PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
May 2018

Digested Sludge: Total Monthly Volume (ML)	72.80

Volume of Flow (ML) / **pH@25°C**

DATE	Peak Flow (MLD)	Influent RAW	Effluent Non UV Disinfected OUTFALL 30	Non UV Disinfected OUTFALL 20	Non UV Disinfected MPW	UV Disinfected EPEPS	UV Disinfected OUTFALL 10 FEC	UV Disinfected OUTFALL 10 FE	pH@25°C RAW	pH OUTFALL 30	pH OUTFALL 20	pH OUTFALL 10 FEC
Tue 01	333.11	253.55	0.00	0.00	5.30	0.00	248.25	248.25	7.5			7.3
Wed 02	330.23	250.93	0.00	0.00	5.22	0.00	245.71	245.71	7.6			7.3
Thu 03	313.80	256.95	0.00	0.00	5.35	0.00	251.60	251.60	7.6			7.3
Fri 04	315.04	247.14	0.00	0.00	5.48	0.00	241.66	241.66	7.6			7.4
Sat 05	341.07	241.40	0.00	0.00	3.64	0.00	237.76	237.76	7.6			7.6
Sun 06	336.36	254.57	0.00	0.00	5.42	0.00	249.15	249.15	7.6			7.4
Mon 07	342.23	267.01	0.00	0.00	5.23	0.00	261.78	261.78	7.5			7.4
Tue 08	322.44	255.46	0.00	0.00	7.33	0.00	248.13	248.13	7.5			7.6
Wed 09	310.74	250.23	0.00	0.00	8.05	0.00	242.18	242.18	7.6			7.6
Thu 10	359.95	263.97	0.00	0.00	7.35	0.00	256.62	256.62	7.5			7.4
Fri 11	311.98	251.07	0.00	0.00	5.52	0.00	245.55	245.55	7.5			7.4
Sat 12	340.89	245.80	0.00	0.00	5.87	0.00	239.93	239.93	7.6			7.4
Sun 13	336.57	245.52	0.00	0.00	5.85	0.00	239.67	239.67	7.5			7.5
Mon 14	344.52	251.89	0.00	0.00	5.88	0.00	246.01	246.01	7.8			7.5
Tue 15	347.91	251.32	0.00	0.00	5.87	0.00	245.45	245.45	7.5			7.5
Wed 16	338.58	263.30	0.00	0.00	6.17	0.00	257.13	257.13	7.6			7.4
Thu 17	330.89	262.30	0.00	0.00	6.05	0.00	256.25	256.25	7.5			7.5
Fri 18	368.83	265.01	0.00	0.00	5.61	0.00	259.40	259.40	7.6			7.4
Sat 19	310.82	241.29	0.00	0.00	6.21	0.00	235.08	235.08	7.6			7.5
Sun 20	313.87	235.68	0.00	0.00	6.33	0.00	229.35	229.35	7.6			7.6
Mon 21	327.49	249.62	0.00	0.00	6.93	0.00	242.69	242.69	7.6			7.4
Tue 22	327.24	266.57	0.00	0.00	9.23	0.00	257.34	257.34	7.3			7.5
Wed 23	320.30	262.09	0.00	0.00	9.30	0.00	252.79	252.79	7.5			7.5
Thu 24	380.23	264.93	0.00	0.00	9.46	0.00	255.47	255.47	7.5			7.6
Fri 25	331.34	262.24	0.00	0.00	11.45	0.00	250.79	250.79	7.6			7.4
Sat 26	332.35	252.49	0.00	0.00	11.42	0.00	241.07	241.07	7.7			7.5
Sun 27	360.21	255.70	0.00	0.00	12.67	0.00	243.03	243.03	7.7			7.5
Mon 28	440.65	265.98	0.00	0.00	12.40	0.00	253.58	253.58	7.5			7.4
Tue 29	542.72	277.75	12.70	0.00	12.02	0.00	253.03	253.03	7.6	7.3		7.4
Wed 30	662.82	356.82	65.70	0.00	11.51	0.00	279.61	279.61	7.4	7.4		7.3
Thu 31	369.62	257.47	0.00	0.00	11.22	0.00	246.25	246.25	7.6			7.4
Average	356.28	258.90	2.53	0.00	7.59	0.00	248.78	248.78	7.6	7.3	---	7.4
Minimum	310.74	235.68	0.00	0.00	3.64	0.00	229.35	229.35	7.3	7.3	---	7.3
Maximum	662.82	356.82	65.70	0.00	12.67	0.00	279.61	279.61	7.8	7.4	---	7.6
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	8,026	78	0	235	0	7,712	7,712	---	---	---	---

Liquid Stream Quality

DATE	TSS (mg/L) RAW	TSS OUTFALL 30	TSS OUTFALL 20	TSS EPEPS	TSS OUTFALL 10 FEC	TSS OUTFALL 10 FE	$BOD_5/cBOD_5$ (mg/L) RAW BOD_5	OUTFALL 30 BOD_5	OUTFALL 20 BOD_5	EPEPS BOD_5	OUTFALL 10 FEC $cBOD_5$	OUTFALL 10 FE $cBOD_5$
Tue 01	312				14.4	14.4	299				5	5
Wed 02	276				6.2	6.2	305				5	5
Thu 03	266				13.5	13.5	338				6	6
Fri 04	332				10.0	10.0	310				3	3
Sat 05	308				9.6	9.6	296				6	6
Sun 06	304				9.6	9.6	308				5	5
Mon 07	372				7.4	7.4	380				5	5
Tue 08	1180				8.8	8.8	776				6	6
Wed 09	280				7.9	7.9	306				5	5
Thu 10	308				15.5	15.5	290				4	4
Fri 11	336				5.1	5.1	295				5	5
Sat 12	252				8.4	8.4	262				5	5
Sun 13	324				7.1	7.1	308				4	4
Mon 14	283				9.8	9.8	315				6	6
Tue 15	292				7.0	7.0	289				5	5
Wed 16	420				9.7	9.7	342				4	4
Thu 17	288				8.3	8.3	289				5	5
Fri 18	280				7.1	7.1	338				5	5
Sat 19	337				6.5	6.5	300				4	4
Sun 20	312				6.3	6.3	262				4	4
Mon 21	304				7.6	7.6	296				4	4
Tue 22	308				6.7	6.7	294				4	4
Wed 23	312				6.0	6.0	309				4	4
Thu 24	488				5.9	5.9	286				5	5
Fri 25	257				7.0	7.0	269				5	5
Sat 26	408				7.9	7.9	324				5	5
Sun 27	260				8.5	8.5	251				5	5
Mon 28	269				10.2	10.2	271				5	5
Tue 29	464	88			9.9	9.9	312	153			5	5
Wed 30	388	92			25.7	25.7	300	129			8	8
Thu 31	364				20.3	20.3	317				6	6
Average	351	90	---	---	9.5	9.5	317	141	---	---	4.9	4.9
Minimum	252	88	---	---	5.1	5.1	251	129	---	---	3	3
Maximum	1180	92	---	---	25.7	25.7	776	153	---	---	8	8
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	TP (mg/L) RAW	TP OUTFALL 30	TP OUTFALL 20	TP EPEPS	TP OUTFALL 10 FEC	TP OUTFALL 10 FE	NH3-N (mg/L) RAW	NH3-N OUTFALL 30	NH3-N OUTFALL 20	NH3-N EPEPS	NH3-N OUTFALL 10 FEC	NH3-N OUTFALL 10 FE
Tue 01	7.24				0.79	0.79	36.3				3.19	3.19
Wed 02	9.18				0.71	0.71	36.4				4.00	4.00
Thu 03	8.15				0.84	0.84	34.0				4.53	4.53
Fri 04	8.50				0.72	0.72	38.6				3.40	3.40
Sat 05	8.58				0.64	0.64	33.6				2.65	2.65
Sun 06	8.45				0.50	0.50	39.6				2.94	2.94
Mon 07	8.50				0.58	0.58	36.1				2.81	2.81
Tue 08	15.6				0.59	0.59	33.9				3.00	3.00
Wed 09	7.8				0.38	0.38	41.2				2.57	2.57
Thu 10	7.83				0.45	0.45	42.4				2.79	2.79
Fri 11	7.39				0.41	0.41	43.9				3.38	3.38
Sat 12	7.65				0.38	0.38	43.9				2.80	2.80
Sun 13	7.58				0.41	0.41	42.6				2.43	2.43
Mon 14	7.89				0.43	0.43	41.4				2.59	2.59
Tue 15	8.14				0.47	0.47	40.4				2.10	2.10
Wed 16	8.3				0.49	0.49	41.8				2.39	2.39
Thu 17	6.91				0.46	0.46	33.6				2.30	2.30
Fri 18	7.74				0.48	0.48	42.1				3.70	3.70
Sat 19	7.82				0.39	0.39	39.9				4.39	4.39
Sun 20	7.47				0.35	0.35	36.6				2.82	2.82
Mon 21	8.32				0.39	0.39	36.1				2.99	2.99
Tue 22	7.71				0.40	0.40	38.9				3.64	3.64
Wed 23	8.12				0.37	0.37	36.4				2.45	2.45
Thu 24	8.66				0.44	0.44	41.0				1.68	1.68
Fri 25	8.07				0.42	0.42	40.5				1.66	1.66
Sat 26	7.41				0.42	0.42	39.5				2.37	2.37
Sun 27	7.71				0.50	0.50	41.0				2.86	2.86
Mon 28	7.70				0.50	0.50	37.6				2.76	2.76
Tue 29	8.29	4.46			0.54	0.54	39.3	37.8			2.80	2.80
Wed 30	7.10	4.46			1.16	1.16	33.7	32.5			2.97	2.97
Thu 31	8.18				0.89	0.89	43.0				1.96	1.96
Average	8.19	4.46	---	---	0.53	0.53	38.9	35.2	---	---	2.87	2.87
Minimum	6.91	4.46	---	---	0.35	0.35	33.6	32.5	---	---	1.66	1.66
Maximum	15.6	4.46	---	---	1.16	1.16	43.9	37.8	---	---	4.53	4.53
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	TKN (mg/L) RAW	TKN OUTFALL 30	TKN OUTFALL 20	TKN OUTFALL 10 FEC	NO_2+NO_3 (mg/L) RAW	NO_2+NO_3 OUTFALL 30	NO_2+NO_3 OUTFALL 20	NO_2+NO_3 OUTFALL 10 FEC	Chloride (mg/L) RAW	Chloride OUTFALL 30	Chloride OUTFALL 20	Chloride OUTFALL 10 FEC	*E. coli* (Counts/100 mL) RAW X10^6	*E. coli* OUTFALL 30 X10^6	*E. coli* OUTFALL 20 X10^6	*E. coli* OUTFALL 10 FEC
Tue 01	56.8			5.91				16.0	95.3			92.5				27
Wed 02	62.8			6.62	0.02			13.8	83.3			95.8				26
Thu 03	59.7			7.81				11.4	86.1			92.8				23
Fri 04	62.2			6.10				10.4	83.9			95.9				43
Sat 05	58.4			5.76				9.80	83.6			93.2				17
Sun 06	58.3			5.20				9.60	82.3			87.1				28
Mon 07	62.1			5.46				9.90	83.0			86.4				38
Tue 08	105			5.99				7.5	76.7			90.5				95
Wed 09	62.5			4.72	< 0.07			8.20	79.4			85.5				19
Thu 10	64.3			5.53				9.80	94.8			95.8				11
Fri 11	58.3			6.16				10.1	78.0			102				25
Sat 12	62.5			5.01				10.1	75.2			93.2				19
Sun 13	63.5			4.93				10.3	75.2			85.4				10
Mon 14	64.5			5.18				10.1	75.2			84.5				22
Tue 15	63.6			5.05				10.7	87.0			100				13
Wed 16	63.5			5.37	0.04			10.4	85.2			89.8				10
Thu 17	52.9			4.63				9.8	92.6			104				11
Fri 18	57.7			6.07				9.0	94.4			94.1				20
Sat 19	56.6			5.98				9.6	89.6			104				10
Sun 20	60.4			5.23				11.4	83.3			91.8				20
Mon 21	63			5.35				11.2	78.6			86.1				14
Tue 22	56.5			4.95				10.3	86.2			90.1				12
Wed 23	51.4			4.80	< 0.01			9.7	82.8			93.0				8
Thu 24	58.6			3.42				10.9	82.4			93.3	2.1			5
Fri 25	57.1			3.76				11.3	76.4			88.7				8
Sat 26	59.1			4.13				12.2	75.3			86.6				7
Sun 27	62.7			5.80				12.1	81.9			86.0				10
Mon 28	61.3			5.26				11.3	77.9			80.9				9
Tue 29	62.5	48.4		5.43		0.03		9.2	85.5	108		89.5		0.8		24
Wed 30	54.8	41.5		7.01	0.01	0.29		8.9	76.6	83.0		88.7	2.2	2.0		81
Thu 31	63.1			5.10				10.3	76.6			88.7				8
Average	61.5	44.9	---	5.41	0.02	0.16	---	10.5	82.7	95.3	---	91.5	---	---	---	---
Minimum	51.4	41.5	---	3.42	< 0.01	0.03	---	7.50	75.2	83.0	---	80.9	2.1	0.8	---	5
Maximum	105	48.4	---	7.81	0.04	0.29	---	16.0	95.3	108	---	104	2.2	2.0	---	95
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	2.1	1.3	---	17
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

* contact Laboratory for information about the quality assurance associated with the result

Enhanced Primary Treatment (EPT) Usage					
Total Bypass (hrs)	EPT Usage (hrs)		Total Bypass YTD (hrs)	EPT Usage YTD	% Usage YTD
11	11	100%	148	148	100.00%

Report Comments

1.	OUTFALL 10 - May 04, 2018: Analysis of this sample was repeated, and consequently, exceeded the recommended holding for BOD.
2.	OUTFALL 30 - May 29, 2018: The autosampler failed. The reported values are the arithmetic average of test results developed on two grab samples collected at 00:05 a.m. and 02:05 a.m. respectively.

AEP Ref #**

** AEP - Alberta Environment & Parks

RAW	Untreated Influent into the plant
INF	Untreated Wastewater from collection system
INFs	Influent, screened at the Headworks Diversion Structure
PE	Primary Effluent from conventional primaries
PE 30	Primary Effluent from conventional primaries discharged via Outfall 30
EPT	Enhanced Primary Treatment
EPE	Enhanced Primary Effluent
EPEPS	Enhanced Primary Effluent and Pump Station
FE	Final Effluent from secondary treatment process (with biological nutrient
FEC	Combined pre-UV disinfection (FE+EPEPS)
OUTFALL 10	UV-disinfected, discharged via OUTFALL 10
OUTFALL 20	Combined Bypass (RAW + PE + EPE)
OUTFALL 30	Combined Bypass (INF + INFS + PE30 + EPE)
MPW	Membrane Product Water (Effluent re-use water)
ML	Megalitre (1,000,000 Litre)
MPN	Most Probable Number
NR	No Result
NS	No Sample
INS	Insufficient Sample

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