

**Monthly Performance Report
(HWT-NG100-MPR-40-R0)**

**November 2019
(From 01/11/2019 to 30/11/2019)**

**100 TPD Municipal Solid Waste (MSW) Facility
Calangute, North Goa**

Prepared By
**Hindustan Waste Treatment Pvt. Ltd.
(HWT)**

Submitted To
**Goa Waste Management Corporation (GWMC)
Department of Science & Technology (DS&T)**

Table – 1
Summary of Overall Average Results for November 2019
(As compared to Schedule – 7: Performance Standards, Volume – I of RFP)

Sr. No.	Parameter	Performance Standard As per Schedule – 7	Actual Performance at Plant (Monthly Average)
1.	Number of fractions of recyclables sorted per day from the input mixed waste	Minimum 10 numbers of fractions shall be sorted daily from the input dry waste as received in the facility. The list of fractions are as follows: 1. PET Bottles 2. Mixed Plastic Articles 3. Newspapers / other Paper Material 4. Cardboard 5. Styrofoam & Thermocol 6. Coconut Shells 7. Clothes 8. Rubber Articles 9. Metal Articles & Cans 10. E-waste Articles and any Hazardous Waste	13 numbers of fractions are being sorted daily from the input dry waste as received in the facility. The list of fractions are as follows: 1. Glass 2. Aluminium 3. Metal 4. Paper + Cardboard 5. Tetra Pack 6. Hard Plastic 7. PET 8. Mixed Plastic 9. Styrofoam + Thermocol 10. Cloth + Rags + Textile 11. Leather + Rexine + Rubber 12. Coconut Shells 13. E-waste Articles and any Hazardous Waste
2.	Quantum of reject/residues to be sent to the landfill after processing. No organic fraction shall be disposed in the landfill.	Maximum 10% of inert of the total input waste as received in the facility (in TPD).	Input waste to the Plant is 156.77 TPD . Quantum of Inert is 1.60 TPD which is < 10% of the Total Input Waste as received in the Facility. No Organic Waste has been disposed in the Sanitary Landfill Facility.
3.	Electricity generation in the Plant	Minimum electricity to be generated in the plant shall be 0.40 MW per 100 tons of input wet biodegradable waste as received in the Facility (in TPD).	Electricity generation is 0.51 MW/100 MT of Input Biodegradable Waste as received in the Facility (in TPD).
4.	Biogas Flaring System	The Biogas Flaring System shall strictly be used only in case of	Biogas is being flared strictly, only under emergency and not as a

Sr. No.	Parameter	Performance Standard As per Schedule – 7	Actual Performance at Plant (Monthly Average)										
		emergency and not as a routine practice.	routine practice. The average running time of Biogas Flaring System is 5.56 hours/day .										
5.	Discharge of treated effluent conforming to regulatory norms	Effluent Treatment Plant shall be operated under all conditions.	Effluent Treatment Plant is being operated continuously and is meeting all statutory conditions. The Treated Effluent Characteristics are as follows: <table border="1" data-bbox="1036 646 1403 856"> <tbody> <tr> <td>pH</td> <td>7.00</td> </tr> <tr> <td>BOD</td> <td>7 mg/l</td> </tr> <tr> <td>COD</td> <td>66 mg/l</td> </tr> <tr> <td>TSS</td> <td>8 mg/l</td> </tr> <tr> <td>TDS</td> <td>1,701 mg/l</td> </tr> </tbody> </table>	pH	7.00	BOD	7 mg/l	COD	66 mg/l	TSS	8 mg/l	TDS	1,701 mg/l
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TDS	1,701 mg/l												
6.	General Housekeeping, hygienic conditions, cleanliness, safety norms, adequate manpower, treatment methodology for plant operation & maintenance and storage conditions in the plant.	Minimum housekeeping, safety norms and cleanliness conditions shall be maintained at all times as per the Bid Document requirement.	<ul style="list-style-type: none"> • High standard of Housekeeping, Cleanliness and Safety are being maintained at all times at the Plant. • Adequate manpower has been deployed in all shifts. • Also, the treatment methodology is being followed properly and proper storage conditions have been maintained in the Plant. 										

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

#	Plant Performance Data: November 2019		
Sr. No.	Content	Month	Signature
1	Input Waste Composition	From 01.11.2019 To 30.11.2019	
2	Recyclables		
3	Electricity Generation		
4	Biogas Flare		
5	Effluent Treatment Plant		
6	Inert		
7	Housekeeping		

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

1 WASTE:																									
Sr. No.	Description	Unit	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	Weekly Average	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	Weekly Average	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov		
1.1 Input Waste:																									
1	Type 1: Dry Waste	TPD	84.13	85.01	80.91	89.64	85.02	94.01	89.45	86.88	53.40%	83.08	87.33	69.46	88.38	81.84	87.92	78.38	82.34	52.59%	68.79	57.75	71.73	99.76	94.48
2	Type 2: Wet Waste	TPD	68.24	74.40	73.66	73.28	72.18	68.91	64.16	70.69	43.45%	63.71	71.23	80.61	71.20	61.34	60.36	76.43	69.27	44.24%	62.05	71.86	63.36	75.20	73.51
3	Type 3: Mixed Waste	TPD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00
4	Type 4: Tree Waste	TPD	7.00	5.79	6.38	4.39	5.73	3.31	3.28	5.13	3.15%	9.57	5.69	0.88	5.11	3.66	6.29	4.96	3.17%	2.16	3.24	2.92	3.53	3.18	
5	Total.....(1)+(2)+(3)+(4)	TPD	159.37	165.20	160.95	167.31	162.93	166.23	156.89	162.70	100.00%	156.36	164.25	150.95	164.69	146.84	154.57	158.34	156.57	100.00%	133.00	132.85	138.01	178.49	171.17

- # Note:
 1 Type-I: Dry Waste: This has 25-30% Organic and 70-75% Inorganic.
 2 Type-II: Wet Waste: This has 65-70% Organic and 30-35%
 3 Type-I: Mixed Waste: This has 45-50% Organic and 50-55% Inorganic.

Sr. No.	Description	Unit	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	Weekly Average	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	Weekly Average	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov		
1.2 Output Products:																									
1	Organic Fraction	TPD	69.93	71.43	69.75	76.89	71.64	71.67	68.57	71.41	43.89%	65.06	72.02	72.92	73.79	63.91	68.22	75.64	70.22	44.85%	60.63	61.65	61.63	76.07	75.36
2	Inorganic Fraction:																								
	Recyclables	TPD	10.68	11.24	10.67	12.48	12.39	11.70	10.77	11.42	7.02%	11.19	12.30	10.49	12.30	10.72	11.54	10.98	11.36	7.26%	9.71	9.12	10.62	13.10	12.35
	RDF	TPD	67.54	74.27	72.22	67.06	71.29	77.22	71.95	71.65	44.04%	65.14	72.00	64.75	66.56	62.63	66.45	66.37	66.27	42.33%	58.80	54.09	61.14	79.72	78.20
	Bulking Material	TPD	2.47	2.47	1.93	2.59	1.89	2.33	2.32	2.29	1.40%	1.67	2.24	1.91	2.46	1.75	2.08	1.83	1.99	1.27%	1.70	1.81	1.70	2.62	2.08
	Inert	TPD	1.75	0.00	0.00	3.90	0.00	0.00	0.00	0.81	0.50%	3.73	0.00	0.00	4.47	4.17	0.00	0.00	1.77	1.13%	0.00	2.93	0.00	3.44	0.00
3	Tree Waste	TPD	7.00	5.79	6.38	4.39	5.73	3.31	3.28	5.13	3.15%	9.57	5.69	0.88	5.11	3.66	6.29	4.96	3.17%	2.16	3.24	2.92	3.53	3.18	
	Total.....(1)+(2)+(3)	TPD	159.37	165.20	160.95	167.31	162.93	166.23	156.89	162.70	100.00%	156.36	164.25	150.95	164.69	146.84	154.57	158.34	156.57	100.00%	133.00	132.85	138.01	178.49	171.17

2 RECYCLABLES:																								
Sr. No.	Description	Unit	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	Weekly Average	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	Weekly Average	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov	
1	Glass	Kg	183	175	170	212	189	244	154	190		220	159	210	160	172	193	183	183	156	162	245	185	
2	Aluminum	Kg	122	159	93	147	141	81	138	126		147	127	90	128	129	133	130	92	78	68	87	134	
3	Metal	Kg	290	319	247	293	236	326	307	288		250	285	285	319	258	297	282	209	259	216	297	319	
4	Tetra Pack	Kg	107	112	139	114	157	130	138	128		88	159	120	128	129	89	120	92	130	108	122	84	
5	Hard Plastic	Kg	168	159	247	244	283	179	276	222		147	301	270	223	200	208	226	170	220	230	315	202	
6	PET	Kg	213	303	247	326	267	261	230	264		235	174	225	207	215	222	205	209	207	243	315	202	
7	Mixed Plastic	Kg	9,477	9,899	9,444	11,062	10,957	10,329	9,386	10,079		9,982	11,020	9,139	11,011	9,507	10,320	10,102	8,662	7,984	9,456	11,600	11,054	
8	Thermocol + Styrofoam	Kg	122	112	77	81	157	147	138	119		117	79	150	128	115	74	112	92	91	135	122	168	
9	Cloth + Rags + Textiles	Kg	929	1,004	958	1,434	1,069	1,352	1,106	1,122		895	1,142	1,456	1,213	773	1,127	1,099	1,138	985	824	945	1,495	
10	Leather + Rexine + Rubber	Kg	1,234	1,530	1,546	1,417	1,006	1,320	937	1,284		1,248	1,316	810	1,500	1,403	1,260	1,216	1,204	1,296	1,202	1,295	1,260	
11	Paper + Cardboard	Kg	960	988	1,005	1,075	959	994	983	995		881	1,110	900	1,005	959	905	1,022	969	864	830	905	1,085	1,176
12	Coconut	Kg	1,508	1,483	927	1,515	927	1,336	1,336	1,290		793	1,126	1,005	1,452	787	1,171	1,020	837	985	797	1,540	907	

- # Note:
 1 Item No. 9 (Cloth + Rags + Textiles) and 10 (Leather + Rexine + Rubber) are sent to Cement Plants as RDF.
 2 Item No. 11 (Paper + Cardboard) and 12 (Coconut) are used as Bulking Material in Composting.

3 DISPOSAL OF INERT:																								
Sr. No.	Description	Unit	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	Weekly Average	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	Weekly Average	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov	
1 As per Tender: Maximum 10% of Inerts of the Total Input Waste (excluding Mulched Tree Waste) as received in the Facility.																								
2	Input Waste	TPD	152.37	159.41	154.57	162.92	157.20	162.92	153.61	157.57		146.79	158.56	150.07	159.58	143.18	148.28	151.61	130.84	129.61	135.09	174.96	167.99	
3	Inert Fraction	TPD	1.75	0.00	0.00	3.90	0.00	0.00	0.00	0.81		3.73	0.00	0.00	4.47	4.17	0.00	1.77	0.00	2.93	0.00	3.44	0.00	
4	% of Total Input Waste.....(3) ÷ (2)	%	1.15%	0.00%	0.00%	2.39%	0.00%	0.00%	0.00%	0.51%		2.54%	0.00%	0.00%	2.80%	2.91%	0.00%	1.18%	0.00%	2.26%	0.00%	1.97%	0.00%	

4 ELECTRICITY GENERATION:																								
Sr. No.	Description	Unit	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	Weekly Average	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	Weekly Average	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov	
3.1 Biogas Gensets:																								
1	Biogas Genset-I: Running Time	hr/day	23.75	23.75	23.50	23.35	23.05	23.72	22.97	23.44		24.00	23.90	23.30	21.00	23.90	24.00	23.44	24.00	22.70	23.50	22.25	23.29	
2	Biogas Genset-I: Biogas Consumption	Nm ³ /day	2,293	2,280	2,265	2,236	2,208	2,349	2,251	2,269		2,337	2,296	2,243	2,026	2,260	2,313	2,258	2,322	2,144	2,236	2,150	2,236	
3	Biogas Genset-I: Energy Generation	kW.hr/day	3,728	3,762	3,963	3,697	3,633	3,969	3,759	3,787		3,830	3,850	3,750	3,713	3,930	3,710	3,817	3,660	3,995	3,730	3,883	3,689	
4	Biogas Genset-II: Running Time	hr/day	23.80	23.06	23.45	23.30	23.05	19.64	19.92	22.32		24.00	23.90	23.25	20.95	23.90	24.00	23.43	24.00	22.70	23.45	22.30	23.05	
5	Biogas Genset-II: Biogas Consumption	Nm ³ /day	2,127	2,283	2,083	2,063	2,032	1,905	1,893	2,055		2,156	2,113	2,068	1,858	2,085	2,128	2,079	2,138	2,007	2,069	1,985	2,259	
6	Biogas Genset-II: Energy Generation	kW.hr/day	3,102	3,859	3,527	3,739	3,611	3,143	3,161	3,449		3,810	3,830	3,730	3,827	3,910	3,670	3,790	3,630	3,401	3,730	3,967	3,750	
7	Total Biogas Consumption = (2)+(5)	Nm ³ /day	4,420	4,563	4,348	4,300	4,240	4,253	4,144	4,324		4,493	4,409	4,310	3,883	4,345	4,442	4,336	4,460	4,151	4,306	4,136	4,495	
8	Total Energy Generation = (3)+(6)	kW.hr/day	6,830	7,621	7,490	7,436	7,244	7,112	6,920	7,236		7,640	7,680	7,480	7,540	7,840	7,380	7,607	7,290	7,396	7,460	7,850	7,439	

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

Sr. No.	Description	Unit	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	Weekly Average	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	Weekly Average	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov
3.2 Electricity Generation:																							
1	<u>As per Tender:</u> Minimum electricity to be generated in the plant shall be 0.4 MW per 100 tons of Input Biodegradable Waste as received in the Facility.	MW/100 MT	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
2	Biodegradable Waste = 1.2.2	TPD	68.24	74.40	73.66	73.28	72.18	68.91	64.16	70.69	63.71	71.23	80.61	71.20	61.34	60.36	76.43	69.27	62.05	71.86	63.36	75.20	73.51
3	Guaranteed Electricity Generation = (3.2.2 x 3.2.1) ÷ 100	kW	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
4	Guaranteed Electricity Generation = 3.2.3 x 24 x 1000	kW.hr/day	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760
5	Available Electricity Generation = (A2 ÷ 24) + (A4 ÷ 24)	kW	285	318	312	310	302	296	288	302	318	320	312	314	327	308	320	317	304	308	311	327	310
6	Available Electricity Generation = 3.2.5 ÷ 100	MW/100 MT	0.47	0.53	0.52	0.52	0.50	0.49	0.48	0.50	0.53	0.53	0.52	0.52	0.54	0.51	0.53	0.53	0.51	0.51	0.52	0.55	0.52

5 BIOGAS FLARE:																							
Sr. No.	Description	Unit	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	Weekly Average	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	Weekly Average	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov
1	Operation Time	hr/day	1.93	4.92	5.67	1.93	1.92	5.48	5.73	3.94	6.25	3.93	4.25	9.85	5.50	6.08	4.42	5.75	1.85	6.20	4.30	4.75	8.53
2	Biogas Flared	Nm ³ /day	435	1,106	1,275	435	431	1,234	1,290	887	1,406	885	956	2,216	1,238	1,369	994	1,295	416	1,395	968	1,069	1,920

6 DIGESTERS:																							
Sr. No.	Description	Unit	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	Weekly Average	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	Weekly Average	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov
5.1 Digester-I: Front End																							
1	pH	---	8.06	7.93	0.00	7.86	7.81	7.93	7.80	6.77	7.80	7.76	7.88	7.87	7.79	7.52	7.69	7.76	7.81	7.84	7.78	7.72	7.74
2	TSS	ppm	0	39,983	0	36,842	40,430	38,900	38,844	27,857	39,494	40,373	0	37,307	44,682	39,822	41,332	34,716	40,332	43,361	0	40,013	38,736
3	VSS	ppm	0	26,331	0	23,568	27,372	28,752	26,167	18,884	26,604	2,501	0	26,412	32,763	26,703	27,039	20,289	24,874	21,266	0	26,798	26,200
4	Total Alkalinity	ppm as CaCO ₃	8,850	8,700	0	8,900	8,750	9,050	8,850	7,586	8,925	8,900	8,450	8,875	8,800	8,800	9,100	8,836	8,700	8,525	8,950	8,900	8,950
5	VFA	ppm as HAC	1,585	1,751	0	2,166	2,498	2,166	2,415	1,797	2,581	2,249	2,581	2,581	2,664	2,747	2,498	2,557	2,581	2,581	2,581	2,664	2,664
5.2 Digester-I: Back End																							
1	pH	---	8.04	7.96	0.00	7.90	7.83	7.99	7.83	6.79	7.81	7.82	7.92	7.93	7.85	7.58	7.77	7.81	7.88	7.87	7.84	7.76	7.76
2	TSS	ppm	0	37,838	0	36,849	40,900	37,792	37,767	27,307	37,743	38,519	0	41,165	42,896	38,159	38,801	33,898	37,892	43,773	0	37,015	39,314
3	VSS	ppm	0	23,455	0	23,482	27,442	27,569	24,724	18,096	29,837	22,678	0	27,322	30,269	25,703	25,380	23,027	23,513	23,843	0	24,370	26,472
4	Total Alkalinity	ppm as CaCO ₃	9,000	8,850	0	9,000	8,850	9,250	9,050	7,714	9,050	9,100	8,550	9,075	9,150	9,000	9,300	9,032	8,950	8,800	9,175	9,000	9,225
5	VFA	ppm as HAC	1,419	1,585	0	1,917	2,332	1,917	2,249	1,631	2,332	2,249	2,332	2,249	2,332	2,415	2,249	2,308	2,323	2,415	2,415	2,415	2,498
5.3 Buffer Tank: Front End																							
1	pH	---	7.94	7.88	0.00	7.89	7.87	7.81	7.80	7.77	7.82	7.82	7.96	7.97	7.80	7.59	7.67	7.77	7.83	7.88	7.82	7.79	7.80
2	TSS	ppm	0	38,644	0	35,093	38,710	36,988	37,572	27,307	37,466	37,926	0	41,223	40,749	40,024	38,990	37,968	43,400	39,427	0	38,621	39,278
3	VSS	ppm	0	25,595	0	23,466	27,159	26,683	21,139	18,096	25,401	25,561	0	28,500	28,878	27,545	25,597	23,027	30,273	21,380	0	26,160	30,003
4	Total Alkalinity	ppm as CaCO ₃	8,950	8,575	0	8,675	8,950	8,825	8,725	7,714	8,850	8,675	9,050	9,300	9,350	9,100	9,100	9,032	9,125	9,175	9,350	9,225	9,225
5	VFA	ppm as HAC	1,668	1,668	0	2,000	2,166	2,332	2,332	1,631	2,332	2,664	2,332	2,332	2,581	2,581	2,498	2,557	2,498	2,083	2,249	2,747	2,664
5.4 Buffer Tank: Back End																							
1	pH	---	7.99	7.92	0.00	7.93	7.91	7.89	7.84	6.77	7.77	7.90	8.01	7.95	7.81	7.63	7.72	7.77	7.90	7.92	7.87	7.84	7.86
2	TSS	ppm	0	35,841	0	36,030	37,949	37,338	37,663	27,307	38,316	37,610	0	38,232	38,058	37,646	39,200	37,968	41,118	0	37,107	41,641	41,641
3	VSS	ppm	0	23,009	0	24,143	25,859	30,590	25,385	18,096	26,154	25,005	0	26,001	26,379	26,047	26,163	25,536	22,656	0	24,885	28,836	28,836
4	Total Alkalinity	ppm as CaCO ₃	9,325	8,725	0	8,950	9,175	9,000	9,000	7,714	8,725	8,950	9,375	9,775	9,000	8,925	9,150	9,032	9,300	9,375	9,625	9,500	9,425
5	VFA	ppm as HAC	1,585	1,668	0	1,751	2,166	2,249	2,083	1,631	2,083	2,249	2,166	2,166	2,249	2,249	2,332	2,308	2,249	1,917	2,000	2,415	2,249
5.5 Digester-II: Front End																							
1	pH	---	6.93	7.03	0.00	7.10	7.30	6.99	7.21	6.08	7.29	7.36	7.34	7.39	7.43	7.32	7.43	7.37	7.40	7.47	7.40	7.59	7.58
2	TSS	ppm	0	41,818	0	43,198	46,414	43,013	43,383	31,118	43,300	41,237	0	50,770	41,727	43,364	40,470	37,267	45,590	43,401	0	47,612	40,536
3	VSS	ppm	0	28,839	0	30,567	33,833	35,453	31,234	22,847	31,071	28,308	0	36,611	30,553	30,900	27,791	26,462	32,670	31,924	0	30,912	28,040
4	Total Alkalinity	ppm as CaCO ₃	4,750	4,725	0	4,500	7,075	4,900	5,900	4,550	6,450	7,075	6,975	7,425	7,250	6,700	7,175	7,007	6,850	6,950	7,200	7,350	7,600
5	VFA	ppm as HAC	6,399	6,316	0	6,482	6,067	6,897	6,482	5,520	6,399	6,150	6,482	6,565	6,316	6,316	6,150	6,340	5,984	5,237	4,822	4,573	4,407
5.6 Digester-II: Back End																							
1	pH	---	7.00	7.12	0.00	7.18	7.36	7.02	7.26	6.13	7.36	7.44	7.48	7.35	7.50	7.39	7.50	7.43	7.51	7.55	7.51	7.65	7.63
2	TSS	ppm	0	43,106	0	43,423	46,468	41,047	44,661	31,244	42,716	41,885	0	43,779	47,599	42,603	41,229	37,116	42,211	46,314	0	37,414	39,019
3	VSS	ppm	0	29,830	0	30,276	33,194	30,653	31,875	22,261	31,051	28,827	0	32,972	35,063	30,994	28,021	26,704	30,214	31,988	0	30,600	26,720
4	Total Alkalinity	ppm as CaCO ₃	5,100	5,000	0	4,850	7,250	5,250	6,175	4,804	6,850	7,500	7,200	7,900	7,100	6,800	750	6,300	28	7,300	7,550	7,850	8,000
5	VFA	ppm as HAC	6,067	5,984	0	6,233	6,067	6,565	6,150	5,295	5,984	5,735	6,399	6,150	5,735	6,067	5,735	5,972	5,320	4,822	4,407	4,241	3,992

7 EFFLUENT TREATMENT PLANT:																							
Sr. No.	Description	Unit	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	Weekly Average	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	Weekly Average	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov
6.1 Raw Effluent Quality:																							
1	Flow	m ³ /day	82.47	72.16	73.62	69.06	67.34	70.58	66.71	71.71	81.35	75.77	73.61	69.87	77.92	73.92	77.61	75.72	73.07	71.91	68.67	75.33	61.25
2	pH	---	7.75	7.55	6.03	6.56	6.95	6.58	6.97	6.91	7.75	7.72	6.49	6.97	6.83	7.22	7.96	7.28	7.33	7.14	6.87	6.20	7.51
3	Biochemical Oxygen Demand (BOD ₅)	mg/l	2,232	1,549	1,512	2,084	2,164	1,995	1,936	1,925	1,939	1,876	1,875	1,667	2,328	1,870	1,821	1,911	2,145	1,745	2,426	1,862	1,630
4	Chemical Oxygen Demand (COD)	mg/l	5,379	3,175	3,417	4,668	4,891	4,150	6,234	4,559	4,460	5,365	5,100	4,618	5,867	6,377	4,680	5,210	4,934	3,961	5,968	3,798	5,020
5	Total Suspended Solids (TSS)	mg/l	5,000	2,385	2,419	3,626	3,722	4,908	4,046	3,729	3,413	3,114	4,144										

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

Sr. No.	Description	Unit	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	Weekly Average	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	Weekly Average	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov
6.2	Treated Effluent Quality:																						
1	pH	---	6.97	7.15	6.66	7.46	6.57	7.44	7.50	7.11	7.10	7.22	6.70	6.87	7.30	7.27	7.09	7.08	6.62	7.15	7.35	6.67	6.91
2	Biochemical Oxygen Demand (BOD5)	mg/l	5	7	7	8	6	5	6	6	6	8	9	8	9	6	5	7	8	9	8	6	5
3	Chemical Oxygen Demand (COD)	mg/l	58	50	51	78	76	74	84	67	70	78	52	72	53	51	56	62	50	89	90	61	60
4	Total Suspended Solids (TSS)	mg/l	6	8	8	9	7	6	7	7	7	9	10	9	10	7	6	8	9	10	9	7	6
5	Total Dissolve Solids (TDS)	mg/l	1,731	1,881	1,692	1,802	1,427	1,864	1,720	1,731	1,809	1,894	1,905	1,737	1,392	1,747	1,881	1,766	1,631	1,595	1,419	1,779	1,355

8 HOUSEKEEPING:																							
Sr. No.	Description	Unit	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	Weekly Average	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	Weekly Average	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov
1	Hygienic Conditions	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
2	Cleanliness	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
3	Manpower Deployed	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
4	Safety Norms	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
5	Treatment Methodology	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
6	Storage Conditions	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

1 WASTE:																					
Sr. No.	Description	Unit	20-Nov	21-Nov	Weekly Average	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	Weekly Average	29-Nov	30-Nov	Weekly Average	Monthly Average				
1.1 Input Waste:																					
1	Type 1: Dry Waste	TPD	93.48	91.56	82.51	53.37%	105.83	87.94	74.95	97.39	79.13	80.00	91.91	88.16	54.22%	75.49	75.75	75.62	51.31%	83.10	52.98%
2	Type 2: Wet Waste	TPD	67.31	63.71	68.14	44.08%	60.54	76.19	71.21	71.23	82.96	66.63	64.18	70.42	43.30%	58.37	74.09	66.23	44.94%	68.95	44.00%
3	Type 3: Mixed Waste	TPD	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00%	0.00	0.00%
4	Type 4: Tree Waste	TPD	6.21	6.30	3.93	2.55%	0.31	5.86	5.61	4.00	4.11	4.61	3.71	4.03	2.48%	4.52	6.51	5.52	3.74%	4.71	3.02%
5	Total.....(1)+(2)+(3)+(4)	TPD	167.00	161.57	154.58	100.00%	166.68	169.99	151.77	172.62	166.20	151.24	159.80	162.61	100.00%	138.38	156.35	147.37	100.00%	156.77	100.00%

- # **Note:**
 1 **Type-I: Dry Waste:** This has 25-30% Organic and 70-75% Inorganic.
 2 **Type-II: Wet Waste:** This has 65-70% Organic and 30-35%
 3 **Type-I: Mixed Waste:** This has 45-50% Organic and 50-55% Inorganic.

Sr. No.	Description	Unit	20-Nov	21-Nov	Weekly Average	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	Weekly Average	29-Nov	30-Nov	Weekly Average	Monthly Average				
1.2 Output Products:																					
1	Organic Fraction	TPD	73.49	69.14	68.28	44.17%	70.89	73.32	69.00	72.63	78.48	68.63	66.97	71.42	43.92%	61.77	73.61	67.69	45.93%	69.80	44.55%
2	Inorganic Fraction:																				
	Recyclables	TPD	12.27	10.78	11.14	7.20%	12.58	12.44	10.57	11.80	11.30	10.16	11.69	11.51	7.08%	10.00	10.37	10.18	6.91%	11.12	7.09%
	RDF	TPD	66.07	71.54	67.08	43.39%	77.79	76.35	62.39	81.40	65.97	66.01	74.96	72.12	44.35%	58.25	61.68	59.97	40.69%	67.42	42.96%
	Bulking Material	TPD	2.41	1.82	2.02	1.31%	2.66	2.02	1.70	2.78	2.42	1.83	2.47	2.27	1.39%	1.93	2.08	2.01	1.36%	2.11	1.35%
	Inert	TPD	6.55	2.00	2.13	1.38%	2.45	0.00	2.51	0.00	3.93	0.00	0.00	1.27	0.78%	1.91	2.10	2.01	1.36%	1.60	1.03%
3	Tree Waste	TPD	6.21	6.30	3.93	2.55%	0.31	5.86	5.61	4.00	4.11	4.61	3.71	4.03	2.48%	4.52	6.51	5.52	3.74%	4.71	3.02%
	Total.....(1)+(2)+(3)	TPD	167.00	161.57	154.58	100.00%	166.68	169.99	151.77	172.62	166.20	151.24	159.80	162.61	100.00%	138.38	156.35	147.37	100.00%	156.77	100.00%

2 RECYCLABLES:																				
Sr. No.	Description	Unit	20-Nov	21-Nov	Weekly Average	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	Weekly Average	29-Nov	30-Nov	Weekly Average	Monthly Average			
1	Glass	Kg	161	233	189		216	197	146	202	243	220	219	206	187	150	169		187	
2	Aluminum	Kg	129	93	97		116	131	132	152	162	73	94	123	107	105	106		116	
3	Metal	Kg	241	248	256		316	295	292	320	324	293	297	305	214	300	257		278	
4	Tetra Pack	Kg	145	78	108		100	82	132	84	162	73	94	104	94	150	122		116	
5	Hard Plastic	Kg	241	279	237		250	246	161	270	178	279	281	238	214	240	227		230	
6	PET	Kg	177	186	220		183	197	234	337	227	279	203	237	187	210	199		225	
7	Mixed Plastic	Kg	11,095	9,580	9,919		11,297	11,210	9,383	10,320	9,904	8,842	10,411	10,195	8,928	9,140	9,034		9,866	
8	Thermocol + Styrofoam	Kg	80	78	109		100	82	88	118	97	103	94	97	67	75	71		102	
9	Cloth + Rags + Textiles	Kg	1,447	1,040	1,125		948	1,608	1,359	1,332	1,394	1,276	1,545	1,352	977	1,349	1,163		1,172	
10	Leather + Rexine + Rubber	Kg	1,528	963	1,250		1,398	853	818	1,400	843	1,437	1,436	1,169	1,325	1,289	1,307		1,245	
11	Paper + Cardboard	Kg	1,093	1,025	997		1,065	1,034	965	1,163	1,070	997	1,046	1,049	870	944	907		983	
12	Coconut	Kg	1,318	792	1,025		1,597	985	731	1,619	1,345	836	1,420	1,219	1,057	1,139	1,098		1,130	

- # **Note:**
 1 Item No. 9 (Cloth + Rags + Textiles) and 10 (Leather + Rexine + Rubber) are sent to Cement Plants as RDF.
 2 Item No. 11 (Paper + Cardboard) and 12 (Coconut) are used as Bulking Material in Composting.

3 DISPOSAL OF INERT:																				
Sr. No.	Description	Unit	20-Nov	21-Nov	Weekly Average	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	Weekly Average	29-Nov	30-Nov	Weekly Average	Monthly Average			
1	As per Tender: Maximum 10% of Inerts of the Total Input Waste (excluding Mulched Tree Waste) as received in the Facility.																			
2	Input Waste	TPD	160.79	155.27	150.65		166.37	164.13	146.16	168.62	162.09	146.63	156.09	158.58	133.86	149.84	141.85		152.05	
3	Inert Fraction	TPD	6.55	2.00	2.13		2.45	0.00	2.51	0.00	3.93	0.00	0.00	1.27	1.91	2.10	2.01		1.60	
4	% of Total Input Waste.....(3) ÷ (2)	%	4.07%	1.29%	1.37%		1.47%	0.00%	1.72%	0.00%	2.42%	0.00%	0.00%	0.80%	1.43%	1.40%	1.41%		1.05%	

4 ELECTRICITY GENERATION:																				
Sr. No.	Description	Unit	20-Nov	21-Nov	Weekly Average	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	Weekly Average	29-Nov	30-Nov	Weekly Average	Monthly Average			
3.1 Biogas Gensets:																				
1	Biogas Genset-I: Running Time	hr/day	23.90	23.40	23.29		23.90	23.30	24.00	24.00	21.00	22.35	22.50	23.01	23.10	23.95	23.53		23.34	
2	Biogas Genset-I: Biogas Consumption	Nm ³ /day	2,300	2,239	2,232		2,279	2,197	2,315	2,315	2,023	2,041	2,116	2,184	2,181	2,312	2,247		2,238	
3	Biogas Genset-I: Energy Generation	kW.hr/day	3,680	3,600	3,748		3,930	3,640	3,588	3,860	3,969	3,430	3,470	3,698.14	3,170	3,850	3,510		3,712	
4	Biogas Genset-II: Running Time	hr/day	23.85	23.25	23.23		23.85	23.20	24.00	24.00	21.00	19.95	22.35	22.62	23.10	23.95	23.53		23.02	
5	Biogas Genset-II: Biogas Consumption	Nm ³ /day	2,126	2,064	2,093		2,115	2,033	2,137	2,137	1,873	1,756	1,959	2,001	2,058	2,138	2,098		2,065	
6	Biogas Genset-II: Energy Generation	kW.hr/day	3,660	3,550	3,670		3,890	3,620	3,702	3,820	3,992	3,230	3,470	3,675	3,210	3,830	3,520		3,621	
7	Total Biogas Consumption = (2)+(5)	Nm³/day	4,426	4,303	4,325		4,394	4,230	4,451	4,452	3,896	3,797	4,075	4,185	4,239	4,450	4,345		4,303	
8	Total Energy Generation = (3)+(6)	kW.hr/day	7,340	7,150	7,418		7,820	7,260	7,290	7,680	7,961	6,660	6,940	7,373	6,380	7,680	7,030		7,333	

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Sr. No.	Description	Unit	20-Nov	21-Nov	Weekly Average	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	Weekly Average	29-Nov	30-Nov	Weekly Average	Monthly Average
3.2 Electricity Generation:																	
1	As per Tender: Minimum electricity to be generated in the plant shall be 0.4 MW per 100 tons of Input Biodegradable Waste as received in the Facility.	MW/100 MT	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
2	Biodegradable Waste = 1.2.2	TPD	67.31	63.71	68.14	60.54	76.19	71.21	71.23	82.96	66.63	64.18	70.42	58.37	74.09	66.74	69.05
3	Guaranteed Electricity Generation = (3.2.2 x 3.2.1) ÷ 100	kW	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.23	0.24	0.24	0.24
4	Guaranteed Electricity Generation = 3.2.3 x 24 x 1000	kW.hr/day	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,604	5,760	5,729	5,754
5	Available Electricity Generation = (A2 ÷ 24) + (A4 ÷ 24)	kW	306	298	309	326	303	304	320	332	278	289	307	266	320	292	305
6	Available Electricity Generation = 3.2.5 ÷ 100	MW/100 MT	0.51	0.50	0.52	0.54	0.50	0.51	0.53	0.55	0.46	0.48	0.51	0.46	0.53	0.49	0.51

5 BIOGAS FLARE:																	
Sr. No.	Description	Unit	20-Nov	21-Nov	Weekly Average	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	Weekly Average	29-Nov	30-Nov	Weekly Average	Monthly Average
1	Operation Time	hr/day	14.42	6.53	6.65	4.20	3.37	8.07	6.58	9.28	6.43	6.15	6.30	6.53	3.75	5.14	5.56
2	Biogas Flared	Nm ³ /day	3,244	1,470	1,497	945	758	1,815	1,481	2,089	1,447	1,384	1,417	1,470	844	1,156.84	1,250.50

6 DIGESTERS:																	
Sr. No.	Description	Unit	20-Nov	21-Nov	Weekly Average	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	Weekly Average	29-Nov	30-Nov	Weekly Average	Monthly Average
5.1 Digester-I: Front End																	
1	pH	---	7.80	7.81	7.79	7.89	7.90	7.87	7.87	7.82	7.89	7.91	7.88	7.74	7.88	7.86	7.61
2	TSS	ppm	0	43,884	29,475	40,246	44,965	0	39,350	40,987	42,075	40,983	35,515	40,905	41,357	40,167	33,546
3	VSS	ppm	0	29,475	18,373	27,304	28,746	0	26,086	27,477	29,194	27,369	23,739	28,398	28,321	27,404	21,738
4	Total Alkalinity	ppm as CaCO ₃	8,500	8,600	8,732	8,475	8,500	8,250	8,275	8,275	8,600	8,650	8,432	8,850	8,925	8,691	8,455
5	VFA	ppm as HAc	2,332	2,581	2,569	2,415	2,166	2,498	2,166	2,664	2,498	2,498	2,415	2,913	2,581	2,581	2,384
5.2 Digester-I: Back End																	
1	pH	---	7.84	7.84	7.83	7.92	7.94	7.92	7.92	7.88	7.92	7.96	7.92	7.77	7.91	7.90	7.65
2	TSS	ppm	0	44,334	28,904	40,364	43,743	0	40,310	39,869	43,427	39,867	35,369	47,938	40,255	41,371	33,370
3	VSS	ppm	0	28,797	18,142	26,787	29,527	0	26,784	26,570	29,910	26,206	23,683	33,120	27,166	28,017	22,193
4	Total Alkalinity	ppm as CaCO ₃	8,675	8,750	8,939	8,675	8,575	8,450	8,500	8,500	8,750	8,850	8,614	9,000	9,100	8,863	8,633
5	VFA	ppm as HAc	2,166	2,332	2,366	2,249	2,083	2,332	2,166	2,415	2,332	2,332	2,273	2,830	2,415	2,436	2,203
5.3 Buffer Tank: Front End																	
1	pH	---	7.88	7.88	7.84	7.94	7.94	7.91	7.92	7.89	7.96	8.02	7.94	7.74	7.96	7.92	7.90
2	TSS	ppm	0	39,218	28,563	36,391	38,290	0	40,168	42,176	38,365	41,977	33,910	40,741	35,302	38,059	33,511
3	VSS	ppm	0	26,926	19,249	24,910	26,712	0	22,790	29,435	26,965	30,339	23,022	29,056	24,117	26,700	22,990
4	Total Alkalinity	ppm as CaCO ₃	8,850	8,875	9,118	8,925	8,550	8,875	9,000	8,700	9,000	9,050	8,871	9,100	9,175	9,039	9,010
5	VFA	ppm as HAc	2,415	2,415	2,439	2,332	2,249	2,166	2,249	2,332	2,249	2,249	2,261	2,498	2,332	2,318	2,339
5.4 Buffer Tank: Back End																	
1	pH	---	7.90	7.94	7.89	8.01	7.99	7.98	7.99	7.94	7.99	8.07	8.00	7.80	8.02	7.98	7.95
2	TSS	ppm	0	40,205	28,291	37,761	37,981	0	37,962	40,832	37,933	37,782	32,893	46,812	35,011	38,086	33,090
3	VSS	ppm	0	27,509	18,489	25,691	24,282	0	25,825	28,364	26,034	25,422	22,231	34,451	23,815	26,391	22,370
4	Total Alkalinity	ppm as CaCO ₃	9,175	9,000	9,343	9,050	8,925	9,075	9,050	8,925	9,100	9,175	9,043	9,250	9,300	9,174	9,186
5	VFA	ppm as HAc	2,166	2,166	2,166	2,166	2,083	2,000	2,083	2,083	2,083	2,000	2,071	2,332	2,083	2,114	2,117
5.5 Digester-II: Front End																	
1	pH	---	7.70	7.70	7.55	7.77	7.84	7.82	7.80	7.79	7.86	7.84	7.82	7.64	7.80	7.79	7.32
2	TSS	ppm	0	40,280	31,060	41,098	42,287	0	40,893	39,391	41,061	39,533	34,895	43,350	39,580	39,684	34,805
3	VSS	ppm	0	27,669	21,602	28,611	29,312	0	27,997	27,478	29,372	27,140	24,273	27,630	27,845	27,252	24,487
4	Total Alkalinity	ppm as CaCO ₃	7,800	8,450	7,457	8,200	8,275	7,900	7,950	7,725	8,400	8,225	8,096	8,750	8,775	8,449	7,112
5	VFA	ppm as HAc	2,996	2,747	4,395	2,747	2,415	2,830	2,830	2,747	2,581	2,581	2,676	3,162	2,747	2,749	4,336
5.6 Digester-II: Back End																	
1	pH	---	7.77	7.77	7.63	7.82	7.87	7.86	7.88	7.82	7.90	7.89	7.86	7.66	7.84	7.83	7.38
2	TSS	ppm	0	40,658	29,374	41,728	41,174	0	41,421	41,231	40,893	41,200	35,378	44,616	40,418	40,501	34,722
3	VSS	ppm	0	28,119	21,092	29,049	28,454	0	23,979	27,863	29,176	27,751	23,753	31,885	27,872	28,087	24,379
4	Total Alkalinity	ppm as CaCO ₃	7,925	8,550	6,743	8,400	8,350	8,050	8,175	7,925	8,600	8,500	8,286	8,925	8,950	8,652	6,957
5	VFA	ppm as HAc	2,747	2,664	4,028	2,581	2,415	2,664	2,581	2,498	2,415	2,332	2,498	2,913	2,498	2,531	4,065

7 EFFLUENT TREATMENT PLANT:																	
Sr. No.	Description	Unit	20-Nov	21-Nov	Weekly Average	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	Weekly Average	29-Nov	30-Nov	Weekly Average	Monthly Average
6.1 Raw Effluent Quality:																	
1	Flow	m ³ /day	78.98	72.82	71.72	73.33	72.38	68.39	78.21	61.80	67.40	72.89	70.63	78.28	72.64	75.46	73.05
2	pH	---	7.44	7.25	7.11	7.74	7.37	7.44	6.60	7.64	7.30	7.11	7.31	6.68	7.23	6.96	7.11
3	Biochemical Oxygen Demand (BOD ₅)	mg/l	1,726	1,650	1,883	2,083	1,601	1,509	1,601	2,098	2,139	2,471	1,929	2,387	2,273	2,330	1,996
4	Chemical Oxygen Demand (COD)	mg/l	4,695	5,660	4,862	4,208	3,698	4,633	4,835	7,196	4,385	6,005	4,994	8,092	6,546	7,319	5,389
5	Total Suspended Solids (TSS)	mg/l	3,003	3,531	3,583	4,083	2,994	3,109	2,738	5,098	4,791	4,621	3,919	4,177	5,592	4,885	4,014
6	Total Dissolve Solids (TDS)	mg/l	1,615	1,399	1,485	1,495	1,638	1,682	1,466	1,735	1,506	1,503	1,575	1,738	1,699	1,719	1,616

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

Sr. No.	Description	Unit	20-Nov	21-Nov	Weekly Average	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	Weekly Average	29-Nov	30-Nov	Weekly Average	Monthly Average
6.2 Treated Effluent Quality:																	
1	pH	---	6.52	6.69	6.84	6.71	7.36	6.56	7.05	7.21	7.49	7.09	7.07	7.14	6.66	6.90	7.00
2	Biochemical Oxygen Demand (BOD5)	mg/l	5	9	7	5	7	8	8	9	7	9	8	9	9	9	7
3	Chemical Oxygen Demand (COD)	mg/l	51	51	65	78	73	75	84	65	54	51	69	68	67	68	66
4	Total Suspended Solids (TSS)	mg/l	6	10	8	6	8	9	9	10	8	10	9	10	10	10	8
5	Total Dissolve Solids (TDS)	mg/l	1,696	1,427	1,557	1,555	1,802	1,817	1,613	1,787	1,566	1,638	1,683	1,773	1,767	1,770	1,701

8 HOUSEKEEPING:																	
Sr. No.	Description	Unit	20-Nov	21-Nov	Weekly Average	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	Weekly Average	29-Nov	30-Nov	Weekly Average	Monthly Average
1	Hygienic Conditions	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
2	Cleanliness	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
3	Manpower Deployed	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
4	Safety Norms	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
5	Treatment Methodology	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
6	Storage Conditions	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted