

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: HEART OF THE VALLEY METRO SEWERAGE DISTRICT
 Contact Address: 801 Thilmany Rd
 Kaukauna, WI 54130
 Facility Contact: Brian Helming, District Director
 Phone Number: 920-766-5731
 Reporting Period: 05/01/2024 - 05/31/2024
 Form Due Date: 06/21/2024
 Permit Number: 0031232

Date Received:
 DOC: 545490
 FIN: 6375
 FID: 445005220
 Region: Northeast Region
 Permit Drafter: Sarah J Adkins
 Reviewer: Barti Oumarou
 Office: Oshkosh

	Sample Point	001	701	701	701	701
	Description	Effluent	Influent	Influent	Influent	Influent
	Parameter	211	211	66	457	87
	Description	Flow Rate	Flow Rate	BOD5, Total	Suspended Solids, Total	Cadmium, Total Recoverable
	Units	MGD	MGD	mg/L	mg/L	ug/L
	Sample Type	CONTINUOUS	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	DAILY	DAILY	5/WEEK	5/WEEK	MONTHLY
Sample Results	Day 1	4.000	7.281	167	184	
	2	3.570	7.114	248	204	
	3	3.432	7.053	217	196	
	4	3.504	7.186	130	132	
	5	3.035	6.657	249	184	
	6	3.240	6.566	208	208	
	7	3.443	6.538	204	212	
	8	3.932	7.290	181	192	<1.3
	9	4.005	7.533	184	180	
	10	3.809	7.021	191	160	
	11	4.295	6.902	161	176	
	12	3.285	6.714	240	200	
	13	3.312	6.863	206	208	
	14	3.027	6.571	228	184	
	15	2.624	6.317	224	192	
	16	2.458	6.105	216	192	
	17	2.909	6.384	244	172	
	18	3.191	6.376	296	200	
	19	2.767	6.204	210	192	
	20	3.167	6.624	234	184	
	21	5.804	6.710	274	192	
	22	3.728	6.928	196	132	
	23	5.080	8.799	171	212	
	24	3.958	7.595	216	184	
	25	4.169	6.871	160	192	
	26	3.684	6.717	161	120	
	27	5.807	8.769	139	124	
	28	9.733	12.884	105	120	
	29	8.622	12.362	172	120	
	30	8.027	11.482	205	140	
	31	6.057	9.508	159	144	

	Sample Point	001	701	701	701	701
	Description	Effluent	Influent	Influent	Influent	Influent
	Parameter	211	211	66	457	87
	Description	Flow Rate	Flow Rate	BOD5, Total	Suspended Solids, Total	Cadmium, Total Recoverable
	Units	MGD	MGD	mg/L	mg/L	ug/L
Summary Values	Monthly Avg	4.247548387	7.545935484	199.870967742	175.225806452	0
	Daily Max	9.733	12.884	296	212	<1.3
	Daily Max - Variable					
	Daily Min	2.458	6.105	105	120	<1.3
	Geometric Mean -					
	Geometric Mean -					
	Week 1 Avg					
	Week 2 Avg					
	Week 3 Avg					
	Week 4 Avg					
Limit(s) in Effect	Monthly Avg					
	Daily Max					
	Daily Max - Variable					
	Daily Min					
	Geometric Mean -					
	Geometric Mean -					
	Weekly Avg					
QA/QC Information	LOD					1.3
	LOQ					5
	QC Exceedance	N	N	Y	N	N
	Lab Certification			445005220	445005220	405132750

	Sample Point	701	701	701	701	701
	Description	Influent	Influent	Influent	Influent	Influent
	Parameter	133	147	264	315	553
	Description	Chromium, Total Recoverable	Copper, Total Recoverable	Lead, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8	9.0	54.2	<5.9	10.3	106
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	701	701	701	701	701
	Description	Influent	Influent	Influent	Influent	Influent
	Parameter	133	147	264	315	553
	Description	Chromium, Total Recoverable	Copper, Total Recoverable	Lead, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
Summary Values	Monthly Avg	9	54.2	0	10.3	106
	Daily Max	9	54.2	<5.9	10.3	106
	Daily Max - Variable					
	Daily Min	9	54.2	<5.9	10.3	106
	Geometric Mean -					
	Geometric Mean -					
	Week 1 Avg					
	Week 2 Avg					
	Week 3 Avg					
	Week 4 Avg					
Limit(s) in Effect	Monthly Avg					
	Daily Max					
	Daily Max - Variable					
	Daily Min					
	Geometric Mean -					
	Geometric Mean -					
	Weekly Avg					
QA/QC Information	LOD	2.5	3.4	5.9	2.6	11.6
	LOQ	10	10	20	10	40
	QC Exceedance	N	N	N	N	N
	Lab Certification	405132750	405132750	405132750	405132750	405132750

	Sample Point	001	001	001	001	001
	Description	Effluent	Effluent	Effluent	Effluent	Effluent
	Parameter	66	377	204	112	457
	Description	BOD5, Total	pH Field	Fecal Coliform	Chlorine, Total Residual	Suspended Solids, Total
	Units	mg/L	su	#/100ml	ug/L	mg/L
	Sample Type	24 HR FLOW PROP	GRAB	GRAB	GRAB	24 HR FLOW PROP
	Frequency	DAILY	5/WEEK	WEEKLY	5/WEEK	5/WEEK
Sample Results	Day 1	6	7.2	33	<100	8.8
	2	7	7.1		<100	7.6
	3	7	7.1		<100	8.0
	4	5	7.1			8.0
	5	7	7.2			8.4
	6	6	7.1		<100	7.6
	7	8	7.2		<100	9.2
	8	7	7.2	8	<100	7.6
	9	6	7.1		<100	6.4
	10	7	7.2		<100	6.8
	11	6	7.4			5.2
	12	8	7.4			8.4
	13	8	7.2		<100	7.2
	14	7	7.2		<100	6.8
	15	8	7.2	95	<100	7.6
	16	8	7.2		<100	7.6
	17	6	7.3		<100	6.0
	18	6	7.1			6.8
	19	7	7.1			8.0
	20	8	7.3		<100	9.2
	21	13	7.3		<100	16.0
	22	7	7.2	170	<100	8.0
	23	7	7.4		<100	8.4
	24	8	7.4		<100	9.6
	25	7	7.4			11.2
	26	7	7.2			14.0
	27	10	7.2		<100	15.6
	28	8	7.2		<100	12.4
	29	16	7.2		0.17	14.4
	30	8	7.2		<100	12.4
	31	5	7.2		<100	5.6

	Sample Point	001		001		001		001		001	
	Description	Effluent		Effluent		Effluent		Effluent		Effluent	
	Parameter	66		377		204		112		457	
	Description	BOD5, Total		pH Field		Fecal Coliform		Chlorine, Total Residual		Suspended Solids, Total	
	Units	mg/L		su		#/100ml		ug/L		mg/L	
Summary Values	Monthly Avg	7.548387097		7.219354839		76.5		0.007391304		8.993548387	
	Daily Max	16		7.4		170		<100		16	
	Daily Max - Variable										
	Daily Min	5		7.1		8		0.17		5.2	
	Geometric Mean -					45.44060588					
	Geometric Mean -					170					
	Week 1 Avg	6.571428571								8.228571429	
	Week 2 Avg	7								6.914285714	
	Week 3 Avg	8								8.742857143	
	Week 4 Avg	7.714285714								11.314285714	
Limit(s) in Effect	Monthly Avg	30	0					38	0	30	0
	Daily Max			9	0			38	1		
	Daily Max - Variable										
	Daily Min			6	0						
	Geometric Mean -					400	0				
	Geometric Mean -					656	0				
	Weekly Avg	45	0							45	0
QA/QC Information	LOD							100			
	LOQ							100			
	QC Exceedance	N		N		N		N		N	
	Lab Certification	445005220								445005220	

	Sample Point	001	001	001	001	001
	Description	Effluent	Effluent	Effluent	Effluent	Effluent
	Parameter	457	1348	1347	388	388
	Description	Suspended Solids, Total	WQT Credits Used (TSS)	WQT Computed Compliance (TSS)	Phosphorus, Total	Phosphorus, Total
	Units	lbs/day	lbs/month	lbs/day	mg/L	lbs/day
	Sample Type	CALCULATED	CALCULATED	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	5/WEEK	MONTHLY	5/WEEK	5/WEEK	5/WEEK
Sample Results	Day 1	294	0	294	0.34	11.34
	2	226	0	226	0.36	10.72
	3	229	0	229	0.39	11.16
	4	234	0	234	0.37	10.81
	5	213	0	213	0.38	9.62
	6	205	0	205	0.44	11.89
	7	264	0	264	0.49	14.07
	8	249	0	249	0.48	15.74
	9	214	0	214	0.41	13.69
	10	216	0	216	0.47	14.93
	11	186	0	186	0.43	15.40
	12	230	0	230	0.50	13.70
	13	199	0	199	0.46	12.71
	14	172	0	172	0.45	11.36
	15	166	0	166	0.52	11.38
	16	156	0	156	0.51	10.45
	17	146	0	146	0.53	12.86
	18	181	0	181	0.52	13.84
	19	185	0	185	0.54	12.46
	20	243	0	243	0.57	15.06
	21	774	0	774	0.71	34.37
	22	249	0	249	0.43	13.37
	23	356	0	356	0.47	19.91
	24	317	0	317	0.63	20.80
	25	389	0	389	0.46	15.99
	26	430	0	430	0.59	18.13
	27	756	0	756	0.43	20.83
	28	1007	0	1007	0.36	29.22
	29	1035	0	1035	0.40	28.76
	30	830	0	830	0.33	22.09
	31	283	0	283	0.20	10.10

	Sample Point	001	001	001	001	001	
	Description	Effluent	Effluent	Effluent	Effluent	Effluent	
	Parameter	457	1348	1347	388	388	
	Description	Suspended Solids, Total	WQT Credits Used (TSS)	WQT Computed Compliance (TSS)	Phosphorus, Total	Phosphorus, Total	
	Units	lbs/day	lbs/month	lbs/day	mg/L	lbs/day	
Summary Values	Monthly Avg	343.032258065	0	343.032258065	0.457096774	15.701935484	
	Daily Max	1035	0	1035	0.71	34.37	
	Daily Max - Variable						
	Daily Min	146	0	146	0.2	9.62	
	Geometric Mean -						
	Geometric Mean -						
	Week 1 Avg			237.857142857			
	Week 2 Avg			209.428571429			
	Week 3 Avg			264.428571429			
	Week 4 Avg			500.571428571			
Limit(s) in Effect	Monthly Avg			801	0	1	0
	Daily Max						
	Daily Max - Variable						
	Daily Min						
	Geometric Mean -						
	Geometric Mean -						
	Weekly Avg			1345	0		
QA/QC Information	LOD					0.026	
	LOQ					0.087	
	QC Exceedance	N	N	N	N	N	N
	Lab Certification					445005220	

	Sample Point	001	001	001	001	001
	Description	Effluent	Effluent	Effluent	Effluent	Effluent
	Parameter	789	87	133	147	264
	Description	Nitrogen, Ammonia (NH3-N) Total	Cadmium, Total Recoverable	Chromium, Total Recoverable	Copper, Total Recoverable	Lead, Total Recoverable
	Units	mg/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	5/WEEK	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1	0.2				
	2	0.3				
	3					
	4					
	5	0.2				
	6	0.5				
	7	0.2				
	8	0.2	<1.3	<2.5	6.8	<5.9
	9	0.3				
	10					
	11					
	12	0.3				
	13	0.3				
	14	0.3				
	15	0.3				
	16	0.3				
	17					
	18					
	19	0.2				
	20	0.3				
	21	0.9				
	22	0.2				
	23	0.2				
	24					
	25					
	26	0.3				
	27	0.2				
	28	0.2				
	29	3.0				
	30	0.2				
	31					

	Sample Point	001	001	001	001	001
	Description	Effluent	Effluent	Effluent	Effluent	Effluent
	Parameter	789	87	133	147	264
	Description	Nitrogen, Ammonia (NH3-N) Total	Cadmium, Total Recoverable	Chromium, Total Recoverable	Copper, Total Recoverable	Lead, Total Recoverable
	Units	mg/L	ug/L	ug/L	ug/L	ug/L
Summary Values	Monthly Avg	0.413636364	0	0	6.8	0
	Daily Max	3	<1.3	<2.5	6.8	<5.9
	Daily Max - Variable					
	Daily Min	0.2	<1.3	<2.5	6.8	<5.9
	Geometric Mean -					
	Geometric Mean -					
	Week 1 Avg	0.28				
	Week 2 Avg	0.28				
	Week 3 Avg	0.4				
	Week 4 Avg	0.22				
Limit(s) in Effect	Monthly Avg	11	0			
	Daily Max	17	0			
	Daily Max - Variable					
	Daily Min					
	Geometric Mean -					
	Geometric Mean -					
	Weekly Avg	17	0			
QA/QC Information	LOD	0.027	1.3	2.5	3.4	5.9
	LOQ	0.09	5	10	10	20
	QC Exceedance	N	N	N	N	N
	Lab Certification	445005220	405132750	405132750	405132750	405132750

	Sample Point	001	001	101	601	601
	Description	Effluent	Effluent	Effluent Reuse	River Monitoring	River Monitoring
	Parameter	315	553	671	400	399
	Description	Nickel, Total Recoverable	Zinc, Total Recoverable	Flow Unregulated	WLA Previous Day River Flow	WLA Previous 4 Day Avg River Flow
	Units	ug/L	ug/L	MGD	cfs	cfs
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	CONTINUOUS	GAUGE STN	CALCULATED
	Frequency	MONTHLY	MONTHLY	DAILY	DAILY	DAILY
Sample Results	Day 1			3.281	4100	4045
	2			3.544	3850	4008
	3			3.621	3980	3968
	4			3.682	3940	3983
	5			3.622	3930	3968
	6			3.326	3940	3925
	7			3.095	4290	3948
	8	9.0	17.4	3.358	4840	4025
	9			3.528	5340	4250
	10			3.212	5670	4603
	11			2.607	5870	5035
	12			3.429	6120	5430
	13			3.551	5800	5750
	14			3.544	5770	5865
	15			3.693	5380	5890
	16			3.647	5540	5768
	17			3.475	5570	5623
	18			3.185	5960	5565
	19			3.437	5680	5613
	20			3.457	5610	5688
	21			0.906	5710	5705
	22			3.200	7540	5740
	23			3.719	6940	6135
	24			3.637	7010	6450
	25			2.702	7530	6800
	26			3.033	7390	7255
	27			2.962	7830	7218
	28			3.151	8140	7440
	29			3.740	8860	7723
	30			3.455	9810	8055
	31			3.451	9900	8660

	Sample Point	001	001	101	601	601
	Description	Effluent	Effluent	Effluent Reuse	River Monitoring	River Monitoring
	Parameter	315	553	671	400	399
	Description	Nickel, Total Recoverable	Zinc, Total Recoverable	Flow Unregulated	WLA Previous Day River Flow	WLA Previous 4 Day Avg River Flow
	Units	ug/L	ug/L	MGD	cfs	cfs
Summary Values	Monthly Avg	9	17.4	3.298387097	6059.35483871	5617.129032258
	Daily Max	9	17.4	3.74	9900	8660
	Daily Max - Variable					
	Daily Min	9	17.4	0.906	3850	3925
	Geometric Mean -					
	Geometric Mean -					
	Week 1 Avg					
	Week 2 Avg					
	Week 3 Avg					
	Week 4 Avg					
Limit(s) in Effect	Monthly Avg					
	Daily Max					
	Daily Max - Variable					
	Daily Min					
	Geometric Mean -					
	Geometric Mean -					
	Weekly Avg					
QA/QC Information	LOD	2.6	11.6			
	LOQ	10	40			
	QC Exceedance	N	N	N	N	N
	Lab Certification	405132750	405132750			

	Sample Point	601	006	006	006	006
	Description	River Monitoring	WLA BOD5 Discharge Compliance	WLA BOD5 Discharge Compliance	WLA BOD5 Discharge Compliance	WLA BOD5 Discharge Compliance
	Parameter	401	544	12	843	543
	Description	WLA Previous Day River Temp	WLA BOD5 Value	WLA Adjusted Value	WLA BOD5 Discharged	WLA 7 Day Sum Of WLA Values
	Units	degF	lbs/day	lbs/day	lbs/day	lbs/day
	Sample Type	CALCULATED	SEE TABLE	CALCULATED	CALCULATED	CALCULATED
	Frequency	DAILY	DAILY	DAILY	DAILY	DAILY
Sample Results	Day 1	54	5568	7684	215	
	2	56	5568	7684	203	
	3	57	4659	7684	200	
	4	59	4015	6429	134	
	5	61	4015	5541	173	
	6	62	4659	5541	170	29393
	7	61	5568	6429	234	34052
	8	61	4735	7684	229	34052
	9	62	5568	6534	211	33219
	10	61	5568	7684	234	33219
	11	61	5568	7684	231	34128
	12	62	5568	7684	215	35681
	13	63	5568	7684	214	37234
	14	62	5568	7684	188	38143
	15	63	5568	7684	182	38143
	16	63	5568	7684	157	38976
	17	64	5568	7684	155	38976
	18	67	5568	7684	158	38976
	19	69	5568	7684	166	38976
	20	68	5568	7684	208	38976
	21	66	5568	7684	615	38976
	22	66	5568	7684	221	38976
	23	66	5568	7684	305	38976
	24	66	5568	7684	251	38976
	25	65	5568	7684	235	38976
	26	65	5568	7684	206	38976
	27	63	5568	7684	470	38976
	28	64	5568	7684	627	38976
	29	65	5568	7684	1129	38976
	30	66	5568	7684	566	38976
	31	66	5568	7684	260	38976

	Sample Point	601	006	006	006	006
	Description	River Monitoring	WLA BOD5 Discharge Compliance	WLA BOD5 Discharge Compliance	WLA BOD5 Discharge Compliance	WLA BOD5 Discharge Compliance
	Parameter	401	544	12	843	543
	Description	WLA Previous Day River Temp	WLA BOD5 Value	WLA Adjusted Value	WLA BOD5 Discharged	WLA 7 Day Sum Of WLA Values
	Units	degF	lbs/day	lbs/day	lbs/day	lbs/day
Summary Values	Monthly Avg	63.032258065	5382.290322581	7427.677419355	282.64516129	37341.538461538
	Daily Max	69	5568	7684	1129	38976
	Daily Max - Variable				1129	
	Daily Min	54	4015	5541	134	29393
	Geometric Mean -					
	Geometric Mean -					
	Week 1 Avg					
	Week 2 Avg					
	Week 3 Avg					
	Week 4 Avg					
Limit(s) in Effect	Monthly Avg					
	Daily Max					
	Daily Max - Variable				0	0
	Daily Min					
	Geometric Mean -					
	Geometric Mean -					
	Weekly Avg					
QA/QC Information	LOD					
	LOQ					
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	006	112
	Description	WLA BOD5 Discharge Compliance	In-Plant Diversion
	Parameter	541	211
	Description	WLA 7 Day Sum Of BOD5 Discharged	Flow Rate
	Units	lbs/day	MGD
	Sample Type	CALCULATED	CONTINUOUS
	Frequency	DAILY	DAILY
Sample Results	Day 1	2060	
	2	1879	
	3	1784	
	4	1630	
	5	1472	
	6	1353	
	7	1329	
	8	1343	
	9	1351	
	10	1385	
	11	1483	
	12	1526	
	13	1569	
	14	1523	
	15	1475	
	16	1421	
	17	1342	
	18	1268	
	19	1219	
	20	1313	
	21	1640	
	22	1679	
	23	1827	
	24	1923	
	25	2001	
	26	2042	
	27	2304	
	28	2316	
	29	3224	
	30	3485	
	31	3494	

	Sample Point	006	112
	Description	WLA BOD5 Discharge Compliance	In-Plant Diversion
	Parameter	541	211
	Description	WLA 7 Day Sum Of BOD5 Discharged	Flow Rate
	Units	lbs/day	MGD
Summary Values	Monthly Avg	1795.483870968	
	Daily Max	3494	
	Daily Max - Variable	3494	
	Daily Min	1219	
	Geometric Mean -		
	Geometric Mean -		
	Week 1 Avg		
	Week 2 Avg		
	Week 3 Avg		
	Week 4 Avg		
Limit(s) in Effect	Monthly Avg		
	Daily Max		
	Daily Max - Variable	0	0
	Daily Min		
	Geometric Mean -		
	Geometric Mean -		
	Weekly Avg		
QA/QC Information	LOD		
	LOQ		
	QC Exceedance	N	
	Lab Certification		

General Remarks

May 29th there was a exceedance on the daily limit for residual chlorine. A rain event caused higher than normal bisulfite consumption with our investigation finding that the pump was partially air bound despite the SCADA level transducer indicating the tank was not empty. The remaining SBS in the tank was withdrawn and then directly connected to the SBS pump. The sodium hypochlorite feed was reduced and within an hour the chlorine residual was 0.00. The next morning the previously ordered tanker of SBS was delivered. SBS orders will be placed to arrive sooner to protect against low tank levels or abnormal feed volumes due to rain events.

Laboratory Quality Control Comments

5-16 (GGA of 150.1)

Exceedence Comments

Chlorine residual exceedance due to insufficient chemical stock and previously unrecognized discrepancy between displayed tank level and actual chemical inventory. Reoccurrence will be avoided by ordering supply sooner to take into account possibility of heavy flows and increased consumption and the transducer reading.

Submitted by mantywwtfsupt2004 on 06/26/2024 3:06:13 PM