly chlorinated Biphenyl	EPA 610	BDL	mg/kg
45.	Polycyclic Aromatic Hydrocarbon			
A.	Naphthalene (NAP)	EPA 610	N.D.	mg/kg
B.	Acenaphthylene (ANY)	EPA 610	N.D.	mg/kg
C.	Acenaphthene (ANA)	EPA 610	N.D.	mg/kg
D.	Fluorene (FLU)	EPA 610	N.D.	mg/kg
E.	Phenanthrene (PHE)	EPA 610	N.D.	mg/kg

Reviewed by
Ashish Dubey
(Sr. Analyst)





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F.	Anthracene (ANT)	EPA 610	N.D.	mg/kg
G.	Fluoranthene (FLT)	EPA 610	N.D.	mg/kg
H.	Pyrene (PYR)	EPA 610	N.D.	mg/kg
I.	Benzo (a) anthracene (BaA)	EPA 610	N.D.	mg/kg
J.	Chrysene (CHR)	EPA 610	N.D.	mg/kg
K.	Benzo (b)fluoranthene (BbF)	EPA 610	N.D.	mg/kg
L.	Benzo (k)fluoranthene (BkF)	EPA 610	N.D.	mg/kg
M.	Benzo (a)pyrene (BaP)	EPA 610	N.D.	mg/kg
N.	Idenol (1,2,3-c,d) pyrene (IPY)	EPA 610	N.D.	mg/kg
O.	Dibenzo (a,h) anthracene (DBA)	EPA 610	N.D.	mg/kg
P.	Benzo (g,h,i) perylene (BPE)	EPA 610	N.D.	mg/kg
47.	Total Pesticides			
A.	Heptachlor epoxide	USEPA-525.2	N.D.	mg/kg
B.	Trans Chlordane	USEPA-525.2	N.D.	mg/kg
C.	Endrin	USEPA-508	N.D.	mg/kg
D.	Dieldrin	USEPA-508	N.D.	mg/kg
E.	DDT (o,p&p,p-isomers of DDT, DDE& DDD)	USEPA-508	N.D.	mg/kg
F.	Cis-chlordane	USEPA-508	N.D.	mg/kg
G.	Endosulfan I	USEPA-508	N.D.	mg/kg
H.	Endosulfan II	USEPA-508	N.D.	mg/kg

Remarks: N.D.- Not Detected, Minimum Detection Limit is 0.01 mg/kg.

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(Sr. Analyst)

End of Report





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Doc. No. - ITS/7.8-01

Report Code: SS: 230825-02, Page - 1 of 3

TEST REPORT

Soil Sample Analysis

Report Code: SS: 230825-02

Issue Date: 28/08/2025

Issued To: M/S. Himachal Pradesh Power Corporation Limited
A State Government under Taking Chanju - III HEP (48 MW)
Contractor Name - Ashok Chauhan & Company (ACNC) Package - II

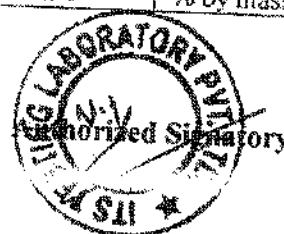
Sampling & Particulate Detail

Sample Description	:	Soil Sample
Sampling Location	:	ACNC MAT Area
Date of Sampling	:	21/08/2025
Sample Drawn By	:	Mr. Vivek Kumar (ITS LAB Representative)
HPPCL Representative	:	Mr. Sahil Ji
Site Representative	:	Mr. Manish Pandey Ji
Sampling Procedure	:	ITS/LAB/SAMPLING/STP/05
Sample Quantity	:	2.0 Kg in Zip Poly Bag
Weather Condition	:	Clear Sky
Sample Received On	:	23/08/2025
Analysis Duration	:	23/08/2025 To 28/08/2025

TEST RESULT

S. No.	Parameter	Test Method	Result	Unit
1.	pH @ 25°C	IS:2720(Part-26)	8.07	-
2.	Electrical Conductivity @25°C	IS:14767	1426	µS/cm
3.	Water Holding Capacity	ITS/STP/SOIL/09	24.16	% by mass
4.	Moisture Content	IS:2720(Part-02)	15.0	% by mass
5.	Calcium Carbonates (as CaCO ₃)	IS:2720(Part-23)	0.101	% by mass
6.	Available Magnesium (as Mg)	ITS/STP/SOIL/06	126.8	mg/kg
7.	Available Sodium (as Na)	ITS/STP/SOIL/01	155.0	mg/kg
8.	Total Kjeldahl Nitrogen (as TKN)	ITS/STP/SOIL/07	0.062	% by mass
9.	Total Soluble Sulphate (as SO ₄)	IS:2720 (Part-27)	226.8	mg/kg
10.	Total Soluble Salt	ITS/STP/SOIL/08	0.507	mg/kg
11.	Available Nitrogen (as N)	ITS/STP/SOIL/03	160	mg/kg
12.	Available Potassium (as K ₂ O)	ITS/STP/SOIL/02	44.9	mg/kg
13.	Available Phosphorus (as P ₂ O ₅)	ITS/STP/SOIL/04	70.2	mg/kg
14.	Sodium Absorption Ratio (SAR)	IS:11624	1.16	-
15.	Organic Matter	IS:2720 (Part-22)	0.502	% by mass
16.	Available Iron (as Fe)	ITS/STP/SOIL/05	2.96	% by mass

Reviewed by
Ashish Dubey
(Sr. Analyst)





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Doc. No. - ITS/7.8-01

Report Code: SS: 230825-02, Page - 2 of 3

17.	Calcium (as Ca)	ITS/LAB/STP/SOIL	3628	mg/kg
18.	Ammonia (as NH ₃ -N)	ITS/LAB/STP/SOIL	52.0	mg/kg
19.	Bicarbonates	ITS/LAB/STP/SOIL	42.9	meq/kg
20.	Boron (as B)	APHA 24 th Edit.	0.46	mg/kg
21.	Iodine (as I ₂)	ITS/LAB/STP/SOIL	BDL	mg/kg
22.	Sand	IS:2720(Part-4)	55.0	% by mass
23.	Clay	IS:2720(Part-4)	22.2	% by mass
24.	Silt	IS:2720(Part-4)	23.8	% by mass
25.	Texture	IS:2720 (Part-4)	Sandy Clay Loam	-
26.	Total Potash (as K)	IS:3025 P-40-1991	60.1	mg/kg
27.	Organic Carbon	IS:2720 (Part-22)	0.32	% by mass
28.	Cation Exchange Capacity	IS:2720(Part-24)	21.8	meq/100gm
29.	Aluminum (as Al)	US EPA-3050B	BDL	mg/kg
30.	Antimony (as Sb)	US EPA-3050B	BDL	mg/kg
31.	Tin (as Sn)	APHA 24 th Edit.	BDL	mg/kg
32.	Arsenic (as As)	US EPA-3050B	BDL	mg/kg
33.	Chlorine (as Cl ₂)	IS:3025(Part-32)	22.6	mg/kg
34.	Cobalt (as Co)	US EPA-3050B	BDL	mg/kg
35.	Cadmium (as Cd)	US EPA-3050B	1.56	mg/kg
36.	Chromium (as Cr)	US EPA-3050B	BDL	mg/kg
37.	Copper (as Cu)	US EPA-3050B	32.14	mg/kg
38.	Barium (as Ba)	US EPA-3050B	BDL	mg/kg
39.	Zinc (as Zn)	US EPA-3050B	80.21	mg/kg
40.	Nickel (as Ni)	US EPA-3050B	27.39	mg/kg
41.	Sulphur (as S)	IS:3025 (Part-24)	21.88	mg/kg
42.	Nitrate (as NO ₃)	ITS/LAB/STP/SOIL	4.77	mg/kg
43.	Nitrite (as NO ₂)	ITS/LAB/STP/SOIL	BDL	mg/kg
44.	Poly chlorinated Biphenyl	EPA 610	BDL	mg/kg
45.	Polycyclic Aromatic Hydrocarbon			
A.	Nephthalene (NAP)	EPA 610	N.D.	mg/kg
B.	Acenaphthylene (ANY)	EPA 610	N.D.	mg/kg
C.	Acenaphthene (ANA)	EPA 610	N.D.	mg/kg
D.	Fluorene (FLU)	EPA 610	N.D.	mg/kg
E.	Phenanthrene (PHE)	EPA 610	N.D.	mg/kg

Reviewed by
Ashish Dubey
(Sr. Analyst)





ITS TESTING LABORATORY PRIVATE LIMITED

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F.	Anthracene (ANT)	EPA 610	N.D.	mg/kg
G.	Fluoranthene (FLT)	EPA 610	N.D.	mg/kg
H.	Pyrene (PYR)	EPA 610	N.D.	mg/kg
I.	Benzo (a) anthracene (BaA)	EPA 610	N.D.	mg/kg
J.	Chrysene (CHR)	EPA 610	N.D.	mg/kg
K.	Benzo (b)fluoranthene (BbF)	EPA 610	N.D.	mg/kg
L.	Benzo (k)fluoranthene (BkF)	EPA 610	N.D.	mg/kg
M.	Benzo (a)pyrene (BaP)	EPA 610	N.D.	mg/kg
N.	Idenol (1,2,3-c,d) pyrene (IPY)	EPA 610	N.D.	mg/kg
O.	Dibenzo (a,h) anthracene (DBA)	EPA 610	N.D.	mg/kg
P.	Benzo (g,h,i) perylene (BPE)	EPA 610	N.D.	mg/kg
47.	Total Pesticides		N.D.	mg/kg
A.	Heptachlor epoxide	USEPA-525.2	N.D.	mg/kg
B.	Trans Chlordane	USEPA-525.2	N.D.	mg/kg
C.	Endrin	USEPA-508	N.D.	mg/kg
D.	Dieldrin	USEPA-508	N.D.	mg/kg
E.	DDT (o,p&p,p-isomers of DDT, DDE& DDD)	USEPA-508	N.D.	mg/kg
F.	Cis-chlordane	USEPA-508	N.D.	mg/kg
G.	Endosulfan I	USEPA-508	N.D.	mg/kg
H.	Endosulfan II	USEPA-508	N.D.	mg/kg

Remarks: N.D.- Not Detected, Minimum Detection Limit is 0.01 mg/kg.

Note: - Report shall not be produce except in full without approval of the laboratory.

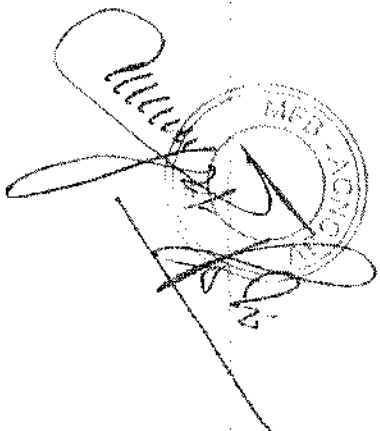

Reviewed by
Ashish Dubey
(Sr. Analyst)



End of Report



Dumping Quantity Summary - Month-wise Cumulative (Trench Weir & Adits) in Cum							
Month	Dumping Site 1 (Cum) Near Trench weir	Dumping Site 2 (Cum) Adit 1	Dumping Site 4 (Cum) Adit 2	Dumping Site 5 (Cum) Adit 3	Dumping Site 6 (Cum) Adit 4	Total(month)	Remarks
January	160	591.17	0	10.22	200.7	962.09	
February	598.06	635.48	0	119.92	95.41	1448.87	
March	1275.72	148.38	0	169.91	9.51	1603.52	
April	1703.26	394.77	25	202.24	0	2325.27	
May	1508.82	491.79	0	258.3	0	2258.91	
June	1018.34	534.53	0	211.47	0	1764.34	
July	916.42	474.63	0	430.9	47.56	1869.51	
August	253.87	458.53	0	316.75	255.94	1285.09	
Total(location)	7434.49	3729.28	25	1719.71	609.12	13517.6	



Dumping Quantity Summary – January 2025 (Location-wise Cumulative in Cum)						
Date	Dumping Site 1 (Cum) Near Trench wier	Dumping Site 2 (Cum) Adit 1	Dumping Site 5 (Cum) Adit 3	Dumping Site 6 (Cum) Adit 4	Total (Date wise)	Total (Date wise)
02-01-25		19.03			19.03	19.03
03-01-25		38.05		8.73	46.78	46.78
04-01-25	8	38.05		17.45	63.5	63.5
05-01-25		38.05		17.45	55.5	55.5
06-01-25						
07-01-25		28.54		17.45	45.99	45.99
08-01-25		28.54		17.45	45.99	45.99
09-01-25		38.05		26.18	64.23	64.23
10-01-25		28.54		17.45	45.99	45.99
15-01-25		28.54		26.18	54.72	54.72
16-01-25		19.03		17.45	36.48	36.48
17-01-25		19.03		26.18	45.21	45.21
19-01-25		38.05		8.73	46.78	46.78
20-01-25		19.03			19.03	19.03
21-01-25		25.69			25.69	25.69
22-01-25	20	17.12			37.12	37.12
24-01-25	30	7.71			37.71	37.71
25-01-25	30	15.41			45.41	45.41
26-01-25		7.71			7.71	7.71
27-01-25	15	34.25			49.25	49.25
28-01-25	15	34.25			44.25	44.25
29-01-25	10	34.25			40.69	40.69
30-01-25	15	25.69	10.22		35.78	35.78
31-01-25	17	8.56	10.22	200.7	962.09	962.09
Total(location)	160	591.17	10.22	200.7		

Dumping Quantity Summary - February 2025 (Location-wise Cumulative in Cum)						
Date	Dumping Site 1 (Cum) Near Trench wier	Dumping Site 2 (Cum) Adit 1	Dumping Site 5 (Cum) Adit 3	Dumping Site 6 (Cum) Adit 4	Total (Date wise)	
01-Feb-25	12	28.54			40.54	
02-Feb-25		19.03		5	24.03	
03-Feb-25	62				62	
04-Feb-25	10	9.51	10.22		29.73	
05-Feb-25		19.03			19.03	
06-Feb-25	15	9.51			24.51	
07-Feb-25	50	28.54			78.54	
08-Feb-25	40	28.54	2		70.54	
09-Feb-25		28.54			28.54	
10-Feb-25	17.16	9.51			26.67	
11-Feb-25		28.54			28.54	
12-Feb-25	5	28.54			33.54	
13-Feb-25	5	38.05	20.43		63.48	
14-Feb-25	10	38.05	8.73		56.78	
15-Feb-25	10	38.05			48.05	
16-Feb-25		38.05			38.05	
17-Feb-25	50	19.03	17.45	8.73	95.21	
18-Feb-25		19.03	8.73	8.73	36.49	
19-Feb-25	18	38.05	8.73	17.45	82.23	
20-Feb-25	28	28.54		17.45	73.99	
21-Feb-25	40	38.05		9.51	87.56	
22-Feb-25	48.5	19.03	8.73	19.03	95.29	
23-Feb-25		9.51	17.45		26.96	
25-Feb-25	54.93	32.35	17.45		104.73	
26-Feb-25	0					
27-Feb-25	77.54	16.17		9.51	103.22	
28-Feb-25	44.93	25.69			70.62	
Total(location)	598.06	635.48	119.92	95.41	1448.87	

Handwritten signature and official stamp of the Department of Water Resources, Government of Karnataka.

Dumping Quantity Summary - March 2025 (Location-wise Cumulative in Cum)						
Date	Dumping Site 1 (Cum) Near Trench w/c	Dumping Site 2 (Cum) Adit 1	Dumping Site 3 (Cum) Adit 1	Dumping Site 4 (Cum) Adit 4	Dumping Site 5 (Cum) Adit 4	Total (Date wise)
01-Mar-25	47.88	16.17	17.45			81.5
02-Mar-25	55.17	9.51	76.18	9.51		160.37
03-Mar-25	45.25					45.25
04-Mar-25	39.51					39.51
05-Mar-25	64.81					64.81
06-Mar-25	35					35
07-Mar-25	50.27		15.71			65.98
08-Mar-25	64.11		15.71			79.82
09-Mar-25			6.98			6.98
10-Mar-25	48.89		6.98			55.87
11-Mar-25	55.22		15.71			70.93
12-Mar-25	37.61		7.85			45.46
13-Mar-25	19		7.85			26.85
14-Mar-25						
15-Mar-25	9.51					9.51
16-Mar-25	22.61		8.73			31.34
17-Mar-25	67.44		8.73			76.17
18-Mar-25	82.82					82.82
19-Mar-25	58.73					58.73
20-Mar-25	40.59	9.51	6.98			57.08
21-Mar-25	56.19	16.17	7.85			80.21
22-Mar-25	47.56	8.56	10.22			66.34
23-Mar-25						
24-Mar-25	33.49	13.32				46.81
25-Mar-25	54.27	9.51				63.78
26-Mar-25	50.34					50.34
27-Mar-25	43.09					43.09
28-Mar-25	59.28	16.17				75.45
29-Mar-25	31.52	17.12				48.64
30-Mar-25	9.51	17.12				26.63
31-Mar-25	55.3	15.22				70.52
32-Mar-25	1275.72	148.38	169.91	9.51		1603.52

[Signature]

Dumping Quantity Summary - March 2025 (Location wise Cumulative in Cum)					
Date	Dumping Site 1 (Cum) Near Trench wter	Dumping Site 2 (Cum) Adit 1	Dumping Site 5 (Cum) Adit 3	Dumping Site 6 (Cum) Adit 4	Total (Date wise)
01-Mar-25	41.88	16.17	17.45		81.5
02-Mar-25	55.77	9.51	26.18	9.51	100.97
03-Mar-25	45.25				45.25
04-Mar-25	39.51				39.51
05-Mar-25	54.51				54.51
06-Mar-25	35		15.71		50.71
07-Mar-25	50.22		15.71		65.93
08-Mar-25	64.11		6.98		71.09
09-Mar-25			6.98		6.98
10-Mar-25	48.89		6.98		55.87
11-Mar-25	55.22		15.71		70.93
12-Mar-25	37.61		7.85		45.46
13-Mar-25	19		7.85		26.85
14-Mar-25					
15-Mar-25	9.51				9.51
16-Mar-25	22.61		8.73		31.34
17-Mar-25	67.44		8.73		76.17
18-Mar-25	82.82				82.82
19-Mar-25	58.73				58.73
20-Mar-25	40.59	9.51	6.98		57.08
21-Mar-25	56.19	16.17	7.85		80.21
22-Mar-25	47.56	8.56	10.22		66.34
23-Mar-25					
24-Mar-25	33.49	13.32			46.81
25-Mar-25	54.27	9.51			63.78
26-Mar-25	50.34				50.34
27-Mar-25	43.09				43.09
28-Mar-25	59.28	16.17			75.45
29-Mar-25	31.52	17.12			48.64
30-Mar-25	9.51	17.12			26.63
31-Mar-25	55.3	15.22			70.52
Total(location)	1275.72	148.38	169.91	9.51	1603.52

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Dumping Quantity Summary - April 2025 (Location-wise Cumulative in Cum)						
Date	Dumping Site 1 (Cum) Near Trench w/ier	Dumping Site 2 (Cum) Adit 1	Dumping Site 4 (Cum) Adit 2	Dumping Site 5 (Cum) Adit 3	Total (Date wise)	
Tue 01 Apr-25	56.43	15.22			71.65	
Wed 02 Apr-25	38.00	15.22			53.21	
Thu 03 Apr-25	201.67	15.22			216.89	
Fri 04 Apr-25	55.25	15.22			70.47	
Sat 05 Apr-25	24.51	15.22			39.73	
Sun 06 Apr-25	36.05	16.17			52.22	
Mon 07 Apr-25	60.22	17.12			77.34	
Tue 08 Apr-25	118.08	17.12			135.2	
Wed 09 Apr-25	56.17	19.03			75.2	
Thu 10 Apr-25	46.65	19.03			65.68	
Fri 11 Apr-25	56.17				56.17	
Sat 12 Apr-25	46.65				46.65	
Sun 13 Apr-25	59.51	22.83		12.26	94.6	
Mon 14 Apr-25	93.09	9.51	25	12.26	139.86	
Tue 15 Apr-25	128.15	19.03		20.43	167.61	
Wed 16 Apr-25	186	19.02		12.26	217.28	
Thu 17 Apr-25	80	9.51		24.52	114.03	
Fri 18 Apr-25	86.08	19.03		24.52	129.63	
Sat 19 Apr-25	61.08	19.02		8.73	88.83	
Sun 20 Apr-25	43.38	19.02		26.18	88.58	
Mon 21 Apr-25	63.76	28.54		17.45	109.75	
Tue 22 Apr-25		9.51		8.73	18.24	
Wed 23 Apr-25	19.03	38.06		17.45	74.54	
Thu 24 Apr-25	57.24	17.12		17.45	91.81	
Total(location)	1703.26	394.77	25	202.24	2325.27	

Dumping Quantity Summary - May 2025 (Location-wise Cumulative in Cum)					
DATE	Dumping Site 1 (Cum) Near Trench wiler	Dumping Site 2 (Cum) Adit 1	Dumping Site 5 (Cum) Adit 3	Total (Date wise)	
02-May-25	52.96	8.56	8.73	78.81	78.81
03-May-25	63.24	8.56		80.36	80.36
05-May-25	53.76	25.68		105.12	105.12
06-May-25	57.24	34.25	8.73	134.47	134.47
07-May-25	57.97	46.61		151.19	151.19
08-May-25	58.58	27.59		113.76	113.76
09-May-25	57.97	34.24		126.45	126.45
10-May-25	57.7	36.15		130	130
11-May-25	7.85	8.56		24.97	24.97
12-May-25	54.78	18.07		90.92	90.92
13-May-25	62.92	15.22		93.36	93.36
14-May-25	68.47	19.02		106.51	106.51
15-May-25	69.8	9.51		88.82	88.82
16-May-25	54.2	38.06	8.73	139.05	139.05
17-May-25	62.92	28.54		120	120
19-May-25	78.52			78.52	78.52
20-May-25	62.92		26.18	89.1	89.1
21-May-25	47.32		17.45	64.77	64.77
22-May-25	62.92		17.45	80.37	80.37
23-May-25	62.92		17.45	80.37	80.37
24-May-25	69.8		17.45	87.25	87.25
25-May-25	23	19.03	17.45	78.51	78.51
26-May-25	45.99	19.03	26.18	110.23	110.23
27-May-25	31.72	9.51	17.45	68.19	68.19
28-May-25	35.45	25.68	17.45	104.26	104.26
29-May-25	51.15	25.68	20.07	122.58	122.58
30-May-25	62.64	17.12	11.35	108.23	108.23
31-May-25	34.11	17.12	26.18	94.53	94.53
Total(location)	1508.82	491.79	258.3	2258.91	2258.91

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Dumping Quantity Summary - June 2025 (Location-wise Cumulative in Cum)					
DATE	Dumping Site 1 (Cum) Near Trench wier	Dumping Site 2 (Cum) Adit 1	Dumping Site 5 (Cum) Adit 3	Total (Date wise)	
02-Jun-25	45.32	24.73	8.73		103.51
03-Jun-25	48.12	16.17	17.45		97.91
04-Jun-25	48.12	16.17	8.73		89.19
05-Jun-25	39.55	32.34	17.45		121.68
06-Jun-25	45.72	17.12	17.45		97.41
07-Jun-25	42.86	25.68	17.45		111.67
08-Jun-25	3.9	25.68	17.45		72.71
09-Jun-25	36.36	25.68	17.45		105.17
10-Jun-25	38.07	17.12	8.73		81.04
11-Jun-25	41.97	25.68	17.45		110.78
12-Jun-25	44.57	25.68	8.73		104.66
13-Jun-25	38.61	25.68	8.73		98.7
14-Jun-25	45.11	25.68			96.47
16-Jun-25	48.47	25.68			99.83
17-Jun-25	37.31	34.24			105.79
18-Jun-25	45.87	25.68			97.23
19-Jun-25	36	34.24			104.48
20-Jun-25	48.47	25.68			99.83
21-Jun-25	25.53	34.24			94.01
22-Jun-25	19.03	25.68			70.39
23-Jun-25	44.57	25.68			95.93
24-Jun-25	34.64				34.64
26-Jun-25	37.3				37.3
27-Jun-25	34.83		9.52		53.87
28-Jun-25	37.5		19.03		75.56
30-Jun-25	50.54		17.12		84.78
Total(location)	1018.34	534.53	211.47		2344.54



Dumping Quantity Summary – July 2025 (Location-wise Cumulative in Cum)						
DATE	Dumping Site 1 (Cum) Near Trench wifer	Dumping Site 2 (Cum) Adit 1	Dumping Site 5 (Cum) Adit 3	Dumping Site 6 (Cum) Adit 4	Total (Date wise)	
01-Jul-25	45.4		17.12		62.52	
02-Jul-25	15.71		19.03		34.74	
03-Jul-25	31.93	17.12			49.05	
04-Jul-25	32.21	17.12	5.71		55.04	
05-Jul-25	46.92	15.22	11.42		73.56	
06-Jul-25	19.92	15.22	11.42		46.56	
07-Jul-25	33.83	7.61	5.71		47.21	
08-Jul-25	53.88	15.22	9.51		78.61	
09-Jul-25	33.96	15.22	19.02		68.2	
10-Jul-25	19.15	15.22	19.02		53.39	
11-Jul-25	17.4		19.02		36.42	
12-Jul-25	60.2	7.61	28.53		96.34	
14-Jul-25	45.78	15.22	9.51		70.51	
15-Jul-25	40.58	15.22	28.54		84.34	
16-Jul-25	44.94	15.22	19.03		79.19	
17-Jul-25	31.85	15.22	30.44		77.51	
18-Jul-25	22.5	7.61	30.44		60.55	
19-Jul-25	40.14	32.34	30.44	9.51	112.43	
20-Jul-25	14.27	25.68	23.78	19.03	82.76	
21-Jul-25				9.51		
22-Jul-25	35.12	34.24	16.17		85.53	
23-Jul-25	37.65	34.24	17.12		89.01	
26-Jul-25	28.55	17.12	17.12		62.79	
25-Jul-25		25.68			54.23	
26-Jul-25	56.69	8.56			65.25	
28-Jul-25	43.85	25.68	17.12		86.65	
29-Jul-25	31.38	34.24	25.68		95.3	
30-Jul-25		17.12		9.51	26.63	
31-Jul-25		25.68			26.68	
Total(location)	916.42	474.63	430.9	47.56	1869.51	

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Dumping Quantity Summary - August 2025 (Location-wise Cumulative in Cum)					
DATE	Dumping Site 1 (Cum) Near Trench wier	Dumping Site 2 (Cum) Adit 1	Dumping Site 5 (Cum) Adit 3	Dumping Site 6 (Cum) Adit 4	Total (Date wise)
01-08-25		17.12			17.12
02-08-25		17.12			17.12
03-08-25	10.5	8.56			19.06
04-08-25	23.442	17.12	18.07		58.64
05-08-25	44.97	17.12	9.51		71.61
06-08-25	27.67	25.68		4.76	58.11
07-08-25	17.86	25.68	8.56	19.03	71.13
08-08-25	30.86	25.68	17.12		73.66
09-08-25	32.98	8.56	17.12		58.66
10-08-25	17.86	8.56	39.00	6.66	72.08
11-08-25	17.86	8.56	39.00	6.66	72.08
12-08-25	29.87	17.12	32.34	6.66	85.99
13-08-25		25.68	19.02	9.51	54.21
14-08-25		38.06	15.22	15.22	68.50
16-08-25		28.54	19.02	32.35	79.91
17-08-25		38.06		32.35	70.41
18-08-25		39.96		39.96	79.92
19-08-25					0.00
20-08-25		15.22	19.02	6.66	40.90
21-08-25		47.57	35.2	38.06	120.83
22-08-25		28.54	28.54	38.06	95.14
Total(location)	253.87	458.53	316.75	255.94	1285.09

Proforma

Proforma for Monthly Statement of muck/debris disposal submitted to HPSPCB by Hydel Projects under construction
Name & Address of Project - Package-II, Charju-III HEP (48MW), RCP, HPPCL, Sundia Dist, Chamba (H.P)
Month for which statement is submitted- June 2025

S.No	Project Component	Gross estimated Qty. of muck/debris to be generated (as per DPR)		Quantities of muck/debris upto last submission			Quantities of muck/debris for the month being reported to June 2025			Cumulative Quantities at the end of month being reported upto June 2025			Name of dumping site		Capacity of dumping site		Remarks
		Qty	Unit	Generated	Utilised	Dumped	Generated	Utilised	Dumped	Generated	Utilised	Dumped	Location	No.	Qty	Unit	
1	Adit to Forebay	27473.15	m3	3069.789	0.000	3069.789	590.417	0.000	590.417	3660.206	0.000	3660.206	Near Adit to Forebay	Dumping Site-VII	18936.00	m3	
2	Intermediate Adit to Pressure Shaft, Pressure Shaft	2321.45	m3	2257.213	0.000	2257.213	356.871	0.000	356.871	2654.084	0.000	2654.084	Near Intermediate Adit to Pressure Shaft	Dumping Site-IX	2086.00	m3	
3	Pressure Shaft, Powerhouse Complex, Road to Power House & Tail Race Tunnel	25649.10	m3	71070.350	66053.504	5016.846	271.728	0.000	271.728	71342.078	66053.504	6298.574	Near Power House	Dumping Site-X	17100.00	m3	
GRAND TOTAL (S.No. 1 to 3)		55442.70	m3	76397.35	66053.50	10343.85	1249.02	0.00	1249.02	77646.37	66053.50	11592.86			36122.00	m3	

Proforma

Proforma for Monthly Statement of muck/debris disposal submitted to HPSPCB by Hydel Projects under construction
Name & Address of Project - Package-II, Charju-III HEP (48MW), RCP, HPPCL, Sundla, Distt. Chamba (H.P.)
Month for which statement is submitted- July-2025

S.No	Project Component	Gross estimated Qty. of muck/debris to be generated (As per DPR)		Quantities of muck/debris upto last submission			Quantities of muck/debris for the month being reported (i.e. July 2025)			Cumulative Quantities at the end of month being reported upto July 2025			Name of dumping site		Capacity of dumping site		Remarks
		Qty	Unit	Generated	Utilised	Dumped	Generated	Utilised	Dumped	Generated	Utilised	Dumped	Location	No.	Qty	Unit	
1	Adit to Forebay	27473.15	m3	3550.206	0.000	3550.208	354.521	0.000	354.521	4094.727	0.000	4004.727	Near Adit to Forebay	Dumping Site-VII	15533.00	m3	
2	Intermediate Adit to Pressure Shaft, Pressure Shaft	2321.45	m3	2554.034	0.000	2554.034	280.248	280.248	0.000	2934.332	280.248	2854.084	Near Intermediate Adit to Pressure Shaft	Dumping Site-IX	2095.00	m3	
3	Pressure Shaft, Powerhouse Complex, Road to Power house & Tail Race Tunnel	26648.10	m3	71342.078	55053.504	5288.574	377.384	377.384	0.000	71719.462	66430.888	5288.574	Near Power house	Dumping Site-X	17100.00	m3	
	GRAND TOTAL (S.NO. 1 to 3)	56442.70	m3	77546.37	60553.50	11592.86	1012.15	657.83	354.52	78558.62	66711.14	11547.39			36132.00	m3	

Proforma

Proforma for Monthly Statement of muck/debris disposal submitted to HPSPCB by Hydel Projects under construction
Name & Address of Project - Package-II, Chanyul HEP (48MW), RCP, HPPL, Sundia Dist. Chamba (H.P)
Month for which statement is submitted- Aug-2023

S.No	Project Component	Gross estimated Qty. of muck/debris to be generated (As per DPR)		Quantities of muck/debris upto last submission				Quantities of muck/debris for the month being reported i.e Aug 2023				Cumulative Quantities at the end of month being reported upto Aug 2023				Name of dumping site	Capacity of dumping site	Remarks
		Qty	Unit	Generated	Utilised	Dumped	Generated	Utilised	Dumped	Generated	Utilised	Dumped	Location	No.	Qty	Unit		
1	Adt to Forebay	27473.15	m3	4804.727	0.000	4004.727	209.304	0.000	209.304	4214.031	0.000	4214.031	Near Adt to Forebay	Dumping Site-VIII	16536.00	m3		
2	Intermediate Adt to Pressure Shaft, Pressure Shaft	2321.45	m3	2934.332	280.249	2654.084	112.170	112.170	0.000	3045.502	392.418	2654.084	Near Intermediate Adt to Pressure Shaft	Dumping Site-IX	2056.00	m3		
3	Pressure Shaft, Powerhouse Complex, Road to Power house & Tail Race Tunnel	26648.40	m3	71719.462	66430.888	5208.574	249.084	249.084	0.000	71968.546	66679.972	5208.574	Near Power house	Dumping Site-X	17100.00	m3		
GRAND TOTAL (S.No. 1 to 3)		56442.70	m3	78658.52	66711.14	11947.39	670.66	361.25	209.30	79229.08	67072.39	12156.69			36132.00	m3		

Proforma

Proforma for Monthly Statement of muck/debris disposal submitted to HPSPCB by Hydel Projects under construction
Name & Address of Project - Package-II, Chariju-II HEP (48MW), RCP, HPPCL Sundla, Distt. Chamba (H.P.)
Month for which statement is submitted- Sep-2025

S.No	Project Component	Gross estimated Qty. of muck/debris to be generated (As per DPR)		Quantities of muck/debris upto last submission				Quantities of muck/debris for the month being reported in Sep'2025				Cumulative Quantities at the end of month being reported upto Sep'2025				Name of dumping site			Capacity of dumping site		Remarks
		Qty	Unit	Generated	Utilised	Dumped	Generated	Utilised	Dumped	Generated	Utilised	Dumped	Generated	Utilised	Dumped	Location	No.		Qty	Unit	
1	Add to Forebay	27473.15	m3	4214.031	0.000	4214.031	0.000	0.000	0.000	0.000	0.000	4214.031	4214.031	0.000	0.000	Near Add to Forebay	Dumping Site-VII		16989.00	m3	
2	Intermediate Add to Pressure Shaft, Pressure Shaft	2321.45	m3	3046.502	392.419	2654.084	0.000	0.000	0.000	3046.502	392.419	2654.084				Near Intermediate Add to Pressure Shaft	Dumping Site-IX		2096.00	m3	
3	Pressure Shaft Powerhouse Complex, Road to Power house & Tail Race Tunnel	26648.10	m3	71968.546	66679.972	5288.574	0.000	0.000	0.000	71968.546	66679.972	5288.574				Near Power house	Dumping Site-X		17100.00	m3	
	GRAND TOTAL (S.No. 1 to 3)	56442.70	m3	79329.08	67072.39	12456.69	0.00	0.00	0.00	79329.08	67072.39	12456.69							36132.00	m3	

Proforma

Proforma for Monthly Statement of muck/debris disposal submitted to HPSPCB by Hydel Projects under construction

Name & Address of Project - Package-II, Chanqu-H-EP (45MW), RCP, HPPCL, Sundla, Dist. Chambs (H.P)
Month for which statement is submitted-Oct-2025

S.No	Project Component	Gross estimated Qty. of muck/debris to be generated (As per DPR)		Quantities of muck/debris upto last submission			Quantities of muck/debris for the month being reported i.e Oct 2025			Cumulative Quantities at the end of month being reported upto Oct 2025			Name of dumping site		Capacity of dumping site		Remarks
		Qty	Unit	Generated	Utilised	Dumped	Generated	Utilised	Dumped	Generated	Utilised	Dumped	Location	No.	Qty	Unit	
1	Adit to Forebay	27473.15	m ³	4214.031	0.000	4214.031	0.000	0.000	0.000	4214.031	0.000	4214.031	Near Adit to Forebay	Dumping Site-VII	16936.00	m ³	
2	Intermediate Adit to Pressure Shaft	2321.45	m ³	3046.502	392.418	2654.084	0.000	0.000	0.000	3046.502	392.418	2654.084	Near Intermediate Adit to Pressure Shaft	Dumping Site-IX	2095.00	m ³	
3	Pressure Shaft, Powerhouse Complex, Road to Power House & Tail Race Tunnel	26648.10	m ³	71968.546	66679.972	5288.574	0.000	0.000	0.000	71968.546	66679.972	5288.574	Near Power House	Dumping Site-X	17100.00	m ³	
GRAND TOTAL (S.NO. 1 to 3)		56442.70	m³	79229.08	67072.39	12156.69	0.00	0.00	0.00	79229.08	67072.39	12156.69			36132.00	m³	