PROVIDING MORE EPCOR

GOLD BAR WASTEWATER TREATMENT PLANT
PLANT PERFORMANCE REPORT
March 2014

Digested Sludge: Total Monthly Volume (ML)	67.62

DATE	Peak Flow (MLD)	Volume of Flow (ML)								Liquid Stream Quality																																	
		Influent	Effluent							pH@25°C			TSS (mg/L)				BOD$_5$/cBOD$_5$ (mg/L)						TP (mg/L)				NH3-N (mg/L)				un-ioned ammonia (mg/L)	TKN (mg/L)				NO$_2$+NO$_3$ (mg/L)				Chloride (mg/L)				*E. coli* (Counts/100 mL)			
			Non UV Disinfected					UV Disinfected																																			
			BYPASS																																							
			OUT-FAL 30	OUT-FAL 20				OUT-FAL 10		OUT-FAL 30	OUT-FAL 20	OUT-FAL 10																																
				PRIM	SEC	Total	MPW	EPE[!]	FEC																																		
		RAW											RAW				RAW BOD$_5$						RAW				RAW					RAW				RAW				RAW			
																		cBOD$_5$		BOD$_5$	cBOD$_5$	BOD$_5$	cBOD$_5$																				
1-Mar-14	355.45	251.94	0.00	0.00	0.00	0.00	10.22	0.00	241.72	---	---	7.4	260	---	---	3.0	302	---	---	---	---	2	6.23	---	---	0.200	25.6	---	---	4.06	0.050	48.8	---	---	5.59	---	---	---	6.8	57	---	---	73	---	---	---	2
2-Mar-14	361.85	256.10	0.00	0.00	0.00	0.00	10.36	0.00	245.74	---	---	7.5	272	---	---	2.9	308	---	---	---	---	2	6.49	---	---	0.210	31.1	---	---	5.22	0.037	51.8	---	---	6.68	---	---	---	7.7	51	---	---	64	---	---	---	< 1
3-Mar-14	340.88	256.59	0.00	0.00	0.00	0.00	10.68	0.00	245.91	---	---	7.4	280	---	---	3.2	313	---	---	---	---	9	6.56	---	---	0.209	36.6	---	---	4.78	0.039	50.5	---	---	6.98	---	---	---	6.3	62	---	---	61	---	---	---	3
4-Mar-14	435.40	255.03	0.00	0.00	0.00	0.00	12.36	0.00	242.67	---	---	7.5	384	---	---	2.3	370	---	---	---	---	2	6.96	---	---	0.194	33.5	---	---	4.01	0.049	50.9	---	---	5.36	0.11	---	---	7.7	61	---	---	69	---	---	---	3
5-Mar-14	325.78	258.55	0.00	0.00	0.00	0.00	11.39	0.00	247.16	---	---	7.4	280	---	---	2.4	326	---	---	---	---	3	6.47	---	---	0.245	33.5	---	---	4.92	0.044	51.4	---	---	6.69	---	---	---	7.7	66	---	---	73	---	---	---	5
6-Mar-14	330.55	258.24	0.00	0.00	0.00	0.00	10.30	0.00	247.94	---	---	7.4	284	---	---	2.7	302	---	---	---	---	2	6.41	---	---	0.212	33.9	---	---	4.98	0.043	48.5	---	---	6.98	---	---	---	7.6	67	---	---	74	---	---	---	2
7-Mar-14	337.72	254.65	0.00	0.00	0.00	0.00	11.30	0.00	243.35	---	---	7.7	280	---	---	2.7	326	---	---	---	---	3	6.17	---	---	0.242	33.3	---	---	5.60	0.049	42.2	---	---	6.73	---	---	---	6.5	80	---	---	78	---	---	---	1
8-Mar-14	493.90	282.73	24.10	0.00	0.00	24.10	11.20	0.00	247.43	---	---	7.4	380	75	---	2.8	323	116	128	---	---	7	6.13	4.93	---	0.238	32.6	44.7	---	4.01	0.043	43.8	51.1	---	4.57	---	0.142	---	7.2	260	369	---	109	---	4.1	---	2
9-Mar-14	670.98	341.81	83.13	0.00	0.00	83.13	9.72	0.00	248.96	---	---	7.4	445	42	---	3.0	263	64	71	---	---	2	5.33	1.80	---	0.205	25.9	30.3	---	2.30	0.023	33.3	33.0	---	3.24	---	0.291	---	6.5	223	330	---	226	---	2.1	---	2
10-Mar-14	689.28	381.26	93.08	0.00	0.00	93.08	10.68	0.00	277.50	---	---	7.4	370	34	---	4.7	238	68	73	---	---	5	5.04	1.61	---	0.223	24.6	28.1	---	1.88	0.013	32.7	33.6	---	3.29	---	0.402	---	5.9	141	200	---	203	---	0.50	---	2
11-Mar-14	633.59	362.51	72.86	0.00	0.00	72.86	11.54	0.00	278.11	---	---	7.4	344	40	---	6.0	242	67	76	---	---	4	5.29	1.79	---	0.495	24.4	34.5	---	2.82	0.019	39.5	40.3	---	4.18	0.01	0.294	---	5.7	125	162	---	145	---	0.90	---	4
12-Mar-14	728.18	422.76	124.38	0.00	0.00	124.38	9.58	0.00	288.80	---	---	7.4	344	135	---	4.6	244	78	98	---	---	4	4.49	2.28	---	0.198	18.5	24.8	---	2.65	0.023	32.6	30.2	---	4.13	---	0.614	---	6.8	122	148	---	153	---	0.70	---	2
13-Mar-14	647.18	416.36	100.04	0.00	0.00	100.04	10.97	0.00	305.35	---	---	7.3	320	29	---	13.1	194	60	52	---	---	4	4.94	1.35	---	0.348	18.7	28.5	---	2.59	0.014	34.8	34.6	---	4.53	---	0.389	---	5.7	100	132	---	121	---	0.90	---	4
14-Mar-14	487.70	352.96	44.60	0.00	0.00	44.60	10.50	0.00	297.86	---	---	7.3	337	33	---	4.4	283	82	85	---	---	8	4.88	2.32	---	0.206	24.9	38.2	---	4.33	0.021	35.0	40.5	---	5.66	---	1.810	---	4.8	90	111	---	103	---	0.70	---	4
15-Mar-14	628.27	375.25	84.38	0.00	0.00	84.38	9.40	0.00	281.47	---	---	7.4	280	97	---	4.8	247	84	109	---	---	3	4.78	3.52	---	0.251	22.0	29.3	---	5.08	0.030	34.4	37.0	---	6.71	---	0.273	---	5.5	80	96	---	98	---	0.70	---	2
16-Mar-14	656.40	408.72	99.85	0.00	0.00	99.85	10.38	0.00	298.49	---	---	7.5	264	76	---	10.6	224	72	100	---	---	5	5.79	3.90	---	0.367	24.2	22.5	---	3.88	0.025	44.2	38.6	---	6.27	---	0.299	---	6.2	81	90	---	87	---	2.1	---	13
17-Mar-14	488.44	384.84	66.10	0.00	0.00	66.10	11.69	0.00	307.05	---	---	7.3	244	106	---	8.0	212	102	107	---	---	5	5.23	4.39	---	0.618	21.0	32.5	---	5.17	0.018	36.4	41.4	---	7.62	---	0.005	---	5.0	71	94	---	82	---	1.8	---	55
18-Mar-14	443.61	347.24	35.85	0.00	0.00	35.85	9.58	0.00	301.81	---	---	7.4	300	40	---	21.9	278	76	90	---	---	6	5.57	2.60	---	0.812	26.5	35.4	---	7.59	0.194	39.3	40.3	---	9.90	---	0.063	---	4.2	66	81	---	82	3.87	22	---	91
19-Mar-14	420.04	305.65	0.00	0.00	0.00	0.00	10.46	0.00	295.19	---	---	7.4	300	---	---	9.8	* 269	---	---	---	---	* 5	5.80	---	---	0.474	27.1	---	---	10.4	0.082	41.3	---	---	12.4	---	---	---	4.6	62	---	---	76	---	---	---	4
20-Mar-14	372.95	279.90	0.00	0.00	0.00	0.00	12.04	0.00	267.86	---	---	7.5	284	---	---	3.6	286	---	---	---	---	3	6.14	---	---	0.271	31.9	---	---	11.8	0.121	45.6	---	---	13.4	---	---	---	5.8	88	---	---	83	---	---	---	21
21-Mar-14	320.46	269.93	0.00	0.00	0.00	0.00	9.29	0.00	260.64	---	---	7.5	260	---	---	4.0	301	---	---	---	---	4	6.54	---	---	0.274	31.0	---	---	11.0	0.140	44.6	---	---	14.5	---	---	---	5.0	81	---	---	106	---	---	---	9
22-Mar-14	357.49	267.18	0.00	0.00	0.00	0.00	9.56	0.00	257.62	---	---	7.6	272	---	---	4.0	287	---	---	---	---	3	6.58	---	---	0.276	30.3	---	---	11.4	0.184	44.9	---	---	14.3	---	---	---	6.1	62	---	---	93	---	---	---	1
23-Mar-14	363.28	266.58	0.00	0.00	0.00	0.00	10.90	0.00	255.68	---	---	7.5	295	---	---	3.9	283	---	---	---	---	3	6.80	---	---	0.244	33.8	---	---	9.88	0.076	47.4	---	---	12.3	---	---	---	6.6	56	---	---	74	---	---	---	1
24-Mar-14	327.53	269.67	0.00	0.00	0.00	0.00	11.10	0.00	258.57	---	---	7.6	336	---	---	4.0	* 326	---	---	---	---	* 4	6.63	---	---	0.280	31.6	---	---	9.16	0.101	47.3	---	---	11.7	---	---	---	6.5	55	---	---	75	---	---	---	4
25-Mar-14	324.38	263.50	0.00	0.00	0.00	0.00	9.63	0.00	253.87	---	---	7.5	360	---	---	3.9	332	---	---	---	---	3	7.01	---	---	0.198	31.5	---	---	7.10	0.062	51.4	---	---	8.33	0.09	---	---	6.8	76	---	---	83	6.13	6.1	---	3
26-Mar-14	316.47	265.67	0.00	0.00	0.00	0.00	9.74	0.00	255.93	---	---	7.5	303	---	---	6.7	316	---	---	---	---	3	6.73	---	---	0.200	33.4	---	---	4.82	0.028	48.0	---	---	6.75	---	---	---	5.9	143	---	---	94	---	---	---	3
27-Mar-14	319.41	269.58	0.00	0.00	0.00	0.00	10.78	0.00	258.80	---	---	7.4	348	---	---	4.8	318	---	---	---	---	3	7.08	---	---	0.230	31.0	---	---	4.64	0.046	52.1	---	---	5.60	---	---	---	4.6	204	---	---	167	---	---	---	7
28-Mar-14	328.84	269.83	0.00	0.00	0.00	0.00	9.69	0.00	260.14	---	---	7.4	380	---	---	3.9	373	---	---	---	---	4	6.83	---	---	0.265	29.9	---	---	4.79	0.036	51.2	---	---	6.07	---	---	---	4.1	133	---	---	187	---	---	---	4
29-Mar-14	366.67	266.86	0.00	0.00	0.00	0.00	9.97	0.00	256.89	---	---	7.4	324	---	---	4.4	304	---	---	---	---	3	5.76	---	---	0.220	29.6	---	---	4.68	0.005	38.6	---	---	5.64	---	---	---	5.5	107	---	---	145	---	---	---	< 1
30-Mar-14	349.30	263.04	0.00	0.00	0.00	0.00	9.87	0.00	253.17	---	---	7.5	304	---	---	4.1	283	---	---	---	---	3	6.20	---	---	0.243	29.6	---	---	3.81	0.014	46.6	---	---	5.54	---	---	---	5.6	79	---	---	115	---	---	---	2
31-Mar-14	334.47	261.90	0.00	0.00	0.00	0.00	10.00	0.00	251.90	---	---	7.5	352	---	---	5.2	* 317	---	---	---	---	* 5	7.44	---	---	0.258	30.0	---	---	4.32	0.027	53.7	---	---	6.21	---	---	---	5.2	74	---	---	88	---	---	---	5
Average	437.30	302.80	26.72	0.00	0.00	26.72	10.48	0.00	265.60	---	---	7.4	316	64.3	---	5.3	290	79	90	---	---	4	6.07	2.77	---	0.29	28.8	31.7	---	5.60	0.053	44.0	38.2	---	7.35	0.07	0.42	---	6.0	98	165	---	106	---	---	---	---
Minimum	316.47	251.94	0.00	0.00	0.00	0.00	9.29	0.00	241.72	---	---	7.3	244	29.0	---	2.3	194	60	52	---	---	2	4.49	1.35	---	0.19	18.5	22.5	---	1.88	0.005	32.6	30.2	---	3.24	0.01	0.01	---	4.1	51	81	---	61	3.87	0.50	---	< 1
Maximum	728.18	422.76	124.38	0.00	0.00	124.38	12.36	0.00	307.05	---	---	7.7	445	135.0	---	21.9	373	116	128	---	---	9	7.4	4.93	---	0.81	36.6	44.7	---	11.8	0.194	53.7	51.1	---	14.5	0.11	1.81	---	7.7	260	369	---	226	6.13	22	---	91
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4.87	1.7	---	4
TOTAL	---	9,387	828.37	0.00	0.00	828.37	324.88	0.00	8,234	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

* 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

AESRD Ref #

---	Standard Method Code B - Dilution water blanks exceeded 0.20 mg/L depletion

* AESRD - Alberta Environment & Sustainable Resource and Development

RAW	⇨	Plant Influent (Untreated Wastewater)	EPT	⇨	Enhanced Primary Treatment
PRIM	⇨	Primary	EPEPS	⇨	Enhanced Primary Effluent and Pump St.
SEC	⇨	Secondary	MPW	⇨	Membrane Product Water (Effluent re-use water)

OUT FAL 10	⇨	Combined, UV-disinfected (FE +EPEPS)	ML	⇨	Megalitres (1,000,000 Litres)
OUT FAL 20	⇨	Combined Bypass (RAW + PE + EPE)	MPN	⇨	Most Probable Number
OUT FAL 30	⇨	Combined Bypass (INF + INFS + PE30 + EPE)	E	⇨	Estimated Value
			A	⇨	Average

nr	⇨	No Result			
ns	⇨	No Sample			
ws	⇨	Wrong Sample			

04/28/2014

Geoff Heise
Senior Manager, Operations

Date (mm/dd/yyyy)

Debra Long

Debra Long
Senior Manager, Analytical Operations

04/24/2014
Date (mm/dd/yyyy)