



Chandigarh Pollution Control Committee

Paryavaran Bhawan, Madhya Marg, Sector 19-B, Chandigarh-160 019

CPCC/2020/ 5173

Dated: 31-08-2020

To

Ms. Divya Sinha
Additional Director & In-charge, UPC-II
Central Pollution Control Board,
Ministry of Environment, Forest and Climate Change,
Parivesh Bhawan, C.B.D. Cum-Office Complex
East Arjun Nagar, Shahdara,
Delhi - 110032.

Sub: Submission of Annual Report for the calendar year 2019 on implementation of "Solid Waste Management Rules, 2016" - regarding.

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This is in reference to the subject cited above.

In this regard, please find enclosed herewith the Annual Report in Form-IV as submitted by Municipal Corporation, Chandigarh and Form-V by Chandigarh Pollution Control Committee for the calendar year 2019 regarding implementation of Solid Waste Management Rules, 2016.


(Debendra Dalal, IFS)
Member Secretary

8 o/c

Form-V


Annual report to be submitted by the State Pollution Control Board or Pollution Control Committee to the Central Pollution Control Board

PART-A

To,

The Chairman
Central Pollution Control Board
Parivesh Bhawan, East Arjun Nagar,
Delhi – 1100032

1.	Name of the State/Union Territory	:	Chandigarh (U.T.)
2.	Name & address of the State Pollution Control	:	Chandigarh Pollution Control Committee, Paryavaran Bhawan, Ground Floor, Sector – 19B, Chandigarh
3.	Number of local bodies responsible for management of solid waste in the State/Union Territory under these rules	:	01, Municipal Corporation, Chandigarh
4.	No. of authorisation application received	:	01
5.	A Summary Statement on progress made by local body in respect of solid waste management	:	The Chandigarh Solid Waste Management Policy has been notified on 04.09.2018. The Municipal Corporation, Chandigarh has notified Solid Waste Management Bye-Laws on 18.03.2019. User charges are also incorporated in the Solid Waste Management Bye-Laws. Segregation of waste has started. State Level Advisory Board (SLAB) has been constituted by Municipal Corporation, Chandigarh.
6.	A Summary Statement on progress made by local bodies in respect of waste collection, segregation, transportation and disposal	:	The Municipal Corporation, Chandigarh has facilitated door to door collection system and is in all the 26 wards of Chandigarh and 1415 no. of waste pickers and door to door collectors have been incorporated for collection and segregation of municipal solid waste. 39 Nos. of Sehaj Safai Kendras (SSKs) have been constructed as secondary storage facilities of MSW in the city. Municipal Corporation is using dumpers, tractors, trolleys, tippers for transportation of MSW to the garbage processing plant set up by M/s Jai Prakash Associates where they process the municipal solid waste to produce Refuse Derived Fuel (RDF) and compost. The domestic hazardous waste shall be collected in separate bags and will be stored at the transfer stations and further be transported for incineration.
7.	A summary statement on progress made by local bodies in respect of implementation of Schedule-II	:	One RDF plant of 500 TPD capacity and one compost plant of 300 TPD capacity have been installed by M/s Jai Prakash Associates for processing of MSW. Waste collected from vegetable, fruit, flower, meat, poultry and fish market is treated in a bio- methanation plant of 5 TPD capacity. The Municipal Corporation, Chandigarh has also started windrow composting at dumping ground having capacity 250-300 TPD. In addition pit composting is in practice in 105 Nos. Gardens/ parks of the city.

		Also all the bulk waste generators are practicing onsite composting.
	Date: 28.08.20 Place: CHANDIGARH	 Member Secretary Chandigarh Pollution Control Committee

PART-B

Towns/Cities	
Total number of towns/cities	01
Total number of ULBs	01
Number of class I & class II cities/towns	01 Class - I
Authorisation status (names/number)	
Number of applications received	01
Number of authorisations granted	01
Authorisations under scrutiny	Nil
SOLID WASTE Generation status	
Solid waste generation in the state (TPD)	450 TPD
Collected	450 TPD
Treated	179.61 TPD
Landfilled	270.39 TPD
Compliance to Schedule I of SW Rules (Number/names of towns/capacity)	
Good practices in cities/towns	Yes
House to house collection	Yes 100%
Segregation	Yes 80%
Storage	Yes 100%
Covered transportation	Yes
Processing of SW (Number/names of towns/capacity)	Municipal Corporation transport MSW to the garbage processing plant set up by M/s Jai Prakash Associates where they process the municipal solid waste to produce Refuse Derived Fuel (RDF) and compost.

Solid Waste processing facilities setup:

Sr. No.	Composting	Vermi-composting	Biogas	RDF/Pelletisation
1	01	-	02	01

Processing facility operational:

Sr. No.	Composting	Vermi-composting	Biogas	RDF/Pelletisation
1	Compost plant of 300 TPD capacity has been installed by M/s Jai Prakash Associates.	-	3 MT Bio-methanation plant is working at slaughter house, Industrial Area Phase - 1. 5 MT capacity Bio-methanation plant has been established in Industrial Area Phase - 1.	Municipal Corporation transport MSW to the garbage processing plant set up by M/s Jai Prakash Associates where they process the municipal solid waste to produce Refuse Derived Fuel (RDF).

Processing facility under installation/planned:

Sr. No.	Composting	Vermi-composting	Biogas	RDF/Pelletisation
1	-	-	-	-

Waste-to Energy Plants: (Number/names of towns/capacity)

Sr. No.	Plant Location	Status of operation	Power generation (MW)	RDF/Pelletisation
1	M/s Jaiprakash Associates Ltd. (Greentech Fuel Processing Plant), Opp. Dumping ground, Dadumajra, Sector - 25 West, Chandigarh	Operational	RDF generated is utilised in their own Hot Air Generator and the rest is supplied to nearby industries	RDF production : 175 MT/day (Optimum), Approx. 60 MT/day (present production)

Disposal of solid waste (number/names of towns/capacity):

Landfill sites identified	01 (45 acres)
Landfill constructed	01 (25 acres)
Landfill under construction	-
Landfill in operation	01 (A sanitary landfill has been developed over an area of 8.28 acres of 25 acres which is now used for dumping)
Landfill exhausted	-
Landfill capped	01 (16.72 acres out of 25 acres)

Solid Waste Dumpsites (number/names of towns/capacity):

Total number of existing dumpsites	01
Dumpsites reclaimed/capped	01 (25 acres out of 45 acres)
Dumpsites converted to sanitary landfill	01 (8.28 acres of 25 acres)

Monitoring at Waste processing/Landfills sites:

Sr. No.	Name of facilities	Ambient air	Ground water	Leachate quality	Compost quality	VOCs
1.	Dumping/ Landfill site	Attached as Annexure A	Attached as Annexure A	Attached as Annexure A	-	-
2.	RDF plant	Attached as Annexure B	-	-	Attached as Annexure C	-

Status of Action Plan prepared by Municipalities:

Total number of municipalities:	01
Number of Action Plan submitted:	Already submitted

Email

cpcc-chd@nic.in



Submission of annual report of Solid Waste Management for the calendar year 2019.

From : sanitationbrmoh17@gmail.com

Thu, Aug 27, 2020 01:43 PM

Subject : Submission of annual report of Solid Waste Management for the calendar year 2019.

1 attachment

To : Chandigarh Pollution Control Committee <cpcc-chd@nic.in>

Please find enclosed annual report of Solid Waste Management for the calendar year 2019.

REGards:-

Sanitation Branch

O/o MOH, MCC.

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27/8
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 **Final annual report-2019.docx**
36 KB

Form-IV

[See rules
15(za),24(2)]

**Format for annual report on solid waste management to be submitted by the
local body**

CALENDAR YEAR	DATE OF SUBMISSION OF REPORT
2019	

1	Name of the City/Town and State	Chandigarh
2	Population	1055450 Lacs as per census 2011
3	Area in sq Kilometers	114 Sq. KM.
4	Name and Address of the local body Telephone No.	Commissioner, Municipal Corporation, Chandigarh, New Deluxe building, Sec-17-E, Chandigarh. Tel No: 0172-5021402
	Fax No.	Nil
5	Name of the officer incharge dealing with Solid Waste Management(SOLID WASTE)	Dr. Amrit Pal Singh Medical Officer of Health Municipal Corporation, Chandigarh.
	Phone No :	0172-2773340
	E-Mail	mohmcc-chd@nic.in
6	Number of House hold in the city/town Number of non-residential premises in the city	234033 (Census 2011 Urban)
	Number of election/administrative wards in the city/town	26 wards
7	Quantity of Solid waste (SOLID WASTE)	
	Estimated quantity of solid waste generated in the local body area per day in metric tonnes	450TPD
	Quantity of Solid waste collected per day	450 TPD
	Per capita waste collected per year	156Kg
	Quantity of solid waste processed	179.61TPD
	Quantity of solid wastes disposed at dumpsite/landfill	270.39 TPD
8	Status of Solid waste Management Service	
	Segregation and storage of waste at source	Yes
	Whether solid waste is stored at source in domestic/commercial/institutional bins, if yes,	Yes
	Percentage of households practice storage of waste at source in domestic bins	100%
	Percentage of non residential premises practice storage of waste at source in commercial/institutional bins	100%
	Percentage of house hold dispose of throw solid waste on the streets	0.5 to 1% (If any person found throwing Solid waste in the streets, his/her challan is issued)
	Percentage of non residential premises dispose or throw solid waste on the streets	
	Whether SOLID WASTE is stored at source in segregated form, if yes	Yes
	Percentage of premises segregating the waste at source	80%
	Door to door collection of solid waste	100%
	Whether door to door collection (D2D) is being done in the city/town	Yes
	If yes	By Informal door to door waste collector and they have been integrated with MCC.

Number of wards covered in D2D collection of waste	In all the 26 wards				
No. of households covered	234033 (Census 2011 Urban)				
No. of non residential premises including commercial establishments, hotels, restaurants, educational institutions/offices etc. covered	32186				
Percentage of residential and non residential premises covered in door to door collection through	100%				
Motorized vehicles	Nil				
Containerized tricycle/handcart	100%				
Other device	Nil				
If not, method of primary collection adopted	N.A.				
Sweeping of streets	Daily in Residential Area & Twice in Commercial Area.				
Length of roads, streets, lanes, bye lanes in the city that need to be cleaned	1994.84 Km				
Frequency of street sweeping percentage of population covered	Frequency	Daily	Alternate days	Twice a week	Occasional ly
	% of population covered	100 %	--	--	Service Lane Once in a week.
Tools used	Long handle Brooms, Scraper, Kassi, Panja, Cycle Cart, Dumper Placer, Trolleys, Tippers, Front Loaders etc.				
Manual sweeping	65%				
Mechanical sweeping	35% (Lions Services 179.84Km- linear length which cover)				
Whether long handle broom used by sanitation workers	Yes				
Whether each sanitation work is given handcart/tricycle for collection of waste	Yes/ Garbage bin with Tyre also provided.				
Whether handcart/tricycle is containerized	Yes (in respect of D2D Collectors)				
Whether the collection tool synchronizes with collection/waste storage containers utilized	Yes				
Secondary waste storage facilities					
No. and types of waste storage depots in the city/town	There are 39 Nos. SSKs in the city				
Open waste storage sites	Nil				
Masonry bins	Nil				
Cement concrete cylinder bins	Nil				
Dhalao/covered rooms/space	Nil				
Covered metals/plastic containers	470 Garbage Bin of 4.5 cubic metre				
Upto 1.1 m3 bins	Nil				
2 to 5 m3 bins	Nil				
Above 5 m3 containers	Nil				
Bin -less city	--				
Bin/population ratio	1:2245 (1055450/470=2245.63)				
Ward wise details of waste storage depots (attach)	39 Nos. SSKs under Municipal Corporation Chandigarh. (List attached)				
Ward No.					
Area:					
Population:					
Number of bins placed:	470 Garbage bin of 4.5 cubic metre				
Total Storage capacity of waste storage facilities in cubic meters	450-475				
Total waste actually stored at the waste storage depot daily	180 MT (Approx.)				
Give frequency of collection of waste from the depots	Frequency				No. of bins

Number of bins cleared	Daily	230
	Alternate Day	60
	Twice a week	10
	Once a week	-
	Occasionally	-
	In addition above, 22 Nos. Tractor Trolleys(O/o MOH), 10 Tractor Trolleys of Lions services Ltd also transported the garbage from various part of city and makes approx 190 trips per day.	
Whether storage depots have facility for storage of segregated waste in green, blue and black bins	Yes (Green and Blue)	
	(If yes, add details)	
	No. of green bins:	300
	No. of blue bins:	150
	No. of Black bins:	--
Whether lifting of solid waste from storage depots in manual or mechanical. Give percentage	Mostly Mechanical and partially Manual.	
(%) of Manual Lifting of solid	20%	
Waste (%) of Mechanical lifting	80%	
If mechanical-specify the method used	Each SSK have garbage bin and lifted through Hydrolic system and rest of garbage through loader.	
Whether solid waste is lifted from door to door and transported to treatment plant directly in a segregated form	Yes The door to door collectors collect solid waste from every house and transport to collection centre/point and thereafter waste is transported to treatment plant by dumper placer and Tractor Trolley.	
Waste transportation per day	450MTPD	
Type and Number of Vehicles used		
Animal Cart	--	
Tractors	32	
Non tipping Truck	--	
Tipping Truck	4 Nos. Large & 7 Nos. Small	
Dumper Placers	58	
Refuse Collectors/compactors	3	
Others	--	
JCB/Loader	2+4=6	
Frequency of transportation of waste	Frequency	(%) of waste transported
	Daily	100% MSW is transported on daily basis at dumping site.
	Alternate day	--
	Twice a week	--
	Once a week	--
	Occasionally	--
Quantity of waste transported each day	450 MTPD	
Percentage of total waste transported daily	100%	
Waste Treatment Technologies used	Waste to RDF & Waste to compost	
Whether solid waste processed daily/accepted	Yes	
If yes, Quantity of waste processed daily/accepted	179.61 TPD	
Whether treatment is done by local body or through an agency	By Outsourced agency i.e. M/s Jai Prakash Associates.	
Land(s) available with the local body for waste processing (in Hectares)	4.04 Hectare	
Land currently utilized for waste processing	Sector-25(West) Chandigarh	
Solid waste processing facilities in operation	RDF, Bio-methanation & Compost	
Solid waste processing facilities under construction	Nil	
Distance of processing facilities from	On the outskirts of Chandigarh near Village Dadu	

city/town boundary	Majra, Chandigarh.
Details of technologies adopted	The Jaypee plant authority are converting garbage into RDF and compost. The MC has also installed bio-methanation plant, Indl. Area, Phase-1, Chd having capacity of 5 TPD.
Composting	Qty. raw material processed :- 23282 MT
	Qty. final product produced :- 924.57 MT
	Qty. Sold :- MT
	Quantity of residual waste landfilled :-MT
Vermi composting	Qty. raw material processed:- Nil
	Qty. final product produced:-Nil
	Qty. sold:- Nil
	Quantity of residual waste landfilled:- Nil
Bio-methanation	Qty. raw material processed:- 576 MT
	Qty. final product produced:- 17678 KVA
	Qty. sold:- Self used
	Quantity of residual waste landfilled:- 1.5 MT
Refuse Derived Fuel	Qty. raw material processed:- 77793 MT
	Qty. final product produced:- 12155.87MT
	Qty. sold :- MT
	Quantity of residual waste landfilled :- MT
Waste to Energy technology	Such as incineration, gasification, pyrolysis or any other technology (give detail) :- Nil
	Qty. raw material processed:- Nil
	Qty. final product produced:- Nil
	Qty. sold Quantity of residual waste land filled:- Nil
Co-processing(Qty raw material processed)	
Combustible waste supplied to cement plant	Nil
Combustible waste supplied to solid waste based power plants	Nil
Solid waste disposal facilities	
No. of dumpsites available with the local body	01
No. of Sanitary landfill sites available with the local body	01
Area of the as such site available for waste disposal sites	45 Acres
Distance of dumpsite/landfill facility from city/Town	On the outskirts of Chandigarh near Village Dadu Majra, Chandigarh.
Distance from the nearest habitation	0.2 Kms
Distance from water body	8 Kms
Distance from state/national highway	4 Kms
Distance from airport	10 Kms
Distance from important religious place or historical monuments	8 Kms
Whether it falls in flood prone area	No
Whether it falls in earthquake fault line area	Yes
Quantity of waste landfill each day	270.39TPD (Approx.)
Whether landfill site is fenced	Yes, Boundary wall/ Fenced
Whether lighting facility is available on site	Yes
Whether weigh bridge facility available	Yes
Vehicles and equipments used at landfill (specify)	02 Nos. Chain Dozers, 02 Nos. JCB & 04 Nos. Tippers, 1 Nos. Tractor for E.M. Solution
Man power deployed at landfill site	Chief Sanitary Inspector=01, Sanitary Inspector=02, Data Entry Operator=03, Drivers=02, Safaikaramchari=04, & Chowkidar=01.
Whether covering is done on daily basis	Yes
If not, frequency of covering the waste	N.A.

	deposited at landfill																																											
	Cover material used	Malba, Soil Cover etc																																										
	Whether adequate covering material is available	Yes																																										
	Provisions for gas venting provided	Yes																																										
	Provisions for leachate collection	Yes																																										
9	Whether an action plan has been prepared for improving solid waste management practices in the city.	Yes																																										
10	What separate provisions are made for:																																											
	Dairy related activities:	The Cow Dung generated at Cattle pound is processed at Bio-methanation plant and some part of it handed over to XEN Horticulture for manure purpose. The Cow Dung generated at Milk Colony, Dhanas is self used by the residents.																																										
	Slaughter Houses Waste:	The Solid waste of Slaughter House is treated in Bio-methanation Plant situated at Slaughter House Complex Industrial area ph-1.																																										
	C& D Waste (Construction debris):	C& D plant has been installed Industrial Area Ph-1 and starts working w.e.f 15.05.2019.																																										
11	Details of Post Closure Plan	Out of 45 acres of land 25 Acres of land has been reclaimed by way of capping, covering and closing in 17 Acres and Sanitary Landfill in 8 acres of land.																																										
12	How many slums are identified and whether these are provided with solid waste management facilities	04 Nos. (1.) Colony No.4 (2.) Sanjay Colony Indl.Area, Phase-1, (3) Bhaskar Colony, Sec-25 & (4) Shahpur Colony, Sec-38, Chd Yes, Solid Waste Management facilities are provided.																																										
13	Give details of:																																											
	Local body's own manpower deployed for collection including street sweeping, secondary storage, transportation, processing & disposal waste	<p>Detail of Manpowers deployed:-</p> <table border="1"> <thead> <tr> <th>S.No</th><th>Designation</th><th>Nos.</th></tr> </thead> <tbody> <tr> <td>1.</td><td>Health Supervisor (R)</td><td>01</td></tr> <tr> <td>2.</td><td>Chief Sanitary Inspector (R)</td><td>07</td></tr> <tr> <td>3.</td><td>Sanitary Inspector (R)</td><td>18</td></tr> <tr> <td>4.</td><td>Multi Purpose Worker (R)</td><td>8</td></tr> <tr> <td>5.</td><td>Head Sanitary Jamadar (R)</td><td>0</td></tr> <tr> <td>6.</td><td>Sanitary Jamadar (R)</td><td>103</td></tr> <tr> <td>7.</td><td>Drivers (R)</td><td>21</td></tr> <tr> <td>8.</td><td>Cleaner (R)</td><td>0</td></tr> <tr> <td>9.</td><td>Safaikaramcharis(R)</td><td>768</td></tr> <tr> <td>10.</td><td>Villages (Old) on Daily wages</td><td>37</td></tr> <tr> <td>11.</td><td>Safaikaramcharis (Death Case) (Daily wage)</td><td>114</td></tr> <tr> <td>12.</td><td>13 U.T villages</td><td>149</td></tr> <tr> <td></td><td>Total</td><td>1226</td></tr> </tbody> </table>	S.No	Designation	Nos.	1.	Health Supervisor (R)	01	2.	Chief Sanitary Inspector (R)	07	3.	Sanitary Inspector (R)	18	4.	Multi Purpose Worker (R)	8	5.	Head Sanitary Jamadar (R)	0	6.	Sanitary Jamadar (R)	103	7.	Drivers (R)	21	8.	Cleaner (R)	0	9.	Safaikaramcharis(R)	768	10.	Villages (Old) on Daily wages	37	11.	Safaikaramcharis (Death Case) (Daily wage)	114	12.	13 U.T villages	149		Total	1226
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	Contractor/concessionaire's manpower deployed for collection including street sweeping, secondary storage, transportation, processing & disposal waste	<p>The manpower deployed for collection including street sweeping, secondary storage, transportation, processing & disposal waste are as under:-</p> <table border="1"> <thead> <tr> <th>S.N o</th><th>Designation</th><th>Nos.</th></tr> </thead> <tbody> <tr> <td>1.</td><td>Sanitary Inspector (C)</td><td>29</td></tr> <tr> <td>2.</td><td>Drivers (LMV)</td><td>105</td></tr> <tr> <td>3.</td><td>Drivers (Heavy)</td><td>90</td></tr> <tr> <td>4.</td><td>Helpers-cum-safai-Mitra</td><td>117</td></tr> </tbody> </table>	S.N o	Designation	Nos.	1.	Sanitary Inspector (C)	29	2.	Drivers (LMV)	105	3.	Drivers (Heavy)	90	4.	Helpers-cum-safai-Mitra	117																											
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		5	Sanitation Supervisor	4
		6	Safaikaramchans (O S)	1254
			Safaikaramchan by M/s Lions Services Ltd (C)	1070
			Total	2669
15	Mention briefly, the difficulties being experienced by the local body in compliance with provisions of these rules	The MCC is taking sincere efforts for source segregation and non use of Polythene bags.		
16	Mention briefly, if any innovative idea is implemented to tackle a problem to solid waste, which could be replicated by other local bodies	-		

Medical Officer of Health
Municipal Corporation
Chandigarh

Subject: Test Results of ambient air in Dumping Ground, Chandigarh on 23.07.2019

S.No.	Location of Sample	PM ₁₀ (µg/m ³)	PM 2.5 (µg/m ³)	SO ₂ (µg/m ³)	NOx (µg/m ³)	CO (8 hourly average mg/m ³)
Permissible Limits (24 hours)		100	60	80	80	2
1.	Location - A	128	—	2	33	<1
2.	Location - B	84	—	2	15	<1
3.	Location - C	51	—	2	16	<1

Location -A: Capped Dumping Ground opposite to the MSW Processing Plant

Location -B: Towards Dadumajra village in residential area

Location -C: Towards Dadumajra colony in residential area.

Results analyses:

The above results clearly indicate that all the parameters are well within the permissible limits.

Results of Ground Water Samples collected from the periphery of Dumping Ground on (23.07.19)

S.No	Test Parameters	Units	Loc. I	Loc. II	Loc. III	Desirable Limits
			Results			
1	pH	----	7.1	7.2	7.5	6.5 to 8.5
2	Total Hardness	mg/l	318	318	274	Max 300
3	Iron	mg/l	0.11	0.12	0.34	Max 0.3
4	Chlorides	mg/l	50	45	33	Max 250
5	Total Dissolved Solids	mg/l	496	464	386	Max 500
6	Mercury	mg/l	0.01	0.01	0.01	Max 0.001
7	Cadmium	mg/l	0.01	0.01	0.01	Max 0.01
8	Arsenic	mg/l	0.01	0.01	0.01	Max 0.05
9	BOD	mg/l	1.5	1.6	<1	----
10	COD	mg/l	18	30	16	----
11	Lead	mg/l	0.01	0.05	0.01	Max 0.05
12	Zinc	mg/l	0.34	0.01	0.02	Max 5
13	Total Chromium	mg/l	0.01	0.01	0.01	Max 0.05
14	Copper (as Cu)	mg/l	0.01	0.10	0.01	Max 0.05
15	Nickel	mg/l	0.01	0.01	0.01	----
16	Sulphate (as SO ₄)	mg/l	68	45	38	Max 200
17	Nitrate (as NO ₃)	mg/l	22	18	9.8	Max 45
18	Phenolic Compounds (as C ₆ H ₅ OH)	mg/l	0.76	0.50	0.50	Max 0.001
19	Cyanide	mg/l	0.05	0.05	0.05	Max 0.05
20	Total Coliform	MPN/100ml	<1	13	8	Absent
21	Faecal Coliform	MPN/100ml	<1	<1	<1	Absent

Location-I: Hand pump(Near Dumping Ground)

Location-II: Hand pump (Near Dhaba, Vill-Dadoo majra,

Location-III: Hand pump (Shiv Mandir,/Gorkhnath mandirDMC Colony

The above result shows that most of the parameters are well within the permissible limits except following:-

- 1 Total hardness exceeds the permissible limit at Location I and Location II
- 2.Mercury exceeds the permissible limit at Location I and Location II Location III
- 3.Phenolic compounds exceeds the permissible limit at Location I and Location II Location III

Results of Leachate Water Samples collected from the Dumping Ground (23.07.2019)

S.No.	Test Parameters	Wastewater Leachate from Dumping Ground		Treated Leachates shall meet the following Standards
		Units	Results	Limits
1	pH	----	7.8	5.5 to 9.0
2	Chlorides	mg/l	6300	1000
3	Total Dissolved Solids	mg/l	35000	2100
4	Mercury	mg/l	0.02	.01
5	Cadmium	mg/l	.01	2.0
6	Arsenic	mg/l	0.21	0.2
7	Cyanide	mg/l	0.05	0.2
8	Lead	mg/l	0.22	0.1
9	Zinc	mg/l	1.82	5.0
10	Total Chromium	mg/l	0.79	2.0
11	Copper (as Cu)	mg/l	0.48	3.0
12	Nickel	mg/l	0.66	3.0
13	Phenolic Compounds (as C ₆ H ₅ OH)	mg/l	0.5	0.1
14	BOD	mg/l	12240	—
15	Nitrate (as NO ₃)	mg/l	71	—
16	Sulphate (as SO ₄)	mg/l	745	200
17	Total Hardness	mg/l	9000	300

Note:- There is no provision of treatment of leachate at dumping ground, but the leachate generated is transported for treatment in the Effluent Treatment Plant of Jaypee Plant.

Test Report


Document QF : 2501
Page 1 of 3

Issued To Medical Officer of Health Municipal Corporation, SCO 6, 7, 8 & 9, 30 Bays Building, Chandigarh	Sample Reg. No. :E01-1912060504 Sample Reg. Date :06-12-2019 Report Date :12-12-2019 Report No. :ICE-1912120795 NABL ULR No. :TC592619000017232P Customer Ref. No.:- Letter Dated :-
---	--

Test Report as per IS:IS 10500 - 2012

With Amendment No.(s):

PART A : PARTICULARS OF SAMPLE SUBMITTED

a)	Nature of Sample #	Ground Water
b)	Grade / Variety / Type / Class / Size etc.	NA
c)	Brand Name	NA
d)	Declared Values,if any	NA
e)	Code No.	
f)	Batch Number #	NA
g)	D.O.M #	NA
h)	Date of Expiry #	NA
i)	Sample Quantity #	5 Ltr
j)	Batch Size/Location #	NA
k)	Mode of Packing	Packed in can
l)	Date of Receipt	06-12-2019
m)	Date of Start	06-12-2019
n)	Date of Completion	12-12-2019
o)	Seal (Intact/Not Intact/Unsealed)	NA
p)	IO'S Signature (Signed/Unsigned)	Unsigned
q)	Any Other Information	Sample collected by lab rep. Mr. Sahil on 05.12.2019
r)	Test Request Submitted By	Medical Officer of Health-Chandigarh (Chandigarh)
s)	Manufactured By #	NA
t)	Supplied By #	NA

PART B : SUPPLIMENTARY INFORMATIONS

a. Reference to sampling procedure, whenever applicable	: N/A
---	-------

Saurabh Sharma
12-12-2019
Reviewer

12-12-2019
PremKumar
[Authorized Signatory]

Interstellar Testing Centre Pvt. Ltd.
(ISO 9001:2008 & 14001:2015 OHSAS 18001:2007 Certified Laboratory)
(A Government Approved Test House)
86, Industrial Area, Phase-I, Panchkula-134109 (Haryana)
Phone : (O) 0172-2561543, 2565825
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- If sample is not consumed during analysis, it will be stored as per SOP of controlled sample management.

Test Report

Document QF : 2501
Page 2 of 3

Issued To Medical Officer of Health Municipal Corporation, SCO 6, 7, 8 & 9, 30 Bays Building, Chandigarh	Sample Reg. No. : E01-1912060504 Sample Reg. Date : 06-12-2019 Report Date : 12-12-2019 Report No. : ICE-1912120795 NABL ULR No. : TC592619000017232P Customer Ref. No. :- Letter Dated :-
--	---

- Supporting documents for the measurement taken and results derived like graphs, tables, sketches and / or photographs as appropriate to test reports, if any : N/A
- c. Deviation from the test methods as prescribed in relevant ISS/WORK Instruments, if any : N/A

PART C : TEST RESULTS

Description

Description Clear colourless liquid

S.No.	Test Parameter	Method	Requirement	Result
Test Details :				
1.	General Parameters			
a.	pH Value	IS:3025 (Part - 11):1983(RA:2017)	6.5-8.5	7.22
b.	Total Hardness(As CaCO ₃)(mg/l)	IS:3025(Part 21)	300 Max.	285
c.	Chloride(as Cl)(mg/l)	IS:3025(P-32)	250 Max.	26
d.	Total Dissolved Solids,(mg/L)	IS:3025(Part 16):1984(RA.2006)	500 Max.	450
e.	Copper(As Cu)(mg/l)	IS:3025(P-65)	0.05 Max.	BLQ(LOQ:0.001)
f.	Sulphate(as SO ₄)(mg/l)	IS:3025(P-24)	200 Max.	11.2
g.	Nitrate as NO ₃ (mg/l)	IS:3025(P-34)	45.0 Max.	BLQ (LOQ : 1.0)
h.	Phenolic Compounds (as C ₆ H ₅ OH) (mg/L)	IS:3025(P-43)	0.001 Max.	BLQ (LOQ : 0.001)
i.	Mercury(As Hg)(mg/l)	IS:3025(P-65)	0.001 Max.	BLQ(LOQ:0.001)
j.	Cadmium(as Cd)(mg/l) *	IS:3025(P-65)	0.01 Max.	BLQ(LOQ:0.001)
k.	Arsenic(as As)(mg/l)	IS:3025(P-65)	0.01 Max.	BLQ(LOQ:0.001)
l.	Cyanide (as CN) _n (mg/l)	IS:3025(P-27)	0.05 Max.	BLQ (LOQ : 0.01)
m.	Lead(as Pb)(mg/l)	IS:3025(P-65)	0.05 Max.	BLQ(LOQ:0.001)
n.	Zinc(as Zn)(mg/l)	IS:3025(P-65)	5.0 Max.	0.001
o.	Chromium (as Cr ⁶⁺) _n (mg/l)	Apha 23rd Edn.2017-3120 B/IS:3025(Part 57):2004(RA:2017)	0.05 Max.	BLQ (LOQ : 0.01)
p.	Nickel(as Ni) _n mg/l	IS:3025(P-65)	Not Specified	BLQ(LOQ:0.001)

Saurabh Sharma
12-12-2019
Reviewer

12-12-2019
Prem Kumar
[Authorized Signatory]

Interstellar Testing Centre Pvt. Ltd.
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- If sample is not consumed during analysis, it will be stored as per SOP of controlled sample management.

Test Report

Document QP : 2501

Page 3 of 3

Issued To Medical Officer of Health Municipal Corporation, SCO 6, 7, 8 & 9, 30 Bays Building, Chandigarh	Sample Reg. No. : ICE-1912060504 Sample Reg. Date : 06-12-2019 Report Date : 12-12-2019 Report No. : ICE-1912120795 NABL ULR No. : TC592619000017232P Customer Ref. No. :- Letter Dated :-
Q. Iron as Fe, (mg/L)	IS:3025(P-65) 0.3 Max. 0.137

*** presents categories/test parameters not covered under NABL | ** represents outsource sample | W represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ :- Below Limit of Quantification, LOQ :- Limit of Quantification, Requirements as per Solid waste Management Rules 2016

PART D : REMARKS : N/A

*****End Of Report*****

Saurabh Sharma
12-12-2019
Reviewer

12-12-2019
Prem Kumar
[Authorized Signatory]

Interstellar Testing Centre Pvt. Ltd.
 (ISO 9001:2008 & 14001:2015 OHISAS 18001:2007 Certified Laboratory)
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Test Report

Document QF : 2501
Page 1 of 2

Issued To Medical Officer of Health Municipal Corporation, SCO 6, 7, 8 & 9, 30 Bays Building, Chandigarh	Sample Reg. No. : E01-1912060505 Sample Reg. Date : 06-12-2019 Report Date : 14-12-2019 Report No. : ICE-1912140861 NABL ULR No. : TC592619000017298F Customer Ref. No.:- Letter Dated :-
--	--

Report as per IS	: NAAQS 2009
-------------------------	--------------

General Information

Location of Sampling Point	: Near Dadumajra Colony
Date of Monitoring	: 05-12-2019
Purpose of Monitoring	: To assess the Pollution level
Duration of Monitoring, minutes	: 1440
Avg. Flow Rate of Sampling, m3/min	: 1.18
Volume of air sampled, m3	: 1671.31
Avg. Ambient Temperature, °C	: 22

TEST RESULTS

Description

Description	Ambient Air Quality Monitoring
-------------	--------------------------------

S.No.	Test Parameter	Method	Requirement	Result
Test Details :				
1.	Ambient Air Quality Parameters			
a.	Sulphur Dioxide(SO ₂), µg/m ³	IS:5182(P-2)	80 Max	12
b.	Nitrogen Dioxide(NO ₂), µg/m ³	IS:5182(P-6)	80 Max	21
c.	Particulate Matter (PM ₁₀), µg/m ³	IS:5182(P-23)	100 Max	88
d.	Particulate matter (PM _{2.5}), µg/m ³	STP/ITC/EW-01	60 Max	42
e.	Ozone(O ₃), µg/m ³	IS:5182(P-9)	180 Max	BLQ (LOQ:14)
f.	Lead(As Pb), µg/m ³	Method of Air sampling & Analysis(Method No. 822)	1.0 Max	BLQ(LOQ:0.1)
g.	Carbon Monoxide(CO), mg/m ³	IS:5182(P-10)	4 Max	1.2
h.	Ammonia(NH ₃), µg/m ³	Method of Air Sampling & Analysis(Method No. 401)	400 Max	BLQ (LOQ:20)
i.	Benzene (C ₆ H ₆), µg/m ³	IS 5182 (Part 11)	5 Max	BLQ (LOQ:1.0)

Saurabh Sharma
14-12-2019
Reviewer

14-12-2019
PremKumar
[Authorized Signatory]

Interstellar Testing Centre Pvt. Ltd.
 (ISO 9001:2008 & 14001:2015 OHSAS 18001:2007 Certified Laboratory)
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- If sample is not consumed during analysis, it will be stored as per SOP of controlled sample management.

Test Report

Document QF : 2501
Page 2 of 2


Issued To Medical Officer of Health Municipal Corporation, SCO 6, 7, 8 & 9, 30 Bays Building, Chandigarh		Sample Reg. No. :E01-1912060505 Sample Reg. Date :06-12-2019 Report Date :14-12-2019 Report No. :ICE-1912140861 NABL ULR No. :TCS92619000017298F Customer Ref. No.:- Letter Dated :-		
	Benzo (a) Pyrene Particulate Phase only,ng/m3	IS 5182: (Part 12)	1 Max	BLQ(LOQ:0.2)
k.	Arsenic(as As),ng/m3	Method of Air sampling & Analysis(Method No. 822)	6 Max.	BLQ(LOQ:1.0)
l.	Nickel(As Ni),ng/m3	Method of Air sampling & Analysis(Method No. 822)	20 Max.	BLQ(LOQ:1.0)

"# represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ :- Below Limit of Quantification, LOQ :- Limit of Quantification, Requirements as per NAAQS 2009,

REMARKS : N/A

*****End Of Report*****


 Saurabh Sharma
 14-12-2019
 Reviewer


 14-12-2019
 PremKumar
 [Authorized Signatory]

Interstellar Testing Centre Pvt. Ltd.
 (ISO 9001:2008 & 14001:2015 OHSAS 18001:2007 Certified Laboratory)
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Test Report

Document QF : 2501
Page 1 of 2

Issued To Medical Officer of Health Municipal Corporation, SCO 6, 7, 8 & 9, 30 Bays Building, Chandigarh	Sample Reg. No. :E01-1912060506 Sample Reg. Date :06-12-2019 Report Date :14-12-2019 Report No. :ICE-1912140862 NABL ULR No. :TC592619000017300F Customer Ref. No.:- Letter Dated :-
---	--

Report as per IS	: NAAQS 2009
General Information	
Location of Sampling Point	: Near Dumping Site
Date of Monitoring	: 05-12-2019
Purpose of Monitoring	: To assess the Pollution level
Duration of Monitoring, minutes	: 1440
Avg. Flow Rate of Sampling, m ³ /min	: 1.20
Volume of air sampled, m ³	: 1699.64
Avg. Ambient Temperature, °C	: 22

TEST RESULTS

Description

Description: Ambient Air Quality Monitoring

S.No.	Test Parameter	Method	Requirement	Result
Test Details :				
1.	Ambient Air Quality Parameters			
a.	Sulphur Dioxide(SO ₂), µg/m ³	IS:5182(P-2)	80 Max	18
b.	Nitrogen Dioxide(NO ₂), µg/m ³	IS:5182(P-6)	80 Max	30
c.	Particulate Matter (PM ₁₀), µg/m ³	IS:5182(P-23)	100 Max	96
d.	Particulate matter (PM _{2.5}), µg/m ³	STP/ITC/EW-01	60 Max	53
e.	Ozone(O ₃), µg/m ³	IS:5182(P-9)	180 Max	BLQ (LOQ:14)
f.	Lead(As Pb), µg/m ³	Method of Air sampling & Analysis(Method No. 822)	1.0 Max	BLQ(LOQ:0.1)
g.	Carbon Monoxide(CO), mg/m ³	IS:5182(P-10)	4 Max	1.4
h.	Ammonia(NH ₃), µg/m ³	Method of Air Sampling & Analysis(Method No. 401)	400 Max	BLQ (LOQ:20)
i.	Benzene (C ₆ H ₆), µg/m ³	IS 5182 (Part 11)	5 Max	BLQ (LOQ:1.0)

Saurabh Sharma
Saurabh Sharma
14-12-2019
Reviewer

Prem Kumar
14-12-2019
Prem Kumar
[Authorized Signatory]

Interstellar Testing Centre Pvt. Ltd.
(ISO 9001:2008 & 14001:2015 OHSAS 18001:2007 Certified Laboratory)
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- If sample is not consumed during analysis, it will be stored as per SOP of controlled sample management.

Test Report

Document Q# : 2501
Page 2 of 2

Issued To Medical Officer of Health Municipal Corporation, SCO 6, 7, 8 & 9, 30 Bays Building, Chandigarh		Sample Reg. No. :E01-1912060506 Sample Reg. Date :06-12-2019 Report Date :14-12-2019 Report No. :ICE-1912140862 NABL ULR No. :TC592619000017300F Customer Ref. No.:- Letter Dated :-		
---	--	--	--	--


i.	Benzo (a) Pyrene Particulate Phase only,ng/m3	IS 5182: (Part 12)	1 Max.	BLQ(LOQ:0.2)
k.	Arsenic(as As),ng/m3	Method of Air sampling & Analysis(Method No. 822)	6 Max.	BLQ(LOQ:1.0)
l.	Nickel(As Ni),ng/m3	Method of Air sampling & Analysis(Method No. 822)	20 Max.	BLQ(LOQ:1.0)

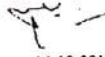
*# represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ :- Below Limit of Quantification, LOQ :- Limit of Quantification, Requirements as per NAAQS 2009,

REMARKS :N/A

*****End Of Report*****


 Saurabh Sharma
 14-12-2019
 Reviewer


 14-12-2019
 Preeti Kumar
 [Authorized Signatory]

Interstellar Testing Centre Pvt. Ltd.
 (ISO 9001:2008 & 14001:2015 OHSAS 18001:2007 Certified Laboratory)
 (A Government Approved Test House)
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Test Report

Document QF : 2501
Page 1 of 2

Issued To Green Tech Fuel Processing Plant (A Unit of Jaiprakash Associates Ltd.), Opp. Dumping Ground, Sector-25 (West), Dadumajra, Chandigarh Chandigarh	Sample Reg. No. : P01-2001230520 Sample Reg. Date : 23-01-2020 Report Date : 31-01-2020 Report No. : ICE-2001310716 NABL ULR No. : TC592620000000852F Customer Ref. No.:- Letter Dated :-
---	--

Test Report as per IS	: NAAQS 2009
General Information	
Location of Sampling Point	: Near Main Gate Area
Date of Monitoring	: 21-01-2020
Purpose of Monitoring	: To assess the pollution level
Duration of Monitoring, minutes	: 1440
Avg. Flow Rate of Sampling, m ³ /min	: 0.038
Volume of air sampled, m ³	: 55.52
Avg. Ambient Temperature, °C	: 13

TEST RESULTS				
Description				
Description		Ambient Air Quality Monitoring		
S.No.	Test Parameter	Method	Requirement	Result
Test Details :				
1.	Ambient Air Quality Parameters			
a.	Sulphur Dioxide(SO ₂), µg/m ³	IS:5182(P-2)	80 Max	10
b.	Nitrogen Dioxide(NO ₂), µg/m ³	IS:5182(P-6)	80 Max	16
c.	Particulate Matter (PM ₁₀), µg/m ³	IS:5182(P-23)	100 Max	92
d.	Particulate matter (PM _{2.5}), µg/m ³	STP/ITC/EW-01	60 Max	49
e.	Ozone(O ₃), µg/m ³	IS:5182(P-9)	180 Max	BLQ (LOQ:14)
f.	Lead(As Pb), µg/m ³	Method of Air sampling & Analysis(Method No. 822)	1.0 Max	BLQ(LOQ:0.1)
g.	Carbon Monoxide(CO), mg/m ³	IS:5182(P-10)	4 Max	1.2
h.	Ammonia(NH ₃), µg/m ³	Method of Air Sampling & Analysis(Method No. 401)	400 Max	BLQ (LOQ:5.0)
i.	Benzene (C ₆ H ₆), µg/m ³	IS 5182 (Part 11)	5 Max	BLQ (LOQ:1.0)

Saurabh Sharma
31-01-2020
Reviewer

31-01-2020
PremKumar
[Authorized Signatory]

Disclaimer:

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2. Total Liability of this Laboratory is limited to the Invoiced amount.
3. Test certificates in full or parts shall not be used for re-entrance or publicity purposes.

Test Report

Document QF : 2501
Page 2 of 2

Issued To Green Tech Fuel Processing Plant (A Unit of Jaiprakash Associates Ltd.), Opp. Dumping Ground, Sector-25 (West), Dadumajra, Chandigarh Chandigarh	Sample Reg. No. : E01-2001230520 Sample Reg. Date : 23-01-2020 Report Date : 31-01-2020 Report No. : ICE-2001310716 NABL ULR No. : TC592620000000852F Customer Ref. No.:- Letter Dated :-
---	--

j.	Benzo (a) Pyrene Particulate Phase only,ng/m3	IS 5182: (Part 12)	1 Max	BLQ(LOQ:0.5)
k.	Arsenic(as As),ng/m3	Method of Air sampling & Analysis(Method No. 822)	6 Max.	BLQ(LOQ:1.0)
l.	Nickel(As Ni),ng/m3	Method of Air sampling & Analysis(Method No. 822)	20 Max.	BLQ(LOQ:1.0)

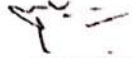
represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ :- Below Limit of Quantification, LOQ :- Limit of Quantification, Requirements as per NAAQS 2009,

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
31-01-2020
Reviewer


31-01-2020
PremKumar
[Authorized Signatory]

Interstellar Testing Centre Pvt. Ltd.
(ISO 9001:2015 & 14001:2015 OHSAS 18001:2007 Certified Laboratory)
(A Government Approved Test House)
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Phone : (O) 0172-2561541, 2565825,

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3. Test certificates in full or parts shall not be used for promotional or Publicity purpose.
4. If sample is not consumed during analysis, it will be stored as per QAD of established sample management.

Test Report

Document QF : 2501
Page 1 of 2

Issued To Green Tech Fuel Processing Plant (A Unit of Jaiprakash Associates Ltd.), Opp. Dumping Ground, Sector-25 (West), Dadumajra, Chandigarh Chandigarh	Sample Reg. No. : E01-2001230518 Sample Reg. Date : 23-01-2020 Report Date : 28-01-2020 Report No. : ICE-2001280619 NABL ULR No. : TC59262000000740F Customer Ref. No.:- Letter Dated :-
---	---

Test Report as per IS:NA	With Amendment No.(s):
---------------------------------	-------------------------------

PART A : PARTICULARS OF SAMPLE SUBMITTED

a)	Nature of Sample#	ETP Inlet Water
b)	Grade / Variety / Type / Class / Size etc.	NA
c)	Brand Name	NA
d)	Declared Values, if any	NA
e)	Code No.	
f)	Batch Number#	NA
g)	D.O.M#	NA
h)	Date of Expiry#	NA
i)	Sample Quantity#	2 Ltr
j)	Batch Size/Location#	NA
k)	Mode of Packing	Packed in can
l)	Date of Receipt	23-01-2020
m)	Date of Start	23-01-2020
n)	Date of Completion	28-01-2020
o)	Seal (Intact/Not Intact/Unsealed)	NA
p)	IO'S Signature (Signed/Unsigned)	Unsigned
q)	Any Other Information	Sample collected by lab rep. on 21.01.2020
r)	Test Request Submitted By	Green Tech Fuel Processing Plant-Chandigarh (Chandigarh)
s)	Manufactured By#	NA
t)	Supplied By#	NA

PART B : SUPPLEMENTARY INFORMATIONS

a.	Reference to sampling procedure, whenever applicable	: N/A
----	--	-------

Saurabh Sharma
Saurabh Sharma
28-01-2020
Reviewer

Prem Kumar
28-01-2020
Prem Kumar
[Authorized Signatory]

Disclaimer:

1. Sample (s) not drawn by us unless otherwise stated.
2. Total Liability of this Laboratory is limited to the Invoiced amount.
3. Test certificates in full or parts shall not be used for promotional or Publicity purpose.

Test Report

Document QF : 2501

Page 2 of 2

Issued To Green Tech Fuel Processing Plant (A Unit of Jaiprakash Associates Ltd.), Opp. Dumping Ground, Sector-25 (West), Dadumajra, Chandigarh Chandigarh	Sample Reg. No. : E01-2001230518 Sample Reg. Date : 23-01-2020 Report Date : 28-01-2020 Report No. : ICE-2001280619 NABL ULR No. : TC592620000000740F Customer Ref. No.:- Letter Dated :-
---	--

b. Supporting documents for the measurement taken and results derived like graphs, tables, sketches and / or photographs as appropriate to test reports, if any : N/A

c. Deviation from the test methods as prescribed in relevant ISS/WORK Instruments, if any : N/A

PART C : TEST RESULTS

Description

Description

ETP Inlet water

S.No.	Test Parameter	Method	Result
Test Details :			
1.	General Parameters		
a.	pH Value,	IS:3025 (Part - 11):1983(RA:2017)	6.30
b.	Total Suspended Solids,(mg/L)	IS:3025(Part 17)	47
c.	Total Dissolved Solids (mg/l)	IS:3025(Part 16):1984(RA.2006)	2941
d.	Chemical Oxygen Demand(mg/L)	APHA-23rd Edition	970
e.	Bio-chemical Oxygen Demand(mg/L)(3 days at 27°C)	IS:3025(P-44)	348
f.	Oil & Grease(mg/L)	IS:3025(P-39)	4.6

represents Customer Defined Fields

NOTE : NA- Not Applicable,

PART D : REMARKS :N/A

*****End Of Report*****

Saurabh Sharma
28-01-2020
Reviewer

28-01-2020
PremKumar
[Authorized Signatory]

Disclaimer:

1. Sample (s) not drawn by us unless otherwise stated.
2. Total Liability of this Laboratory is limited to the Invoiced amount.
3. Test certificates in full or parts shall not be used for promotional or Publicity purpose.

Test Report


Document QF : 2501

Page 1 of 2

Issued To Green Tech Fuel Processing Plant (A Unit of Jaiprakash Associates Ltd.), Opp. Dumping Ground, Sector-25 (West), Dadumajra, Chandigarh Chandigarh	Sample Reg. No. : E01-2001230519 Sample Reg. Date : 23-01-2020 Report Date : 28-01-2020 Report No. : ICE-2001280620 NABL ULR No. : TC592620000000741F Customer Ref. No.:- Letter Dated :-
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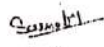
Test Report as per IS:EPA Act 1986/PCLS/2010	With Amendment No.(s):
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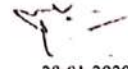
PART A : PARTICULARS OF SAMPLE SUBMITTED

a)	Nature of Sample #	ETP Outlet Water
b)	Grade / Variety / Type / Class / Size etc.	NA
c)	Brand Name	NA
d)	Declared Values, if any	NA
e)	Code No.	
f)	Batch Number #	NA
g)	D.O.M #	NA
h)	Date of Expiry #	NA
i)	Sample Quantity #	2 Ltr
j)	Batch Size/Location #	NA
k)	Mode of Packing	Packed in can
l)	Date of Receipt	23-01-2020
m)	Date of Start	23-01-2020
n)	Date of Completion	28-01-2020
o)	Seal (Intact/Not Intact/Unsealed)	NA
p)	IO'S Signature (Signed/Unsigned)	Unsigned
q)	Any Other Information	Sample collected by lab rep. on 21.01.2020
r)	Test Request Submitted By	Green Tech Fuel Processing Plant-Chandigarh (Chandigarh)
s)	Manufactured By #	NA
t)	Supplied By #	NA

PART B : SUPPLEMENTARY INFORMATIONS

a.	Reference to sampling procedure, whenever applicable	: N/A
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Saurabh Sharma
28-01-2020
Reviewer


28-01-2020
Prem Kumar
[Authorized Signatory]

Interstellar Testing Centre Pvt. Ltd.

(ISO 9001:2015 & 14001:2015 OHSAS 18001:2007 Certified Laboratory)
(A Government Approved Test House)
86, Industrial Area, Phase-I, Panchkula-134109 (Haryana)
Phone : (O) 0172-2561543, 2565825,
Visit us: www.itclabs.com E-mail : customerservice@itclabs.com

Disclaimer:

1. Sample (s) not drawn by us unless otherwise stated.
2. Total Liability of this Laboratory is limited to the Invoiced amount.
3. Test certificates in full or parts shall not be used for promotional or Publicity purpose.
4. If sample is not a uniformed during analysis, it will be stated as per SOP of controlled sample management.

Test Report

Document QF : 2501

Page 2 of 2

Issued To Green Tech Fuel Processing Plant (A Unit of Jaiprakash Associates Ltd.), Opp. Dumping Ground, Sector-25 (West), Dadumajra, Chandigarh Chandigarh	Sample Reg. No. :E01-2001230519 Sample Reg. Date :23-01-2020 Report Date :28-01-2020 Report No. :ICE-2001280620 NABL ULR No. :TC592620000000741F Customer Ref. No.:- Letter Dated :-
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- b. Supporting documents for the measurement taken and results derived like graphs, tables, sketches and / or photographs as appropriate to test reports, if any : N/A
- c. Deviation from the test methods as prescribed in relevant ISS/WORK Instruments, if any : N/A

PART C : TEST RESULTS

Description

Description

ETP Outlet Water

S.No.	Test Parameter	Method	Requirement	Result
Test Details :				
1.	General Parameters			
a.	pH Value	IS:3025 (Part - 11):1983(RA:2017)	5.5-9	7.20
b.	Total Suspended Solids,(mg/L)	IS:3025(Part 17)	Max. 100	26
c.	Total Dissolved Solids (mg/l)	IS:3025(Part 16):1984(RA.2006)	Max. 2100--	2008
d.	Chemical Oxygen Demand(mg/L)	APHA-23rd Edition	Max. 250	81
e.	Bio-chemical Oxygen Demand(mg/L)(3 days at 27°C)	IS:3025(P-44)	Max. 30	26
f.	Oil & Grease(mg/L)	IS:3025(P-39)	Max. 10	0.4

represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA 1986/PCLS/2010

PART D : REMARKS :N/A

*****End Of Report*****

Saurabh Sharma
28-01-2020
Reviewer

28-01-2020
PremKumar
[Authorized Signatory]

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3. Test certificates in full or parts shall not be used for promotional or Publicity purpose.

Test Report (FINAL)

Issued To Green Tech Fuel Processing Plant (A Unit of Jaiprakash Associates Ltd.), Sector-25 (West), Chandigarh Chandigarh	Sample Reg. No. : F01-1801110504 Sample Reg. Date : 11-01-2018 Report Date : 19-01-2018 Report No : ICF-1801190929 Customer Ref. No.: Letter Letter Dated : 11-01-2018
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Test Report as per IS:FCO-1985	With Amendment No.(s):2017
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PART A : PARTICULARS OF SAMPLE SUBMITTED

a) Nature of Sample	Organic Fertilizers (City Compost)
b) Grade / Variety / Type / Class / Size etc.	N/A
c) Brand Name	N/A
d) Declared Values, if any	N/A
e) Code No.	
f) Batch Number	NA
g) D.O.M	N/A
h) Date of Expiry	N/A
i) Sample Quantity	500 gm
j) Batch Size	N/A
k) Mode of Packing	Packed in a poly pack
l) Date of Receipt	11-01-2018
m) Date of Start	11-01-2018
n) Date of Completion	19-01-2018
o) BIS Seal (Intact/Not Intact/Unsealed)	Unsealed
p) IO'S Signature (Signed/Unsigned)	Unsigned
q) Any Other Information	N/A
r) Submitted By	Green Tech Fuel Processing Plant
s) Manufactured By	NA
t) Supplied By	NA

PART B : SUPPLEMENTARY INFORMATIONS

a	Reference to sampling procedure, whenever applicable	: N/A
b	Supporting documents for the measurement taken and results derived like graphs, tables, sketches and / or photographs as appropriate to test reports, if any	: Graph
c	Deviation from the test methods as prescribed in relevant ISS/WORK Instruments, if any	: N/A



Test Report (FINAL)

Issued To	Sample Reg. No. : FCI-1801119504
Green Tech Fuel Processing Plant	Sample Reg. Date : 11-01-2018
(A Unit of Jaiprakash Associates Ltd.), Sector-25 (West), Chandigarh	Report Date : 19-01-2018
Chandigarh	Report No. : ITC-1801119504
	Customer Ref. No./Letter
	Letter Dated : 11-01-2018

PART C : TEST RESULTS

S.No.	Test Parameter	Inst. Used	Method	Requirement	Result
Test Details :					
1	Description	This material is in the form of brown colour fragments			
a	Description				
2	Chemical Parameters				
a	Moisture (% by mass)	Chemically	FCI-1985	11.5 to 22.5 Maximum 22% material should pass through 4.75 mm sieve	21.75
b	Particle size (% by mass)	Chemically	FCI-1985		96.22
c	Bulk density (g/cm ³)	Chemically	FCI-1985	1.1 to 1.5	1.30
d	Total Organic Carbon (% by mass), Min	Chemically	FCI-1985	12	21.37
e	Total Nitrogen (as N) (% by mass), Min	Chemically	FCI-1985	0.4	1.64
f	Total Phosphate (as P ₂ O ₅) (% by mass), Min	Chemically	FCI-1985	0.4	1.70
g	Total Potash (as K ₂ O) (% by mass), Min	Chemically	FCI-1985	0.4	1.51
h	C:N Ratio	Chemically	FCI-1985	12:1	18.96
i	pH Value (1% solution)	Chemically	FCI-1985	4 to 7	6.7
j	Conductivity (as dem-l)	Chemically	FCI-1985	1500 to 3000	211
3	Microbiological Tests				
a	Salmonella/25gm	Microbiological	ISO 4874-1:2017	Absent	Absent
b	E.coli/gm	Microbiological	IS 4687 P-1:1976 SA 2013	Absent	Absent
c	S.aureus/gm	Microbiological	IS 4687 P-2:1976 SA 2013	Absent	Absent
d	P.aeruginosa/gm	Microbiological	IS 15429 ANIMEX-4G 2005	Absent	Absent
4	Heavy Metals				
a	Nickel (as Ni) (ppm)	ICPMS	ITC-STEP INST 906	Max 75	7.74
b	Zinc (as Zn) (ppm)	ICPMS	ITC-STEP INST 906	Max 1000	119.64
c	Lead (as Pb) (ppm)	ICPMS	ITC-STEP INST 906	Max 100	21.64
d	Copper (as Cu) (ppm)	ICPMS	ITC-STEP INST 906	Max 100	64.92
e	Mercury (as Hg) (ppm)	ICPMS	ITC-STEP INST 906	Max 0.1	0.11
f	Arsenic (as As ₂ O ₃) (ppm)	ICPMS	ITC-STEP INST 906	Max 10	1.55
g	Cadmium (as Cd) (ppm)	ICPMS	ITC-STEP INST 906	Max 1	0.40
h	Chromium (as Cr) (ppm)	ICPMS	ITC-STEP INST 906	Max 100	19.20
5	Organoleptic Test				
a	Colour	Chemically	FCI-1985	Dark Green to Black	Dark Green
b	Odour	Chemically	FCI-1985	Absence of foul odour	Presence of foul odour

NOTE : N/A

PART D : REMARKS : The above submitted sample of Organic Fertilizers (City Compost) conforms to FCI-1985 with upto date results with respect to the above tests.

19-01-2018
Jaspreet Kaur
[Tech Manager (Micro.)]

19-01-2018
Reviewer
*****End Of Report*****

19-01-2018
Dr. Indra Rai
[Tech Manager (F&C)]