PROVIDING MORE EPCOR

GOLD BAR WASTEWATER TREATMENT PLANT
PLANT PERFORMANCE REPORT
June 2014

Digested Sludge: Total Monthly Volume (ML)	66.31

Volume of Flow (ML)

DATE	Peak Flow (MLD)	Influent	Effluent						
			Non UV Disinfected					UV Disinfected	
			BYPASS						
		RAW	OUT-FAL 30	OUT-FAL 20 PRIM	OUT-FAL 20 SEC	OUT-FAL 20 Total	MPW	OUT-FAL 10 EPE!	OUT-FAL 10 FEC
1-Jun-14	511.95	302.29	14.26	0.00	0.00	14.26	10.62	0.00	277.41
2-Jun-14	430.13	298.04	1.94	0.00	0.00	1.94	10.79	0.00	285.31
3-Jun-14	631.83	311.50	18.68	0.00	0.00	18.68	10.85	0.00	281.97
4-Jun-14	1,100.49	418.55	123.80	0.00	0.00	123.80	10.58	0.00	284.17
5-Jun-14	901.10	425.98	106.97	0.00	0.00	106.97	10.67	0.00	308.34
6-Jun-14	424.33	317.70	5.25	0.00	0.00	5.25	9.28	0.00	303.17
7-Jun-14	450.84	288.08	0.00	0.00	0.00	0.00	9.47	0.00	278.61
8-Jun-14	432.79	284.88	0.00	0.00	0.00	0.00	10.60	0.00	274.28
9-Jun-14	483.07	308.14	13.25	0.00	0.00	13.25	10.67	0.00	284.22
10-Jun-14	718.47	349.71	62.41	0.00	0.00	62.41	9.05	0.00	278.25
11-Jun-14	601.16	323.43	11.28	0.00	0.00	11.28	10.25	0.00	301.90
12-Jun-14	385.10	290.12	0.00	0.00	0.00	0.00	11.08	0.00	279.04
13-Jun-14	395.29	284.11	0.00	0.00	0.00	0.00	9.49	0.00	274.62
14-Jun-14	404.95	260.21	0.00	0.00	0.00	0.00	9.66	0.00	250.55
15-Jun-14	410.23	275.58	0.00	0.00	0.00	0.00	9.18	0.00	266.40
16-Jun-14	387.35	288.58	0.00	0.00	0.00	0.00	11.11	0.00	277.47
17-Jun-14	372.46	278.13	0.00	0.00	0.00	0.00	9.67	0.00	268.46
18-Jun-14	380.37	279.77	0.00	0.00	0.00	0.00	9.65	0.00	270.12
19-Jun-14	598.82	353.21	53.90	0.00	0.00	53.90	10.94	0.00	288.37
20-Jun-14	384.72	281.36	0.00	0.00	0.00	0.00	9.31	0.00	272.05
21-Jun-14	431.33	273.22	0.00	0.00	0.00	0.00	9.42	0.00	263.80
22-Jun-14	398.75	267.92	0.00	0.00	0.00	0.00	9.96	0.00	257.96
23-Jun-14	376.82	279.16	0.00	0.00	0.00	0.00	10.99	0.00	268.17
24-Jun-14	379.71	278.41	0.00	0.00	0.00	0.00	9.36	0.00	269.05
25-Jun-14	373.04	274.84	0.00	0.00	0.00	0.00	9.99	0.00	264.85
26-Jun-14	377.83	272.94	0.00	0.00	0.00	0.00	10.66	0.00	262.28
27-Jun-14	527.43	297.05	21.36	0.00	0.00	21.36	9.29	0.00	266.40
28-Jun-14	381.82	264.47	0.00	0.00	0.00	0.00	11.20	0.00	253.27
29-Jun-14	560.26	319.14	40.17	0.00	0.00	40.17	10.64	0.00	268.33
30-Jun-14	544.91	301.29	21.76	0.00	0.00	21.76	9.66	0.00	269.87
Average	491.91	301.59	16.50	0.00	0.00	16.50	10.14	0.00	274.96
Minimum	372.46	260.21	0.00	0.00	0.00	0.00	9.05	0.00	250.55
Maximum	1,100.49	425.98	123.80	0.00	0.00	123.80	11.20	0.00	308.34
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	9,048	495.03	0.00	0.00	495.03	304.09	0.00	8,249

Liquid Stream Quality

DATE	pH@25°C			TSS (mg/L)				BOD$_5$/cBOD$_5$ (mg/L)						TP (mg/L)				NH3-N (mg/L)				un-ionized ammonia (mg/L)	TKN (mg/L)				NO$_2$+NO$_3$ (mg/L)				Chloride (mg/L)				E.Coli (Counts/100 mL)			
	OUT-FAL 30	OUT-FAL 20	OUT-FAL 10	RAW	OUT-FAL30	OUT-FAL20	OUT-FAL10	RAW BOD$_5$	OUT-FAL30 cBOD$_5$	OUT-FAL30 BOD$_5$	OUT-FAL20 cBOD$_5$	OUT-FAL20 BOD$_5$	OUT-FAL 10 cBOD$_5$	RAW	OUT-FAL30	OUT-FAL20	OUT-FAL10	RAW	OUT-FAL30	OUT-FAL20	OUT-FAL10	OUT-FAL 10	RAW	OUT-FAL30	OUT-FAL20	OUT-FAL 10	RAW	OUT-FAL30	OUT-FAL20	OUT-FAL 10	RAW	OUT-FAL30	OUT-FAL20	OUT-FAL 10	RAW X10^6	OUT-FAL30 X10^6	OUT-FAL20 X10^6	OUT-FAL 10
1-Jun-14	---	---	7.5	254	58	---	4.6	278	106	128	---	---	4	5.60	4.45	---	0.532	27.7	28.8	---	3.74	0.033	43.3	36.5	---	5.23	---	0.044	---	12.3	66	73	---	77	---	1.7	---	11
2-Jun-14	---	---	7.6	260	---	---	4.0	286	---	---	---	---	4	5.95	---	---	0.857	28.8	---	---	4.62	0.057	43.3	---	---	6.24	---	---	---	10.9	73	---	---	75	---	1.5	---	9
3-Jun-14	---	---	7.5	316	116	---	4.9	308	139	152	---	---	4	5.93	6.64	---	0.622	27.3	31.8	---	3.34	0.021	43.2	42.9	---	5.09	0.02	0.005	---	11.1	69	79	---	78	---	2.6	---	14
4-Jun-14	---	---	7.7	288	105	---	3.7	* 191	* 65	* 81	---	---	* 4	4.85	3.98	---	0.516	20.5	18.4	---	0.74	0.019	33.5	25.9	---	2.76	---	0.005	---	11.8	54	43	---	76	---	3.4	---	10
5-Jun-14	---	---	7.4	266	55	---	2.9	200	63	69	---	---	3	5.66	4.96	---	0.313	25.2	24.5	---	0.28	0.002	39.8	31.8	---	1.66	---	0.260	---	9.1	64	51	---	60	5.17	1.7	---	7
6-Jun-14	---	---	7.4	251	79	---	3.4	228	121	138	---	---	3	5.54	6.00	---	0.651	23.7	31.6	---	0.72	0.005	41.7	42.2	---	2.41	---	---	---	12.5	66	68	---	70	---	2.9	---	14
7-Jun-14	---	---	7.4	254	67	---	4.3	295	93	110	---	---	3	6.07	7.28	---	0.603	29.1	39.0	---	1.00	0.007	46.4	49.6	---	2.61	---	0.270	---	13.0	67	73	---	74	---	4.3	---	4
8-Jun-14	---	---	7.5	260	---	---	4.7	310	---	---	---	---	3	6.11	---	---	0.755	30.2	---	---	1.21	0.007	46.9	---	---	2.87	---	---	---	---	66	---	---	72	---	---	---	5
9-Jun-14	---	---	7.5	292	111	---	8.1	251	120	125	---	---	4	6.31	7.60	---	1.590	28.7	39.5	---	2.43	0.023	47.2	51.6	---	4.10	---	---	---	---	71	80	---	74	---	5.8	---	17
10-Jun-14	---	---	7.3	280	119	---	5.9	235	66	121	---	---	3	5.25	6.06	---	1.020	23.0	28.6	---	1.07	0.007	38.5	37.9	---	2.86	---	---	---	---	63	67	---	79	---	2.5	---	33
11-Jun-14	---	---	7.2	280	58	---	6.0	251	* 40	* 42	---	---	4	5.40	4.15	---	0.690	25.1	19.2	---	0.52	0.002	41.8	25.4	---	2.28	---	---	---	---	71	48	---	68	---	1.4	---	25
12-Jun-14	---	---	7.3	271	---	---	5.8	269	---	---	---	---	4	6.26	---	---	0.866	25.3	---	---	0.61	0.005	47.3	---	---	2.49	---	---	---	---	73	---	---	76	---	---	---	34
13-Jun-14	---	---	7.3	289	---	---	5.8	268	---	---	---	---	4	6.20	---	---	1.100	31.2	---	---	0.44	0.003	46.6	---	---	2.19	---	---	---	---	72	---	---	78	---	---	---	35
14-Jun-14	---	---	7.3	269	---	---	7.1	293	---	---	---	---	4	6.00	---	---	1.190	26.4	---	---	0.57	0.004	44.7	---	---	2.52	---	---	---	---	75	---	---	80	---	---	---	10
15-Jun-14	---	---	7.3	283	---	---	8.2	316	---	---	---	---	3	6.02	---	---	0.927	31.2	---	---	1.53	0.007	47.5	---	---	3.35	---	---	---	---	70	---	---	79	---	---	---	8
16-Jun-14	---	---	7.5	213	---	---	10.3	276	---	---	---	---	4	5.80	---	---	0.781	32.4	---	---	1.28	0.016	48.8	---	---	3.50	---	---	---	---	76	---	---	79	---	---	---	32
17-Jun-14	---	---	7.4	309	---	---	23.0	* 223	---	---	---	---	4	6.42	---	---	1.170	32.6	---	---	1.00	0.007	50.0	---	---	3.87	---	---	---	---	77	---	---	81	---	---	---	37
18-Jun-14	---	---	7.5	300	---	---	41.8	376	---	---	---	---	9	6.30	---	---	1.790	28.4	---	---	1.51	0.012	48.7	---	---	5.21	---	---	---	---	74	---	---	80	3.08	---	---	80
19-Jun-14	---	---	7.4	297	148	---	10.6	257	116	168	---	---	5	5.17	7.10	---	0.638	25.9	32.1	---	0.38	0.003	39.5	42.0	---	2.28	---	0.045	---	10.1	64	64	---	74	---	1.8	---	21
20-Jun-14	---	---	7.5	280	---	---	5.9	291	---	---	---	---	4	6.43	---	---	0.619	30.3	---	---	0.99	0.008	50.3	---	---	3.05	---	---	---	10.3	68	---	---	71	---	---	---	25
21-Jun-14	---	---	7.4	312	---	---	4.5	309	---	---	---	---	4	5.92	---	---	0.540	29.5	---	---	1.28	0.010	46.1	---	---	3.24	---	---	---	9.9	69	---	---	76	---	---	---	12
22-Jun-14	---	---	7.6	291	---	---	4.6	* 248	---	---	---	---	* 3	5.96	---	---	0.438	28.5	---	---	1.84	0.027	48.7	---	---	3.79	---	---	---	9.2	68	---	---	76	---	---	---	7
23-Jun-14	---	---	7.4	260	---	---	7.9	288	---	---	---	---	5	6.14	---	---	0.470	30.7	---	---	0.47	0.003	48.4	---	---	2.50	---	---	---	11.7	75	---	---	75	---	---	---	25
24-Jun-14	---	---	7.6	277	---	---	6.8	262	---	---	---	---	6	5.92	---	---	0.357	29.7	---	---	0.73	0.007	47.4	---	---	2.78	0.06	---	---	9.3	72	---	---	80	---	---	---	12
25-Jun-14	---	---	7.5	288	---	---	5.5	301	---	---	---	---	7	6.30	---	---	0.337	31.9	---	---	1.25	0.016	47.8	---	---	3.42	---	---	---	8.0	73	---	---	80	---	---	---	10
26-Jun-14	---	---	7.6	308	---	---	5.2	272	---	---	---	---	6	10.2	---	---	0.302	31.4	---	---	1.81	0.014	74.0	---	---	3.82	---	---	---	8.8	71	---	---	78	---	---	---	17
27-Jun-14	---	---	7.5	343	174	---	5.2	296	128	146	---	---	7	6.82	5.73	---	0.310	26.3	24.7	---	1.65	0.014	48.8	34.6	---	4.06	---	0.090	---	10.4	68	66	---	78	---	3.0	---	16
28-Jun-14	---	---	7.6	290	---	---	5.1	257	---	---	---	---	6	6.00	---	---	0.292	27.6	---	---	1.24	0.014	46.1	---	---	3.19	---	---	---	9.0	67	---	---	73	---	---	---	16
29-Jun-14	---	---	7.5	324	120	---	5.8	* 298	* 106	* 131	---	---	* 6	5.56	5.64	---	0.341	23.7	29.9	---	0.45	0.004	38.2	37.9	---	2.33	---	0.406	---	8.8	57	59	---	68	---	2.7	---	41
30-Jun-14	---	---	7.5	288	123	---	6.1	278	117	143	---	---	5	5.63	6.61	---	0.302	27.2	26.6	---	0.98	0.011	40.8	36.1	---	2.66	---	0.042	---	9.3	67	71	---	65	---	5.3	---	21
Average	---	---	7.5	283	102.5	---	7.6	274	98	120	---	---	5	6.06	5.86	---	0.70	28.0	28.8	---	1.32	0.012	45.8	38.0	---	3.28	0.04	0.13	---	10.3	69	65	---	75	---	---	---	---
Minimum	---	---	7.2	213	55.0	---	2.9	191	40	42	---	---	3	4.85	3.98	---	0.29	20.5	18.4	---	0.28	0.002	33.5	25.4	---	1.66	0.02	0.01	---	8.00	54	43	---	60	3.08	1.40	---	4
Maximum	---	---	7.7	343	174.0	---	41.8	376	139	168	---	---	9	10.2	7.60	---	1.79	32.6	39.5	---	4.62	0.057	74.0	51.6	---	6.24	0.06	0.41	---	13.0	77	80	---	81	5.17	5.80	---	80
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.99	2.63	---	16
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.

Report Comments

ESRD Ref #

---	Standard Method Code B - Dilution water blanks exceeded 0.20 mg/L depletion
---	Standard Method Code F - Incubation temperature not within range of 20 ± 1°C for dilution water.
---	Standard Method Code H - Sample overaged (>48 hours from final sample collection time).
---	Standard Method Code C - %Range of sample replicate not within acceptable QC limits

* ESRD - Alberta Environment & Sustainable Resource and Development

RAW ⇨ Plant Influent (Untreated Wastewater)
PRIM ⇨ Primary
SEC ⇨ Secondary
EPT ⇨ Enhanced Primary Treatment
EPEPS ⇨ Enhanced Primary Effluent and Pump St.
MPW ⇨ Membrane Product Water (Effluent re-use water)
OUT FAL 10 ⇨ Combined, UV-disinfected (FE +EPEPS)
OUT FAL 20 ⇨ Combined Bypass (RAW + PE + EPE)
OUT FAL 30 ⇨ Combined Bypass (INF + INFS + PE30 + EPE)
ML ⇨ Megalitres (1,000,000 Litres)
MPN ⇨ Most Probable Number
E ⇨ Estimated Value
A ⇨ Average
nr ⇨ No Result
ns ⇨ No Sample
ws ⇨ Wrong Sample

Geoff Heise	08/12/2014	**Debra Long**	08/08/2014
Senior Manager, Operations	Date (mm/dd/yyyy)	Senior Manager, Analytical Operations	Date (mm/dd/yyyy)