PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
August 2019

Digested Sludge: Total Monthly Volume (ML)	67.37

Volume of Flow (ML)

DATE	Peak Flow (MLD)	Influent	Effluent					
			Non UV Disinfected			UV Disinfected		
		RAW	OUTFALL 30	OUTFALL 20	MPW	EPEPS	OUTFALL 10 FEC	OUTFALL 10 FE
Thu-01	1,497.90	454.51	110.30	0.31	10.30	0.00	333.60	333.60
Fri-02	1,406.80	402.89	70.20	0.29	10.40	0.00	322.00	322.00
Sat-03	627.90	334.50	13.30	0.00	10.20	0.00	311.00	311.00
Sun-04	389.30	287.80	0.00	0.00	10.20	0.00	277.60	277.60
Mon-05	739.30	317.42	27.50	0.02	10.60	0.00	279.30	279.30
Tue-06	956.20	402.60	59.50	0.00	11.10	0.00	332.00	332.00
Wed-07	381.20	317.40	0.00	0.00	10.90	0.00	306.50	306.50
Thu-08	377.40	306.90	0.00	0.00	11.10	0.00	295.80	295.80
Fri-09	876.40	395.60	49.50	0.00	10.80	0.00	335.30	335.30
Sat-10	361.10	285.10	0.00	0.00	11.10	0.00	274.00	274.00
Sun-11	368.90	281.10	0.00	0.00	11.00	0.00	270.10	270.10
Mon-12	357.80	287.40	0.00	0.00	11.30	0.00	276.10	276.10
Tue-13	658.50	344.10	17.00	0.00	11.50	0.00	315.60	315.60
Wed-14	373.00	291.40	0.00	0.00	11.10	0.00	280.30	280.30
Thu-15	452.30	287.20	0.00	0.00	10.90	0.00	276.30	276.30
Fri-16	550.00	296.90	2.50	0.00	11.10	0.00	283.30	283.30
Sat-17	358.50	269.80	0.00	0.00	11.10	0.00	258.70	258.70
Sun-18	438.80	273.90	0.30	0.00	11.00	0.00	262.60	262.60
Mon-19	555.90	338.70	18.90	0.00	10.60	0.00	309.20	309.20
Tue-20	335.10	285.00	0.00	0.00	10.80	0.00	274.20	274.20
Wed-21	355.70	282.90	0.00	0.00	11.00	0.00	271.90	271.90
Thu-22	333.70	276.50	0.00	0.00	11.10	0.00	265.40	265.40
Fri-23	563.10	295.20	14.60	0.00	11.10	0.00	269.50	269.50
Sat-24	409.10	281.60	0.40	0.00	11.30	0.00	269.90	269.90
Sun-25	355.80	269.60	0.00	0.00	11.20	0.00	258.40	258.40
Mon-26	372.80	276.50	0.00	0.00	11.20	0.00	265.30	265.30
Tue-27	329.10	269.60	0.00	0.00	11.30	0.00	258.30	258.30
Wed-28	680.30	316.70	16.10	0.00	11.00	0.00	289.60	289.60
Thu-29	330.20	268.90	0.00	0.00	10.90	0.00	258.00	258.00
Fri-30	522.30	344.60	35.20	0.00	10.70	0.00	298.70	298.70
Sat 31	455.80	289.60	8.20	0.00	10.90	0.00	270.50	270.50
Average	540.97	310.71	14.31	0.02	10.93	0.00	285.45	285.45
Minimum	329.10	268.90	0.00	0.00	10.20	0.00	258.00	258.00
Maximum	1,497.90	454.51	110.30	0.31	11.50	0.00	335.30	335.30
GeoMean	---	---	---	---	---	---	---	---
TOTAL	---	9,632	444	0.62	339	0	8,849	8,849

Liquid Stream Quality

DATE	pH@25°C RAW	pH@25°C OUTFALL 30	pH@25°C OUTFALL 20	pH@25°C OUTFALL 10 FEC	TSS (mg/L) RAW	TSS (mg/L) OUTFALL 30	TSS (mg/L) OUTFALL 20	TSS (mg/L) EPEPS	TSS (mg/L) OUTFALL 10 FEC	TSS (mg/L) OUTFALL 10 FE
Thu-01	7.7	7.7	7.9	7.58	271	54	132		4.1	4.1
Fri-02	7.7	7.6	7.6	7.74	368	99	230		3.3	3.3
Sat-03	7.7	7.9		7.61	228	23			4.6	4.6
Sun-04	7.8			7.75	192				4.2	4.2
Mon-05	7.7	7.5		7.61	271	53			4.6	4.6
Tue-06	7.6	7.6		7.68	236	33			5.8	5.8
Wed-07	7.6			7.57	254				6.9	6.9
Thu-08	7.8			7.69	253				4.9	4.9
Fri-09	7.7	8.1		7.5	220	62			5.1	5.1
Sat-10	7.8			7.65	256				5.9	5.9
Sun-11	7.8			7.66	232				5.1	5.1
Mon-12	7.7			7.74	234				6.4	6.4
Tue-13	7.6	7.7		7.62	284	64			4.1	4.1
Wed-14	7.8			7.59	228				3.0	3.0
Thu-15	7.7			7.63	340				4.1	4.1
Fri-16	7.7	7.9		7.71	236	60			3.8	3.8
Sat-17	7.6			7.65	240				3.7	3.7
Sun-18	7.8	8.3		7.77	226	67			3.9	3.9
Mon-19	7.6	7.7		7.59	253	73			4.9	4.9
Tue-20	7.7			7.7	256				6.6	6.6
Wed-21	7.7			7.71	257				5.0	5.0
Thu-22	7.7			7.78	282				4.7	4.7
Fri-23	7.7	7.7		7.74	322	59			6.1	6.1
Sat-24	7.7	8.1		7.72	250	67			5.7	5.7
Sun-25	7.8			7.73	259				4.8	4.8
Mon-26	7.7			7.73	278				5.7	5.7
Tue-27	7.6			7.63	280				5.7	5.7
Wed-28	7.5	7.0		7.61	344	67			5.6	5.6
Thu-29	7.6			7.54	281				5.6	5.6
Fri-30	7.5	7.6		7.75	260	37			6.0	6.0
Sat 31	7.6	7.8		7.65	254	37			6.2	6.2
Average	7.7	7.7	7.8	7.7	263	57	181	---	5.0	5.0
Minimum	7.5	7.0	7.6	7.5	192	23	132	---	3.0	3.0
Maximum	7.8	8.3	7.9	7.8	368	99	230	---	6.9	6.9
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	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$_5$	TP (mg/L) RAW	OUTFALL 30	OUTFALL 20	EPEPS	OUTFALL 10 FEC	OUTFALL 10 FE
Thu-01	203	62	103		2.0	2.0	4.3	3.48	1.65		0.23	0.23
Fri-02	195	80	63		1.0	1.0	5.16	3.01	2.07		0.21	0.21
Sat-03	195	29			3.0	3.0	5.80	1.49			0.21	0.21
Sun-04	212				2.0	2.0	8.47				0.22	0.22
Mon-05	193	120			2.0	2.0	7.85	4.44			0.31	0.31
Tue-06	202	58			3.0	3.0	4.38	2.12			0.44	0.44
Wed-07	211				1.0	1.0	5.61				0.49	0.49
Thu-08	210				3.0	3.0	5.76				0.32	0.32
Fri-09	235	82			3.0	3.0	4.62	3.90			0.35	0.35
Sat-10	305				3.0	3.0	6.38				0.31	0.31
Sun-11	246				3.0	3.0	6.29				0.35	0.35
Mon-12	227				3.0	3.0	6.41				0.32	0.32
Tue-13	218	99			3.0	3.0	7.13	5.05			0.28	0.28
Wed-14	221				2.0	2.0	9.30				0.26	0.26
Thu-15	280				2.0	2.0	8.75				0.27	0.27
Fri-16	322	114			2.0	2.0	5.84	5.07			0.25	0.25
Sat-17	202				1.0	1.0	6.98				0.26	0.26
Sun-18	226	234			2.0	2.0	6.53	7.48			0.24	0.24
Mon-19	201	122			3.0	3.0	5.54	5.27			0.31	0.31
Tue-20	271				3.0	3.0	7.07				0.34	0.34
Wed-21	292				3.0	3.0	7.24				0.33	0.33
Thu-22	245				3.0	3.0	7.14				0.28	0.28
Fri-23	265	130			3.0	3.0	7.16	6.34			0.32	0.32
Sat-24	221				3.0	3.0	6.84	5.27			0.33	0.33
Sun-25	280				3.0	3.0	6.65				0.30	0.30
Mon-26	276				4.0	4.0	7.34				0.33	0.33
Tue-27	239				4.0	4.0	8.42				0.36	0.36
Wed-28	250	134			3.0	3.0	7.03	5.82			0.35	0.35
Thu-29	313				3.0	3.0	7.92				0.36	0.36
Fri-30	222	82			3.0	3.0	5.61	5.19			0.49	0.49
Sat 31	258	89			2.0	2.0	6.79	7.12			0.30	0.30
Average	240	103	83	---	2.6	2.6	6.66	4.74	1.86	---	0.31	0.31
Minimum	193	29	63	---	1.0	1.0	4.33	1.49	1.65	---	0.21	0.21
Maximum	322	234	103	---	4.0	4.0	9.30	7.48	2.07	---	0.49	0.49
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	NH3-N (mg/L) RAW	OUTFALL 30	OUTFALL 20	EPEPS	OUTFALL 10 FEC	OUTFALL 10 FE	TKN (mg/L) RAW	OUTFALL 30	OUTFALL 20	OUTFALL 10 FEC	NO$_2$+NO$_3$ (mg/L) RAW	OUTFALL 30	OUTFALL 20	OUTFALL 10 FEC	Chloride (mg/L) RAW	OUTFALL 30	OUTFALL 20	OUTFALL 10 FEC	*E. coli* (Counts/100 mL) RAW	OUTFALL 30	OUTFALL 20	OUTFALL 10 FEC
																			X10^6	X10^6	X10^6	FEC
Thu-01	15.6	27.6	7.31		2.40	2.40	28.0	37.5	13.0	4.13		0.07	0.40	6.5	62	66	41.4	77		2.8	4.8	11
Fri-02	18.2	17.7	7.17		3.08	3.08	35.1	25.8	16.0	5.18		0.82	1.04	8.9	68	50	35.8	80		3.8	1.0	5
Sat-03	23.5	18.0			1.35	1.35	42.1	23.0		3.06		0.90		7.3	67	48		74		0.8		5
Sun-04	30.2				1.36	1.36	53.9			3.54				10.0	83			81				7
Mon-05	28.9	27.4			1.69	1.69	46.9	39.2		3.67		0.43		10.8	84	66		90		1.0		10
Tue-06	20.1	19.0			0.94	0.94	32.6	23.2		2.73		0.33		7.5	65	49		72		2.1		6
Wed-07	26.9				1.67	1.67	42.0			3.40	0.02			9.3	80			84				14
Thu-08	27.3				0.91	0.91	46.9			3.09				10.8	84			88				8
Fri-09	20.7	26.6			0.76	0.76	33.4	34.5		2.70		0.02		8.6	63	67		85		2.4		10
Sat-10	30.8				1.16	1.16	44.5			2.88				11.4	79			80				6
Sun-11	29.9				1.08	1.08	47.6			2.81				12.1	75			82				4
Mon-12	29.3				1.16	1.16	43.8			3.00				12.1	83			82	4.5			22
Tue-13	28.6	30.4			0.69	0.69	43.2	37.3		2.25		0.23		9.6	74	70		85		0.9		21
Wed-14	40.3				0.51	0.51	52.8			2.25	0.03			11.4	85			83				5
Thu-15	33.0				0.27	0.27	53.0			2.10				12.3	89			86				8
Fri-16	28.0	29.3			0.14	0.14	43.0	39.3		1.80		0.57		8.8	81	63		85		2.5		5
Sat-17	32.3				0.56	0.56	49.7			2.92				11.4	70			85				5
Sun-18	32.0	38.6			0.71	0.71	51.8	51.1		2.44				13.0	57			80		6.0		7
Mon-19	22.6	33.5			1.19	1.19	41.0	45.5		2.97		0.07		10.4	70	72		76		2.8		9
Tue-20	32.0				2.09	2.09	52.9			3.82				11.5	72			81	3.4			6
Wed-21	30.8				1.89	1.89	49.2			3.77	< 0.01			11.3	76			83				9
Thu-22	29.2				1.24	1.24	52.2			3.39				11.4	78			88				9
Fri-23	29.0	42.5			2.01	2.01	50.4	49.2		4.01		0.83		10.5	82	94		85		2.5		17
Sat-24	27.4	34.7			2.94	2.94	51.8	44.0		4.91				9.3	80			84		1.1		2
Sun-25	28.1				2.31	2.31	45.4			4.53				12.5	76			83				5
Mon-26	38.6				2.57	2.57	55.7			3.92				11.6	85			82				7
Tue-27	38.8				2.00	2.00	67.4			4.78				11.4	81			88				9
Wed-28	33.1	35.1			2.59	2.59	57.0	43.3		4.68	< 0.01	1.25		9.7	71	70		81		1.4		6
Thu-29	40.7				1.44	1.44	62.5			3.34				11.3	77			82				6
Fri-30	28.9	32.6			1.07	1.07	47.2	42.8		2.91		0.91		8.90	67	64		78		1.6		15
Sat 31	35.4	44.8			1.99	1.99	51.2	53.4		4.21		0.29		10.1	63	69.4		72		2.6		5
Average	29.4	30.5	7.2	---	1.48	1.48	47.6	39.3	14.5	3.39	0.02	0.52	0.72	10.4	75	65	39	82	---	---	---	---
Minimum	15.6	17.7	7.2	---	0.14	0.14	28.0	37.5	13.0	1.80	< 0.01	0.02	0.40	6.5	57.2	48	36	71.5	3	1	1	2
Maximum	40.7	44.8	7.3	---	3.08	3.08	67.4	53.4	16.0	5.18	0.03	1.25	1.04	13.0	89	94	41	90	5	6	5	22
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4	2	2	7
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

* Contact Laboratory for information about the quality assurance associated with the results

Enhanced Primary Treatment (EPT) Usage

Total Bypass (hrs)	EPT Usage (hrs)	% Usage	Total Bypass YTD (hrs)	EPT Usage YTD (hrs)	% Usage
71	71	100%	591	591	100.00%

Report Comments

1	OUTFALL 20 - August 5: Flow of stormwater not sewage.
2	OUTFALL 30 - August 18: Insufficient sample in composite to run N-TOX and Chloride
3	OUTFALL 30 - August 24: Insufficient sample in composite to run BOD, N-TOX and Chloride

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 removal).

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

Abhishek Bhargava
Senior Manager, Operations

Shane Harnish
Senior Manager, Analytical Operations