

Ref. No. - GMR/ BH/2017/06/2712
Date - 30th June 2017

The Additional Pr. Chief Conservator of Forest
Ministry of Environment, Forest & Climate Change, GoI
Central Regional Office,
Pearson Road, FRI Campus
P.O. New Forest Dehradun
Uttarakhand – 248006

Sub: GMR Bajoli Holi Hydro Power Pvt. Ltd. (180 MW), District-Chamba, Himachal Pradesh –Environmental Clearance Compliance Status

Ref: MoEF Approval Letter No. J-12011/86/2007-IA.I Dt 24th Jan 2011

Dear Sir,

Bajoli Holi HE Project (180MW) is under execution by GMR in District Chamba, Himachal Pradesh. Environmental Clearance from MoEF, GOI, Delhi was accorded on 24th Jan 2011.

As per the condition no. VI (General) and 13 of the clearance letter, please find the point wise half yearly compliance report is attached herewith as annexure – I please.

Yours faithfully,

For **GMR Bajoli Holi Hydro Power Private Limited**



(S. P. Bansal)
Chief Project Officer

Encl: As Above

Copy to:

1. Ministry of Environment, Forest and Climate Change
Indira Paryavaran Bhavan
Jorbagh Road
New Delhi - 110 003,
INDIA

2. Member Secretary
Central Pollution Control Board,
Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar,
DELHI - 110 032,
INDIA
3. Member Secretary
H.P.State Pollution Control Board
"Him Parivesh", Phase-III,
New Shimla-171 009.

Annexure-I

Bajoli-Holi HEP (180MW) - Half yearly status report Dec., 2016 to May - 2017

S No	A. Specific Conditions	Compliance status
i	Catchment Area Treatment Plan as has been proposed should be completed in 5 years.	Work is being executed by Forest Dept., GoHP as per approved CAT Plan
ii	Prior approval under Forest (Conservation) Act, 1980 for diversion of forest land should be taken. No physical work will be initiated without forest clearance for this project.	Complied. 1. Approval for diversion of Forest Land was accorded by MoEF on dated 26-Oct-2013. 2. Govt. of Himachal Pradesh (GoHP) accorded diversion of Forest land on dated 28-Jan-2013. 3. Project is under construction.
iii	In all there are 288 project affected families (PAFs) whose land is likely to be acquired permanently and 2 PAFs who will lose land as well as house. The rehabilitation & resettlement of project affected person should be completed before commissioning of the project.	i) The R & R Plan of GBHHPPL has been notified in the gazette of Govt. of HP on 26th Feb. 2016. And finalisation of PAFs is under process at GoHP. ii) 93 vulnerable families are covered under Annuity Plan - Pension Scheme. iii) Two fully affected families (PAFs) have been provided their full compensation and settled as per R&R Plan.

Attn: Secy

Bajoli-Holi HEP (180MW) - Half yearly status report Dec, 2016 to May - 2017

S No	A. Specific Conditions	Compliance status
iv	<p>The following commitments made during the public hearing should be fulfilled: a) Appointment of two numbers of MD doctors and one of them shall be lady doctor. Both these doctors are to be on the pay rolls of the company. b) Training of the 120 Nos of local youths for the ITI course. c) Strengthening of the existing Holi-Nayagram road, once the same is handed over to GMR after necessary clearance.</p>	<p>a) One MBBS doctor along with three paramedical staff (one female GNM nurse, one pharmacist and one Lab technician) has been appointed at site since 15-Aug-2013.</p> <p>No Gynaecologist responded to advertisement which has been published in newspaper from time to time. Matter is still under discussion.</p> <p>(b) Company is committed to provide assistance to locals who will successfully enrol into ITI Course. Till date, 7 no. local is selected for the ITI course. In addition to that we have provided the training programme for 22 no. of local youth in the field of Electrician, Basic Computer, cargo Management and Baggage Screening through Centre for Empowerment and livelihood at Delhi. And in the field of higher education we are providing the financial assistance as fees etc. to 19 no. of drop out girls through IGNOU, also providing the assistance for Jawahar Navodaya Vidyalaya admission for 6th standard through coaching programme in three school of Project affected Panchayat.</p> <p>c) To strengthen the Holi-Nayagram road total 61 no. of retaining wall which covers 1337m, 04 no. of Breast wall covering 160m, 552 running meter Metal crash barrier, 300 no. parapets has been constructed and slip removal in whole length to widen the road has been also completed. Total expenditure for these works is Rs. 401.37 Lakh. In addition Rs. 92.46 Lacs have been deposited to PWD for road strengthening work.</p>
v	<p>Environment flow should be 20% of the average lean season flow of 90% dependable year for four consecutive leanest months.</p>	<p>Noted and Will be complied at operation phase.</p>

Handwritten signature

Bajoli-Holi HEP (180MW) - Half yearly status report Dec., 2016 to May - 2017

S No	A. Specific Conditions	Compliance status
vi	Biodiversity Conservation & Management plan as proposed in the EMP should be implemented in totality. From the study area 272 flowering plant species were recorded which include 28 trees, 48 shrubs, 10 climbers and 186 herbs. However listing of bryophytes/ Pteridophytes has not been done. this may be done and submitted within three months.	Discussion with Forest Dept. GoHP is under way to implement the Biodiversity Conservation & Management Plan. List of Bryophytes/ Pteridophytes are provided to MoEF vide our letter dt 13-Jan-11.
vii	Fishery conservation & Management plan as proposed in the EMP should be undertaken in consultation with the Fisheries department, Government of Himachal Pradesh. The up gradation of existing facilities of fish farm at Holi in Chamba district should also be done meet the demand of fish seeds.	Implementation is being done by fishery department, GoHP. Required Fishery development fund as demanded by fishery department has been submitted on 27-Sept-11 and final instalment on 10-Mar 2014. NOC is also issued by Fishery dept, GoHP on 22-May 2014.
viii	All the equipments which are likely to generate high noise levels are to be fully mollified (noise reduction measures.)	Equipments used in project construction are complying with the noise levels.
ix	Consolidation and compaction of the muck should be carried-out in the muck dumping sites and the dumping sites should be above high flood level. The proposed plan envisages generation of total volume of Muck as 21.64 lakh cum (including 40% swell factor). Out of which about 9.32 lacs cum of muck will be utilized as construction material for various project components and 12.32 lacs cum of muck will be disposed off at pre designated seven number of disposal sites.	Muck is disposed off in pre designated sites which are approved by SPCB, GoHP only. Monthly Muck generation, utilisation and disposal status on these site is regularly submitted to SPCB, GoHP.
x	Green belt development is proposed around project areas, reservoir periphery (12.00 Ha) road side (13.8km) and other components. The average width of green belt around reservoir rim will be around 40 m varying from about 15 m at places to 120 m or as physiographic and land feature allow. The allocated amount of Rs 9.28 lakhs for green belt development should strictly be used for the purpose.	1400 plantation in GMR colony complex and 2200 Plantation in reservoir periphery has been completed. Consultation with Forest Deptt. Is underway to cover whole reservoir periphery.

Approved

Bajoli-Holi HEP (180MW) - Half yearly status report Dec., 2016 to May - 2017

S No		Compliance status	
A. Specific Conditions			
S No	xi	The environment clearance does not necessarily imply that forestry clearance shall be granted to the project and that the proposal for the forestry clearance shall be considered by respective authorities on their merit. The investment made in the project, if any based on environment clearance so granted, shall be entirely at cost and risk of the project proponent.	Forest Clearance already granted and Project is under construction.
B. General Conditions		Compliance status	
i	Adequate free fuel arrangement should be made for the labour force engaged in the construction work at project cost so that indiscriminate felling of trees is prevented.	Community kitchen facility is provided by Contractor which is factored in the Project cost under resource Conservation Measures.	
ii	Fuel depot may be opened at the site to provide the fuel (kerosene/wood/LPG). Medical facilities as well recreational facilities should also be provided to the labourers.	Only LPG cylinder is being used for cooking etc. Pre joining medical health check-up to all worker is being done at site, in addition occupational health check-up is being done on routine basis covering to all workers.	
iii	All the labourers to be engaged for construction works should be thoroughly examined by health personal and adequately treated before issuing them work permit.	Pre joining medical health check-up to all worker is being done at site	
iv	Restoration of construction area including dumping site of excavated materials should be ensured by leveling, filling up of burrow pits, landscaping etc. The area should be properly treated with suitable plantation.	Noted. Will be complied as per the guidance of SPCB, GoHP and Forest Department, GoHP.	
v	Financial provision should be made in the total budget of the project for implementation of the above suggested safeguard measures.	Noted. Adequate provision is provided in Project cost under Environment & Ecology Cost.	
vi	Six monthly monitoring reports should be submitted to the Ministry and its Regional Office, Dehradun for review.	Noted and regularly submitting the same	

Bajoli-Holi

Bajoli-Holi HEP (180MW) - Half yearly status report Dec., 2016 to May - 2017

S No	A. Specific Conditions	Compliance status
vii	Officials from regional office MoEF, Dehradun who would be monitoring the implementation of environmental safeguards should be given full cooperation, facility and documents / data by the project proponents during their inspection.	Noted and Full cooperation will be accorded. Last visit was taken in Sep 2013 and all data available with the project proponent has been provided. Full cooperation will be extended for future visits.
5	The responsibility of implementation of environmental safeguards rests fully with the M/s GMR Bajoli Holi Hydro Power Pvt. Ltd & Government of Himachal Pradesh.	Noted. and It is implemented
6	The total amount of Rs. 15603.28 Lakhs kept in the budgetary provisions for implementation of environmental management plan should be strictly adhered and not to be diverted for any other purpose.	Noted. Up to 31 May - 2017, we have utilized approximately an amount of Rs. 10306.24 Lakhs towards environment & ecology.
7	In case of change in the scope of the project, project would require a fresh appraisal.	Noted. There is no change in the scope of the project.
8	The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary and to take action including revoking of the clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measure in a time bound and satisfactory manner.	Noted.
9	This clearance letter is valid for a period of 10 years from the date of issue of this letter for commencement of construction work.	Complied and Construction in the project area already commenced from 29-May-2013.
10	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/Municipal corporation, Urban local body and the local NGO, if any, from whom suggestions/representation, if any, were received while processing the proposal. The clearance letter shall also be on the website of the company by the proponent.	Complied. Notification is mentioned on company web site and copy of the letters are provided to local panchayats and other Govt Depts.

H. Jordan

Bajoli-Holi HEP (180MW) - Half yearly status report Dec., 2016 to May - 2017		
S No	A. Specific Conditions	Compliance status
11	The proponent should advertise at least in two local newspaper widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned informing that the project has been accorded environmental clearance and copies of clearance letter are available with the state Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forest at http://www.envfor.nic.in	Complied. Advertisement in the newspaper was published on 10th June 2011 in Divya Himachal, Dainik Tribune for (Local newspaper in Vernacular, (Hindi)). Along with in English News paper Tribune and Himachal Times which have wide circulation in the project area. Copy of the advertisement was already provided to your office vide letter dt 7-7-2011.
12	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC condition including result of monitored data (both in hard copies as well as by e-mail) to the respective Regional office of MoEF, the respective office of CPCB and the SPCB.	Noted and submitting the same regularly. The monitoring report of Ambient Air Quality, River Water Quality, Ground Water Quality and Noise Level at different locations of Project is also being submitted through Mail.

Pradeep



Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/AA/0165

F/5.10.01.A
Date: 03.05.2017
Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017
Sample Description	Ambient Air
Sample Identification/Code	010517-A-08(n)
Sampling Location	DAM Area
Date of Sampling	28.04.2017
Sampling Team	Mr. Ashok & Team
Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP
Date of Start of Analysis	01.05.2017
Mode of Receipt of Sample	Sampled by SSWML
Date of Completion of Analysis	02.05.2017
Quantity Packing, Markings, Seal: Received in plastic bottles & plastic case.	

Sampling Details:

1. Actual duration of sampling (minutes)	427	3. Ambient air Temperature (°C)	16
2. Total Volume Sampled of PM10 (cubic meter)	550.83	4. General Environmental Condition	Clear Sky

Sr. No.	Parameters	Unit	Result	Standard Limits (NAAQS)	Method Reference
1	Particulate Matter, PM(2.5)	µg/m ³	39	60	CPCB Guidelines, Gravimetric Method, 2011
2	Particulate Matter, PM(10)	µg/m ³	60	100	IS:5182 (Part-23) 2006
3	Nitrogen Oxides as NO ₂	µg/m ³	21	80	IS: 5182 (P:VI)
4	Sulphur Dioxide as SO ₂	µg/m ³	9	80	IS: 5182 (P:II)
5	Carbon Monoxide	mg/m ³	ND (DL=1)	4	CO Analyzer

Remarks: - Where, ND is Not Detected, DL is Detection Limit.

Terms and conditions governing the test report issued

1. The test report shall not be reproduced in full or part without the written approval of the SSWML Laboratory.
2. The test report in full or part shall not be used for promotional or publicity purpose without the written consent of SSWML Laboratory

For Shivalik Solid Waste Management Ltd.

Sanjeev Kumar
Analysed By
SANJEEV KUMAR

Sanjeev Kumar
Authorized Signatory
SANJEEV KUMAR





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/AA/0166

F/5.10.01.A
Date: 03.05.2017
Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326			
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017		Sample Identification/Code	010517-A-09(n)
Sample Description	Ambient Air			
Sampling Location	Adit-2	Date of Sampling	28.04.2017	
Sampling Team	Mr. Ashok &Team	Date of Receipt of Sample	01.05.2017	
Sampling Protocol	Lab SOP	Date of Start of Analysis	01.05.2017	
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	02.05.2017	
Quantity Packing, Markings, Seal: Received in plastic bottles & plastic case.				

Sampling Details:

1. Actual duration of sampling (minutes)	477	3. Ambient air Temperature (°C)	16
2. Total Volume Sampled of PM10 (cubic meter)	618.67	4. General Environmental Condition	Clear Sky

Sr. No.	Parameters	Unit	Result	Standard Limits (NAAQS)	Method Reference
1	Particulate Matter, PM(2.5)	µg/m ³	31	60	CPCB Guidelines, Gravimetric Method, 2011
2	Particulate Matter, PM(10)	µg/m ³	58	100	IS:5182 (Part-23) 2006
3	Nitrogen Oxides as NO ₂	µg/m ³	17	80	IS: 5182 (P:VI)
4	Sulphur Dioxide as SO ₂	µg/m ³	6	80	IS: 5182 (P:II)
5	Carbon Monoxide	mg/m ³	ND (DL=1)	4	CO Analyzer

Remarks: - Where, ND is Not Detected, DL is Detection Limit.

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For Shivalik Solid Waste Management Ltd.


Analysed By
SANJEEV KUMAR


Authorized Signatory
SANJEEV KUMAR





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/AA/0158

F/5.10.01.A
Date: 03.05.2017
Page: 1 of 1

Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
□M/s GMR Bajoli Holi	P.O. No.- 4800136418 dtd:		
Work Order Ref.	20.04.2017	Sample Identification/Code	010517-A-01(n)
Sample Description	Ambient Air		
Sampling Location	GMR Colony	Date of Sampling	27.04.2017
Sampling Team	Mr. Ashok &Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	01.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	02.05.2017
Quantity Packing, Markings, Seal: Received in plastic bottles & plastic case.			

Sampling Details:

1. Actual duration of sampling (minutes)	440	3. Ambient air Temperature (°C)	18
2. Total Volume Sampled of PM10 (cubic meter)	572	4. General Environmental Condition	Clear Sky

Sr. No.	Parameters	Unit	Result	Standard Limits (NAAQS)	Method Reference
1	Particulate Matter, PM(2.5)	µg/m ³	19	60	CPCB Guidelines, Gravimetric Method, 2011
2	Particulate Matter, PM(10)	µg/m ³	90	100	IS:5182 (Part-23) 2006
3	Nitrogen Oxides as NO ₂	µg/m ³	19	80	IS: 5182 (P:VI)
4	Sulphur Dioxide as SO ₂	µg/m ³	8	80	IS: 5182 (P:II)
5	Carbon Monoxide	mg/m ³	ND (DL=1)	4	CO Analyzer

Remarks: - Where, ND is Not Detected, DL is Detection Limit.

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For Shivalik Solid Waste Management Ltd.

Sanjeev Kumar
Analysed By
SANJEEV KUMAR

Sanjeev Kumar
Authorized Signatory
SANJEEV KUMAR





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/AA/0161

F/5.10.01.A
Date: 03.05.2017
Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326 P.O. No.- 4800136418 dtd: 20.04.2017		
Work Order Ref.	20.04.2017	Sample Identification/Code	010517-A-04(n)
Sample Description	Ambient Air	Date of Sampling	27.04.2017
Sampling Location	Power House	Date of Receipt of Sample	01.05.2017
Sampling Team	Mr. Ashok & Team	Date of Start of Analysis	01.05.2017
Sampling Protocol	Lab SOP	Date of Completion of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML		
Quantity Packing, Markings, Seal: Received in plastic bottles & plastic case.			

Sampling Details:

1. Actual duration of sampling (minutes)	423	3. Ambient air Temperature (°C)	18
2. Total Volume Sampled of PM10 (cubic meter)	549.9	4. General Environmental Condition	Clear Sky

Sr. No.	Parameters	Unit	Result	Standard Limits (NAAQS)	Method Reference
1	Particulate Matter, PM(2.5)	µg/m ³	26	60	CPCB Guidelines, Gravimetric Method, 2011
2	Particulate Matter, PM(10)	µg/m ³	50	100	IS:5182 (Part-23) 2006
3	Nitrogen Oxides as NO ₂	µg/m ³	17	80	IS: 5182 (P:VI)
4	Sulphur Dioxide as SO ₂	µg/m ³	8	80	IS: 5182 (P:II)
5	Carbon Monoxide	mg/m ³	ND (DL=1)	4	CO Analyzer

Remarks: - Where, ND is Not Detected, DL is Detection Limit.

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For Shivalik Solid Waste Management Ltd.

Sanjeev Kumar
Analysed By
SANJEEV KUMAR

Sanjeev Kumar
Authorized Signatory
SANJEEV KUMAR





ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Himachal State Pollution Control Board, Dharamshala
Him Agrico Building, Jachh
Dharamshala, Distt. Kangra
Dharamshala-176215
Tele:01893226368

Sample ID:46482 - Analysis Completion:19/05/2017

Power generation plant [except Wind and Solar
renewable power plants of all capacities and Mini Hydel
power plant of capacity <25MW] / LAB Inward : 6191

TEST REPORT

Test Report No. : 6191

Date: 19/05/2017

1. Name of the Customer : Bajoli Holi Hydro Electric Project (180) - 20309
2. Address : -,GMR Bajoli Holi Hydro Power Pvt. Ltd.,Kartik House, PO-Holi, Tehsil Bharmour, D
Holi-176309, Taluka : Bharmour, District : Chamba, GIDC : Not in Any SIDC
3. Nature of Sample : WAT-Water Act(Legal), (Insp Type : ROU-Routine Visit)
4. Sample Collected By : Parveen Kumar Dhiman,JEE
5. Quantity of Sample Received :
6. Code No. of the Sample : 46482
7. Date & Time of Collection & Inwarding : 04/05/2017 , (1100 to 1100) & 05/05/2017
8. Date of Start & Completion of Analysis : 05/05/2017 & 19/05/2017
9. Sampling Point : Bore Well Near GMR Colony ~
10. Flow Details (Remarks) : Bore well
11. Mode of Disposal : Bore well
12. Ultimate Receiving Body : ravi
13. Temperature on Collection : ---- & pH Range on pH Strip :6-8
14. Carboys Nos for : (3) & Color & Appearance :Colourless
15. Water Consumption & W.W.G (KLPD) : Ind :6000.000 , Dom :5.250 & Ind :0.000 , Dom :4.280

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Suspended Solids	-	-	-	3.0 mg/l
2	Chloride	-	-	-	8.52 mg/l
3	COD	-	-	-	12.0 mg/l
4	Iron	-	-	-	0.59 mg/l
5	pH	-	-	-	7.87

Laboratory Remarks : EMP Project Sample. By:22-lab_22 Dt.: 19/05/2017

Dr. Ramakant Awasthi,SO

Field Observation : bore well sample

Note :

1. * - These parameters are covered under the scope of NABL.
2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Himachal Pradesh Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents



ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Himachal State Pollution Control Board, Dharamshala
Him Agrico Building, Jachh
Dharamshala, Distt. Kangra
Dharamshala-176215
Tele:01893226368

Sample ID:46483 - Analysis Completion:19/05/2017

Power generation plant [except Wind and Solar
renewable power plants of all capacities and Mini Hydel
power plant of capacity <25MW] / LAB Inward : 6192

TEST REPORT

Test Report No. : 6192

Date: 19/05/2017

1. Name of the Customer : Bajoli Holi Hydro Electric Project (180) - 20309
2. Address : -,GMR Bajoli Holi Hydro Power Pvt. Ltd.,Kartik House, PO-Holi, Tehsil Bharmour, D
Holi-176309, Taluka : Bharmour, District : Chamba, GIDC : Not in Any SIDC
3. Nature of Sample : WAT-Water Act(Legal), (Insp Type : ROU-Routine Visit)
4. Sample Collected By : Parveen Kumar Dhiman,JEE
5. Quantity of Sample Received :
6. Code No. of the Sample : 46483
7. Date & Time of Collection & Inwarding : 04/05/2017 , (1200 to 1200) & 05/05/2017
8. Date of Start & Completion of Analysis : 05/05/2017 & 19/05/2017
9. Sampling Point : Bore Well Power House Site GMR ~
10. Flow Details (Remarks) : Bore well
11. Mode of Disposal : Bore well
12. Ultimate Receiving Body : ravi
13. Temperature on Collection : ---- & pH Range on pH Strip :6-8
14. Carboys Nos for : (4) & Color & Appearance :Colourless
15. Water Consumption & W.W.G (KLPD) : Ind :6000.000 , Dom :5.250 & Ind :0.000 , Dom :4.280

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Suspended Solids	-	-	-	4.0 mg/l
2	Chloride	-	-	-	9.94 mg/l
3	COD	-	-	-	12.0 mg/l
4	Iron	-	-	-	ND
5	pH	-	-	-	7.88

Laboratory Remarks : EMP Project Sample. By:22-lab_22 Dt.: 19/05/2017

Dr. Ramakant Awasthi,SO

Field Observation : bore well sample

Note :

1. * - These parameters are covered under the scope of NABL.
2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
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7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents



Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/GW/0206

F/5.10.01

Date: 06.05.2017

Page: 1 of 2

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326	Sample Identification/Code	010517-W-15(n)
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017	Date of Sampling	28.04.2017
Sample Description	Ground Water	Date of Receipt of Sample	01.05.2017
Sampling Location	DAM Site	Date of Start of Analysis	01.05.2017
Sampling Team	Mr. Ashok & Team	Date of Completion of Analysis	05.05.2017
Sampling Protocol	Lab SOP		
Mode of Receipt of Sample	Sampled by SSWML		

Quantity Packing, Markings , Seal : 5 L, Received in plastic bottles

Sr. No.	Parameters	Unit	Result	Standard Limits IS :10500		Method Reference
				Desirable Limit	Permissible Limit (In the absence of alternate Source)	
1	pH Value	----	7.96	6.5-8.5	No Relaxation	APHA _{22nd Ed.} 4500H+-B
2	Chloride as Cl ⁻¹	mg/L	12.8	250	1000	APHA _{22nd Ed.} 4500Cl-B
3	Total Dissolve Solids	mg/L	166	500	2000	APHA _{22nd Ed.} 2540-C
4	Total hardness as CaCO ₃	mg/L	164	200	600	APHA _{22nd Ed.} 2340-C
5	Alkalinity	mg/L	97	200	600	APHA _{22nd Ed.} 2320-B
6	Sulphate as SO ₄ ²⁻	mg/L	27.7	200	400	IS:3025(Part-24)
7	Total Suspended Solids	mg/L	ND(DL=5)	----	----	APHA _{22nd Ed.} 2540-D
8	Color	Hazen	1	5	15	IS:3025(Part-4)
9	Odour	Agreeable	Agreeable	Agreeable	Agreeable	IS:3025(Part-5)
10	Turbidity	NTU	0.01	1	5	IS:3025(Part-10)
11	Calcium as Ca	mg/L	40.2	75	200	APHA _{22nd Ed.} 3500 Ca B
12	Magnesium as Mg	mg/L	15.5	30	100	APHA _{22nd Ed.} 3500 Mg B
13	Fluoride	mg/L	ND(DL=0.1)	1.0	1.5	APHA _{22nd Ed.} 4500-F- D
14	Nitrate	mg/L	1.3	45	No Relaxation	APHA _{22nd Ed.} 4500-NO ³⁻ B
15	Conductivity	μS/cm	274	----	----	APHA _{22nd Ed.} 2510 B
16	Iron	mg/L	ND(DL=0.1)	0.3	No Relaxation	APHA _{22nd Ed.} 3111 B

Remarks: Standard Limits as per drinking water specification, IS 10500 (2012)


Where, ND is Not Detected, DL is Detection Limit

Terms and conditions governing the test report issued

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For Shivalik Solid Waste Management Ltd.


Analysed By
ANSHUL SHARMA


Authorized Signatory
SANJEEV KUMAR





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/GW/0207

F/5.10.01

Date: 06.05.2017

Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017		
Sample Description	Ground Water	Sample Identification/Code	010517-B-16(n)
Sampling Location	DAM Site	Date of Sampling	28.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	06.05.2017
Quantity Packing, Markings , Seal : 100 mL, Received in Sterilize glass bottle			

Sr. No.	Parameters	Unit	Result	Standard Limits IS:10500:2012		Method Reference
				Desirable Limits	Permissible Limits (In the absence of alternate Source)	
1	Total Coliform	MPN/100 mL	< 1.8	Shall not be detectable in any 100ml sample	----	APHA 9221 B

Remarks:

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For Shivalik Solid Waste Management Ltd.

Analysed By

ARTI CHAUHAN

Authorized Signatory

SUNIL KATOCH





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/GW/0212

F/5.10.01
Date: 06.05.2017

Page: 1 of 2

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326	Sample Identification/Code	010517-W-21(n)
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017	Date of Sampling	29.04.2017
Sample Description	Ground Water	Date of Receipt of Sample	01.05.2017
Sampling Location	GMR Colony	Date of Start of Analysis	01.05.2017
Sampling Team	Mr. Ashok & Team	Date of Completion of Analysis	05.05.2017
Sampling Protocol	Lab SOP		
Mode of Receipt of Sample	Sampled by SSWML		
Quantity Packing, Markings , Seal : 5 L, Received in plastic bottles			

Sr. No.	Parameters	Unit	Result	Standard Limits IS :10500		Method Reference
				Desirable Limit	Permissible Limit (In the absence of alternate Source)	
1	pH Value	----	8.01	6.5-8.5	No Relaxation	APHA _{22nd Ed} 4500H+-B
2	Chloride as Cl ⁻¹	mg/L	ND(DL=5)	250	1000	APHA _{22nd Ed} 4500Cl-B
3	Total Dissolve Solids	mg/L	138	500	2000	APHA _{22nd Ed} 2540-C
4	Total hardness as CaCO ₃	mg/L	125	200	600	APHA _{22nd Ed} 2340-C
5	Alkalinity	mg/L	75	200	600	APHA _{22nd Ed} 2320-B
6	Sulphate as SO ₄ ²⁻	mg/L	21.6	200	400	IS:3025(Part-24)
7	Total Suspended Solids	mg/L	ND(DL=5)	----	----	APHA _{22nd Ed} 2540-D
8	Color	Hazen	1	5	15	IS:3025(Part-4)
9	Odour	Agreeable	Agreeable	Agreeable	Agreeable	IS:3025(Part-5)
10	Turbidity	NTU	0.02	1	5	IS:3025(Part-10)
11	Calcium as Ca	mg/L	24.5	75	200	APHA _{22nd Ed} 3500 Ca B
12	Magnesium as Mg	mg/L	15.5	30	100	APHA _{22nd Ed} 3500 Mg B
13	Fluoride	mg/L	ND(DL=0.1)	1.0	1.5	APHA _{22nd Ed} 4500-F- D
14	Nitrate	mg/L	ND(DL=0.5)	45	No Relaxation	APHA _{22nd Ed} 4500-NO ³⁻ B
15	Conductivity	µS/cm	176	----	----	APHA _{22nd Ed} 2510 B
16	Iron	mg/L	ND(DL=0.1)	0.3	No Relaxation	APHA _{22nd Ed} 3111 B

Remarks: Standard Limits as per drinking water specification, IS 10500 (2012)

Where, ND is Not Detected, DL is Detection Limit

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For Shivalik Solid Waste Management Ltd.


Analysed By
ANSHUL SHARMA


Authorized Signatory
SANJEEV KUMAR





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/GW/0213

F/5.10.01

Date: 06.05.2017

Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017		
Sample Description	Ground Water	Sample Identification/Code	010517-B-22 (n)
Sampling Location	GMR Colony	Date of Sampling	29.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	06.05.2017
Quantity Packing, Markings , Seal : 100 mL, Received in Sterilize glass bottle			

Sr. No.	Parameters	Unit	Result	Standard Limits IS:10500:2012		Method Reference
				Desirable Limits	Permissible Limits (In the absence of alternate Source)	
1	Total Coliform	MPN/100 mL	< 1.8	Shall not be detectable in any 100ml sample	----	APHA 9221 B

Remarks:

Terms and conditions governing the test report issued

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For Shivalik Solid Waste Management Ltd.


Analysed By

ARTI CHAUHAN


Authorized Signatory
SUNIL KATOCH



Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

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CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/GW/0214

F/5.10.01

Date: 06.05.2017

Page: 1 of 2

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017		
Sample Description	Ground Water	Sample Identification/Code	010517-W-25(n)
Sampling Location	Power House	Date of Sampling	29.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	01.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	05.05.2017
Quantity Packing, Markings , Seal : 5 L, Received in plastic bottles			

Sr. No.	Parameters	Unit	Result	Standard Limits IS :10500		Method Reference
				Desirable Limit	Permissible Limit (In the absence of alternate Source)	
1	pH Value	----	7.46	6.5-8.5	No Relaxation	APHA _{22nd Ed.} 4500H+-B
2	Chloride as Cl ⁻¹	mg/L	ND(DL=5)	250	1000	APHA _{22nd Ed.} 4500Cl-B
3	Total Dissolve Solids	mg/L	126	500	2000	APHA _{22nd Ed.} 2540-C
4	Total hardness as CaCO ₃	mg/L	139	200	600	APHA _{22nd Ed.} 2340-C
5	Alkalinity	mg/L	88	200	600	APHA _{22nd Ed.} 2320-B
6	Sulphate as SO ₄ ²⁻	mg/L	24.2	200	400	IS:3025(Part-24)
7	Total Suspended Solids	mg/L	ND(DL=5)	----	----	APHA _{22nd Ed.} 2540-D
8	Color	Hazen	1	5	15	IS:3025(Part-4)
9	Odour	Agreeable	Agreeable	Agreeable	Agreeable	IS:3025(Part-5)
10	Turbidity	NTU	0.02	1	5	IS:3025(Part-10)
11	Calcium as Ca	mg/L	34.3	75	200	APHA _{22nd Ed.} 3500 Ca B
12	Magnesium as Mg	mg/L	13.0	30	100	APHA _{22nd Ed.} 3500 Mg B
13	Fluoride	mg/L	ND(DL=0.1)	1.0	1.5	APHA _{22nd Ed.} 4500-F- D
14	Nitrate	mg/L	1.0	45	No Relaxation	APHA _{22nd Ed.} 4500-NO ³⁻ B
15	Conductivity	μS/cm	258	----	----	APHA _{22nd Ed.} 2510 B
16	Iron	mg/L	ND(DL=0.1)	0.3	No Relaxation	APHA _{22nd Ed.} 3111 B

Remarks: Standard Limits as per drinking water specification, IS 10500 (2012)

Where, ND is Not Detected, DL is Detection Limit

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Analysed By

ANSHUL SHARMA

For Shivalik Solid Waste Management Ltd.

Authorized Signatory

SANJEEV KUMAR





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

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TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/GW/0215

F/5.10.01
Date: 06.05.2017
Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017		
Sample Description	Ground Water	Sample Identification/Code	010517-B-26 (n)
Sampling Location	Power House	Date of Sampling	29.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	06.05.2017
Quantity Packing, Markings , Seal : 100 mL, Received in Sterilize glass bottle			

Sr. No.	Parameters	Unit	Result	Standard Limits IS:10500:2012		Method Reference
				Desirable Limits	Permissible Limits (In the absence of alternate Source)	
1	Total Coliform	MPN/100 mL	< 1.8	Shall not be detectable in any 100ml sample	----	APHA 9221 B

Remarks:

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For Shivalik Solid Waste Management Ltd.


Analysed By
ARTI CHAUHAN


Authorized Signatory
SUNIL KATOCH





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
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TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/N/0168

F/5.10.01
Date: 03.05.2017
Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017	Sample Identification/Code	010517-N-11(n)
Sample Description	Ambient Noise		
Sampling Location	DAM Area	Date of Sampling	28.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	02.05.2017
Quantity Packing, Markings , Seal : ----			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Noise (Day Time)	dB (A)	51.4	75	IS:9989-1981(R-2001)

Remarks:

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For Shivalik Solid Waste Management Ltd.

(Signature)
Analysed By
SANJEEV KUMAR

(Signature)
Authorized Signatory
SANJEEV KUMAR





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/N/0171

F/5.10.01

Date: 03.05.2017

Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326 P.O. No.- 4800136418 dtd: 20.04.2017		
Work Order Ref.	Ambient Noise	Sample Identification/Code	010517-N-14(n)
Sample Description	DAM Crusher	Date of Sampling	28.04.2017
Sampling Location	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Team	Lab SOP	Date of Start of Analysis	02.05.2017
Sampling Protocol	Sampled by SSWML	Date of Completion of Analysis	02.05.2017
Mode of Receipt of Sample	Quantity Packing, Markings , Seal : ----		

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Noise (Day Time)	dB (A)	69.4	75	IS:9989-1981(R-2001)

Remarks:

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For Shivalik Solid Waste Management Ltd.

Sanjeev Kumar
Analysed By

SANJEEV KUMAR

Sanjeev Kumar
Authorized Signatory
SANJEEV KUMAR





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/N/0169

F/5.10.01
Date: 03.05.2017
Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326 P.O. No.- 4800136418 dtd:		
Work Order Ref.	20.04.2017	Sample Identification/Code	010517-N-12(n)
Sample Description	Ambient Noise		
Sampling Location	Adit-2	Date of Sampling	28.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	02.05.2017
Quantity Packing, Markings , Seal : ----			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Noise (Day Time)	dB (A)	58.0	75	IS:9989-1981(R-2001)

Remarks:

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For Shivalik Solid Waste Management Ltd.

Sanjeev Kumar
Analysed By
SANJEEV KUMAR

Sanjeev Kumar
Authorized Signatory
SANJEEV KUMAR





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

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TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/N/0170

F/5.10.01

Date: 03.05.2017

Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326 P.O. No.- 4800136418 dtd: 20.04.2017		
Work Order Ref.	Ambient Noise	Sample Identification/Code	010517-N-13(n)
Sample Description	Adit-3	Date of Sampling	28.04.2017
Sampling Location	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Team	Lab SOP	Date of Start of Analysis	02.05.2017
Sampling Protocol	Sampled by SSWML	Date of Completion of Analysis	02.05.2017
Mode of Receipt of Sample	Quantity Packing, Markings , Seal : ----		

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Noise (Day Time)	dB (A)	56.0	75	IS:9989-1981(R-2001)

Remarks:

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For Shivalik Solid Waste Management Ltd.

Sanjeev Kumar
Analysed By
SANJEEV KUMAR

Sanjeev Kumar
Authorized Signatory
SANJEEV KUMAR



Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/N/0159

F/5.10.01

Date: 03.05.2017

Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326 P.O. No.- 4800136418 dtd:		
Work Order Ref.	20.04.2017	Sample Identification/Code	010517-N-02(n)
Sample Description	Ambient Noise		
Sampling Location	GMR Colony	Date of Sampling	27.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	02.05.2017
Quantity Packing, Markings , Seal : ----			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Noise (Day Time)	dB (A)	58.3	75	IS:9989-1981(R-2001)

Remarks:

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For Shivalik Solid Waste Management Ltd.

Sanjeev Kumar
Analysed By
SANJEEV KUMAR

Sanjeev Kumar
Authorized Signatory
SANJEEV KUMAR





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

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TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/N/0164

F/5.10.01
Date: 03.05.2017
Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326 P.O. No.- 4800136418 dtd: 20.04.2017		
Work Order Ref.	Ambient Noise	Sample Identification/Code	010517-N-07(n)
Sample Description	Gammon Work Shop	Date of Sampling	27.04.2017
Sampling Location	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Team	Lab SOP	Date of Start of Analysis	02.05.2017
Sampling Protocol	Sampled by SSWML	Date of Completion of Analysis	02.05.2017
Mode of Receipt of Sample	Quantity Packing, Markings , Seal : ----		

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Noise (Day Time)	dB (A)	59.3	75	IS:9989-1981(R-2001)

Remarks:

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For Shivalik Solid Waste Management Ltd.


Analysed By
SANJEEV KUMAR


Authorized Signatory
SANJEEV KUMAR



Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/N/0174

F/5.10.01

Date: 03.05.2017

Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326 P.O. No.- 4800136418 dtd:		
Work Order Ref.	20.04.2017	Sample Identification/Code	010517-N-31(n)
Sample Description	Ambient Noise		
Sampling Location	Adit-4	Date of Sampling	29.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	02.05.2017
Quantity Packing, Markings , Seal : ----			


Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Noise (Day Time)	dB (A)	61.5	75	IS:9989-1981(R-2001)

Remarks:

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For Shivalik Solid Waste Management Ltd.


Analysed By
SUMAN LATA


Authorized Signatory
SANJEEV KUMAR





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Report No. : SSWML/LAB/17-18/EM/N/0175

F/5.10.01
Date: 03.05.2017
Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017	Sample Identification/Code	010517-N-32(n)
Sample Description	Ambient Noise		
Sampling Location	Adit-5	Date of Sampling	29.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	02.05.2017
Quantity Packing, Markings , Seal : ----			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Noise (Day Time)	dB (A)	56.0	75	IS:9989-1981(R-2001)

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For Shivalik Solid Waste Management Ltd.


Analysed By
SANJEEV KUMAR


Authorized Signatory
SANJEEV KUMAR



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Report No. : SSWML/LAB/17-18/EM/N/0163

F/5.10.01
Date: 03.05.2017
Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017	Sample Identification/Code	010517-N-06(n)
Sample Description	Ambient Noise		
Sampling Location	Kuleth Crusher	Date of Sampling	27.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	02.05.2017
Quantity Packing, Markings , Seal : ----			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Noise (Day Time)	dB (A)	52.9	75	IS:9989-1981(R-2001)

Remarks:

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For Shivalik Solid Waste Management Ltd.

Sanjeev Kumar
Analysed By

SANJEEV KUMAR

Sanjeev Kumar
Authorized Signatory
SANJEEV KUMAR





Shivalik Solid Waste Management Limited

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Report No. : SSWML/LAB/17-18/EM/N/0162

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Date: 03.05.2017
Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017	Sample Identification/Code	010517-N-05(n)
Sample Description	Ambient Noise		
Sampling Location	Power House	Date of Sampling	27.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	02.05.2017
Quantity Packing, Markings , Seal : ----			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Noise (Day Time)	dB (A)	59.6	75	IS:9989-1981(R-2001)

Remarks:

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For Shivalik Solid Waste Management Ltd.

Analysed By
SANJEEV KUMAR

Authorized Signatory
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Report No. : SSWML/LAB/17-18/EM/N/0176

F/5.10.01
Date: 03.05.2017
Page: 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017	Sample Identification/Code	010517-N-33(n)
Sample Description	Ambient Noise		
Sampling Location	Adit-6	Date of Sampling	29.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	02.05.2017
Quantity Packing, Markings , Seal : ----			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Noise (Day Time)	dB (A)	73.0	75	IS:9989-1981(R-2001)

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For Shivalik Solid Waste Management Ltd.


Analysed By
SANJEEV KUMAR


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Report No. : SSWML/LAB/17-18/EM/N/0177

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Date: 03.05.2017

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Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017	Sample Identification/Code	010517-N-34(n)
Sample Description	Ambient Noise		
Sampling Location	Sugar Shaft	Date of Sampling	29.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	02.05.2017
Quantity Packing, Markings , Seal : ----			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Noise (Day Time)	dB (A)	57.3	75	IS:9989-1981(R-2001)

Remarks:

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For Shivalik Solid Waste Management Ltd.


Analysed By
SANJEEV KUMAR


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SANJEEV KUMAR



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TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/SW/0208

F/5.10.01
Date: 06.05.2017
Page : 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017		
Sample Description	River Water	Sample Identification/Code	010517-W-17(n)
Sampling Location	DAM Upstream	Date of Sampling	28.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	01.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	05.05.2017
Quantity Packing, Markings , Seal : 5L, Received in plastic bottles			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	pH	---	7.68	----	APHA _{22nd Ed.} 4500H+-B
2	Total Suspended Solids	mg/L	ND(DL=5)	----	APHA _{22nd Ed.} 2540-D
3	Total Dissolved Solids	mg/L	82	----	APHA _{22nd Ed.} 2540-C
4	Chemical Oxygen Demand	mg/L	ND(DL= 4)	----	APHA _{22nd Ed.} 5220 B
5	Biochemical Oxygen Demand at 27 °C for 3 Days	mg/L	ND(DL= 5)	----	IS:3025 Part-44
6	Oil & Grease	mg/L	ND(DL=1.0)	----	APHA _{22nd Ed.} 5520 -B
7	Iron as Fe	mg/L	ND(DL=0.1)	----	APHA _{22nd Ed.} 3111-B
8	Color	Hazen	1	----	IS:3025(Part-4)
9	Odour	Agreeable	Agreeable	----	IS:3025(Part-5)
10	Turbidity	NTU	0.01	----	IS:3025(Part-10)

Remarks: -

Where, ND is Not Detected, DL is Detection Limit

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For Shivalik Solid Waste Management Ltd.


Analysed By
ANSHUL SHARMA


Authorized Signatory
SANJEEV KUMAR





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

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Report No. : SSWML/LAB/17-18/EM/SW/0209

F/5.10.01
Date: 06.05.2017
Page : 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017		
Sample Description	River Water	Sample Identification/Code	010517-B-18(n)
Sampling Location	DAM Upstream	Date of Sampling	28.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	06.05.2017
Quantity Packing, Markings , Seal : 100 mL, Received in Sterilize glass bottle			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Total Coliform	MPN/100 mL	< 1.8	----	APHA 9221 B

Remarks: -

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Analysed By
ARTI CHAUHAN

For Shivalik Solid Waste Management Ltd.


Authorized Signatory
SUNIL KATOCH





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

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TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/SW/0210

F/5.10.01

Date: 06.05.2017

Page : 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017		
Sample Description	River Water	Sample Identification/Code	010517-W-19(n)
Sampling Location	DAM Down Stream	Date of Sampling	28.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	01.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	05.05.2017
Quantity Packing, Markings , Seal : 5L, Received in plastic bottles			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	pH	---	7.99	----	APHA _{22nd Ed.} 4500H+-B
2	Total Suspended Solids	mg/L	ND(DL=5)	----	APHA _{22nd Ed.} 2540-D
3	Total Dissolved Solids	mg/L	74	----	APHA _{22nd Ed.} 2540-C
4	Chemical Oxygen Demand	mg/L	ND(DL= 4)	----	APHA _{22nd Ed.} 5220 B
5	Biochemical Oxygen Demand at 27 °C for 3 Days	mg/L	ND(DL= 5)	----	IS:3025 Part-44
6	Oil & Grease	mg/L	ND(DL=1.0)	----	APHA _{22nd Ed.} 5520 -B
7	Iron as Fe	mg/L	0.106	----	APHA _{22nd Ed.} 3111-B
8	Color	Hazen	1	----	IS:3025(Part-4)
9	Odour	Agreeable	Agreeable	----	IS:3025(Part-5)
10	Turbidity	NTU	0.01	----	IS:3025(Part-10)

Remarks: -

Where, ND is Not Detected, DL is Detection Limit

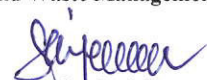
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Analysed By

ANSHUL SHARMA

For Shivalik Solid Waste Management Ltd.


Authorized Signatory
SANJEEV KUMAR



Shivalik Solid Waste Management Limited

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Report No. : SSWML/LAB/17-18/EM/SW/0211

F/5.10.01
Date: 06.05.2017
Page : 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., agd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017		
Sample Description	River Water	Sample Identification/Code	010517-B-20(n)
Sampling Location	DAM Down Stream	Date of Sampling	28.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	06.05.2017
Quantity Packing, Markings , Seal : 100 mL, Received in Sterilize glass bottle			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Total Coliform	MPN/100 mL	17	----	APHA 9221 B

Remarks: -

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Analysed By

ARTI CHAUHAN

For Shivalik Solid Waste Management Ltd.

Authorized Signatory

SUNIL KATOCH





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Report No. : SSWML/LAB/17-18/EM/SW/0216

F/5.10.01

Date: 06.05.2017

Page : 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017		
Sample Description	River Water	Sample Identification/Code	010517-W-27 (n)
Sampling Location	Upstream Power House	Date of Sampling	29.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	01.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	05.05.2017
Quantity Packing, Markings , Seal : 5L, Received in plastic bottles			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	pH	---	7.86		APHA _{22nd Ed.} 4500H+-B
2	Total Suspended Solids	mg/L	ND(DL=5)		APHA _{22nd Ed.} 2540-D
3	Total Dissolved Solids	mg/L	78		APHA _{22nd Ed.} 2540-C
4	Chemical Oxygen Demand	mg/L	ND(DL= 4)		APHA _{22nd Ed.} 5220 B
5	Biochemical Oxygen Demand at 27 °C for 3 Days	mg/L	ND(DL= 5)		IS:3025 Part-44
6	Oil & Grease	mg/L	ND(DL=1.0)		APHA _{22nd Ed.} 5520 -B
7	Iron as Fe	mg/L	ND(DL=0.1)		APHA _{22nd Ed.} 3111-B
8	Color	Hazen	1		IS:3025(Part-4)
9	Odour	Agreeable	Agreeable		IS:3025(Part-5)
10	Turbidity	NTU	0.01		IS:3025(Part-10)

Remarks: -

Where, ND is Not Detected, DL is Detection Limit

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Analysed By

ANSHUL SHARMA

For Shivalik Solid Waste Management Ltd.


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TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/SW/0217

F/5.10.01

Date: 06.05.2017

Page : 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017		
Sample Description	River Water	Sample Identification/Code	010517-B-28 (n)
Sampling Location	Upstream Power House	Date of Sampling	29.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	06.05.2017
Quantity Packing, Markings , Seal : 100 mL, Received in Sterilize glass bottle			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Total Coliform	MPN/100 mL	23	----	APHA 9221 B

Remarks: -

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Analysed By

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For Shivalik Solid Waste Management Ltd.


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Report No. : SSWML/LAB/17-18/EM/SW/0218

F/5.10.01
Date: 06.05.2017
Page : 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017		
Sample Description	River Water	Sample Identification/Code	010517-W-29 (n)
Sampling Location	Down Stream Power House	Date of Sampling	29.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	01.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	05.05.2017
Quantity Packing, Markings , Seal : 5L, Received in plastic bottles			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	pH	---	7.81		APHA _{22nd Ed.} 4500H+-B
2	Total Suspended Solids	mg/L	ND(DL=5)		APHA _{22nd Ed.} 2540-D
3	Total Dissolved Solids	mg/L	74		APHA _{22nd Ed.} 2540-C
4	Chemical Oxygen Demand	mg/L	ND(DL= 4)		APHA _{22nd Ed.} 5220 B
5	Biochemical Oxygen Demand at 27 °C for 3 Days	mg/L	ND(DL= 5)		IS:3025 Part-44
6	Oil & Grease	mg/L	ND(DL=1.0)		APHA _{22nd Ed.} 5520 -B
7	Iron as Fe	mg/L	ND(DL=0.1)		APHA _{22nd Ed.} 3111-B
8	Color	Hazen	1		IS:3025(Part-4)
9	Odour	Agreeable	Agreeable		IS:3025(Part-5)
10	Turbidity	NTU	0.01		IS:3025(Part-10)

Remarks: -


Where, ND is Not Detected, DL is Detection Limit

Terms and conditions governing the test report issued

1. The test report shall not be reproduced in full or part without the written approval of the SSWML Laboratory.
2. The test report in full or part shall not be used for promotional or publicity purpose without the written consent of SSWML Laboratory.

For Shivalik Solid Waste Management Ltd.


Analysed By
ANSHUL SHARMA


Authorized Signatory
SANJEEV KUMAR





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/SW/0219

F/5.10.01
Date: 06.05.2017
Page : 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd., Rgd Off.- Rattan Chand Building, VPO - Kuleth, Sub Tehsil- Holi, Tehsil- Barmour, Distt. Chamba (H.P.) -176326		
Work Order Ref.	P.O. No.- 4800136418 dtd: 20.04.2017		
Sample Description	River Water	Sample Identification/Code	010517-B-30 (n)
Sampling Location	Down Stream Power House	Date of Sampling	29.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	02.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	06.05.2017
Quantity Packing, Markings , Seal : 100 mL, Received in Sterilize glass bottle			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	Total Coliform	MPN/100 mL	70	----	APHA 9221 B

Remarks: -

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For Shivalik Solid Waste Management Ltd.


Analysed By
ARTI CHAUHAN


Authorized Signatory
SUNIL KATOCH



Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/WW/0178

F/5.10.01

Date: 04.05.2017

Page : 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd , Rgd Off.- Rattan Chand Building , VPO - Kuleth , Sub Tehsil- Holi, Tehsil- Barmour , Chamba (H.P.) -176326		
Work Order Ref.	P.O.No.-4800136418 dtd: 20.04.2017		
Sample Description	Waste Water	Sample Identification/Code	010517-E-01
Sampling Location	STP Outlet GMR	Date of Sampling	29.04.2017
Sampling Team	Mr. Ashok & Team	Date of Receipt of Sample	01.05.2017
Sampling Protocol	Lab SOP	Date of Start of Analysis	01.05.2017
Mode of Receipt of Sample	Sampled by SSWML	Date of Completion of Analysis	04.05.2017
Quantity Packing, Markings , Seal : 5 L, Received in plastic bottles			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	pH	---	7.56	5.5-9.5	APHA _{22nd Ed.} 4500H+-B
2	Total Suspended Solids	mg/L	5	100	APHA _{22nd Ed.} 2540-D
3	Total Dissolved Solids	mg/L	382	2100	APHA _{22nd Ed.} 2540-C
4	Chemical Oxygen Demand	mg/L	19	250	APHA _{22nd Ed.} 5220 B
5	Biochemical Oxygen Demand at 27 °C for 3 Days	mg/L	4	30	IS:3025 Part-44
6	Oil & Grease	mg/L	ND(DL=1.0)	10	APHA _{22nd Ed.} 5520 -B

Remarks: - Standard Limits* are General Standards* for Discharge of Environmental Pollutants on Inland Surface Water:

Where, ND is Not Detected, DL is Detection Limit

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For Shivalik Solid Waste Management Ltd.

Anshul Sharma
Analysed By
ANSHUL SHARMA

Sanjeev Kumar
Authorized Signatory
SANJEEV KUMAR





Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh – 174 101
CIN:U33130HP2005PLC028806 Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in

TEST CERTIFICATE

Report No. : SSWML/LAB/17-18/EM/WW/0179

F/5.10.01

Date: 04.05.2017

Page : 1 of 1

Name and Address of the Customer	M/s GMR Bajoli Holi Hydropower Pvt. Ltd , Rgd Off.- Rattan Chand Building , VPO - Kuleth , Sub Tehsil- Holi, Tehsil- Barmour , Chamba (H.P.) -176326		
Work Order Ref.	P.O.No.-4800136418 dtd: 20.04.2017	Sample Identification/Code	010517-E-02
Sample Description	Waste Water	Date of Sampling	29.04.2017
Sampling Location	STP Outlet Gammon	Date of Receipt of Sample	01.05.2017
Sampling Team	Mr. Ashok & Team	Date of Start of Analysis	01.05.2017
Sampling Protocol	Lab SOP	Date of Completion of Analysis	04.05.2017
Mode of Receipt of Sample	Sampled by SSWML		
Quantity Packing, Markings , Seal : 5 L, Received in plastic bottles			

Sr. No.	Parameters	Unit	Result	Standard Limits	Method Reference
1	pH	---	7.57	5.5-9.5	APHA _{22nd Ed.} 4500H+-B
2	Total Suspended Solids	mg/L	7	100	APHA _{22nd Ed.} 2540-D
3	Total Dissolved Solids	mg/L	162	2100	APHA _{22nd Ed.} 2540-C
4	Chemical Oxygen Demand	mg/L	15	250	APHA _{22nd Ed.} 5220 B
5	Biochemical Oxygen Demand at 27 °C for 3 Days	mg/L	4	30	IS:3025 Part-44
6	Oil & Grease	mg/L	ND(DL=1.0)	10	APHA _{22nd Ed.} 5520 -B

Remarks: - Standard Limits* are General Standards* for Discharge of Environmental Pollutants on Inland Surface Water.

Where, ND is Not Detected, DL is Detection Limit

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For Shivalik Solid Waste Management Ltd.


Analysed By
ANSHUL SHARMA


Authorized Signatory
SANJEEV KUMAR



ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Himachal State Pollution Control Board, Dharamshala
Him Agrico Building, Jachh
Dharamshala, Distt. Kangra
Dharamshala-176215
Tele:01893226368

Sample ID:46480 - Analysis Completion:19/05/2017

Power generation plant [except Wind and Solar
renewable power plants of all capacities and Mini Hydel
power plant of capacity <25MW] / LAB Inward : 6189

TEST REPORT

Test Report No. : 6189

Date: 19/05/2017

1. Name of the Customer : Bajoli Holi Hydro Electric Project (180) - 20309
2. Address : -,GMR Bajoli Holi Hydro Power Pvt. Ltd.,Kartik House, PO-Holi, Tehsil Bharmour, D
Holi-176309, Taluka : Bharmour, District : Chamba, GIDC : Not in Any SIDC
3. Nature of Sample : WAT-Water Act(Legal), (Insp Type : ROU-Routine Visit)
4. Sample Collected By : Parveen Kumar Dhiman,JEE
5. Quantity of Sample Received :
6. Code No. of the Sample : 46480
7. Date & Time of Collection & Inwarding : 04/05/2017 , (1000 to 1000) & 05/05/2017
8. Date of Start & Completion of Analysis : 05/05/2017 & 19/05/2017
9. Sampling Point : Sewage Treatment Plants ~ Final Outlet of STP (GMR Colony)
10. Flow Details (Remarks) : STP
11. Mode of Disposal : STP
12. Ultimate Receiving Body : ravi
13. Temperature on Collection : ---- & pH Range on pH Strip :6-8
14. Carboys Nos for : (1) & Color & Appearance :Colourless
15. Water Consumption & W.W.G (KLPD) : Ind :6000.000 , Dom :5.250 & Ind :0.000 , Dom :4.280

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Suspended Solids	-	-	-	4.0 mg/l
2	Biochemical Oxygen Demand (BOD)	-	-	-	3.0 mg/l
3	COD	-	-	-	24.0 mg/l
4	Oil and Grease	-	-	-	Nil
5	pH	-	-	-	7.56

Laboratory Remarks : EMP project sample. All the parameters are within limit. By:22-lab_22 Dt.:
19/05/2017

Dr. Ramakant Awasthi,SO

Field Observation : the stp was operative

Note :

1. * - These parameters are covered under the scope of NABL.
2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to
Himachal Pradesh Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents