EPCOR

GOLD BAR WASTEWATER TREATMENT PLANT
PLANT PERFORMANCE REPORT
October 2014

Digested Sludge: Total Monthly Volume (ML)	66.61

Volume of Flow (ML) / Liquid Stream Quality

DATE	Peak Flow (MLD)	Influent RAW	Effluent – Non UV Disinfected – BYPASS OUT-FAL 30	OUT-FAL 20 PRIM	OUT-FAL 20 SEC	Total	MPW	UV Disinfected OUT-FAL 10 EPE!	OUT-FAL 10 FEC	pH@25°C OUT-FAL 30	pH OUT-FAL 20	pH OUT-FAL 10	TSS (mg/L) RAW	TSS OUT-FAL30	TSS OUT-FAL20	TSS OUT-FAL 10	BOD₅/cBOD₅ (mg/L) RAW BOD₅	OUT-FAL30 cBOD₅	OUT-FAL30 BOD₅	OUT-FAL20 cBOD₅	OUT-FAL20 BOD₅	OUT-FAL 10 cBOD₅
Wed 01	352.98	257.43	0.00	0.00	0.00	0.00	10.67	0.00	246.76	—	—	7.5	271	—	—	5.3	287	—	—	—	—	4
Thu 02	349.88	255.90	0.00	0.00	0.00	0.00	10.80	0.00	245.30	—	—	7.5	276	—	—	6.1	297	—	—	—	—	4
Fri 03	350.33	258.97	0.00	0.00	0.00	0.00	10.95	0.00	248.02	—	—	7.6	292	—	—	4.3	307	—	—	—	—	5
Sat 04	374.05	255.02	0.00	0.00	0.00	0.00	10.04	0.00	244.98	—	—	7.5	264	—	—	5.4	280	—	—	—	—	4
Sun 05	378.86	253.06	0.00	0.00	0.00	0.00	10.67	0.00	242.49	—	—	7.7	300	—	—	6.2	320	—	—	—	—	5
Mon 06	356.48	256.83	0.00	0.00	0.00	0.00	10.62	0.00	246.21	—	—	7.6	290	—	—	8.3	327	—	—	—	—	5
Tue 07	344.14	248.96	0.00	0.00	0.00	0.00	11.24	0.00	237.72	—	—	7.6	292	—	—	5.7	301	—	—	—	—	4
Wed 08	352.32	253.60	0.00	0.00	0.00	0.00	9.94	0.00	243.66	—	—	7.5	300	—	—	4.5	303	—	—	—	—	5
Thu 09	345.20	247.89	0.00	0.00	0.00	0.00	11.28	0.00	236.41	—	—	7.5	272	—	—	4.7	332	—	—	—	—	4
Fri 10	354.86	252.81	0.00	0.00	0.00	0.00	11.91	0.00	240.90	—	—	7.5	300	—	—	4.6	298	—	—	—	—	3
Sat 11	365.47	244.06	0.00	0.00	0.00	0.00	12.43	0.00	231.63	—	—	7.6	297	—	—	4.9	311	—	—	—	—	4
Sun 12	373.18	238.50	0.00	0.00	0.00	0.00	11.68	0.00	226.82	—	—	7.7	287	—	—	4.4	296	—	—	—	—	4
Mon 13	383.32	244.56	0.00	0.00	0.00	0.00	11.90	0.00	232.66	—	—	7.6	286	—	—	7.4	330	—	—	—	—	4
Tue 14	348.66	251.64	0.00	0.00	0.00	0.00	11.98	0.00	239.66	—	—	7.5	308	—	—	5.5	286	—	—	—	—	4
Wed 15	461.23	260.83	4.44	0.00	0.00	4.44	12.11	[illegible]	244.28	—	—	7.6	332	39.0	—	5.7	309	93	109	—	—	4
Thu 16	348.68	238.50	0.00	0.00	0.00	0.00	12.31	0.00	226.19	—	—	7.6	270	—	—	4.4	253	—	—	—	—	4
Fri 17	348.01	248.62	0.00	0.00	0.00	0.00	12.36	0.00	236.46	—	—	7.5	280	—	—	3.3	346	—	—	—	—	3
Sat 18	367.22	244.23	0.00	0.00	0.00	0.00	12.24	0.00	231.99	—	—	7.5	277	—	—	3.6	293	—	—	—	—	4
Sun 19	374.80	253.14	0.00	0.00	0.00	0.00	12.45	0.00	240.69	—	—	7.6	254	—	—	4.5	305	—	—	—	—	3
Mon 20	346.20	259.08	0.00	0.00	0.00	0.00	12.25	0.00	246.83	—	—	7.5	308	—	—	5.5	310	—	—	—	—	3
Tue 21	347.50	248.58	0.00	0.00	0.00	0.00	12.50	0.00	236.08	—	—	7.7	290	—	—	6.7	300	—	—	—	—	4
Wed 22	342.32	247.02	0.00	0.00	0.00	0.00	12.87	0.00	234.15	—	—	7.6	274	—	—	4.5	239	—	—	—	—	3
Thu 23	344.96	248.28	0.00	0.00	0.00	0.00	12.51	0.00	235.77	—	—	7.6	268	—	—	4.6	265	—	—	—	—	3
Fri 24	345.30	245.17	0.00	0.00	0.00	0.00	12.51	0.00	232.66	—	—	7.5	286	—	—	4.9	312	—	—	—	—	3
Sat 25	369.00	243.82	0.00	0.00	0.00	0.00	7.77	0.00	236.05	—	—	7.6	280	—	—	6.0	284	—	—	—	—	5
Sun 26	440.08	261.98	20.43	0.00	0.00	20.43	0.18	0.00	241.37	—	—	7.8	244	44.0	—	23.8	265	137	140	—	—	23
Mon 27	388.52	266.80	4.32	0.00	0.00	4.32	8.02	0.00	254.46	—	—	7.5	463	47.0	—	17.8	284	66	94	—	—	21
Tue 28	420.22	253.27	0.00	0.00	0.00	0.00	13.82	0.00	239.45	—	—	7.5	214	—	—	9.3	280	—	—	—	—	4
Wed 29	338.21	244.87	0.00	0.00	0.00	0.00	13.30	0.00	231.57	—	—	7.4	254	—	—	15.4	285	—	—	—	—	6
Thu 30	340.13	245.50	0.00	0.00	0.00	0.00	13.97	0.00	231.53	—	—	7.6	296	—	—	10.0	283	—	—	—	—	4
Fri 31	348.53	241.14	0.00	0.00	0.00	0.00	13.02	0.00	228.12	—	—	7.6	267	—	—	6.3	261	—	—	—	—	4
Average	364.54	250.65	0.94	0.00	0.00	0.94	11.29	0.00	236.42	—	—	7.6	267	43.3	—	6.9	295	99	117	—	—	5
Minimum	338.21	238.50	0.00	0.00	0.00	0.00	0.18	0.00	226.19	—	—	7.4	214	39.0	—	3.3	239	66	94	—	—	3
Maximum	461.23	266.80	20.43	0.00	0.00	20.43	13.97	0.00	254.46	—	—	7.6	463	47.0	—	23.8	346	137	140	—	—	23
GeoMean	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	—	7,770	29.19	0.00	0.00	29.19	350.00	0.00	7,391	—	—	—	—	—	—	—	—	—	—	—	—	—

DATE	TP (mg/L) RAW	TP OUT-FAL30	TP OUT-FAL20	TP OUT-FAL 10	NH3-N (mg/L) RAW	NH3-N OUT-FAL30	NH3-N OUT-FAL20	NH3-N OUT-FAL 10	un-ionized ammonia (mg/L) OUT-FAL 10	TKN (mg/L) RAW	TKN OUT-FAL30	TKN OUT-FAL20	TKN OUT-FAL 10	NO_2+NO_3 (mg/L) RAW	NO_2+NO_3 OUT-FAL30	NO_2+NO_3 OUT-FAL20	NO_2+NO_3 OUT-FAL 10	Chloride (mg/L) RAW	Chloride OUT-FAL30	Chloride OUT-FAL20	Chloride OUT-FAL 10	E.Coli (Counts/100 mL) RAW X10^6	E.Coli OUT-FAL30 X10^6	E.Coli OUT-FAL20 X10^6	E.Coli OUT-FAL 10
Wed 01	6.62	—	—	0.30	35.9	—	—	0.05		54.5	—	—	1.77	—	—	—	14.5	74	—	—	73	—	—	—	5
Thu 02	6.21	—	—	0.30	34.1	—	—	0.05	< 0.001	50.7	—	—	1.66	—	—	—	12.4	72	—	—	80	—	—	—	5
Fri 03	6.04	—	—	0.31	32.9	—	—	0.08	< 0.001	52.2	—	—	1.86	—	—	—	11.5	70	—	—	83	—	—	—	1
Sat 04	6.02	—	—	0.30	33.4	—	—	0.05	< 0.001	50.4	—	—	1.68	—	—	—	10.9	70	—	—	81	—	—	—	5
Sun 05	5.97	—	—	0.28	33.0	—	—	0.06	0.001	49.6	—	—	1.67	—	—	—	8.9	65	—	—	73	—	—	—	3
Mon 06	6.22	—	—	0.27	35.1	—	—	0.03	< 0.001	50.6	—	—	1.60	—	—	—	6.0	70	—	—	69	—	—	—	23
Tue 07	6.74	—	—	0.30	31.7	—	—	0.05	< 0.001	51.9	—	—	1.67	—	—	—	9.1	70	—	—	75	—	—	—	2
Wed 08	6.62	—	—	0.26	35.8	—	—	0.05	-	51.2	—	—	1.59	< 0.100	—	—	8.6	76	—	—	81	—	—	—	2
Thu 09	6.99	—	—	0.28	32.6	—	—	0.05	< 0.001	51.4	—	—	1.51	—	—	—	9.1	68	—	—	75	—	—	—	5
Fri 10	7.02	—	—	0.25	33.6	—	—	0.05	< 0.001	48.4	—	—	1.56	—	—	—	8.5	71	—	—	77	—	—	—	7
Sat 11	6.83	—	—	0.24	34.6	—	—	0.06	< 0.001	49.6	—	—	1.56	—	—	—	7.5	69	—	—	76	—	—	—	8
Sun 12	6.94	—	—	0.25	35.2	—	—	0.14	0.001	51.2	—	—	1.61	—	—	—	8.0	68	—	—	72	—	—	—	1
Mon 13	7.31	—	—	0.40	34.1	—	—	0.42	0.003	52.3	—	—	2.19	—	—	—	7.5	67	—	—	71	—	—	—	< 1
Tue 14	7.20	—	—	0.24	35.9	—	—	0.24	0.005	53.1	—	—	1.58	—	—	—	7.7	70	—	—	72	—	—	—	3
Wed 15	8.47	4.16	—	0.29	33.8	23.8	—	0.09	0.003	50.0	29.4	—	1.68	< 0.010	2.68	—	9.0	76	72	—	76	—	2.49	—	5
Thu 16	7.15	—	—	0.27	35.1	—	—	0.14	< 0.001	50.6	—	—	1.56	—	—	—	8.3	64	—	—	76	—	—	—	5
Fri 17	7.73	—	—	0.28	36.9	—	—	0.07	0.002	51.1	—	—	1.51	—	—	—	9.3	67	—	—	73	6.13	—	—	5
Sat 18	7.66	—	—	0.30	38.3	—	—	0.27	< 0.001	51.1	—	—	1.64	—	—	—	9.2	63	—	—	72	—	—	—	8
Sun 19	7.68	—	—	0.57	38.5	—	—	0.94	0.003	52.3	—	—	2.40	—	—	—	9.6	61	—	—	69	—	—	—	3
Mon 20	6.48	—	—	0.72	34.9	—	—	0.92	0.016	51.6	—	—	2.38	—	—	—	9.3	60	—	—	71	—	—	—	3
Tue 21	6.36	—	—	0.43	35.3	—	—	0.64	0.014	50.5	—	—	1.96	—	—	—	8.3	67	—	—	74	—	—	—	* 3
Wed 22	6.42	—	—	0.35	* 34.7	—	—	0.55	-	49.8	—	—	2.10	< 0.100	—	—	9.4	65	—	—	75	—	—	—	* 3
Thu 23	6.34	—	—	0.31	36.1	—	—	0.43	0.006	49.0	—	—	1.93	—	—	—	9.7	66	—	—	76	* 5.48	—	—	3
Fri 24	6.81	—	—	0.31	35.0	—	—	0.32	0.006	50.1	—	—	1.79	—	—	—	10.3	65	—	—	75	—	—	—	3
Sat 25	6.46	—	—	1.00	35.6	—	—	2.42	0.003	51.2	—	—	4.41	—	—	—	9.0	70	—	—	75	—	—	—	8
Sun 26	6.92	3.03	—	8.18	35.9	27.7	—	* 19.80	0.027	52.1	36.6	—	24.8	—	0.20	—	4.0	73	92	—	79	—	3.17	—	* 4600
Mon 27	7.33	2.08	—	5.10	34.3	24.6	—	17.30	0.360	54.4	29.7	—	22.4	—	0.43	—	3.8	66	64	—	80	—	1.14	—	72000
Tue 28	5.60	—	—	1.09	31.9	—	—	6.12	0.161	45.0	—	—	12.8	—	—	—	5.7	53	—	—	76	—	—	—	750
Wed 29	6.32	—	—	0.53	33.9	—	—	5.41	-	51.6	—	—	9.53	< 0.010	—	—	5.9	64	—	—	73	—	—	—	440
Thu 30	6.42	—	—	0.40	36.3	—	—	5.57	0.034	51.5	—	—	7.20	—	—	—	6.2	67	—	—	76	—	—	—	55
Fri 31	6.14	—	—	0.46	35.1	—	—	3.67	0.048	49.6		—	6.37	—	—	—	6.0	66	—	—	74	—	—	—	160
Average	6.75	3.09	—	0.79	34.6	25.4	—	2.19	0.027	51.2	31.9	—	4.16	0.06	1.11	—	8.6	68	76	—	75	—	—	—	—
Minimum	5.60	2.08	—	0.24	31.7	23.6	—	0.03	< 0.001	45.0	29.4	—	1.61	< 0.01	0.20	—	3.8	53	64	—	69	5.48	1.14	—	< 1
Maximum	8.47	4.16	—	8.18	38.5	27.7	—	19.80	0.360	60.0	36.6	—	24.80	0.10	2.68	—	14.5	76	92	—	83	6.13	3.17	—	72000
GeoMean	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.80	2.08	—	11
TOTAL	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

! The values in EPE (flow) column indicate wet weather events, then the OUT FAL 10 Average calculation exclude numbers for that day (grey/italics)

x - analysis performed at an ISO 17025 Accredited external laboratory.

RAW ⇨ Plant Influent (Untreated Wastewater) | EPT ⇨ Enhanced Primary Treatment | OUT FAL 10 ⇨ Combined, UV-disinfected (FE +EPEPS) | ML ⇨ Megalitres (1,000,000 Litres) | nr ⇨ No Result

PRIM ⇨ Primary | EPEPS ⇨ Enhanced Primary Effluent and Pump St. | OUT FAL 20 ⇨ Combined Bypass (RAW + PE + EPE) | MPN ⇨ Most Probable Number | ns ⇨ No Sample

SEC ⇨ Secondary | MPW ⇨ Membrane Product Water (Effluent re-use water) | OUT FAL 30 ⇨ Combined Bypass (MF + INFS + PE30 + EPE) | E ⇨ Estimated Value | ws ⇨ Wrong Sample

A ⇨ Average

Report Comments

ESRD Ref #

* ESRD - Alberta Environment & Sustainable Resource and Development

Dec 10, 2014

Abhishek Bhargava
Senior Manager, Operations

Date (mm/dd/yyyy)

Debra Long
Senior Manager, Analytical Operations

12/10/2014
Date (mm/dd/yyyy)