
Project: City of Wasilla WWTP Pilot Study Field Crew: Jake Alward, John Marshall

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Subsurface Surface Vegetation Plot Lagoon

Reference: February Water Sampling Event

1.1 BACKGROUND

The February sampling event was for surface water. The site was covered in snow and was frozen. Only SW5, SW17, and SW18 were sampled. Based on the conditions from the December and January sampling event and the recent weather, the other sites were not visited.

The weather was cloudy and cold.

1.2 SAMPLING EVENT HIGHLIGHTS

SURFACE

Water was only sampled at SW5, SW17, and SW18. A hole was drilled at SW5 and there was about 24" of ice. The weather was so cold it was difficult to use the peristaltic pump as the lines kept freezing.

SW17 and SW18 was also sampled with a peristaltic pump. The creek was partially open at SW17 and completely frozen at SW18. Flow was not measured at either sampling location, the replacement batteries died.

IMPROVEMENTS FOR FUTURE SAMPLING:

Flow meter will be recalibrated with another set of fresh batteries.

1.3 OTHER ACTIVITIES

Flow data not available this event.

1.4 SAMPLE RESULTS

The attached table summaries detected analytes. All other were below detectable limits. Complete results can be found in the SGS reports.

1.5 DATA QUALITY

There was one duplicate taken during the January sampling event for surface. The duplicate and original sample all tested very similar with no alarming differences. Although the percentages appear high, the actual difference in value for the tests is not alarming.

Reference: February Water Sampling Event

Site ID	Nitrate	Nitrite	Total Nitrate/ Nitrite	TSS	TKN	Ammonia	Total P	BOD	FC	E. Coli	TC
SW5	ND	3.02	3.04	ND	2.4	2.05	1.39	ND	1	ND	147
Dup	ND	ND	ND	11.7	2.48	2.39	0.23	13.9	ND	ND	3
% Diff	0.0%	NA	NA	NA	3.3%	15.3%	-143.8%	NA	NA	0.0%	-192%

Attachment: Photo Log

February Photo Log



Photo 1:
Access Road



Photo 2:
Future Berm Clearing



Photo 3:
SW-5



Photo 4:
SW-17



Photo 5:
SW-17



Photo 6:
SW-18

Attachment: Results Summary Table

Site ID	SW5	SW17	SW18	SW18.1
Date Collected	2/20/2019	2/20/2019	2/20/2019	2/20/2019
Time	11:45	12:30	13:25	13:25
Sample Type	Surface	Surface	Surface	Surface
Water Temperature (°C)	-0.06	0.85	0.72	0.72
Conductivity	331	350	465	465
pH	3.29	6.24	6.72	6.72
DO	10.31	8	8.37	8.37
Nitrate	ND(0.100)	2.66	ND(0.100)	ND(0.100)
Nitrite	ND(0.100)	ND(0.100)	3.02	ND(0.100)
Total Nitrate/Nitrite	ND(0.100)	2.68	3.04	ND(0.100)
TSS	4.1	1.22	ND(0.530)	11.7
TKN	2.76	1.3	2.4	2.48
Ammonia	2.03	0.6	2.05	2.39
Total P	0.228	0.139	1.39	0.227
BOD	14.8	ND(2.00)	ND(2.00)	13.9
FC	ND(1)	1	1	ND(1)
E. Coli	ND(1)	1	ND(1)	ND(1)