

BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of APRIL - 2020

P. V. RAO
 ENGINEERING INDUSTRIES LTD.

RAW SEWAGE														TREATED EFFLUENT														DEWATERED SLUDGE		REMARKS															
DATE	RAW SEWAGE FLOW	pH	Temp.	BOD	COD	TSS	VSS	TKN	NH4-N	T-PO	TOTAL ALUMINUM	FECAI COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TKN	TOTAL ALUMINUM	T-PO	FECAI COLIFORM	FECAI COLIFORM	FECAI COLIFORM	FECAI COLIFORM	FECAI COLIFORM	FECAI COLIFORM	FECAI COLIFORM																
DESIGNED UNIT	MLD		°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	MPN/100 ml	MLD		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L															
01-04-20	39.431	7.52	24.6	204	352	212	145	58.0	40.2	4.5	425	1.2x10 ³	1.2x10 ³	38.991	7.68	0.5	46	9	3.0	3.12	2.55	6.7	0.5	6.3	25.4	53.8																			
02-04-20	39.693	7.39	24.1	216	376	260	182	51.3	34.2	5.1	405	1.2x10 ³	1.2x10 ³	39.227	7.50	1.0	44	10	3.5	7.98	270	0.5	0.25	84	25.4	53.8																			
03-04-20	34.560	7.47	23.9	192	344	210	147	46.6	37.5	4.0	415	1.4x10 ³	1.4x10 ³	34.122	7.62	0.7	36	6	2.8	6.01	280	0.3	0.2	96	26.21	64.90																			
04-04-20	39.426	7.43	23.6	198	386	228	159	44.0	38.1	4.0	480	1.5x10 ³	1.5x10 ³	38.968	7.50	0.8	40	9	3.1	7.24	260	0.3	0.5	59																					
05-04-20	39.577	7.47	23.2	204	326	190	133	46.6	37.5	4.3	410	1.5x10 ³	1.5x10 ³	39.13	7.56	0.8	40	10	2.8	7.12	250	0.3	0.5	79	26.22	54.7																			
06-04-20	31.010	7.38	23.8	225	400	185	170	44.3	35.5	5.0	470	1.6x10 ³	1.6x10 ³	30.51	7.57	0.9	44	8	3.1	7.48	260	0.5	0.5	84																					
07-04-20	39.660	7.43	24.6	166	344	269	163	42.0	37.1	4.0	395	1.3x10 ³	1.3x10 ³	37.22	7.47	0.8	40	10	2.8	6.92	230	0.5	0.5	84																					
08-04-20	34.463	7.32	24.9	210	342	230	162	51.3	39.5	3.6	405	1.3x10 ³	1.3x10 ³	34.02	7.43	0.7	36	6	2.4	7.0	250	0.6	0.2	70	23.60	60.8																			
09-04-20	18.581	7.49	24.0	198	352	185	131	44.0	35.5	3.5	400	1.4x10 ³	1.4x10 ³	18.04	7.43	0.7	36	6	2.4	7.0	250	0.5	0.5	63																					
10-04-20	13.425	7.41	24.5	192	320	180	126	42.0	36.7	3.5	425	1.2x10 ³	1.2x10 ³	12.685	7.59	0.7	32	8	2.1	6.68	280	0.5	0.5	94	26.32	59.8																			
11-04-20	16.994	7.57	24.9	168	280	152	108	39.6	36.4	3.1	380	1.1x10 ³	1.1x10 ³	16.55	7.62	0.6	36	8	2.1	6.62	280	0.5	0.5	94																					
12-04-20	10.570	7.47	23.2	134	288	144	98	44.3	36.4	2.9	370	1.0x10 ³	1.0x10 ³	10.75	7.52	0.7	40	8	2.8	7.16	235	0.4	0.25	79																					
13-04-20	17.190	7.49	23.0	160	304	180	126	44.3	36.0	3.6	380	1.1x10 ³	1.1x10 ³	14.39	7.50	0.8	44	3	2.1	6.62	280	0.5	0.5	94	26.15	62.40																			
14-04-20	14.637	7.46	23.8	170	296	130	91	44.0	36.0	3.6	380	1.1x10 ³	1.1x10 ³	14.39	7.50	0.8	44	3	2.1	6.62	280	0.5	0.5	94																					
15-04-20	13.534	7.38	24.8	166	312	168	116	44.3	36.4	4.0	395	1.2x10 ³	1.2x10 ³	13.19	7.50	0.7	40	6	2.1	6.62	280	0.5	0.5	94	26.35	61.40																			
16-04-20	12.421	7.52	23.2	192	328	186	130	46.6	37.4	4.0	395	1.2x10 ³	1.2x10 ³	12.44	7.53	0.8	36	6	2.4	7.22	200	0.6	0.10	70																					
17-04-20	13.135	7.42	24.6	210	364	198	138	51.3	38.1	4.3	405	1.3x10 ³	1.3x10 ³	13.19	7.53	0.8	36	6	2.1	6.62	280	0.5	0.5	94	26.17	59.90																			
18-04-20	13.553	7.39	24.9	234	416	208	145	53.6	38.1	4.0	395	1.2x10 ³	1.2x10 ³	13.19	7.50	0.7	40	6	2.1	6.62	280	0.5	0.5	94	26.23	65.10																			
19-04-20	12.683	7.46	24.3	195	368	166	116	51.3	38.1	3.9	395	1.2x10 ³	1.2x10 ³	12.44	7.53	0.8	36	6	2.4	7.22	200	0.6	0.10	70																					
20-04-20	14.166	7.24	24.6	144	292	112	79	46.6	36.0	3.7	365	1.1x10 ³	1.1x10 ³	14.19	7.48	0.9	40	9	2.4	7.08	225	0.5	0.25	63	26.17	59.90																			
21-04-20	11.506	7.40	24.9	192	336	142	98	49.0	36.4	3.9	380	1.1x10 ³	1.1x10 ³	11.06	7.47	0.8	40	6	2.4	7.54	205	0.5	0.25	63	26.23	65.10																			
22-04-20	12.986	7.36	24.5	204	364	208	144	51.3	36.4	4.3	415	1.2x10 ³	1.2x10 ³	12.44	7.53	0.8	36	6	2.4	7.22	200	0.6	0.10	70																					
23-04-20	14.613	7.30	25.2	198	386	168	116	49.0	35.7	3.6	390	1.1x10 ³	1.1x10 ³	14.19	7.48	0.9	40	9	2.4	7.08	225	0.5	1.0	59																					
24-04-20	26.067	7.26	24.1	270	540	220	504	86.3	34.6	8.0	480	1.4x10 ³	1.4x10 ³	26.03	7.46	0.8	48	8	2.8	7.46	210	0.7	0.50	63																					
25-04-20	26.636	7.40	24.9	168	328	140	70	46.6	35.3	3.9	385	1.2x10 ³	1.2x10 ³	26.24	7.53	0.8	36	6	2.8	6.62	200	0.6	1.0	46	26.19	65.90																			
26-04-20	26.639	7.47	24.6	180	372	162	112	44.3	35.7	3.6	395	1.2x10 ³	1.2x10 ³	26.09	7.53	0.8	36	6	3.1	7.36	195	0.7	0.50	79																					
27-04-20	28.878	7.56	25.3	192	410	170	118	52.6	36.4	4.2	370	1.0x10 ³	1.0x10 ³	28.99	7.59	0.9	44	8	3.1	7.53	185	0.8	1.0	46																					
28-04-20	22.682	7.42	25.9	204	440	188	130	53.6	37.4	4.6	390	1.1x10 ³	1.1x10 ³	22.12	7.60	0.9	44	7	3.5	7.62	190	0.8	1.0	46	26.17	65.20																			
29-04-20	28.140	7.19	25.2	198	392	230	230	49.0	36.4	4.0	385	1.1x10 ³	1.1x10 ³	28.75	7.36	0.7	40	9	2.8	7.56	180	0.6	0.50	58																					
30-04-20	27.815	7.29	24.5	186	376	122	85	46.6	35.3	3.8	390	1.1x10 ³	1.1x10 ³	27.97	7.46	0.7	36	6	2.8	7.30	195	0.5	0.50	63																					
Trivent Engineering & Industries Limited																															BANGALORE WATER SUPPLY AND SEWERAGE BOARD														
Plant Chemist																	Assistant Engineer																												
Plant Manager																	Assistant Executive Engineer																												

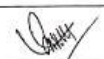
BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of MAY -2020



RAW SEWAGE														TREATED EFFLUENT														DEWATERED SLUDGE				REMARKS
PARAMETERS	RAW SEWAGE FLOW	pH	Temp.	BOD	COD	TSS	VSS	TKN	NH4-N	T-PO4	TOTAL ALKALINITY	FECAL COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TN	TOTAL ALKALINITY	T-PO4	RESIDUAL CHLORINE	FECAL COLIFORM	DRY SOLIDS	SLUDGE (SOLIDS) RATIO						
DESIGNED	40.00	5.5-9.0	24-27	350	800	450	300	70	45	7	370	3x10 ⁶	10x10 ⁶	39.95	8.5-9.0	≤10	≤50	≤10	≤5.0	≤10.0	>70	≤1	1	100	>25	<20						
UNIT	MLD		°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	MPN/100 ml	MPN/100 ml	MLD		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	%	%						
01/05/20	22.536	7.35	25.2	210	384	136	95	44.3	34.6	3.6	390	4.3x10 ⁶	4.9x10 ⁵	22.136	7.43	09	40	6	3.1	7.32	180	0.6	0.5	74	25.9	66.85						
02/05/20	19.999	7.43	25.8	216	405	168	117	44.0	36.0	4.1	365	3.5x10 ⁶	3.1x10 ⁴	19.579	7.40	09	44	9	3.5	7.60	190	0.8	0.5	74								
03/05/20	18.990	7.42	25.6	222	424	108	95	42.0	35.3	3.8	380	4.4x10 ⁶	2.6x10 ⁴	18.590	7.46	07	40	6	2.8	7.42	195	0.8	1.0	49								
04/05/20	19.029	7.33	26.1	168	256	96	60	46.6	34.3	3.7	370	1.4x10 ⁶	4.8x10 ⁴	18.629	7.26	06	32	4	3.1	6.62	180	0.9	0.5	70								
05/05/20	19.585	7.16	26.0	192	408	160	112	49.0	35.0	4.5	390	1.7x10 ⁶	3.1x10 ⁵	19.185	7.09	07	44	8	3.1	7.16	190	0.9	1.0	49								
06/05/20	31.630	7.64	25.6	285	1640	910	297	92.0	58.0	4.8	505	8.3x10 ⁶	6.4x10 ⁶	31.230	7.32	07	48	10	4.5	8.68	205	0.8	0.50	74	26.1	66.12						
07/05/20	34.983	7.36	25.0	170	392	138	98	46.6	33.9	3.8	390	2.1x10 ⁶	3.4x10 ⁵	34.583	7.30	08	40	8	2.9	7.62	200	0.9	0.50	74								
08/05/20	32.309	7.46	25.8	155	360	130	92	51.3	38.8	3.9	280	4.1x10 ⁶	3.2x10 ⁴	31.909	7.15	06	28	6	3.5	7.60	180	0.9	1.0	76								
09/05/20	30.877	7.30	26.0	195	420	110	76	49.0	38.1	3.2	385	4.3x10 ⁶	7.4x10 ⁵	30.477	7.24	06	32	8	3.1	8.62	210	0.5	0.55	49	26.5	60.38						
10/05/20	29.463	7.53	26.0	280	640	198	136	54.6	41.3	6.1	435	4.6x10 ⁶	7.4x10 ⁵	29.563	7.49	08	42	9	4.9	8.68	225	1.0	0.50	94								
11/05/20	30.441	7.51	26.6	290	860	198	136	54.6	41.3	6.1	435	4.6x10 ⁶	7.4x10 ⁵	30.041	7.06	08	46	2	4.5	7.46	175	0.7	0.50	84								
12/05/20	23.934	7.41	26.2	205	448	112	98	53.6	38.1	3.2	370	3.2x10 ⁶	1.7x10 ⁵	23.534	7.36	08	48	8	4.2	7.68	195	0.9	1.0	76								
13/05/20	24.630	7.63	26.0	215	456	200	140	51.3	37.4	4.8	375	1.7x10 ⁶	7.4x10 ⁵	24.230	7.59	06	42	6	3.8	7.60	240	1.0	0.5	94								
14/05/20	25.166	7.61	25.6	200	432	120	84	49.0	37.4	4.1	370	4.4x10 ⁶	4.3x10 ⁵	24.230	7.59	06	42	6	3.8	7.60	240	1.0	0.5	94								
15/05/20	31.701	7.58	25.8	225	464	142	98	53.6	35.3	3.7	395	4.0x10 ⁶	2.4x10 ⁵	31.301	7.49	06	42	8	3.8	7.34	195	0.9	0.5	76	26.50	65.78						
16/05/20	29.698	7.53	24.8	180	384	110	77	46.6	35.0	4.6	365	1.7x10 ⁶	2.5x10 ⁴	29.298	7.46	06	40	2	3.5	7.38	185	1.0	1.0	84								
17/05/20	32.026	7.39	25.1	160	368	165	115	44.3	35.0	3.9	360	2.7x10 ⁶	1.4x10 ⁴	31.626	7.06	06	36	9	4.2	7.48	180	0.6	0.5	76								
18/05/20	25.635	7.58	25.8	135	296	166	116	44.3	34.6	3.6	365	9.4x10 ⁶	3.1x10 ⁴	25.235	7.49	06	28	8	3.8	7.98	175	0.8	1.0	74								
19/05/20	24.272	7.63	26.1	168	312	125	87	42.0	34.3	4.0	390	4.1x10 ⁶	2.3x10 ⁴	23.672	7.40	04	44	6	3.5	7.40	195	0.7	0.50	94								
20/05/20	23.440	7.49	25.6	133	288	119	82	44.3	32.2	3.8	390	3.4x10 ⁶	4.6x10 ⁴	23.040	7.32	06	32	7	3.1	7.14	200	0.8	0.50	49	26.9	68.51						
21/05/20	20.338	7.57	24.8	175	360	106	74	46.6	34.6	4.3	355	1.7x10 ⁶	2.3x10 ⁴	19.958	7.38	06	40	8	3.5	7.58	180	0.8	1.0	24								
22/05/20	20.888	7.57	25.0	168	344	121	84	44.3	35.3	3.6	370	2.1x10 ⁶	2.3x10 ⁴	20.488	7.51	08	36	6	3.1	7.59	195	0.8	0.5	84								
23/05/20	23.018	7.59	25.5	186	384	144	102	42.0	36.0	4.2	375	7.4x10 ⁶	6.3x10 ⁴	22.668	7.51	02	44	9	4.6	8.12	195	0.7	1.0	94	25.7	66.50						
24/05/20	19.603	7.50	25.6	168	344	109	87	46.0	35.3	4.0	365	2.6x10 ⁶	4.9x10 ⁴	19.203	7.38	06	40	8	4.2	7.46	180	0.7	0.5	74								
25/05/20	23.095	7.57	25.5	186	384	144	102	42.0	36.0	4.2	375	7.4x10 ⁶	6.3x10 ⁴	22.668	7.51	02	44	9	4.6	8.12	195	0.7	1.0	94	25.7	66.50						
26/05/20	15.163	7.36	24.5	145	296	138	110	49.0	36.4	4.7	370	2.7x10 ⁶	3.3x10 ⁴	14.763	7.27	06	40	2	3.5	8.12	190	0.8	1.0	76								
27/05/20	20.750	7.38	25.5	155	312	122	97	46.6	35.3	3.9	380	2.3x10 ⁶	2.0x10 ⁴	20.774	7.20	06	44	6	2.1	7.68	160	0.6	0.5	94	26.12	64.12						
28/05/20	23.174	7.49	25.8	165	336	105	86	44.3	33.6	3.7	350	3.1x10 ⁶	3.2x10 ⁴	22.774	7.46	06	42	8	3.5	7.30	200	0.9	0.5	84								
29/05/20	16.011	7.67	25.0	140	288	98	80	42.0	33.2	3.2	345	2.7x10 ⁶	5.8x10 ⁴	15.611	7.46	06	42	8	3.5	7.30	200	0.9	0.5	84								
30/05/20	34.874	7.60	24.8	130	264	103	82	39.0	33.6	2.9	310	5.8x10 ⁶	3.9x10 ⁴	34.104	7.57	08	28	6	3.1	7.12	170	0.5	1.0	49	26.45	66.45						
31/05/20	32.205	7.52	24.2	155	304	112	89	44.3	34.3	3.2	325	5.1x10 ⁶	3.3x10 ⁴	31.805	7.40	06	32	2	3.5	7.52	180	0.7	0.5	94								
Continuation Row	765.600																															
Average Row	24.693																															
Peak Row	34.903																															
BANGALORE WATER SUPPLY AND SEWERAGE BOARD																																
Triveni Engineering & Industries Limited																																
PLANT CHEMIST														PLANT MANAGER																		
														ASSISTANT ENGINEER																		
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Triveni
ENGINEERING & INDUSTRIES LTD

DATE	RAW SEWAGE											TREATED EFFLUENT											DEWATERED SLUDGE		REMARKS				
	DESIGNED FLOW	pH	Temp.	BOD	COD	TSS	VSS	TKN	NH4-N	T-PO4	TOTAL ALKALINITY	FECAL COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TN	TOTAL ALKALINITY	T-PO4	RESIDUAL CHLORINE	FECAL COLIFORM		DRY SOLIDS	SLUDGE (VSS/TSS) Ratio		
UNIT	MLD		°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	MPN/100 ml	MLD		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	1	100	%	%			
01-06-20	24.017	7.58	25.2	155	336	157	125	46.6	34.6	3.5	215	4.1x10 ³	2.6x10 ⁴	23.57	7.29	6.4	44	7	2.4	2.65	175	0.6	1.0	29					
02-06-20	33.901	7.63	25.5	170	344	142	113	53.6	35.3	3.6	230	6.0x10 ³	4.3x10 ⁴	23.46	7.50	6.0	40	8	3.1	2.82	185	0.9	1.0	49					
03-06-20	26.729	7.49	25.0	164	324	182	149	56.0	36.4	4.6	340	3.4x10 ³	3.3x10 ⁴	24.28	7.40	2.0	32	8	3.5	8.88	180	1.0	1.0	94	26.80	64.10			
04-06-20	21.529	7.67	24.5	168	376	167	85	51.3	35.0	4.2	345	4.9x10 ³	6.3x10 ⁴	21.68	7.56	7.6	44	7	3.1	8.12	170	0.8	1.0	76					
05-06-20	26.211	7.53	26.0	205	424	134	102	49.0	35.7	4.7	345	1.7x10 ⁴	2.6x10 ⁵	25.77	7.62	8.4	40	7	3.5	8.26	190	0.9	1.0	84					
06-06-20	16.801	7.73	25.5	210	432	158	126	51.3	36.0	4.7	355	2.1x10 ⁴	2.3x10 ⁵	16.36	7.92	9.0	44	7	3.8	8.28	180	0.7	1.0	96	26.10	64.56			
07-06-20	34.651	7.71	25.5	180	368	122	102	46.6	35.0	4.1	350	1.7x10 ⁴	6.3x10 ⁴	34.21	7.86	6.2	40	8	3.1	7.82	170	0.7	2.0	79					
08-06-20	29.574	7.50	26.0	160	336	140	120	40.3	34.3	4.0	365	2.3x10 ³	4.0x10 ⁴	27.06	7.62	6.6	36	7	2.8	3.62	180	0.9	2.0	76					
09-06-20	31.263	7.55	25.6	175	352	148	128	46.6	33.2	3.8	355	2.1x10 ³	3.1x10 ⁴	30.93	7.72	7.8	40	8	3.1	8.10	170	0.6	1.0	79					
10-06-20	25.397	7.68	25.2	130	272	102	80	44.3	35.3	3.6	350	3.7x10 ³	3.4x10 ³	24.95	7.23	6.2	32	6	2.8	7.99	160	0.2	1.0	94	25.5	66.56			
11-06-20	24.305	7.67	25.8	165	347	165	132	42.0	32.6	3.0	340	4.9x10 ³	4.4x10 ⁴	28.86	7.38	7.0	40	8	3.1	7.62	155	0.7	1.0	63					
12-06-20	27.925	7.60	24.8	175	364	166	134	49.0	34.3	3.8	350	2.6x10 ³	2.3x10 ⁴	27.48	7.49	2.8	36	7	3.8	8.08	150	0.7	1.0	70					
13-06-20	12.899	7.69	24.6	165	352	114	93	44.3	33.2	4.0	340	2.5x10 ³	4.3x10 ⁴	12.95	7.60	2.0	32	6	3.1	7.92	150	0.8	1.0	84	26.63	67.45			
14-06-20	18.314	7.62	25.2	195	408	132	105	46.6	34.3	4.6	340	4.1x10 ⁴	4.6x10 ⁴	17.87	7.89	8.6	44	8	2.8	8.16	180	0.9	1.0	49					
15-06-20	26.236	7.61	25.0	160	368	115	101	42.0	34.6	4.3	370	6.3x10 ³	7.6x10 ⁴	27.29	7.49	8.2	40	6	2.8	8.60	180	0.6	1.0	70					
16-06-20	22.253	7.50	24.6	185	376	125	108	44.3	34.3	4.1	360	2.7x10 ³	2.2x10 ⁴	22.57	7.60	8.4	36	8	3.1	8.12	170	0.7	1.0	26	26.14	64.59			
17-06-20	24.844	7.48	25.0	170	352	120	96	46.6	33.6	3.9	350	6.4x10 ³	5.8x10 ⁴	24.40	7.29	6.8	40	2	4.2	7.72	145	0.6	2.0	63					
18-06-20	27.357	7.62	25.5	205	424	148	145	47.0	33.9	4.2	345	1.2x10 ⁴	2.1x10 ⁵	26.97	7.49	8.2	44	8	3.8	9.98	150	0.8	1.0	94	26.46	64.80			
19-06-20	19.500	7.68	25.0	215	440	212	134	47.0	35.0	4.9	335	6.6x10 ⁴	3.4x10 ⁵	19.06	7.43	8.6	36	9	3.1	8.22	160	0.8	1.0	79					
20-06-20	27.772	7.60	25.6	195	408	203	166	44.3	34.6	5.2	340	6.6x10 ⁴	2.4x10 ⁵	22.75	7.30	7.8	40	6	3.5	8.02	135	0.9	1.0	49	26.47	61.83			
21-06-20	24.178	7.49	25.0	190	384	216	176	46.6	33.9	4.8	325	7.6x10 ³	7.9x10 ⁴	23.73	7.46	8.6	44	8	2.8	7.98	155	0.9	1.0	63					
22-06-20	17.341	7.47	24.6	225	432	238	196	49.0	35.7	5.6	350	2.7x10 ⁴	4.9x10 ⁴	16.90	7.38	8.8	32	8	3.8	8.12	170	0.8	1.0	79					
23-06-20	17.855	7.62	24.8	180	368	148	122	44.3	33.6	5.0	340	2.3x10 ³	4.0x10 ⁴	17.41	7.49	2.4	36	9	2.8	7.60	150	0.6	1.0	89					
24-06-20	31.727	7.49	25.2	264	536	296	244	51.3	35.7	5.9	370	5.8x10 ³	4.3x10 ⁵	31.28	7.40	9.2	48	9	3.8	8.38	190	0.9	1.0	70	26.9	59.28			
25-06-20	22.152	7.65	25.4	150	304	157	130	39.6	32.7	4.1	335	7.3x10 ³	4.8x10 ⁴	21.71	7.32	6.8	28	8	3.1	7.60	155	0.6	1.0	26					
26-06-20	31.594	7.72	25.4	135	288	146	122	42.0	32.5	3.6	330	7.9x10 ³	2.7x10 ⁴	36.15	7.49	6.4	32	6	2.8	7.34	150	0.6	1.0	84	26.1	66.23			
27-06-20	35.795	7.57	24.5	160	328	172	142	44.3	32.5	3.8	340	2.6x10 ³	1.7x10 ⁴	34.83	7.42	2.0	40	7	3.1	9.56	155	0.7	1.0	49	26.5	64.88			
28-06-20	26.137	7.67	24.8	175	352	184	146	46.6	33.2	3.9	330	6.3x10 ³	4.3x10 ⁴	19.69	7.49	2.8	36	8	3.5	9.62	145	0.8	1.0	79					
29-06-20	21.877	7.71	25.0	192	254	196	160	44.3	33.9	4.2	355	7.9x10 ⁴	7.9x10 ⁴	28.73	7.62	8.2	44	6	3.1	7.60	150	0.9	1.0	74					
30-06-20	34.129	7.57	24.6	155	320	164	131	43.4	32.9	3.8	365	4.3x10 ³	4.6x10 ⁴	38.68	7.46	6.8	28	7	2.8	7.66	155	0.6	1.0	70	25.8	66.50			
31																													
Conclusion Row	770.194		W.D																										
Average Row	25.673		W.D																										
Peak Inlet Row	39.129		W.D																										
Trivent Engineering & Industries Limited																BANGALORE WATER SUPPLY AND SEWAGE BOARD													
																													
PLANT CHEMIST																PLANT MANAGER													
																													
ASSISTANT ENGINEER																ASSISTANT EXECUTIVE ENGINEER													

Triveni Engineering & Industries Limited

BANGALORE WATER SUPPLY AND SEWERAGE BOARD

Devi Deepak
 PLANT CHEMIST

Chaitanya
 PLANT MANAGER

Sit
 ASSISTANT ENGINEER

Pradeep
 ASSISTANT EXECUTIVE ENGINEER

BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of - JULY - 2020



DATES		RAW SEWAGE FLOW	pH	Temp.	RAW SEWAGE											TREATED EFFLUENT											DEWATERED SLUDGE		REMARKS
					BOD	COD	TSS	VSS	TKN	NH4-N	T-PO	TOTAL ALKALINITY	FECAL COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TKN	TOTAL ALKALINITY	T-PO	RESIDUAL CHLORINE	FECAL COLIFORM	DRY SOLIDS	SLUDGE (TSS/SS) Ratio		
DESIGNED	UNIT	40.00	5.5-9.0	24-27	350	800	450	300	70	45	7	370	1x10 ³	10x10 ³	3995	6.5-9.0	≤10	≤50	≤10	≤50	≤100	>70	≤1	1	100	>25	<70		
	MLD		°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	MPN/100 ml	M ³ /D		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	%	%			
01-07-20	60.233	762	25.8	195	406	216	192	47.0	34.3	4.6	380	4.1 x10 ³	2.4 x10 ³	59.793	7.43	11.6	60	14	63	12.3	225	1.4	2.0	123	26.40	66.52			
02-07-20	56.910	723	24.5	185	368	128	92	46.6	33.6	3.9	370	5.3 x10 ³	4.3 x10 ³	56.490	7.59	10.7	60	12	56	10.6	210	1.2	1.0	141					
03-07-20	44.481	760	25.0	195	392	158	126	49.0	33.6	4.1	355	7.1 x10 ³	6.3 x10 ³	44.041	7.43	8.6	50	09	4.9	9.62	200	0.9	2.0	094					
04-07-20	30.894	722	24.5	220	448	182	156	46.6	33.9	3.6	345	4.9 x10 ³	6.3 x10 ³	30.459	7.67	9.0	44	7	3.5	7.82	160	0.8	1.0	45	26.35	62.13			
05-07-20	32.316	760	24.8	215	464	183	153	49.0	34.6	3.8	363	1.7 x10 ³	2.6 x10 ³	31.876	7.49	9.2	40	8	3.5	8.0	180	0.9	1.0	63					
06-07-20	27.060	720	24.2	190	392	178	144	42.9	32.6	3.5	350	2.1 x10 ³	3.2 x10 ³	26.020	7.59	9.2	36	6	2.8	7.48	155	0.6	1.0	94	25.9	65.45			
07-07-20	20.751	758	24.8	155	328	134	106	42.0	32.6	3.0	345	1.7 x10 ³	6.3 x10 ³	20.311	7.39	6.6	32	6	2.4	7.33	150	0.5	1.0	79					
08-07-20	37.605	769	25.0	175	376	197	160	44.2	32.6	3.9	360	2.2 x10 ³	4.0 x10 ³	37.165	7.49	6.8	40	7	3.1	9.0	175	0.8	1.0	63					
09-07-20	39.441	729	25.8	145	304	122	96	39.6	30.4	2.9	340	2.1 x10 ³	3.1 x10 ³	39.001	7.68	6.0	32	7	2.4	6.89	160	0.5	1.0	70					
10-07-20	33.184	766	24.2	160	320	128	104	44.3	31.1	3.5	340	4.1 x10 ³	3.4 x10 ³	32.619	7.48	7.0	36	7	2.1	7.32	150	0.8	2.0	58	26.84	68.23			
11-07-20	29.699	716	26.2	170	344	148	121	44.8	30.8	3.2	355	3.9 x10 ³	3.4 x10 ³	25.176	7.62	2.8	44	8	3.5	7.43	145	0.7	2.0	94	26.12	60.46			
12-07-20	25.618	732	25.5	175	376	198	158	46.6	31.5	3.9	355	0.6 x10 ³	2.2 x10 ³	25.176	7.62	2.8	44	8	3.5	7.43	145	0.7	2.0	94	26.12	60.46			
13-07-20	30.585	796	25.8	185	392	225	180	49.0	32.5	4.3	360	0.6 x10 ³	2.2 x10 ³	30.125	7.35	6.2	40	9	3.1	7.54	140	0.8	2.0	79					
14-07-20	24.468	752	25.0	190	412	238	196	51.3	33.2	4.6	335	4.3 x10 ³	4.3 x10 ³	30.125	7.35	6.2	40	9	3.5	7.71	155	0.9	1.0	70					
15-07-20	26.441	765	27.5	175	364	210	172	46.6	32.2	4.1	345	4.1 x10 ³	4.6 x10 ³	26.081	7.17	6.8	36	7	3.1	7.80	155	0.7	2.0	58	25.46	60.25			
16-07-20	32.014	758	25.0	165	344	234	192	42.0	32.4	3.7	340	6.3 x10 ³	7.6 x10 ³	24.002	7.12	6.4	34	7	3.1	7.80	155	0.7	2.0	58	25.46	60.25			
17-07-20	27.451	779	26.0	186	392	158	129	44.3	29.7	2.0	350	6.4 x10 ³	5.8 x10 ³	27.071	7.30	7.2	44	6	2.4	7.58	170	0.6	1.0	37					
18-07-20	24.858	752	25.0	180	368	147	120	42.0	30.8	3.2	335	1.2 x10 ³	2.7 x10 ³	27.071	7.30	7.2	44	6	2.4	7.58	170	0.6	1.0	37					
19-07-20	20.234	760	25.5	190	384	134	128	46.6	31.1	3.7	330	4.6 x10 ³	3.4 x10 ³	19.794	7.29	8.4	28	8	3.5	7.78	150	0.6	1.0	90					
20-07-20	27.785	750	24.8	204	416	174	142	44.3	31.8	4.0	350	5.8 x10 ³	3.4 x10 ³	27.348	7.24	8.5	36	5	2.8	7.90	160	0.8	0.5	79					
21-07-20	33.430	768	24.9	195	432	192	157	39.6	28.0	4.6	325	7.6 x10 ³	7.9 x10 ³	22.990	7.42	9.2	40	7	2.4	7.50	145	0.8	1.0	70	26.40	63.22			
22-07-20	32.246	760	25.8	192	400	216	178	44.3	29.0	4.1	310	2.9 x10 ³	4.9 x10 ³	32.806	7.40	8.0	32	6	2.8	7.92	150	0.6	2.0	49					
23-07-20	31.599	768	25.0	165	360	164	147	42.0	29.7	3.6	300	2.3 x10 ³	4.4 x10 ³	31.159	7.05	7.2	28	6	2.1	7.22	140	0.5	1.0	63					
24-07-20	29.212	732	25.2	156	356	179	143	39.6	26.6	3.5	310	5.0 x10 ³	4.3 x10 ³	26.782	7.04	6.4	32	7	3.1	7.50	150	0.7	1.0	58	26.50	66.89			
25-07-20	32.857	734	25.0	162	364	186	148	46.6	27.6	3.6	325	3.3 x10 ³	4.6 x10 ³	31.817	7.12	7.0	36	8	2.8	7.20	160	0.5	1.0	04					
26-07-20	28.788	748	25.8	186	408	203	159	39.9	29.3	3.9	355	7.7 x10 ³	2.7 x10 ³	28.268	7.30	8.2	32	6	3.1	7.49	175	0.8	0.5	34					
27-07-20	33.261	739	25.4	198	368	220	172	43.3	29.4	4.4	370	2.6 x10 ³	1.3 x10 ³	32.821	7.21	8.5	36	9	2.5	8.12	170	0.8	1.0	49					
28-07-20	31.745	769	24.8	195	432	202	152	46.6	28.3	3.8	355	6.3 x10 ³	4.3 x10 ³	31.305	7.37	7.4	28	8	2.8	8.35	170	0.5	1.0	58					
29-07-20	28.398	766	25.0	205	428	226	176	49.0	29.7	4.6	375	7.9 x10 ³	2.7 x10 ³	29.958	7.36	8.0	40	7	3.5	7.88	205	0.7	1.0	70	26.56	64.44			
30-07-20	19.057	761	25.6	198	400	193	150	46.6	29.4	4.1	360	4.3 x10 ³	4.6 x10 ³	18.617	7.48	8.9	44	6	3.8	8.12	195	0.6	2.0	76					
31-07-20	27.970	746	25.0	180	376	180	141	44.2	28.7	3.8	350	3.3 x10 ³	2.7 x10 ³	29.530	7.20	7.0	28	8	2.8	7.68	180	0.6	1.0	94					
Cumulative flow	977.129																												
Average flow	31.520																												
Peak inflow	60.233																												

Triveni Engineering & Industries Limited

BANGALORE WATER SUPPLY AND SEWERAGE BOARD

Devi Deepak
PLANT CHEMIST

[Signature]
PLANT MANAGER

Sir L
ASSISTANT ENGINEER

[Signature]
ASSISTANT EXECUTIVE ENGINEER

19/07

BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of August - 2020

Triveni Engineering & Industries Ltd

TABLE RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT FLOW AND LAB ANALYSIS REPORT for the month of <u>August - 2020</u>																											PVR		ENGINEERING & INDUSTRIES LTD													
RAW SEWAGE														TREATED EFFLUENT										DOWN TREATED SLUDGE			REMARKS															
METERS	RAW SEWAGE FLOW	pH	Temp.	BOD	COD	TSS	VSS	TRN	NH4-N	T-PO4	TOTAL ALKALINITY	FECAL COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TN	TOTAL ALKALINITY	T-PO4	RESIDUAL CHLORINE	FECAL COLIFORM	DRY SOLIDS	SLUDGE (VSS/TSS) Rate																
DESIGNED	40.00	5.5-9.0	24-27	350	1100	450	300	70	45	7	370	1x10 ⁶	10x10 ⁶	75-95	6.5-9.0	≤10	≤50	≤10	≤5.0	≤10.0	≥70	≤1	1	100	≥25	≤18																
UNIT	MLD		°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	MPN/100 ml	M ³ /D		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	%	%																
01/08/20	26.069	7.59	23.7	165	352	169	131	42.0	26.6	2.7	340	4.8x10 ³	7.6x10 ⁴	25.689	7.43	6.2	28	7	2.1	7.12	165	0.6	2.0	63	26.50	68.56																
02/08/20	26.039	7.50	25.0	160	344	154	123	39.6	25.9	2.2	320	2.7x10 ³	4.9x10 ⁴	27.416	7.46	6.6	36	6	2.4	7.48	180	0.7	1.0	70																		
03/08/20	26.054	7.77	24.8	156	320	148	118	44.3	25.5	3.0	360	6.3x10 ³	8.4x10 ⁴	27.634	7.23	6.7	28	6	2.1	7.24	190	0.5	1.0	49																		
04/08/20	26.782	7.79	25.8	185	392	210	168	46.6	27.3	3.2	380	3.9x10 ³	7.6x10 ⁴	28.362	7.49	7.6	44	3	3.5	8.20	200	0.7	1.0	26																		
05/08/20	26.0624	7.51	25.4	204	440	216	172	49.0	28.3	3.8	375	4.4x10 ³	5.4x10 ⁴	28.404	7.40	8.0	40	6	3.1	8.30	185	0.8	2.0	64																		
06/08/20	27.219	7.87	24.3	192	400	201	160	42.0	29.0	4.1	355	6.3x10 ³	4.9x10 ⁴	28.799	7.24	9.6	44	6	2.4	7.72	170	0.5	1.0	53																		
07/08/20	26.974	7.67	25.0	222	464	244	190	49.0	29.0	4.1	355	6.3x10 ³	4.9x10 ⁴	28.799	7.24	9.6	44	6	2.4	7.72	170	0.5	1.0	53																		
08/08/20	25.057	7.50	25.4	204	424	198	158	46.0	29.0	3.8	315	7.6x10 ³	8.4x10 ⁴	24.637	7.39	8.7	36	7	3.5	9.98	205	0.6	1.0	94	26.70	69.40																
09/08/20	30.0914	7.77	25.6	216	440	208	164	44.3	29.4	3.9	375	7.0x10 ³	9.4x10 ⁴	30.494	7.46	9.0	32	7	3.1	9.90	210	0.7	1.0	63																		
10/08/20	27.940	7.56	24.2	222	456	189	151	46.6	30.1	3.7	360	5.8x10 ³	4.3x10 ⁴	27.520	7.48	9.4	28	8	3.5	8.16	190	0.5	1.0	84																		
11/08/20	29.035	7.87	25.0	192	408	175	136	42.0	27.6	3.5	350	2.1x10 ³	4.4x10 ⁴	28.015	7.23	8.6	26	6	2.4	7.72	170	0.7	2.0	34	25.46	63.56																
12/08/20	27.579	7.68	25.5	174	376	166	132	40.2	25.5	3.0	360	2.6x10 ³	6.3x10 ⁴	2.369	7.43	6.8	28	9	2.8	9.32	185	0.6	1.0	53																		
13/08/20	11.262	7.77	24.8	156	320	148	118	44.3	25.5	3.0	360	6.3x10 ³	8.4x10 ⁴	10.983	7.28	6.4	28	8	2.1	7.34	190	0.5	1.0	49																		
14/08/20	27.520	7.69	25.8	186	392	156	124	42.0	25.9	3.3	375	4.1x10 ³	4.6x10 ⁴	27.100	7.98	7.6	32	7	3.1	7.56	200	0.8	1.0	94																		
15/08/20	22.740	7.53	24.8	198	412	176	140	46.0	26.6	3.6	360	5.8x10 ³	7.0x10 ⁴	22.320	7.30	8.9	40	8	3.5	9.90	190	0.7	2.0	21	26.00	60.23																
16/08/20	24.970	7.60	25.0	208	424	190	154	44.2	27.0	3.5	370	3.4x10 ³	2.1x10 ⁴	24.467	7.21	9.0	36	6	3.0	7.70	205	0.8	1.0	0.63																		
17/08/20	25.057	7.52	25.6	206	448	184	147	45.5	28.0	3.2	345	6.3x10 ³	3.5x10 ⁴	25.574	7.18	9.6	40	8	3.8	9.86	180	0.6	2.0	74																		
18/08/20	25.035	7.71	24.8	228	472	203	165	46.0	28.7	3.8	375	4.9x10 ³	5.8x10 ⁴	25.883	7.46	8.0	44	8	2.8	8.30	165	0.9	1.0	70																		
19/08/20	26.136	7.60	25.2	204	416	192	156	44.2	26.9	3.5	355	7.0x10 ³	3.6x10 ⁴	27.716	7.26	28	6	3.0	7.67	195	0.6	1.0	53	26.85	60.45																	
20/08/20	26.176	7.31	25.0	180	376	174	135	39.6	26.2	3.9	370	2.1x10 ³	5.8x10 ⁴	19.758	7.08	6.8	28	7	2.1	6.92	205	0.5	1.0	63																		
21/08/20	21.375	7.52	25.9	175	360	160	128	44.3	27.8	3.4	355	4.9x10 ³	8.4x10 ⁴	20.955	7.30	6.4	27	8	3.1	7.34	195	0.8	0.5	24	26.14	65.83																
22/08/20	30.310	7.68	25.4	195	400	195	150	42.0	29.4	3.8	340	6.3x10 ³	8.4x10 ⁴	24.890	7.39	7.4	40	6	3.5	9.82	190	0.9	1.0	54																		
23/08/20	13.475	7.50	24.8	234	496	244	195	49.0	32.2	4.6	390	6.9x10 ³	4.8x10 ⁴	13.055	7.30	9.2	48	8	3.8	8.60	220	0.8	2.0	34																		
24/08/20	26.139	7.32	25.0	246	572	229	181	49.0	30.8	4.5	345	7.0x10 ³	8.4x10 ⁴	25.719	7.18	9.6	48	9	3.8	8.90	180	0.9	1.0	63																		
25/08/20	23.181	7.56	25.6	222	464	198	158	46.6	29.7	3.8	365	6.0x10 ³	8.0x10 ⁴	22.719	7.36	8.0	40	7	3.5	8.02	195	0.7	1.0	49	26.51	64.23																
26/08/20	26.330	7.72	24.6	234	480	186	146	44.3	30.4	4.0	350	6.9x10 ³	7.6x10 ⁴	25.916	7.48	8.8	36	6	3.1	7.82	210	0.8	1.0	46																		
27/08/20	25.746	7.70	25.0	204	432	196	156	43.7	31.5	4.2	375	4.3x10 ³	7.4x10 ⁴	25.326	7.40	7.2	28	8	3.1	7.30	225	0.7	2.0	54																		
28/08/20	26.696	7.58	24.6	234	488	224	180	51.3	32.9	4.8	355	6.3x10 ³	9.6x10 ⁴	26.236	7.22	8.4	36	8	4.2	9.62	200	0.9	1.0	37	26.63	68.99																
29/08/20	24.760	7.75	25.7	240	494	208	166	44.3	31.8	3.9	345	4.3x10 ³	7.4x10 ⁴	24.340	7.49	7.6	28	6	3.5	7.80	190	0.8	1.0	76	26.30	62.40																
30/08/20	36.432	7.58	25.4	244	496	240	190	49.0	33.2	4.8	370	4.4x10 ³	7.4x10 ⁴	30.312	7.20	9.4	40	8	3.0	8.66	220	0.9	0.5	63																		
31/08/20	41.303	7.49	25.0	240	488	219	175	46.6	32.5	4.2	370	7.6x10 ³	7.9x10 ⁴	40.863	7.12	9.0	36	9	3.1	8.12	205	0.8	1.0	94																		
Cumulative Flow														772.70																												
Average Flow														24.926																												
Peak Flow														30.914																												
Triven Engineering & Industries Limited														BANGALORE WATER SUPPLY AND SEWERAGE BOARD																												
Plant Chemist														Plant Manager														Assistant Engineer														

Deepak
PLANT CHEMIST

[Signature]
PLANT MANAGER

[Signature]
ASSISTANT ENGINEER

[Signature]
ASSISTANT EXECUTIVE ENGINEER

Riveni
ENGINEERING & INDUSTRIES LTD

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BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of NOVEMBER - 2020

Triveni
ENGINEERING & INDUSTRIES LTD.

RAW SEWAGE															TREATED EFFLUENT															DENATURED SLUDGE				REMARKS
DESIGNED	RAW SEWAGE FLOW	pH	Temp.	BOD	COD	TSS	VSS	TKN	NH4-N	T-PO	TOTAL ALKALINITY	FECAL COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TN	TOTAL ALKALINITY	T-PO	RESIDUAL CHLORINE	FECAL COLIFORM	DRY SOLIDS	SLUDGE (VSS/TSS) Ratio								
UNIT	MLD		°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	MPN/100 ml	M L T		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	%	%								
01-11-20	39.93	7.60	25.0	180	384	188	156	42.0	23.4	3.7	3.80	5.8x10 ³	6.9x10 ⁴	29.050	7.38	6.6	36	8	2.8	7.34	220	0.6	1.2	63										
02-11-20	39.93	7.50	25.6	230	442	212	168	46.6	26.2	2.7	4.00	3.4x10 ³	5.5x10 ⁴	30.300	7.01	7.8	40	8	2.8	7.32	245	0.7	1.4	49										
03-11-20	40.01	7.56	24.8	205	432	192	158	44.3	25.2	3.3	3.75	2.5x10 ³	3.4x10 ⁴	30.990	7.40	7.0	32	6	3.5	7.65	220	0.5	1.2	70										
04-11-20	34.41	7.88	24.6	186	392	168	136	42.6	23.8	2.5	4.00	2.3x10 ³	4.1x10 ⁴	30.440	7.23	6.4	28	7	2.5	6.98	275	0.5	2.0	80L	25.50	66.12								
05-11-20	39.89	7.69	24.5	204	480	206	164	49.0	27.4	3.0	3.90	4.8x10 ³	5.4x10 ⁴	28.260	7.34	7.4	40	6	3.4	7.54	255	0.6	1.5	24										
06-11-20	39.94	7.74	25.2	155	336	218	174	39.6	22.4	2.4	3.60	5.6x10 ³	6.3x10 ⁴	31.650	7.29	5.8	28	7	2.1	7.12	240	0.6	1.2	58										
07-11-20	40.03	7.67	23.4	175	368	176	144	42.0	22.4	2.6	2.95	3.7x10 ³	2.6x10 ⁴	32.340	7.26	6.6	32	5	2.4	7.40	195	0.7	1.0	70										
08-11-20	40.05	7.60	25.0	185	354	186	154	44.0	24.2	3.0	3.25	2.3x10 ³	7.0x10 ⁴	24.830	7.41	7.2	36	8	3.1	7.00	210	0.8	1.4	84										
09-11-20	34.62	7.92	24.8	164	344	164	134	44.3	23.1	2.4	3.15	4.1x10 ³	6.9x10 ⁴	18.460	7.39	6.8	28	6	2.1	7.34	190	0.8	1.2	49										
10-11-20	39.24	7.58	25.4	188	408	195	160	46.6	29.8	3.8	3.30	3.9x10 ³	7.9x10 ⁴	33.880	7.25	6.3	36	7	2.4	7.68	205	0.5	1.0	63										
11-11-20	38.05	7.64	24.2	205	432	192	141	49.0	22.3	3.0	4.10	2.7x10 ³	6.3x10 ⁴	37.120	7.32	7.6	40	5	2.8	7.86	270	0.6	1.5	94	254.0	57.32								
12-11-20	38.64	7.50	25.1	198	488	198	162	46.6	26.2	3.8	3.50	4.1x10 ³	6.9x10 ⁴	30.150	7.32	7.0	36	7	3.1	8.12	240	0.8	1.2	83										
13-11-20	34.77	7.61	25.0	204	480	202	173	48.3	28.0	3.5	4.00	4.1x10 ³	5.9x10 ⁴	34.230	7.39	7.4	38	6	2.2	7.60	270	0.6	1.0	70										
14-11-20	34.18	7.81	24.6	216	444	178	145	44.3	23.8	3.0	3.60	5.6x10 ³	6.3x10 ⁴	33.630	7.46	6.8	28	5	2.1	7.34	220	0.8	1.4	86										
15-11-20	29.70	7.48	24.5	180	368	168	137	42.0	22.1	2.6	3.40	3.3x10 ³	5.8x10 ⁴	29.17	7.28	6.2	24	7	1.7	6.90	200	0.5	1.0	84										
16-11-20	36.61	7.70	25.2	165	344	190	155	37.6	21.8	2.4	3.30	4.9x10 ³	7.0x10 ⁴	28.19	7.31	6.6	32	5	2.1	7.30	180	0.7	1.2	63										
17-11-20	36.30	7.44	24.5	194	384	184	151	42.0	22.7	2.0	3.70	7.0x10 ³	8.0x10 ⁴	35.72	7.22	6.4	28	8	2.8	7.54	190	0.5	1.5	49	25.2	52.47								
18-11-20	26.80	7.67	25.4	210	448	160	132	46.6	24.5	3.0	3.65	6.4x10 ³	6.1x10 ⁴	38.24	7.32	7.2	40	5	3.5	8.10	180	0.6	1.2	34										
19-11-20	35.77	7.51	25.0	200	416	158	130	44.3	25.5	3.2	3.85	3.4x10 ³	4.9x10 ⁴	35.19	7.40	6.8	36	6	3.8	7.76	195	0.8	1.0	58	26.0	62.30								
20-11-20	34.83	7.60	25.2	196	392	176	144	39.6	24.9	2.6	3.60	3.4x10 ³	5.4x10 ⁴	34.24	7.33	7.1	32	6	3.1	7.26	180	0.4	1.5	70										
21-11-20	38.92	7.39	24.6	202	432	182	149	42.0	25.2	2.8	3.50	3.3x10 ³	4.6x10 ⁴	34.39	7.12	6.8	40	7	2.8	7.52	165	0.6	1.2	60										
22-11-20	38.92	7.40	25.0	196	456	177	147	38.6	26.0	3.1	3.40	4.1x10 ³	6.3x10 ⁴	30.25	7.20	7.10	38	6	3.0	7.70	170	0.5	1.0	55										
23-11-20	38.89	7.42	24.3	212	410	160	138	39.0	24.2	3.4	3.10	4.8x10 ³	5.3x10 ⁴	30.31	7.21	6.8	40	7	2.7	6.60	180	0.8	1.2	60	26.2	63.16								
24-11-20	38.85	7.51	25.1	230	396	172	145	37.6	25.8	3.4	3.45	3.8x10 ³	6.1x10 ⁴	24.75	7.36	9.0	35	6	2.9	7.7	197	0.4	1.3	70	25.62	58.92								
25-11-20	29.48	7.41	27.1	230	410	160	138	39.0	24.2	3.9	3.10	3.4x10 ³	6.3x10 ⁴	28.83	7.21	6.6	40	7	2.7	6.80	180	0.8	1.2	37										
26-11-20	31.53	7.39	23.2	280	432	182	149	42.0	25.2	2.8	3.50	2.8x10 ³	6.0x10 ⁴	31.00	7.12	6.2	40	7	2.8	7.0	170	0.4	1.5	76										
27-11-20	22.86	7.57	24.3	236	488	182	156	49.0	27.3	3.8	3.10	4.7x10 ³	6.9x10 ⁴	19.59	7.18	6.2	45	6	2.3	6.4	190	0.5	1.5	66										
28-11-20	38.81	7.41	25.4	226	462	196	160	43.7	28.5	4.0	3.00	3.9x10 ³	5.8x10 ⁴	23.89	7.20	7.1	40	5	2.2	6.9	210	0.4	1.2	48	28.1	58.33								
29-11-20	38.20	7.51	25.1	196	396	172	145	37.6	25.8	3.4	3.45	3.8x10 ³	5.3x10 ⁴	22.67	7.21	7	35	6	2.9	7.7	172	0.4	1.3	70										
30-11-20	32.50	7.35	25.2	197	470	177	138	43.0	28.2	4.2	3.70	3.1x10 ³	8.7x10 ⁴	30.82	7.11	6	35	7	2.7	7.40	280	0.5	1.1	77										
Generation time	1036.81																																	
Average flow	34.624																																	
Peak value flow	40.09																																	

Triveni Engineering & Industries Limited										BANGALORE WATER SUPPLY AND SEWERAGE BOARD									
																			
PLANT CHEMIST					PLANT MANAGER					ASSISTANT ENGINEER					ASSISTANT EXECUTIVE ENGINEER				

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BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of JAN - 2021



RAW SEWAGE															TREATED EFFLUENT										DEWATERED SLUDGE				REMARKS																														
DESIGNED	RAW SEWAGE FLOW	pH	Temp.	BOD	COD	TSS	VSS	TKN	NH4-N	T-PO4	TOTAL ALKALINITY	FECAL COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TN	TOTAL ALKALINITY	T-PO4	RESIDUAL CHLORINE	FECAL COLIFORM	DRY SOLIDS	SLUDGE (WSS/TSS) Ratio																																	
UNIT	MLD		°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	MPN/100 ml	MLD		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	%	%																																	
01-01-21	25.46	7.48	25.0	185	276	222	182	140.0	22.9	3.6	390	56X10 ³	71X10 ³	24.80	7.39	7.0	40	7	2.6	7.65	22.8	0.03	1.2	63	25.6	56.70																																	
02-01-21	22.68	7.65	25.6	225	472	193	158	146.6	26.0	3.9	380	63X10 ³	77X10 ³	22.04	7.72	6.6	24	8	1.4	7.82	25.0	0.6	1.0	39	25.6	56.70																																	
03-01-21	22.72	7.75	24.9	215	432	218	178	143.7	24.4	3.0	360	59X10 ³	69X10 ³	18.54	7.52	6.6	32	6	3.1	7.84	22.5	0.5	1.5	50																																			
04-01-21	23.38	7.62	25.0	195	368	144	118	142.0	22.6	2.6	345	41X10 ³	79X10 ³	22.04	7.47	9.2	37	5	3.5	6.90	20.5	0.4	2.0	64																																			
05-01-21	23.82	7.64	24.8	200	392	182	148	145.5	21.8	3.1	375	71X10 ³	89X10 ³	17.35	7.40	6.4	28	8	3.8	7.42	22.0	0.6	1.0	79																																			
06-01-21	21.01	7.56	25.2	204	416	202	176	148.2	23.2	2.9	360	61X10 ³	86X10 ³	20.50	7.32	6.2	32	6	3.1	6.90	20.0	0.5	1.5	55	26.42	63.36																																	
07-01-21	22.22	7.78	25.6	240	486	262	232	149.0	27.7	3.8	390	38X10 ³	49X10 ³	31.15	7.52	7.6	40	7	2.4	7.86	24.0	0.8	1.0	63																																			
08-01-21	27.65	7.65	24.5	228	472	268	220	146.0	26.3	4.9	405	73X10 ³	77X10 ³	20.95	7.46	7.2	36	6	3.1	7.62	26.0	0.8	1.5	61																																			
09-01-21	27.43	7.44	25.0	216	464	192	156	147.2	24.4	4.4	370	41X10 ³	60X10 ³	26.74	7.31	6.8	32	6	3.5	7.34	21.0	0.6	2.0	49	25.60	64.45																																	
10-01-21	25.00	7.72	25.6	204	432	176	144	144.3	23.8	3.5	360	63X10 ³	79X10 ³	24.56	7.49	6.4	28	5	3.1	7.12	23.0	0.5	1.0	74																																			
11-01-21	25.54	7.58	24.8	160	336	166	126	139.6	22.0	3.5	355	79X10 ³	99X10 ³	25.02	7.32	5.8	24	5	2.1	6.82	20.5	0.4	1.5	63																																			
12-01-21	24.12	7.68	25.0	185	384	186	152	144.3	24.1	3.9	380	56X10 ³	73X10 ³	22.60	7.46	6.6	32	7	2.8	7.30	24.0	0.6	1.0	86	26.1	59.65																																	
13-01-21	25.31	7.51	24.6	210	432	202	166	146.0	26.2	4.2	405	49X10 ³	79X10 ³	24.24	7.39	7.0	40	6	3.5	7.65	26.0	0.7	1.5	71																																			
14-01-21	23.73	7.42	24.8	195	408	174	142	145.5	23.2	3.6	380	71X10 ³	77X10 ³	22.12	7.29	6.8	28	5	3.1	7.20	22.0	0.5	2.0	85																																			
15-01-21	24.89	7.69	25.0	216	448	180	148	149.2	24.4	3.4	360	63X10 ³	77X10 ³	24.37	7.46	7.4	40	4	2.8	6.92	20.0	0.7	1.0	63	25.6	60.20																																	
16-01-21	22.18	7.66	25.2	186	384	182	156	144.3	22.4	3.2	390	49X10 ³	77X10 ³	21.71	7.37	6.4	24	6	2.1	7.68	23.0	0.5	1.2	79																																			
17-01-21	22.69	7.58	24.5	198	416	226	182	146.6	23.6	3.9	370	58X10 ³	63X10 ³	22.09	7.41	6.6	32	7	3.5	7.82	21.0	0.7	1.5	49																																			
18-01-21	21.77	7.78	25.2	234	496	192	156	144.3	29.7	3.7	405	77X10 ³	71X10 ³	21.21	7.46	6.6	28	7	2.8	7.72	24.0	0.4	2.0	94																																			
19-01-21	22.02	7.54	24.8	205	424	174	140	142.0	22.0	3.1	380	67X10 ³	83X10 ³	21.42	7.28	7.2	36	6	2.4	7.32	20.0	0.5	1.5	58	26.40	66.32																																	
20-01-21	25.04	7.61	25.6	190	370	162	132	137.3	20.2	2.9	370	79X10 ³	93X10 ³	24.32	7.39	6.4	20	5	1.7	6.60	19.0	0.4	1.0	63																																			
21-01-21	25.30	7.69	24.6	186	408	205	168	142.0	22.4	3.6	380	77X10 ³	77X10 ³	24.70	7.30	6.8	28	6	2.8	7.32	21.0	0.7	1.4	49																																			
22-01-21	22.92	7.52	25.0	216	448	182	148	144.3	23.4	2.4	390	56X10 ³	71X10 ³	22.26	7.06	7.2	24	7	2.4	7.48	25.0	0.3	1.2	71	25.72	61.45																																	
23-01-21	21.10	7.78	24.8	222	462	190	154	146.0	25.0	3.8	400	69X10 ³	84X10 ³	20.53	7.16	6.8	32	6	2.8	7.12	22.0	0.6	1.4	84																																			
24-01-21	21.60	7.58	25.2	204	416	212	174	139.6	21.7	2.4	370	79X10 ³	83X10 ³	21.04	7.32	6.6	36	4	2.1	7.38	18.0	0.5	1.5	63																																			
25-01-21	23.98	7.52	24.6	210	440	172	142	142.0	22.8	3.1	390	73X10 ³	99X10 ³	23.44	7.32	7.0	28	6	3.5	7.62	20.5	0.6	1.0	58																																			
26-01-21	24.78	7.43	24.9	186	392	212	176	144.3	24.1	3.6	385	63X10 ³	71X10 ³	17.60	7.30	6.4	24	7	3.1	7.20	19.0	0.7	1.2	74																																			
27-01-21	24.74	7.57	24.5	180	368	202	166	142.0	21.7	3.2	400	71X10 ³	84X10 ³	22.31	7.21	6.2	24	5	2.4	6.92	21.0	0.5	1.0	84	26.35	66.54																																	
28-01-21	24.58	7.69	25.0	185	384	194	160	146.0	22.4	4.2	355	49X10 ³	63X10 ³	22.52	7.12	6.6	26	4	2.8	7.12	20.0	0.7	1.5	71																																			
29-01-21	26.20	7.69	24.8	205	424	211	172	144.3	24.4	3.7	390	56X10 ³	71X10 ³	25.60	7.32	7.0	32	6	3.1	7.78	20.0	0.8	1.0	84																																			
30-01-21	26.62	7.86	24.5	228	464	183	152	149.0	26.2	4.0	405	91X10 ³	63X10 ³	25.08	7.56	7.2	40	7	3.5	7.86	22.0	0.7	1.5	63	25.5	62.15																																	
31-01-21	25.17	7.72	25.1	234	472	205	168	147.2	27.3	3.6	380	49X10 ³	63X10 ³	24.61	7.58	6.8	32	5	3.1	7.30	19.0	0.6	1.0	94																																			
Cumulative Flow		753.78																																																									
Average Flow		24.32																																																									
Peak flow		22.22																																																									
Trivent Engineering & Industries Limited															BANGALORE WATER SUPPLY AND SEWERAGE BOARD																																												
Plant Chemist															Plant Manager															Assistant Engineer															Assistant Executive Engineer														

Titani Engineering & Industries Limited

BANGALORE WATER SUPPLY AND SEWERAGE BOARD

Plant Chemist
PLANT CHEMIST

Plant Manager
PLANT MANAGER

Assistant Engineer
ASSISTANT ENGINEER

Assistant Executive Engineer
ASSISTANT EXECUTIVE ENGINEER

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BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of APRIL - 2021

P. V. VENI
ENGINEERING & INDUSTRIES LTD

RAW SEWAGE													TREATED EFFLUENT													DEWATERED SLUDGE				REMARKS			
DATE	RAW SEWAGE FLOW	pH	Temp.	BOD	COD	TSS	VSS	TKN	NH4-N	T-PO4	TOTAL ALKALINITY	FECAL COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TKN	TOTAL ALKALINITY	T-PO4	RESIDUAL CHLORINE	FECAL COLIFORM	DRY SOLIDS	SLUDGE (VSS/TSS) Ratio							
UNIT	MLD		°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	MPN/100 ml	MLD		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	%	%							
DESIGNED	40.00	5.5-9.0	24-27	350	800	450	300	70	45	7	370	1x10 ⁶	10x10 ⁶	39.95	6.5-9.8	≤10	≤50	≤10	≤50	≤10.0	×70	≤1	1	100	≥5	≤70							
01-04-2021	36.015	7.47	25.3	225	456	228	184	39.6	25.5	3.7	355	5.7x10 ³	4.9x10 ⁴	35.316	7.11	6.6	78	6	3.1	7.34	210	0.6	1.5	198	26.20	55.60							
02-04-2021	32.138	7.36	24.6	210	432	204	168	42.0	26.6	3.7	345	5.6x10 ³	4.9x10 ⁴	31.578	7.19	7.0	32	7	2.6	7.12	195	0.4	1.2	59									
03-04-2021	36.578	7.49	25.6	185	392	230	180	39.6	24.6	3.5	325	7.5x10 ³	2.7x10 ⁴	32.581	7.28	7.2	36	5	2.4	6.55	190	0.6	1.0	63	25.30	57.90							
04-04-2021	32.055	7.56	25.2	284	416	212	172	44.2	29.6	4.1	350	4.7x10 ³	7.6x10 ⁴	31.504	7.41	6.4	28	5	2.8	6.92	205	0.7	1.5	76									
05-04-21	37.867	7.57	25.0	210	424	220	168	46.6	26.2	3.9	340	5.6x10 ³	3.0x10 ⁴	31.286	7.39	6.2	24	6	3.5	7.30	180	0.5	1.0	58	26.45	61.60							
06-04-21	25.749	7.34	24.6	195	400	224	176	43.0	24.4	3.9	370	4.8x10 ³	7.6x10 ⁴	25.177	7.28	7.4	36	8	3.1	7.24	255	0.4	1.4	49									
07-04-21	26.731	7.46	25.9	216	440	268	220	43.3	30.4	4.2	355	7.3x10 ³	5.6x10 ⁴	28.165	7.31	6.8	32	6	2.4	6.60	220	0.7	1.2	70	25.85	53.90							
08-04-21	29.193	7.09	24.3	200	416	204	166	39.6	26.6	3.9	325	7.0x10 ³	7.6x10 ⁴	28.607	7.32	6.6	28	5	2.1	7.02	180	0.6	1.0	63									
09-04-21	30.968	7.37	25.2	215	432	236	196	42.0	29.3	3.8	335	6.3x10 ³	7.6x10 ⁴	30.402	7.18	7.8	40	6	3.1	7.88	190	0.7	1.5	49	26.28	60.25							
10-04-21	31.674	7.39	25.9	190	384	192	156	44.3	25.2	4.0	310	7.0x10 ³	4.9x10 ⁴	31.104	7.12	7.2	32	7	2.4	7.20	200	0.4	1.0	56	25.75	57.50							
11-04-21	36.951	7.54	25.6	195	400	218	178	42.0	27.6	4.2	340	5.8x10 ³	7.6x10 ⁴	36.426	7.32	6.9	28	4	2.1	7.38	180	0.6	1.2	76									
12-04-21	31.013	7.47	25.0	205	416	226	184	45.5	30.8	3.9	325	7.3x10 ³	5.4x10 ⁴	35.486	7.28	6.4	24	6	2.8	6.90	180	0.5	1.0	63	26.40	64.35							
13-04-2021	31.266	7.38	24.9	220	448	240	192	46.6	31.5	4.4	355	7.6x10 ³	6.2x10 ⁴	36.426	7.32	7.4	36	5	3.5	7.32	185	0.6	1.5	64									
14-04-2021	30.948	7.43	25.6	210	432	202	170	42.0	28.2	3.9	320	6.8x10 ³	4.3x10 ⁴	28.766	7.29	7.4	32	7	3.1	6.50	190	0.4	1.0	58	25.9	60.80							
15-04-2021	31.224	7.87	24.8	180	368	256	208	37.3	26.6	3.6	340	7.2x10 ³	5.4x10 ⁴	29.902	7.59	6.2	24	4	2.1	6.50	170	0.5	1.5	76									
16-04-2021	26.114	7.08	25.4	205	424	218	178	43.0	28.7	3.9	310	4.9x10 ³	8.6x10 ⁴	22.409	6.81	6.6	36	6	2.8	7.02	190	0.6	1.2	76									
17-04-2021	30.225	7.50	25.0	215	440	196	162	44.3	31.5	4.2	330	8.0x10 ³	4.7x10 ⁴	29.619	7.26	7.0	32	5	3.1	7.68	200	0.5	1.0	49	26.20	56.50							
18-04-2021	27.811	7.46	26.8	195	408	212	174	42.0	28.2	3.8	320	5.8x10 ³	6.3x10 ⁴	24.458	7.21	6.2	24	7	2.8	6.95	190	0.7	1.5	30									
19-04-2021	26.795	7.39	26.0	210	432	222	182	43.3	29.4	4.0	300	4.9x10 ³	7.6x10 ⁴	26.159	7.28	6.6	28	4	1.2	6.76	180	0.6	1.0	63									
20-04-2021	27.262	7.58	25.4	220	456	246	212	46.6	32.2	4.3	340	6.3x10 ³	6.4x10 ⁴	24.458	7.21	6.2	24	7	2.8	6.95	190	0.7	1.5	30									
21-04-2021	31.027	7.99	25.0	195	416	198	160	39.6	25.2	3.6	200	9.0x10 ³	6.3x10 ⁴	28.419	7.31	6.2	24	4	3.5	6.50	180	0.4	1.0	49	25.70	62.25							
22-04-2021	39.979	7.63	26.1	210	432	207	166	42.0	29.3	3.9	340	7.2x10 ³	5.9x10 ⁴	32.812	7.46	7.2	32	6	2.8	7.12	210	0.6	1.5	63	26.45	66.35							
23-04-2021	39.961	7.49	25.7	185	384	215	172	39.6	26.6	3.4	310	5.6x10 ³	6.7x10 ⁴	39.309	7.38	6.2	24	5	2.1	6.42	190	0.4	1.0	30									
24-04-2021	28.513	7.51	26.1	200	408	222	182	40.5	27.2	3.8	320	6.3x10 ³	6.7x10 ⁴	38.035	7.42	6.8	28	7	2.8	6.80	190	0.5	1.2	56	25.8	59.60							
25-04-2021	40.028	6.78	25.3	205	434	228	186	42.0	28.0	3.1	330	3.7x10 ³	6.9x10 ⁴	33.072	7.12	7.0	32	5	2.8	7.10	200	0.2	1.0	49									
26-04-2021	40.010	7.34	25.3	210	432	204	168	44.3	29.2	3.6	310	8.4x10 ³	3.0x10 ⁴	27.552	7.24	6.4	28	6	2.1	7.34	180	0.5	1.5	63									
27-04-2021	40.053	7.58	25.9	190	392	212	174	40.6	27.4	3.0	320	7.0x10 ³	4.3x10 ⁴	37.584	7.44	3.6	5	3.1	6.98	200	0.6	1.0	59	26.58	62.50								
28-04-2021	40.013	7.32	26.1	195	400	198	160	42.0	28.3	3.5	300	3.7x10 ³	5.9x10 ⁴	36.180	7.07	7.8	40	7	2.8	7.02	190	0.4	1.2	76									
29-04-2021	40.099	7.47	25.8	200	416	204	164	44.3	30.1	4.1	320	3.0x10 ³	6.3x10 ⁴	37.528	7.18	7.8	24	5	2.1	6.50	180	0.6	1.5	63	25.40	59.80							
30-04-2021	27.328	7.62	26.6	220	440	272	192	46.6	31.2	4.3	320	4.9x10 ³	8.4x10 ⁴	26.794	7.28	6.2	32	6	3.5	7.20	200	0.7	1.0	70									
Limitation flow	978.702																																
Average flow	32.623																																
Peak flow	40.09																																
Triveni Engineering & Industries Limited													BANGALORE WATER SUPPLY AND SEWAGE BOARD																				
PLANT CHEMIST													PLANT MANAGER													ASSISTANT ENGINEER				ASSISTANT EXECUTIVE ENGINEER			

Triveni Engineering & Industries Limited

BANGALORE WATER SUPPLY AND SEWERAGE BOARD

PLANT CHEMIST

PLANT MANAGER

ASSISTANT ENGINEER

ASSISTANT EXECUTIVE ENGINEER

BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of MAY - 2021



RAW SEWAGE														TREATED EFFLUENT														DEWATERED SLUDGE		REMARKS	
DATE	RAW SEWAGE FLOW	pH	Temp.	BOD	COD	TSS	VSS	TKN	NH4-N	T-PO4	TOTAL ALKALINITY	FECAL COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TKN	TOTAL ALKALINITY	T-PO4	RESIDUAL CHLORINE	FECAL COLIFORM	DRY SOLIDS	SLUDGE (VSS/TSS) Ratio					
UNIT	MLD		°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	10 ³	MPN/100 ml	MPN/100 ml	MLD		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	1	100	%	%				
01-05-2021	38.967	7.42	25.9	200	408	196	160	40.8	22.9	3.9	300	5.6x10 ³	7.6x10 ⁶	72.183	7.19	6.8	28	5	3.1	7.24	180	0.5	1.2	18	24.4	61.5					
02-05-2021	40.117	7.62	26.2	210	432	205	171	42.2	28.1	4.1	320	4.4x10 ³	8.4x10 ⁶	72.761	7.28	7.4	36	6	2.8	6.99	200	0.4	1.0	19							
03-05-2021	40.563	7.50	25.8	222	440	226	178	44.3	29.8	4.4	340	4.7x10 ³	8.2x10 ⁶	73.934	7.37	6.4	40	4	3.1	7.89	190	0.7	1.5	20	25.9	60.8					
04-05-2021	40.368	7.41	26.1	205	416	220	175	48.0	21.6	4.0	300	4.6x10 ³	7.9x10 ⁶	73.940	7.45	6.0	32	7	1.7	6.82	180	0.5	1.0	31							
05-05-2021	40.031	7.91	25.8	195	384	184	152	46.6	30.1	3.9	335	5.6x10 ³	3.0x10 ⁶	73.367	7.19	7.0	24	5	2.8	6.80	190	0.6	1.2	49	25.4	62.2					
06-05-2021	40.176	7.56	25.9	186	392	224	183	44.3	24.6	3.8	320	5.7x10 ³	4.6x10 ⁶	76.784	7.22	7.2	30	4	3.0	7.52	200	0.4	1.5	58							
07-05-2021	40.698	7.36	24.2	215	432	198	162	39.6	25.8	3.5	340	6.1x10 ³	7.8x10 ⁶	75.723	7.40	5.8	32	5	2.8	7.00	210	0.7	1.0	71	26.46	58.9					
08-05-2021	40.136	7.45	24.6	200	440	208	170	40.5	21.3	4.0	300	4.4x10 ³	8.4x10 ⁶	73.595	7.36	6.2	28	7	2.1	7.22	195	0.4	1.3	56							
09-05-2021	40.140	7.23	23.9	223	400	236	193	44.5	24.4	3.8	320	4.7x10 ³	3.2x10 ⁶	73.531	7.22	5.9	40	6	2.4	7.56	185	0.8	1.2	63							
10-05-2021	40.189	7.85	25.5	188	382	222	182	39.6	26.4	4.2	350	4.8x10 ³	5.6x10 ⁶	73.552	7.10	7.4	24	7	2.8	7.47	200	0.5	1.5	84	25.75	65.2					
11-05-2021	39.476	7.62	26.1	177	388	212	183	40.8	25.9	4.2	360	5.1x10 ³	4.2x10 ⁶	73.855	7.19	8.0	28	6	2.1	6.96	210	0.5	1.2	56							
12-05-2021	40.809	7.58	27.0	168	365	184	160	44.3	27.2	3.9	300	5.6x10 ³	6.3x10 ⁶	40.240	7.28	7.1	32	7	2.8	6.65	185	0.6	1.1	76							
13-05-2021	39.941	7.88	25.3	192	399	196	166	42.0	28.3	4.4	320	4.3x10 ³	5.7x10 ⁶	39.401	7.36	7.0	36	6	1.6	7.12	195	0.7	1.5	63	25.6	60.28					
14-05-2021	40.027	7.71	24.9	188	400	205	171	41.0	29.2	3.7	325	3.8x10 ³	5.6x10 ⁶	35.751	7.22	6.0	44	5	2.1	7.28	200	0.4	1.8	84							
15-05-2021	39.945	7.60	23.8	166	403	198	166	39.8	25.5	4.3	340	4.2x10 ³	4.8x10 ⁶	39.369	7.36	5.4	32	5	2.3	7.00	210	0.6	1.5	76							
16-05-2021	39.872	7.58	24.6	177	376	192	152	38.6	23.2	4.1	360	5.4x10 ³	8.1x10 ⁶	38.690	7.15	5.0	36	5	2.2	6.55	210	0.5	1.2	48	26.2	61.62					
17-05-2021	34.367	7.23	25.2	178	383	177	163	37.8	28.3	3.9	290	5.5x10 ³	6.3x10 ⁶	33.791	7.22	5.0	28	4	2.8	6.38	180	0.7	1.2	59							
18-05-2021	32.844	7.35	26.5	208	412	204	166	40.3	27.7	4.6	300	6.1x10 ³	3.2x10 ⁶	31.712	7.15	4.6	24	6	3.0	6.00	195	0.4	1.0	63							
19-05-2021	40.122	7.42	27.1	189	394	168	138	43.3	27.7	4.3	310	4.1x10 ³	5.5x10 ⁶	39.463	7.32	7.1	22	7	3.1	5.98	180	0.8	1.6	30	25.8	60.26					
20-05-2021	39.811	7.58	24.8	169	366	180	144	41.2	26.1	5.2	220	4.5x10 ³	6.1x10 ⁶	35.245	7.11	5.9	20	5	2.0	7.22	195	0.7	1.5	49							
21-05-2021	40.169	7.60	25.3	171	373	185	151	37.2	25.8	4.9	300	4.8x10 ³	4.1x10 ⁶	36.655	7.35	6.2	28	4	1.9	7.18	215	0.8	1.5	59							
22-05-2021	39.703	7.18	25.8	174	378	192	163	36.8	24.2	3.7	320	5.1x10 ³	3.8x10 ⁶	33.049	7.00	7.2	32	6	1.6	7.56	200	0.3	1.5	76	26.2	65.3					
23-05-2021	40.143	7.22	26.2	177	380	200	171	42.3	28.3	3.3	340	4.8x10 ³	6.6x10 ⁶	39.463	7.03	5.8	36	4	1.2	6.86	210	0.4	1.0	58							
24-05-2021	40.234	7.45	26.4	183	382	202	155	40.3	26.3	3.9	310	4.2x10 ³	8.1x10 ⁶	35.570	7.13	6.2	30	5	2.8	6.80	200	0.4	1.2	63	26.1	66.20					
25-05-2021	40.418	7.63	25.8	192	400	198	163	39.2	27.3	4.1	300	5.6x10 ³	7.8x10 ⁶	39.939	7.24	5.0	28	4	2.5	7.42	190	0.5	1.0	70							
26-05-2021	40.250	7.58	26.1	188	402	188	160	38.6	29.2	4.5	320	5.5x10 ³	6.2x10 ⁶	39.766	7.60	4.8	32	6	2.3	6.85	200	0.6	1.5	63							
27-05-2021	40.666	7.45	25.2	178	385	190	157	40.3	30.4	4.2	290	4.2x10 ³	7.4x10 ⁶	49.177	7.42	5.0	28	4	1.9	5.92	190	0.4	1.8	54	26.2	60.24					
28-05-2021	40.812	7.70	26.2	180	399	178	161	43.1	30.1	4.8	300	5.5x10 ³	8.22x10 ⁶	37.773	7.52	4.8	24	4	2.1	6.80	200	0.5	1.5	63							
29-05-2021	40.813	7.65	27.2	177	396	180	158	42.5	28.1	3.8	340	6.1x10 ³	7.9x10 ⁶	36.967	7.55	6.8	36	5	2.4	7.16	180	0.6	1.0	59							
30-05-2021	40.247	7.88	25.8	188	402	178	155	42.5	26.7	4.1	325	5.1x10 ³	3.2x10 ⁶	37.733	7.62	7.0	32	6	3.0	6.50	210	0.7	1.2	76	25.4	62.2					
31-05-2021	40.357	7.88	26.1	192	410	201	170	44.1	27.3	4.2	300	4.6x10 ³	5.6x10 ⁶	72.851	7.50	8.2	30	5	3.1	6.0	200	0.5	1.0	63							
Continuation Row	12.30.575	MLD												1173.224	MLD																
Average Row	39.696	MLD												37.846	MLD																
Peak value Row	40.809	MLD												40.240	MLD																
Trent Engineering & Industries Limited														BANGALORE WATER SUPPLY AND SEWERAGE BOARD																	
PLANT CHEMIST														PLANT MANAGER														ASSISTANT ENGINEER		ASSISTANT EXECUTIVE ENGINEER	

Deep Deep
PLANT CHEMIST

Deep
PLANT MANAGER

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ASSISTANT EXECUTIVE ENGINEER

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BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of JULY - 2021

TRIVENT
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RAW SEWAGE														TREATED EFFLUENT														DEWATERED SLUDGE		REMARKS
DATE	UNIT	Q (MLD)	pH	Temp. (°C)	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	VSS (mg/L)	TKN (mg/L)	NH4-N (mg/L)	T-PO4 (mg/L)	TOTAL ALKALINITY (MPN/100 ml)	FECAL COLIFORM (1x10 ³)	TOTAL COLIFORM (10x10 ³)	TREATED EFFLUENT FLOW (MLD)	pH	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	NH4-N (mg/L)	TKN (mg/L)	TOTAL ALKALINITY (MPN/100 ml)	T-PO4 (mg/L)	RESIDUAL CHLORINE (mg/L)	FECAL COLIFORM (10x10 ³)	DRY SOLIDS (%)	SOLIDS (EVENTS) (%)			
01/07/2021	40.520	7.54	25.6	215	440	190	154	42.0	27.6	4.4	325	6.3x10 ³	5.4x10 ³	39.941	7.37	7.2	36	4	3.1	7.02	195	0.6	1.5	56						
02/07/2021	40.473	7.64	25.2	205	424	208	192	39.6	24.1	4.2	300	4.9x10 ³	5.6x10 ³	36.585	7.19	5.6	24	6	2.8	6.80	190	0.4	1.0	49						
03/07/2021	40.474	7.46	24.6	202	408	198	158	37.0	25.4	4.0	305	2.7x10 ³	4.8x10 ³	39.162	7.02	5.2	28	5	2.4	6.54	180	0.5	1.5	76	26.60	65.75				
04/07/2021	40.467	7.21	25.0	190	392	166	148	39.6	26.8	4.3	310	3.7x10 ³	6.3x10 ³	39.890	7.12	5.6	32	6	2.8	6.92	195	0.6	1.0	63						
05/07/2021	40.586	7.57	25.4	185	376	214	174	35.0	23.8	4.1	260	7.6x10 ³	8.4x10 ³	39.899	7.03	5.4	24	4	3.1	6.02	190	0.4	1.2	84						
06/07/2021	40.509	7.39	24.9	180	368	246	198	35.0	23.8	4.6	280	7.6x10 ³	8.4x10 ³	39.899	7.03	5.4	24	4	3.1	6.02	190	0.4	1.2	84						
07/07/2021	40.479	7.48	25.0	190	364	240	194	37.6	24.5	4.5	265	5.6x10 ³	6.3x10 ³	39.430	7.12	5.2	24	4	2.1	6.21	175	0.6	1.5	58						
08/07/2021	40.430	7.57	24.8	200	408	224	190	43.5	27.3	4.2	295	3.0x10 ³	7.0x10 ³	38.045	7.22	6.3	36	6	2.4	6.86	170	0.2	1.2	56						
09/07/2021	40.561	7.62	25.0	205	424	212	194	42.0	26.1	4.3	310	8.4x10 ³	9.0x10 ³	35.671	7.34	7.2	40	5	2.3	6.68	185	0.5	1.5	63						
10/07/2021	40.346	7.67	25.6	210	432	224	182	39.6	26.1	3.9	305	6.3x10 ³	5.6x10 ³	28.571	7.01	6.4	32	6	2.8	6.50	190	0.4	1.2	76	25.90	62.40				
12/07/2021	40.425	7.45	25.2	198	400	206	174	42.0	26.0	4.2	320	5.2x10 ³	6.3x10 ³	38.283	7.14	6.6	36	4	2.1	6.92	180	0.4	1.0	63	26.30	66.20				
13/07/2021	40.405	7.56	24.6	185	384	254	206	36.7	24.5	4.2	300	3.0x10 ³	4.9x10 ³	37.723	7.21	6.4	28	5	1.7	6.50	170	0.2	1.5	37						
14/07/2021	40.299	7.50	24.6	200	416	228	184	39.6	26.2	4.8	305	5.6x10 ³	6.3x10 ³	35.364	7.72	6.8	32	6	2.4	7.20	165	0.5	1.0	49	25.85	59.90				
15/07/2021	40.454	7.39	25.0	190	392	236	192	42.0	27.3	4.6	290	4.7x10 ³	6.3x10 ³	37.491	7.01	6.0	28	4	1.7	6.44	165	0.6	1.5	76						
16/07/2021	40.337	7.69	24.8	208	408	224	184	38.5	25.2	4.0	280	3.0x10 ³	4.9x10 ³	39.661	7.28	6.6	40	5	2.8	6.86	165	0.5	1.0	63						
17/07/2021	40.524	7.46	24.7	185	376	230	186	44.3	28.5	4.5	290	6.3x10 ³	5.9x10 ³	39.992	7.32	6.2	32	6	2.1	6.14	175	0.7	1.2	49	26.40	64.10				
18/07/2021	40.482	7.57	24.8	186	380	198	160	40.2	29.6	4.8	300	3.0x10 ³	4.9x10 ³	37.721	7.24	5.8	24	6	2.8	7.12	180	0.4	1.4	49						
20/07/2021	41.076	7.36	25.0	202	408	204	166	35.0	24.5	4.6	295	4.6x10 ³	5.6x10 ³	40.457	7.02	6.2	28	5	1.7	6.98	160	0.6	1.0	63	25.60	60.50				
21/07/2021	40.512	7.56	24.7	204	432	216	178	39.6	26.6	4.2	305	5.9x10 ³	6.3x10 ³	37.694	7.22	6.6	36	7	2.4	6.62	190	0.5	1.5	56						
22/07/2021	40.533	7.65	25.0	198	400	238	196	42.0	29.3	4.4	315	6.0x10 ³	7.6x10 ³	39.936	7.19	6.8	36	5	2.1	7.10	200	0.6	1.0	70						
23/07/2021	40.434	7.47	24.6	210	424	202	162	44.3	27.6	4.2	300	8.4x10 ³	9.1x10 ³	39.940	7.10	6.2	28	6	2.8	6.90	180	0.4	1.2	63						
24/07/2021	40.584	7.54	24.9	190	392	196	158	39.6	26.5	4.0	310	5.6x10 ³	6.3x10 ³	36.691	7.22	5.6	24	5	1.7	6.48	190	0.6	1.5	64	26.20	65.45				
25/07/2021	40.399	7.60	25.0	202	408	208	170	42.0	26.9	4.3	295	9.2x10 ³	9.0x10 ³	39.862	7.21	6.4	32	6	2.4	7.12	200	0.5	1.0	56						
26/07/2021	40.454	7.58	24.7	205	416	204	166	42.0	27.3	4.8	290	3.8x10 ³	5.6x10 ³	39.957	7.29	6.8	36	4	2.1	6.96	175	0.4	1.5	63						
27/07/2021	40.589	7.49	25.2	195	384	214	176	44.3	28.3	4.4	295	4.6x10 ³	6.3x10 ³	40.072	7.12	6.6	32	6	2.8	6.88	180	0.6	1.0	46	25.85	62.60				
28/07/2021	40.430	7.72	25.4	198	392	222	162	40.2	26.9	4.3	320	5.7x10 ³	7.6x10 ³	36.585	7.36	6.0	28	5	3.1	6.46	190	0.5	2.0	84	26.40	64.60				
29/07/2021	40.500	7.65	24.9	205	424	198	160	46.6	28.7	4.7	305	2.0x10 ³	6.3x10 ³	36.048	7.20	5.6	24	4	2.8	7.34	180	0.6	1.6	91						
30/07/2021	40.385	7.49	25.0	210	440	226	186	45.5	27.6	4.6	310	4.9x10 ³	5.6x10 ³	32.146	7.04	5.2	20	5	2.4	6.20	185	0.7	1.0	76						
31/07/2021	40.518	7.74	25.1	200	408	212	174	42.0	27.3	4.9	295	7.1x10 ³	9.4x10 ³	34.047	7.35	5.8	28	4	2.1	6.14	175	0.6	1.5	84	25.95	66.10				
Cumulative Flow		1254.162	MLD												1166.345															
Average Flow		40.457	MLD												37.624															
Peak Inlet Flow		40.489	MLD												40.457															

Trivent Engineering & Industries Limited

BANGALORE WATER SUPPLY AND SEWERAGE BOARD

DeeDeeDee
 PLANT CHEMIST

Regan's
 PLANT MANAGER

and
 ASSISTANT ENGINEER

Seep
 ASSISTANT EXECUTIVE ENGINEER

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BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDARELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of OCT - 2021

RAW SEWAGE

TREATED EFFLUENT

DATE	RAW SEWAGE FLOW	pH	Temp.	BOD	COD	TSS	VSS	TKN	NH4-N	T-PO4	TOTAL ALKALINITY	FECAL COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT														REMARKS																					
														TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TKN	TOTAL ALKALINITY	T-PO4	RESIDUAL CHLORINE	FECAL COLIFORM	DRAINED SLUDGE																								
																									DRY SOLIDS	SOLUBLE SOLIDS	%		%																				
UNIT	MLD		°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	10x10 ⁶	MPD	6.5-9.0	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L																				
11/10/2021	40.575	7.56	24.9	150	376	248	198	37.3	20.6	4.2	270	3.2 X 10 ³	4.0 X 10 ⁴	40.056	7.26	6.0	24	6	2.0	6.10	160	0.6	1.2	63	28.50	65.60																							
02/10/2021	40.584	7.39	25.3	192	392	242	192	39.6	21.8	4.4	265	5.6 X 10 ³	6.3 X 10 ⁴	39.834	7.09	6.4	28	5	1.6	5.98	170	0.4	1.5	56																									
03/10/2021	40.476	7.68	25.0	240	408	206	172	42.0	22.4	4.1	260	4.7 X 10 ³	7.0 X 10 ⁴	39.795	7.33	6.6	36	7	2.4	6.62	185	0.7	1.0	49																									
04/10/2021	38.073	7.51	25.6	165	352	266	210	32.6	15.6	4.3	270	7.2 X 10 ³	6.3 X 10 ⁴	37.428	7.36	4.8	20	4	1.2	4.90	140	0.4	1.5	39	25.95	62.40																							
05/10/2021	40.524	7.62	25.0	168	360	272	216	30.3	14.8	4.0	230	4.9 X 10 ³	3.2 X 10 ⁴	39.776	7.46	5.4	24	5	1.6	5.12	130	0.5	1.2	63	26.20	64.00																							
06/10/2021	40.588	7.53	25.2	160	344	256	202	32.6	15.2	3.8	245	5.6 X 10 ³	4.6 X 10 ⁴	39.095	7.12	4.6	20	6	1.2	6.41	140	0.4	1.0	96																									
07/10/2021	40.599	7.74	25.0	156	336	240	190	28.0	13.6	3.7	220	4.0 X 10 ³	5.6 X 10 ⁴	40.136	7.14	5.2	24	4	0.8	4.62	155	0.3	1.5	33																									
08/10/2021	40.463	7.58	24.9	165	368	214	168	35.0	16.4	4.2	260	2.6 X 10 ³	3.4 X 10 ⁴	39.986	7.22	5.8	36	5	1.2	5.98	150	0.6	1.0	39	25.40	60.80																							
09/10/2021	40.252	7.36	25.6	170	360	268	218	32.6	15.6	3.8	240	6.3 X 10 ³	4.7 X 10 ⁴	39.723	7.12	5.6	24	6	1.6	4.90	140	0.4	1.5	46																									
10/10/2021	40.344	7.47	25.9	175	376	252	202	30.3	14.8	4.1	253	3.2 X 10 ³	5.8 X 10 ⁴	39.773	7.22	6.2	28	4	2.0	5.63	160	0.6	1.2	63	26.45	60.50																							
11/10/2021	40.086	7.38	26.2	168	360	240	192	29.7	15.6	4.3	245	4.3 X 10 ³	4.6 X 10 ⁴	39.597	7.18	5.4	20	5	1.2	5.20	155	0.5	1.5	33																									
12/10/2021	40.489	7.53	25.8	180	384	226	174	32.6	17.2	4.0	250	2.1 X 10 ³	2.5 X 10 ⁴	40.027	7.29	5.8	28	4	1.6	5.98	145	0.8	1.0	41	26.30	63.40																							
13/10/2021	40.359	7.62	25.4	170	376	206	162	30.3	15.2	4.2	230	4.9 X 10 ³	6.3 X 10 ⁴	39.759	7.38	6.4	32	6	2.0	6.21	155	0.6	1.2	56																									
14/10/2021	40.374	7.49	26.2	185	392	230	196	35.0	16.4	4.6	245	1.7 X 10 ³	2.6 X 10 ⁴	39.878	7.20	6.0	28	5	2.4	6.68	150	0.7	1.5	39	26.80	60.50																							
15/10/2021	40.357	7.20	25.8	180	384	244	196	32.6	15.6	4.1	250	2.4 X 10 ³	4.9 X 10 ⁴	39.862	7.46	6.6	32	4	2.0	5.86	140	0.5	1.0	49																									
16/10/2021	40.359	7.53	25.6	195	408	248	202	37.3	18.0	4.7	260	3.2 X 10 ³	5.6 X 10 ⁴	39.885	7.29	6.8	36	6	2.4	6.40	135	0.8	1.2	56	25.90	65.40																							
17/10/2021	40.816	7.61	26.1	190	392	222	184	30.6	16.8	4.2	245	4.9 X 10 ³	6.3 X 10 ⁴	39.869	7.23	6.2	28	4	1.6	5.40	130	0.4	1.5	63																									
18/10/2021	40.328	7.46	25.8	180	376	198	158	30.3	14.4	3.9	245	2.4 X 10 ³	3.7 X 10 ⁴	39.870	7.13	5.8	24	6	2.4	6.92	130	0.6	1.0	76																									
19/10/2021	40.403	7.37	26.4	174	368	186	146	28.0	13.6	4.2	255	2.9 X 10 ³	4.0 X 10 ⁴	39.966	7.10	5.6	20	5	1.6	5.58	158	0.4	1.2	33	26.45	57.85																							
20/10/2021	40.494	7.53	25.9	160	352	212	170	32.6	14.0	3.6	240	6.3 X 10 ³	5.6 X 10 ⁴	40.076	7.26	6.0	28	4	2.0	6.20	130	0.7	1.4	56																									
21/10/2021	40.420	7.42	26.0	175	368	228	182	35.0	15.2	4.1	245	3.3 X 10 ³	4.6 X 10 ⁴	39.830	7.16	5.8	24	7	1.2	5.40	135	0.6	1.0	29	26.10	63.40																							
22/10/2021	40.463	7.56	25.5	180	376	214	170	30.3	15.8	4.3	270	4.0 X 10 ³	6.3 X 10 ⁴	39.778	7.26	6.4	32	5	1.8	5.64	175	0.5	1.5	63																									
23/10/2021	34.630	7.31	26.3	165	384	238	192	32.6	19.2	4.9	250	2.4 X 10 ³	4.6 X 10 ⁴	39.312	7.20	6.2	28	4	1.4	6.04	160	0.8	1.2	33																									
24/10/2021	40.435	7.58	25.9	190	392	246	198	35.0	17.6	4.6	255	5.6 X 10 ³	6.3 X 10 ⁴	39.993	7.36	6.8	32	6	2.0	5.86	145	0.5	1.5	39																									
25/10/2021	28.647	7.71	26.0	186	384	232	182	37.3	18.0	4.7	265	2.1 X 10 ³	7.0 X 10 ⁴	28.160	7.46	7.2	36	5	2.4	6.38	155	0.6	1.0	58																									
26/10/2021	33.557	7.36	25.6	180	376	206	168	35.0	16.8	4.2	250	4.9 X 10 ³	6.3 X 10 ⁴	33.180	7.12	6.4	28	6	1.4	6.02	140	0.5	1.2	33																									
27/10/21	40.028	7.82	26.0	195	400	216	192	37.3	18.4	4.6	265	5.6 X 10 ³	4.9 X 10 ⁴	39.610	7.64	7.0	36	4	2.0	6.84	160	0.7	1.0	96	25.90	66.55																							
28/10/2021	40.561	7.53	26.3	175	374	238	198	39.6	19.2	4.2	240	3.3 X 10 ³	3.7 X 10 ⁴	40.130	7.42	7.4	40	6	1.6	6.82	190	0.8	1.0	57	26.20	68.10																							
29/10/21	40.127	7.42	26.1	175	372	243	204	42.0	21.6	4.7	265	5.6 X 10 ³	4.9 X 10 ⁴	39.694	7.18	7.6	44	4	1.6	6.82	190	0.8	1.0	57	26.20	68.10																							
30/10/21	40.770	7.53	25.9	200	408	246	208	39.6	22.8	4.5	255	3.2 X 10 ³	9.0 X 10 ⁴	40.357	7.70	6.8	36	6	0.8	5.40	165	0.4	1.2	54																									
31/10/2021	40.333	7.68	25.6	204	416	224	194	44.3	23.2	4.8	270	6.6 X 10 ³	3.9 X 10 ⁴	40.023	6.41	6.0	28	4	1.2	6.59	190	0.7	1.5	63																									
Calculation Row	722430													1196.13	MLD																																		
Average Row	39.553													38.585	MLD																																		
Peak Hour Row	40.770													40.353	MLD																																		
Eivend Engineering & Industries Limited																																																	
MANAGE CHEMIST															MANAGER															ASSISTANT ENGINEER										ASSISTANT EXECUTIVE ENGINEER									

Evient Engineering & Industries Limited

BANGALORE WATER SUPPLY AND SEWERAGE BOARD

PLANT CHEMIST

PLANT MANAGER

ASSISTANT ENGINEER

ASSISTANT EXECUTIVE ENGINEER

D.R. PIVEDI
ENGINEERING & INDUSTRIES LTD.

Tribeni Engineering & Industries Limited		BENGALURU WATER SUPPLY AND SEWERAGE BOARD	
			
PLANT CHEMIST	PLANT MANAGER	ASSISTANT ENGINEER	ASSISTANT EXECUTIVE ENGINEER
			

BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of DEC - 2021

P. S. TRIVENI
ENGINEERING INDUSTRIES LTD.

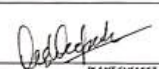
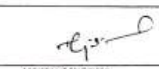
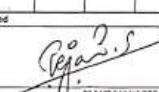
RAW SEWAGE															TREATED EFFLUENT ANALYSIS REPORT															TREATED EFFLUENT										DEWATERED SLUDGE					REMARKS
DATE	UNIT	RAW SEWAGE FLOW MLD	pH	Temp. °C	BOD mg/L	COD mg/L	TSS mg/L	VSS mg/L	TKN 70	NH4-N 45	T-PO 7	TOTAL ALKALINITY 370	FECAL COLIFORM 1x10 ³ MPN/100 ml	TOTAL COLIFORM 10x10 ³ MPN/100 ml	TREATED EFFLUENT FLOW MLD	pH	BOD	COD	TSS	NH4-N	TN	TOTAL ALKALINITY	T-PO	BIOLOGICAL CHLORINE	FECAL COLIFORM	DRY SOLIDS	SLUDGE (SS/SSS) Ratio																		
																											>25	<10																	
01-12-21	40.279	7.66	25.6	185	392	236	182	39.6	22.8	4.1	305	5.6x10 ³	2.7x10 ⁴	39.969	7.29	6.2	28	5	1.6	6.20	195	0.4	1.0	23																					
02-12-21	33.261	7.54	26.0	208	416	244	196	35.0	16.2	4.3	285	6.4x10 ³	9.1x10 ⁴	33.072	7.26	6.0	24	7	0.3	5.92	160	0.6	1.0	49																					
03-12-2021	40.329	7.63	25.6	195	408	232	202	32.6	17.6	4.0	280	3.3x10 ³	4.6x10 ⁴	39.968	7.46	6.8	28	6	1.2	5.42	170	0.7	1.2	39																					
04-12-2021	40.256	7.39	24.9	185	384	240	192	35.0	18.4	4.6	300	4.9x10 ³	5.6x10 ⁴	39.961	7.24	5.8	20	4	2.0	6.56	200	0.5	0.9	27	26.5	64.12																			
05-12-21	40.148	7.45	25.2	192	392	224	170	32.6	19.2	4.2	305	8.4x10 ³	7.1x10 ⁴	35.024	7.26	6.2	24	5	1.6	6.22	190	0.6	1.0	20																					
06-12-2021	40.404	7.58	25.8	190	400	248	196	37.3	19.3	4.8	220	5.6x10 ³	7.6x10 ⁴	39.973	7.33	6.8	32	6	1.2	6.84	195	0.4	1.0	33	26.30	60.50																			
07-12-21	40.246	7.71	25.6	205	432	206	162	36.6	22.0	4.9	315	3.9x10 ³	6.4x10 ⁴	39.957	7.54	7.0	36	5	2.0	7.13	200	0.7	0.9	40																					
08-12-2021	40.379	7.61	25.4	215	440	252	190	42.0	24.8	4.9	305	4.9x10 ³	7.6x10 ⁴	39.971	7.36	6.4	28	6	1.2	7.08	190	0.6	1.1	56	26.65	63.80																			
09-12-2021	40.273	7.43	25.6	200	416	230	178	37.3	23.2	4.6	295	3.3x10 ³	5.6x10 ⁴	39.965	7.29	6.8	32	4	0.8	6.02	175	0.4	1.0	63																					
10-12-2021	40.326	7.63	25.8	190	388	246	174	32.6	19.6	4.3	310	2.7x10 ³	4.9x10 ⁴	39.973	7.42	5.6	25	7	1.6	6.90	200	0.7	0.9	39																					
11-12-2021	40.411	7.59	26.0	195	392	238	170	35.0	20.4	4.8	305	3.9x10 ³	6.3x10 ⁴	39.991	7.32	6.2	28	5	1.2	6.23	190	0.4	1.0	27	26.20	64.50																			
12-12-2021	40.379	7.62	25.6	180	376	218	162	32.6	19.2	4.5	300	7.6x10 ³	9.1x10 ⁴	39.984	7.37	6.3	36	6	0.8	5.86	180	0.6	1.1	60																					
13-12-2021	40.388	7.42	25.9	185	384	226	170	37.3	21.6	4.3	310	3.0x10 ³	4.9x10 ⁴	39.968	7.29	6.6	36	4	1.2	6.08	185	0.5	0.9	39																					
14-12-2021	40.567	7.57	25.2	190	400	212	156	30.3	18.4	4.8	395	5.6x10 ³	2.7x10 ⁴	40.234	7.37	6.0	24	6	1.6	5.98	190	0.7	1.0	56	26.30	66.70																			
15-12-2021	40.211	7.53	25.6	205	424	249	184	35.0	20.4	4.2	320	4.0x10 ³	6.3x10 ⁴	39.973	7.26	6.2	28	5	1.2	6.62	205	0.4	1.0	37																					
16-12-2021	40.492	7.46	25.2	180	392	240	180	39.6	22.8	4.0	290	2.9x10 ³	5.6x10 ⁴	39.973	7.26	6.2	28	5	1.2	6.62	205	0.4	1.0	37																					
17-12-2021	40.207	7.54	25.0	185	384	249	196	37.3	20.8	4.2	280	2.7x10 ³	3.9x10 ⁴	39.952	7.38	6.8	40	5	0.8	6.60	180	0.4	1.0	49																					
18-12-2021	40.518	7.43	25.4	175	368	243	180	35.0	18.0	4.1	360	5.6x10 ³	3.0x10 ⁴	39.976	7.20	6.2	28	6	1.2	5.93	185	0.5	0.8	63	26.25	62.50																			
19-12-2021	40.457	7.52	25.8	190	396	238	194	32.6	19.2	4.4	290	3.7x10 ³	4.9x10 ⁴	39.971	7.42	6.6	32	4	0.8	5.63	180	0.6	0.9	40																					
20-12-2021	40.479	7.52	25.5	180	392	252	192	35.0	20.8	4.6	305	7.6x10 ³	6.3x10 ⁴	39.999	7.39	6.6	36	4	2.0	6.86	190	0.7	1.0	56																					
21-12-2021	40.587	7.50	25.0	195	408	260	198	39.6	23.3	4.8	295	3.0x10 ³	5.6x10 ⁴	39.963	7.13	6.2	28	5	0.9	5.89	175	0.5	0.9	49	26.30	65.80																			
22-12-2021	40.357	7.39	25.2	235	544	303	240	49.0	27.2	4.8	295	4.9x10 ³	7.6x10 ⁴	40.269	7.06	7.0	40	4	1.2	7.42	185	0.7	1.0	30																					
23-12-2021	40.350	7.57	29.9	210	440	248	198	46.6	23.6	4.1	270	5.0x10 ³	4.6x10 ⁴	39.941	7.21	6.4	36	6	1.6	6.56	170	0.4	1.0	44	26.20	62.60																			
24-12-2021	40.286	7.49	25.0	200	416	268	206	42.0	21.2	4.1	275	3.9x10 ³	4.9x10 ⁴	40.192	7.31	6.0	28	6	0.8	6.02	190	0.6	0.9	56																					
25-12-2021	40.215	7.62	24.8	190	400	252	201	44.3	22.4	4.6	270	4.9x10 ³	6.3x10 ⁴	35.595	7.46	6.4	32	4	1.2	6.38	175	0.4	1.0	49	26.55	63.50																			
26-12-2021	40.200	7.56	25.0	205	432	262	204	46.6	23.2	4.8	280	4.9x10 ³	5.6x10 ⁴	36.107	7.37	6.8	36	5	1.6	6.72	170	0.6	0.9	33																					
27-12-2021	40.135	7.44	25.2	190	405	236	186	42.0	20.8	3.9	290	2.3x10 ³	6.0x10 ⁴	39.983	7.12	6.2	28	4	0.8	6.21	155	0.4	1.0	44	26.15	62.20																			
28-12-2021	40.123	7.46	25.6	195	424	256	190	39.6	19.2	4.4	285	3.5x10 ³	4.6x10 ⁴	40.029	7.19	6.6	36	6	1.2	6.82	165	0.6	0.9	56																					
29-12-2021	40.213	7.46	25.6	195	424	256	190	39.6	19.2	4.4	285	3.5x10 ³	4.6x10 ⁴	40.145	7.39	6.4	32	5	1.6	6.20	170	0.7	1.0	49																					
30-12-2021	40.213	7.46	25.6	195	424	256	190	39.6	19.2	4.4	285	3.5x10 ³	4.6x10 ⁴	40.145	7.39	6.4	32	5	1.6	6.20	170	0.7	1.0	49																					
31-12-2021	40.213	7.46	25.6	195	424	256	190	39.6	19.2	4.4	285	3.5x10 ³	4.6x10 ⁴	40.145	7.39	6.4	32	5	1.6	6.20	170	0.7	1.0	49																					
31-12-2021	40.495	7.86	25.3	215	440	248	188	44.3	23.6	4.4	265	6.3x10 ³	3.9x10 ⁴	40.396	7.46	6.8	40	6	2.0	6.29	170	0.6	0.9	44	26.50	69.60																			
Grand Total															1218.576																														
Average															39.309																														
Triveni Engineering & Industries Limited																																													
BANGALORE WATER SUPPLY AND SEWERAGE BOARD																																													
PLANT CHEMIST																																													
PLANT MANAGER																																													
ASSISTANT ENGINEER																																													
ASSISTANT EXECUTIVE ENGINEER																																													

BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of JAN-2022

TRIVENI
ENGINEERING & INDUSTRIES LTD

RAW SEWAGE															TREATED EFFLUENT															DRAINED SLUDGE					REMARKS
DATE	RAW SEWAGE FLOW (MLD)	pH	Temp. °C	BOD mg/L	COD mg/L	TSS mg/L	VSS mg/L	TKN mg/L	NH4-N mg/L	T-PO4 mg/L	TOTAL ALKALINITY mg/L	FECAL COLIFORM MPN/100 ml	TOTAL COLIFORM MPN/100 ml	TREATED EFFLUENT FLOW MLD	pH	BOD mg/L	COD mg/L	TSS mg/L	NH4-N mg/L	TN mg/L	TOTAL ALKALINITY mg/L	T-PO4 mg/L	RESIDUAL CHLORINE mg/L	FECAL COLIFORM MPN/100 ml	DRY SOLIDS %	SLUDGE (WETNESS) Ratio									
01/01/22	40.134	7.59	25.5	195	408	242	190	42.0	22.4	4.6	270	6.2x10 ³	4.4x10 ³	40.111	7.36	6.4	32	5	0.8	5.96	160	0.4	1.0	39											
02/01/22	40.293	7.61	25.8	205	424	250	196	44.3	24.8	4.9	285	3.3x10 ³	5.6x10 ³	40.209	7.38	5.8	28	4	1.2	6.21	195	0.6	0.9	30											
03/01/22	40.328	7.39	25.5	200	413	224	184	39.6	23.6	4.7	235	8.4x10 ³	5.7x10 ³	40.055	7.22	6.6	36	4	1.6	6.02	170	0.5	0.8	24											
05/01/22	40.394	7.53	25.8	190	400	232	188	38.5	21.2	4.3	275	5.5x10 ³	5.6x10 ³	40.003	7.46	6.4	32	6	1.2	6.28	180	0.6	1.0	49	24.99	67.80									
06/01/22	40.155	7.55	25.5	185	394	226	182	40.2	20.4	4.6	245	5.3x10 ³	4.7x10 ³	40.066	7.20	6.2	26	4	1.4	6.32	170	0.5	0.9	33											
07/01/22	39.937	7.43	25.8	190	392	242	186	42.0	23.4	4.9	260	3.3x10 ³	4.7x10 ³	39.999	7.42	6.5	36	5	1.2	6.05	160	0.6	1.0	40	24.20	60.50									
08/01/22	40.219	7.57	26.0	195	408	253	195	44.3	25.6	4.8	275	5.6x10 ³	5.4x10 ³	39.664	7.19	6.4	32	6	1.6	6.51	195	0.5	0.8	56											
09/01/22	40.357	7.68	25.6	205	416	246	188	46.6	22.6	4.9	260	4.9x10 ³	6.3x10 ³	39.488	7.30	6.0	28	5	1.2	6.92	160	0.6	1.0	39	24.50	65.50									
10/01/22	40.379	7.54	25.9	160	354	233	185	39.4	22.6	4.2	285	3.9x10 ³	5.6x10 ³	40.093	7.36	6.6	32	6	2.0	6.73	170	0.4	0.9	33											
11/01/22	40.031	7.42	25.3	190	400	239	189	42.0	24.0	4.6	275	3.0x10 ³	6.3x10 ³	39.953	7.25	6.2	26	6	0.5	6.43	170	0.6	1.0	44	25.90	60.80									
12/01/22	40.261	7.69	25.6	195	372	220	196	38.5	19.2	4.5	265	4.6x10 ³	6.4x10 ³	40.024	7.32	6.4	20	4	1.0	5.92	160	0.7	0.0	30											
13/01/22	40.291	7.56	25.2	180	364	264	202	39.6	20.4	4.7	270	5.6x10 ³	7.6x10 ³	39.960	7.35	5.8	24	5	1.2	5.63	170	0.4	0.9	27	26.30	65.60									
14/01/22	40.101	7.49	25.7	170	368	245	192	42.0	18.4	4.0	280	6.3x10 ³	3.9x10 ³	39.981	7.21	5.4	20	6	0.8	5.46	175	0.5	1.0	49											
15/01/22	40.405	7.43	25.2	175	376	218	170	44.3	21.6	4.3	270	3.3x10 ³	2.7x10 ³	40.031	7.09	5.8	28	5	0.8	6.21	165	0.6	0.9	39	26.20	61.50									
16/01/22	40.056	7.60	25.6	190	392	240	190	42.0	20.4	4.1	285	4.9x10 ³	6.3x10 ³	39.967	7.38	6.4	32	7	1.6	6.65	170	0.4	1.0	33											
17/01/22	40.186	7.56	26.0	195	408	252	206	46.6	23.8	4.7	260	7.6x10 ³	5.4x10 ³	39.933	7.25	6.8	36	4	1.2	6.90	165	0.6	0.9	33	26.55	64.40									
18/01/22	40.305	7.39	25.6	200	416	233	178	39.6	19.6	4.5	265	9.0x10 ³	4.9x10 ³	39.938	7.12	5.8	32	5	0.8	6.26	160	0.5	0.8	76											
19/01/22	40.117	7.48	26.0	290	400	240	190	44.3	24.6	4.9	280	5.6x10 ³	7.7x10 ³	39.964	7.19	6.4	24	6	2.0	6.98	170	0.7	0.9	63	26.50	62.40									
20/01/22	40.115	7.63	25.9	180	384	256	206	42.0	21.4	4.7	295	3.0x10 ³	4.6x10 ³	39.991	7.37	6.6	32	5	1.6	6.23	175	0.5	0.8	49											
21/01/22	40.160	7.57	25.5	195	392	245	168	38.5	19.4	4.4	275	3.3x10 ³	5.2x10 ³	39.959	7.30	6.2	28	4	1.2	5.97	170	0.6	1.0	22											
22/01/22	40.357	7.35	25.5	200	416	226	172	39.6	22.4	4.9	285	2.7x10 ³	4.9x10 ³	40.025	7.14	7.0	40	5	1.6	6.37	160	0.6	0.9	56	26.10	61.60									
23/01/22	40.345	7.54	25.6	195	405	236	184	42.0	20.8	4.2	280	3.0x10 ³	6.3x10 ³	40.029	7.31	6.6	32	4	1.2	6.46	165	0.4	0.9	44											
24/01/22	40.146	7.32	25.2	205	424	260	212	46.6	25.2	4.9	290	4.9x10 ³	2.6x10 ³	39.965	7.40	6.8	36	6	2.0	6.98	160	0.7	1.0	27											
25/01/22	40.313	7.63	25.7	190	408	244	205	44.3	21.6	4.2	275	4.9x10 ³	5.6x10 ³	40.101	7.49	6.0	32	6	1.2	6.43	160	0.5	0.8	40	25.90	65.20									
26/01/22	40.042	7.57	26.0	185	392	235	180	42.0	19.6	4.0	280	6.3x10 ³	7.0x10 ³	39.981	7.31	5.8	24	5	0.8	5.66	170	0.6	1.0	56											
27/01/22	40.118	7.63	25.8	180	376	245	192	42.0	18.4	4.2	275	3.0x10 ³	5.0x10 ³	39.979	7.49	6.2	28	6	1.8	6.22	160	0.4	0.8	39											
28/01/22	40.267	7.46	26.0	195	368	213	168	39.6	17.2	3.9	260	3.9x10 ³	6.3x10 ³	40.098	7.22	5.6	24	4	0.4	5.02	155	0.6	0.9	33											
29/01/22	40.206	7.36	25.4	180	372	210	165	37.3	16.8	3.6	295	5.6x10 ³	7.6x10 ³	40.057	7.12	5.8	25	5	0.8	5.63	165	0.5	1.0	49	26.40	62.80									
30/01/22	40.103	7.56	25.9	185	384	229	174	39.6	17.6	3.9	270	8.4x10 ³	4.3x10 ³	40.012	7.26	6.4	28	6	1.2	6.09	170	0.4	0.9	40											
31/01/22	40.542	7.62	25.6	195	400	236	180	38.5	18.0	4.1	280	3.3x10 ³	4.9x10 ³	40.363	7.39	6.8	36	4	1.6	5.86	175	0.6	1.0	63	26.65	65.50									
Complaints Recd	1247-231													1240753																					
Average Flow	40.233													40.024																					
Plant Unit Recd																																			
Triveni Engineering & Industries Limited															BANGALORE WATER SUPPLY AND SEWERAGE BOARD																				
<i>Deepak</i> PLANT CHEMIST															<i>Regan</i> PLANT MANAGER																				
															<i>Ar</i> ASSISTANT ENGINEER																				
															<i>Kav</i> ASSISTANT EXECUTIVE ENGINEER																				

RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT FLOW AND LAB ANALYSIS REPORT for the month of FEB-2022

SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT																														
RAW SEWAGE													TREATED EFFLUENT																	
FLOW AND LAB ANALYSIS REPORT for the month of FEB - 2022													TREATED EFFLUENT																	
DATE	RAW SEWAGE FLOW (MLD)	pH	Temp. (°C)	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	VSS (mg/L)	TKN (mg/L)	NH4-N (mg/L)	T-PO4 (mg/L)	TOTAL ALKALINITY (mg/L)	FECAL COLIFORM (MPN/100 ml)	TOTAL COLIFORM (MPN/100 ml)	TREATED EFFLUENT FLOW (MLD)	pH	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	NH4-N (mg/L)	TKN (mg/L)	TOTAL ALKALINITY (mg/L)	T-PO4 (mg/L)	BOD (mg/L)	FECAL COLIFORM (MPN/100 ml)	FECAL COLIFORM (MPN/100 ml)	DRY SOLIDS (%)	SLUDGE (VSS/TSS) Ratio	REMARKS		
01/02/2022	40.355	7.39	25.9	200	416	234	182	44.3	22.4	4.4	290	3.0x10 ³	5.6x10 ⁴	40.194	7.16	6.2	28	4	1.2	6.29	195	0.5	0.8	27	26.0	63.5				
02/02/2022	40.197	7.53	25.8	185	392	221	176	42.0	23.2	4.1	280	4.0x10 ³	6.3x10 ⁴	40.027	7.33	7.0	40	5	1.6	6.20	195	0.8	1.0	33	26.0	63.5				
03/02/2022	40.277	7.38	25.2	195	376	240	190	39.3	21.6	4.0	275	4.9x10 ³	6.3x10 ⁴	40.017	7.33	7.0	40	5	1.6	6.20	195	0.8	1.0	33	26.0	63.5				
04/02/2022	40.411	7.56	26.0	190	400	249	196	44.3	23.6	4.5	290	4.9x10 ³	6.3x10 ⁴	40.141	7.10	6.6	32	5	2.0	7.12	195	0.6	1.1	56	26.45	60.60				
05/02/2022	40.062	7.46	25.8	186	384	226	178	42.0	22.0	4.6	275	3.2x10 ³	3.7x10 ⁴	40.217	7.36	6.0	28	7	1.2	6.54	160	0.7	1.0	49	25.99	62.50				
06/02/2022	40.335	7.16	26.2	180	376	198	158	33.2	19.6	4.2	275	4.0x10 ³	7.0x10 ⁴	40.001	7.21	6.8	32	4	1.6	6.26	195	0.6	0.9	63						
07/02/2022	40.321	7.32	25.6	186	392	212	162	35.0	19.6	4.0	265	7.6x10 ³	7.0x10 ⁴	40.002	7.28	5.8	24	5	0.8	6.50	155	0.3	1.0	56						
08/02/2022	40.267	7.48	26.1	190	384	243	182	36.7	22.4	4.3	290	2.7x10 ³	3.7x10 ⁴	40.210	6.90	6.2	28	6	1.2	6.12	165	0.4	0.3	49						
09/02/2022	40.296	7.43	25.4	195	416	219	176	42.0	24.4	4.7	260	4.6x10 ³	7.0x10 ⁴	40.096	7.26	6.0	28	9	1.6	6.02	160	0.4	1.0	52	26.10	65.4				
10/02/2022	40.366	7.84	26.0	180	376	209	164	39.6	21.6	4.5	295	6.3x10 ³	5.4x10 ⁴	40.134	7.24	6.6	36	5	0.8	5.90	175	0.9	1.0	39						
11/02/2022	40.338	7.59	25.1	185	392	236	188	39.6	26.2	4.9	285	4.6x10 ³	6.5x10 ⁴	40.223	7.40	6.2	24	6	1.2	6.09	180	0.6	1.1	76	26.60	63.85				
12/02/2022	40.286	7.48	25.3	194	386	240	192	37.3	24.0	4.2	290	3.8x10 ³	4.0x10 ⁴	40.193	7.56	6.4	32	5	1.8	6.02	175	0.5	0.9	58						
13/02/2022	40.186	7.60	25.8	195	408	228	182	38.5	24.8	4.9	290	3.8x10 ³	4.0x10 ⁴	40.102	7.36	6.2	28	4	2.0	6.92	196	0.7	0.9	40	26.40	60.90				
14/02/2022	40.408	7.31	26.2	190	450	206	164	43.7	26.4	4.9	295	2.9x10 ³	3.0x10 ⁴	40.037	7.44	6.6	28	6	1.2	6.02	165	0.4	0.3	33						
15/02/2022	40.175	7.45	26.0	186	392	230	182	40.2	25.2	4.6	285	2.0x10 ³	5.6x10 ⁴	40.299	7.02	6.8	36	4	1.6	6.56	160	0.5	1.0	50						
16/02/2022	40.217	7.41	25.9	175	376	212	168	39.6	24.5	4.3	280	4.0x10 ³	6.7x10 ⁴	40.006	7.26	6.4	28	7	1.6	6.02	170	0.4	0.9	44						
17/02/2022	40.409	7.53	25.7	185	384	249	198	42.0	26.8	4.7	295	2.6x10 ³	4.0x10 ⁴	40.100	7.21	5.8	20	4	1.2	6.12	165	0.5	0.8	52						
18/02/2022	40.257	7.48	25.6	192	392	230	178	39.6	25.2	4.5	285	5.0x10 ³	7.0x10 ⁴	40.251	7.32	6.2	24	5	1.2	6.58	170	0.7	0.9	40						
19/02/2022	40.411	7.41	25.9	205	424	256	206	44.3	28.0	4.9	280	5.0x10 ³	7.0x10 ⁴	40.091	7.23	6.2	28	6	0.8	6.06	170	0.5	1.0	58	26.60	65.50				
20/02/2022	40.466	7.82	25.4	210	440	262	216	46.6	29.6	5.2	295	2.7x10 ³	5.6x10 ⁴	40.247	7.43	6.8	36	5	2.0	6.91	185	0.6	0.9	60						
21/02/2022	40.322	7.42	25.6	225	456	252	210	44.3	29.2	4.9	280	6.3x10 ³	7.0x10 ⁴	40.163	7.18	6.6	32	5	1.2	6.11	170	0.6	0.8	54	26.95	64.10				
22/02/2022	40.443	7.52	26.0	240	552	258	216	49.0	32.8	5.3	305	3.0x10 ³	2.9x10 ⁴	40.280	7.33	7.0	40	6	2.4	7.12	200	0.9	1.0	63						
23/02/2022	40.323	7.33	25.5	225	520	238	202	46.6	29.6	5.0	295	7.0x10 ³	3.3x10 ⁴	40.166	7.04	6.4	36	4	2.0	6.95	190	0.6	0.9	50	26.40	65.10				
24/02/2022	40.245	7.62	26.0	230	528	244	198	46.6	30.4	4.9	290	6.3x10 ³	4.9x10 ⁴	40.104	7.16	6.6	32	5	1.6	6.35	185	0.5	1.0	60						
25/02/2022	40.224	7.36	25.4	220	504	230	184	44.3	29.4	4.7	290	3.0x10 ³	5.0x10 ⁴	40.068	7.05	6.4	28	4	1.2	6.14	190	0.6	0.9	33	26.20	65.40				
Cumulative Flow: 1172.246 MLD															1124.078 MLD															
Average Flow: 46.497 MLD															46.146 MLD															
Peak Flow: 44.462 MLD															40.302 MLD															
Triveni Engineering & Industries Limited															BANGALORE WATER SUPPLY AND SEWERAGE BOARD															
 PLANT CHEMIST															 ASSISTANT ENGINEER															
 PLANT MANAGER															 ASSISTANT EXECUTIVE ENGINEER															

BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of MARCH - 2022

WATER & SEWERAGE
ENGINEERING & INDUSTRIES LTD.

		RAW SEWAGE										TREATED EFFLUENT ANALYSIS REPORT for the month of MARCH - 2022															ENVIRONMENTAL INDUSTRIES LTD	
		RAW SEWAGE FLOW	pH	Temp.	BOD	COD	TSS	VSS	TKN	NH4-N	T-PO4	TOTAL RISKINITY	FECAL COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT										DRAUGHT SLUDGE		REMARKS	
DESIGNED UNIT	40.00 MLD	5.5-9.0	24-27 °C	350 mg/L	800 mg/L	450 mg/L	300 mg/L	20 mg/L	45 mg/L	7 mg/L	370 mg/L	1x10 ³ MPN/100 ml	1x10 ⁵ MPN/100 ml	39.95 MLD	6.5-9.0	≤10 mg/L	≤50 mg/L	≤10 mg/L	≤50 mg/L	≤100 mg/L	≥70 mg/L	≤1 mg/L	100 MPN/100 ml	≥5 %	≥75 %			
UNIT	MLD		°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	MPN/100 ml	MLD		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	%	%		
01/03/22	30.494	7.49	25.5	225	492	260	195	42.0	25.8	4.7	280	3.0x10 ³	6.3x10 ⁵	30.340	7.22	6.2	25	6	1.6	6.50	130	0.5	0.9	60				
02/03/22	36.022	7.46	25.2	215	450	226	160	39.6	26.2	4.3	295	5.6x10 ³	3.8x10 ⁵	35.560	7.32	6.6	32	4	1.2	5.98	180	0.4	0.3	50	26.50	66.50		
03/03/22	36.646	7.52	24.9	210	472	242	186	39.6	26.3	4.5	290	2.7x10 ³	5.0x10 ⁵	38.485	7.27	6.6	36	5	2.0	5.36	195	0.7	1.0	33				
04/03/22	39.255	7.33	26.3	210	448	254	194	37.3	24.4	4.2	275	6.7x10 ³	4.9x10 ⁵	39.055	7.12	6.0	24	6	0.8	5.90	160	0.5	0.3	40	26.30	63.50		
05/03/22	39.861	7.62	25.8	220	464	240	196	39.6	27.6	4.3	280	2.5x10 ³	5.4x10 ⁵	37.665	7.30	6.6	32	4	1.2	6.32	180	0.8	1.0	63	26.45	66.00		
06/03/22	40.520	7.39	25.6	216	440	231	170	37.3	25.2	4.1	270	6.2x10 ³	2.9x10 ⁵	40.610	7.13	6.2	28	6	1.6	6.08	165	0.5	0.9	20				
07/03/22	38.602	7.61	25.9	220	448	237	190	42.0	26.0	4.4	285	4.5x10 ³	7.1x10 ⁵	38.400	7.33	6.9	36	4	0.9	5.92	190	0.6	1.0	50				
08/03/22	40.493	7.47	25.0	210	437	202	164	39.6	24.4	4.2	270	2.1x10 ³	6.0x10 ⁵	40.225	7.29	6.4	32	5	1.2	6.32	175	0.5	0.9	63				
09/03/22	40.542	7.54	25.2	205	424	216	172	39.6	24.4	4.0	275	5.4x10 ³	4.0x10 ⁵	40.315	7.37	6.0	28	4	0.8	5.86	155	0.7	0.3	39	26.25	63.20		
10/03/22	40.326	7.39	25.0	200	408	249	196	37.3	25.2	4.3	280	2.6x10 ³	3.4x10 ⁵	40.174	7.14	6.8	36	6	2.0	7.12	165	0.4	0.8	10				
11/03/22	40.428	7.39	25.9	192	392	272	212	36.7	24.0	4.3	290	3.5x10 ³	4.0x10 ⁵	40.217	7.42	7.2	40	4	1.2	6.68	195	0.6	1.0	70	26.40	65.50		
12/03/22	40.730	7.67	24.8	185	388	240	190	35.0	22.4	3.9	290	3.5x10 ³	2.7x10 ⁵	40.217	7.42	7.2	40	4	1.2	6.68	195	0.6	1.0	70	26.40	65.50		
13/03/22	40.325	7.56	25.2	180	376	219	194	32.6	20.8	4.1	275	2.0x10 ³	2.7x10 ⁵	40.206	7.23	6.4	32	6	1.6	6.03	160	0.7	0.8	40	26.25	64.60		
14/03/22	35.140	7.59	25.6	190	400	248	196	36.7	23.2	4.3	280	4.0x10 ³	4.5x10 ⁵	40.209	7.29	6.0	28	7	0.8	5.85	165	0.7	0.9	34				
15/03/22	33.560	7.42	26.0	200	416	267	208	39.6	25.2	4.5	215	2.6x10 ³	2.7x10 ⁵	35.077	7.40	6.2	28	4	2.0	6.22	135	0.5	1.1	50				
16/03/22	32.623	7.39	25.0	192	408	249	196	37.3	25.2	4.4	270	2.0x10 ³	3.0x10 ⁵	39.305	7.48	6.6	32	5	1.6	6.00	155	0.6	0.8	33	26.00	64.00		
17/03/22	35.615	7.48	26.0	200	424	248	198	44.3	28.2	4.2	285	3.3x10 ³	4.0x10 ⁵	35.371	7.36	6.4	28	5	0.8	6.52	170	0.6	0.9	70				
18/03/22	40.128	7.61	25.5	195	416	271	209	46.6	29.6	4.5	290	2.2x10 ³	5.0x10 ⁵	40.004	7.41	6.8	32	6	1.2	6.93	185	0.5	1.0	34	26.45	62.80		
19/03/22	40.143	7.57	26.0	190	392	257	195	40.2	26.8	4.1	260	2.7x10 ³	3.4x10 ⁵	40.017	7.25	6.0	24	5	0.8	6.99	175	0.7	0.3	50	26.50	64.60		
20/03/22	40.277	7.46	25.8	185	384	228	192	39.6	24.8	4.0	270	6.0x10 ³	3.5x10 ⁵	40.124	7.19	6.2	28	6	1.2	6.50	160	0.4	0.9	27				
21/03/22	35.105	7.43	25.9	180	376	209	164	37.3	22.4	3.9	265	2.0x10 ³	5.0x10 ⁵	35.026	7.24	6.8	36	5	1.2	5.98	165	0.6	1.0	40				
22/03/22	35.624	7.66	25.3	190	396	244	190	39.6	28.6	4.2	275	0.0x10 ³	3.4x10 ⁵	35.494	7.32	6.0	32	6	0.8	6.10	170	0.4	0.9	80L	26.40	61.50		
23/03/22	39.572	7.64	25.8	175	369	266	202	32.6	19.6	4.0	260	2.6x10 ³	4.0x10 ⁵	39.316	7.39	5.6	24	4	0.4	5.60	190	0.4	1.0	50				
24/03/22	40.657	7.72	26.0	185	376	250	196	35.0	21.6	4.3	290	3.3x10 ³	6.1x10 ⁵	40.582	7.26	6.2	28	5	0.8	5.90	185	0.6	0.5	50	26.50	64.40		
25/03/22	40.493	7.33	26.4	180	384	232	180	37.3	23.8	4.1	280	4.0x10 ³	3.3x10 ⁵	40.354	7.53	6.6	32	6	1.2	6.14	190	0.5	1.0	34				
26/03/22	39.245	7.38	25.9	190	400	224	172	39.6	20.5	4.4	265	2.1x10 ³	6.1x10 ⁵	39.176	7.16	6.4	28	4	0.9	6.03	160	0.7	1.0	50	26.00	65.10		
27/03/22	39.245	7.38	25.9	190	400	224	172	39.6	20.5	4.4	265	2.1x10 ³	6.1x10 ⁵	39.176	7.16	6.4	28	4	0.9	6.03	160	0.7	1.0	50	26.00	65.10		
28/03/22	38.877	7.46	25.5	185	392	230	180	35.0	18.4	4.0	270	2.2x10 ³	3.0x10 ⁵	38.704	7.26	6.0	24	6	1.2	6.30	175	0.5	0.9	70				
29/03/22	39.621	7.56	25.0	200	416	269	208	42.0	24.4	4.3	265	5.0x10 ³	7.0x10 ⁵	37.505	7.23	6.8	36	4	1.6	6.85	150	0.7	1.0	34				
30/03/22	39.590	7.26	25.3	185	364	248	196	39.6	21.6	4.2	270	4.0x10 ³	2.4x10 ⁵	39.782	7.09	6.6	32	5	1.6	6.92	115	0.6	0.3	27	25.90	60.30		
31/03/22	40.033	7.53	25.9	192	392	236	180	37.3	19.6	4.0	265	3.4x10 ³	3.6x10 ⁵	39.927	7.20	5.8	28	4	0.3	5.69	160	0.5	1.0	50				
31/03/22	39.575	8.12	26.2	195	400	252	186	44.3	22.0	4.2	280	2.0x10 ³	5.0x10 ⁵	39.498	7.89	6.4	36	5	1.2	6.01	170	0.6	1.0	40	26.30	63.20		
Cumulative Flow		1192.345	MLD											1188.264														
Average Flow		38.495	MLD											35.332														
Peak Hour Flow			MLD																									
Plant Chemist		Tritonal Engineering & Industries Limited										BANGALORE WATER SUPPLY AND SEWERAGE BOARD																
Plant Manager																												
Assistant Engineer																												
Assistant Executive Engineer																												

Tivani Engineering & Industries Limited

BANGALORE WATER SUPPLY AND SEWERAGE BOARD

ChitDeepak
 PLANT CHEMIST

P. S. S.
 PLANT MANAGER

[Signature]
 ASSISTANT ENGINEER

[Signature]
 ASSISTANT EXECUTIVE ENGINEER

BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of - APRIL - 2022 -

TRIVENT
ENGINEERING & INDUSTRIES LTD.

RAW SEWAGE															TREATED EFFLUENT													DEWATERED SLUDGE				REMARKS	
DATE	UNIT	RAW SEWAGE FLOW	pH	Temp.	BOD	COD	TSS	VSS	TKN	NH4-N	T.P.D.	TOTAL ALKALINITY	FECAI COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TKN	TOTAL ALKALINITY	T.P.D.	RESIDUAL CHLORINE	FECAI COLIFORM	DRY SOLIDS	SLUDGE (VSS/TSS) Ratio						
		MLD		°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	MPN/100 ml	MLD		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	%	%						
01/04/22		34.918	7.63	25.6	185	384	260	202	42.0	23.6	4.4	280	2.2x10 ³	5.0x10 ⁴	34.576	7.40	6.0	28	5	1.6	6.92	150	0.7	0.8	63								
02/04/22		34.192	7.56	25.0	190	408	248	190	39.6	21.8	4.0	270	5.2x10 ³	4.0x10 ⁴	34.849	7.22	6.4	32	4	0.8	6.72	165	0.5	1.0	57	26.40	65.50						
03/04/22		26.110	7.73	26.0	200	416	254	196	44.3	25.2	4.1	290	5.0x10 ³	7.0x10 ⁴	25.693	7.73	6.8	34	6	2.0	6.98	180	0.6	0.9	54								
05/04/22		24.717	7.51	25.8	195	406	249	198	43.0	24.0	3.7	275	1.7x10 ³	7.6x10 ⁴	25.866	7.47	7.2	40	5	1.2	5.89	160	0.7	1.0	60								
06/04/22		24.832	7.52	26.0	210	440	282	220	44.3	25.6	4.2	260	1.2x10 ³	3.7x10 ⁴	24.465	7.40	6.6	32	4	1.6	5.96	165	0.4	0.9	40								
07/04/22		24.788	7.61	26.2	205	432	272	212	39.6	21.6	4.0	275	3.7x10 ³	4.0x10 ⁴	24.535	7.38	6.8	36	7	1.2	6.16	165	0.7	0.8	50								
08/04/22		24.809	7.57	26.0	195	416	244	185	37.3	20.4	4.2	260	3.7x10 ³	4.0x10 ⁴	24.535	7.38	6.8	36	7	1.2	6.16	165	0.7	0.8	50								
09/04/22		24.924	7.44	25.9	190	400	260	208	40.2	22.8	4.4	270	1.6x10 ³	4.0x10 ⁴	24.535	7.38	6.8	36	7	1.2	6.16	165	0.7	0.8	50								
10/04/22		26.282	7.59	26.0	185	392	248	186	42.0	22.6	4.2	270	1.6x10 ³	4.0x10 ⁴	24.535	7.38	6.8	36	7	1.2	6.16	165	0.7	0.8	50								
11/04/22		26.586	7.32	25.9	195	376	232	178	37.6	20.0	4.6	265	1.0x10 ³	5.0x10 ⁴	25.246	7.26	6.6	32	4	1.6	6.29	165	0.4	1.0	63	26.35	54.90						
12/04/22		24.258	7.50	25.4	175	368	242	188	39.6	19.2	4.1	260	1.0x10 ³	4.0x10 ⁴	25.086	7.37	5.6	20	4	0.8	5.24	155	0.6	0.9	50								
13/04/22		24.341	7.66	25.3	170	352	228	174	37.3	16.8	3.8	255	1.0x10 ³	4.0x10 ⁴	24.944	7.16	6.0	28	5	1.2	5.90	165	0.6	0.8	40	35.90	62.60						
15/04/22		24.371	7.71	25.1	165	360	262	204	37.6	19.2	4.0	265	1.0x10 ³	4.0x10 ⁴	24.061	7.49	5.8	20	4	0.4	5.10	150	0.3	1.0	50								
16/04/22		24.373	7.67	25.0	165	344	280	222	35.0	15.6	3.8	240	1.0x10 ³	4.0x10 ⁴	24.148	7.37	5.8	24	5	0.8	5.56	160	0.5	0.9	37								
16/04/22		4.752	7.72	26.0	155	336	258	201	32.6	14.8	4.1	250	1.0x10 ³	4.0x10 ⁴	24.155	7.32	6.0	28	5	0.8	5.02	175	0.4	0.8	27	26.50	63.40						
19/04/22		19.014	7.60	25.8	160	344	292	208	35.0	18.0	4.1	250	1.0x10 ³	4.0x10 ⁴	18.357	7.46	6.2	28	4	0.8	5.40	135	0.5	0.9	21								
20/04/22		26.299	7.63	25.6	170	360	248	196	39.6	19.2	4.2	215	1.7x10 ³	7.7x10 ⁴	28.065	7.37	6.0	24	5	0.4	5.12	155	0.4	1.0	27								
21/04/22		29.662	7.51	26.0	195	376	239	186	40.2	19.2	4.3	215	1.7x10 ³	7.7x10 ⁴	28.065	7.37	6.0	24	5	0.4	5.12	155	0.4	1.0	27								
22/04/22		28.029	7.44	25.5	165	368	246	192	42.0	22.4	4.6	240	1.0x10 ³	4.0x10 ⁴	28.836	7.34	6.6	32	6	1.2	6.10	135	0.6	0.9	49	26.20	60.50						
23/04/22		29.216	7.57	25.8	180	384	222	166	44.3	25.6	4.8	245	1.0x10 ³	7.7x10 ⁴	29.791	7.43	6.8	36	5	1.6	5.98	145	0.5	1.1	50								
24/04/22		29.534	7.64	25.6	195	376	248	192	40.2	23.2	4.6	240	1.0x10 ³	7.7x10 ⁴	29.307	7.43	6.8	36	5	1.2	6.66	155	0.6	0.9	50								
25/04/22		30.132	7.60	25.8	185	392	267	202	44.3	26.0	4.9	220	1.0x10 ³	7.7x10 ⁴	29.307	7.37	6.4	32	4	0.8	6.40	160	0.4	0.9	34								
26/04/22		30.091	7.47	26.2	190	408	271	216	46.6	27.6	4.8	250	1.0x10 ³	7.7x10 ⁴	29.307	7.37	6.4	32	4	0.8	6.40	160	0.4	0.9	34								
27/04/22		31.645	7.44	26.0	200	422	272	225	49.0	30.4	4.9	275	1.0x10 ³	7.7x10 ⁴	31.478	7.26	6.8	40	6	1.6	6.93	160	0.6	1.0	60								
28/04/22		36.520	7.63	25.9	205	424	280	222	42.0	28.0	4.3	275	1.0x10 ³	7.7x10 ⁴	31.478	7.26	6.8	40	6	1.2	7.03	165	0.5	0.9	27								
29/04/22		33.412	7.57	25.4	215	440	262	210	44.3	29.2	4.6	260	1.0x10 ³	7.7x10 ⁴	33.148	7.34	6.6	36	5	1.2	6.98	160	0.4	1.0	34	26.60	67.40						
30/04/22		32.073	7.66	26.1	210	432	276	215	46.6	31.6	4.9	270	1.0x10 ³	7.7x10 ⁴	31.826	7.42	6.8	36	6	1.6	7.12	170	0.6	0.9	30	26.10	66.50						
Cumulative Flow															838.744																		
Average Flow															27.691																		
Peak Flow															39.918																		

Plant Chemist

Plant Manager

26-01

Trivent Engineering & Industries Limited

BANGALORE WATER SUPPLY AND SEWERAGE BOARD

Asst Chemist
 PLANT CHEMIST

Plant Manager
 PLANT MANAGER

Asst Engineer
 ASSISTANT ENGINEER

Asst Exec Eng
 ASSISTANT EXECUTIVE ENGINEER

BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of MAY - 2022

DR. J. K. S. RAO
DEPUTY CHIEF ENGINEER

DATE		RAW SEWAGE FLOW (MLD)	pH	Temp. °C	RAW SEWAGE INFLUENT										TREATED EFFLUENT														DEWATERED SLUDGE		REMARKS
					BOD (mg/L)	COD (mg/L)	TSS (mg/L)	VSS (mg/L)	TKN (mg/L)	NH4-N (mg/L)	T-PO4 (mg/L)	TOTAL ALKALINITY (mg/L)	FECAL COLIFORM (MPN/100 ml)	TOTAL COLIFORM (MPN/100 ml)	TREATED EFFLUENT FLOW (MLD)	pH	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	NH4-N (mg/L)	TN (mg/L)	TOTAL ALKALINITY (mg/L)	T-PO4 (mg/L)	PERMANENT CHLORINE (mg/L)	FECAL COLIFORM (MPN/100 ml)	DRY SOLIDS (%)	SLUDGE (VSS/TSS) RATIO (%)				
UNIT	MLD			°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	MPN/100 ml	MLD		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	%	%						
01/05/2022	40.473	7.32	24.9	195	326	296	235	39.6	25.4	3.9	250	2.7x10 ³	5.0x10 ³	40.159	7.05	6.2	24	4	0.4	5.56	145	0.4	0.8	20							
02/05/2022	40.524	7.50	25.2	170	363	245	226	37.2	27.3	3.6	240	2.7x10 ³	3.4x10 ³	40.272	7.26	6.6	20	5	0.3	5.62	130	0.5	1.0	40	26.26	64.50	NA				
03/05/2022	40.396	7.66	25.4	165	360	256	214	35.0	21.6	3.5	240	2.7x10 ³	3.4x10 ³	40.076	7.32	6.4	24	6	1.2	5.90	145	0.6	0.9	32			NA				
04/05/2022	40.492	7.58	25.5	190	385	252	206	30.6	22.4	3.4	255	2.7x10 ³	3.4x10 ³	40.278	7.29	6.8	28	4	0.3	5.12	140	0.2	0.5	50			NA				
05/05/2022	40.414	7.46	26.6	165	363	264	210	35.0	19.6	3.8	260	2.7x10 ³	3.4x10 ³	40.204	7.20	6.2	24	5	0.5	5.68	150	0.5	1.0	20	26.30	61.60	NA				
06/05/2022	28.615	7.72	25.5	180	284	256	202	37.3	21.0	4.0	265	2.7x10 ³	3.4x10 ³	28.399	7.34	6.6	32	7	1.4	6.13	155	0.6	0.9	34			NA				
07/05/2022	40.389	7.64	26.2	170	352	286	230	35.0	18.4	3.6	240	2.7x10 ³	3.4x10 ³	40.151	7.42	5.8	20	5	0.4	5.05	130	0.5	1.0	50			NA				
08/05/2022	23.526	7.53	25.9	165	344	272	215	32.2	17.2	3.4	245	2.7x10 ³	3.4x10 ³	23.301	7.27	6.2	24	6	0.3	5.44	140	0.6	0.5	30			NA				
09/05/2022	39.406	7.40	26.0	190	360	296	236	35.0	19.6	3.7	250	2.7x10 ³	3.4x10 ³	39.192	7.18	5.6	20	5	0.3	5.21	145	0.5	1.0	22			NA				
10/05/2022	25.162	7.54	25.2	195	368	266	208	35.0	20.0	3.9	255	2.7x10 ³	3.4x10 ³	25.093	7.22	6.0	28	4	1.2	5.92	140	0.4	0.9	50			NA				
11/05/2022	40.523	7.46	25.5	180	376	259	198	33.3	22.8	4.0	260	2.7x10 ³	3.4x10 ³	40.349	7.36	6.8	32	5	1.6	6.12	145	0.6	1.0	30			NA				
12/05/2022	28.270	2.59	25.0	190	352	249	166	32.0	24.4	3.9	250	2.7x10 ³	3.4x10 ³	28.031	7.30	6.4	28	6	1.2	5.93	140	0.4	0.5	50			NA				
13/05/2022	32.524	7.64	25.6	190	352	249	166	32.0	24.4	3.9	250	2.7x10 ³	3.4x10 ³	32.317	7.38	6.6	32	4	0.8	5.30	135	0.6	1.0	22	26.30	64.50	NA				
14/05/2022	40.759	7.61	25.0	190	424	212	174	34.3	26.3	4.0	260	2.7x10 ³	3.4x10 ³	40.559	7.12	6.0	32	4	1.2	5.99	145	0.5	1.0	50			NA				
15/05/2022	40.572	7.36	25.2	190	392	235	196	35.0	25.4	4.2	250	2.7x10 ³	3.4x10 ³	40.580	7.16	6.0	32	4	1.6	6.80	160	0.6	0.9	40	26.60	66.24	NA				
16/05/2022	40.433	7.58	25.5	205	416	205	166	46.6	30.3	4.6	255	2.7x10 ³	3.4x10 ³	40.194	7.24	5.6	28	7	2.0	6.60	160	0.6	1.0	26			NA				
17/05/2022	23.244	7.69	25.4	210	424	212	174	34.3	26.3	4.0	260	2.7x10 ³	3.4x10 ³	23.038	7.41	5.8	32	4	1.2	6.75	150	0.4	0.9	32			NA				
18/05/2022	40.619	7.42	25.4	200	410	198	164	42.0	26.0	3.6	270	2.7x10 ³	3.4x10 ³	40.397	7.00	5.4	24	6	1.7	6.02	155	0.6	1.0	49			NA				
19/05/2022	40.516	7.69	25.1	205	416	204	168	44.3	27.2	4.1	260	2.7x10 ³	3.4x10 ³	40.389	7.21	6.0	28	6	2.4	6.28	170	0.7	1.0	91			NA				
20/05/2022	40.478	7.50	24.8	210	432	214	170	39.6	25.2	3.9	255	2.7x10 ³	3.4x10 ³	40.244	7.19	6.4	36	4	2.8	6.75	175	0.4	1.0	84			NA				
21/05/2022	40.571	7.72	25.2	198	408	196	160	42.0	26.0	4.0	285	2.7x10 ³	3.4x10 ³	40.278	7.17	6.0	32	5	2.1	6.36	165	0.6	0.8	50	25.7	62.30	NA				
22/05/2022	40.468	7.59	25.0	225	456	244	202	44.3	30.8	4.6	280	2.7x10 ³	3.4x10 ³	40.119	7.29	6.8	32	7	1.7	6.97	180	0.5	1.0	63	26.2	64.50	NA				
23/05/2022	40.583	7.51	25.2	228	464	220	195	44.3	29.0	4.2	275	2.7x10 ³	3.4x10 ³	40.215	7.12	6.0	36	5	2.1	7.20	185	0.4	1.0	37			NA				
24/05/2022	40.492	7.81	24.6	200	408	247	197	43.7	27.3	4.7	265	2.7x10 ³	3.4x10 ³	40.158	7.08	6.8	32	6	1.4	6.82	180	0.5	1.0	76			NA				
25/05/2022	40.535	7.47	25.0	180	276	202	166	37.3	24.5	3.9	245	2.7x10 ³	3.4x10 ³	40.388	7.22	6.4	24	5	2.1	6.40	170	0.6	1.0	34			NA				
26/05/2022	40.764	7.56	24.9	210	432	206	168	39.6	26.0	4.1	270	2.7x10 ³	3.4x10 ³	40.330	7.07	7.4	40	4	1.4	6.00	165	0.6	0.8	30			NA				
27/05/2022	40.637	7.38	25.2	202	408	196	162	42.2	25.2	3.8	255	2.7x10 ³	3.4x10 ³	40.332	7.02	6.2	28	6	2.0	5.90	170	0.4	1.0	49			NA				
28/05/2022	40.537	7.48	25.6	195	392	218	174	36.7	24.1	4.6	235	2.7x10 ³	3.4x10 ³	40.210	7.39	6.4	24	5	1.6	5.86	175	0.7	1.0	39	26.20	68.2	NA				
29/05/2022	40.406	7.52	24.9	190	384	202	168	42.0	26.0	4.2	280	2.7x10 ³	3.4x10 ³	40.094	7.14	7.0	32	7	2.1	6.40	180	0.6	0.9	63	26.60	60.5	NA				
30/05/2022	40.759	7.72	25.2	195	416	240	192	44.3	27.2	4.8	265	2.7x10 ³	3.4x10 ³	40.436	7.01	6.2	28	4	1.6	6.85	170	0.4	0.8	56			NA				
31/05/2022	34.603	7.53	25.4	170	324	272	218	32.2	17.2	3.4	265	2.7x10 ³	3.4x10 ³	34.182	7.23	6.4	36	6	2.0	6.02	165	0.8	0.9	60	26.40	62.50	NA				
Calculation Flow	1137.314													1129.812																	
Average Flow	36.200													36.446																	

Plant Chemist

Plant Manager

Assistant Engineer

Responsible

Responsible

Responsible

Plant Chemist

Plant Manager

Assistant Engineer

Responsible

Responsible

Responsible

Plant Chemist

Plant Manager

Assistant Engineer

Responsible

Responsible

Responsible

Devi Lakshmi
PLANT CHEMIST

Ref: 3.5
PLANT MANAGER

[Signature]
ASSISTANT ENGINEER

[Signature]
ASSISTANT EXECUTIVE ENGINEER

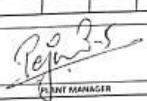
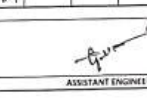
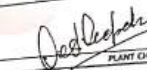
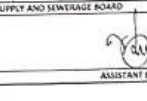
BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of JUNE - 2022



RAW SEWAGE INFLUENT													TREATED EFFLUENT													DEWATERED SLUDGE				REMARKS
DATE	RAW SEWAGE FLOW (MLD)	pH	Temp. °C	BOD mg/L	COD mg/L	TSS mg/L	VSS mg/L	TKN mg/L	NH4-N mg/L	T-PO4 mg/L	TOTAL ALKALINITY mg/L	FECAL COLIFORM MPN/100 ml	TOTAL COLIFORM MPN/100 ml	TREATED EFFLUENT FLOW (MLD)	pH	BOD mg/L	COD mg/L	TSS mg/L	NH4-N mg/L	TN mg/L	TOTAL ALKALINITY mg/L	T-PO4 mg/L	RESIDUAL CHLORINE mg/L	FECAL COLIFORM MPN/100 ml	DRY SOLIDS %	SLUDGE (WSS/TSS) Ratio %				
25/06/2022	28.50	7.59	25.2	135	376	222	198	35.0	24.6	4.1	250	2.0x10 ³	5.0x10 ³	28.347	7.36	6.8	32	4	1.2	6.32	150	0.7	6.8	27						
26/06/2022	40.632	7.47	25.8	190	392	261	192	39.6	26.0	4.3	265	2.2x10 ³	4.3x10 ³	40.223	7.43	6.4	36	5	1.2	6.54	155	0.5	1.0	50						
27/06/2022	39.147	7.70	25.6	195	408	282	212	42.0	27.9	4.6	270	2.2x10 ³	6.7x10 ³	35.973	7.56	7.0	40	4	2.0	7.12	165	0.6	1.1	27	26.40	61.25				
28/06/2022	40.482	7.61	26.0	175	368	276	206	40.0	25.2	4.1	255	5.0x10 ³	9.0x10 ³	40.256	7.46	6.6	32	6	1.2	6.64	160	0.5	1.0	40						
29/06/2022	40.380	7.53	25.6	180	376	260	198	39.6	24.5	4.0	260	2.2x10 ³	1.7x10 ³	41.236	7.72	6.4	36	5	1.6	6.32	155	0.6	0.9	60						
30/06/2022	40.684	7.48	25.3	185	364	256	186	37.3	27.2	3.9	245	7.6x10 ³	3.2x10 ³	40.470	7.16	6.0	32	6	0.8	5.92	150	0.4	0.8	27	26.30	64.10				
01/07/2022	40.193	7.59	24.9	175	376	229	168	35.0	20.4	3.8	240	1.3x10 ³	4.4x10 ³	35.993	7.22	6.8	40	7	1.2	6.08	145	0.6	1.0	50						
02/07/2022	36.126	7.49	25.6	185	392	262	202	39.6	27.8	4.0	255	7.2x10 ³	9.0x10 ³	37.831	7.31	6.6	36	4	0.8	5.98	150	0.5	0.9	17						
03/07/2022	42.421	7.82	26.0	195	416	286	218	44.3	26.4	4.6	270	4.0x10 ³	2.2x10 ³	42.166	7.42	6.8	40	5	1.6	6.38	165	0.7	1.0	37	26.20	62.20				
04/07/2022	40.455	7.66	25.8	190	400	272	206	42.0	24.4	4.2	260	3.3x10 ³	2.3x10 ³	40.053	7.35	6.4	36	6	1.2	6.12	160	0.6	0.8	50						
05/07/2022	40.440	7.43	26.0	205	432	268	200	46.6	26.8	4.6	270	2.7x10 ³	2.0x10 ³	40.118	7.30	6.0	28	5	1.6	6.72	160	0.5	1.0	40						
06/07/2022	40.448	7.58	25.9	200	416	236	126	39.6	22.6	4.1	260	2.0x10 ³	3.3x10 ³	40.170	7.26	6.6	32	6	0.8	5.86	155	0.6	0.9	27						
07/07/2022	40.339	7.64	26.0	210	440	273	210	42.0	23.6	4.3	265	1.4x10 ³	2.7x10 ³	41.013	7.34	6.6	36	5	1.2	6.40	165	0.7	1.0	50	26.40	64.60				
08/07/2022	29.974	7.62	25.2	195	432	267	206	44.3	25.2	4.5	255	2.0x10 ³	5.0x10 ³	27.262	7.52	7.0	40	4	1.6	6.72	160	0.7	1.1	30						
09/07/2022	32.528	6.96	25.4	180	376	288	224	37.3	20.4	3.7	245	2.1x10 ³	3.4x10 ³	37.216	7.17	6.2	28	5	0.8	4.98	150	0.7	1.0	30						
10/07/2022	32.198	7.42	26.8	190	392	264	219	37.6	21.6	4.2	255	1.7x10 ³	5.0x10 ³	32.608	7.19	6.6	36	4	1.2	5.56	160	0.4	0.8	40						
11/07/2022	38.417	7.46	25.7	190	366	280	218	35.0	18.4	3.9	245	2.7x10 ³	7.0x10 ³	37.724	7.13	6.6	32	6	0.8	5.40	150	0.7	1.0	27						
12/07/2022	31.440	7.54	26.0	175	384	266	190	37.3	20.8	4.0	255	2.0x10 ³	1.7x10 ³	31.121	7.32	6.6	32	6	0.8	5.40	150	0.7	0.9	40						
13/07/2022	40.453	7.60	25.6	190	376	272	204	40.0	25.2	4.2	245	3.0x10 ³	5.0x10 ³	37.724	7.32	6.6	32	6	0.8	5.40	150	0.7	0.9	40						
14/07/2022	37.209	7.39	25.2	165	352	237	163	35.0	23.2	4.1	250	2.6x10 ³	3.4x10 ³	37.322	7.46	6.2	28	5	0.8	5.12	165	0.6	0.9	37	26.30	63.20				
15/07/2022	31.791	7.52	25.6	175	360	216	176	32.6	24.4	4.0	245	2.6x10 ³	3.4x10 ³	31.322	7.46	6.2	28	5	0.8	5.12	165	0.6	1.0	30						
16/07/2022	32.011	7.63	25.5	180	384	239	192	35.0	23.3	4.4	260	4.0x10 ³	1.3x10 ³	31.031	7.26	6.2	28	5	0.9	5.66	150	0.7	0.8	40	26.10	64.50				
17/07/2022	31.618	7.59	26.0	185	384	248	198	37.3	25.2	4.4	260	2.2x10 ³	7.0x10 ³	21.109	7.34	6.0	36	6	1.2	6.12	165	0.6	1.0	27						
18/07/2022	26.680	7.49	25.6	190	400	258	206	40.2	26.8	4.6	265	3.4x10 ³	4.4x10 ³	39.954	6.97	6.4	28	4	0.8	5.40	155	0.4	0.9	50	26.50	62.40				
19/07/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
20/07/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
21/07/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
22/07/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
23/07/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
24/07/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
25/07/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
26/07/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
27/07/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
28/07/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
29/07/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
30/07/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
31/07/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
01/08/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
02/08/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
03/08/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
04/08/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
05/08/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
06/08/2022	40.540	7.27	25.2	180	392	240	166	39.6	26.0	4.4	245	7.0x10 ³	6.0x10 ³	41.068	7.16	6.0	32	5	1.2	5.98	160	0.5	1.0	30						
07/08/2022	40.540	7.27	25.2	180	392	240	1																							

BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAI ANALYSIS REPORT for the month of JULY - 2022

Triveni
ENGINEERING & INDUSTRIES LTD

RAW SEWAGE INFLUENT														TREATED EFFLUENT														DENATURED SLUDGE		REMARKS
DATE (DD/MM/YY)	MLD	pH	Temp. °C	BOD mg/L	COD mg/L	TSS mg/L	VSS mg/L	TKN mg/L	NH4-N mg/L	T-PO4 mg/L	TOTAL ALKALINITY mg/L	FECAL COLIFORM MPN/100 ml	TOTAL COLIFORM MPN/100 ml	TREATED EFFLUENT FLOW MLD	pH	BOD mg/L	COD mg/L	TSS mg/L	NH4-N mg/L	TN mg/L	TOTAL ALKALINITY mg/L	T-PO4 mg/L	MINERAL CHLORINE mg/L	FECAL COLIFORM MPN/100 ml	DRY SOLIDS %	SOLUBLE SOLIDS %				
	40.00	5.5-9.0	24-27	350	800	450	300	70	45	7	370	1x10 ³	10x10 ³	39.95	6.5-9.0	≤10	≤50	≤10	≤50	≤100	>70	≤1	1	100	>95	<70				
01/07/22	41.724	7.33	25.5	175	392	281	224	42.0	28.0	4.6	255	2.0x10 ³	4.0x10 ⁴	41.221	7.19	6.2	36	5	1.6	6.03	140	0.6	0.8	29			ng			
02/07/22	40.811	7.12	26.0	165	376	264	208	45.5	26.4	4.5	270	3.3x10 ³	2.2x10 ⁴	40.372	6.98	5.8	28	4	0.8	6.22	165	0.5	1.1	40	26.10	65.20	ng			
03/07/22	41.576	7.42	25.9	160	384	260	202	39.6	22.4	4.2	260	6.1x10 ³	3.4x10 ⁴	41.054	7.19	6.0	32	6	1.2	5.72	155	0.7	1.0	21						
04/07/22	41.821	7.69	26.1	195	408	286	230	46.0	29.2	4.8	275	4.0x10 ³	3.2x10 ⁴	41.303	7.29	6.4	36	5	1.6	6.29	160	0.4	0.9	30						
05/07/22	42.618	7.61	25.7	180	392	256	210	40.2	25.2	4.7	265	3.0x10 ³	5.0x10 ⁴	42.156	7.62	6.8	46	4	1.2	5.95	170	0.6	1.0	20	26.30	61.50	ng			
06/07/22	41.438	7.68	25.6	160	368	246	192	37.3	20.4	4.2	250	2.6x10 ³	4.0x10 ⁴	40.883	7.29	6.0	24	3	0.4	4.92	150	0.4	0.9	34	26.60	62.50	ng			
07/07/22	42.583	7.56	26.0	155	360	253	198	39.6	21.6	4.4	255	1.3x10 ³	2.7x10 ⁴	42.075	7.37	6.2	28	6	0.8	5.12	160	0.6	1.0	20			ng			
08/07/22	41.491	7.14	25.8	170	376	260	206	42.0	27.4	4.5	260	2.0x10 ³	5.0x10 ⁴	41.339	7.01	6.6	32	4	1.2	5.60	150	0.4	1.0	30			ng			
09/07/22	41.993	7.43	26.0	180	384	245	190	39.6	24.0	4.3	265	3.4x10 ³	1.4x10 ⁴	41.479	7.11	6.8	26	3	1.6	5.08	155	0.5	0.8	22	26.10	60.80	ng			
10/07/22	42.608	7.52	25.8	165	368	250	194	40.2	23.2	4.4	255	2.6x10 ³	3.0x10 ⁴	42.169	7.18	6.0	28	6	0.8	5.98	160	0.6	0.9	40			ng			
11/07/22	42.584	7.61	26.0	175	376	240	186	37.3	21.8	4.2	260	5.0x10 ³	2.7x10 ⁴	42.054	7.22	6.4	32	4	1.2	6.13	153	0.7	1.0	20	26.30	62.50	ng			
12/07/22	41.924	7.56	25.9	180	392	266	208	42.0	25.2	4.6	270	3.4x10 ³	6.0x10 ⁴	41.479	7.22	6.4	32	4	1.2	6.13	153	0.7	1.0	20	26.30	62.50	ng			
13/07/22	40.994	7.64	26.0	195	408	249	186	44.3	26.4	4.9	280	3.0x10 ³	3.3x10 ⁴	40.303	7.50	6.8	40	6	1.2	6.90	195	0.6	1.0	40			ng			
14/07/22	41.932	7.96	25.6	175	384	255	192	36.7	26.8	4.4	275	1.3x10 ³	1.3x10 ⁴	41.280	7.47	6.2	32	4	1.4	5.88	165	0.5	0.9	34			ng			
15/07/22	41.556	7.98	25.3	190	400	244	180	36.5	26.1	4.6	265	4.0x10 ³	3.4x10 ⁴	41.479	7.42	6.0	28	4	1.2	5.92	160	0.5	1.0	30	26.00	62.40	ng			
16/07/22	40.843	7.40	26.0	180	392	260	208	42.0	29.4	4.3	260	1.3x10 ³	6.0x10 ⁴	40.471	7.12	6.0	28	4	1.2	5.92	160	0.5	1.0	30	26.00	62.40	ng			
17/07/22	41.538	7.53	25.6	170	376	233	164	35.0	19.2	4.0	245	3.0x10 ³	5.0x10 ⁴	41.019	7.30	5.8	24	5	0.4	5.02	150	0.4	0.9	22			ng			
18/07/22	38.383	7.29	26.1	165	368	240	192	37.3	20.4	3.9	230	1.3x10 ³	3.3x10 ⁴	37.743	7.27	6.2	28	4	0.8	5.66	155	0.6	1.1	30	25.90	61.00	ng			
19/07/22	40.125	7.61	25.4	185	392	255	186	39.6	22.0	4.3	250	2.1x10 ³	4.0x10 ⁴	40.612	7.21	6.4	36	5	1.2	6.10	160	0.7	1.0	34			ng			
20/07/22	41.284	7.58	26.0	180	384	238	168	42.0	23.6	4.5	255	4.0x10 ³	2.6x10 ⁴	40.652	7.24	6.2	32	7	0.6	5.96	165	0.5	0.9	50			ng			
21/07/22	41.141	7.32	24.9	175	376	253	190	39.6	22.0	4.3	250	2.1x10 ³	3.3x10 ⁴	40.580	7.06	5.8	24	4	0.4	4.98	145	0.6	1.0	30	26.10	64.50	ng			
22/07/22	41.205	7.59	25.2	180	392	266	186	40.3	25.6	4.3	265	3.4x10 ³	4.0x10 ⁴	40.612	7.21	6.4	36	5	1.2	6.10	160	0.7	1.0	34			ng			
23/07/22	41.330	7.36	25.7	195	408	282	214	46.0	28.0	4.9	290	3.0x10 ³	3.1x10 ⁴	40.892	7.31	6.2	32	5	0.4	5.80	150	0.4	1.0	40			ng			
24/07/22	41.401	7.58	26.0	190	376	256	184	42.0	24.4	4.6	265	7.0x10 ³	1.3x10 ⁴	40.892	7.31	6.2	32	6	0.8	5.93	160	0.7	0.9	50	26.30	63.10	ng			
25/07/22	41.359	7.69	25.7	160	368	239	134	36.7	19.2	4.0	260	2.0x10 ³	3.4x10 ⁴	40.892	7.46	5.8	28	4	1.2	6.14	165	0.5	1.1	30	26.50	60.50	ng			
26/07/22	41.436	7.50	26.0	180	384	250	186	39.6	21.6	4.3	265	5.0x10 ³	1.6x10 ⁴	40.944	6.95	6.6	36	4	1.2	6.14	165	0.5	1.1	30	26.50	60.50	ng			
27/07/22	40.023	7.41	25.8	185	392	239	160	37.3	21.4	4.0	270	2.0x10 ³	4.0x10 ⁴	39.457	7.10	6.0	28	5	1.2	6.10	160	0.5	1.0	22			ng			
28/07/22	41.180	7.58	25.4	190	408	263	198	42.0	27.6	4.4	265	5.1x10 ³	3.3x10 ⁴	40.621	7.29	6.4	32	4	0.8	6.22	155	0.4	0.9	34	26.30	65.20	ng			
29/07/22	35.652	7.64	25.7	200	416	245	184	39.6	21.2	4.5	270	2.0x10 ³	4.0x10 ⁴	35.061	7.34	6.8	36	6	1.6	6.95	160	0.7	1.0	20			ng			
30/07/22	41.230	7.89	25.4	190	400	261	218	44.3	29.6	4.8	285	7.4x10 ³	6.0x10 ⁴	40.671	7.46	6.6	40	5	2.0	6.90	170	0.5	1.1	40			ng			
31/07/22	40.932	7.60	26.0	195	408	264	198	42.0	25.2	4.3	290	2.2x10 ³	3.0x10 ⁴	40.890	7.36	6.4	36	4	1.2	6.88	160	0.4	1.0	22	26.20	63.40	ng			
														1261.584																
														40.696																
														42.169																
BANGALORE WATER SUPPLY AND SEWERAGE BOARD																														
Triveni Engineering & Industries Limited																														
 PLANT MANAGER														 ASSISTANT ENGINEER																
 PLANT CHEMIST														 ASSISTANT EXECUTIVE ENGINEER																

BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDARELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of AUGUST-2022

RAW SEWAGE INFLUENT														TREATED EFFLUENT														DEWATERED SLUDGE				REMARKS
DATE	TIME	pH	Temp.	BOD	COD	TSS	VSS	TKN	NH4-N	T-PO	TOTAL ALKALINITY	FECAL COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TN	TOTAL ALKALINITY	T-PO	RESIDUAL CHLORINE	FECAL COLIFORM	DRY SOLIDS	SLUDGE (VSS/TSS) Ratio						
MLD			°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	MPN/100 ml	MLD		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100 ml	%	%						
01/08/2022	10-31M	7.82	25.6	175	376	240	191	36.7	24.8	4.6	255	3.4x10 ³	5.0x10 ³	39.745	7.62	6.2	32	5	0.8	5.73	240	0.6	0.9	30								
02/08/2022	10-58M	7.44	25.7	150	388	252	202	39.6	25.2	4.7	265	1.7x10 ³	2.0x10 ³	40.053	7.29	6.0	28	6	1.2	6.34	155	0.5	1.0	50	26.10	64.20						
03/08/2022	11-07M	7.53	26.0	170	368	263	208	35.0	20.6	4.2	245	2.2x10 ³	4.0x10 ³	40.446	7.34	5.6	24	4	0.4	5.12	145	0.6	0.9	20								
04/08/2022	10-60M	7.46	25.2	160	353	223	174	32.6	18.4	4.3	250	3.4x10 ³	6.0x10 ³	40.777	7.08	5.4	20	5	0.4	5.39	150	0.5	1.0	33								
05/08/2022	10-22M	7.49	25.0	175	368	240	182	35.0	20.6	4.5	265	2.0x10 ³	1.7x10 ³	39.745	7.23	5.6	24	4	0.8	5.69	150	0.6	0.9	50	26.10	64.20						
06/08/2022	10-54M	7.54	25.0	175	372	256	192	37.3	22.4	4.5	270	1.2x10 ³	6.0x10 ³	40.529	7.36	6.2	26	6	1.2	6.31	160	0.7	1.1	34								
07/08/2022	10-49M	7.78	25.4	185	384	281	224	37.6	24.0	4.7	265	3.0x10 ³	8.0x10 ³	40.198	7.57	6.8	36	6	1.6	6.72	165	0.4	1.1	37								
08/08/2022	10-63M	7.36	25.8	190	392	264	208	42.0	25.2	4.4	250	3.0x10 ³	8.0x10 ³	40.198	7.57	6.8	36	6	1.6	6.72	165	0.4	1.1	37								
09/08/2022	10-83M	7.43	25.4	175	376	258	202	37.3	22.2	4.1	260	2.0x10 ³	5.0x10 ³	40.042	7.17	7.0	40	4	0.8	5.98	160	0.5	1.0	50	26.25	62.60						
10/08/2022	10-37M	7.46	25.0	160	400	229	190	42.0	24.4	4.2	290	3.3x10 ³	2.0x10 ³	40.126	7.21	6.6	36	4	1.6	6.32	155	0.3	1.1	40								
11/08/2022	10-82M	7.59	25.9	185	416	253	198	44.3	26.8	4.6	265	4.0x10 ³	6.0x10 ³	40.260	7.33	6.2	40	6	0.8	6.90	160	0.6	1.0	30	26.40	64.20						
12/08/2022	10-65M	7.68	25.2	175	408	246	188	30.6	25.2	4.2	260	2.6x10 ³	3.3x10 ³	40.146	7.41	6.4	32	5	1.2	6.70	155	0.5	1.0	22								
13/08/2022	10-81M	7.54	25.6	180	392	264	210	42.0	24.0	4.5	270	2.0x10 ³	3.4x10 ³	40.281	7.37	6.0	26	4	0.8	5.96	165	0.6	0.9	40								
14/08/2022	10-37M	7.33	25.9	175	384	237	166	35.0	22.8	4.1	265	2.0x10 ³	5.0x10 ³	40.292	7.08	6.2	24	7	0.4	6.18	153	0.4	1.0	33								
15/08/2022	10-57M	7.42	25.6	190	367	256	182	38.5	19.2	3.9	255	2.0x10 ³	6.0x10 ³	41.285	7.06	5.8	24	6	0.5	6.00	160	0.5	1.0	29								
16/08/2022	10-50M	7.57	25.0	175	376	264	196	39.6	20.4	4.2	260	1.9x10 ³	3.3x10 ³	41.178	7.22	6.4	32	6	1.2	6.70	155	0.5	0.9	27								
17/08/2022	10-60M	7.42	25.4	165	368	235	168	35.0	21.2	4.0	265	2.0x10 ³	5.0x10 ³	41.080	6.74	6.2	28	5	0.4	5.53	155	0.7	1.1	30								
18/08/2022	10-26M	7.29	25.2	160	384	244	172	39.6	24.0	4.2	290	4.0x10 ³	2.6x10 ³	40.126	7.21	6.6	36	4	1.6	6.32	155	0.3	1.1	40								
19/08/2022	10-57M	7.46	25.8	185	392	264	210	42.0	24.0	4.5	270	2.0x10 ³	3.4x10 ³	41.057	7.12	6.4	32	5	1.2	6.70	155	0.4	0.9	40	26.20	64.50						
20/08/2022	10-19M	7.19	25.2	170	376	232	178	38.5	23.6	4.2	240	2.6x10 ³	3.3x10 ³	41.108	7.02	6.0	28	4	1.6	6.40	145	0.6	1.0	30								
21/08/2022	10-20M	7.48	25.6	165	360	228	166	35.0	20.4	3.9	225	2.0x10 ³	5.0x10 ³	41.203	6.67	6.2	28	5	0.4	5.02	135	0.4	1.0	33								
22/08/2022	10-16M	7.33	25.9	175	380	254	184	39.3	22.8	4.1	250	1.7x10 ³	3.4x10 ³	41.139	7.21	5.6	24	6	0.8	5.64	153	0.5	0.8	40	25.30	61.10						
23/08/2022	10-16M	7.41	26.0	160	384	262	192	39.6	23.2	4.3	245	3.3x10 ³	2.0x10 ³	41.218	7.29	6.2	32	4	1.2	6.10	140	0.5	1.0	22	25.0	64.0						
24/08/2022	10-38M	7.34	25.4	165	352	240	162	32.6	16.4	4.0	255	2.7x10 ³	7.0x10 ³	45.802	7.09	5.4	20	6	0.8	5.32	160	0.3	1.0	27								
25/08/2022	10-69M	7.58	25.8	170	360	248	174	35.1	19.2	4.2	255	6.0x10 ³	3.4x10 ³	41.159	7.24	6.0	28	4	0.8	5.84	165	0.4	1.2	20	26.45	62.55						
26/08/2022	10-50M	7.49	25.4	160	352	267	202	35.0	18.8	3.9	260	2.0x10 ³	6.0x10 ³	40.029	7.31	5.6	24	5	0.4	5.06	145	0.6	0.9	40								
27/08/2022	10-32M	7.28	26.0	180	384	282	216	37.3	19.2	4.0	255	1.2x10 ³	3.0x10 ³	41.752	7.16	5.4	20	6	0.8	5.34	155	0.5	1.0	24	25.90	64.10						
28/08/2022	10-50M	7.46	25.5	165	360	266	196	39.6	19.6	4.3	255	2.5x10 ³	4.0x10 ³	41.863	7.20	6.0	28	4	1.2	5.92	165	0.6	0.9	27	26.30	61.50						
29/08/2022	10-50M	7.46	25.5	165	360	266	196	39.6	19.6	4.3	255	2.5x10 ³	4.0x10 ³	41.863	7.20	6.0	28	4	1.2	5.92	165	0.6	0.9	27	26.30	61.50						
30/08/2022	10-61M	7.53	25.8	175	384	282	216	37.3	19.2	4.0	255	3.4x10 ³	2.0x10 ³	42.042	7.17	6.2	32	7	1.6	5.60	155	0.4	1.0	33	26.25	60.80						
Cumulative Flow														1268.625	MLD														1257.393			
Average Flow														40.366	MLD														40.366			

Date: 12/08/2022 Signature: <i>[Signature]</i> Name: Jyoti Chavhan Designation: Jyoti Chavhan	Date: 12/08/2022 Signature: <i>[Signature]</i> Name: Jyoti Chavhan Designation: Jyoti Chavhan	Date: 12/08/2022 Signature: <i>[Signature]</i> Name: Jyoti Chavhan Designation: Jyoti Chavhan	Date: 12/08/2022 Signature: <i>[Signature]</i> Name: Jyoti Chavhan Designation: Jyoti Chavhan
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BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FOR THE MONTH OF SEPTEMBER - 2022

P. V. RAO
ENGINEERING & INDUSTRIES LTD.

FLOW AND LAB ANALYSIS REPORT for the month of SEPTEMBER- 2022																											ENGINEERING & INDUSTRIES
DATE	RAW SEWAGE FLOW	pH	Temp.	RAW SEWAGE INFLUENT										TREATED EFFLUENT										SEWAGE SLUDGE			REMARKS
				BOD	COD	TSS	VSS	TKN	NH4-N	T-PO4	TOTAL ALKALINITY	FECAL COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TKN	TOTAL ALKALINITY	T-PO4	RESIDUAL CHLORINE	FECAL COLIFORM	DRY SOLIDS	SLUDGE (VSS/TSS) RATIO	
UNIT	MLD		°C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	10 ³ /100 ml	10 ⁶ /100 ml	MLD		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	10 ³ /100 ml	%	%			
01/09/2022	40.529	7.26	25.2	185	292	264	206	37.3	17.1	3.1	240	3.3 x 10 ⁴	5.0 x 10 ⁴	40.074	7.70	6.6	32	5	0.3	5.74	135	0.4	1.1	40			
02/09/2022	41.310	7.24	25.6	160	304	268	212	39.6	19.6	4.4	250	4.0 x 10 ⁴	7.3 x 10 ⁴	40.123	7.26	6.0	28	4	1.2	5.98	145	0.5	1.0	33			
03/09/2022	42.094	7.54	25.9	195	408	236	166	42.0	25.2	4.6	265	3.0 x 10 ⁴	7.1 x 10 ⁴	40.138	7.36	6.8	36	6	0.8	6.12	155	0.6	0.9	22	26.40		
04/09/2022	42.254	7.61	25.6	205	416	250	198	44.2	27.6	4.7	255	3.0 x 10 ⁴	7.2 x 10 ⁴	41.255	7.31	6.2	32	4	1.2	6.62	150	0.4	1.0	40			
05/09/2022	42.326	7.07	26.0	195	376	229	134	35.0	18.8	4.2	145	2.1 x 10 ⁴	3.0 x 10 ⁴	41.610	7.57	5.8	24	5	0.4	5.06	135	0.7	0.9	33			
06/09/2022	41.727	7.29	25.4	185	304	235	164	39.3	20.4	4.4	190	2.0 x 10 ⁴	4.0 x 10 ⁴	41.266	7.22	6.2	28	6	0.8	3.67	155	0.5	1.0	26	25.80		
07/09/2022	41.722	7.35	25.2	190	392	216	166	36.7	21.6	4.2	195	1.7 x 10 ⁴	6.0 x 10 ⁴	41.237	7.14	6.8	36	4	1.6	6.16	150	0.3	1.0	30			
08/09/2022	40.614	7.37	25.9	190	360	246	160	38.5	22.4	4.3	200	2.0 x 10 ⁴	6.0 x 10 ⁴	40.051	7.19	6.0	26	5	0.4	5.92	145	0.5	0.9	34			
09/09/2022	41.324	7.62	25.5	195	368	246	160	38.5	21.2	4.2	185	4.0 x 10 ⁴	7.7 x 10 ⁴	41.216	7.31	6.4	32	5	0.8	5.82	140	0.6	1.1	20	26.35		
10/09/2022	41.563	7.57	25.0	160	352	263	214	35.0	19.2	4.0	205	2.6 x 10 ⁴	7.0 x 10 ⁴	41.054	7.24	5.6	20	4	1.2	5.63	155	0.7	1.0	40			
11/09/2022	41.526	7.43	26.0	190	376	256	202	37.3	20.4	4.7	225	1.7 x 10 ⁴	4.0 x 10 ⁴	41.013	7.30	6.0	28	6	0.8	6.02	160	0.4	0.9	33			
12/09/2022	41.392	7.19	25.8	180	364	260	205	37.6	23.6	4.6	260	2.2 x 10 ⁴	3.4 x 10 ⁴	40.866	6.92	6.6	36	5	1.6	6.90	165	0.6	1.1	40	25.90		
13/09/2022	41.642	7.28	26.0	165	368	246	166	42.0	26.0	4.9	260	4.0 x 10 ⁴	5.0 x 10 ⁴	40.053	7.10	5.8	24	4	1.2	6.12	155	0.4	1.0	33			
14/09/2022	41.096	7.39	25.4	185	392	262	212	37.3	23.6	4.4	245	3.0 x 10 ⁴	7.3 x 10 ⁴	40.559	7.20	6.4	32	5	0.8	5.80	140	0.6	0.9	27	26.10		
15/09/2022	41.690	7.36	26.0	180	364	266	210	38.5	27.2	4.5	255	2.1 x 10 ⁴	3.7 x 10 ⁴	41.203	7.12	6.0	28	6	1.2	5.86	155	0.5	1.0	30	25.99		
16/09/2022	41.560	7.51	25.6	195	408	240	192	42.0	29.2	4.8	240	1.4 x 10 ⁴	2.0 x 10 ⁴	41.062	7.31	6.8	36	4	1.6	6.52	135	0.7	1.1	40			
17/09/2022	41.647	7.46	25.9	210	424	262	222	44.3	28.8	4.9	265	2.2 x 10 ⁴	4.0 x 10 ⁴	41.136	7.22	6.2	28	5	0.8	6.02	145	0.6	1.0	22	26.30		
18/09/2022	41.625	7.31	25.4	200	416	260	202	37.6	26.4	4.6	250	3.0 x 10 ⁴	5.0 x 10 ⁴	41.291	7.16	6.6	32	6	1.2	6.43	155	0.4	1.0	33			
19/09/2022	41.757	7.46	25.5	190	400	246	186	37.3	25.2	4.9	245	2.1 x 10 ⁴	3.4 x 10 ⁴	41.165	7.29	5.8	24	4	0.4	5.10	150	0.6	0.9	30			
20/09/2022	41.671	7.26	26.1	205	424	256	198	46.6	31.2	5.0	260	2.2 x 10 ⁴	3.0 x 10 ⁴	41.113	7.18	6.8	36	5	0.8	5.68	155	0.5	1.1	40			
21/09/2022	41.477	7.27	25.6	190	392	264	208	42.0	27.6	4.8	245	2.3 x 10 ⁴	4.0 x 10 ⁴	40.953	7.08	6.2	28	6	1.2	5.16	140	0.4	1.0	27			
22/09/2022	41.618	7.47	25.3	195	400	251	194	37.6	25.2	4.3	253	2.2 x 10 ⁴	3.4 x 10 ⁴	41.049	7.16	6.4	32	4	0.8	5.92	150	0.6	0.9	50	25.90		
23/09/2022	41.729	7.52	25.8	180	384	260	212	37.2	22.4	4.0	260	1.7 x 10 ⁴	3.0 x 10 ⁴	40.093	7.22	6.8	36	6	1.6	6.35	160	0.5	1.0	30			
24/09/2022	41.229	7.52	25.8	180	384	260	212	37.2	22.4	4.0	260	1.7 x 10 ⁴	3.0 x 10 ⁴	40.093	7.22	6.8	36	6	1.6	6.35	160	0.5	1.0	30			
25/09/2022	40.265	7.57	26.0	195	408	252	200	42.0	24.6	4.4	255	2.4 x 10 ⁴	5.0 x 10 ⁴	39.766	7.25	6.6	40	4	1.2	6.09	145	0.4	1.0	22	26.11		
26/09/2022	41.577	7.46	25.6	205	424	240	192	44.3	26.2	4.8	265	2.2 x 10 ⁴	4.0 x 10 ⁴	41.026	7.32	6.2	32	6	0.8	6.52	160	0.6	0.9	40			
27/09/2022	41.629	7.62	25.6	215	432	254	196	46.6	34.0	4.7	265	2.3 x 10 ⁴	7.0 x 10 ⁴	41.093	7.26	6.8	40	6	0.4	5.96	190	0.4	1.0	33			
28/09/2022	41.587	7.32	25.9	190	400	277	182	42.0	26.4	4.6	260	2.0 x 10 ⁴	7.3 x 10 ⁴	41.025	7.14	6.4	36	5	0.8	6.32	155	0.6	0.9	27	25.90		
29/09/2022	41.716	7.37	25.6	180	384	252	206	37.6	23.2	4.2	250	3.0 x 10 ⁴	7.3 x 10 ⁴	40.934	7.19	6.0	28	4	0.4	6.00	145	0.7	1.1	30	26.20		
30/09/2022	41.676	7.57	26.0	190	392	242	190	42.0	25.2	4.6	260	2.2 x 10 ⁴	4.0 x 10 ⁴	41.063	7.26	6.4	32	5	1.2	6.22	165	0.5	1.0	22			
31/09/2022	41.581	7.47	25.7	180	376	264	208	27.6	24.4	4.6	255	2.0 x 10 ⁴	4.0 x 10 ⁴	41.074	7.35	5.8	24	4	0.8	6.43	150	0.4	1.0	34			
Conclusion Date	12/05/1990	12/29/112																									
Average Date	41.515	41.970																									
		41.810																									

Compliance Date: 12.05.2020
 Average Date: 41.515
 Peak Date: 42.326

Treated Engineering & Industries Limited

BANGALORE WATER SUPPLY AND SEWERAGE BOARD

Devi Reddy
 PLANT CHEMIST

Regan S
 PLANT MANAGER

[Signature]
 ASSISTANT ENGINEER

[Signature]
 ASSISTANT EXECUTIVE ENGINEER

BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of - OCT- 2022

RAW SEWAGE INFLUENT														TREATED EFFLUENT														DEWATERED SLUDGE				REMARKS
DATE	RAW SEWAGE FLOW	pH	Temp.	BOD	COD	TSS	VSS	TKN	NH4-N	T-PO	TOTAL ALKALINITY	FECAL COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TN	TOTAL ALKALINITY	T-PO	RESIDUAL CHLORINE	FECAL COLIFORM	DRY SOLIDS	SLUDGE (WATER) Ratio						
INST	MLD	5.5-9.0	°C	mg/L	mg/L	mg/L	mg/L	70	45	7	370	1x10 ³	10x10 ³	39.95	6.5-9.0	≤10	≤50	≤10	≤50	≤100	>70	≤1	1	100	≥25	≥70						
01/10/2022	41.7-4	7.38	25.2	195	368	240	182	37.3	20.4	4.0	245	2.2x10 ³	4.0x10 ⁴	41.216	7.12	5.6	20	6	0.4	5.62	140	0.4	0.9	33	%	%						
02/10/2022	41.580	7.41	25.8	180	378	232	190	39.6	22.6	4.3	250	3.0x10 ³	7.0x10 ⁴	41.057	7.19	6.0	20	5	0.5	5.90	155	0.6	1.0	40	25.80	61.50						
03/10/2022	41.675	7.56	26.0	185	392	266	204	42.0	25.6	4.6	260	4.0x10 ³	7.4x10 ⁴	41.178	7.22	6.4	32	4	1.6	6.16	160	0.5	1.0	22								
04/10/2022	41.715	7.72	25.4	195	384	236	180	35.0	19.2	4.0	245	3.3x10 ³	7.2x10 ⁴	41.155	7.46	5.8	24	5	0.4	5.66	140	0.6	0.9	30	25.90	62.60						
05/10/2022	41.662	7.60	25.8	180	376	240	186	35.0	20.0	4.1	250	2.9x10 ³	7.4x10 ⁴	41.171	7.37	6.2	28	4	0.5	5.92	150	0.5	0.9	40								
06/10/2022	41.585	7.58	25.4	195	408	272	210	42.0	24.9	4.6	265	5.0x10 ³	2.3x10 ⁴	41.037	7.26	6.6	32	6	1.2	6.24	165	0.7	1.1	26	26.20	61.20						
07/10/2022	41.723	7.73	25.9	210	432	260	202	46.6	27.2	4.9	270	3.3x10 ³	7.2x10 ⁴	41.136	7.06	6.3	36	4	0.8	6.02	160	0.4	1.0	33								
08/10/2022	41.674	7.49	25.2	205	416	268	208	44.3	25.6	4.7	265	4.0x10 ³	7.2x10 ⁴	41.136	7.06	6.3	36	4	0.8	6.02	160	0.4	1.0	33								
09/10/2022	41.926	7.56	25.6	190	400	252	190	42.0	23.6	4.5	255	2.0x10 ³	5.0x10 ⁴	41.248	7.39	6.8	32	4	0.8	5.86	145	0.5	1.0	34	26.40	66.50						
10/10/2022	41.292	7.36	26.0	180	376	240	196	37.3	22.2	4.0	250	1.3x10 ³	4.0x10 ⁴	40.779	7.21	6.0	24	5	0.4	5.64	140	0.4	1.0	27	26.00	63.40						
11/10/2022	41.596	7.60	25.5	185	392	264	206	39.6	23.2	4.3	255	2.2x10 ³	1.2x10 ⁴	41.130	7.42	6.2	28	4	0.5	5.64	140	0.5	1.0	30								
12/10/2022	41.622	7.47	25.8	190	400	256	196	42.0	24.4	4.5	250	2.2x10 ³	1.2x10 ⁴	41.159	7.29	6.8	36	5	1.2	6.82	150	0.6	0.9	40	26.40	62.50						
13/10/2022	40.482	7.91	25.0	205	424	282	224	44.3	26.4	4.9	260	4.0x10 ³	7.0x10 ⁴	40.007	7.44	6.6	32	6	0.8	6.08	155	0.5	1.0	50								
14/10/2022	41.660	7.60	24.9	190	384	276	216	37.3	22.4	4.4	240	3.0x10 ³	3.3x10 ⁴	41.157	7.36	5.8	24	4	0.4	5.62	140	0.4	0.8	30								
15/10/2022	40.670	7.69	25.0	190	368	252	202	35.0	18.8	4.0	245	3.0x10 ³	4.0x10 ⁴	41.157	7.36	5.8	24	4	0.4	5.62	140	0.4	0.8	30	25.90	64.10						
16/10/2022	40.719	7.46	25.2	180	376	260	210	39.6	20.4	4.2	255	2.0x10 ³	2.3x10 ⁴	40.007	7.44	6.6	32	6	1.2	6.12	140	0.5	1.0	27								
17/10/2022	41.611	7.53	25.6	185	384	248	190	42.0	22.8	4.0	240	3.0x10 ³	2.3x10 ⁴	41.089	7.28	5.8	20	4	0.4	5.66	125	0.4	0.8	40								
18/10/2022	41.360	7.61	25.8	190	392	256	198	44.3	24.0	4.4	255	2.2x10 ³	4.0x10 ⁴	40.879	7.47	6.0	28	5	0.8	5.96	145	0.6	1.0	33	26.20	60.90						
19/10/2022	41.928	7.50	25.6	175	376	248	176	37.3	20.6	4.1	260	3.3x10 ³	4.0x10 ⁴	41.167	7.33	5.6	24	6	1.6	6.20	150	0.5	0.9	47								
20/10/2022	41.633	7.77	25.9	190	392	272	212	36.4	24	4.7	260	1.0x10 ³	2.7x10 ⁴	41.161	7.42	6.2	36	4	1.2	6.68	140	0.6	1.0	43								
21/10/2022	41.671	7.67	24.8	185	388	240	190	35.0	22.4	3.9	270	3.0x10 ³	5.0x10 ⁴	41.056	7.23	5.6	32	6	1.6	6.08	160	0.4	0.8	34	25.60	62.80						
22/10/2022	41.639	7.56	25.2	180	376	214	174	32.6	20.8	4.1	275	4.0x10 ³	7.2x10 ⁴	41.497	7.29	6.0	28	7	0.8	5.85	155	0.7	0.9	50								
23/10/2022	41.240	7.59	25.6	190	400	248	196	36.7	23.2	4.3	245	2.0x10 ³	7.0x10 ⁴	40.726	7.40	5.4	28	4	2	6.22	140	0.5	1.1	33	26.40	61.50						
24/10/2022	41.614	7.72	26	200	416	264	208	37.6	25.2	4.5	250	1.0x10 ³	2.3x10 ⁴	40.957	7.43	6.2	32	5	1.6	6.0	155	0.6	0.8	60								
25/10/2022	41.543	7.39	25.6	192	408	255	202	42.0	24	4.2	260	3.3x10 ³	4.0x10 ⁴	41.025	7.12	6.4	36	4	1.4	6.73	160	0.4	0.9	22								
26/10/2022	41.626	7.48	26	200	424	248	198	44.3	24.2	4.2	260	1.2x10 ³	5.0x10 ⁴	41.172	7.36	5.6	28	5	0.8	6.52	140	0.6	0.9	34	26.10	62.20						
27/10/2022	40.586	7.61	25.5	195	416	271	209	46.6	24.6	4.5	255	2.2x10 ³	7.4x10 ⁴	41.064	7.41	6.4	32	6	1.2	5.78	155	0.5	1.0	50								
28/10/2022	39.591	7.57	26.0	185	392	259	195	44.3	26.6	4.4	240	6.0x10 ³	3.8x10 ⁴	39.055	7.25	5.0	24	5	0.8	6.20	145	0.7	0.8	27								
29/10/2022	40.589	7.46	25.8	180	384	228	182	34.6	24.8	4.0	260	2.2x10 ³	3.0x10 ⁴	40.117	7.17	5.6	28	6	1.2	6.50	160	0.4	0.9	30	26.50	65.10						
30/10/2022	41.188	7.49	25.4	170	376	246	178	37.3	24.0	4.2	265	4.0x10 ³	1.2x10 ⁴	40.640	7.20	5.2	24	4	1.6	6.75	150	0.6	1.0	40								
31/10/2022	41.273	7.37	25.0	190	392	240	170	42.0	25.2	4.6	250	3.3x10 ³	5.0x10 ⁴	40.805	7.24	6.0	32	5	0.8	5.98	140	0.5	0.9	34								
31/10/2022	41.273	7.37	25.0	190	392	240	170	42.0	25.2	4.6	250	3.3x10 ³	5.0x10 ⁴	40.805	7.24	6.0	32	5	0.8	5.98	140	0.5	0.9	34								
31/10/2022	41.273	7.37	25.0	190	392	240	170	42.0	25.2	4.6	250	3.3x10 ³	5.0x10 ⁴	40.805	7.24	6.0	32	5	0.8	5.98	140	0.5	0.9	34								
31/10/2022	41.273	7.37	25.0	190	392	240	170	42.0	25.2	4.6	250	3.3x10 ³	5.0x10 ⁴	40.805	7.24	6.0	32	5	0.8	5.98	140	0.5	0.9	34								
31/10/2022	41.273	7.37	25.0	190	392	240	170	42.0	25.2	4.6	250	3.3x10 ³	5.0x10 ⁴	40.805	7.24	6.0	32	5	0.8	5.98	140	0.5	0.9	34								
31/10/2022	41.273	7.37	25.0	190	392	240	170	42.0	25.2	4.6	250	3.3x10 ³	5.0x10 ⁴	40.805	7.24	6.0	32	5	0.8	5.98	140	0.5	0.9	34								
31/10/2022	41.273	7.37	25.0	190	392	240	170	42.0	25.2	4.6	250	3.3x10 ³	5.0x10 ⁴	40.805	7.24	6.0	32	5	0.8	5.98	140	0.5	0.9	34								
31/10/2022	41.273	7.37	25.0	190	392	240	170	42.0	25.2	4.6	250	3.3x10 ³	5.0x10 ⁴	40.805	7.24	6.0	32	5	0.8	5.98	140	0.5	0.9	34								
31/10/2022	41.273	7.37	25.0	190	392	240	170	42.0	25.2	4.6	250	3.3x10 ³	5.0x10 ⁴	40.805	7.24	6.0	32	5	0.8	5.98	140	0.5	0.9	34								
31/10/2022	41.273	7.37	25.0	190	392	240	170	42.0	25.2	4.6	250	3.3x10 ³	5.0x10 ⁴	40.805	7.24	6.0	32	5	0.8	5.98	140	0.5	0.9	34								
31/10/2022	41.273	7.37	25.0	190	392	240	170	42.0	25.2	4.6	250	3.3x10 ³	5.0x10 ⁴	40.805	7.24	6.0	32	5	0.8	5.98	140	0.5	0.9	34								
31/10/2022	41.273	7.37	25.0	190	392	240	170	42.0	25.2	4.6	250	3.3x10 ³	5.0x10 ⁴	40.805	7.24	6.0	32	5	0.8	5.98	140	0.5	0.9	34								
31/10/2022	41.273																															

FIVRA
ENGINEERING & INDUSTRIES LTD.

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BANGALORE WATER SUPPLY AND SEWERAGE BOARD
40 MLD SEWAGE TREATMENT PLANT - DODDABELE
RAW SEWAGE AND TREATED EFFLUENT ANALYSIS REPORT
FLOW AND LAB ANALYSIS REPORT for the month of DEC-2022

TIVEN
ENGINEERING INDUSTRIES LTD

RAW SEWAGE INFLUENT														TREATED EFFLUENT														DEWATERED SLUDGE				REMARKS																							
DATE	Q (MLD)	pH	Temp.	BOD	COD	TSS	VSS	TKN	NH4-N	T-PO	TOTAL ALKALINITY	FECAL COLIFORM	TOTAL COLIFORM	TREATED EFFLUENT FLOW	pH	BOD	COD	TSS	NH4-N	TKN	TOTAL ALKALINITY	T-PO	RESIDUAL CHLORINE	FECAL COLIFORM	DRY SOLIDS	SLUDGE (VSS/TSS) Ratio																													
01/12/2022	42.460	7.43	25.8	165	384	248	180	39.6	23.2	4.3	250	2.0 X 10 ³	3.4 X 10 ⁴	41.935	7.32	5.6	26	4	0.8	5.92	145	0.4	0.8	90																															
02/12/2022	42.492	7.37	26.0	190	480	260	206	42.0	24.0	4.6	245	1.2 X 10 ³	4.0 X 10 ⁴	41.237	7.22	5.6	24	5	0.4	6.00	150	0.6	1.0	22	26.20	63.40																													
03/12/2022	42.220	7.52	25.9	185	392	267	214	44.3	24.8	4.6	260	3.0 X 10 ³	5.0 X 10 ⁴	41.680	7.29	6.0	32	6	1.6	6.82	160	0.6	0.9	30	26.40	60.80																													
04/12/2022	42.123	7.46	25.8	195	488	258	208	46.6	25.2	4.8	265	3.0 X 10 ³	7.2 X 10 ⁴	41.644	7.21	5.4	28	4	1.2	6.37	145	0.5	1.0	34																															
05/12/2022	42.145	7.52	25.6	210	424	261	226	40.2	23.6	4.9	250	2.1 X 10 ³	3.0 X 10 ⁴	41.542	7.41	6.2	36	4	0.6	6.92	155	0.4	1.0	21	25.90	61.30																													
06/12/2022	42.957	7.42	25.8	200	416	276	208	42.7	24.0	4.7	260	3.0 X 10 ³	3.2 X 10 ⁴	42.423	7.08	6.0	32	5	0.4	6.08	150	0.6	1.1	30																															
07/12/2022	42.579	7.26	26.0	195	410	232	182	42.0	21.6	4.6	270	5.0 X 10 ³	1.2 X 10 ⁴	41.960	7.22	5.4	24	3	0.8	5.22	165	0.4	1.0	40																															
08/12/2022	42.459	7.61	25.2	185	392	244	188	39.6	20.4	4.2	260	2.2 X 10 ³	4.0 X 10 ⁴	41.924	7.27	5.2	20	4	0.4	5.22	160	0.3	0.6	34	26.30	62.60																													
09/12/2022	42.433	7.57	25.8	180	376	256	196	37.2	18.8	4.0	245	2.2 X 10 ³	1.2 X 10 ⁴	41.917	7.36	5.6	26	6	1.2	5.26	150	0.5	1.0	80																															
10/12/2022	42.552	7.68	25.6	185	354	280	224	39.6	20.0	4.7	255	2.2 X 10 ³	3.0 X 10 ⁴	41.745	7.30	5.2	24	4	0.8	6.12	145	0.6	1.1	20	26.10	61.50																													
11/12/2022	42.493	7.55	26.0	195	392	222	214	42.0	21.2	4.4	260	4.0 X 10 ³	5.0 X 10 ⁴	42.094	7.26	5.0	20	5	0.4	5.62	150	0.4	1.0	50																															
12/12/2022	42.469	7.43	25.8	160	352	292	240	39.3	19.6	4.0	260	2.0 X 10 ³	3.2 X 10 ⁴	41.814	7.12	5.2	24	6	0.4	5.02	180	0.3	0.9	30	26.40	61.40																													
13/12/2022	42.312	7.57	25.4	170	368	294	218	39.6	19.2	4.2	295	3.0 X 10 ³	5.0 X 10 ⁴	41.649	7.22	5.6	24	4	0.8	5.68	165	0.4	1.0	40																															
14/12/2022	42.957	7.35	26.0	165	368	282	230	42.0	20.8	4.2	260	1.2 X 10 ³	3.4 X 10 ⁴	41.141	7.17	5.8	32	5	1.2	5.96	145	0.6	1.1	27	26.10	61.40																													
15/12/2022	42.853	7.52	26.0	180	384	264	216	39.6	21.2	4.5	255	2.6 X 10 ³	3.2 X 10 ⁴	41.238	7.21	5.6	26	4	0.4	5.92	150	0.4	1.0	40																															
16/12/2022	42.630	7.42	25.6	185	392	250	208	44.3	22.8	4.4	255	3.4 X 10 ³	5.0 X 10 ⁴	41.022	7.29	6.0	32	6	0.8	6.08	145	0.5	0.9	30																															
17/12/2022	41.040	7.45	25.2	180	384	268	220	42.0	21.6	4.3	260	2.1 X 10 ³	3.0 X 10 ⁴	41.075	7.17	5.4	24	4	1.2	5.97	155	0.4	1.0	40	26.20	62.10																													
18/12/2022	41.692	7.50	26.0	190	400	272	228	44.3	24.0	4.6	255	2.3 X 10 ³	3.4 X 10 ⁴	41.067	7.29	5.8	26	5	0.8	6.14	160	0.6	1.0	34																															
19/12/2022	41.904	7.46	26.0	185	394	260	216	39.6	23.6	4.4	265	4.0 X 10 ³	3.4 X 10 ⁴	41.349	7.22	6.2	32	4	1.2	6.20	155	0.5	1.1	50																															
20/12/2022	41.731	7.39	25.6	195	408	251	202	44.3	23.2	4.7	270	2.2 X 10 ³	3.0 X 10 ⁴	41.152	7.20	5.2	24	6	0.4	6.60	160	0.3	0.9	22	26.00	64.30																													
21/12/2022	41.656	7.66	25.8	190	392	254	208	47.7	23.8	4.5	250	5.0 X 10 ³	1.2 X 10 ⁴	41.179	7.29	5.6	26	3	1.4	6.87	150	0.4	1.0	40																															
22/12/2022	41.916	7.48	25.2	190	376	260	214	40.2	20.4	4.2	255	2.2 X 10 ³	3.0 X 10 ⁴	41.204	7.37	5.2	20	4	0.8	6.56	145	0.6	1.0	30	26.20	61.50																													
23/12/2022	41.234	7.39	25.0	185	400	292	224	44.3	26.4	4.8	260	4.0 X 10 ³	1.2 X 10 ⁴	41.185	7.16	6.0	32	5	1.2	6.90	155	0.4	1.1	20																															
24/12/2022	41.726	7.47	25.3	180	392	256	206	42.0	24.0	4.5	250	2.0 X 10 ³	2.2 X 10 ⁴	41.034	7.22	5.6	24	4	0.8	6.23	160	0.4	0.9	34	26.40	64.30																													
25/12/2022	41.641	7.50	25.2	195	396	264	212	39.6	22.4	4.3	245	5.0 X 10 ³	3.0 X 10 ⁴	41.019	7.16	5.2	28	5	0.4	6.01	150	0.5	1.0	72																															
26/12/2022	41.749	7.54	25.8	170	368	238	190	38.5	21.2	4.0	240	1.6 X 10 ³	2.2 X 10 ⁴	41.167	7.24	5.0	20	3	0.8	5.69	135	0.3	1.0	30	26.10	62.20																													
27/12/2022	41.891	7.34	25.3	185	384	240	196	39.6	22.4	4.8	245	3.0 X 10 ³	3.4 X 10 ⁴	41.254	7.12	5.6	24	4	1.2	5.90	140	0.5	0.9	40																															
28/12/2022	41.694	7.36	25.3	195	408	256	202	42.0	23.6	4.6	255	4.0 X 10 ³	2.2 X 10 ⁴	41.047	7.58	6.0	32	6	0.8	6.17	145	0.5	1.0	32	26.40	65.00																													
29/12/2022	41.816	7.57	25.3	210	424	282	224	43.7	24.8	4.4	260	2.2 X 10 ³	3.0 X 10 ⁴	41.127	7.35	5.8	26	4	1.4	5.96	150	0.4	1.0	20																															
30/12/2022	41.911	7.57	25.8	215	432	265	216	44.3	25.2	4.7	270	2.4 X 10 ³	5.0 X 10 ⁴	41.078	7.32	6.2	32	6	1.6	6.18	165	0.5	0.9	30	26.10	62.40																													
31/12/2022	41.812	7.43	25.4	200	416	292	220	42.0	24.0	4.5	265	2.0 X 10 ³	3.0 X 10 ⁴	41.213	7.26	5.6	26	4	0.8	5.87	150	0.4	1.0	22																															
Calculation flow	1271.029													1251.537																																									
Average flow	41.020													41.372																																									
Peak inlet flow																																																							
Trivend Engineering & Industries Limited														BANGALORE WATER SUPPLY AND SEWERAGE BOARD																																									
Plant Chemist														Plant Manager														Assistant Engineer														Assistant Executive Engineer													

Plant Chemist
PLANT CHEMIST

Plant Manager
PLANT MANAGER

Assistant Engineer
ASSISTANT ENGINEER

Assistant Executive Engineer
ASSISTANT EXECUTIVE ENGINEER

